CRWMS/M&O

Calculation Cover Sheet

Complete only applicable items.

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Of: 15

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1. PURPOSE

The purpose of this analysis is to determine the structural response of the 21 pressurized water reactor (PWR) uncanistered fuel (UCF) waste package (WP) to a tipover design basis event (DBE) dynamic load (see Ref. 7.1, p. 44); the results will be reported in terms of stress magnitudes.

2. METHOD

Finite-element solution was performed by making use of the commercially available ANSYS finite-element code. A finite-element model of the waste package was developed and analyzed for a tipover DBE dynamic load. The results of this analysis were provided in tables and were also plotted in terms of the maximum stress contours to determine their locations.

3. ASSUMPTIONS

In the course of developing this document, an assumption was made regarding the WP structural analysis. This is identified below.

- 3.1 The containment barriers are assumed to have solid connections at the adjacent surfaces. The basis for this assumption is that the inner and outer barriers will either be shrunk fit or the inner barrier will be weld clad onto the outer barrier inner surface (Ref. 7.2). For each one of these fabrication processes it is reasonable to assume solid contact between the barriers. This assumption is used in Section 5.2.
- 3.2 Target surface is conservatively assumed to be essentially unyielding by using a large elastic modulus for the target surface compared to the disposal container. This assumption is used in Section 5.2.

4. USE OF COMPUTER SOFTWARE

The finite-element-analysis computer code used for this analysis is ANSYS version (V) 5.1 which is identified with the Computer Software Configuration Item (CSCI) 30003 V5.1HP and was obtained from Software Configuration Management in accordance with appropriate procedures. ANSYS is a commercially available finite-element analysis code and is appropriate for structural analysis of waste packages as performed in this analysis. The analyses using the ANSYS software were executed on a Hewlett-Packard 9000 Series 735 workstation. The software qualification of the ANSYS software, including problems of the type analyzed in this report, is summarized in the Software Qualification Report for ANSYS Version 5.1HP (Ref. 7.3). The ANSYS evaluations performed for this design are fully within the range of the validation performed for the ANSYS V5.1 code. Access to and use of the

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code for the analysis were granted and performed in accordance with the Life Cycle Plan for ANSYS Version 5.1HP (Ref. 7.4) and the QAP-SI series procedures.

Industry standard software used in this analysis is Pro/Engineer Version 17.0. This software was executed on a Hewlett-Packard 9000 Series 735 workstation. Pro/Engineer Version 17.0 is not a controlled computer software, has not been qualified under the QAP-SI series of M&O procedures, and will not be qualified under the M&O procedures.

Attachment IV contains the input/output data obtained from Pro/Engineer Version 17.0. The densities given in Section 5.1.2 were used as inputs to Pro/Engineer Version 17.0 and the corresponding masses of solid components were obtained for use in structural evaluations. There are no equations of mathematical models, algorithms, or numerical solution techniques applicable to the software routine since Pro/Engineer Version 17.0 is an engineering drawing software package and the subject mass calculations are performed by the source code based on the dimensions and the densities of structural components. Verification of this software was accomplished by a test case as described in Section 5.4. The range of input parameter values is limited to the dimensions of the structural component used in the test case; all mass calculations depend on specific geometries of the subject components. No limitations were identified on software routine applications or validity. Computer listing of test data input and output are given in Attachment IV-9.

5. CALCULATION

The corrosion allowance shell will be referred to as the outer barrier; the corrosion resistant shell will be referred to as the inner barrier throughout this document.

5.1 Calculation Data

5.1.1 Finite-Element Model Dimensions

A three-dimensional finite-element model of the 21 PWR UCF WP was developed in order to determine the effects of tipover design basis event loads on the waste package structural components. The solid finite-element model was developed using the dimensions provided below:

Inner barrier inner diameter = 1.4234 m (Ref. 7.5)

Inner barrier outer diameter = outer barrier inner diameter = 1.4634 m (Ref. 7.5 and Ref. 7.6)

Outer barrier outer diameter = 1.6634 m (Ref. 7.6)

Outer barrier skirt diameter = 1.5434 m (Ref. 7.6)

Criticality control plate thickness = 0.007 m (Ref. 7.7, Ref. 7.8, and Ref. 7.9)

Tube thickness = 0.005 m (Ref. 7.10)

Corner guide thickness = 0.01 m (Ref. 7.11)

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Basket B-guide height (side guide fin inner height) = 0.082 m (Ref. 7.12)
Angle on end of basket A-guide = 30° (Ref. 7.13, angle measured from horizontal)
Angle on end of basket B-guide = 80° (Ref. 7.12, angle measured from horizontal)
Angle on end of corner guide = 59° (Ref. 7.11, angle measured from vertical)
Tube inner side width = 0.226 m (Ref. 7.10)
Outer barrier height = 5.335 m (Ref. 7.6)
Skirt height = 0.225 m (Ref. 7.6)
Outer lid height = 0.11 m (Ref. 7.14)
Inner lid height = 0.025 m (Ref. 7.15)
Tube height = 4.575 m (Ref. 7.10)
Inner barrier length = 4.635 m (Ref. 7.5)

5.1.2 Material Properties

Waste package material properties used in the calculations are listed in this section. Handling and lifting will take place in the surface facilities and the waste package temperature prior to emplacement is equivalent to the waste package initial temperature at emplacement due to similar temperature boundary conditions around the waste package. The waste package outer barrier temperature is 101°C (214°F) at the time of initial emplacement (Ref. 7.16, p. 49); this temperature is approximated to 93°C (200°F) at which the mechanical properties of the subject materials are specified in English Units in the literature. Since the subject material properties do not change significantly between these temperatures, this approximation has no significant effect on the results. Some of the following material properties are specified at 93°C (200°F) where available in the literature. The room temperature material properties are also used for materials for which temperature dependent data were not available.

ASTM A 516 Grade 70 (Outer barrier material, Ref. 7.17):

Material supplied to ASTM A 516/A 516M-90 specification conforms to specification A 20/A 20 M-95a (Ref. 7.18, Section 3.1). Therefore, density = 7850 kg/m³ (Ref. 7.19, Section 14.1)

Poisson's ratio was not available for ASTM A 516 carbon steel. Since the elastic constants of cast carbon steels are only slightly affected by changes in composition and structure, Poisson's ratio of cast carbon steel can be used for A 516 carbon steel. Therefore, Poisson's ratio = 0.3 (Ref. 7.20, p. 374)

Since the carbon content of A 516 Grade 70 can be up to 0.31% (Ref. 7.18) and the difference between the elastic moduli for steels with carbon contents less than or greater than 0.30% specified at the temperature of interest is negligibly small (Ref. 7.22, Table TM-1),

Modulus of elasticity = 197 GPa (28.6 * 10⁶ psi) (Ref. 7.22, Table TM-1) (at 93° C or 200° F)

Yield strength = 239 MPa (34.6 ksi) (Ref. 7.22, Table Y-1) (at 93° C or 200° F)

Tensile strength = 483 MPa (70 ksi) (Ref. 7.22, Table U) (at 93° C or 200° F)

% elongation = 21 (Ref. 7.18)

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ASTM B 575 (Alloy C-22, UNS N06022) (Inner barrier material, Ref. 7.17):

Density = 8691 kg/m^3 (0.314 lb/in^3) (Ref. 7.23)

Poisson's ratio was not available for Alloy C-22. Since the chemical compositions of Alloy C-22 and Alloy 625 are similar (see Ref. 7.24, p. 436), Poisson's ratio of Alloy 625 is used for Alloy C-22: Poisson's ratio = 0.28 (Ref. 7.25, p. 2) (at 93° C or 200° F)

Modulus of elasticity = 203 GPa ($29.4 \times 10^6 \text{ psi}$) (Ref. 7.26, p. 105) (at 20° C)

Yield strength = 310 MPa (45 ksi) (Ref. 7.23) (at 20° C)

Tensile strength = 690 MPa (100 ksi) (Ref. 7.23) (at 20° C)

% elongation = 45 (Ref. 7.23)

Stainless Steel-Boron (Neutronit A 978, criticality control plate material, Ref. 7.17):

Since the chemical compositions of Neutronit A 978 and 316 stainless steel are similar (see Ref. 7.20, p. 843 and Ref. 7.27), Poisson's ratio of 316 stainless steel is used for Neutronit A 978:

Poisson's ratio = 0.3 (Ref. 7.20, p. 868) (at 20° C)

Density = 7760 kg/m^3 (Ref. 7.27)

Modulus of elasticity = 200 GPa (Ref. 7.28) (at 20° C)

Yield strength = 250 MPa (Ref. 7.29) (at 20° C)

Tensile strength = 550 MPa (Ref. 7.29) (at 20° C)

% elongation = 6 (Ref. 7.27)

ASTM B 209 Alloy 6061 (Thermal shunt material, Ref. 7.16, p. 54):

Density = 2713 kg/m^3 (0.098 lb/in^3) (Ref. 7.22, Table NF-2)

5.1.3 Spent Fuel Assembly Mass

The maximum fuel assembly mass for any standard PWR fuel is 773.4 kg (1705 lbs), as found in B&W 15x15 fuel with non-fuel components, including variations from average weight (Ref. 7.31, p. 26). Therefore:

Maximum fuel assembly mass = 773.4 kg

5.2 Finite-Element Model Description

A three-dimensional finite-element model of the waste package has been developed in order to perform a transient dynamic analysis of the system. The model includes the outer and inner barriers and their lids, tubes, basket guides, and criticality control plates (see Figure I-1). No structural credit was taken for the thermal shunt; thermal shunt mass was added to the criticality control plate mass. A half-symmetry finite-element model was developed for the waste package. The barriers were assumed to have solid connections at the adjacent surfaces (Assumption 4.3.1) and were constrained in a direction perpendicular to the symmetry planes. The mass of the waste package structure was adjusted to match the actual mass for the 21 PWR

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UCF WP design.

Target surface is conservatively assumed to be essentially unyielding by using a large elastic modulus for the target surface compared to the disposal container (Assumption 3.2).

The WP is modeled with an initial orientation of 30° from vertical in order to initiate tipping of the WP. The orientation of the center of gravity of the WP from vertical is, on the other hand, calculated as follows:

Position of the center of gravity of the WP from vertical = $30 - \tan^{-1}(0.8317 * 2 / 5.335) = 12.7^\circ$
Change in the height of the center of gravity = (radius of rotation – (radius of rotation * $\cos(12.7^\circ)$)) / radius of rotation = 2.4 %

The change in drop height can be related to the change in the stress by obtaining a relation between the potential energy and the strain energy stored in the WP per unit volume. The following parameters are defined which will be used in the calculations:

m = WP mass

g = gravitational acceleration

h = WP center of gravity height

σ = stress

ϵ = strain

Potential energy (P. E.) = $m * g * h$

Strain energy per unit volume (S. E.) = $\sigma * \epsilon / 2$ (area under the stress-strain curve)

Also knowing that $\sigma = E * \epsilon$

S. E. = $\sigma^2 / (2 * E)$

P. E. = S. E. Therefore:

$(\sigma_1)^2 / (2 * E) = m * g * h_1$

$(\sigma_2)^2 / (2 * E) = m * g * h_2$

These two relations are used to obtain

$\sigma_2 = \sigma_1 * (h_2 / h_1)^{1/2}$

It was determined previously that

$(h_2 - h_1) / h_1 = 0.024$

$h_2 = 1.024 * h_1$

Finally, $\sigma_2 = \sigma_1 * (h_2 / h_1)^{1/2} = \sigma_1 * (1.024 * h_1 / h_1)^{1/2} = 1.012 \sigma_1$

Thus, the stresses will be multiplied by a factor of 1.012 in order to account for the difference in initial WP height.

Having the WP modeled in this configuration, gravitational acceleration is applied to the system. The simulation is then continued throughout the impact until the WP begins to rebound, at which time the stress peaks have been obtained, and the finite-element solution is terminated.

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5.3 Calculations for Lid to Lid Gap Height and Basket Gap Height

Top lid to lid gap height = $5.335 - 2 * (0.225 + 0.11) - 4.635 = 0.03$ m (see Section 5.1.1)

Basket gap height = $4.635 - (2 * 0.025) - 4.575 = 0.01$ m (see Section 5.1.1)

These dimensions are used in developing the finite-element model for tipover analysis.

5.4 Calculations for the Mass of Fuel Basket A-plate

One of the waste package structural components, fuel basket A-plate, was selected for verification of the mass obtained from Pro/Engineer Version 17. The volume of this component is determined using the dimensions provided in Ref. 7.7:

$$\text{Volume} = (1.134 * 1.216 * 0.007) - (2 * 0.567 * 0.007 * (0.009 + 0.014)) = 9.47 * 10^{-3} \text{ m}^3$$

$$\text{Mass} = \text{Volume} * \text{Density} = (9.47 * 10^{-3}) * (7760) = 73.49 \text{ kg (see Section 5.1.2)}$$

The mass obtained by preceding calculations (73.49 kg) is almost identical to the mass provided in Table 5.5-1 (73.47 kg). The small difference is due to the rounded dimensions given in Pro/Engineer Version 17 drawings.

5.5 Calculations for the Total Mass of UCF WP

The masses for all of the waste package components were obtained using Pro/Engineer software (see Attachment IV). The total mass of the waste package is calculated in Table 5.5-1.

Title: UCF WP Tipover Analysis**Document Identifier:** BBAAA0000-01717-0210-00001 REV 00**Page 9 of 15****Table 5.5-1. 21-PWR Waste Package Structural Component Masses**

Part name	Mass (kg) (see Attachment IV)	Quantity (see Ref. 5.21)	Total mass (kg)
Outer barrier	19879.30	1	19879.30
Outer barrier lid	1458.33	2	2916.66
Inner barrier	3650.39	1	3650.39
Inner barrier lid	347.20	2	694.4
A-guide	63.59	16	1017.44
B-guide	7.22	32	231.04
Corner guide	41.89	16	670.24
Corner stiffener	2.31	32	73.92
A-plate	73.47	8	587.76
B-plate	73.47	8	587.76
C-plate	44.13	16	706.08
D-plate	18.29	8	146.32
E-plate	18.29	8	146.32
Side cover	3.94	4	15.76
Tube	163.91	21	3442.11
		Total	34765.5

The maximum possible individual fuel assembly weight which could be placed into the 21 PWR WP is 773.4 kg (1705 lb) (see Section 5.1.3). This is added to the total mass of the WP below:

$$\text{Calculated overall WP mass} = 34765.5 + 21 * (773.4) = 51006.9 \text{ kg}$$

Overall WP mass is also calculated for the finite-element model (FEM) from Attachment VII-197 as follows:

$$\begin{aligned} \text{FEM mass} &= 2 * (9842.21 + 1087.36 + 632.301 + 372.044 + 2169.61 + 11400.2) \\ &= 51007.45 \text{ kg} \end{aligned}$$

The small difference is essentially due to the numbers rounded in the finite-element model mass calculations.

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5.6 Calculations for Tangent Moduli

The results of this impact simulation are required to include elastic and plastic deformations for all materials. When the materials are driven into the plastic range, the slope of the stress-strain curve continuously changes. Thus, a simplification for this curve is needed to incorporate plasticity into the model. A standard approximation is commonly used in engineering by assuming a straight line that connects the yield point to the ultimate tensile strength point of the material. The following parameters will be used in subsequent calculations:

S_y = Yield strength of the material

S_u = Ultimate tensile strength

e_1, e_2, e_3 = strain magnitudes

E = Elastic modulus (slope of the line in the elastic region)

E_1 = Tangent modulus (slope of the line in the plastic region)

The slope, E_1 is determined by :

$e_1 = S_y / E$ and $e_2 = e_3 - e_1$ where e_3 = elongation specified for material

Hence, $E_1 = (S_u - S_y) / e_2 = (0.483 - 0.239) / (0.21 - (0.239 / 197))$ (see Section 5.1.2)

Calculated value is given as, $E_1 = 1.169$ GPa for ASTM A 516 Grade 70

Similarly, for ASTM B 575 Alloy C-22:

$E_1 = (0.690 - 0.310) / (0.45 - (0.310 / 203)) = 0.847$ GPa (see Section 5.1.2)

For Neutronit A 978:

$E_1 = (0.550 - 0.250) / (0.06 - (0.250 / 200)) = 5.1$ GPa (see Section 5.1.2)

6. RESULTS

The structural response of the waste package to tipover accident loads will be reported using stress plots and maximum stress values obtained from the finite-element solution to the problem. A stress intensity plot is given in Figure I-2 which indicates that the maximum stress is located in the region of the inner and outer barrier lids in the vicinity of the impact region between the WP and the target surface. The results of the waste package tipover structural analysis are provided in Table 6-1.

Linearized stress paths were defined in all of the WP structural components passing through the nodes with the maximum stress intensity in order to determine the maximum membrane and membrane plus bending stresses (see Table 6-1). These paths are documented in Attachment VI.

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WP component	Ultimate tensile strength (Section 5.1.2)	Maximum stress intensity (Attachment # - page #) (Stress scaled by 1.012, see Section 5.2)	Maximum membrane stress (Attachment # - page #) (Stress scaled by 1.012, see Section 5.2)	Maximum membrane plus bending stress (Attachment # - page #) (Stress scaled by 1.012, see Section 5.2)
Outer barrier and outer barrier lid	483	373 (II-3) (377)	336 (III-1) (340)	345 (III-1) (349)
Inner barrier and inner barrier lid	690	451 (II-9) (456)	402 (III-2) (407)	451 (III-3) (456)
Guides	483	336 (II-16) (340)	239 (III-3) (242)	336 (III-4) (340)
Tubes	483	291 (II-30) (294)	286 (III-5) (289)	291 (III-5) (294)
Criticality control plates	550	301 (II-23) (305)	297 (III-6) (301)	301 (III-6) (305)

All stresses in MPa

7. REFERENCES

- 7.1 *Waste Package Design Basis Events*, DI Number: BBA000000-01717-0200-00037 REV 00, CRWMS M&O.
- 7.2 *Waste Package Fabrication Process Report*, DI Number: BBA000000-01717-2500-00010 REV 02, CRWMS M&O.
- 7.3 *Software Qualification Report for ANSYS Version 5.1HP* (CSCI: 30003 V5.1HP), DI Number: 30003-2006 REV 01, CRWMS M&O.
- 7.4 *Life Cycle Plan for ANSYS Version 5.1HP* (CSCI: 30003 V5.1HP), DI Number: 30003-2007 REV 01, CRWMS M&O.
- 7.5 *21-PWR Waste Package Corrosion Resistant Shell*, DI Number: BBAA00000-01717-2700-16004 REV 00, CRWMS M&O.
- 7.6 *21-PWR Waste Package Corrosion Allowance Shell*, DI Number: BBAA00000-01717-2700-16001 REV 00, CRWMS M&O.
- 7.7 *21-PWR Waste Package Fuel Basket A-Plate*, DI Number: BBAA00000-01717-2700-16014 REV 00, CRWMS M&O.
- 7.8 *21-PWR Waste Package Fuel Basket B-Plate*, DI Number: BBAA00000-01717-2700-16015 REV 00, CRWMS M&O.
- 7.9 *21-PWR Waste Package Fuel Basket C-Plate*, DI Number: BBAA00000-01717-2700-16016 REV 00, CRWMS M&O.
- 7.10 *21-PWR Waste Package Fuel Basket Tube*, DI Number: BBAA00000-01717-2700-16019 REV 00, CRWMS M&O.
- 7.11 *21-PWR Waste Package Basket Corner Guide*, DI Number: BBAA00000-01717-2700-16010 REV 00, CRWMS M&O.
- 7.12 *21-PWR Waste Package Fuel Basket B-Guide*, DI Number: BBAA00000-01717-2700-16008 REV 00, CRWMS M&O.
- 7.13 *21-PWR Waste Package Fuel Basket A-Guide*, DI Number: BBAA00000-01717-2700-16007 REV 00, CRWMS M&O.
- 7.14 *21-PWR Waste Package Corrosion Allowance Shell Lid*, DI Number: BBAA00000-01717-2700-16002 REV 00, CRWMS M&O.

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- 7.15 *21-PWR Waste Package Corrosion Resistant Shell Lid*, DI Number: BBAA00000-01717-2700-16005 REV 00, CRWMS M&O.
- 7.16 *Thermal Evaluation of Preliminary 21 PWR UCF Design - Internal Structures*, DI Number: BBAA00000-01717-0200-00018 REV 00, CRWMS M&O.
- 7.17 *Waste Package Materials Selection Analysis*, DI Number: BBA000000-01717-0200-00020 REV 01, CRWMS M&O.
- 7.18 *Standard Specification for Pressure Vessel Plates, Carbon Steel, for Moderate-and Lower-Temperature Service*, ASTM Designation: A516/A 516M-90, American Society for Testing and Materials.
- 7.19 *Standard Specification for General Requirements for Steel Plates for Pressure Vessels*, ASTM Designation: A 20/A 20M-95a, American Society for Testing and Materials.
- 7.20 *Metals Handbook Tenth Edition, Volume 1, Properties and Selection: Irons, Steels, and High-Performance Alloys*, ASM International, Materials Park, OH, 1990.
- 7.21 *21-PWR Waste Package Disposal Container*, DI Number: BBAA00000-01717-2700-15997 REV 00, CRWMS M&O.
- 7.22 *1995 ASME Boiler and Pressure Vessel Code, Section II*, American Society of Mechanical Engineers, 1995.
- 7.23 *Standard Specification for Low-Carbon Nickel-Molybdenum-Chromium, Low-Carbon Nickel-Chromium-Molybdenum, and Low-Carbon Nickel-Chromium-Molybdenum-Tungsten Alloy Plate, Sheet, and Strip*, ASTM Designation: B 575 - 94, American Society for Testing and Materials.
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- 7.26 *Materials Engineering, Materials Selector 1991*, Ed. Clifford F. Lewis, Penton Publishing, 1990.
- 7.27 *Documentation of Literature on Neutronit A976*, J. K. McCoy, Interoffice Correspondence, LV.WP.JKM.07/96-179, CRWMS M&O, July 22, 1996.

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- 7.28 *Modulus of Elasticity for Neutronit A976*, J. K. McCoy, Interoffice Correspondence, LV.WP.JKM.01/97-010, CRWMS M&O, January 16, 1997.
- 7.29 *Mechanical Properties for Neutronit*, Z. Ceylan, Interoffice Correspondence, LV.WP.ZC.02/98-028, February 11, 1998.
- 7.30 *UCF WP Static Loads, Thermal Expansion Loads, and Internal Pressure Analysis*, DI Number: BBAAA0000-01717-0200-00001 REV 00, CRWMS M&O.
- 7.31 *Waste Container Cavity Size Determination*, DI Number: BBAA00000-01717-0200-00026 REV 00, CRWMS M&O.

8. ATTACHMENTS

There are "warning" messages in the output files in the attachments. One of these messages states that certain areas were not meshed and the volumes would be generated without the elements. This was the purpose of the "volume-drag" finite-element modeling operation since the volumes were intended to be meshed at the final stage of the modeling process. However, these messages appear in the output files in order to remind the designer about the fact that this action did not result in meshing of the subject volumes.

According to another "warning" message, some of the elements were produced with excessive distortion and aspect ratio, and some of the volumes have corner angles which are not recommended for hexahedral elements. In any finite-element model with small geometrical details such as the basket guides, these warning messages are unavoidable. However, the results of the analysis are obtained especially in the vicinity of the high stress regions where smaller elements with lower aspect ratios are used. Therefore, these "warning" messages do not have any significant effect on the results.

- Attachment I (2 pages): Figures obtained from ANSYS
- Attachment II (35 pages): Principal stress results file for Attachment V
- Attachment III (6 pages): Linearized stress results file for Attachment VI
- Attachment IV (15 pages): 21 PWR UCF WP structural component masses
- Attachment V (5 pages): Post-processing input/output files to obtain principal stresses
- Attachment VI (5 pages): Post-processing input/output files to obtain linearized stresses
- Attachment VII (224 pages): Input/output files for the finite-element solution of the 21 PWR UCF WP model

ANSYS 5.1
FEB 12 1998

Figure I-1. Finite-Element Model for 21 PWR UCF WP

Figure I-2. Stress Intensity Contour Plot for the Finite-Element Model

MAXIMUM STRESS INTENSITY IN THE OUTER BARRIER

SELECT FOR ITEM=TYPE COMPONENT=
IN RANGE 6 TO 6 STEP 1

5472 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

UNSELECT FOR ITEM=ELEM COMPONENT=
IN RANGE 3749 TO 3764 STEP 1

5456 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

*DO LOOP ON PARAMETER= I FROM 1.0000 TO 19.000 BY 1.0000

USE LOAD STEP 3 SUBSTEP 1 FOR LOAD CASE 0

SET COMMAND GOT LOAD STEP= 3 SUBSTEP= 1 CUMULATIVE ITERATION= 86

TIME/FREQUENCY= 1.5060

TITLE= 21 PWR UCF WP Tipover Analysis

SORT ON ITEM=S COMPONENT=INT ORDER= 0 KABS= 0 NMAX= 1

SORT COMPLETED FOR 1 VALUES.

PRINT S NODAL SOLUTION PER NODE

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 16:50:09 JAN 21, 1998 CP= 40.260
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 1
TIME= 1.5060 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
6214	0.14274E+09	0.67759E+08	0.11723E+08	0.13101E+09	0.11386E+09

MINIMUM VALUES

NODE	6214	6214	6214	6214	6214
VALUE	0.14274E+09	0.67759E+08	0.11723E+08	0.13101E+09	0.11386E+09

MAXIMUM VALUES

NODE	6214	6214	6214	6214	6214
VALUE	0.14274E+09	0.67759E+08	0.11723E+08	0.13101E+09	0.11386E+09

*ENDDO INDEX= I

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 16:52:05 JAN 21, 1998 CP= 59.930
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 2
TIME= 1.5120 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
8879	-0.23427E+09	-0.33513E+09	-0.52271E+09	0.28843E+09	0.25353E+09

MINIMUM VALUES
NODE 8879 8879 8879 8879 8879
VALUE -0.23427E+09-0.33513E+09-0.52271E+09 0.28843E+09 0.25353E+09

MAXIMUM VALUES
NODE 8879 8879 8879 8879 8879
VALUE -0.23427E+09-0.33513E+09-0.52271E+09 0.28843E+09 0.25353E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 16:53:57 JAN 21, 1998 CP= 79.190
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 3
TIME= 1.5130 LOAD CASE= 0

NODE S1 S2 S3 SINT SEQV
10861 -0.10556E+09-0.21617E+09-0.45026E+09 0.34470E+09 0.30484E+09

MINIMUM VALUES
NODE 10861 10861 10861 10861 10861
VALUE -0.10556E+09-0.21617E+09-0.45026E+09 0.34470E+09 0.30484E+09

MAXIMUM VALUES
NODE 10861 10861 10861 10861 10861
VALUE -0.10556E+09-0.21617E+09-0.45026E+09 0.34470E+09 0.30484E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 16:55:49 JAN 21, 1998 CP= 98.560
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 4
TIME= 1.5137 LOAD CASE= 0

NODE S1 S2 S3 SINT SEQV
8535 -0.48805E+09-0.66779E+09-0.85862E+09 0.37057E+09 0.32097E+09

MINIMUM VALUES
NODE 8535 8535 8535 8535 8535
VALUE -0.48805E+09-0.66779E+09-0.85862E+09 0.37057E+09 0.32097E+09

MAXIMUM VALUES
NODE 8535 8535 8535 8535 8535
VALUE -0.48805E+09-0.66779E+09-0.85862E+09 0.37057E+09 0.32097E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 16:57:42 JAN 21, 1998 CP= 117.570
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 5
TIME= 1.5144 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
10861	-0.10821E+09	-0.21575E+09	-0.48072E+09	0.37251E+09	0.33207E+09

MINIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	-0.10821E+09	-0.21575E+09	-0.48072E+09	0.37251E+09	0.33207E+09

MAXIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	-0.10821E+09	-0.21575E+09	-0.48072E+09	0.37251E+09	0.33207E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 16:59:35 JAN 21, 1998 CP= 136.970
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 6
 TIME= 1.5151 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
3968	0.31850E+09	0.13686E+09	-0.16122E+08	0.33463E+09	0.29015E+09

MINIMUM VALUES

NODE	3968	3968	3968	3968	3968
VALUE	0.31850E+09	0.13686E+09	-0.16122E+08	0.33463E+09	0.29015E+09

MAXIMUM VALUES

NODE	3968	3968	3968	3968	3968
VALUE	0.31850E+09	0.13686E+09	-0.16122E+08	0.33463E+09	0.29015E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 17:01:29 JAN 21, 1998 CP= 156.410
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 7
 TIME= 1.5158 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
10862	0.29587E+09	-0.85639E+07	-0.49445E+08	0.34531E+09	0.32680E+09

MINIMUM VALUES

NODE	10862	10862	10862	10862	10862
VALUE	0.29587E+09	-0.85639E+07	-0.49445E+08	0.34531E+09	0.32680E+09

MAXIMUM VALUES

NODE	10862	10862	10862	10862	10862
VALUE	0.29587E+09	-0.85639E+07	-0.49445E+08	0.34531E+09	0.32680E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 17:03:22 JAN 21, 1998 CP= 175.580
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 8

TIME= 1.5165 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
12708	0.76147E+08	-0.92126E+06	-0.21541E+09	0.29156E+09	0.26168E+09

MINIMUM VALUES

NODE	12708	12708	12708	12708	12708
VALUE	0.76147E+08	-0.92126E+06	-0.21541E+09	0.29156E+09	0.26168E+09

MAXIMUM VALUES

NODE	12708	12708	12708	12708	12708
VALUE	0.76147E+08	-0.92126E+06	-0.21541E+09	0.29156E+09	0.26168E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 17:05:17 JAN 21, 1998 CP= 194.590
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 9
 TIME= 1.5172 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
10861	0.28986E+09	-0.33336E+08	-0.55281E+08	0.34514E+09	0.33471E+09

MINIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.28986E+09	-0.33336E+08	-0.55281E+08	0.34514E+09	0.33471E+09

MAXIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.28986E+09	-0.33336E+08	-0.55281E+08	0.34514E+09	0.33471E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 17:07:12 JAN 21, 1998 CP= 213.860
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 10
 TIME= 1.5179 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
11466	-0.57916E+07	-0.20907E+09	-0.30870E+09	0.30291E+09	0.26740E+09

MINIMUM VALUES

NODE	11466	11466	11466	11466	11466
VALUE	-0.57916E+07	-0.20907E+09	-0.30870E+09	0.30291E+09	0.26740E+09

MAXIMUM VALUES

NODE	11466	11466	11466	11466	11466
VALUE	-0.57916E+07	-0.20907E+09	-0.30870E+09	0.30291E+09	0.26740E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 17:09:09 JAN 21, 1998 CP= 233.130
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 11
TIME= 1.5186 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
10861	0.28936E+09	-0.27900E+08	-0.60406E+08	0.34977E+09	0.33470E+09

MINIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.28936E+09	-0.27900E+08	-0.60406E+08	0.34977E+09	0.33470E+09

MAXIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.28936E+09	-0.27900E+08	-0.60406E+08	0.34977E+09	0.33470E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:11:05 JAN 21, 1998 CP= 252.170
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 12
TIME= 1.5193 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
6214	0.27010E+09	0.17385E+09	-0.11713E+08	0.28181E+09	0.24811E+09

MINIMUM VALUES

NODE	6214	6214	6214	6214	6214
VALUE	0.27010E+09	0.17385E+09	-0.11713E+08	0.28181E+09	0.24811E+09

MAXIMUM VALUES

NODE	6214	6214	6214	6214	6214
VALUE	0.27010E+09	0.17385E+09	-0.11713E+08	0.28181E+09	0.24811E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:12:59 JAN 21, 1998 CP= 271.210
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 13
TIME= 1.5210 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
10861	0.29410E+09	-0.16044E+08	-0.60281E+08	0.35438E+09	0.33447E+09

MINIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.29410E+09	-0.16044E+08	-0.60281E+08	0.35438E+09	0.33447E+09

MAXIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.29410E+09	-0.16044E+08	-0.60281E+08	0.35438E+09	0.33447E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:14:54 JAN 21, 1998 CP= 290.400
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 14
TIME= 1.5228 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
6214	0.33595E+09	0.20469E+09	0.48019E+08	0.28793E+09	0.24968E+09

MINIMUM VALUES

NODE	6214	6214	6214	6214	6214
VALUE	0.33595E+09	0.20469E+09	0.48019E+08	0.28793E+09	0.24968E+09

MAXIMUM VALUES

NODE	6214	6214	6214	6214	6214
VALUE	0.33595E+09	0.20469E+09	0.48019E+08	0.28793E+09	0.24968E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:16:48 JAN 21, 1998 CP= 309.470
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 15
TIME= 1.5245 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
10861	0.26339E+09-0.18494E+08	-0.63635E+08	0.32703E+09	0.30696E+09	

MINIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.26339E+09-0.18494E+08	-0.63635E+08	0.32703E+09	0.30696E+09	

MAXIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.26339E+09-0.18494E+08	-0.63635E+08	0.32703E+09	0.30696E+09	

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:18:44 JAN 21, 1998 CP= 328.910
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 16
TIME= 1.5262 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
6214	0.37165E+09	0.21938E+09	0.80505E+08	0.29114E+09	0.25222E+09

MINIMUM VALUES

NODE	6214	6214	6214	6214	6214
VALUE	0.37165E+09	0.21938E+09	0.80505E+08	0.29114E+09	0.25222E+09

MAXIMUM VALUES

NODE	6214	6214	6214	6214	6214
VALUE	0.37165E+09	0.21938E+09	0.80505E+08	0.29114E+09	0.25222E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:20:37 JAN 21, 1998 CP= 347.840
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 17
TIME= 1.5279 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
10861	0.27119E+09	-0.19859E+08	-0.56247E+08	0.32744E+09	0.31085E+09

MINIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.27119E+09	-0.19859E+08	-0.56247E+08	0.32744E+09	0.31085E+09

MAXIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.27119E+09	-0.19859E+08	-0.56247E+08	0.32744E+09	0.31085E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:22:31 JAN 21, 1998 CP= 366.790
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 18
TIME= 1.5289 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
6214	0.40761E+09	0.27620E+09	0.11482E+09	0.29279E+09	0.25401E+09

MINIMUM VALUES

NODE	6214	6214	6214	6214	6214
VALUE	0.40761E+09	0.27620E+09	0.11482E+09	0.29279E+09	0.25401E+09

MAXIMUM VALUES

NODE	6214	6214	6214	6214	6214
VALUE	0.40761E+09	0.27620E+09	0.11482E+09	0.29279E+09	0.25401E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:24:23 JAN 21, 1998 CP= 385.940
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 19
TIME= 1.5300 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
10861	0.28274E+09	-0.25543E+08	-0.41630E+08	0.32437E+09	0.31664E+09

MINIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.28274E+09	-0.25543E+08	-0.41630E+08	0.32437E+09	0.31664E+09

MAXIMUM VALUES

NODE	10861	10861	10861	10861	10861
VALUE	0.28274E+09	-0.25543E+08	-0.41630E+08	0.32437E+09	0.31664E+09

MAXIMUM STRESS INTENSITY IN THE INNER BARRIER

SELECT FOR ITEM=TYPE COMPONENT=
IN RANGE 5 TO 5 STEP 1

2088 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

*DO LOOP ON PARAMETER= I FROM 1.0000 TO 19.000 BY 1.0000

USE LOAD STEP 3 SUBSTEP 1 FOR LOAD CASE 0

SET COMMAND GOT LOAD STEP= 3 SUBSTEP= 1 CUMULATIVE ITERATION= 86

TIME/FREQUENCY= 1.5060

TITLE= 21 PWR UCF WP Tipover Analysis

SORT ON ITEM=S COMPONENT=INT ORDER= 0 KABS= 0 NMAX= 1

SORT COMPLETED FOR 1 VALUES.

PRINT S NODAL SOLUTION PER NODE

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:26:09 JAN 21, 1998 CP= 403.810
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 1
TIME= 1.5060 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
3299	0.25885E+08	0.56788E+07	0.35167E+07	0.22368E+08	0.21369E+08

MINIMUM VALUES

NODE	3299	3299	3299	3299	3299
VALUE	0.25885E+08	0.56788E+07	0.35167E+07	0.22368E+08	0.21369E+08

MAXIMUM VALUES

NODE	3299	3299	3299	3299	3299
VALUE	0.25885E+08	0.56788E+07	0.35167E+07	0.22368E+08	0.21369E+08

*ENDDO INDEX= I

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:27:52 JAN 21, 1998 CP= 421.290
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 2
TIME= 1.5120 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
5676	0.10800E+09	-0.30286E+08	-0.27925E+09	0.38724E+09	0.33990E+09

MINIMUM VALUES

NODE	5676	5676	5676	5676	5676
VALUE	0.10800E+09	-0.30286E+08	-0.27925E+09	0.38724E+09	0.33990E+09

MAXIMUM VALUES

NODE	5676	5676	5676	5676	5676
VALUE	0.10800E+09	-0.30286E+08	-0.27925E+09	0.38724E+09	0.33990E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:29:33 JAN 21, 1998 CP= 438.760
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 3
TIME= 1.5130 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
5671	-0.69361E+08	-0.22669E+09	-0.48165E+09	0.41229E+09	0.36037E+09

MINIMUM VALUES

NODE	5671	5671	5671	5671	5671
VALUE	-0.69361E+08	-0.22669E+09	-0.48165E+09	0.41229E+09	0.36037E+09

MAXIMUM VALUES

NODE	5671	5671	5671	5671	5671
VALUE	-0.69361E+08	-0.22669E+09	-0.48165E+09	0.41229E+09	0.36037E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:31:14 JAN 21, 1998 CP= 456.330
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 4
TIME= 1.5137 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
5671	-0.87486E+08	-0.25096E+09	-0.52676E+09	0.43927E+09	0.38454E+09

MINIMUM VALUES

NODE	5671	5671	5671	5671	5671
VALUE	-0.87486E+08	-0.25096E+09	-0.52676E+09	0.43927E+09	0.38454E+09

MAXIMUM VALUES

NODE	5671	5671	5671	5671	5671
VALUE	-0.87486E+08	-0.25096E+09	-0.52676E+09	0.43927E+09	0.38454E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:32:56 JAN 21, 1998 CP= 473.510
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 5
TIME= 1.5144 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
5671	-0.10151E+09	-0.28727E+09	-0.55200E+09	0.45049E+09	0.39213E+09

MINIMUM VALUES

NODE	5671	5671	5671	5671	5671
VALUE	-0.10151E+09	-0.28727E+09	-0.55200E+09	0.45049E+09	0.39213E+09

MAXIMUM VALUES

NODE	5671	5671	5671	5671	5671
------	------	------	------	------	------

VALUE -0.10151E+09-0.28727E+09-0.55200E+09 0.45049E+09 0.39213E+09
1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:34:38 JAN 21, 1998 CP= 490.790
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 6
TIME= 1.5151 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
4027	0.36715E+09	0.15427E+09	-0.64604E+06	0.36780E+09	0.31984E+09

MINIMUM VALUES

NODE	4027	4027	4027	4027	4027
VALUE	0.36715E+09	0.15427E+09	-0.64604E+06	0.36780E+09	0.31984E+09

MAXIMUM VALUES

NODE	4027	4027	4027	4027	4027
VALUE	0.36715E+09	0.15427E+09	-0.64604E+06	0.36780E+09	0.31984E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:36:20 JAN 21, 1998 CP= 507.910
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 7
TIME= 1.5158 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
5672	0.11357E+09	-0.18448E+09	-0.25728E+09	0.37084E+09	0.34033E+09

MINIMUM VALUES

NODE	5672	5672	5672	5672	5672
VALUE	0.11357E+09	-0.18448E+09	-0.25728E+09	0.37084E+09	0.34033E+09

MAXIMUM VALUES

NODE	5672	5672	5672	5672	5672
VALUE	0.11357E+09	-0.18448E+09	-0.25728E+09	0.37084E+09	0.34033E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:38:05 JAN 21, 1998 CP= 525.110
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 8
TIME= 1.5165 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
5672	0.90062E+08	-0.17628E+09	-0.28878E+09	0.37884E+09	0.33699E+09

MINIMUM VALUES

NODE	5672	5672	5672	5672	5672
VALUE	0.90062E+08	-0.17628E+09	-0.28878E+09	0.37884E+09	0.33699E+09

MAXIMUM VALUES
NODE 5672 5672 5672 5672 5672
VALUE 0.90062E+08-0.17628E+09-0.28878E+09 0.37884E+09 0.33699E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:39:48 JAN 21, 1998 CP= 542.440
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 9
TIME= 1.5172 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
5671	0.11687E+09	-0.12979E+09	-0.33326E+09	0.45012E+09	0.39042E+09

MINIMUM VALUES
NODE 5671 5671 5671 5671 5671
VALUE 0.11687E+09-0.12979E+09-0.33326E+09 0.45012E+09 0.39042E+09

MAXIMUM VALUES
NODE 5671 5671 5671 5671 5671
VALUE 0.11687E+09-0.12979E+09-0.33326E+09 0.45012E+09 0.39042E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:41:33 JAN 21, 1998 CP= 559.590
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 10
TIME= 1.5179 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2361	0.13420E+09	-0.80428E+07	-0.22040E+09	0.35460E+09	0.30909E+09

MINIMUM VALUES
NODE 2361 2361 2361 2361 2361
VALUE 0.13420E+09-0.80428E+07-0.22040E+09 0.35460E+09 0.30909E+09

MAXIMUM VALUES
NODE 2361 2361 2361 2361 2361
VALUE 0.13420E+09-0.80428E+07-0.22040E+09 0.35460E+09 0.30909E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:43:18 JAN 21, 1998 CP= 576.670
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 11
TIME= 1.5186 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
5671	0.14042E+09	-0.13490E+09	-0.30692E+09	0.44733E+09	0.39083E+09

MINIMUM VALUES
NODE 5671 5671 5671 5671 5671

VALUE 0.14042E+09-0.13490E+09-0.30692E+09 0.44733E+09 0.39083E+09

MAXIMUM VALUES

NODE 5671 5671 5671 5671 5671
VALUE 0.14042E+09-0.13490E+09-0.30692E+09 0.44733E+09 0.39083E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****

38303-971212 VERSION=HP 9000/7XX 17:45:03 JAN 21, 1998 CP= 593.720
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 12
TIME= 1.5193 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2361	0.14452E+09	0.10198E+08	-0.19788E+09	0.34240E+09	0.29881E+09

MINIMUM VALUES

NODE	2361	2361	2361	2361	2361
VALUE	0.14452E+09	0.10198E+08	-0.19788E+09	0.34240E+09	0.29881E+09

MAXIMUM VALUES

NODE	2361	2361	2361	2361	2361
VALUE	0.14452E+09	0.10198E+08	-0.19788E+09	0.34240E+09	0.29881E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****

38303-971212 VERSION=HP 9000/7XX 17:46:47 JAN 21, 1998 CP= 611.070
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 13
TIME= 1.5210 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
5671	0.12528E+09	-0.13239E+09	-0.32066E+09	0.44594E+09	0.38775E+09

MINIMUM VALUES

NODE	5671	5671	5671	5671	5671
VALUE	0.12528E+09	-0.13239E+09	-0.32066E+09	0.44594E+09	0.38775E+09

MAXIMUM VALUES

NODE	5671	5671	5671	5671	5671
VALUE	0.12528E+09	-0.13239E+09	-0.32066E+09	0.44594E+09	0.38775E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****

38303-971212 VERSION=HP 9000/7XX 17:48:32 JAN 21, 1998 CP= 628.250
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 14
TIME= 1.5228 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2361	0.12949E+09	-0.59091E+07	-0.20980E+09	0.33929E+09	0.29582E+09

MINIMUM VALUES

NODE	2361	2361	2361	2361	2361
VALUE	0.12949E+09	-0.59091E+07	-0.20980E+09	0.33929E+09	0.29582E+09

MAXIMUM VALUES

NODE	2361	2361	2361	2361	2361
VALUE	0.12949E+09	-0.59091E+07	-0.20980E+09	0.33929E+09	0.29582E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 17:50:16 JAN 21, 1998 CP= 645.210
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 15
 TIME= 1.5245 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
5671	0.14809E+09	-0.13931E+09	-0.29694E+09	0.44503E+09	0.39083E+09

MINIMUM VALUES

NODE	5671	5671	5671	5671	5671
VALUE	0.14809E+09	-0.13931E+09	-0.29694E+09	0.44503E+09	0.39083E+09

MAXIMUM VALUES

NODE	5671	5671	5671	5671	5671
VALUE	0.14809E+09	-0.13931E+09	-0.29694E+09	0.44503E+09	0.39083E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 17:51:59 JAN 21, 1998 CP= 662.100
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 16
 TIME= 1.5262 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2361	0.12403E+09	0.64233E+07	-0.21813E+09	0.34216E+09	0.30110E+09

MINIMUM VALUES

NODE	2361	2361	2361	2361	2361
VALUE	0.12403E+09	0.64233E+07	-0.21813E+09	0.34216E+09	0.30110E+09

MAXIMUM VALUES

NODE	2361	2361	2361	2361	2361
VALUE	0.12403E+09	0.64233E+07	-0.21813E+09	0.34216E+09	0.30110E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 17:53:42 JAN 21, 1998 CP= 679.370
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 17
 TIME= 1.5279 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
------	----	----	----	------	------

5797 0.29874E+09-0.17791E+07-0.11329E+09 0.41203E+09 0.36913E+09

MINIMUM VALUES

NODE	5797	5797	5797	5797	5797
VALUE	0.29874E+09	-0.17791E+07	-0.11329E+09	0.41203E+09	0.36913E+09

MAXIMUM VALUES

NODE	5797	5797	5797	5797	5797
VALUE	0.29874E+09	-0.17791E+07	-0.11329E+09	0.41203E+09	0.36913E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:55:25 JAN 21, 1998 CP= 696.630
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 18
TIME= 1.5289 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2361	0.11655E+09	-0.22669E+08	-0.21319E+09	0.32973E+09	0.28671E+09

MINIMUM VALUES

NODE	2361	2361	2361	2361	2361
VALUE	0.11655E+09	-0.22669E+08	-0.21319E+09	0.32973E+09	0.28671E+09

MAXIMUM VALUES

NODE	2361	2361	2361	2361	2361
VALUE	0.11655E+09	-0.22669E+08	-0.21319E+09	0.32973E+09	0.28671E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:57:07 JAN 21, 1998 CP= 713.860
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 19
TIME= 1.5300 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
5671	0.14690E+09	-0.13691E+09	-0.28553E+09	0.43243E+09	0.38055E+09

MINIMUM VALUES

NODE	5671	5671	5671	5671	5671
VALUE	0.14690E+09	-0.13691E+09	-0.28553E+09	0.43243E+09	0.38055E+09

MAXIMUM VALUES

NODE	5671	5671	5671	5671	5671
VALUE	0.14690E+09	-0.13691E+09	-0.28553E+09	0.43243E+09	0.38055E+09

MAXIMUM STRESS INTENSITY IN THE SIDE AND CORNER GUIDES

SELECT FOR ITEM=TYPE COMPONENT=
IN RANGE 3 TO 4 STEP 1

330 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

*DO LOOP ON PARAMETER= I FROM 1.0000 TO 19.000 BY 1.0000

USE LOAD STEP 3 SUBSTEP 1 FOR LOAD CASE 0

SET COMMAND GOT LOAD STEP= 3 SUBSTEP= 1 CUMULATIVE ITERATION= 86
TIME/FREQUENCY= 1.5060
TITLE= 21 PWR UCF WP Tipover Analysis

SORT ON ITEM=S COMPONENT=INT ORDER= 0 KABS= 0 NMAX= 1

SORT COMPLETED FOR 1 VALUES.

PRINT S NODAL SOLUTION PER NODE

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 17:58:47 JAN 21, 1998 CP= 730.280
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 1
TIME= 1.5060 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2353	0.28767E+07	-95475.	-0.60627E+06	0.34829E+07	0.32577E+07

MINIMUM VALUES

NODE	2353	2353	2353	2353	2353
VALUE	0.28767E+07	-95475.	-0.60627E+06	0.34829E+07	0.32577E+07

MAXIMUM VALUES

NODE	2353	2353	2353	2353	2353
VALUE	0.28767E+07	-95475.	-0.60627E+06	0.34829E+07	0.32577E+07

*ENDDO INDEX= 1

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:00:27 JAN 21, 1998 CP= 746.490
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 2
TIME= 1.5120 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2388	0.65737E+07	-0.43607E+08	-0.26287E+09	0.26944E+09	0.24819E+09

MINIMUM VALUES

NODE	2388	2388	2388	2388	2388
VALUE	0.65737E+07	-0.43607E+08	-0.26287E+09	0.26944E+09	0.24819E+09

MAXIMUM VALUES

NODE	2388	2388	2388	2388	2388
VALUE	0.65737E+07	-0.43607E+08	-0.26287E+09	0.26944E+09	0.24819E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:02:07 JAN 21, 1998 CP= 762.910
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 3
TIME= 1.5130 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2363	-0.31948E+08	-0.14989E+09	-0.33129E+09	0.29934E+09	0.26117E+09

MINIMUM VALUES

NODE	2363	2363	2363	2363	2363
VALUE	-0.31948E+08	-0.14989E+09	-0.33129E+09	0.29934E+09	0.26117E+09

MAXIMUM VALUES

NODE	2363	2363	2363	2363	2363
VALUE	-0.31948E+08	-0.14989E+09	-0.33129E+09	0.29934E+09	0.26117E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:03:47 JAN 21, 1998 CP= 779.220
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 4
TIME= 1.5137 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2405	0.21973E+09	0.29360E+08	-0.10366E+09	0.32339E+09	0.28153E+09

MINIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.21973E+09	0.29360E+08	-0.10366E+09	0.32339E+09	0.28153E+09

MAXIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.21973E+09	0.29360E+08	-0.10366E+09	0.32339E+09	0.28153E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:05:28 JAN 21, 1998 CP= 795.730
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 5
TIME= 1.5144 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2405	0.23492E+09	0.28570E+08	-0.10148E+09	0.33640E+09	0.29382E+09

MINIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.23492E+09	0.28570E+08	-0.10148E+09	0.33640E+09	0.29382E+09

MAXIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.23492E+09	0.28570E+08	-0.10148E+09	0.33640E+09	0.29382E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:07:09 JAN 21, 1998 CP= 812.330
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 6
TIME= 1.5151 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2405	0.19894E+09	0.19865E+07	-0.10766E+09	0.30660E+09	0.26909E+09

MINIMUM VALUES
NODE 2405 2405 2405 2405 2405
VALUE 0.19894E+09 0.19865E+07 -0.10766E+09 0.30660E+09 0.26909E+09

MAXIMUM VALUES
NODE 2405 2405 2405 2405 2405
VALUE 0.19894E+09 0.19865E+07 -0.10766E+09 0.30660E+09 0.26909E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:08:53 JAN 21, 1998 CP= 828.500
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 7
TIME= 1.5158 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2405	0.29502E+09	0.47527E+08	-0.24314E+08	0.31933E+09	0.29016E+09

MINIMUM VALUES
NODE 2405 2405 2405 2405 2405
VALUE 0.29502E+09 0.47527E+08 -0.24314E+08 0.31933E+09 0.29016E+09

MAXIMUM VALUES
NODE 2405 2405 2405 2405 2405
VALUE 0.29502E+09 0.47527E+08 -0.24314E+08 0.31933E+09 0.29016E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:10:35 JAN 21, 1998 CP= 844.470
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 8
TIME= 1.5165 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2405	0.26732E+09	0.39133E+08	-0.16554E+08	0.28387E+09	0.26053E+09

MINIMUM VALUES
NODE 2405 2405 2405 2405 2405
VALUE 0.26732E+09 0.39133E+08 -0.16554E+08 0.28387E+09 0.26053E+09

MAXIMUM VALUES
NODE 2405 2405 2405 2405 2405
VALUE 0.26732E+09 0.39133E+08 -0.16554E+08 0.28387E+09 0.26053E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:12:19 JAN 21, 1998 CP= 860.670
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 9
TIME= 1.5172 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2398	0.23289E+09	0.98397E+07-0.50705E+08	0.28360E+09	0.25869E+09	

MINIMUM VALUES

NODE	2398	2398	2398	2398	2398
VALUE	0.23289E+09	0.98397E+07-0.50705E+08	0.28360E+09	0.25869E+09	

MAXIMUM VALUES

NODE	2398	2398	2398	2398	2398
VALUE	0.23289E+09	0.98397E+07-0.50705E+08	0.28360E+09	0.25869E+09	

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:14:02 JAN 21, 1998 CP= 877.110
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 10
TIME= 1.5179 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2396	0.22711E+09-0.38360E+07-0.59611E+08	0.28672E+09	0.26330E+09		

MINIMUM VALUES

NODE	2396	2396	2396	2396	2396
VALUE	0.22711E+09-0.38360E+07-0.59611E+08	0.28672E+09	0.26330E+09		

MAXIMUM VALUES

NODE	2396	2396	2396	2396	2396
VALUE	0.22711E+09-0.38360E+07-0.59611E+08	0.28672E+09	0.26330E+09		

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:15:47 JAN 21, 1998 CP= 893.510
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 11
TIME= 1.5186 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2405	0.22652E+09	0.24831E+08-0.61637E+08	0.28816E+09	0.25612E+09	

MINIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.22652E+09	0.24831E+08-0.61637E+08	0.28816E+09	0.25612E+09	

MAXIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.22652E+09	0.24831E+08-0.61637E+08	0.28816E+09	0.25612E+09	

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***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:17:31 JAN 21, 1998 CP= 909.890

FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 12
TIME= 1.5193 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2376	0.33932E+09	0.84878E+08	0.42792E+08	0.29653E+09	0.27789E+09

MINIMUM VALUES

NODE	2376	2376	2376	2376	2376
VALUE	0.33932E+09	0.84878E+08	0.42792E+08	0.29653E+09	0.27789E+09

MAXIMUM VALUES

NODE	2376	2376	2376	2376	2376
VALUE	0.33932E+09	0.84878E+08	0.42792E+08	0.29653E+09	0.27789E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:19:16 JAN 21, 1998 CP= 926.000
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 13
TIME= 1.5210 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2405	0.22233E+09	0.33959E+08	-0.49973E+08	0.27231E+09	0.24154E+09

MINIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.22233E+09	0.33959E+08	-0.49973E+08	0.27231E+09	0.24154E+09

MAXIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.22233E+09	0.33959E+08	-0.49973E+08	0.27231E+09	0.24154E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:20:58 JAN 21, 1998 CP= 942.350
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 14
TIME= 1.5228 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2357	0.30546E+08	-0.17890E+09	-0.23784E+09	0.26838E+09	0.24431E+09

MINIMUM VALUES

NODE	2357	2357	2357	2357	2357
VALUE	0.30546E+08	-0.17890E+09	-0.23784E+09	0.26838E+09	0.24431E+09

MAXIMUM VALUES

NODE	2357	2357	2357	2357	2357
VALUE	0.30546E+08	-0.17890E+09	-0.23784E+09	0.26838E+09	0.24431E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:22:40 JAN 21, 1998 CP= 958.720
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 15
TIME= 1.5245 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2375	0.25017E+09	0.51078E+07-0.17663E+08	0.26784E+09	0.25721E+09	

MINIMUM VALUES

NODE	2375	2375	2375	2375	2375
VALUE	0.25017E+09	0.51078E+07-0.17663E+08	0.26784E+09	0.25721E+09	

MAXIMUM VALUES

NODE	2375	2375	2375	2375	2375
VALUE	0.25017E+09	0.51078E+07-0.17663E+08	0.26784E+09	0.25721E+09	

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:24:23 JAN 21, 1998 CP= 975.160
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 16
TIME= 1.5262 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2405	0.23269E+09	0.33400E+08-0.52122E+08	0.28481E+09	0.25313E+09	

MINIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.23269E+09	0.33400E+08-0.52122E+08	0.28481E+09	0.25313E+09	

MAXIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.23269E+09	0.33400E+08-0.52122E+08	0.28481E+09	0.25313E+09	

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:26:05 JAN 21, 1998 CP= 991.140
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 17
TIME= 1.5279 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2396	0.21587E+09-0.37657E+07-0.39370E+08	0.25524E+09	0.23943E+09		

MINIMUM VALUES

NODE	2396	2396	2396	2396	2396
VALUE	0.21587E+09-0.37657E+07-0.39370E+08	0.25524E+09	0.23943E+09		

MAXIMUM VALUES

NODE	2396	2396	2396	2396	2396
VALUE	0.21587E+09-0.37657E+07-0.39370E+08	0.25524E+09	0.23943E+09		

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:27:49 JAN 21, 1998 CP= 1007.280
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 18
TIME= 1.5289 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2405	0.23940E+09	0.22919E+08	-0.52776E+08	0.29218E+09	0.26264E+09

MINIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.23940E+09	0.22919E+08	-0.52776E+08	0.29218E+09	0.26264E+09

MAXIMUM VALUES

NODE	2405	2405	2405	2405	2405
VALUE	0.23940E+09	0.22919E+08	-0.52776E+08	0.29218E+09	0.26264E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:29:30 JAN 21, 1998 CP= 1023.380
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 19
TIME= 1.5300 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
2376	0.31773E+09	0.71530E+08	0.41453E+08	0.27628E+09	0.26254E+09

MINIMUM VALUES

NODE	2376	2376	2376	2376	2376
VALUE	0.31773E+09	0.71530E+08	0.41453E+08	0.27628E+09	0.26254E+09

MAXIMUM VALUES

NODE	2376	2376	2376	2376	2376
VALUE	0.31773E+09	0.71530E+08	0.41453E+08	0.27628E+09	0.26254E+09

MAXIMUM STRESS INTENSITY IN THE CRITICALITY CONTROL PLATES

SELECT FOR ITEM=TYPE COMPONENT=
IN RANGE 2 TO 2 STEP 1

390 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

*DO LOOP ON PARAMETER= 1 FROM 1.0000 TO 19.000 BY 1.0000

USE LOAD STEP 3 SUBSTEP 1 FOR LOAD CASE 0

SET COMMAND GOT LOAD STEP= 3 SUBSTEP= 1 CUMULATIVE ITERATION= 86
TIME/FREQUENCY= 1.5060

TITLE= 21 PWR UCF WP Tipover Analysis

SORT ON ITEM=S COMPONENT=INT ORDER= 0 KABS= 0 NMAX= 1

SORT COMPLETED FOR 1 VALUES.

PRINT S NODAL SOLUTION PER NODE

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:31:14 JAN 21, 1998 CP= 1040.040
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 1
TIME= 1.5060 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
13	0.24886E+07	0.79651E+06-0.28611E+06	0.27747E+07	0.24222E+07	

MINIMUM VALUES

NODE	13	13	13	13	13
VALUE	0.24886E+07	0.79651E+06-0.28611E+06	0.27747E+07	0.24222E+07	

MAXIMUM VALUES

NODE	13	13	13	13	13
VALUE	0.24886E+07	0.79651E+06-0.28611E+06	0.27747E+07	0.24222E+07	

*ENDDO INDEX= 1

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:32:54 JAN 21, 1998 CP= 1056.290
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 2
TIME= 1.5120 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
17	0.27562E+08-0.10250E+08-0.13652E+09	0.16408E+09	0.14883E+09		

MINIMUM VALUES

NODE	17	17	17	17	17
VALUE	0.27562E+08-0.10250E+08-0.13652E+09	0.16408E+09	0.14883E+09		

MAXIMUM VALUES

NODE	17	17	17	17	17
VALUE	0.27562E+08-0.10250E+08-0.13652E+09	0.16408E+09	0.14883E+09		

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:34:33 JAN 21, 1998 CP= 1072.550
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 3
TIME= 1.5130 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
21	0.93107E+08-0.22503E+08-0.16992E+09	0.26303E+09	0.22835E+09		

MINIMUM VALUES

NODE	21	21	21	21	21
------	----	----	----	----	----

VALUE 0.93107E+08-0.22503E+08-0.16992E+09 0.26303E+09 0.22835E+09

MAXIMUM VALUES

NODE 21 21 21 21 21
VALUE 0.93107E+08-0.22503E+08-0.16992E+09 0.26303E+09 0.22835E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:36:13 JAN 21, 1998 CP= 1089.070
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 4
TIME= 1.5137 LOAD CASE= 0

NODE S1 S2 S3 SINT SEQV
20 0.11813E+09-0.87843E+07-0.17260E+09 0.29074E+09 0.25246E+09

MINIMUM VALUES

NODE 20 20 20 20 20
VALUE 0.11813E+09-0.87843E+07-0.17260E+09 0.29074E+09 0.25246E+09

MAXIMUM VALUES

NODE 20 20 20 20 20
VALUE 0.11813E+09-0.87843E+07-0.17260E+09 0.29074E+09 0.25246E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:37:54 JAN 21, 1998 CP= 1105.550
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 5
TIME= 1.5144 LOAD CASE= 0

NODE S1 S2 S3 SINT SEQV
19 0.10843E+09 0.25532E+08-0.18742E+09 0.29586E+09 0.26434E+09

MINIMUM VALUES

NODE 19 19 19 19 19
VALUE 0.10843E+09 0.25532E+08-0.18742E+09 0.29586E+09 0.26434E+09

MAXIMUM VALUES

NODE 19 19 19 19 19
VALUE 0.10843E+09 0.25532E+08-0.18742E+09 0.29586E+09 0.26434E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:39:35 JAN 21, 1998 CP= 1121.870
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 6
TIME= 1.5151 LOAD CASE= 0

NODE S1 S2 S3 SINT SEQV
19 0.11008E+09 0.20056E+08-0.19072E+09 0.30080E+09 0.26741E+09

MINIMUM VALUES
 NODE 19 19 19 19 19
 VALUE 0.11008E+09 0.20056E+08-0.19072E+09 0.30080E+09 0.26741E+09

MAXIMUM VALUES
 NODE 19 19 19 19 19
 VALUE 0.11008E+09 0.20056E+08-0.19072E+09 0.30080E+09 0.26741E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 18:41:17 JAN 21, 1998 CP= 1138.460
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 7
 TIME= 1.5158 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
1040	0.12636E+09	0.22448E+08-0.89726E+08	0.21608E+09	0.18718E+09	

MINIMUM VALUES
 NODE 1040 1040 1040 1040 1040
 VALUE 0.12636E+09 0.22448E+08-0.89726E+08 0.21608E+09 0.18718E+09

MAXIMUM VALUES
 NODE 1040 1040 1040 1040 1040
 VALUE 0.12636E+09 0.22448E+08-0.89726E+08 0.21608E+09 0.18718E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 18:42:59 JAN 21, 1998 CP= 1154.940
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 8
 TIME= 1.5165 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
151	0.16142E+09	0.27549E+08-0.10183E+08	0.17160E+09	0.15619E+09	

MINIMUM VALUES
 NODE 151 151 151 151 151
 VALUE 0.16142E+09 0.27549E+08-0.10183E+08 0.17160E+09 0.15619E+09

MAXIMUM VALUES
 NODE 151 151 151 151 151
 VALUE 0.16142E+09 0.27549E+08-0.10183E+08 0.17160E+09 0.15619E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 18:44:41 JAN 21, 1998 CP= 1171.500
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 9
 TIME= 1.5172 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV

256 0.11838E+09-0.48561E+06-0.47013E+07 0.12308E+09 0.12103E+09

MINIMUM VALUES

NODE	256	256	256	256	256
VALUE	0.11838E+09-0.48561E+06-0.47013E+07	0.12308E+09	0.12103E+09		

MAXIMUM VALUES

NODE	256	256	256	256	256
VALUE	0.11838E+09-0.48561E+06-0.47013E+07	0.12308E+09	0.12103E+09		

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:46:25 JAN 21, 1998 CP= 1188.000
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 10
TIME= 1.5179 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
21	0.12243E+09-0.10666E+08-0.47934E+08	0.17036E+09	0.15512E+09		

MINIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.12243E+09-0.10666E+08-0.47934E+08	0.17036E+09	0.15512E+09		

MAXIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.12243E+09-0.10666E+08-0.47934E+08	0.17036E+09	0.15512E+09		

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:48:10 JAN 21, 1998 CP= 1204.390
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 11
TIME= 1.5186 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
21	0.11031E+09-0.97792E+07-0.30301E+08	0.14061E+09	0.13156E+09		

MINIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.11031E+09-0.97792E+07-0.30301E+08	0.14061E+09	0.13156E+09		

MAXIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.11031E+09-0.97792E+07-0.30301E+08	0.14061E+09	0.13156E+09		

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:49:54 JAN 21, 1998 CP= 1220.810
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 12
TIME= 1.5193 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
21	0.14720E+09	0.10542E+08	-0.31043E+08	0.17824E+09	0.16152E+09

MINIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.14720E+09	0.10542E+08	-0.31043E+08	0.17824E+09	0.16152E+09

MAXIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.14720E+09	0.10542E+08	-0.31043E+08	0.17824E+09	0.16152E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:51:37 JAN 21, 1998 CP= 1237.040
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 13
TIME= 1.5210 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
21	0.10961E+09	-0.10537E+08	-0.34066E+08	0.14367E+09	0.13347E+09

MINIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.10961E+09	-0.10537E+08	-0.34066E+08	0.14367E+09	0.13347E+09

MAXIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.10961E+09	-0.10537E+08	-0.34066E+08	0.14367E+09	0.13347E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:53:19 JAN 21, 1998 CP= 1253.520
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 14
TIME= 1.5228 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
21	0.12076E+09	-0.30037E+07	-0.33105E+08	0.15387E+09	0.14124E+09

MINIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.12076E+09	-0.30037E+07	-0.33105E+08	0.15387E+09	0.14124E+09

MAXIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.12076E+09	-0.30037E+07	-0.33105E+08	0.15387E+09	0.14124E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:55:01 JAN 21, 1998 CP= 1269.900
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 15
TIME= 1.5245 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
21	0.13314E+09	-0.10418E+08	-0.28684E+08	0.16182E+09	0.15351E+09

MINIMUM VALUES

NODE	21
VALUE	0.13314E+09

MAXIMUM VALUES

NODE	21
VALUE	0.13314E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:56:43 JAN 21, 1998 CP= 1286.200
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 16
TIME= 1.5262 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
21	0.11098E+09	0.33937E+07	-0.36617E+08	0.14759E+09	0.13221E+09

MINIMUM VALUES

NODE	21
VALUE	0.11098E+09

MAXIMUM VALUES

NODE	21
VALUE	0.11098E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 18:58:26 JAN 21, 1998 CP= 1302.140
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 17
TIME= 1.5279 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
21	0.13886E+09	-0.55072E+07	-0.33776E+08	0.17264E+09	0.16039E+09

MINIMUM VALUES

NODE	21
VALUE	0.13886E+09

MAXIMUM VALUES

NODE	21
VALUE	0.13886E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:00:08 JAN 21, 1998 CP= 1318.290
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 18
TIME= 1.5289 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
19	0.14242E+09	-0.46386E+07	-0.18130E+08	0.16055E+09	0.15425E+09

MINIMUM VALUES

NODE	19	19	19	19	19
VALUE	0.14242E+09	-0.46386E+07	-0.18130E+08	0.16055E+09	0.15425E+09

MAXIMUM VALUES

NODE	19	19	19	19	19
VALUE	0.14242E+09	-0.46386E+07	-0.18130E+08	0.16055E+09	0.15425E+09

1
***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:01:49 JAN 21, 1998 CP= 1334.480
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 19
TIME= 1.5300 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
21	0.15217E+09	-0.68293E+06	-0.39316E+08	0.19149E+09	0.17539E+09

MINIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.15217E+09	-0.68293E+06	-0.39316E+08	0.19149E+09	0.17539E+09

MAXIMUM VALUES

NODE	21	21	21	21	21
VALUE	0.15217E+09	-0.68293E+06	-0.39316E+08	0.19149E+09	0.17539E+09

MAXIMUM STRESS INTENSITY IN THE TUBES

SELECT FOR ITEM=TYPE COMPONENT=
IN RANGE 1 TO 1 STEP 1

940 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

*DO LOOP ON PARAMETER= I FROM 1.0000 TO 19.000 BY 1.0000

USE LOAD STEP 3 SUBSTEP 1 FOR LOAD CASE 0

SET COMMAND GOT LOAD STEP= 3 SUBSTEP= 1 CUMULATIVE ITERATION= 86
TIME/FREQUENCY= 1.5060
TITLE= 21 PWR UCF WP Tipover Analysis

SORT ON ITEM=S COMPONENT=INT ORDER= 0 KABS= 0 NMAX= 1

SORT COMPLETED FOR 1 VALUES.

PRINT S NODAL SOLUTION PER NODE

1
***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:03:34 JAN 21, 1998 CP= 1351.740
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 1
TIME= 1.5060 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
45	0.19096E+07	-31213.	-0.14150E+07	0.33246E+07	0.28926E+07

MINIMUM VALUES

NODE	S1	S2	S3	SINT	SEQV
45	0.19096E+07	-31213.	-0.14150E+07	0.33246E+07	0.28926E+07

MAXIMUM VALUES

NODE	S1	S2	S3	SINT	SEQV
45	0.19096E+07	-31213.	-0.14150E+07	0.33246E+07	0.28926E+07

*ENDDO INDEX= 1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:05:14 JAN 21, 1998 CP= 1368.340
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 2
TIME= 1.5120 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
68	-0.11521E+07	-0.14730E+08	-0.14051E+09	0.13936E+09	0.13309E+09

MINIMUM VALUES

NODE	S1	S2	S3	SINT	SEQV
68	-0.11521E+07	-0.14730E+08	-0.14051E+09	0.13936E+09	0.13309E+09

MAXIMUM VALUES

NODE	S1	S2	S3	SINT	SEQV
68	-0.11521E+07	-0.14730E+08	-0.14051E+09	0.13936E+09	0.13309E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:06:55 JAN 21, 1998 CP= 1384.850
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 3
TIME= 1.5130 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
52	0.24834E+09	0.72415E+08	-0.70254E+07	0.25537E+09	0.22636E+09

MINIMUM VALUES

NODE	S1	S2	S3	SINT	SEQV
52	0.24834E+09	0.72415E+08	-0.70254E+07	0.25537E+09	0.22636E+09

MAXIMUM VALUES

NODE	S1	S2	S3	SINT	SEQV
52	0.24834E+09	0.72415E+08	-0.70254E+07	0.25537E+09	0.22636E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:08:35 JAN 21, 1998 CP= 1401.990

FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 4
TIME= 1.5137 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
51	0.27830E+09	0.11961E+09	0.21985E+06	0.27808E+09	0.24163E+09

MINIMUM VALUES

NODE	51	51	51	51	51
VALUE	0.27830E+09	0.11961E+09	0.21985E+06	0.27808E+09	0.24163E+09

MAXIMUM VALUES

NODE	51	51	51	51	51
VALUE	0.27830E+09	0.11961E+09	0.21985E+06	0.27808E+09	0.24163E+09

1
***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:10:16 JAN 21, 1998 CP= 1418.400
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 5
TIME= 1.5144 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
50	0.27588E+09	0.12395E+09	-0.73747E+07	0.28325E+09	0.24552E+09

MINIMUM VALUES

NODE	50	50	50	50	50
VALUE	0.27588E+09	0.12395E+09	-0.73747E+07	0.28325E+09	0.24552E+09

MAXIMUM VALUES

NODE	50	50	50	50	50
VALUE	0.27588E+09	0.12395E+09	-0.73747E+07	0.28325E+09	0.24552E+09

1
***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:11:57 JAN 21, 1998 CP= 1434.620
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 6
TIME= 1.5151 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
50	0.28045E+09	0.11944E+09	-0.10556E+08	0.29101E+09	0.25250E+09

MINIMUM VALUES

NODE	50	50	50	50	50
VALUE	0.28045E+09	0.11944E+09	-0.10556E+08	0.29101E+09	0.25250E+09

MAXIMUM VALUES

NODE	50	50	50	50	50
VALUE	0.28045E+09	0.11944E+09	-0.10556E+08	0.29101E+09	0.25250E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:13:39 JAN 21, 1998 CP= 1450.980
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 7
TIME= 1.5158 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
1799	0.20293E+09	0.67940E+08	-0.11646E+08	0.21458E+09	0.18788E+09

MINIMUM VALUES

NODE	1799	1799	1799	1799	1799
VALUE	0.20293E+09	0.67940E+08	-0.11646E+08	0.21458E+09	0.18788E+09

MAXIMUM VALUES

NODE	1799	1799	1799	1799	1799
VALUE	0.20293E+09	0.67940E+08	-0.11646E+08	0.21458E+09	0.18788E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:15:21 JAN 21, 1998 CP= 1467.460
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 8
TIME= 1.5165 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
945	0.18016E+09	0.37906E+08	-0.44125E+07	0.18457E+09	0.16747E+09

MINIMUM VALUES

NODE	945	945	945	945	945
VALUE	0.18016E+09	0.37906E+08	-0.44125E+07	0.18457E+09	0.16747E+09

MAXIMUM VALUES

NODE	945	945	945	945	945
VALUE	0.18016E+09	0.37906E+08	-0.44125E+07	0.18457E+09	0.16747E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:17:04 JAN 21, 1998 CP= 1483.930
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 9
TIME= 1.5172 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
874	0.13043E+09	0.34059E+08	-0.33087E+08	0.16351E+09	0.14236E+09

MINIMUM VALUES

NODE	874	874	874	874	874
VALUE	0.13043E+09	0.34059E+08	-0.33087E+08	0.16351E+09	0.14236E+09

MAXIMUM VALUES

NODE	874	874	874	874	874
VALUE	0.13043E+09	0.34059E+08	-0.33087E+08	0.16351E+09	0.14236E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:18:48 JAN 21, 1998 CP= 1500.660
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 10
TIME= 1.5179 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
84	0.16390E+09	0.23386E+08	0.26199E+07	0.16128E+09	0.15197E+09

MINIMUM VALUES

NODE	84	84	84	84	84
VALUE	0.16390E+09	0.23386E+08	0.26199E+07	0.16128E+09	0.15197E+09

MAXIMUM VALUES

NODE	84	84	84	84	84
VALUE	0.16390E+09	0.23386E+08	0.26199E+07	0.16128E+09	0.15197E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:20:32 JAN 21, 1998 CP= 1517.160
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 11
TIME= 1.5186 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
874	0.12405E+09	0.32925E+08-0.33488E+08	0.15754E+09	0.13699E+09	

MINIMUM VALUES

NODE	874	874	874	874	874
VALUE	0.12405E+09	0.32925E+08-0.33488E+08	0.15754E+09	0.13699E+09	

MAXIMUM VALUES

NODE	874	874	874	874	874
VALUE	0.12405E+09	0.32925E+08-0.33488E+08	0.15754E+09	0.13699E+09	

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:22:16 JAN 21, 1998 CP= 1533.790
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 12
TIME= 1.5193 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
84	0.17438E+09	0.29231E+08-0.24068E+07	0.17678E+09	0.16328E+09	

MINIMUM VALUES

NODE	84	84	84	84	84
VALUE	0.17438E+09	0.29231E+08-0.24068E+07	0.17678E+09	0.16328E+09	

MAXIMUM VALUES

NODE 84 84 84 84 84
 VALUE 0.17438E+09 0.29231E+08-0.24068E+07 0.17678E+09 0.16328E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 19:23:59 JAN 21, 1998 CP= 1550.710
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 13
 TIME= 1.5210 LOAD CASE= 0

NODE S1 S2 S3 SINT SEQV
 874 0.12457E+09 0.33236E+08-0.25142E+08 0.14971E+09 0.13070E+09

MINIMUM VALUES

NODE 874 874 874 874 874
 VALUE 0.12457E+09 0.33236E+08-0.25142E+08 0.14971E+09 0.13070E+09

MAXIMUM VALUES

NODE 874 874 874 874 874
 VALUE 0.12457E+09 0.33236E+08-0.25142E+08 0.14971E+09 0.13070E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 19:25:41 JAN 21, 1998 CP= 1566.960
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 14
 TIME= 1.5228 LOAD CASE= 0

NODE S1 S2 S3 SINT SEQV
 874 0.13388E+09 0.36529E+08-0.36283E+08 0.17016E+09 0.14787E+09

MINIMUM VALUES

NODE 874 874 874 874 874
 VALUE 0.13388E+09 0.36529E+08-0.36283E+08 0.17016E+09 0.14787E+09

MAXIMUM VALUES

NODE 874 874 874 874 874
 VALUE 0.13388E+09 0.36529E+08-0.36283E+08 0.17016E+09 0.14787E+09

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 19:27:25 JAN 21, 1998 CP= 1583.570
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 15
 TIME= 1.5245 LOAD CASE= 0

NODE S1 S2 S3 SINT SEQV
 84 0.18173E+09 0.16303E+08 0.61184E+07 0.17561E+09 0.17075E+09

MINIMUM VALUES

NODE 84 84 84 84 84
 VALUE 0.18173E+09 0.16303E+08 0.61184E+07 0.17561E+09 0.17075E+09

MAXIMUM VALUES
NODE 84 84 84 84 84
VALUE 0.18173E+09 0.16303E+08 0.61184E+07 0.17561E+09 0.17075E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:29:08 JAN 21, 1998 CP= 1600.120
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 16
TIME= 1.5262 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
874	0.13361E+09	0.45828E+08	-0.30995E+08	0.16461E+09	0.14266E+09

MINIMUM VALUES
NODE 874 874 874 874 874
VALUE 0.13361E+09 0.45828E+08 -0.30995E+08 0.16461E+09 0.14266E+09

MAXIMUM VALUES
NODE 874 874 874 874 874
VALUE 0.13361E+09 0.45828E+08 -0.30995E+08 0.16461E+09 0.14266E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:30:50 JAN 21, 1998 CP= 1616.730
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 17
TIME= 1.5279 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
84	0.19101E+09	0.22822E+08	0.46073E+07	0.18641E+09	0.17800E+09

MINIMUM VALUES
NODE 84 84 84 84 84
VALUE 0.19101E+09 0.22822E+08 0.46073E+07 0.18641E+09 0.17800E+09

MAXIMUM VALUES
NODE 84 84 84 84 84
VALUE 0.19101E+09 0.22822E+08 0.46073E+07 0.18641E+09 0.17800E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:32:31 JAN 21, 1998 CP= 1633.370
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 18
TIME= 1.5289 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
874	0.14072E+09	0.32989E+08	-0.33590E+08	0.17431E+09	0.15235E+09

MINIMUM VALUES

NODE	874	874	874	874	874
VALUE	0.14072E+09	0.32989E+08	-0.33590E+08	0.17431E+09	0.15235E+09

MAXIMUM VALUES

NODE	874	874	874	874	874
VALUE	0.14072E+09	0.32989E+08	-0.33590E+08	0.17431E+09	0.15235E+09

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 19:34:12 JAN 21, 1998 CP= 1649.890
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 NODAL STRESS LISTING *****

LOAD STEP= 3 SUBSTEP= 19
TIME= 1.5300 LOAD CASE= 0

NODE	S1	S2	S3	SINT	SEQV
84	0.20063E+09	0.26327E+08	0.22441E+06	0.20041E+09	0.18871E+09

MINIMUM VALUES

NODE	84	84	84	84	84
VALUE	0.20063E+09	0.26327E+08	0.22441E+06	0.20041E+09	0.18871E+09

MAXIMUM VALUES

NODE	84	84	84	84	84
VALUE	0.20063E+09	0.26327E+08	0.22441E+06	0.20041E+09	0.18871E+09

MAXIMUM LINEARIZED STRESSES IN THE OUTER BARRIER

SELECT FOR ITEM=MAT COMPONENT=
IN RANGE 6 TO 6 STEP 1

5472 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

DEFINE A PATH FOR SUBSEQUENT CALCULATIONS THROUGH NODES:
10861 10866

USE LOAD STEP 3 SUBSTEP 5 FOR LOAD CASE 0

SET COMMAND GOT LOAD STEP= 3 SUBSTEP= 5 CUMULATIVE ITERATION= 130
TIME/FREQUENCY= 1.5144
TITLE= 21 PWR UCF WP Tipover Analysis

PRINT LINEARIZED STRESS THROUGH A SECTION DEFINED BY LPATH COMMAND. DSYS= 0
1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 10:14:38 FEB 23, 1998 CP= 43.790
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 LINEARIZED STRESS LISTING *****
INSIDE NODE = 10861 OUTSIDE NODE = 10866

LOAD STEP 3 SUBSTEP= 5
TIME= 1.5144 LOAD CASE= 0

THE FOLLOWING X,Y,Z STRESSES ARE IN GLOBAL COORDINATES.

** MEMBRANE **

SX	SY	SZ	SXY	SYZ	SXZ
-0.1230E+09	-0.1414E+09	-0.2833E+09	-0.8627E+07	0.1519E+09	0.1398E+08
S1	S2	S3	SINT	SEQV	
-0.4474E+08	-0.1220E+09	-0.3810E+09	0.3363E+09	0.3051E+09	

** BENDING ** I=INSIDE C=CENTER O=OUTSIDE

SX	SY	SZ	SXY	SYZ	SXZ
I -0.5074E+08	-0.7091E+08	-0.2644E+08	1014.	0.1293E+08	0.1146E+06
C 0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
O 0.5074E+08	0.7091E+08	0.2644E+08	-1014.	-0.1293E+08	-0.1146E+06
S1	S2	S3	SINT	SEQV	
I -0.2295E+08	-0.5074E+08	-0.7440E+08	0.5145E+08	0.4460E+08	
C 0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	
O 0.7440E+08	0.5074E+08	0.2295E+08	0.5145E+08	0.4460E+08	

** MEMBRANE PLUS BENDING ** I=INSIDE C=CENTER O=OUTSIDE

SX	SY	SZ	SXY	SYZ	SXZ
I -0.1738E+09	-0.2123E+09	-0.3097E+09	-0.8626E+07	0.1648E+09	0.1409E+08
C -0.1230E+09	-0.1414E+09	-0.2833E+09	-0.8627E+07	0.1519E+09	0.1398E+08
O -0.7227E+08	-0.7051E+08	-0.2569E+09	-0.8628E+07	0.1389E+09	0.1386E+08
S1	S2	S3	SINT	SEQV	
I -0.8916E+08	-0.1727E+09	-0.4339E+09	0.3448E+09	0.3115E+09	
C -0.4474E+08	-0.1220E+09	-0.3810E+09	0.3363E+09	0.3051E+09	
O 0.3622E+07	-0.7127E+08	-0.3320E+09	0.3356E+09	0.3052E+09	

** PEAK ** I=INSIDE C=CENTER O=OUTSIDE

SX	SY	SZ	SXY	SYZ	SXZ
I -0.4274E+08	-0.4338E+08	-0.2272E+08	0.1315E+07	0.1702E+08	-0.1409E+07
C 0.3863E+07	0.1071E+08	-0.5844E+07	-0.3944E+06	-0.6923E+07	0.3437E+06
O 0.2729E+08	0.5309E+06	0.4610E+08	0.2622E+06	0.1067E+08	0.3419E+05
S1	S2	S3	SINT	SEQV	
I -0.1313E+08	-0.4243E+08	-0.5328E+08	0.4015E+08	0.3597E+08	

C 0.1325E+08 0.3840E+07 -0.8361E+07 0.2161E+08 0.1877E+08
O 0.4848E+08 0.2729E+08 -0.1847E+07 0.5032E+08 0.4376E+08

*** TOTAL ** I=INSIDE C=CENTER O=OUTSIDE

	SX	SY	SZ	SXY	SYZ	SXZ
I	-0.2165E+09	-0.2557E+09	-0.3325E+09	-0.7311E+07	0.1818E+09	0.1268E+08
C	-0.1191E+09	-0.1307E+09	-0.2892E+09	-0.9021E+07	0.1450E+09	0.1432E+08
O	-0.4499E+08	-0.6998E+08	-0.2108E+09	-0.8366E+07	0.1496E+09	0.1390E+08

	S1	S2	S3	SINT	SEQV	TEMP
I	-0.1082E+09	-0.2157E+09	-0.4807E+09	0.3725E+09	0.3321E+09	0.0000E+00
C	-0.4474E+08	-0.1180E+09	-0.3762E+09	0.3315E+09	0.3016E+09	
O	0.2498E+08	-0.4398E+08	-0.3067E+09	0.3317E+09	0.3032E+09	0.0000E+00

MAXIMUM LINEARIZED STRESSES IN THE INNER BARRIER

SELECT FOR ITEM=MAT COMPONENT=
IN RANGE 5 TO 5 STEP 1

2088 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

DEFINE A PATH FOR SUBSEQUENT CALCULATIONS THROUGH NODES:
5671 4602

USE LOAD STEP 3 SUBSTEP 5 FOR LOAD CASE 0

SET COMMAND GOT LOAD STEP= 3 SUBSTEP= 5 CUMULATIVE ITERATION= 130
TIME/FREQUENCY= 1.5144
TITLE= 21 PWR UCF WP Tipover Analysis

PRINT LINEARIZED STRESS THROUGH A SECTION DEFINED BY LPATH COMMAND. DSYS= 0
1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 10:16:25 FEB 23, 1998 CP= 62.300
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 LINEARIZED STRESS LISTING *****
INSIDE NODE = 5671 OUTSIDE NODE = 4602

LOAD STEP 3 SUBSTEP= 5
TIME= 1.5144 LOAD CASE= 0

THE FOLLOWING X,Y,Z STRESSES ARE IN GLOBAL COORDINATES.

*** MEMBRANE **

	SX	SY	SZ	SXY	SYZ	SXZ
I	-0.9730E+08	-0.8014E+08	-0.2961E+09	-0.5195E+07	0.1690E+09	0.1005E+08
C	0.1238E+08	-0.9686E+08	-0.3891E+09	0.4015E+09	0.3595E+09	

*** BENDING ** I=INSIDE C=CENTER O=OUTSIDE

	SX	SY	SZ	SXY	SYZ	SXZ
I	-0.1901E+09	-0.1208E+09	-0.1561E+09	0.2032E+07	0.1784E+08	-0.2804E+07
C	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
O	0.1901E+09	0.1208E+09	0.1561E+09	-0.2032E+07	-0.1784E+08	0.2804E+07

	S1	S2	S3	SINT	SEQV
I	-0.1133E+09	-0.1631E+09	-0.1906E+09	0.7722E+08	0.6780E+08
C	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
O	0.1906E+09	0.1631E+09	0.1133E+09	0.7722E+08	0.6780E+08

*** MEMBRANE PLUS BENDING ** I=INSIDE C=CENTER O=OUTSIDE

	SX	SY	SZ	SXY	SYZ	SXZ
I	-0.2874E+09	-0.2009E+09	-0.4522E+09	-0.3163E+07	0.1868E+09	0.7250E+07
C	-0.9730E+08	-0.8014E+08	-0.2961E+09	-0.5195E+07	0.1690E+09	0.1005E+08
O	0.9282E+08	0.4064E+08	-0.1400E+09	-0.7226E+07	0.1511E+09	0.1286E+08

	S1	S2	S3	SINT	SEQV
I	-0.1015E+09	-0.2872E+09	-0.5519E+09	0.4505E+09	0.3921E+09
C	0.1238E+08	-0.9686E+08	-0.3891E+09	0.4015E+09	0.3595E+09
O	0.1264E+09	0.9351E+08	-0.2264E+09	0.3528E+09	0.3376E+09

*** PEAK *** I=INSIDE C=CENTER O=OUTSIDE

	SX	SY	SZ	SXY	SYZ	SXZ
I	-0.8255E+05	-0.5245E+05	-0.6778E+05	882.1	7746.	-1218.
C	0.1171E-04	0.3889E-05	0.1156E-04	-0.2887E-07	-0.2891E-05	0.1304E-07
O	0.8255E+05	0.5245E+05	0.6778E+05	-882.1	-7746.	1218.

	S1	S2	S3	SINT	SEQV
I	-0.4921E+05	-0.7083E+05	-0.8274E+05	0.3353E+05	0.2944E+05
C	0.1253E-04	0.1171E-04	0.2922E-05	0.9609E-05	0.9227E-05
O	0.8274E+05	0.7083E+05	0.4921E+05	0.3353E+05	0.2944E+05

*** TOTAL *** I=INSIDE C=CENTER O=OUTSIDE

	SX	SY	SZ	SXY	SYZ	SXZ
I	-0.2875E+09	-0.2010E+09	-0.4523E+09	-0.3162E+07	0.1868E+09	0.7249E+07
C	-0.9730E+08	-0.8014E+08	-0.2961E+09	-0.5195E+07	0.1690E+09	0.1005E+08
O	0.9291E+08	0.4070E+08	-0.1400E+09	-0.7227E+07	0.1511E+09	0.1286E+08

	S1	S2	S3	SINT	SEQV	TEMP
I	-0.1015E+09	-0.2873E+09	-0.5520E+09	0.4505E+09	0.3921E+09	0.0000E+00
C	0.1238E+08	-0.9686E+08	-0.3891E+09	0.4015E+09	0.3595E+09	
O	0.1264E+09	0.9359E+08	-0.2264E+09	0.3528E+09	0.3376E+09	0.0000E+00

MAXIMUM LINEARIZED STRESSES IN GUIDES

SELECT FOR ITEM=MAT COMPONENT=
IN RANGE 3 TO 4 STEP 1

330 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

DEFINE A PATH FOR SUBSEQUENT CALCULATIONS THROUGH NODES:
2405 845

USE LOAD STEP 3 SUBSTEP 5 FOR LOAD CASE 0

SET COMMAND GOT LOAD STEP= 3 SUBSTEP= 5 CUMULATIVE ITERATION= 130
TIME/FREQUENCY= 1.5144
TITLE= 21 PWR UCF WP Tipover Analysis

PRINT LINEARIZED STRESS THROUGH A SECTION DEFINED BY LPATH COMMAND. DSYS= 0
1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 10:18:02 FEB 23, 1998 CP= 78.750
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 LINEARIZED STRESS LISTING *****
INSIDE NODE = 2405 OUTSIDE NODE = 845

LOAD STEP 3 SUBSTEP= 5
TIME= 1.5144 LOAD CASE= 0

THE FOLLOWING X,Y,Z STRESSES ARE IN GLOBAL COORDINATES.

*** MEMBRANE ***

	SX	SY	SZ	SXY	SYZ	SXZ
I	-0.2246E+08	-0.3440E+08	0.9858E+08	-0.4707E+08	0.6660E+08	0.4705E+08

	S1	S2	S3	SINT	SEQV
I	0.1310E+09	0.1851E+08	-0.1078E+09	0.2389E+09	0.2070E+09

*** BENDING *** I=INSIDE C=CENTER O=OUTSIDE

	SX	SY	SZ	SXY	SYZ	SXZ
I	0.1419E+08	0.1486E+08	0.9118E+08	0.1099E+07	-0.7927E+07	0.4965E+08

```

C 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00
O -0.1419E+08 -0.1486E+08 -0.9118E+08 -0.1099E+07 0.7927E+07 -0.4965E+08
  S1      S2      S3      SINT      SEQV
I 0.1160E+09 0.1521E+08 -0.1093E+08 0.1269E+09 0.1160E+09
C 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00
O 0.1093E+08 -0.1521E+08 -0.1160E+09 0.1269E+09 0.1160E+09

```

```

** MEMBRANE PLUS BENDING ** I=INSIDE C=CENTER O=OUTSIDE
      SX      SY      SZ      SXY      SYZ      SXZ
I -0.8262E+07 -0.1955E+08 0.1898E+09 -0.4597E+08 0.5867E+08 0.9671E+08
C -0.2246E+08 -0.3440E+08 0.9858E+08 -0.4707E+08 0.6660E+08 0.4705E+08
O -0.3665E+08 -0.4926E+08 0.7404E+07 -0.4817E+08 0.7453E+08 -0.2600E+07
  S1      S2      S3      SINT      SEQV
I 0.2349E+09 0.2857E+08 -0.1015E+09 0.3364E+09 0.2938E+09
C 0.1310E+09 0.1851E+08 -0.1078E+09 0.2389E+09 0.2070E+09
O 0.6787E+08 -0.2700E+08 -0.1194E+09 0.1873E+09 0.1622E+09

```

```

** PEAK ** I=INSIDE C=CENTER O=OUTSIDE
      SX      SY      SZ      SXY      SYZ      SXZ
I 6163.      6452.      0.3959E+05 477.4      -3442.      0.2156E+05
C 0.3462E-04 0.2380E-04 -0.2266E-04 0.2117E-04 -0.1526E-04 -0.8829E-05
O -6163.      -6452.      -0.3959E+05 -477.4      3442.      -0.2156E+05
  S1      S2      S3      SINT      SEQV
I 0.5035E+05 6604.      -4745.      0.5509E+05 0.5039E+05
C 0.5456E-04 0.8533E-05 -0.2734E-04 0.8190E-04 0.7111E-04
O 4745.      -6604.      -0.5035E+05 0.5509E+05 0.5039E+05

```

```

** TOTAL ** I=INSIDE C=CENTER O=OUTSIDE
      SX      SY      SZ      SXY      SYZ      SXZ
I -0.8256E+07 -0.1954E+08 0.1898E+09 -0.4597E+08 0.5867E+08 0.9673E+08
C -0.2246E+08 -0.3440E+08 0.9858E+08 -0.4707E+08 0.6660E+08 0.4705E+08
O -0.3666E+08 -0.4927E+08 0.7364E+07 -0.4817E+08 0.7453E+08 -0.2621E+07
  S1      S2      S3      SINT      SEQV      TEMP
I 0.2349E+09 0.2857E+08 -0.1015E+09 0.3364E+09 0.2938E+09 0.0000E+00
C 0.1310E+09 0.1851E+08 -0.1078E+09 0.2389E+09 0.2070E+09
O 0.6786E+08 -0.2703E+08 -0.1194E+09 0.1873E+09 0.1622E+09 0.0000E+00

```

MAXIMUM LINEARIZED STRESSES IN TUBES

```

SELECT      FOR ITEM=MAT COMPONENT=
IN RANGE    1 TO      1 STEP      1

```

940 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

```

DEFINE A PATH FOR SUBSEQUENT CALCULATIONS THROUGH NODES:
50      34

```

USE LOAD STEP 3 SUBSTEP 6 FOR LOAD CASE 0

```

SET COMMAND GOT LOAD STEP= 3 SUBSTEP= 6 CUMULATIVE ITERATION= 138
TIME/FREQUENCY= 1.5151
TITLE= 21 PWR UCF WP Tipover Analysis

```

```

PRINT LINEARIZED STRESS THROUGH A SECTION DEFINED BY LPATH COMMAND. DSYS= 0
1

```

```

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 10:19:54 FEB 23, 1998 CP= 96.980
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

```

21 PWR UCF WP Tipover Analysis

```

***** POST1 LINEARIZED STRESS LISTING *****
INSIDE NODE = 50 OUTSIDE NODE = 34

```

```

LOAD STEP 3 SUBSTEP= 6
TIME= 1.5151 LOAD CASE= 0

```

THE FOLLOWING X,Y,Z STRESSES ARE IN GLOBAL COORDINATES.

```

** MEMBRANE **
      SX      SY      SZ      SXY      SYZ      SXZ
I 0.2751E+09 0.8469E+08 0.2139E+08 0.3477E+07 0.5569E+08 -0.1837E+07
S1      S2      S3      SINT      SEQV
I 0.2751E+09 0.1171E+09 -0.1105E+08 0.2862E+09 0.2483E+09

```

```

** BENDING ** I=INSIDE C=CENTER O=OUTSIDE
      SX      SY      SZ      SXY      SYZ      SXZ
I 0.5331E+07 0.1943E+07 0.9143E+06 -0.2393E+06 0.7901E+06 0.1049E+06
C 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00
O -0.5331E+07 -0.1943E+07 -0.9143E+06 0.2393E+06 -0.7901E+06 -0.1049E+06
S1      S2      S3      SINT      SEQV
I 0.5349E+07 0.2363E+07 0.4772E+06 0.4871E+07 0.4254E+07
C 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00 0.0000E+00
O -0.4772E+06 -0.2363E+07 -0.5349E+07 0.4871E+07 0.4254E+07

```

```

** MEMBRANE PLUS BENDING ** I=INSIDE C=CENTER O=OUTSIDE
      SX      SY      SZ      SXY      SYZ      SXZ
I 0.2804E+09 0.8663E+08 0.2231E+08 0.3237E+07 0.5648E+08 -0.1732E+07
C 0.2751E+09 0.8469E+08 0.2139E+08 0.3477E+07 0.5569E+08 -0.1837E+07
O 0.2697E+09 0.8275E+08 0.2048E+08 0.3716E+07 0.5490E+08 -0.1942E+07
S1      S2      S3      SINT      SEQV
I 0.2804E+09 0.1194E+09 -0.1056E+08 0.2910E+09 0.2525E+09
C 0.2751E+09 0.1171E+09 -0.1105E+08 0.2862E+09 0.2483E+09
O 0.2698E+09 0.1147E+09 -0.1154E+08 0.2813E+09 0.2441E+09

```

```

** PEAK ** I=INSIDE C=CENTER O=OUTSIDE
      SX      SY      SZ      SXY      SYZ      SXZ
I 2315.      843.9      397.0      -103.9      343.1      45.54
C -0.1311E-05 -0.5513E-06 -0.2198E-06 0.6985E-08 -0.2906E-06 0.6286E-08
O -2315.      -843.9      -397.0      103.9      -343.1      -45.54
S1      S2      S3      SINT      SEQV
I 2322.      1026.      207.2      2115.      1847.
C -0.5103E-07 -0.7200E-06 -0.1311E-05 0.1260E-05 0.1092E-05
O -207.2      -1026.      -2322.      2115.      1847.

```

```

** TOTAL ** I=INSIDE C=CENTER O=OUTSIDE
      SX      SY      SZ      SXY      SYZ      SXZ
I 0.2804E+09 0.8663E+08 0.2231E+08 0.3237E+07 0.5648E+08 -0.1732E+07
C 0.2751E+09 0.8469E+08 0.2139E+08 0.3477E+07 0.5569E+08 -0.1837E+07
O 0.2697E+09 0.8274E+08 0.2048E+08 0.3716E+07 0.5490E+08 -0.1942E+07
S1      S2      S3      SINT      SEQV      TEMP
I 0.2805E+09 0.1194E+09 -0.1056E+08 0.2910E+09 0.2525E+09 0.0000E+00
C 0.2751E+09 0.1171E+09 -0.1105E+08 0.2862E+09 0.2483E+09
O 0.2698E+09 0.1147E+09 -0.1154E+08 0.2813E+09 0.2441E+09 0.0000E+00

```

MAXIMUM LINEARIZED STRESSES IN CRITICALITY CONTROL PLATES

```

SELECT      FOR ITEM=MAT COMPONENT=
IN RANGE    2 TO      2 STEP      1

```

390 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

```

DEFINE A PATH FOR SUBSEQUENT CALCULATIONS THROUGH NODES:
19 788

```

USE LOAD STEP 3 SUBSTEP 6 FOR LOAD CASE 0

```

SET COMMAND GOT LOAD STEP= 3 SUBSTEP= 6 CUMULATIVE ITERATION= 138
TIME/FREQUENCY= 1.5151
TITLE= 21 PWR UCF WP Tipover Analysis

```

PRINT LINEARIZED STRESS THROUGH A SECTION DEFINED BY LPATH COMMAND. DSY= 0

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 10:21:38 FEB 23, 1998 CP= 114.070
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

***** POST1 LINEARIZED STRESS LISTING *****
 INSIDE NODE = 19 OUTSIDE NODE = 788

LOAD STEP 3 SUBSTEP= 6
 TIME= 1.5151 LOAD CASE= 0

THE FOLLOWING X,Y,Z STRESSES ARE IN GLOBAL COORDINATES.

** MEMBRANE **

	SX	SY	SZ	SXY	SYZ	SXZ
I	0.1100E+09	-0.3330E+08	-0.1320E+09	0.1498E+07	0.9157E+08	0.2483E+07
C	0.1100E+09	-0.3330E+08	-0.1320E+09	0.1498E+07	0.9157E+08	0.2483E+07
O	0.1100E+09	-0.3330E+08	-0.1320E+09	0.1498E+07	0.9157E+08	0.2483E+07
	S1	S2	S3	SINT	SEQV	
I	0.1101E+09	0.2131E+08	-0.1867E+09	0.2968E+09	0.2638E+09	
C	0.1101E+09	0.2131E+08	-0.1867E+09	0.2968E+09	0.2638E+09	
O	0.1101E+09	0.2131E+08	-0.1867E+09	0.2968E+09	0.2638E+09	

** BENDING ** I=INSIDE C=CENTER O=OUTSIDE

	SX	SY	SZ	SXY	SYZ	SXZ
I	-0.1798E+05	-0.2345E+07	-0.2979E+07	0.2400E+06	0.1426E+07	-0.4402E+06
C	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00
O	0.1798E+05	0.2345E+07	0.2979E+07	-0.2400E+06	-0.1426E+07	0.4402E+06
	S1	S2	S3	SINT	SEQV	
I	0.4669E+05	-0.1207E+07	-0.4181E+07	0.4227E+07	0.3761E+07	
C	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	
O	0.4181E+07	0.1207E+07	-0.4669E+05	0.4227E+07	0.3761E+07	

** MEMBRANE PLUS BENDING ** I=INSIDE C=CENTER O=OUTSIDE

	SX	SY	SZ	SXY	SYZ	SXZ
I	0.1100E+09	-0.3564E+08	-0.1349E+09	0.1738E+07	0.9300E+08	0.2043E+07
C	0.1100E+09	-0.3330E+08	-0.1320E+09	0.1498E+07	0.9157E+08	0.2483E+07
O	0.1100E+09	-0.3096E+08	-0.1290E+09	0.1258E+07	0.9015E+08	0.2923E+07
	S1	S2	S3	SINT	SEQV	
I	0.1101E+09	0.2006E+08	-0.1907E+09	0.3008E+09	0.2674E+09	
C	0.1101E+09	0.2131E+08	-0.1867E+09	0.2968E+09	0.2638E+09	
O	0.1101E+09	0.2256E+08	-0.1826E+09	0.2927E+09	0.2602E+09	

** PEAK ** I=INSIDE C=CENTER O=OUTSIDE

	SX	SY	SZ	SXY	SYZ	SXZ
I	-7.808	-1018.	-1293.	104.2	619.1	-191.1
C	0.1341E-06	0.1490E-07	-0.2980E-07	0.2328E-08	0.5960E-07	0.4191E-08
O	7.808	1018.	1293.	-104.2	-619.1	191.1
	S1	S2	S3	SINT	SEQV	
I	20.27	-524.2	-1815.	1836.	1633.	
C	0.1344E-06	0.5597E-07	-0.7113E-07	0.2055E-06	0.1796E-06	
O	1815.	524.2	-20.27	1836.	1633.	

** TOTAL ** I=INSIDE C=CENTER O=OUTSIDE

	SX	SY	SZ	SXY	SYZ	SXZ
I	0.1100E+09	-0.3565E+08	-0.1349E+09	0.1738E+07	0.9300E+08	0.2043E+07
C	0.1100E+09	-0.3330E+08	-0.1320E+09	0.1498E+07	0.9157E+08	0.2483E+07
O	0.1100E+09	-0.3095E+08	-0.1290E+09	0.1258E+07	0.9015E+08	0.2924E+07
	S1	S2	S3	SINT	SEQV	TEMP
I	0.1101E+09	0.2006E+08	-0.1907E+09	0.3008E+09	0.2674E+09	0.0000E+00
C	0.1101E+09	0.2131E+08	-0.1867E+09	0.2968E+09	0.2638E+09	
O	0.1101E+09	0.2256E+08	-0.1826E+09	0.2927E+09	0.2602E+09	0.0000E+00

MASS PROPERTIES OF THE PART OUTER_BARRIER

VOLUME = 2.5323951e+09 MM^3
 SURFACE AREA = 5.3536901e+07 MM^2
 DENSITY = 7.8500000e-06 KILOGRAM / MM^3
 MASS = 1.9879301e+04 KILOGRAM

CENTER OF GRAVITY with respect to _OUTER_BARRIER coordinate frame:
 X Y Z 0.0000000e+00 0.0000000e+00 2.6675000e+03 MM

INERTIA with respect to _OUTER_BARRIER coordinate frame: (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz	1.9185547e+11	4.1852897e+06	0.0000000e+00
Iyx Iyy Iyz	4.1852897e+06	1.9185769e+11	0.0000000e+00
Izx Izy Izz	0.0000000e+00	0.0000000e+00	1.2229752e+10

INERTIA at CENTER OF GRAVITY with respect to _OUTER_BARRIER coordinate frame:
 (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz	5.0403180e+10	4.1852897e+06	0.0000000e+00
Iyx Iyy Iyz	4.1852897e+06	5.0405399e+10	0.0000000e+00
Izx Izy Izz	0.0000000e+00	0.0000000e+00	1.2229752e+10

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)

I1 I2 I3	1.2229752e+10	5.0399959e+10	5.0408619e+10
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ROTATION MATRIX from _OUTER_BARRIER orientation to PRINCIPAL AXES:

0.00000	0.79254	0.60982
0.00000	-0.60982	0.79254
1.00000	0.00000	0.00000

ROTATION ANGLES from _OUTER_BARRIER orientation to PRINCIPAL AXES (degrees):
 angles about x y z -90.000 37.576 -90.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1 R2 R3	7.8434706e+02	1.5922620e+03	1.5923988e+03 MM
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MASS PROPERTIES OF THE PART OUTER_BARRIER_LID

VOLUME = 1.8577509e+08 MM^3
 SURFACE AREA = 3.8844803e+06 MM^2
 DENSITY = 7.8500000e-06 KILOGRAM / MM^3
 MASS = 1.4583344e+03 KILOGRAM

CENTER OF GRAVITY with respect to _OUTER_BARRIER_LI coordinate frame:
 X Y Z 0.0000000e+00 0.0000000e+00 5.5000000e+01 MM

INERTIA with respect to _OUTER_BARRIER_LI coordinate frame: (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 2.0187822e+08 -7.9991014e+03 0.0000000e+00
 Iyx Iyy Iyz -7.9991014e+03 2.0187302e+08 0.0000000e+00
 Izx Izy Izz 0.0000000e+00 0.0000000e+00 3.9198734e+08

INERTIA at CENTER OF GRAVITY with respect to _OUTER_BARRIER_LI coordinate frame:
 (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 1.9746676e+08 -7.9991014e+03 0.0000000e+00
 Iyx Iyy Iyz -7.9991014e+03 1.9746156e+08 0.0000000e+00
 Izx Izy Izz 0.0000000e+00 0.0000000e+00 3.9198734e+08

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)

I1 I2 I3 1.9745575e+08 1.9747257e+08 3.9198734e+08

ROTATION MATRIX from _OUTER_BARRIER_LI orientation to PRINCIPAL AXES:

0.58778 -0.80902 0.00000
 0.80902 0.58778 0.00000
 0.00000 0.00000 1.00000

ROTATION ANGLES from _OUTER_BARRIER_LI orientation to PRINCIPAL AXES (degrees):
 angles about x y z 0.000 0.000 54.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1 R2 R3 3.6796484e+02 3.6798052e+02 5.1845069e+02 MM

MASS PROPERTIES OF THE PART INNER_BARRIER

VOLUME = 4.2001935e+08 MM^3
 SURFACE AREA = 4.2217363e+07 MM^2
 DENSITY = 8.6910000e-06 KILOGRAM / MM^3
 MASS = 3.6503882e+03 KILOGRAM

CENTER OF GRAVITY with respect to _INNER_BARRIER coordinate frame:
 X Y Z 0.0000000e+00 0.0000000e+00 2.3175000e+03 MM

INERTIA with respect to _INNER_BARRIER coordinate frame: (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx	Ixy	Ixz	2.7081108e+10	5.8084992e+05	0.0000000e+00
Iyx	Iyy	Iyz	5.8084992e+05	2.7081453e+10	0.0000000e+00
Izx	Izy	Izz	0.0000000e+00	0.0000000e+00	1.9017120e+09

INERTIA at CENTER OF GRAVITY with respect to _INNER_BARRIER coordinate frame:
 (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx	Ixy	Ixz	7.4755801e+09	5.8084992e+05	0.0000000e+00
Iyx	Iyy	Iyz	5.8084992e+05	7.4759255e+09	0.0000000e+00
Izx	Izy	Izz	0.0000000e+00	0.0000000e+00	1.9017120e+09

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)

I1	I2	I3	1.9017120e+09	7.4751468e+09	7.4763588e+09
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ROTATION MATRIX from _INNER_BARRIER orientation to PRINCIPAL AXES:

	0.00000	0.80155	0.59792
	0.00000	-0.59792	0.80155
	1.00000	0.00000	0.00000

ROTATION ANGLES from _INNER_BARRIER orientation to PRINCIPAL AXES (degrees):
 angles about x y z -90.000 36.721 -90.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1	R2	R3	7.2177668e+02	1.4310023e+03	1.4311183e+03	MM
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MASS PROPERTIES OF THE PART INNER_BARRIER_LID

VOLUME = 3.9949611e+07 MM^3
 SURFACE AREA = 3.3079980e+06 MM^2
 DENSITY = 8.6910000e-06 KILOGRAM / MM^3
 MASS = 3.4720207e+02 KILOGRAM

CENTER OF GRAVITY with respect to _INNER_BARRIER_LI coordinate frame:
 X Y Z 0.0000000e+00 0.0000000e+00 1.2500000e+01 MM

INERTIA with respect to _INNER_BARRIER_LI coordinate frame: (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 4.4223831e+07 -1.4361281e+02 0.0000000e+00
 Iyx Iyy Iyz -1.4361281e+02 4.4223738e+07 0.0000000e+00
 Izx Izy Izz 0.0000000e+00 0.0000000e+00 8.8302901e+07

INERTIA at CENTER OF GRAVITY with respect to _INNER_BARRIER_LI coordinate frame:
 (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 4.4169581e+07 -1.4361281e+02 0.0000000e+00
 Iyx Iyy Iyz -1.4361281e+02 4.4169487e+07 0.0000000e+00
 Izx Izy Izz 0.0000000e+00 0.0000000e+00 8.8302901e+07

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)

I1 I2 I3 4.4169383e+07 4.4169685e+07 8.8302901e+07

ROTATION MATRIX from _INNER_BARRIER_LI orientation to PRINCIPAL AXES:

1.00000 0.00000 0.00000
 0.00000 1.00000 0.00000
 0.00000 0.00000 1.00000

ROTATION ANGLES from _INNER_BARRIER_LI orientation to PRINCIPAL AXES (degrees):
 angles about x y z 0.000 0.000 0.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1 R2 R3 3.5667241e+02 3.5667363e+02 5.0430856e+02 MM

MASS PROPERTIES OF THE PART A_GUIDE

VOLUME = 8.1003148e+06 MM^3
 SURFACE AREA = 1.6793636e+06 MM^2
 DENSITY = 7.8500000e-06 KILOGRAM / MM^3
 MASS = 6.3587471e+01 KILOGRAM

CENTER OF GRAVITY with respect to _A_GUIDE coordinate frame:
 X Y Z 3.6660000e+02 4.9600063e+00 5.6565000e+02 MM

INERTIA with respect to _A_GUIDE coordinate frame: (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 2.7129351e+07 -1.1562354e+05 -1.3185962e+07
 Iyx Iyy Iyz -1.1562354e+05 3.8391375e+07 -1.7840276e+05
 Izx Izy Izz -1.3185962e+07 -1.7840276e+05 1.1266213e+07

INERTIA at CENTER OF GRAVITY with respect to _A_GUIDE coordinate frame:
 (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 6.7823439e+06 0.0000000e+00 0.0000000e+00
 Iyx Iyy Iyz 0.0000000e+00 9.5000587e+06 0.0000000e+00
 Izx Izy Izz 0.0000000e+00 0.0000000e+00 2.7187744e+06

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)

I1 I2 I3 2.7187744e+06 6.7823439e+06 9.5000587e+06

ROTATION MATRIX from _A_GUIDE orientation to PRINCIPAL AXES:

0.00000 1.00000 0.00000
 0.00000 0.00000 1.00000
 1.00000 0.00000 0.00000

ROTATION ANGLES from _A_GUIDE orientation to PRINCIPAL AXES (degrees):
 angles about x y z -90.000 0.000 -90.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1 R2 R3 2.0677632e+02 3.2659094e+02 3.8652480e+02 MM

MASS PROPERTIES OF THE PART B_GUIDE

VOLUME = 9.2015813e+05 MM^3
 SURFACE AREA = 2.0845188e+05 MM^2
 DENSITY = 7.8500000e-06 KILOGRAM / MM^3
 MASS = 7.2232413e+00 KILOGRAM

CENTER OF GRAVITY with respect to _B_GUIDE coordinate frame:
 X Y Z -5.0176971e+00 -4.0669703e+01 5.6565000e+02 MM

INERTIA with respect to _B_GUIDE coordinate frame: (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx	Ixy	Ixz	3.0974608e+06	-1.4792327e+03	2.0501439e+04
Iyx	Iyy	Iyz	-1.4792327e+03	3.0817724e+06	1.6616935e+05
Izx	Izy	Izz	2.0501439e+04	1.6616935e+05	1.6172545e+04

INERTIA at CENTER OF GRAVITY with respect to _B_GUIDE coordinate frame:
 (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx	Ixy	Ixz	7.7436565e+05	-5.1984314e+00	0.0000000e+00
Iyx	Iyy	Iyz	-5.1984314e+00	7.7044277e+05	0.0000000e+00
Izx	Izy	Izz	0.0000000e+00	0.0000000e+00	4.0432634e+03

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)

I1	I2	I3	4.0432634e+03	7.7044276e+05	7.7436565e+05
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ROTATION MATRIX from _B_GUIDE orientation to PRINCIPAL AXES:

0.00000	0.00133	-1.00000
0.00000	1.00000	0.00133
1.00000	0.00000	0.00000

ROTATION ANGLES from _B_GUIDE orientation to PRINCIPAL AXES (degrees):
 angles about x y z -90.000 -89.924 -90.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1	R2	R3	2.3659195e+01	3.2659094e+02	3.2742134e+02
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MASS PROPERTIES OF THE PART CORNER_GUIDE

VOLUME = 5.3367510e+06 MM^3
 SURFACE AREA = 1.1033308e+06 MM^2
 DENSITY = 7.8500000e-06 KILOGRAM / MM^3
 MASS = 4.1893495e+01 KILOGRAM

CENTER OF GRAVITY with respect to _CORNER_GUIDE coordinate frame:
 X Y Z 6.3802932e+01 6.3802932e+01 5.6690000e+02 MM

INERTIA with respect to _CORNER_GUIDE coordinate frame: (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 1.8364056e+07 -2.5468842e+04 -1.5152828e+06
 Iyx Iyy Iyz -2.5468842e+04 1.8364056e+07 -1.5152828e+06
 Izx Izy Izz -1.5152828e+06 -1.5152828e+06 8.2531813e+05

INERTIA at CENTER OF GRAVITY with respect to _CORNER_GUIDE coordinate frame:
 (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 4.7299676e+06 1.4507179e+05 0.0000000e+00
 Iyx Iyy Iyz 1.4507179e+05 4.7299676e+06 0.0000000e+00
 Izx Izy Izz 0.0000000e+00 0.0000000e+00 4.8423687e+05

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)

I1 I2 I3 4.8423687e+05 4.5848958e+06 4.8750394e+06

ROTATION MATRIX from _CORNER_GUIDE orientation to PRINCIPAL AXES:

0.00000 0.70711 0.70711
 0.00000 -0.70711 0.70711
 1.00000 0.00000 0.00000

ROTATION ANGLES from _CORNER_GUIDE orientation to PRINCIPAL AXES (degrees):
 angles about x y z -90.000 45.000 -90.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1 R2 R3 1.0751168e+02 3.3081976e+02 3.4112674e+02 MM

MASS PROPERTIES OF THE PART CORNER_STIFFENER

VOLUME = 2.9468916e+05 MM^3
 SURFACE AREA = 6.7354628e+04 MM^2
 DENSITY = 7.8500000e-06 KILOGRAM / MM^3
 MASS = 2.3133099e+00 KILOGRAM

CENTER OF GRAVITY with respect to CORNER_STIFFENER coordinate frame:
 X Y Z 5.7762779e+00 5.7762321e+00 5.0000000e+00 MM

INERTIA with respect to CORNER_STIFFENER coordinate frame: (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 7.2799223e+03 3.1343997e+03 -6.6811605e+01
 Iyx Iyy Iyz 3.1343997e+03 7.2799238e+03 -6.6811075e+01
 Izx Izy Izz -6.6811605e+01 -6.6811075e+01 1.4405625e+04

INERTIA at CENTER OF GRAVITY with respect to CORNER_STIFFENER coordinate frame:
 (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 7.1449063e+03 3.2115836e+03 0.0000000e+00
 Iyx Iyy Iyz 3.2115836e+03 7.1449066e+03 0.0000000e+00
 Izx Izy Izz 0.0000000e+00 0.0000000e+00 1.4251258e+04

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)

I1 I2 I3 3.9333229e+03 1.0356490e+04 1.4251258e+04

ROTATION MATRIX from CORNER_STIFFENER orientation to PRINCIPAL AXES:

0.70711 0.70711 0.00000
 -0.70711 0.70711 0.00000
 0.00000 0.00000 1.00000

ROTATION ANGLES from CORNER_STIFFENER orientation to PRINCIPAL AXES (degrees):
 angles about x y z 0.000 0.000 -45.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1 R2 R3 4.1234704e+01 6.6909747e+01 7.8489161e+01 MM

MASS PROPERTIES OF THE PART A-PLATE

VOLUME = 9.4683638e+06 MM³
 SURFACE AREA = 2.7698904e+06 MM²
 DENSITY = 7.7600000e-06 KILOGRAM / MM³
 MASS = 7.3474503e+01 KILOGRAM

CENTER OF GRAVITY with respect to _A-PLATE coordinate frame:

X	Y	Z	6.0800000e+02	5.7236467e+02	3.5000000e+00	MM
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INERTIA with respect to _A-PLATE coordinate frame: (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx	Ixy	Ixz	3.1940321e+07	-2.5568959e+07	-1.5635374e+05
Iyx	Iyy	Iyz	-2.5568959e+07	3.6301009e+07	-1.4718973e+05
Izx	Izy	Izz	-1.5635374e+05	-1.4718973e+05	6.8238930e+07

INERTIA at CENTER OF GRAVITY with respect to _A-PLATE coordinate frame:
 (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx	Ixy	Ixz	7.8690770e+06	0.0000000e+00	0.0000000e+00
Iyx	Iyy	Iyz	0.0000000e+00	9.1392304e+06	0.0000000e+00
Izx	Izy	Izz	0.0000000e+00	0.0000000e+00	1.7007707e+07

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM²)

I1	I2	I3	7.8690770e+06	9.1392304e+06	1.7007707e+07
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ROTATION MATRIX from _A-PLATE orientation to PRINCIPAL AXES:

1.00000	0.00000	0.00000
0.00000	1.00000	0.00000
0.00000	0.00000	1.00000

ROTATION ANGLES from _A-PLATE orientation to PRINCIPAL AXES (degrees):
 angles about x y z 0.000 0.000 0.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1	R2	R3	3.2726048e+02	3.5268459e+02	4.8112127e+02	MM
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MASS PROPERTIES OF THE PART B-PLATE

VOLUME = 9.4683638e+06 MM³
 SURFACE AREA = 2.7698904e+06 MM²
 DENSITY = 7.7600000e-06 KILOGRAM / MM³
 MASS = 7.3474503e+01 KILOGRAM

CENTER OF GRAVITY with respect to _B-PLATE coordinate frame:
 X Y Z 6.0800000e+02 -3.5000000e+00 5.6808797e+02 MM

INERTIA with respect to _B-PLATE coordinate frame: (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx	Ixy	Ixz	3.1584049e+07	1.5635374e+05	-2.5377909e+07
Iyx	Iyy	Iyz	1.5635374e+05	6.7882658e+07	1.4608993e+05
Izx	Izy	Izz	-2.5377909e+07	1.4608993e+05	3.6301009e+07

INERTIA at CENTER OF GRAVITY with respect to _B-PLATE coordinate frame:
 (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx	Ixy	Ixz	7.8711674e+06	0.0000000e+00	0.0000000e+00
Iyx	Iyy	Iyz	0.0000000e+00	1.7009798e+07	0.0000000e+00
Izx	Izy	Izz	0.0000000e+00	0.0000000e+00	9.1392304e+06

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM²)

I1	I2	I3	7.8711674e+06	9.1392304e+06	1.7009798e+07
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ROTATION MATRIX from _B-PLATE orientation to PRINCIPAL AXES:

1.00000	0.00000	0.00000
0.00000	0.00000	-1.00000
0.00000	1.00000	0.00000

ROTATION ANGLES from _B-PLATE orientation to PRINCIPAL AXES (degrees):
 angles about x y z 90.000 0.000 0.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1	R2	R3	3.2730395e+02	3.5268459e+02	4.8115084e+02 MM
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MASS PROPERTIES OF THE PART C-PLATE

VOLUME = 5.6873676e+06 MM³
 SURFACE AREA = 1.6669370e+06 MM²
 DENSITY = 7.7600000e-06 KILOGRAM / MM³
 MASS = 4.4133972e+01 KILOGRAM

CENTER OF GRAVITY with respect to _C-PLATE coordinate frame:
 X Y Z 3.6530000e+02 -3.5000000e+00 5.6136232e+02 MM

INERTIA with respect to _C-PLATE coordinate frame: (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx	Ixy	Ixz	1.8635063e+07	5.6427490e+04	-9.0503620e+06
Iyx	Iyy	Iyz	5.6427490e+04	2.6511938e+07	8.6713022e+04
Izx	Izy	Izz	-9.0503620e+06	8.6713022e+04	7.8783166e+06

INERTIA at CENTER OF GRAVITY with respect to _C-PLATE coordinate frame:
 (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx	Ixy	Ixz	4.7266876e+06	0.0000000e+00	0.0000000e+00
Iyx	Iyy	Iyz	0.0000000e+00	6.7146853e+06	0.0000000e+00
Izx	Izy	Izz	0.0000000e+00	0.0000000e+00	1.9883582e+06

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM²)

I1	I2	I3	1.9883582e+06	4.7266876e+06	6.7146853e+06
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ROTATION MATRIX from _C-PLATE orientation to PRINCIPAL AXES:

0.00000	1.00000	0.00000
0.00000	0.00000	1.00000
1.00000	0.00000	0.00000

ROTATION ANGLES from _C-PLATE orientation to PRINCIPAL AXES (degrees):
 angles about x y z -90.000 0.000 -90.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1	R2	R3	2.1225640e+02	3.2725926e+02	3.9005543e+02
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MASS PROPERTIES OF THE PART D-PLATE

VOLUME = 6.7403340e+06 MM³
 SURFACE AREA = 2.7422246e+06 MM²
 DENSITY = 2.7130000e-06 KILOGRAM / MM³
 MASS = 1.8286526e+01 KILOGRAM

CENTER OF GRAVITY with respect to _D-PLATE coordinate frame:
 X Y Z 6.0720000e+02 5.7121092e+02 2.5000000e+00 MM

INERTIA with respect to _D-PLATE coordinate frame: (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx Ixy Ixz 7.9171812e+06 -6.3424854e+06 -2.7758947e+04
 Iyx Iyy Iyz -6.3424854e+06 9.0107564e+06 -2.6113658e+04
 Izx Izy Izz -2.7758947e+04 -2.6113658e+04 1.6927633e+07

INERTIA at CENTER OF GRAVITY with respect to _D-PLATE coordinate frame:
 (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx Ixy Ixz 1.9505042e+06 0.0000000e+00 0.0000000e+00
 Iyx Iyy Iyz 0.0000000e+00 2.2685491e+06 0.0000000e+00
 Izx Izy Izz 0.0000000e+00 0.0000000e+00 4.2189772e+06

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM²)

I1 I2 I3 1.9505042e+06 2.2685491e+06 4.2189772e+06

ROTATION MATRIX from _D-PLATE orientation to PRINCIPAL AXES:

1.00000 0.00000 0.00000
 0.00000 1.00000 0.00000
 0.00000 0.00000 1.00000

ROTATION ANGLES from _D-PLATE orientation to PRINCIPAL AXES (degrees):
 angles about x y z 0.000 0.000 0.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1 R2 R3 3.2659373e+02 3.5221552e+02 4.8032809e+02 MM

MASS PROPERTIES OF THE PART E-PLATE

VOLUME = 6.7403340e+06 MM³
 SURFACE AREA = 2.7422246e+06 MM²
 DENSITY = 2.7130000e-06 KILOGRAM / MM³
 MASS = 1.8286526e+01 KILOGRAM

CENTER OF GRAVITY with respect to _E-PLATE coordinate frame:
 X Y Z 6.0720000e+02 -2.5000000e+00 5.6693716e+02 MM

INERTIA with respect to _E-PLATE coordinate frame: (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx	Ixy	Ixz	7.8287520e+06	2.7758947e+04	-6.2950313e+06
Iyx	Iyy	Iyz	2.7758947e+04	1.6839204e+07	2.5918278e+04
Izx	Izy	Izz	-6.2950313e+06	2.5918278e+04	9.0107564e+06

INERTIA at CENTER OF GRAVITY with respect to _E-PLATE coordinate frame:
 (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx	Ixy	Ixz	1.9510238e+06	0.0000000e+00	0.0000000e+00
Iyx	Iyy	Iyz	0.0000000e+00	4.2194967e+06	0.0000000e+00
Izx	Izy	Izz	0.0000000e+00	0.0000000e+00	2.2685491e+06

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM²)

I1	I2	I3	1.9510238e+06	2.2685491e+06	4.2194967e+06
----	----	----	---------------	---------------	---------------

ROTATION MATRIX from _E-PLATE orientation to PRINCIPAL AXES:

1.00000	0.00000	0.00000
0.00000	0.00000	-1.00000
0.00000	1.00000	0.00000

ROTATION ANGLES from _E-PLATE orientation to PRINCIPAL AXES (degrees):
 angles about x y z 90.000 0.000 0.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1	R2	R3	3.2663723e+02	3.5221552e+02	4.8035766e+02
----	----	----	---------------	---------------	---------------

MASS PROPERTIES OF THE PART SIDE_COVER

VOLUME = 5.0144801e+05 MM^3
 SURFACE AREA = 1.1595236e+05 MM^2
 DENSITY = 7.8500000e-06 KILOGRAM / MM^3
 MASS = 3.9363668e+00 KILOGRAM

CENTER OF GRAVITY with respect to _SIDE_COVER coordinate frame:
 X Y Z 3.6660000e+02 4.0888533e+01 5.0000000e+00 MM

INERTIA with respect to _SIDE_COVER coordinate frame: (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 9.5276543e+03 -5.9005088e+04 -7.2153605e+03
 Iyx Iyy Iyz -5.9005088e+04 6.3752055e+05 -8.0476132e+02
 Izx Izy Izz -7.2153605e+03 -8.0476132e+02 6.4678578e+05

INERTIA at CENTER OF GRAVITY with respect to _SIDE_COVER coordinate frame:
 (KILOGRAM * MM^2)

INERTIA TENSOR:

Ixx Ixy Ixz 2.8481431e+03 1.3046996e-02 0.0000000e+00
 Iyx Iyy Iyz 1.3046996e-02 1.0839191e+05 0.0000000e+00
 Izx Izy Izz 0.0000000e+00 0.0000000e+00 1.1117445e+05

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM^2)

I1 I2 I3 2.8481431e+03 1.0839191e+05 1.1117445e+05

ROTATION MATRIX from _SIDE_COVER orientation to PRINCIPAL AXES:

1.00000 0.00000 0.00000
 0.00000 1.00000 0.00000
 0.00000 0.00000 1.00000

ROTATION ANGLES from _SIDE_COVER orientation to PRINCIPAL AXES (degrees):
 angles about x y z 0.000 0.000 0.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1 R2 R3 2.6898814e+01 1.6593983e+02 1.6805626e+02 MM

MASS PROPERTIES OF THE PART TUBE

VOLUME = 2.0879658e+07 MM³
 SURFACE AREA = 8.3616621e+06 MM²
 DENSITY = 7.8500000e-06 KILOGRAM / MM³
 MASS = 1.6390531e+02 KILOGRAM

CENTER OF GRAVITY with respect to _TUBE coordinate frame:
 X Y Z 1.1320000e+02 -1.1320001e+02 2.2876201e+03 MM

INERTIA with respect to _TUBE coordinate frame: (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx Ixy Ixz 1.1472196e+09 2.1003221e+06 -4.2444686e+07
 Iyx Iyy Iyz 2.1003221e+06 1.1472196e+09 4.2444692e+07
 Izx Izy Izz -4.2444686e+07 4.2444692e+07 7.1055817e+06

INERTIA at CENTER OF GRAVITY with respect to _TUBE coordinate frame:
 (KILOGRAM * MM²)

INERTIA TENSOR:

Ixx Ixy Ixz 2.8736905e+08 0.0000000e+00 0.0000000e+00
 Iyx Iyy Iyz 0.0000000e+00 2.8736905e+08 0.0000000e+00
 Izx Izy Izz 0.0000000e+00 0.0000000e+00 2.9049375e+06

PRINCIPAL MOMENTS OF INERTIA: (KILOGRAM * MM²)

I1 I2 I3 2.9049375e+06 2.8736905e+08 2.8736905e+08

ROTATION MATRIX from _TUBE orientation to PRINCIPAL AXES:

0.00000 1.00000 0.00000
 0.00000 0.00000 1.00000
 1.00000 0.00000 0.00000

ROTATION ANGLES from _TUBE orientation to PRINCIPAL AXES (degrees):
 angles about x y z -90.000 0.000 -90.000

RADII OF GYRATION with respect to PRINCIPAL AXES:

R1 R2 R3 1.3312876e+02 1.3241082e+03 1.3241082e+03 MM

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PRESS <CR> OR <ENTER> TO CONTINUE

***** ANSYS COMMAND LINE ARGUMENTS *****

INITIAL JOBNAME = postint
MEMORY REQUESTED (MB) = 96.0
BATCH MODE REQUESTED = LIST
START-UP FILE MODE = READ

*** NOTE *** CP= 0.200 TIME= 16:46:54
There are no parameters and no abbreviations defined.

38303-971212 VERSION=HP 9000/7XX REVISION= 5.1 24
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438
CURRENT JOBNAME=postint 16:46:54 JAN 21, 1998 CP= 0.200

```
1 resume,toverc22,db
2 /filnam,toverc22
3 /title,21 PWR UCF TIPOVER ANALYSIS
4 /post1
5 /out,sint,res
6 /com,
7 /com, MAXIMUM STRESS INTENSITY IN THE OUTER BARRIER
8 /com,
9 esel,s,type,,6
10 ! Unselect elements at the pivot to obtain maximum
11 ! stress in the outer barrier
12 esel,u,,,3749,3764
13 *do,i,1,19
14 set,3,i
15 nsort,s,int,0,0,1
16 prns,s,prin
17 *enddo
18 /com,
19 /com, MAXIMUM STRESS INTENSITY IN THE INNER BARRIER
20 /com,
21 esel,s,type,,5
22 *do,i,1,19
23 set,3,i
24 nsort,s,int,0,0,1
25 prns,s,prin
26 *enddo
27 /com,
28 /com, MAXIMUM STRESS INTENSITY IN THE SIDE AND CORNER GUIDES
29 /com,
30 esel,s,type,,3,4
31 *do,i,1,19
32 set,3,i
33 nsort,s,int,0,0,1
34 prns,s,prin
35 *enddo
36 /com,
37 /com, MAXIMUM STRESS INTENSITY IN THE CRITICALITY CONTROL PLATES
38 /com,
39 esel,s,type,,2
40 *do,i,1,19
41 set,3,i
42 nsort,s,int,0,0,1
43 prns,s,prin
44 *enddo
45 /com,
46 /com, MAXIMUM STRESS INTENSITY IN THE TUBES
47 /com,
48 esel,s,type,,1
49 *do,i,1,19
50 set,3,i
```

```

51 nsort,s,int,0,0,1
52 prns,s,prin
53 *enddo
54 /out
55 fini
56 /exit
57 /eof

```

RUN SETUP PROCEDURE FROM FILE= /ansys51/docu/start.ans

/INPUT FILE= /ansys51/docu/start.ans LINE= 0

ABBREVIATION= REplot /REplot

PARAMETER PI = 3.141593

ANSYS STARTUP FILE start.ans

```

ABBREVIATION= VEC      /show,,1,
ABBREVIATION= RAS      /show,,0,
ABBREVIATION= INP      /input,,inp,
ABBREVIATION= ESC      /exit,nosav,
ABBREVIATION= K1       /pnum,kp ,1,
ABBREVIATION= K0       /pnum,kp ,0,
ABBREVIATION= L1       /pnum,line,1,
ABBREVIATION= L0       /pnum,line,0,
ABBREVIATION= A1       /pnum,area,1,
ABBREVIATION= A0       /pnum,area,0,
ABBREVIATION= V1       /pnum,volu,1,
ABBREVIATION= V0       /pnum,volu,0,
ABBREVIATION= N1       /pnum,node,1,
ABBREVIATION= N0       /pnum,node,0,
ABBREVIATION= E1       /pnum,elem,1,
ABBREVIATION= E0       /pnum,elem,0,
ABBREVIATION= M1       /pnum,mat ,1,
ABBREVIATION= M0       /pnum,mat ,0,
ABBREVIATION= R1       /pnum,real,1,
ABBREVIATION= R0       /pnum,real,0,
ABBREVIATION= T1       /pnum,type,1,
ABBREVIATION= T0       /pnum,type,0,
ABBREVIATION= C1       /number,1,
ABBREVIATION= C0       /number,0,
ABBREVIATION= PR1      /psf,pres,norm,1,
ABBREVIATION= PRO      /psf,pres,norm,0,

```

ABBREVIATION= U1 /pbc,u,1,
ABBREVIATION= U0 /pbc,u,0,
ABBREVIATION= X3D /show,3d,
ABBREVIATION= X11 /show,x11,
ABBREVIATION= X11C /show,x11c,
ABBREVIATION= ON /menu,on,
XYZ TRIAD DISPLAY SET TO OFF

VIEW CONE ANGLE FOR WINDOW 1 25.00

END start.ans

To start ANSYS menu:

type: x3d for console
x11 for X-term color
x11c for X-term color contour

type: on

RESUME ANSYS DATA FROM FILE NAME=toverc22.db

*** NOTE *** CP= 6.820 TIME= 16:47:08
Page file used.

*** ANSYS GLOBAL STATUS ***

TITLE = 21 PWR UCF WP Tipover Analysis

ANALYSIS TYPE = TRANSIENT

NUMBER OF ELEMENT TYPES = 8

10436 ELEMENTS CURRENTLY SELECTED. MAX ELEMENT NUMBER = 10436

13355 NODES CURRENTLY SELECTED. MAX NODE NUMBER = 13355

1874 KEYPOINTS CURRENTLY SELECTED. MAX KEYPOINT NUMBER = 20008

4704 LINES CURRENTLY SELECTED. MAX LINE NUMBER = 5703

3856 AREAS CURRENTLY SELECTED. MAX AREA NUMBER = 4257

1011 VOLUMES CURRENTLY SELECTED. MAX VOL. NUMBER = 1011

2 COMPONENTS CURRENTLY DEFINED

MAXIMUM LINEAR PROPERTY NUMBER = 8

MAXIMUM REAL CONSTANT SET NUMBER = 8

ACTIVE COORDINATE SYSTEM = 0 (CARTESIAN)

NUMBER OF SPECIFIED CONSTRAINTS = 829

CURRENT LOAD CASE = 0 OF 0

LOAD SET = 3

SUBSTEP = 19

TIME/FREQ = 1.5300

INITIAL JOBNAME = postint

CURRENT JOBNAME = postint

CURRENT JOBNAME REDEFINED AS toverc22

TITLE=

21 PWR UCF TIPOVER ANALYSIS

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 16:48:07 JAN 21, 1998 CP= 19.890
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF TIPOVER ANALYSIS

***** ANSYS RESULTS INTERPRETATION (POST1) *****

/OUTPUT FILE= sint.res

EXIT THE ANSYS POST1 DATABASE PROCESSOR

***** ROUTINE COMPLETED ***** CP = 1649.980

PURGE ALL SOLUTION AND POST DATA
SAVE ALL MODEL DATA

ALL CURRENT ANSYS DATA WRITTEN TO FILE NAME= toverc22.db
FOR POSSIBLE RESUME FROM THIS POINT

NUMBER OF WARNING MESSAGES ENCOUNTERED= 0
NUMBER OF ERROR MESSAGES ENCOUNTERED= 0

*** PAGE FILE USED ***

NUMBER OF R/W OPERATIONS= 275832
MAXIMUM RECORD NUMBER = 1111
RECORD SIZE (1*4 WORDS) = 16384
PAGE FILE SIZE (MB) = 69.438

```

*-----*
|                                     |
|               ANSYS RUN COMPLETED               |
|-----|
|               REV. 5.1  24               HP 9000/7XX               |
|               CP TIME      (sec) =      1672.510      TIME = 19:35:38      |
|               ELAPSED TIME (sec) =      10125.000      DATE  = 01/21/98      |
|-----|
*-----*

```

-----*
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-----*

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PRESS <CR> OR <ENTER> TO CONTINUE

***** ANSYS COMMAND LINE ARGUMENTS *****

INITIAL JOBNAME = postlin1
MEMORY REQUESTED (MB) = 96.0
BATCH MODE REQUESTED = LIST
START-UP FILE MODE = READ

*** NOTE *** CP= 0.180 TIME= 10:11:17
There are no parameters and no abbreviations defined.

38303-971212 VERSION=HP 9000/7XX REVISION= 5.1 24
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438
CURRENT JOBNAME=postlin1 10:11:17 FEB 23, 1998 CP= 0.180

```
1 resume,toverc22,db
2 /filnam,toverc22
3 /title,21 PWR UCF TIPOVER ANALYSIS
4 /post1
5 /out,slin1,res
6 /com,
7 /com, MAXIMUM LINEARIZED STRESSES IN THE OUTER BARRIER
8 /com,
9 esel,s,mat,,6
10 lpath,10861,10866
11 set,3,5
12 prsect,s,int
13 /com,
14 /com, MAXIMUM LINEARIZED STRESSES IN THE INNER BARRIER
15 /com,
16 esel,s,mat,,5
17 lpath,5671,4602
18 set,3,5
19 prsect,s,int
20 /com,
21 /com, MAXIMUM LINEARIZED STRESSES IN GUIDES
22 /com,
23 esel,s,mat,,3,4
24 lpath,2405,845
25 set,3,5
26 prsect,s,int
27 /com,
28 /com, MAXIMUM LINEARIZED STRESSES IN TUBES
29 /com,
30 esel,s,mat,,1
31 lpath,50,34
32 set,3,6
33 prsect,s,int
34 /com,
35 /com, MAXIMUM LINEARIZED STRESSES IN CRITICALITY CONTROL PLATES
36 /com,
37 esel,s,mat,,2
38 lpath,19,788
39 set,3,6
40 prsect,s,int
41 /out
42 fini
43 /exit
44 /eof
```

RUN SETUP PROCEDURE FROM FILE= /ansys51/docu/start.ans

/INPUT FILE= /ansys51/docu/start.ans LINE= 0

ABBREVIATION= REPLOT /REPLOT

PARAMETER PI = 3.141593

ANSYS STARTUP FILE start.ans

ABBREVIATION= VEC /show,,,1,
 ABBREVIATION= RAS /show,,,0,
 ABBREVIATION= INP /input,,,inp,
 ABBREVIATION= ESC /exit,nosav,
 ABBREVIATION= K1 /pnum,kp ,1,
 ABBREVIATION= K0 /pnum,kp ,0,
 ABBREVIATION= L1 /pnum,line,1,
 ABBREVIATION= L0 /pnum,line,0,
 ABBREVIATION= A1 /pnum,area,1,
 ABBREVIATION= A0 /pnum,area,0,
 ABBREVIATION= V1 /pnum,volu,1,
 ABBREVIATION= V0 /pnum,volu,0,
 ABBREVIATION= N1 /pnum,node,1,
 ABBREVIATION= N0 /pnum,node,0,
 ABBREVIATION= E1 /pnum,elem,1,
 ABBREVIATION= E0 /pnum,elem,0,
 ABBREVIATION= M1 /pnum,mat ,1,
 ABBREVIATION= M0 /pnum,mat ,0,
 ABBREVIATION= R1 /pnum,real,1,
 ABBREVIATION= R0 /pnum,real,0,
 ABBREVIATION= T1 /pnum,type,1,
 ABBREVIATION= T0 /pnum,type,0,
 ABBREVIATION= C1 /number,1,
 ABBREVIATION= C0 /number,0,
 ABBREVIATION= PR1 /psf,pres,norm,1,
 ABBREVIATION= PR0 /psf,pres,norm,0,
 ABBREVIATION= U1 /pbc,u,1,
 ABBREVIATION= U0 /pbc,u,0,
 ABBREVIATION= X3D /show,3d,
 ABBREVIATION= X11 /show,x11,
 ABBREVIATION= X11C /show,x11c,
 ABBREVIATION= ON /menu,on,
 XYZ TRIAD DISPLAY SET TO OFF

VIEW CONE ANGLE FOR WINDOW 1 25.00

END start.ans

To start ANSYS menu:

type: x3d for console
x11 for X-term color
x11c for X-term color contour

type: on

RESUME ANSYS DATA FROM FILE NAME=toverc22.db

*** NOTE *** CP= 6.810 TIME= 10:11:30
Page file used.

*** ANSYS GLOBAL STATUS ***

TITLE = 21 PWR UCF WP Tipover Analysis

ANALYSIS TYPE = TRANSIENT

NUMBER OF ELEMENT TYPES = 8

10436 ELEMENTS CURRENTLY SELECTED. MAX ELEMENT NUMBER = 10436

13355 NODES CURRENTLY SELECTED. MAX NODE NUMBER = 13355

1874 KEYPOINTS CURRENTLY SELECTED. MAX KEYPOINT NUMBER = 20008

4704 LINES CURRENTLY SELECTED. MAX LINE NUMBER = 5703

3856 AREAS CURRENTLY SELECTED. MAX AREA NUMBER = 4257

1011 VOLUMES CURRENTLY SELECTED. MAX VOL. NUMBER = 1011

2 COMPONENTS CURRENTLY DEFINED

MAXIMUM LINEAR PROPERTY NUMBER = 8

MAXIMUM REAL CONSTANT SET NUMBER = 8

ACTIVE COORDINATE SYSTEM = 0 (CARTESIAN)

NUMBER OF SPECIFIED CONSTRAINTS = 829

CURRENT LOAD CASE = 0 OF 0

LOAD SET = 3

SUBSTEP = 19

TIME/FREQ = 1.5300

INITIAL JOBNAME = postlin1

CURRENT JOBNAME = postlin1

CURRENT JOBNAME REDEFINED AS toverc22

TITLE=

21 PWR UCF TIPOVER ANALYSIS

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 10:12:28 FEB 23, 1998 CP= 19.900
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF TIPOVER ANALYSIS

***** ANSYS RESULTS INTERPRETATION (POST1) *****

/OUTPUT FILE= slin1.res

EXIT THE ANSYS POST1 DATABASE PROCESSOR

***** ROUTINE COMPLETED ***** CP = 114.080

PURGE ALL SOLUTION AND POST DATA
SAVE ALL MODEL DATA

ALL CURRENT ANSYS DATA WRITTEN TO FILE NAME= toverc22.db
FOR POSSIBLE RESUME FROM THIS POINT

```
NUMBER OF WARNING MESSAGES ENCOUNTERED=      0
NUMBER OF ERROR MESSAGES ENCOUNTERED=      0
```

```

*** PAGE FILE USED ***
NUMBER OF R/W OPERATIONS=      17889
MAXIMUM RECORD NUMBER   =       1064
RECORD SIZE (I*4 WORDS) =     16384
PAGE FILE SIZE (MB)     =     66.500

```

```

*****
                        ANSYS RUN COMPLETED
*****

      REV. 5.1   24                                HP 9000/7XX

      CP TIME      (sec) =      136.750           TIME = 10:23:05
      ELAPSED TIME (sec) =      709.000           DATE  = 02/23/98
  
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***** ANSYS COMMAND LINE ARGUMENTS *****
INITIAL JOBNAME = toverc22
MEMORY REQUESTED (MB) = 96.0
BATCH MODE REQUESTED = LIST
START-UP FILE MODE = READ

*** NOTE *** CP= 0.230 TIME= 16:33:13
There are no parameters and no abbreviations defined.

38303-971212 VERSION=HP 9000/7XX REVISION= 5.1 24
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438
CURRENT JOBNAME=toverc22 16:33:13 JAN 02, 1998 CP= 0.230

```

1 /com,*****
2 /com,***** 21 PWR UCF Waste Package *****
3 /com,*****
4 /ASSIGN,TRI,toverc22,tri,/users/zekai/,
5 /config,nvpag,512
6 /units,si
7 /prep7
8 /title, 21 PWR UCF WP Tipover Analysis
9 /vcon,,0
10 /com, Define Parameters
11 ibir=0.7117 ! Inner Barrier Inner Radius (DIA = 1.4234 m)
12 obir=0.7317 ! Outer Barrier Inner Radius (DIA = 1.4634 m)
13 obsr=0.7717 ! Outer Barrier Skirt Radius (DIA = 1.5434 m)
14 obor=0.8317 ! Outer Barrier Outer Radius (DIA = 1.6634 m)
15 ts1=.007 ! SS-B Plate Thickness
16 ts2=.005 ! CS Tube Thickness
17 ts3=.010 ! Corner Guide Thickness
18 ts4=.010 ! Side Guide Thickness
19 egih=0.082 ! Side Guide Fin Inner Height
20 pie=3.1415926 ! Pi
21 ang1=30*pie/180 ! Angle on end of side guide
22 ang2=80*pie/180 ! Angle on end of side guide fin
23 ang3=59*pie/180 ! Angle on end of corner guide
24 tw=0.226 ! Tube Inner Side Width
25 pos1=tw/2 ! Dimension to Keypoint Position 1
26 pos2=pos1+ts2 ! Dimension to Keypoint Position 2
27 pos3=pos2+ts1 ! Dimension to Keypoint Position 3
28 pos4=pos3+ts2 ! Dimension to Keypoint Position 4
29 pos5=pos4+tw ! Dimension to Keypoint Position 5
30 pos6=pos5+ts2 ! Dimension to Keypoint Position 6
31 pos7=pos6+ts1 ! Dimension to Keypoint Position 7
32 pos8=pos7+ts2 ! Dimension to Keypoint Position 8
33 pos9=pos8+tw ! Dimension to Keypoint Position 9
34 pos10=pos9+ts2 ! Dimension to Keypoint Position 10
35 pos11=pos10+ts4 ! Dimension to Keypoint Position 11
36 posg=pos6+ts3 ! Dimension to Keypoint on Corner Guide
37 posei=pos11+egih ! Dimension to Keypoint on Side Guide Fin Inner
38 poseo=posei-(ts4/tan(ang2)) ! Dimension to Keypoint on Side Guide Fin Outer
39 posen=pos2+ts1/2-ts4/2 ! Dimension to Keypoint on Side Guide Near Side
40 posef=pos2+ts1/2+ts4/2 ! Dimension to Keypoint on Side Guide Far Side
41 poseg=pos6-(ts4/tan(ang1)) ! Dimension to Keypoint on Side Guide Side
42 poscg=pos10-(ts3/tan(ang3)) ! Dimension to Keypoint on Corner Guide Side
43 /com, Parameters from Geometry
44 stht=0.225 ! skirt height
45 oblht=0.11 ! outer lid height
46 iblht=0.025 ! inner lid height
47 tht=4.575 ! Tube Height
48 bgh=0.010 ! Basket Gap Height
49 ltlgh=0.030 ! Lid to Lid Gap Height
50 /com, New Parameters

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51 elev0=0 ! End of Skirt
52 elev1=elev0+stht ! 0.225 ! Bottom of Lower Outer Barrier Lid
53 elev2=elev1+obl ! 0.335 ! Top of Lower Outer Barrier Lid/Bottom of Lower Inner Barrier Lid
54 elev3=elev2+ibl ! 0.360 ! Top of Lower Inner Barrier Lid/Bottom of Tubes
55 elev4=elev3+tht ! 4.935 ! Top of Tubes
56 elev5=elev4+bgh ! 4.945 ! Bottom of Top Inner Barrier Lid
57 elev6=elev5+ibl ! 4.970 ! Top of Top Inner Barrier Lid
58 elev7=elev6+ltlgh ! 5.000 ! Bottom of Top Outer Barrier Lid
59 elev8=elev7+obl ! 5.110 ! Top of Top Outer Barrier Lid
60 elev9=elev8+stht ! 5.335 ! End of Skirt
61 !elev4=elev3+fgh ! 0.380 ! Tube Flare Height, Basket Plate Bottom
62 !elev5=elev4+cvth ! 0.390 ! End Guide Cover Top/Corner Spacer Bottom
63 !elev6=elev5+ish ! 1.50375 ! Corner Spacer Bottom
64 !elev7=elev6+spth ! 1.52375 ! Corner Spacer Top
65 !elev8=elev7+ish ! 2.6375 ! Corner Spacer Bottom
66 !elev9=elev8+spth ! 2.6575 ! Corner Spacer Top
67 !elev10=elev9+ish ! 3.77125 ! Corner Spacer Bottom
68 !elev11=elev10+spth ! 3.79125 ! Corner Spacer Top
69 !elev12=elev11+ish ! 4.905 ! Corner Spacer Bottom
70 !elev13=elev12+cvth ! 4.915 ! Basket Plate Top/Tube Flare Height
71 !elev14=elev13+fgh+bgh ! 4.945 ! Bottom of Top Inner Barrier
72 !elev15=elev14+ibl ! 4.970 ! Top of Top Inner Barrier Lid
73 !elev16=elev15+ltlgh ! 5.000 ! Bottom of Top Outer Barrier Lid
74 !elev17=elev16+obl ! 5.110 ! Top of Top Outer Barrier Lid
75 !elev18=elev17+stht ! 5.335 ! End of Skirt
76 /com, Calculation of Rotation Angle
77 lang4r=atan(2*obor/elev9)
78 lang4=(180/pie)*ang4r
79 ang4=30
80 ang4r=ang4*(pie/180)
81 drpht=(obor*sin(ang4r))
82 /com, Line Divisions
83 htwd=4 ! Half Tube Width Divisions
84 twd=4 ! Tube Width Divisions
85 thd=4 ! Tube Height Divisions
86 egfd=4 ! End Guide Fin Divisions
87 ptd=1 ! Plate Thickness Divisions
88 ttd=1 ! Tube Thickness Divisions
89 a1d=4 ! Arc 1 Divisions
90 a2d=4 ! Arc 2 Divisions
91 a3d=4 ! Arc 3 Divisions
92 a4d=4 ! Arc 4 Divisions
93 a5d=4 ! Arc 5 Divisions
94 a6d=4 ! Arc 6 Divisions
95 a7d=4 ! Arc 7 Divisions
96 a8d=4 ! Arc 8 Divisions
97 a9d=4 ! Arc 9 Divisions
98 ibtd=2 ! Inner Barrier Thickness Divisions
99 obtd=1 ! Outer Barrier Inner Thickness Divisions
100 std=2 ! Skirt Thickness Divisions
101 /com, New Elevation Line Divisions
102 e1d=2 ! Line Divisions, Bottom Skirt
103 e2d=1 ! Line Divisions, Bottom Outer Lid
104 e3d=1 ! Line Divisions, Bottom Inner Lid
105 e4d=5 ! Line Divisions, Tubes
106 e5d=1 ! Line Divisions, Basket to Lid Gap
107 e6d=1 ! Line Divisions, Upper Inner Lid
108 e7d=1 ! Line Divisions, Lid to Lid Gap
109 e8d=3 ! Line Divisions, Upper Outer Lid
110 e9d=4 ! Line Divisions, Upper Skirt
111 !e4d=1 ! Line Divisions, Bottom Tube Flange
112 !e5d=1 ! Line Divisions, Bottom Side Guide Cover/Corner Stiffener
113 !e6d=4 ! Line Divisions, Inner Corner Guide Height
114 !e7d=1 ! Line Divisions, Corner Stiffener
115 !e8d=1 ! Line Divisions, Inner Corner Guide Height
116 !e9d=1 ! Line Divisions, Corner Stiffener
117 !e10d=1 ! Line Divisions, Inner Corner Guide Height
118 !e11d=1 ! Line Divisions, Corner Stiffener
119 !e12d=1 ! Line Divisions, Inner Corner Guide Height
120 !e13d=1 ! Line Divisions, Upper Side Guide Cover/Corner Stiffener

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121 !e14d=1          ! Line Divisions, Basket to Lid Gap
122 !e15d=2          ! Line Divisions, Upper Inner Lid
123 !e16d=1          ! Line Divisions, Lid to Lid Gap
124 !e17d=1          ! Line Divisions, Upper Outer Lid
125 !e18d=1          ! Line Divisions, Upper Skirt
126 csld=4           ! Contact Surface Length Divisions
127 cswd=8           ! Contact Surface Width Divisions
128 cshd=3           ! Contact Surface Height Divisions
129 /com, Define Element Properties
130 et,1,solid45      ! ASTM A 516, Grade 70 Carbon Steel Tube
131 et,2,solid45      ! Neutronit A 978 Stainless Steel - Boron Plate
132 et,3,solid45      ! ASTM A 516, Grade 70 Carbon Steel Side Guide
133 et,4,solid45      ! ASTM A 516, Grade 70 Carbon Steel Corner Guide
134 et,5,solid45      ! Alloy C-22 Inner Barrier
135 et,6,solid45      ! ASTM A 516, Grade 70 Carbon Steel Outer Barrier
136 et,7,solid45      ! Unyielding Surface
137 et,8,contac49,,,1,,,1 ! Contact Between Outer Barrier and Unyielding Surface
138 r,8,2.0e8,,,1.5,70 ! Real Constant Set for Contact, kn=2.0E8,
139 /com, ratio of static to dynamic coeff. of friction fact=1.5, Area Tol.=70%
140 /com, Room Temperature Properties of Materials
141 mp,ex,1,197e9     ! ASTM A 516, Grade 70 Carbon Steel Tube
142 mp,ex,2,200e9     ! Neutronit A 978
143 mp,ex,3,197e9     ! ASTM A 516, Grade 70 Carbon Steel Side Guide
144 mp,ex,4,197e9     ! ASTM A 516, Grade 70 Carbon Steel Corner Guide
145 mp,ex,5,203e9     ! Alloy C-22 Inner Barrier
146 mp,ex,6,197e9     ! ASTM A 516, Grade 70 Carbon Steel Outer Barrier
147 mp,ex,7,1.0e13    ! Unyielding Surface
148 mp,nuxy,1,0.3     ! ASTM A 516, Grade 70 Carbon Steel Tube
149 mp,nuxy,2,0.3     ! Neutronit A 978 Stainless Steel - Boron Plate (Assumed)
150 mp,nuxy,3,0.3     ! ASTM A 516, Grade 70 Carbon Steel Side Guide
151 mp,nuxy,4,0.3     ! ASTM A 516, Grade 70 Carbon Steel Corner Guide
152 mp,nuxy,5,0.28    ! Alloy C-22 Inner Barrier
153 mp,nuxy,6,0.3     ! ASTM A 516, Grade 70 Carbon Steel Outer Barrier
154 mp,nuxy,7,0.17    ! Unyielding Surface (Target Hardness Report)
155 /com, All densities given below are adjusted for actual masses
156 mp,dens,1,40050.7 ! ASTM A 516, Grade 70 Carbon Steel Tube, Fuel Mass Added
157 mp,dens,2,8892.96 ! Neutronit A 978
158 mp,dens,3,7661.6  ! ASTM A 516, Grade 70 Carbon Steel Side Guide
159 mp,dens,4,8352.4  ! ASTM A 516, Grade 70 Carbon Steel Corner Guide
160 mp,dens,5,8691     ! Alloy C-22 Inner Barrier
161 mp,dens,6,7857.85 ! ASTM A 516, Grade 70 Carbon Steel Outer Barrier
162 mp,dens,7,2300     ! Unyielding Surface (Concrete Density)
163 mp,mu,8,0.4        ! Coefficient of Kinetic Friction (Steel on Steel Assumed)
164 tb,biso,1
165 tbddata,,239e6,1.169e9 ! ASTM A 516 Carbon Steel Tubes
166 tb,biso,2
167 tbddata,,250e6,5.106e9 ! Neutronit A 978
168 tb,biso,3
169 tbddata,,239e6,1.169e9 ! ASTM A 516 Carbon Steel Side Guide
170 tb,biso,4
171 tbddata,,239e6,1.169e9 ! ASTM A 516 Carbon Steel Corner Guide
172 tb,biso,5
173 tbddata,,310e6,0.847e9 ! Alloy C-22 Inner Barrier
174 tb,biso,6
175 tbddata,,239e6,1.169e9 ! ASTM A 516 Carbon Steel Outer Barrier
176 /com
177 /com, Define keypoints in the basket assembly
178 local,12,0,0,0,0,0,-90+ang4,0
179 k,1,0,0,elev0
180 k,2,pos1,0,elev0
181 k,3,pos2,0,elev0
182 k,4,pos3,0,elev0
183 k,5,pos4,0,elev0
184 k,6,pos5,0,elev0
185 k,7,pos6,0,elev0
186 k,8,pos7,0,elev0
187 k,9,pos8,0,elev0
188 k,10,pos9,0,elev0
189 k,11,pos10,0,elev0
190 k,12,pos11,0,elev0

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191 k,13,pos1,pos1,elev0
192 k,14,pos4,pos1,elev0
193 k,15,pos5,pos1,elev0
194 k,16,pos8,pos1,elev0
195 k,17,pos9,pos1,elev0
196 k,18,pos2,pos2,elev0
197 k,19,pos3,pos2,elev0
198 k,20,pos6,pos2,elev0
199 k,21,pos7,pos2,elev0
200 k,22,pos10,pos2,elev0
201 k,23,pos11,posei,elev0
202 !k,24,posei,posei,elev0
203 csys,0
204 local,13,1,0,0,0,-90+ang4,0
205 k,24,ibir,(180/pie)*atan(posei/posei),elev0
206 csys,12
207 k,25,pos3,pos3,elev0
208 k,26,pos6,pos3,elev0
209 k,27,pos7,pos3,elev0
210 k,28,pos10,pos3,elev0
211 k,29,pos11,posef,elev0
212 !k,30,poseo,posef,elev0
213 csys,13
214 k,30,ibir,(180/pie)*atan(posef/poseo),elev0
215 csys,12
216 k,31,pos4,pos4,elev0
217 k,32,pos5,pos4,elev0
218 k,33,pos8,pos4,elev0
219 k,34,pos9,pos4,elev0
220 k,35,pos5,pos5,elev0
221 k,36,pos8,pos5,elev0
222 k,37,pos9,pos5,elev0
223 !k,38,pos11,poseg,elev0
224 csys,13
225 k,38,ibir,(180/pie)*atan(poseg/pos11),elev0
226 csys,12
227 k,39,pos6,pos6,elev0
228 k,40,pos7,pos6,elev0
229 !k,41,pos10,pos6,elev0
230 csys,13
231 k,41,ibir,(180/pie)*atan(pos6/pos10),elev0
232 csys,12
233 k,42,posg,posg,elev0
234 !k,43,poscg,posg,elev0
235 csys,13
236 k,43,ibir,(180/pie)*atan(posg/poscg),elev0
237 k,44,ibir,0,elev0
238 k,45,ibir,45,elev0
239 k,46,obir,0,elev0
240 k,47,obir,(180/pie)*atan(posei/posei),elev0
241 k,48,obir,(180/pie)*atan(posef/poseo),elev0
242 k,49,obir,(180/pie)*atan(poseg/pos11),elev0
243 k,50,obir,(180/pie)*atan(pos6/pos10),elev0
244 k,51,obir,(180/pie)*atan(posg/poscg),elev0
245 k,52,obir,45,elev0
246 k,53,obsr,0,elev0
247 k,54,obsr,(180/pie)*atan(posei/posei),elev0
248 k,55,obsr,(180/pie)*atan(posef/poseo),elev0
249 k,56,obsr,(180/pie)*atan(poseg/pos11),elev0
250 k,57,obsr,(180/pie)*atan(pos6/pos10),elev0
251 k,58,obsr,(180/pie)*atan(posg/poscg),elev0
252 k,59,obsr,45,elev0
253 k,60,obor,0,elev0
254 k,61,obor,(180/pie)*atan(posei/posei),elev0
255 k,62,obor,(180/pie)*atan(posef/poseo),elev0
256 k,63,obor,(180/pie)*atan(poseg/pos11),elev0
257 k,64,obor,(180/pie)*atan(pos6/pos10),elev0
258 k,65,obor,(180/pie)*atan(posg/poscg),elev0
259 k,66,obor,45,elev0
260 local,11,0,0,0,0,ang4,45

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261 ksymm,z,all,,,0,0,0
262 nummrg,kp
263 csys,12
264 ksymm,y,all,,,0,0,0
265 nummrg,kp
266 kdel,2,12,1
267 k,1001,0,0,elev1
268 l,1,1001 ! Line 1 for VDRAG of Lower Skirt
269 lsize,all,,,e1d,1,0
270 k,2001,0,0,elev2
271 l,1001,2001 ! Line 2 for VDRAG of Lower Outer Barrier Lid
272 lsize,all,,,e2d,1,0
273 k,3001,0,0,elev3
274 l,2001,3001 ! Line 3 for VDRAG of Lower Inner Barrier Lid
275 lsize,all,,,e3d,1,0
276 k,4001,0,0,elev4
277 l,3001,4001 ! Line 4 for VDRAG of Tube
278 lsize,all,,,e4d,.2,0
279 k,5001,0,0,elev5
280 l,4001,5001 ! Line 5 for VDRAG of Basket to Lid Gap
281 lsize,all,,,e5d,1,0
282 k,6001,0,0,elev6
283 l,5001,6001 ! Line 6 for VDRAG of Upper Inner Barrier Lid
284 lsize,all,,,e6d,1,0
285 k,7001,0,0,elev7
286 l,6001,7001 ! Line 7 for VDRAG of Lid to Lid Gap
287 lsize,all,,,e7d,1,0
288 k,8001,0,0,elev8
289 l,7001,8001 ! Line 8 for VDRAG of Upper Outer Barrier Lid
290 lsize,all,,,e8d,1,0
291 k,9001,0,0,elev9
292 l,8001,9001 ! Line 9 for VDRAG of Upper Skirt
293 lsize,all,,,e9d,1,0
294 !k,10001,0,0,elev10
295 !l,9001,10001 ! Line 10 for VDRAG of Basket Section 3
296 !lsize,all,,,e10d,1,0
297 !k,11001,0,0,elev11
298 !l,10001,11001 ! Line 11 for VDRAG of Corner Stiffener
299 !lsize,all,,,e11d,1,0
300 !k,12001,0,0,elev12
301 !l,11001,12001 ! Line 12 for VDRAG of Basket Section 4
302 !lsize,all,,,e12d,1,0
303 !k,13001,0,0,elev13
304 !l,12001,13001 ! Line 13 for VDRAG of Side Guide Cover/Corner Stiffener
305 !lsize,all,,,e13d,1,0
306 !k,14001,0,0,elev14
307 !l,13001,14001 ! Line 14 for VDRAG of Basket to Lid Gap
308 !lsize,all,,,e14d,1,0
309 !k,15001,0,0,elev15
310 !l,14001,15001 ! Line 15 for VDRAG of Upper Inner Barrier Lid
311 !lsize,all,,,e15d,1,0
312 !k,16001,0,0,elev16
313 !l,15001,16001 ! Line 16 for VDRAG of Lid to Lid Gap
314 !lsize,all,,,e16d,1,0
315 !k,17001,0,0,elev17
316 !l,16001,17001 ! Line 17 for VDRAG of Upper Outer Barrier Lid
317 !lsize,all,,,e17d,1,0
318 !k,18001,0,0,elev18
319 !l,17001,18001 ! Line 18 for VDRAG of Upper Skirt
320 !lsize,all,,,e18d,1,0
321 /com, create keypoints for contact surface
322 csys,0
323 k,20001,0,-(drpht+0.5),6.3
324 k,20002,obor+0.1,-(drpht+0.5),6.3
325 k,20003,obor+0.1,-(drpht+0.5),-0.5
326 k,20004,0,-(drpht+0.5),-0.5
327 k,20005,0,-drpht,6.3
328 k,20006,obor+0.1,-drpht,6.3
329 k,20007,obor+0.1,-drpht,-0.5
330 k,20008,0,-drpht,-0.5

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331 /com, line set 1 Tube Width for Half Tubes on Symmetry Plane
332 L, 197, 206
333 L, 196, 205
334 L, 195, 201
335 L, 194, 200
336 L, 193, 204
337 L, 192, 203
338 L, 191, 199
339 L, 190, 198
340 L, 189, 202
341 L, 188, 138
342 L, 187, 133
343 !l,1,2
344 L, 68, 13
345 L, 69, 18
346 L, 70, 85
347 L, 71, 80
348 L, 72, 81
349 L, 73, 86
350 L, 74, 87
351 L, 75, 82
352 L, 76, 83
353 L, 77, 88
354 L, 78, 89
355 /com, add lines on second symmetry plane
356 !l,1,68
357 !l,2,13
358 !l,3,18
359 !l,4,19
360 !l,5,14
361 !l,6,15
362 !l,7,20
363 !l,8,21
364 !l,9,16
365 !l,10,17
366 !l,11,22
367 !l,12,23
368 lesize,all,,,htwd,1,0
369 /com, line set 2 Tube Widths
370 L, 211, 218
371 L, 210, 220
372 L, 215, 217
373 L, 214, 216
374 L, 209, 219
375 L, 208, 159
376 L, 213, 155
377 L, 151, 152
378 L, 145, 146
379 L, 139, 140
380 L, 134, 135
381 !l,5,6
382 L, 14, 15
383 L, 19, 20
384 L, 25, 26
385 L, 31, 32
386 L, 98, 35
387 L, 92, 39
388 L, 93, 106
389 L, 99, 102
390 L, 100, 103
391 L, 94, 107
392 L, 95, 104
393 lesize,all,,,twd,1,0
394 /com, line set 3 Tube Widths on End Column
395 L, 162, 163
396 L, 160, 161
397 L, 156, 157
398 L, 153, 154
399 L, 147, 148
400 L, 141, 142

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401	L,	136,	137
402	ll,9,10		
403	L,	16,	17
404	L,	21,	22
405	L,	27,	28
406	L,	33,	34
407	L,	36,	37
408	L,	40,	41
409	L,	42,	43
410	lesize,all,,,twd,1,0		
411	/com, line set 4 Tube Heights		
412	L,	195,	194
413	L,	201,	200
414	L,	205,	204
415	L,	210,	209
416	L,	215,	214
417	L,	217,	216
418	L,	220,	219
419	L,	221,	162
420	L,	191,	190
421	L,	199,	198
422	L,	203,	202
423	L,	208,	145
424	L,	213,	151
425	L,	155,	152
426	L,	159,	146
427	L,	158,	149
428	L,	160,	147
429	L,	156,	153
430	L,	157,	154
431	L,	161,	148
432	L,	187,	68
433	L,	133,	13
434	L,	138,	18
435	L,	139,	19
436	L,	134,	14
437	L,	135,	15
438	L,	140,	20
439	L,	141,	21
440	L,	136,	16
441	L,	137,	17
442	L,	142,	22
443	L,	143,	23
444	L,	71,	72
445	L,	80,	81
446	L,	85,	86
447	L,	25,	92
448	L,	31,	98
449	L,	32,	35
450	L,	26,	39
451	L,	27,	40
452	L,	33,	36
453	L,	34,	37
454	L,	28,	41
455	L,	29,	38
456	L,	75,	76
457	L,	82,	83
458	L,	87,	88
459	L,	93,	94
460	L,	99,	100
461	L,	102,	103
462	L,	106,	107
463	L,	42,	109
464	lesize,all,,,thd,1,0		
465	/com, line set 5 Side Guide Fins		
466	L,	222,	197
467	L,	207,	206
468	L,	212,	211
469	L,	150,	149
470	L,	144,	143

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471 !l,44,12
472 L, 24, 23
473 L, 30, 29
474 L, 96, 95
475 L, 90, 89
476 L, 110, 78
477 lesize,all,,,egfd,1,0
478 /com, line set 6 SS-B Plate Thickness
479 L, 197, 196
480 L, 206, 205
481 L, 211, 210
482 L, 207, 212
483 L, 206, 211
484 L, 205, 210
485 L, 218, 220
486 L, 220, 221
487 L, 193, 192
488 L, 204, 203
489 L, 209, 208
490 L, 204, 209
491 L, 203, 208
492 L, 219, 159
493 L, 162, 160
494 L, 163, 161
495 L, 161, 158
496 L, 219, 162
497 L, 159, 160
498 L, 189, 188
499 L, 202, 138
500 L, 145, 139
501 L, 202, 145
502 L, 138, 139
503 L, 146, 140
504 L, 147, 141
505 L, 146, 147
506 L, 140, 141
507 L, 148, 142
508 L, 149, 143
509 L, 148, 149
510 L, 142, 143
511 L, 150, 144
512 !l,3,4
513 !l,7,8
514 !l,11,12
515 L, 69, 70
516 L, 18, 85
517 L, 19, 25
518 L, 18, 19
519 L, 85, 25
520 L, 20, 26
521 L, 21, 27
522 L, 20, 21
523 L, 26, 27
524 L, 22, 28
525 L, 22, 23
526 L, 28, 29
527 L, 23, 29
528 L, 24, 30
529 L, 73, 74
530 L, 86, 87
531 L, 92, 93
532 L, 86, 92
533 L, 87, 93
534 L, 39, 106
535 L, 40, 42
536 L, 39, 40
537 L, 106, 42
538 L, 38, 41
539 L, 41, 43
540 L, 77, 78

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541	L,	88,	89
542	L,	94,	95
543	L,	88,	94
544	L,	89,	95
545	L,	90,	96
546	L,	109,	107
547	L,	107,	104
548	L,	224,	225
549	L,	230,	231
550	L,	236,	237
551	L,	226,	227
552	L,	227,	228
553	L,	232,	233
554	L,	233,	234
555	L,	238,	239
556	L,	239,	240
557	L,	171,	170
558	L,	170,	169
559	L,	178,	177
560	L,	177,	176
561	L,	185,	184
562	L,	184,	183
563	L,	168,	167
564	L,	175,	174
565	L,	182,	181
566	L,	47,	48
567	L,	54,	55
568	L,	61,	62
569	L,	49,	50
570	L,	50,	51
571	L,	56,	57
572	L,	57,	58
573	L,	63,	64
574	L,	64,	65
575	L,	117,	116
576	L,	116,	115
577	L,	124,	123
578	L,	123,	122
579	L,	131,	130
580	L,	130,	129
581	L,	114,	113
582	L,	121,	120
583	L,	128,	127
584	lesize,all,,,ptd,1,0		
585	/com, line set 7 tube thickness		
586	L,	196,	195
587	L,	205,	201
588	L,	204,	200
589	L,	193,	194
590	L,	210,	215
591	L,	220,	217
592	L,	219,	216
593	L,	209,	214
594	L,	192,	191
595	L,	203,	199
596	L,	202,	198
597	L,	189,	190
598	L,	208,	213
599	L,	159,	155
600	L,	146,	152
601	L,	145,	151
602	L,	160,	156
603	L,	161,	157
604	L,	148,	154
605	L,	147,	153
606	L,	188,	187
607	L,	138,	133
608	!!l,3,2		
609	L,	18,	13
610	L,	69,	68

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611 L,      139,    134
612 L,      140,    135
613 !l,7,6
614 L,      20,     15
615 L,      19,     14
616 L,      141,    136
617 L,      142,    137
618 !l,8,9
619 !l,11,10
620 L,      22,     17
621 L,      21,     16
622 L,      70,     71
623 L,      85,     80
624 L,      86,     81
625 L,      73,     72
626 L,      25,     31
627 L,      26,     32
628 L,      39,     35
629 L,      92,     98
630 L,      27,     33
631 L,      28,     34
632 L,      41,     37
633 L,      40,     36
634 L,      74,     75
635 L,      87,     82
636 L,      88,     83
637 L,      77,     76
638 L,      93,     99
639 L,     106,    102
640 L,     107,    103
641 L,      94,    100
642 lesize,all,,,ttd,1,0
643 csys,13
644 /com, line set 8, arc 1 bottom
645 L,     222,    207
646 L,     223,    224
647 L,     229,    230
648 L,     235,    236
649 lesize,all,,,ald,1,0
650 /com, line set 9, arc 2 side arcs
651 L,     212,    218
652 L,     225,    226
653 L,     231,    232
654 L,     237,    238
655 lesize,all,,,a2d,1,0
656 /com, line set 10, arc 3 side arcs
657 L,     221,    163
658 L,     228,    171
659 L,     234,    178
660 L,     240,    185
661 lesize,all,,,a3d,1,0
662 /com, line set 11, arc 4 side arcs
663 L,     158,    150
664 L,     169,    168
665 L,     176,    175
666 L,     183,    182
667 lesize,all,,,a4d,1,0
668 /com, line set 12, arc 5 side arcs
669 L,     144,     24
670 L,     167,     47
671 L,     174,     54
672 L,     181,     61
673 !l,44,24
674 !l,46,47
675 !l,53,54
676 !l,60,61
677 lesize,all,,,a5d,1,0
678 /com, line set 13, arc 6 side arcs
679 L,      30,     38
680 L,      48,     49

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681 L,      55,      56
682 L,      62,      63
683 lesize,all,,,a6d,1,0
684 /com, line set 14, arc 7 side arcs
685 L,      43,      109
686 L,      51,      117
687 L,      58,      124
688 L,      65,      131
689 lesize,all,,,a7d,1,0
690 /com, line set 15, arc 8 side arcs
691 L,      104,      96
692 L,      115,      114
693 L,      122,      121
694 L,      129,      128
695 lesize,all,,,a8d,1,0
696 /com, line set 16, arc 9 top arcs
697 L,      90,      110
698 L,      113,      112
699 L,      120,      119
700 L,      127,      126
701 lesize,all,,,a9d,1,0
702 csys,12
703 /com, line set 17 18 thickness
704 L,      222,      223
705 L,      207,      224
706 L,      212,      225
707 L,      218,      226
708 L,      220,      227
709 L,      221,      228
710 L,      163,      171
711 L,      161,      170
712 L,      158,      169
713 L,      150,      168
714 L,      144,      167
715 !l,44,46
716 L,      24,      47
717 L,      30,      48
718 L,      38,      49
719 L,      41,      50
720 L,      43,      51
721 L,      109,      117
722 L,      107,      116
723 L,      104,      115
724 L,      96,      114
725 L,      90,      113
726 L,      110,      112
727 lesize,all,,,ibtd,1,0
728 /com, line set 18 08 inner thickness
729 L,      223,      229
730 L,      224,      230
731 L,      225,      231
732 L,      226,      232
733 L,      227,      233
734 L,      228,      234
735 L,      171,      178
736 L,      170,      177
737 L,      169,      176
738 L,      168,      175
739 L,      167,      174
740 !l,46,53
741 L,      47,      54
742 L,      48,      55
743 L,      49,      56
744 L,      50,      57
745 L,      51,      58
746 L,      117,      124
747 L,      116,      123
748 L,      115,      122
749 L,      114,      121
750 L,      113,      120

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751 L,      112,      119
752 lesize,all,,,obitd,1,0
753 /com, line set 19 skirt thickness
754 L,      229,      235
755 L,      230,      236
756 L,      231,      237
757 L,      232,      238
758 L,      233,      239
759 L,      234,      240
760 L,      178,      185
761 L,      177,      184
762 L,      176,      183
763 L,      175,      182
764 L,      174,      181
765 ll,53,60
766 L,      54,      61
767 L,      55,      62
768 L,      56,      63
769 L,      57,      64
770 L,      58,      65
771 L,      124,     131
772 L,      123,     130
773 L,      122,     129
774 L,      121,     128
775 L,      120,     127
776 L,      119,     126
777 lesize,all,,,std,1,0
778 /com, area set 1, tubes (Areas 1 - 47)
779 a,195,196,205,201
780 a,200,201,205,204
781 a,193,194,200,204
782 a,191,192,203,199
783 a,198,199,203,202
784 a,189,190,198,202
785 a,187,188,138,133
786 a,133,138,18,13
787 !a,2,3,18,13
788 a,69,68,13,18
789 a,71,70,85,80
790 a,80,85,86,81
791 a,73,72,81,86
792 a,75,74,87,82
793 a,82,87,88,83
794 a,77,76,83,88
795 a,209,210,215,214
796 a,215,210,220,217
797 a,216,217,220,219
798 a,209,214,216,219
799 a,145,208,213,151
800 a,213,208,159,155
801 a,152,155,159,146
802 a,145,151,152,146
803 a,134,139,140,135
804 a,135,140,20,15
805 !a,6,7,20,15
806 a,19,14,15,20
807 a,19,139,134,14
808 !a,19,4,5,14
809 a,92,25,31,98
810 a,31,25,26,32
811 a,32,26,39,35
812 a,92,98,35,39
813 a,94,93,99,100
814 a,99,93,106,102
815 a,102,106,107,103
816 a,94,100,103,107
817 a,156,160,161,157
818 a,157,161,148,154
819 a,147,153,154,148
820 a,147,160,156,153

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821 a,136,141,142,137
822 a,137,142,22,17
823 !a,10,11,22,17
824 a,21,16,17,22
825 a,21,141,136,16
826 !a,21,8,9,16
827 a,33,27,28,34
828 a,34,28,41,37
829 a,40,36,37,41
830 a,40,27,33,36
831 /com, area set 2, plates (Areas 48-71)
832 a,204,205,210,209
833 a,192,193,204,203
834 a,203,204,209,208
835 a,208,209,219,159
836 a,202,203,208,145
837 a,146,159,160,147
838 a,188,189,202,138
839 a,138,202,145,139
840 a,139,145,146,140
841 a,140,146,147,141
842 a,141,147,148,142
843 a,18,138,139,19
844 !a,18,3,4,19
845 a,20,140,141,21
846 !a,20,7,8,21
847 a,70,69,18,85
848 a,85,18,19,25
849 a,25,19,20,26
850 a,26,20,21,27
851 a,27,21,22,28
852 a,86,85,25,92
853 a,39,26,27,40
854 a,74,73,86,87
855 a,87,86,92,93
856 a,93,92,39,106
857 a,88,87,93,94
858 /com, area set 3, side guides (Areas 72-86)
859 a,196,197,206,205
860 a,205,206,211,210
861 a,206,207,212,211
862 a,210,211,218,220
863 a,148,161,158,149
864 a,142,148,149,143
865 a,143,149,150,144
866 a,22,142,143,23
867 !a,22,11,12,23
868 a,28,22,23,29
869 a,29,23,24,30
870 a,41,28,29,38
871 a,95,94,107,104
872 a,89,88,94,95
873 a,90,89,95,96
874 a,78,77,88,89
875 /com, area set 4, corner guides (Areas 87-92)
876 a,219,220,221,162
877 a,159,219,162,160
878 a,160,162,163,161
879 a,107,106,42,109
880 a,106,39,40,42
881 a,42,40,41,43
882 csys,1
883 /com, area set 5, inner barrier (Areas 93-113)
884 a,222,223,224,207
885 a,207,224,225,212
886 a,212,225,226,218
887 a,218,226,227,220
888 a,220,227,228,221
889 a,221,228,171,163
890 a,163,171,170,161

891 a,161,170,169,158
 892 a,158,169,168,150
 893 a,150,168,167,144
 894 a,144,167,47,24
 895 !a,44,46,47,24
 896 a,24,47,48,30
 897 a,30,48,49,38
 898 a,38,49,50,41
 899 a,41,50,51,43
 900 a,43,51,117,109
 901 a,109,117,116,107
 902 a,107,116,115,104
 903 a,104,115,114,96
 904 a,90,96,114,113
 905 a,90,113,112,110
 906 /com, area set 6, outer barrier (Areas 114-155)
 907 a,223,229,230,224
 908 a,224,230,231,225
 909 a,225,231,232,226
 910 a,226,232,233,227
 911 a,227,233,234,228
 912 a,228,234,178,171
 913 a,171,178,177,170
 914 a,170,177,176,169
 915 a,169,176,175,168
 916 a,168,175,174,167
 917 a,167,174,54,47
 918 !a,46,53,54,47
 919 a,47,54,55,48
 920 a,48,55,56,49
 921 a,49,56,57,50
 922 a,50,57,58,51
 923 a,51,58,124,117
 924 a,117,124,123,116
 925 a,116,123,122,115
 926 a,115,122,121,114
 927 a,114,121,120,113
 928 a,113,120,119,112
 929 a,229,235,236,230
 930 a,236,237,231,230
 931 a,231,237,238,232
 932 a,238,239,233,232
 933 a,239,240,234,233
 934 a,240,185,178,234
 935 a,185,184,177,178
 936 a,184,183,176,177
 937 a,176,183,182,175
 938 a,175,182,181,174
 939 a,174,181,61,54
 940 !a,53,60,61,54
 941 a,54,61,62,55
 942 a,55,62,63,56
 943 a,56,63,64,57
 944 a,57,64,65,58
 945 a,58,65,131,124
 946 a,124,131,130,123
 947 a,123,130,129,122
 948 a,122,129,128,121
 949 a,121,128,127,120
 950 a,120,127,126,119
 951 csys,0
 952 /com, area set 7, Side Guide Covers (Areas 156-162)
 953 a,222,207,206,197
 954 a,211,212,218,218
 955 a,150,149,158,158
 956 a,144,24,23,143
 957 !a,44,24,23,12
 958 a,29,30,38,38
 959 a,96,95,104,104
 960 a,90,110,78,89


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961 /com, area set 8, Corner Stiffeners (Area 163-164)
962 a,162,221,163,163
963 a,42,43,109,109
964 /com, area set 9, Remaining Lid Sections (Areas 165-177)
965 a,195,201,200,194
966 a,215,217,216,214
967 a,191,199,198,190
968 a,213,155,152,151
969 a,156,157,154,153
970 a,187,133,13,68
971 !a,1,2,13,68
972 a,134,135,15,14
973 !a,5,6,15,14
974 a,136,137,17,16
975 !a,9,10,17,16
976 a,71,80,81,72
977 a,31,32,35,98
978 a,33,34,37,36
979 a,75,82,83,76
980 a,99,102,103,100
981 csys,13
982 asel,s,area,,135,155 ! Select Skirt Areas
983 vdrag,all,,,,,1 ! Drag Lower Skirt
984 asel,s,area,,1,177 ! Select All Areas
985 agen,2,all,,,,elev1 ! Copy Areas to elev1 from elev0
986 asel,r,loc,z,elev1
987 vdrag,all,,,,,2 ! Drag Lower Outer Barrier Lid
988 asel,s,loc,z,elev2
989 vdrag,all,,,,,3 ! Drag Lower Inner Barrier Lid
990 asel,s,area,,1,155 ! Select Areas Except for Lids, Covers, and Stiffeners
991 agen,2,all,,,,elev3 ! Copy Areas to elev3 from elev0
992 asel,r,loc,z,elev3
993 vdrag,all,,,,,4 ! Drag Tube
994 asel,s,area,,93,155 ! Select Inner and Outer Barrier Areas
995 agen,2,all,,,,elev4 ! Copy Areas to elev4 from elev0
996 asel,r,loc,z,1.0049*elev4
997 vdrag,all,,,,,5 ! Drag Tube Flare/Basket to Lid Gap
998 asel,s,area,,1,177 ! Select All Areas
999 agen,2,all,,,,elev5 ! Copy Areas to elev5 from elev0
1000 asel,r,loc,z,1.0049*elev5
1001 vdrag,all,,,,,6 ! Drag Inner Barrier Top Lid
1002 asel,s,area,,114,155 ! Select Outer Barrier Areas
1003 agen,2,all,,,,elev6 ! Copy Areas to elev6 from elev0
1004 asel,r,loc,z,1.0049*elev6
1005 vdrag,all,,,,,7 ! Drag Lid to Lid Gap
1006 asel,s,area,,1,177 ! Select All Areas
1007 agen,2,all,,,,elev7 ! Copy Areas to elev7 from elev0
1008 asel,r,loc,z,1.0049*elev7
1009 vdrag,all,,,,,8 ! Drag Outer Barrier Top Lid
1010 asel,s,area,,135,155 ! Select Skirt Areas
1011 agen,2,all,,,,elev8 ! Copy Areas to elev8 from elev0
1012 asel,r,loc,z,1.0049*elev8
1013 vdrag,all,,,,,9 ! Drag Upper Skirt
1014 !asel,s,area,,1,47 ! Select Tube Areas
1015 !asel,a,area,,93,155 ! Also Select Inner and Outer Barriers
1016 !agen,2,all,,,,elev3 ! Copy Areas to elev3 from elev0
1017 !asel,r,loc,z,elev3
1018 !vdrag,all,,,,,4 ! Drag Lower Tube End
1019 !asel,s,area,,48,92 ! Select Plate, Side Guide, and Corner Guide Areas
1020 !asel,a,area,,156,164 ! Also Select Side Covers and Corner Stiffeners
1021 !agen,2,all,,,,elev4 ! Copy Areas to elev4 from elev0
1022 !asel,s,loc,z,elev4
1023 !vdrag,all,,,,,5 ! Drag Guides and Corner Stiffeners
1024 !asel,s,area,,1,155 ! Select Areas Except for Lids, Covers, and Stiffeners
1025 !agen,2,all,,,,elev5 ! Copy Areas to elev5 from elev0
1026 !asel,r,loc,z,elev5
1027 !vdrag,all,,,,,6 ! Drag Basket Section 1
1028 !asel,s,area,,163,164 ! Select Corner Stiffeners
1029 !agen,2,all,,,,elev6 ! Copy Area to elev6 from elev0
1030 !asel,s,loc,z,1.0049*elev6

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1031 !vdrag,all,,,,,7      ! Drag Corner Stiffener
1032 !asel,s,area,,1,155    ! Select Areas Except for Lids, Covers, and Stiffeners
1033 !agen,2,all,,,,,elev7  ! Copy Areas to elev7 from elev0
1034 !asel,r,loc,z,1.0049*elev7
1035 !vdrag,all,,,,,8      ! Drag Basket Section 2
1036 !asel,s,area,,163,164  ! Select Corner Stiffeners
1037 !agen,2,all,,,,,elev8  ! Copy Area to elev8 from elev0
1038 !asel,s,loc,z,1.0049*elev8
1039 !vdrag,all,,,,,9      ! Drag Corner Stiffener
1040 !asel,s,area,,1,155    ! Select Areas Except for Lids, Covers, and Stiffeners
1041 !agen,2,all,,,,,elev9  ! Copy Areas to elev9 from elev0
1042 !asel,r,loc,z,1.0049*elev9
1043 !vdrag,all,,,,,10     ! Drag Basket Section 3
1044 !asel,s,area,,163,164  ! Select Corner Stiffener
1045 !agen,2,all,,,,,elev10 ! Copy Area to elev10 from elev0
1046 !asel,s,loc,z,1.0049*elev10
1047 !vdrag,all,,,,,11     ! Drag Corner Stiffener
1048 !asel,s,area,,1,155    ! Select Areas Except for Lids, Covers, and Stiffeners
1049 !agen,2,all,,,,,elev11 ! Copy Areas to elev11 from elev0
1050 !asel,r,loc,z,1.0049*elev11
1051 !vdrag,all,,,,,12     ! Drag Basket Section 4
1052 !asel,s,area,,156,164  ! Select Side Cover and Corner Stiffener
1053 !agen,2,all,,,,,elev12 ! Copy Areas to elev12 from elev0
1054 !asel,s,loc,z,1.0049*elev12
1055 !vdrag,all,,,,,13     ! Drag Side Guide Cover and Corner Stiffener
1056 !asel,s,area,,1,47     ! Select Tube Areas
1057 !asel,a,area,,93,155   ! Also Select Inner and Outer Barrier Areas
1058 !agen,2,all,,,,,elev13 ! Copy Areas to elev13 from elev0
1059 !asel,r,loc,z,1.0049*elev13
1060 !vdrag,all,,,,,14     ! Drag Tube Flare/Basket to Lid Gap
1061 !asel,s,area,,1,177    ! Select All Areas
1062 !agen,2,all,,,,,elev14 ! Copy Areas to elev14 from elev0
1063 !asel,r,loc,z,1.0049*elev14
1064 !vdrag,all,,,,,15     ! Drag Upper Inner Barrier Lid
1065 !asel,s,area,,114,155  ! Select Outer Barrier Areas
1066 !agen,2,all,,,,,elev15 ! Copy Areas to elev15 from elev0
1067 !asel,r,loc,z,1.0049*elev15
1068 !vdrag,all,,,,,16     ! Drag Lid to Lid Gap
1069 !asel,s,area,,1,177    ! Select All Areas
1070 !agen,2,all,,,,,elev16 ! Copy Areas to elev16 from elev0
1071 !asel,r,loc,z,1.0049*elev16
1072 !vdrag,all,,,,,17     ! Drag Upper Outer Barrier Lid
1073 !asel,s,area,,135,155  ! Select Skirt Areas
1074 !agen,2,all,,,,,elev17 ! Copy Areas to elev17 from elev0
1075 !asel,r,loc,z,1.0049*elev17
1076 !vdrag,all,,,,,18     ! Drag Upper Skirt
1077 allsel
1078 nummrg,kp
1079 csys,0
1080 /com
1081 /com, Mesh Volumes
1082 /com
1083 /com, Mesh the CS Tubes
1084 /com
1085 !vsel,s,volu,,376,422,1 ! Tubes, Level 3-4
1086 !vsel,s,volu,,204,229,1 ! Tubes, Level 3-4
1087 !vsel,s,volu,,263,288,1 ! Tubes, Level 4-5
1088 !vsel,a,volu,,351,376,1 ! Tubes, Level 5-6
1089 !vsel,a,volu,,434,459,1 ! Tubes, Level 6-7
1090 !vsel,a,volu,,518,543,1 ! Tubes, Level 7-8
1091 !vsel,a,volu,,601,626,1 ! Tubes, Level 8-9
1092 !vsel,a,volu,,685,710,1 ! Tubes, Level 9-10
1093 !vsel,a,volu,,768,793,1 ! Tubes, Level 10-11
1094 !vsel,a,volu,,852,877,1 ! Tubes, Level 11-12
1095 !vsel,a,volu,,935,960,1 ! Tubes, Level 12-13
1096 !vsel,a,volu,,1023,1048,1 ! Tubes, Level 13-14
1097 type,1
1098 mat,1
1099 vmesh,all
1100 /com, Mesh SS-B Plates

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```

1101 vset,s,volu,,423,446,1 ! SS-B Plates, Level 3-4
1102 !vset,s,volu,,322,334,1 ! SS-B Plates, Level 4-5
1103 !vset,a,volu,,377,389,1 ! SS-B Plates, Level 5-6
1104 !vset,a,volu,,460,472,1 ! SS-B Plates, Level 6-7
1105 !vset,a,volu,,544,556,1 ! SS-B Plates, Level 7-8
1106 !vset,a,volu,,627,639,1 ! SS-B Plates, Level 8-9
1107 !vset,a,volu,,711,723,1 ! SS-B Plates, Level 9-10
1108 !vset,a,volu,,794,806,1 ! SS-B Plates, Level 10-11
1109 !vset,a,volu,,878,890,1 ! SS-B Plates, Level 11-12
1110 !vset,a,volu,,961,973,1 ! SS-B Plates, Level 12-13
1111 type,2
1112 mat,2
1113 vmesh,all
1114 /com, Mesh Side Guides
1115 vset,s,volu,,447,461,1 ! Side Guides, Level 3-4
1116 !vset,s,volu,,335,342,1 ! Side Guides, Level 4-5
1117 !vset,a,volu,,390,397,1 ! Side Guides, Level 5-6
1118 !vset,a,volu,,473,480,1 ! Side Guides, Level 6-7
1119 !vset,a,volu,,557,564,1 ! Side Guides, Level 7-8
1120 !vset,a,volu,,640,647,1 ! Side Guides, Level 8-9
1121 !vset,a,volu,,724,731,1 ! Side Guides, Level 9-10
1122 !vset,a,volu,,807,814,1 ! Side Guides, Level 10-11
1123 !vset,a,volu,,891,898,1 ! Side Guides, Level 11-12
1124 !vset,a,volu,,974,981,1 ! Side Guides, Level 12-13
1125 !vset,a,volu,,346,349,1 ! Side Guide Covers, Level 4-5
1126 !vset,a,volu,,1018,1021 ! Side Guide Covers, Level 12-13
1127 type,3
1128 mat,3
1129 vmesh,all
1130 /com, Mesh Corner Guides
1131 vset,s,volu,,462,467,1 ! Corner Guides, Level 3-4
1132 !vset,s,volu,,343,345,1 ! Corner Guide, Level 4-5
1133 !vset,a,volu,,350 ! Corner Guide Stiffener, Level 4-5
1134 !vset,a,volu,,398,400,1 ! Corner Guide, Level 5-6
1135 !vset,a,volu,,481,483,1 ! Corner Guide, Level 6-7
1136 !vset,a,volu,,517 ! Corner Stiffener, Level 6-7
1137 !vset,a,volu,,565,567,1 ! Corner Guide, Level 7-8
1138 !vset,a,volu,,648,650,1 ! Corner Guide, Level 8-9
1139 !vset,a,volu,,684 ! Corner Stiffener, Level 8-9
1140 !vset,a,volu,,732,734,1 ! Corner Guide, Level 9-10
1141 !vset,a,volu,,815,817,1 ! Corner Guide, Level 10-11
1142 !vset,a,volu,,851 ! Corner Stiffener, Level 10-11
1143 !vset,a,volu,,899,901,1 ! Corner Guide, Level 11-12
1144 !vset,a,volu,,982,984,1 ! Corner Guide, Level 12-13
1145 !vset,a,volu,,1022 ! Corner Guide Stiffener, Level 12-13
1146 type,4
1147 mat,4
1148 vmesh,all
1149 /com, Mesh Inner Barrier and Lids
1150 vset,s,volu,,199,311,1 ! Inner Barrier, Level 2-3
1151 vset,a,volu,,354,375,1 ! Inner Barrier, Level 2-3
1152 vset,a,volu,,468,488,1 ! Inner Barrier, Level 3-4
1153 vset,a,volu,,531,551,1 ! Inner Barrier, Level 4-5
1154 vset,a,volu,,594,706,1 ! Inner Barrier, Level 5-6
1155 vset,a,volu,,749,770,1 ! Inner Barrier, Level 5-6
1156 !vset,s,volu,,108,168,1 ! Inner Barrier, Level 2-3
1157 !vset,a,volu,,191,203,1 ! Inner Barrier, Level 2-3
1158 !vset,a,volu,,230,240,1 ! Inner Barrier, Level 3-4
1159 !vset,a,volu,,289,299,1 ! Inner Barrier, Level 4-5
1160 !vset,a,volu,,401,411,1 ! Inner Barrier, Level 5-6
1161 !vset,a,volu,,484,494,1 ! Inner Barrier, Level 6-7
1162 !vset,a,volu,,568,578,1 ! Inner Barrier, Level 7-8
1163 !vset,a,volu,,651,661,1 ! Inner Barrier, Level 8-9
1164 !vset,a,volu,,735,745,1 ! Inner Barrier, Level 9-10
1165 !vset,a,volu,,818,828,1 ! Inner Barrier, Level 10-11
1166 !vset,a,volu,,902,912,1 ! Inner Barrier, Level 11-12
1167 !vset,a,volu,,985,995,1 ! Inner Barrier, Level 12-13
1168 !vset,a,volu,,1049,1059,1 ! Inner Barrier, Level 13-14
1169 !vset,a,volu,,1082,1142,1 ! Inner Barrier, Level 14-15
1170 !vset,a,volu,,1165,1177,1 ! Inner Barrier, Level 14-15

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1171 type,5
1172 mat,5
1173 vmesh,all
1174 /com, Mesh Outer Barrier and Lids
1175 vsel,s,volu,,1,198,1 ! Outer Barrier, Levels 0-1, 1-2
1176 vsel,a,volu,,312,353,1 ! Outer Barrier, Level 2-3
1177 vsel,a,volu,,489,530,1 ! Outer Barrier, Level 3-4
1178 vsel,a,volu,,552,593,1 ! Outer Barrier, Level 4-5
1179 vsel,a,volu,,707,748,1 ! Outer Barrier, Level 5-6
1180 vsel,a,volu,,771,1010,1 ! Outer Barrier, Level 6-7, 7-8, 8-9
1181 !vsel,s,volu,,1,107,1 ! Outer Barrier, Levels 0-1, 1-2, and 2-3
1182 !vsel,a,volu,,169,190,1 ! Outer Barrier, Level 2-3
1183 !vsel,a,volu,,241,262,1 ! Outer Barrier, Level 3-4
1184 !vsel,a,volu,,300,321,1 ! Outer Barrier, Level 4-5
1185 !vsel,a,volu,,412,433,1 ! Outer Barrier, Level 5-6
1186 !vsel,a,volu,,495,516,1 ! Outer Barrier, Level 6-7
1187 !vsel,a,volu,,579,600,1 ! Outer Barrier, Level 7-8
1188 !vsel,a,volu,,662,683,1 ! Outer Barrier, Level 8-9
1189 !vsel,a,volu,,746,767,1 ! Outer Barrier, Level 9-10
1190 !vsel,a,volu,,829,850,1 ! Outer Barrier, Level 10-11
1191 !vsel,a,volu,,913,934,1 ! Outer Barrier, Level 11-12
1192 !vsel,a,volu,,996,1017,1 ! Outer Barrier, Level 12-13
1193 !vsel,a,volu,,1060,1081,1 ! Outer Barrier, Level 13-14
1194 !vsel,a,volu,,1143,1164,1 ! Outer Barrier, Level 14-15
1195 !vsel,a,volu,,1178,1306,1 ! Outer Barrier, Levels 15-16, 16-17, and 17-18
1196 type,6
1197 mat,6
1198 vmesh,all
1199 alls
1200 /com, Create Contact Surface
1201 l,20001,20002
1202 l,20004,20003
1203 l,20005,20006
1204 l,20008,20007
1205 lsize,all,,,csld,1,0
1206 l,20001,20004
1207 l,20002,20003
1208 l,20005,20008
1209 l,20006,20007
1210 lsize,all,,,cswd,1,0
1211 l,20001,20005
1212 l,20002,20006
1213 l,20003,20007
1214 l,20004,20008
1215 lsize,all,,,cshd,1,0
1216 vsel,none
1217 v,20001,20002,20003,20004,20005,20006,20007,20008
1218 type,7
1219 mat,7
1220 vmesh,all
1221 vsel,all
1222 /com, Contact Elements Generation
1223 type,8
1224 real,8
1225 mat,8
1226 csys,13
1227 nsel,s,loc,x,obor-.0001,obor+.0001
1228 nsel,r,loc,y,-90,-73
1229 cm,surfa,node
1230 csys,0
1231 nsel,s,loc,y,-drpht-0.0001,-drpht+0.0001
1232 nsel,r,loc,x,-.001,.3
1233 nsel,r,loc,z,-2,6.4
1234 nsel,u,,,6212
1235 cm,surfb,node
1236 nsel,all
1237 gcgen,surfa,surfb
1238 allsel
1239 /com
1240 /com, Apply Symmetry Constraints

```

```

1241 csys,0
1242 nrotat,all
1243 nsel,s,loc,x,0
1244 dsym,symm,x,0
1245 /com, Apply Constraint to Bottom of Unyielding Surface
1246 nsel,s,loc,y,-(drpht+0.51),-(drpht+0.49)
1247 d,all,uy,0,,,,uz
1248 /com, Constrain translational dof at the point of contact
1249 nsel,s,,,6212
1250 d,all,uy,0,,,,uz
1251 alls
1252 wsort,all,0
1253 save
1254 fini
1255 /SOLU
1256 ANTYPE,TRANS
1257 NLGEOM,ON
1258 TRNOPT,FULL
1259 NEQIT,50
1260 ACEL,,9.81
1261 KBC,1
1262 TIME,1e-3
1263 NSUBST,3
1264 OUTRES,ALL,1
1265 SOLVE
1266 TIMINT,ON
1267 TIME,1.5
1268 NSUBST,10
1269 OUTRES,ALL,1
1270 SOLVE
1271 TIMINT,ON
1272 AUTOTS,ON
1273 TIME,1.53
1274 NSUBST,10,100,5,ON
1275 OUTRES,ALL,1
1276 SOLVE
1277 save
1278 fini
1279 /exit,nosave

```

RUN SETUP PROCEDURE FROM FILE= /ansys51/docu/start.ans

/INPUT FILE= /ansys51/docu/start.ans LINE= 0

ABBREVIATION= REPLOT /REPLOT

PARAMETER PI = 3.141593

ANSYS STARTUP FILE start.ans

```

ABBREVIATION= VEC      /show,,1,
ABBREVIATION= RAS      /show,,0,
ABBREVIATION= INP      /input,,inp,
ABBREVIATION= ESC      /exit,nosav,
ABBREVIATION= K1        /pnum,kp ,1,
ABBREVIATION= K0        /pnum,kp ,0,
ABBREVIATION= L1        /pnum,line,1,
ABBREVIATION= L0        /pnum,line,0,
ABBREVIATION= A1        /pnum,area,1,
ABBREVIATION= A0        /pnum,area,0,

```

ABBREVIATION= V1 /pnum,volu,1,
 ABBREVIATION= V0 /pnum,volu,0,
 ABBREVIATION= N1 /pnum,node,1,
 ABBREVIATION= N0 /pnum,node,0,
 ABBREVIATION= E1 /pnum,elem,1,
 ABBREVIATION= E0 /pnum,elem,0,
 ABBREVIATION= M1 /pnum,mat ,1,
 ABBREVIATION= M0 /pnum,mat ,0,
 ABBREVIATION= R1 /pnum,real,1,
 ABBREVIATION= R0 /pnum,real,0,
 ABBREVIATION= T1 /pnum,type,1,
 ABBREVIATION= T0 /pnum,type,0,
 ABBREVIATION= C1 /number,1,
 ABBREVIATION= C0 /number,0,
 ABBREVIATION= PR1 /psf,pres,norm,1,
 ABBREVIATION= PR0 /psf,pres,norm,0,
 ABBREVIATION= U1 /pbc,u,1,
 ABBREVIATION= U0 /pbc,u,0,
 ABBREVIATION= X3D /show,3d,
 ABBREVIATION= X11 /show,x11,
 ABBREVIATION= X11C /show,x11c,
 ABBREVIATION= ON /menu,on,
 XYZ TRIAD DISPLAY SET TO OFF

VIEW CONE ANGLE FOR WINDOW 1 25.00

 END start.ans

To start ANSYS menu:

type: x3d for console
 x11 for X-term color
 x11c for X-term color contour

type: on

 ***** 21 PWR UCF Waste Package *****

ASSIGN FILE TRI TO /users/zekai/toverc22.tri

*** NOTE *** CP= 0.490 TIME= 16:33:13
 File= /users/zekai/toverc22.tri does not exist and will be created.

NUMBER OF DATA BASE PAGES IN MEMORY (NVPAGE)= 512

SI UNITS SPECIFIED FOR INTERNAL

LENGTH (L) = METER(M)
 MASS (M) = KILOGRAM(KG)
 TIME (t) = SECOND(SEC)
 TEMPERATURE (T) = KELVIN(K)
 TOFFSET = 0.0 KELVIN
 CHARGE (Q) = COULOMB
 CURRENT (i) = AMPERE (COULOMBS/SEC)
 FORCE (f) = NEWTON(N) (KG-M/SEC2)
 PRESSURE = PASCAL (NEWTON/M**2)
 ENERGY (W) = JOULE (N-M)
 POWER (P) = WATT (N-M/SEC)
 CAPACITANCE (C) = FARAD
 INDUCTANCE (L) = HENRY
 MAGNETIC FLUX = WEBER
 RESISTANCE (R) = OHM
 ELECTRIC POTENTIAL = VOLT

INPUT UNITS ARE ALSO SET TO SI

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 16:33:13 JAN 02, 1998 CP= 0.500
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

***** ANSYS ANALYSIS DEFINITION (PREP7) *****

TITLE=

21 PWR UCF WP Tipover Analysis

VIEW CONE ANGLE FOR WINDOW 1 0.00

Define Parameters

PARAMETER IBIR = 0.7117000
 PARAMETER OBIR = 0.7317000
 PARAMETER OBSR = 0.7717000
 PARAMETER OBOR = 0.8317000
 PARAMETER TS1 = 0.7000000E-02
 PARAMETER TS2 = 0.5000000E-02
 PARAMETER TS3 = 0.1000000E-01
 PARAMETER TS4 = 0.1000000E-01
 PARAMETER EGIH = 0.8200000E-01
 PARAMETER PIE = 3.141593
 PARAMETER ANG1 = 0.5235988
 PARAMETER ANG2 = 1.396263
 PARAMETER ANG3 = 1.029744
 PARAMETER TW = 0.2260000
 PARAMETER POS1 = 0.1130000
 PARAMETER POS2 = 0.1180000

PARAMETER POS3	=	0.1250000
PARAMETER POS4	=	0.1300000
PARAMETER POS5	=	0.3560000
PARAMETER POS6	=	0.3610000
PARAMETER POS7	=	0.3680000
PARAMETER POS8	=	0.3730000
PARAMETER POS9	=	0.5990000
PARAMETER POS10	=	0.6040000
PARAMETER POS11	=	0.6140000
PARAMETER POSG	=	0.3710000
PARAMETER POSEI	=	0.6960000
PARAMETER POSEO	=	0.6942367
PARAMETER POSEN	=	0.1165000
PARAMETER POSEF	=	0.1265000
PARAMETER POSEG	=	0.3436795
PARAMETER POSCG	=	0.5979914
Parameters from Geometry		
PARAMETER STHT	=	0.2250000
PARAMETER OBLT	=	0.1100000
PARAMETER IBLT	=	0.2500000E-01
PARAMETER THT	=	4.575000
PARAMETER BGH	=	0.1000000E-01
PARAMETER LTLGH	=	0.3000000E-01
New Parameters		
PARAMETER ELEV0	=	0.0000000E+00
PARAMETER ELEV1	=	0.2250000
PARAMETER ELEV2	=	0.3350000
PARAMETER ELEV3	=	0.3600000
PARAMETER ELEV4	=	4.935000
PARAMETER ELEV5	=	4.945000
PARAMETER ELEV6	=	4.970000
PARAMETER ELEV7	=	5.000000
PARAMETER ELEV8	=	5.110000
PARAMETER ELEV9	=	5.335000
Calculation of Rotation Angle		
PARAMETER ANG4	=	30.00000

PARAMETER ANG4R = 0.5235988

PARAMETER DRPHT = 0.4158500
Line Divisions

PARAMETER HTWD = 4.000000

PARAMETER TWD = 4.000000

PARAMETER THD = 4.000000

PARAMETER EGFD = 4.000000

PARAMETER PTD = 1.000000

PARAMETER TTD = 1.000000

PARAMETER A1D = 4.000000

PARAMETER A2D = 4.000000

PARAMETER A3D = 4.000000

PARAMETER A4D = 4.000000

PARAMETER A5D = 4.000000

PARAMETER A6D = 4.000000

PARAMETER A7D = 4.000000

PARAMETER A8D = 4.000000

PARAMETER A9D = 4.000000

PARAMETER IBTD = 2.000000

PARAMETER OBITD = 1.000000

PARAMETER STD = 2.000000
New Elevation Line Divisions

PARAMETER E1D = 2.000000

PARAMETER E2D = 1.000000

PARAMETER E3D = 1.000000

PARAMETER E4D = 5.000000

PARAMETER E5D = 1.000000

PARAMETER E6D = 1.000000

PARAMETER E7D = 1.000000

PARAMETER E8D = 3.000000

PARAMETER E9D = 4.000000

PARAMETER CSLD = 4.000000

PARAMETER CSWD = 8.000000

PARAMETER CSHD = 3.000000
Define Element Properties

ELEMENT TYPE 1 IS SOLID45 3-D STRUCTURAL SOLID
KEYOPT(1-12)= 0 0 0 0 0 0 0 0 0 0 0 0

CURRENT NODAL DOF SET IS UX UY UZ
THREE-DIMENSIONAL MODEL

ELEMENT TYPE 2 IS SOLID45 3-D STRUCTURAL SOLID
KEYOPT(1-12)= 0 0 0 0 0 0 0 0 0 0 0 0

CURRENT NODAL DOF SET IS UX UY UZ
THREE-DIMENSIONAL MODEL

ELEMENT TYPE 3 IS SOLID45 3-D STRUCTURAL SOLID
KEYOPT(1-12)= 0 0 0 0 0 0 0 0 0 0 0 0

CURRENT NODAL DOF SET IS UX UY UZ
THREE-DIMENSIONAL MODEL

ELEMENT TYPE 4 IS SOLID45 3-D STRUCTURAL SOLID
KEYOPT(1-12)= 0 0 0 0 0 0 0 0 0 0 0 0

CURRENT NODAL DOF SET IS UX UY UZ
THREE-DIMENSIONAL MODEL

ELEMENT TYPE 5 IS SOLID45 3-D STRUCTURAL SOLID
KEYOPT(1-12)= 0 0 0 0 0 0 0 0 0 0 0 0

CURRENT NODAL DOF SET IS UX UY UZ
THREE-DIMENSIONAL MODEL

ELEMENT TYPE 6 IS SOLID45 3-D STRUCTURAL SOLID
KEYOPT(1-12)= 0 0 0 0 0 0 0 0 0 0 0 0

CURRENT NODAL DOF SET IS UX UY UZ
THREE-DIMENSIONAL MODEL

ELEMENT TYPE 7 IS SOLID45 3-D STRUCTURAL SOLID
KEYOPT(1-12)= 0 0 0 0 0 0 0 0 0 0 0 0

CURRENT NODAL DOF SET IS UX UY UZ
THREE-DIMENSIONAL MODEL

ELEMENT TYPE 8 IS CONTAC49 3D GENERAL CONTACT ELEMENT
KEYOPT(1-12)= 0 0 1 0 0 0 0 0 0 0 0 0
INOPR = 1

CURRENT NODAL DOF SET IS UX UY UZ
THREE-DIMENSIONAL MODEL

REAL CONSTANT SET 8 ITEMS 1 TO 6
0.20000E+09 0.00000E+00 0.00000E+00 1.5000 70.000 0.00000E+00
ratio of static to dynamic coeff. of friction fact=1.5, Area Tol.=70%
Room Temperature Properties of Materials

MATERIAL 1 EX = 0.1970000E+12

MATERIAL 2 EX = 0.2000000E+12

MATERIAL 3 EX = 0.1970000E+12

MATERIAL 4 EX = 0.1970000E+12

MATERIAL 5 EX = 0.2030000E+12

MATERIAL 6 EX = 0.1970000E+12

MATERIAL 7 EX = 0.1000000E+14

MATERIAL 1 NUXY = 0.3000000

MATERIAL 2 NUXY = 0.3000000

MATERIAL 3 NUXY = 0.3000000

MATERIAL 4 NUXY = 0.3000000

MATERIAL 5 NUXY = 0.2800000

MATERIAL 6 NUXY = 0.3000000

MATERIAL 7 NUXY = 0.1700000

All densities given below are adjusted for actual masses

MATERIAL 1 DENS = 40050.70

MATERIAL 2 DENS = 8892.960

MATERIAL 3 DENS = 7661.600

MATERIAL 4 DENS = 8352.400

MATERIAL 5 DENS = 8691.000

MATERIAL 6 DENS = 7857.850

MATERIAL 7 DENS = 2300.000

MATERIAL 8 MU = 0.4000000

DEFINE DATA TABLE BISO FOR MATERIAL 1
WITH A MAXIMUM OF 6 TEMPERATURE SPECIFICATIONS

DATA FOR BISO TABLE FOR MATERIAL 1 AT TEMPERATURE= 0.00000E+00
LOC= 1 0.23900E+09 0.11690E+10

DEFINE DATA TABLE BISO FOR MATERIAL 2
WITH A MAXIMUM OF 6 TEMPERATURE SPECIFICATIONS

DATA FOR BISO TABLE FOR MATERIAL 2 AT TEMPERATURE= 0.00000E+00
LOC= 1 0.25000E+09 0.51060E+10

DEFINE DATA TABLE BISO FOR MATERIAL 3
WITH A MAXIMUM OF 6 TEMPERATURE SPECIFICATIONS

DATA FOR BISO TABLE FOR MATERIAL 3 AT TEMPERATURE= 0.00000E+00
LOC= 1 0.23900E+09 0.11690E+10

DEFINE DATA TABLE BISO FOR MATERIAL 4
WITH A MAXIMUM OF 6 TEMPERATURE SPECIFICATIONS

DATA FOR BISO TABLE FOR MATERIAL 4 AT TEMPERATURE= 0.00000E+00
LOC= 1 0.23900E+09 0.11690E+10

DEFINE DATA TABLE BISO FOR MATERIAL 5
WITH A MAXIMUM OF 6 TEMPERATURE SPECIFICATIONS

DATA FOR BISO TABLE FOR MATERIAL 5 AT TEMPERATURE= 0.00000E+00
LOC= 1 0.31000E+09 0.84700E+09

DEFINE DATA TABLE BISO FOR MATERIAL 6
WITH A MAXIMUM OF 6 TEMPERATURE SPECIFICATIONS

DATA FOR BISO TABLE FOR MATERIAL 6 AT TEMPERATURE= 0.00000E+00
LOC= 1 0.23900E+09 0.11690E+10

Define keypoints in the basket assembly

COORDINATE SYSTEM 12 DEFINITION. TYPE= 0 (CARTESIAN)
XC,YC,ZC= 0.00000E+00 0.00000E+00 0.00000E+00
ANGLES= 0.00 -60.00 0.00 PARAMETERS= 1.000 1.000
ORIENTATION= 1.00 0.00 0.00 0.00 0.50 -0.87 0.00 0.87 0.50

ACTIVE COORDINATE SYSTEM SET TO 12 (CARTESIAN)

KEYPOINT	1	X,Y,Z=	0.000000E+00	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.000000E+00	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	2	X,Y,Z=	0.113000	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.113000	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	3	X,Y,Z=	0.118000	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.118000	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	4	X,Y,Z=	0.125000	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.125000	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	5	X,Y,Z=	0.130000	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.130000	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	6	X,Y,Z=	0.356000	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.356000	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	7	X,Y,Z=	0.361000	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.361000	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	8	X,Y,Z=	0.368000	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.368000	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	9	X,Y,Z=	0.373000	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.373000	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	10	X,Y,Z=	0.599000	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.599000	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	11	X,Y,Z=	0.604000	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.604000	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	12	X,Y,Z=	0.614000	0.000000E+00	0.000000E+00	IN CSYS= 12
			0.614000	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	13	X,Y,Z=	0.113000	0.113000	0.000000E+00	IN CSYS= 12
			0.113000	0.565000E-01	-0.978609E-01	IN CSYS= 0
KEYPOINT	14	X,Y,Z=	0.130000	0.113000	0.000000E+00	IN CSYS= 12
			0.130000	0.565000E-01	-0.978609E-01	IN CSYS= 0
KEYPOINT	15	X,Y,Z=	0.356000	0.113000	0.000000E+00	IN CSYS= 12
			0.356000	0.565000E-01	-0.978609E-01	IN CSYS= 0
KEYPOINT	16	X,Y,Z=	0.373000	0.113000	0.000000E+00	IN CSYS= 12
			0.373000	0.565000E-01	-0.978609E-01	IN CSYS= 0
KEYPOINT	17	X,Y,Z=	0.599000	0.113000	0.000000E+00	IN CSYS= 12
			0.599000	0.565000E-01	-0.978609E-01	IN CSYS= 0
KEYPOINT	18	X,Y,Z=	0.118000	0.118000	0.000000E+00	IN CSYS= 12

```

0.118000 0.590000E-01 -0.102191 IN CSYS= 0
KEYPOINT 19 X,Y,Z= 0.125000 0.118000 0.000000E+00 IN CSYS= 12
0.125000 0.590000E-01 -0.102191 IN CSYS= 0
KEYPOINT 20 X,Y,Z= 0.361000 0.118000 0.000000E+00 IN CSYS= 12
0.361000 0.590000E-01 -0.102191 IN CSYS= 0
KEYPOINT 21 X,Y,Z= 0.368000 0.118000 0.000000E+00 IN CSYS= 12
0.368000 0.590000E-01 -0.102191 IN CSYS= 0
KEYPOINT 22 X,Y,Z= 0.604000 0.118000 0.000000E+00 IN CSYS= 12
0.604000 0.590000E-01 -0.102191 IN CSYS= 0
KEYPOINT 23 X,Y,Z= 0.614000 0.116500 0.000000E+00 IN CSYS= 12
0.614000 0.582500E-01 -0.100892 IN CSYS= 0

```

ACTIVE COORDINATE SYSTEM SET TO 0 (CARTESIAN)

COORDINATE SYSTEM 13 DEFINITION. TYPE= 1 (CYLINDRICAL)
 XC,YC,ZC= 0.00000E+00 0.00000E+00 0.00000E+00
 ANGLES= 0.00 -60.00 0.00 PARAMETERS= 1.000 1.000
 ORIENTATION= 1.00 0.00 0.00 0.00 0.50 -0.87 0.00 0.87 0.50

ACTIVE COORDINATE SYSTEM SET TO 13 (CYLINDRICAL)

```

KEYPOINT 24 X,Y,Z= 0.711700 9.50237 0.000000E+00 IN CSYS= 13
0.701935 0.587467E-01 -0.101752 IN CSYS= 0

```

ACTIVE COORDINATE SYSTEM SET TO 12 (CARTESIAN)

```

KEYPOINT 25 X,Y,Z= 0.125000 0.125000 0.000000E+00 IN CSYS= 12
0.125000 0.625000E-01 -0.108253 IN CSYS= 0
KEYPOINT 26 X,Y,Z= 0.361000 0.125000 0.000000E+00 IN CSYS= 12
0.361000 0.625000E-01 -0.108253 IN CSYS= 0
KEYPOINT 27 X,Y,Z= 0.368000 0.125000 0.000000E+00 IN CSYS= 12
0.368000 0.625000E-01 -0.108253 IN CSYS= 0
KEYPOINT 28 X,Y,Z= 0.604000 0.125000 0.000000E+00 IN CSYS= 12
0.604000 0.625000E-01 -0.108253 IN CSYS= 0
KEYPOINT 29 X,Y,Z= 0.614000 0.126500 0.000000E+00 IN CSYS= 12
0.614000 0.632500E-01 -0.109552 IN CSYS= 0

```

ACTIVE COORDINATE SYSTEM SET TO 13 (CYLINDRICAL)

```

KEYPOINT 30 X,Y,Z= 0.711700 10.3268 0.000000E+00 IN CSYS= 13
0.700171 0.637907E-01 -0.110489 IN CSYS= 0

```

ACTIVE COORDINATE SYSTEM SET TO 12 (CARTESIAN)

```

KEYPOINT 31 X,Y,Z= 0.130000 0.130000 0.000000E+00 IN CSYS= 12
0.130000 0.650000E-01 -0.112583 IN CSYS= 0

```

```

KEYPOINT    32  X,Y,Z=  0.356000    0.130000    0.000000E+00  IN CSYS= 12
                  0.356000    0.650000E-01 -0.112583    IN CSYS=  0
KEYPOINT    33  X,Y,Z=  0.373000    0.130000    0.000000E+00  IN CSYS= 12
                  0.373000    0.650000E-01 -0.112583    IN CSYS=  0
KEYPOINT    34  X,Y,Z=  0.599000    0.130000    0.000000E+00  IN CSYS= 12
                  0.599000    0.650000E-01 -0.112583    IN CSYS=  0
KEYPOINT    35  X,Y,Z=  0.356000    0.356000    0.000000E+00  IN CSYS= 12
                  0.356000    0.178000    -0.308305    IN CSYS=  0
KEYPOINT    36  X,Y,Z=  0.373000    0.356000    0.000000E+00  IN CSYS= 12
                  0.373000    0.178000    -0.308305    IN CSYS=  0
KEYPOINT    37  X,Y,Z=  0.599000    0.356000    0.000000E+00  IN CSYS= 12
                  0.599000    0.178000    -0.308305    IN CSYS=  0
ACTIVE COORDINATE SYSTEM SET TO 13 (CYLINDRICAL)
KEYPOINT    38  X,Y,Z=  0.711700    29.2374    0.000000E+00  IN CSYS= 13
                  0.621032    0.173808    -0.301044    IN CSYS=  0
ACTIVE COORDINATE SYSTEM SET TO 12 (CARTESIAN)
KEYPOINT    39  X,Y,Z=  0.361000    0.361000    0.000000E+00  IN CSYS= 12
                  0.361000    0.180500    -0.312635    IN CSYS=  0
KEYPOINT    40  X,Y,Z=  0.368000    0.361000    0.000000E+00  IN CSYS= 12
                  0.368000    0.180500    -0.312635    IN CSYS=  0
ACTIVE COORDINATE SYSTEM SET TO 13 (CYLINDRICAL)
KEYPOINT    41  X,Y,Z=  0.711700    30.8660    0.000000E+00  IN CSYS= 13
                  0.610902    0.182562    -0.316207    IN CSYS=  0
ACTIVE COORDINATE SYSTEM SET TO 12 (CARTESIAN)
KEYPOINT    42  X,Y,Z=  0.371000    0.371000    0.000000E+00  IN CSYS= 12
                  0.371000    0.185500    -0.321295    IN CSYS=  0
ACTIVE COORDINATE SYSTEM SET TO 13 (CYLINDRICAL)
KEYPOINT    43  X,Y,Z=  0.711700    31.8159    0.000000E+00  IN CSYS= 13
                  0.604765    0.187601    -0.324935    IN CSYS=  0
KEYPOINT    44  X,Y,Z=  0.711700    0.000000E+00 0.000000E+00  IN CSYS= 13
                  0.711700    0.000000E+00 0.000000E+00  IN CSYS=  0
KEYPOINT    45  X,Y,Z=  0.711700    45.0000    0.000000E+00  IN CSYS= 13
                  0.503248    0.251624    -0.435825    IN CSYS=  0
KEYPOINT    46  X,Y,Z=  0.731700    0.000000E+00 0.000000E+00  IN CSYS= 13
                  0.731700    0.000000E+00 0.000000E+00  IN CSYS=  0

```

KEYPOINT	47	X,Y,Z=	0.731700	9.50237	0.000000E+00	IN CSYS= 13
			0.721660	0.603976E-01	-0.104612	IN CSYS= 0
KEYPOINT	48	X,Y,Z=	0.731700	10.3268	0.000000E+00	IN CSYS= 13
			0.719847	0.655833E-01	-0.113594	IN CSYS= 0
KEYPOINT	49	X,Y,Z=	0.731700	29.2374	0.000000E+00	IN CSYS= 13
			0.638484	0.178692	-0.309504	IN CSYS= 0
KEYPOINT	50	X,Y,Z=	0.731700	30.8660	0.000000E+00	IN CSYS= 13
			0.628069	0.187693	-0.325093	IN CSYS= 0
KEYPOINT	51	X,Y,Z=	0.731700	31.8159	0.000000E+00	IN CSYS= 13
			0.621760	0.192873	-0.334066	IN CSYS= 0
KEYPOINT	52	X,Y,Z=	0.731700	45.0000	0.000000E+00	IN CSYS= 13
			0.517390	0.258695	-0.448073	IN CSYS= 0
KEYPOINT	53	X,Y,Z=	0.771700	0.000000E+00	0.000000E+00	IN CSYS= 13
			0.771700	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	54	X,Y,Z=	0.771700	9.50237	0.000000E+00	IN CSYS= 13
			0.761111	0.636993E-01	-0.110330	IN CSYS= 0
KEYPOINT	55	X,Y,Z=	0.771700	10.3268	0.000000E+00	IN CSYS= 13
			0.759199	0.691686E-01	-0.119803	IN CSYS= 0
KEYPOINT	56	X,Y,Z=	0.771700	29.2374	0.000000E+00	IN CSYS= 13
			0.673388	0.188461	-0.326423	IN CSYS= 0
KEYPOINT	57	X,Y,Z=	0.771700	30.8660	0.000000E+00	IN CSYS= 13
			0.662404	0.197953	-0.342865	IN CSYS= 0
KEYPOINT	58	X,Y,Z=	0.771700	31.8159	0.000000E+00	IN CSYS= 13
			0.655749	0.203417	-0.352328	IN CSYS= 0
KEYPOINT	59	X,Y,Z=	0.771700	45.0000	0.000000E+00	IN CSYS= 13
			0.545674	0.272837	-0.472568	IN CSYS= 0
KEYPOINT	60	X,Y,Z=	0.831700	0.000000E+00	0.000000E+00	IN CSYS= 13
			0.831700	0.000000E+00	0.000000E+00	IN CSYS= 0
KEYPOINT	61	X,Y,Z=	0.831700	9.50237	0.000000E+00	IN CSYS= 13
			0.820288	0.686520E-01	-0.118909	IN CSYS= 0
KEYPOINT	62	X,Y,Z=	0.831700	10.3268	0.000000E+00	IN CSYS= 13
			0.818227	0.745465E-01	-0.129118	IN CSYS= 0
KEYPOINT	63	X,Y,Z=	0.831700	29.2374	0.000000E+00	IN CSYS= 13
			0.725744	0.203113	-0.351803	IN CSYS= 0
KEYPOINT	64	X,Y,Z=	0.831700	30.8660	0.000000E+00	IN CSYS= 13

```

0.713906    0.213344    -0.369523    IN CSYS= 0
KEYPOINT    65    X,Y,Z= 0.831700    31.8159    0.000000E+00    IN CSYS= 13
0.706734    0.219233    -0.379722    IN CSYS= 0
KEYPOINT    66    X,Y,Z= 0.831700    45.0000    0.000000E+00    IN CSYS= 13
0.588101    0.294050    -0.509310    IN CSYS= 0

```

COORDINATE SYSTEM 11 DEFINITION. TYPE= 0 (CARTESIAN)
 XC,YC,ZC= 0.000000E+00 0.000000E+00 0.000000E+00
 ANGLES= 0.00 30.00 45.00 PARAMETERS= 1.000 1.000
 ORIENTATION= 0.71 0.35 -0.61 0.00 0.87 0.50 0.71 -0.35 0.61

ACTIVE COORDINATE SYSTEM SET TO 11 (CARTESIAN)

SYMMETRY TRANSFORMATION OF KEYPOINTS USING COMPONENT Z
 SET IS ALL SELECTED KEYPOINTS

MERGE COINCIDENT KEYPOINTS WITHIN TOLERANCE OF 0.10000E-03

```

KEYPOINT    1 USED FOR KEYPOINT(S)    67
KEYPOINT    13 USED FOR KEYPOINT(S)    79
KEYPOINT    18 USED FOR KEYPOINT(S)    84
KEYPOINT    25 USED FOR KEYPOINT(S)    91
KEYPOINT    31 USED FOR KEYPOINT(S)    97
KEYPOINT    35 USED FOR KEYPOINT(S)    101
KEYPOINT    39 USED FOR KEYPOINT(S)    105
KEYPOINT    42 USED FOR KEYPOINT(S)    108
KEYPOINT    45 USED FOR KEYPOINT(S)    111
KEYPOINT    52 USED FOR KEYPOINT(S)    118
KEYPOINT    59 USED FOR KEYPOINT(S)    125
KEYPOINT    66 USED FOR KEYPOINT(S)    132

```

ACTIVE COORDINATE SYSTEM SET TO 12 (CARTESIAN)

SYMMETRY TRANSFORMATION OF KEYPOINTS USING COMPONENT Y
 SET IS ALL SELECTED KEYPOINTS

MERGE COINCIDENT KEYPOINTS WITHIN TOLERANCE OF 0.10000E-03

```

KEYPOINT    1 USED FOR KEYPOINT(S)    67
KEYPOINT    2 USED FOR KEYPOINT(S)    79
KEYPOINT    3 USED FOR KEYPOINT(S)    84
KEYPOINT    4 USED FOR KEYPOINT(S)    91
KEYPOINT    5 USED FOR KEYPOINT(S)    97
KEYPOINT    6 USED FOR KEYPOINT(S)    101
KEYPOINT    7 USED FOR KEYPOINT(S)    105
KEYPOINT    8 USED FOR KEYPOINT(S)    108
KEYPOINT    9 USED FOR KEYPOINT(S)    111
KEYPOINT    10 USED FOR KEYPOINT(S)    118
KEYPOINT    11 USED FOR KEYPOINT(S)    125
KEYPOINT    12 USED FOR KEYPOINT(S)    132
KEYPOINT    44 USED FOR KEYPOINT(S)    164
KEYPOINT    46 USED FOR KEYPOINT(S)    166
KEYPOINT    53 USED FOR KEYPOINT(S)    173
KEYPOINT    60 USED FOR KEYPOINT(S)    180

```

DELETE SELECTED KEYPOINTS FROM 2 TO 12 BY 1

```

KEYPOINT    1001    X,Y,Z= 0.000000E+00 0.000000E+00 0.225000    IN CSYS= 12
0.000000E+00 0.194856    0.112500    IN CSYS= 0

```

LINE CONNECTS KEYPOINTS 1 1001
 LINE NO.= 1 KP1= 1 TAN1= 0.0000 -0.8660 -0.5000
 KP2= 1001 TAN2= 0.0000 0.8660 0.5000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 2, SPACING RATIO = 1.000

KEYPOINT 2001 X,Y,Z= 0.000000E+00 0.000000E+00 0.335000 IN CSYS= 12
 0.000000E+00 0.290119 0.167500 IN CSYS= 0

LINE CONNECTS KEYPOINTS 1001 2001
 LINE NO.= 2 KP1= 1001 TAN1= 0.0000 -0.8660 -0.5000
 KP2= 2001 TAN2= 0.0000 0.8660 0.5000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 1, SPACING RATIO = 1.000

KEYPOINT 3001 X,Y,Z= 0.000000E+00 0.000000E+00 0.360000 IN CSYS= 12
 0.000000E+00 0.311769 0.180000 IN CSYS= 0

LINE CONNECTS KEYPOINTS 2001 3001
 LINE NO.= 3 KP1= 2001 TAN1= 0.0000 -0.8660 -0.5000
 KP2= 3001 TAN2= 0.0000 0.8660 0.5000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 1, SPACING RATIO = 1.000

KEYPOINT 4001 X,Y,Z= 0.000000E+00 0.000000E+00 4.93500 IN CSYS= 12
 0.000000E+00 4.27384 2.46750 IN CSYS= 0

LINE CONNECTS KEYPOINTS 3001 4001
 LINE NO.= 4 KP1= 3001 TAN1= 0.0000 -0.8660 -0.5000
 KP2= 4001 TAN2= 0.0000 0.8660 0.5000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 5, SPACING RATIO = 0.200

KEYPOINT 5001 X,Y,Z= 0.000000E+00 0.000000E+00 4.94500 IN CSYS= 12
 0.000000E+00 4.28250 2.47250 IN CSYS= 0

LINE CONNECTS KEYPOINTS 4001 5001
 LINE NO.= 5 KP1= 4001 TAN1= 0.0000 -0.8660 -0.5000
 KP2= 5001 TAN2= 0.0000 0.8660 0.5000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 1, SPACING RATIO = 1.000

KEYPOINT 6001 X,Y,Z= 0.000000E+00 0.000000E+00 4.97000 IN CSYS= 12
 0.000000E+00 4.30415 2.48500 IN CSYS= 0

LINE CONNECTS KEYPOINTS 5001 6001
 LINE NO.= 6 KP1= 5001 TAN1= 0.0000 -0.8660 -0.5000
 KP2= 6001 TAN2= 0.0000 0.8660 0.5000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 1, SPACING RATIO = 1.000

KEYPOINT 7001 X,Y,Z= 0.000000E+00 0.000000E+00 5.00000 IN CSYS= 12
 0.000000E+00 4.33013 2.50000 IN CSYS= 0

LINE CONNECTS KEYPOINTS 6001 7001
 LINE NO.= 7 KP1= 6001 TAN1= 0.0000 -0.8660 -0.5000
 KP2= 7001 TAN2= 0.0000 0.8660 0.5000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 1, SPACING RATIO = 1.000

KEYPOINT 8001 X,Y,Z= 0.000000E+00 0.000000E+00 5.11000 IN CSYS= 12
 0.000000E+00 4.42539 2.55500 IN CSYS= 0

LINE CONNECTS KEYPOINTS 7001 8001
 LINE NO.= 8 KP1= 7001 TAN1= 0.0000 -0.8660 -0.5000
 KP2= 8001 TAN2= 0.0000 0.8660 0.5000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 3, SPACING RATIO = 1.000

KEYPOINT 9001 X,Y,Z= 0.000000E+00 0.000000E+00 5.33500 IN CSYS= 12
 0.000000E+00 4.62025 2.66750 IN CSYS= 0

LINE CONNECTS KEYPOINTS 8001 9001
 LINE NO.= 9 KP1= 8001 TAN1= 0.0000 -0.8660 -0.5000
 KP2= 9001 TAN2= 0.0000 0.8660 0.5000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 4, SPACING RATIO = 1.000
 create keypoints for contact surface

ACTIVE COORDINATE SYSTEM SET TO 0 (CARTESIAN)

KEYPOINT 20001 X,Y,Z= 0.000000E+00 -0.915850 6.30000 IN CSYS= 0
 KEYPOINT 20002 X,Y,Z= 0.931700 -0.915850 6.30000 IN CSYS= 0
 KEYPOINT 20003 X,Y,Z= 0.931700 -0.915850 -0.500000 IN CSYS= 0
 KEYPOINT 20004 X,Y,Z= 0.000000E+00 -0.915850 -0.500000 IN CSYS= 0
 KEYPOINT 20005 X,Y,Z= 0.000000E+00 -0.415850 6.30000 IN CSYS= 0
 KEYPOINT 20006 X,Y,Z= 0.931700 -0.415850 6.30000 IN CSYS= 0
 KEYPOINT 20007 X,Y,Z= 0.931700 -0.415850 -0.500000 IN CSYS= 0
 KEYPOINT 20008 X,Y,Z= 0.000000E+00 -0.415850 -0.500000 IN CSYS= 0
 Line set 1 Tube Width for Half Tubes on Symmetry Plane

LINE CONNECTS KEYPOINTS 197 206
 LINE NO.= 10 KP1= 197 TAN1= -1.0000 0.0000 0.0000
 KP2= 206 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 196 205
 LINE NO.= 11 KP1= 196 TAN1= -1.0000 0.0000 0.0000
 KP2= 205 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 195 201
 LINE NO.= 12 KP1= 195 TAN1= -1.0000 0.0000 0.0000
 KP2= 201 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 194 200
 LINE NO.= 13 KP1= 194 TAN1= -1.0000 0.0000 0.0000
 KP2= 200 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 193 204
 LINE NO.= 14 KP1= 193 TAN1= -1.0000 0.0000 0.0000
 KP2= 204 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 192 203
 LINE NO.= 15 KP1= 192 TAN1= -1.0000 0.0000 0.0000
 KP2= 203 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 191 199
 LINE NO.= 16 KP1= 191 TAN1= -1.0000 0.0000 0.0000
 KP2= 199 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 190 198
 LINE NO.= 17 KP1= 190 TAN1= -1.0000 0.0000 0.0000
 KP2= 198 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 189 202
 LINE NO.= 18 KP1= 189 TAN1= -1.0000 0.0000 0.0000
 KP2= 202 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 188 138
 LINE NO.= 19 KP1= 188 TAN1= -1.0000 0.0000 0.0000
 KP2= 138 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 187 133
 LINE NO.= 20 KP1= 187 TAN1= -1.0000 0.0000 0.0000
 KP2= 133 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 68 13
 LINE NO.= 21 KP1= 68 TAN1= -1.0000 0.0000 0.0000
 KP2= 13 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 69 18
 LINE NO.= 22 KP1= 69 TAN1= -1.0000 0.0000 0.0000
 KP2= 18 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 70 85
 LINE NO.= 23 KP1= 70 TAN1= -1.0000 0.0000 0.0000
 KP2= 85 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 71 80
 LINE NO.= 24 KP1= 71 TAN1= -1.0000 0.0000 0.0000
 KP2= 80 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 72 81
 LINE NO.= 25 KP1= 72 TAN1= -1.0000 0.0000 0.0000
 KP2= 81 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 73 86
 LINE NO.= 26 KP1= 73 TAN1= -1.0000 0.0000 0.0000
 KP2= 86 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 74 87
 LINE NO.= 27 KP1= 74 TAN1= -1.0000 0.0000 0.0000
 KP2= 87 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 75 82
 LINE NO.= 28 KP1= 75 TAN1= -1.0000 0.0000 0.0000
 KP2= 82 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 76 83
 LINE NO.= 29 KP1= 76 TAN1= -1.0000 0.0000 0.0000
 KP2= 83 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 77 88
 LINE NO.= 30 KP1= 77 TAN1= -1.0000 0.0000 0.0000
 KP2= 88 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 78 89
 LINE NO.= 31 KP1= 78 TAN1= -1.0000 0.0000 0.0000
 KP2= 89 TAN2= 1.0000 0.0000 0.0000

add lines on second symmetry plane

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 4, SPACING RATIO = 1.000
 line set 2 Tube Widths

LINE CONNECTS KEYPOINTS 211 218
 LINE NO.= 32 KP1= 211 TAN1= -0.9995 0.0159 -0.0275
 KP2= 218 TAN2= 0.9995 -0.0159 0.0275

LINE CONNECTS KEYPOINTS 210 220
 LINE NO.= 33 KP1= 210 TAN1= -0.9996 0.0144 -0.0249
 KP2= 220 TAN2= 0.9996 -0.0144 0.0249

LINE CONNECTS KEYPOINTS 215 217

LINE NO.=	34	KP1=	215	TAN1=	-1.0000	0.0000	0.0000
		KP2=	217	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 214 216							
LINE NO.=	35	KP1=	214	TAN1=	-1.0000	0.0000	0.0000
		KP2=	216	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 209 219							
LINE NO.=	36	KP1=	209	TAN1=	-1.0000	0.0000	0.0000
		KP2=	219	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 208 159							
LINE NO.=	37	KP1=	208	TAN1=	-1.0000	0.0000	0.0000
		KP2=	159	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 213 155							
LINE NO.=	38	KP1=	213	TAN1=	-1.0000	0.0000	0.0000
		KP2=	155	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 151 152							
LINE NO.=	39	KP1=	151	TAN1=	-1.0000	0.0000	0.0000
		KP2=	152	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 145 146							
LINE NO.=	40	KP1=	145	TAN1=	-1.0000	0.0000	0.0000
		KP2=	146	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 139 140							
LINE NO.=	41	KP1=	139	TAN1=	-1.0000	0.0000	0.0000
		KP2=	140	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 134 135							
LINE NO.=	42	KP1=	134	TAN1=	-1.0000	0.0000	0.0000
		KP2=	135	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 14 15							
LINE NO.=	43	KP1=	14	TAN1=	-1.0000	0.0000	0.0000
		KP2=	15	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 19 20							
LINE NO.=	44	KP1=	19	TAN1=	-1.0000	0.0000	0.0000
		KP2=	20	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 25 26							
LINE NO.=	45	KP1=	25	TAN1=	-1.0000	0.0000	0.0000
		KP2=	26	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 31 32							
LINE NO.=	46	KP1=	31	TAN1=	-1.0000	0.0000	0.0000
		KP2=	32	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 98 35							
LINE NO.=	47	KP1=	98	TAN1=	-1.0000	0.0000	0.0000
		KP2=	35	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 92 39							
LINE NO.=	48	KP1=	92	TAN1=	-1.0000	0.0000	0.0000
		KP2=	39	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 93 106							
LINE NO.=	49	KP1=	93	TAN1=	-1.0000	0.0000	0.0000
		KP2=	106	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 99 102							
LINE NO.=	50	KP1=	99	TAN1=	-1.0000	0.0000	0.0000
		KP2=	102	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 100 103							
LINE NO.=	51	KP1=	100	TAN1=	-1.0000	0.0000	0.0000
		KP2=	103	TAN2=	1.0000	0.0000	0.0000

LINE CONNECTS KEYPOINTS 94 107
 LINE NO.= 52 KP1= 94 TAN1= -0.9996 -0.0144 0.0249
 KP2= 107 TAN2= 0.9996 0.0144 -0.0249

LINE CONNECTS KEYPOINTS 95 104
 LINE NO.= 53 KP1= 95 TAN1= -0.9995 -0.0159 0.0275
 KP2= 104 TAN2= 0.9995 0.0159 -0.0275

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 4, SPACING RATIO = 1.000
 Line set 3 Tube Widths on End Column

LINE CONNECTS KEYPOINTS 162 163
 LINE NO.= 54 KP1= 162 TAN1= -0.9998 0.0090 -0.0156
 KP2= 163 TAN2= 0.9998 -0.0090 0.0156

LINE CONNECTS KEYPOINTS 160 161
 LINE NO.= 55 KP1= 160 TAN1= -0.9999 0.0085 -0.0147
 KP2= 161 TAN2= 0.9999 -0.0085 0.0147

LINE CONNECTS KEYPOINTS 156 157
 LINE NO.= 56 KP1= 156 TAN1= -1.0000 0.0000 0.0000
 KP2= 157 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 153 154
 LINE NO.= 57 KP1= 153 TAN1= -1.0000 0.0000 0.0000
 KP2= 154 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 147 148
 LINE NO.= 58 KP1= 147 TAN1= -1.0000 0.0000 0.0000
 KP2= 148 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 141 142
 LINE NO.= 59 KP1= 141 TAN1= -1.0000 0.0000 0.0000
 KP2= 142 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 136 137
 LINE NO.= 60 KP1= 136 TAN1= -1.0000 0.0000 0.0000
 KP2= 137 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 16 17
 LINE NO.= 61 KP1= 16 TAN1= -1.0000 0.0000 0.0000
 KP2= 17 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 21 22
 LINE NO.= 62 KP1= 21 TAN1= -1.0000 0.0000 0.0000
 KP2= 22 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 27 28
 LINE NO.= 63 KP1= 27 TAN1= -1.0000 0.0000 0.0000
 KP2= 28 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 33 34
 LINE NO.= 64 KP1= 33 TAN1= -1.0000 0.0000 0.0000
 KP2= 34 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 36 37
 LINE NO.= 65 KP1= 36 TAN1= -1.0000 0.0000 0.0000
 KP2= 37 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 40 41
 LINE NO.= 66 KP1= 40 TAN1= -0.9999 -0.0085 0.0147
 KP2= 41 TAN2= 0.9999 0.0085 -0.0147

LINE CONNECTS KEYPOINTS 42 43
 LINE NO.= 67 KP1= 42 TAN1= -0.9998 -0.0090 0.0156
 KP2= 43 TAN2= 0.9998 0.0090 -0.0156

SET DIVISIONS ON ALL SELECTED UNMESHED LINES

TO NDIV = 4, SPACING RATIO = 1.000
line set 4 Tube Heights

LINE CONNECTS KEYPOINTS	195	194			
LINE NO.= 68 KP1=	195	TAN1=	0.0000	-0.5000	0.8660
KP2=	194	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	201	200			
LINE NO.= 69 KP1=	201	TAN1=	0.0000	-0.5000	0.8660
KP2=	200	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	205	204			
LINE NO.= 70 KP1=	205	TAN1=	0.0000	-0.5000	0.8660
KP2=	204	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	210	209			
LINE NO.= 71 KP1=	210	TAN1=	0.0000	-0.5000	0.8660
KP2=	209	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	215	214			
LINE NO.= 72 KP1=	215	TAN1=	0.0000	-0.5000	0.8660
KP2=	214	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	217	216			
LINE NO.= 73 KP1=	217	TAN1=	0.0000	-0.5000	0.8660
KP2=	216	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	220	219			
LINE NO.= 74 KP1=	220	TAN1=	0.0170	-0.4999	0.8659
KP2=	219	TAN2=	-0.0170	0.4999	-0.8659
LINE CONNECTS KEYPOINTS	221	162			
LINE NO.= 75 KP1=	221	TAN1=	0.0180	-0.4999	0.8659
KP2=	162	TAN2=	-0.0180	0.4999	-0.8659
LINE CONNECTS KEYPOINTS	191	190			
LINE NO.= 76 KP1=	191	TAN1=	0.0000	-0.5000	0.8660
KP2=	190	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	199	198			
LINE NO.= 77 KP1=	199	TAN1=	0.0000	-0.5000	0.8660
KP2=	198	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	203	202			
LINE NO.= 78 KP1=	203	TAN1=	0.0000	-0.5000	0.8660
KP2=	202	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	208	145			
LINE NO.= 79 KP1=	208	TAN1=	0.0000	-0.5000	0.8660
KP2=	145	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	213	151			
LINE NO.= 80 KP1=	213	TAN1=	0.0000	-0.5000	0.8660
KP2=	151	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	155	152			
LINE NO.= 81 KP1=	155	TAN1=	0.0000	-0.5000	0.8660
KP2=	152	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	159	146			
LINE NO.= 82 KP1=	159	TAN1=	0.0000	-0.5000	0.8660
KP2=	146	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	158	149			
LINE NO.= 83 KP1=	158	TAN1=	0.0318	-0.4997	0.8656
KP2=	149	TAN2=	-0.0318	0.4997	-0.8656
LINE CONNECTS KEYPOINTS	160	147			
LINE NO.= 84 KP1=	160	TAN1=	0.0000	-0.5000	0.8660
KP2=	147	TAN2=	0.0000	0.5000	-0.8660

LINE CONNECTS KEYPOINTS	156	153				
LINE NO.= 85 KP1=	156	TAN1=	0.0000	-0.5000	0.8660	
KP2=	153	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	157	154				
LINE NO.= 86 KP1=	157	TAN1=	0.0000	-0.5000	0.8660	
KP2=	154	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	161	148				
LINE NO.= 87 KP1=	161	TAN1=	0.0287	-0.4998	0.8657	
KP2=	148	TAN2=	-0.0287	0.4998	-0.8657	
LINE CONNECTS KEYPOINTS	187	68				
LINE NO.= 88 KP1=	187	TAN1=	0.0000	-0.5000	0.8660	
KP2=	68	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	133	13				
LINE NO.= 89 KP1=	133	TAN1=	0.0000	-0.5000	0.8660	
KP2=	13	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	138	18				
LINE NO.= 90 KP1=	138	TAN1=	0.0000	-0.5000	0.8660	
KP2=	18	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	139	19				
LINE NO.= 91 KP1=	139	TAN1=	0.0000	-0.5000	0.8660	
KP2=	19	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	134	14				
LINE NO.= 92 KP1=	134	TAN1=	0.0000	-0.5000	0.8660	
KP2=	14	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	135	15				
LINE NO.= 93 KP1=	135	TAN1=	0.0000	-0.5000	0.8660	
KP2=	15	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	140	20				
LINE NO.= 94 KP1=	140	TAN1=	0.0000	-0.5000	0.8660	
KP2=	20	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	141	21				
LINE NO.= 95 KP1=	141	TAN1=	0.0000	-0.5000	0.8660	
KP2=	21	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	136	16				
LINE NO.= 96 KP1=	136	TAN1=	0.0000	-0.5000	0.8660	
KP2=	16	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	137	17				
LINE NO.= 97 KP1=	137	TAN1=	0.0000	-0.5000	0.8660	
KP2=	17	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	142	22				
LINE NO.= 98 KP1=	142	TAN1=	0.0000	-0.5000	0.8660	
KP2=	22	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	143	23				
LINE NO.= 99 KP1=	143	TAN1=	0.0000	-0.5000	0.8660	
KP2=	23	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	71	72				
LINE NO.= 100 KP1=	71	TAN1=	0.0000	-0.5000	0.8660	
KP2=	72	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	80	81				
LINE NO.= 101 KP1=	80	TAN1=	0.0000	-0.5000	0.8660	
KP2=	81	TAN2=	0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	85	86				

LINE NO.=	102	KP1=	85	TAN1=	0.0000	-0.5000	0.8660
		KP2=	86	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 25 92							
LINE NO.=	103	KP1=	25	TAN1=	0.0000	-0.5000	0.8660
		KP2=	92	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 31 98							
LINE NO.=	104	KP1=	31	TAN1=	0.0000	-0.5000	0.8660
		KP2=	98	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 32 35							
LINE NO.=	105	KP1=	32	TAN1=	0.0000	-0.5000	0.8660
		KP2=	35	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 26 39							
LINE NO.=	106	KP1=	26	TAN1=	0.0000	-0.5000	0.8660
		KP2=	39	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 27 40							
LINE NO.=	107	KP1=	27	TAN1=	0.0000	-0.5000	0.8660
		KP2=	40	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 33 36							
LINE NO.=	108	KP1=	33	TAN1=	0.0000	-0.5000	0.8660
		KP2=	36	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 34 37							
LINE NO.=	109	KP1=	34	TAN1=	0.0000	-0.5000	0.8660
		KP2=	37	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 28 41							
LINE NO.=	110	KP1=	28	TAN1=	-0.0287	-0.4998	0.8657
		KP2=	41	TAN2=	0.0287	0.4998	-0.8657
LINE CONNECTS KEYPOINTS 29 38							
LINE NO.=	111	KP1=	29	TAN1=	-0.0318	-0.4997	0.8656
		KP2=	38	TAN2=	0.0318	0.4997	-0.8656
LINE CONNECTS KEYPOINTS 75 76							
LINE NO.=	112	KP1=	75	TAN1=	0.0000	-0.5000	0.8660
		KP2=	76	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 82 83							
LINE NO.=	113	KP1=	82	TAN1=	0.0000	-0.5000	0.8660
		KP2=	83	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 87 88							
LINE NO.=	114	KP1=	87	TAN1=	0.0000	-0.5000	0.8660
		KP2=	88	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 93 94							
LINE NO.=	115	KP1=	93	TAN1=	0.0000	-0.5000	0.8660
		KP2=	94	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 99 100							
LINE NO.=	116	KP1=	99	TAN1=	0.0000	-0.5000	0.8660
		KP2=	100	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 102 103							
LINE NO.=	117	KP1=	102	TAN1=	0.0000	-0.5000	0.8660
		KP2=	103	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 106 107							
LINE NO.=	118	KP1=	106	TAN1=	-0.0170	-0.4999	0.8659
		KP2=	107	TAN2=	0.0170	0.4999	-0.8659
LINE CONNECTS KEYPOINTS 42 109							
LINE NO.=	119	KP1=	42	TAN1=	-0.0180	-0.4999	0.8659
		KP2=	109	TAN2=	0.0180	0.4999	-0.8659

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 4, SPACING RATIO = 1.000
 line set 5 Side Guide Fins

LINE CONNECTS KEYPOINTS 222 197
 LINE NO.= 120 KP1= 222 TAN1= 0.0000 -0.5000 0.8660
 KP2= 197 TAN2= 0.0000 0.5000 -0.8660

LINE CONNECTS KEYPOINTS 207 206
 LINE NO.= 121 KP1= 207 TAN1= 0.0113 -0.5000 0.8660
 KP2= 206 TAN2= -0.0113 0.5000 -0.8660

LINE CONNECTS KEYPOINTS 212 211
 LINE NO.= 122 KP1= 212 TAN1= 0.0125 -0.5000 0.8660
 KP2= 211 TAN2= -0.0125 0.5000 -0.8660

LINE CONNECTS KEYPOINTS 150 149
 LINE NO.= 123 KP1= 150 TAN1= 0.9999 -0.0063 0.0109
 KP2= 149 TAN2= -0.9999 0.0063 -0.0109

LINE CONNECTS KEYPOINTS 144 143
 LINE NO.= 124 KP1= 144 TAN1= 0.9999 -0.0056 0.0098
 KP2= 143 TAN2= -0.9999 0.0056 -0.0098

LINE CONNECTS KEYPOINTS 24 23
 LINE NO.= 125 KP1= 24 TAN1= 0.9999 0.0056 -0.0098
 KP2= 23 TAN2= -0.9999 -0.0056 0.0098

LINE CONNECTS KEYPOINTS 30 29
 LINE NO.= 126 KP1= 30 TAN1= 0.9999 0.0063 -0.0109
 KP2= 29 TAN2= -0.9999 -0.0063 0.0109

LINE CONNECTS KEYPOINTS 96 95
 LINE NO.= 127 KP1= 96 TAN1= 0.0125 0.5000 -0.8660
 KP2= 95 TAN2= -0.0125 -0.5000 0.8660

LINE CONNECTS KEYPOINTS 90 89
 LINE NO.= 128 KP1= 90 TAN1= 0.0113 0.5000 -0.8660
 KP2= 89 TAN2= -0.0113 -0.5000 0.8660

LINE CONNECTS KEYPOINTS 110 78
 LINE NO.= 129 KP1= 110 TAN1= 0.0000 0.5000 -0.8660
 KP2= 78 TAN2= 0.0000 -0.5000 0.8660

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 4, SPACING RATIO = 1.000
 line set 6 SS-B Plate Thickness

LINE CONNECTS KEYPOINTS 197 196
 LINE NO.= 130 KP1= 197 TAN1= 0.0000 -0.5000 0.8660
 KP2= 196 TAN2= 0.0000 0.5000 -0.8660

LINE CONNECTS KEYPOINTS 206 205
 LINE NO.= 131 KP1= 206 TAN1= -0.1483 -0.4945 0.8564
 KP2= 205 TAN2= 0.1483 0.4945 -0.8564

LINE CONNECTS KEYPOINTS 211 210
 LINE NO.= 132 KP1= 211 TAN1= 0.1483 -0.4945 0.8564
 KP2= 210 TAN2= -0.1483 0.4945 -0.8564

LINE CONNECTS KEYPOINTS 207 212
 LINE NO.= 133 KP1= 207 TAN1= -0.9851 -0.0861 0.1491
 KP2= 212 TAN2= 0.9851 0.0861 -0.1491

LINE CONNECTS KEYPOINTS 206 211
 LINE NO.= 134 KP1= 206 TAN1= -1.0000 0.0000 0.0000
 KP2= 211 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 205 210

LINE NO.= 135	KP1= 205	TAN1= -1.0000	0.0000	0.0000
	KP2= 210	TAN2= 1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 218 220				
LINE NO.= 136	KP1= 218	TAN1= -0.8656	-0.2504	0.4337
	KP2= 220	TAN2= 0.8656	0.2504	-0.4337
LINE CONNECTS KEYPOINTS 220 221				
LINE NO.= 137	KP1= 220	TAN1= -0.8541	-0.2601	0.4504
	KP2= 221	TAN2= 0.8541	0.2601	-0.4504
LINE CONNECTS KEYPOINTS 193 192				
LINE NO.= 138	KP1= 193	TAN1= 0.0000	-0.5000	0.8660
	KP2= 192	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 204 203				
LINE NO.= 139	KP1= 204	TAN1= 0.0000	-0.5000	0.8660
	KP2= 203	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 209 208				
LINE NO.= 140	KP1= 209	TAN1= 0.0000	-0.5000	0.8660
	KP2= 208	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 204 209				
LINE NO.= 141	KP1= 204	TAN1= -1.0000	0.0000	0.0000
	KP2= 209	TAN2= 1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 203 208				
LINE NO.= 142	KP1= 203	TAN1= -1.0000	0.0000	0.0000
	KP2= 208	TAN2= 1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 219 159				
LINE NO.= 143	KP1= 219	TAN1= 0.0000	-0.5000	0.8660
	KP2= 159	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 162 160				
LINE NO.= 144	KP1= 162	TAN1= 0.2873	-0.4789	0.8295
	KP2= 160	TAN2= -0.2873	0.4789	-0.8295
LINE CONNECTS KEYPOINTS 163 161				
LINE NO.= 145	KP1= 163	TAN1= -0.5201	-0.4270	0.7397
	KP2= 161	TAN2= 0.5201	0.4270	-0.7397
LINE CONNECTS KEYPOINTS 161 158				
LINE NO.= 146	KP1= 161	TAN1= -0.5008	-0.4328	0.7496
	KP2= 158	TAN2= 0.5008	0.4328	-0.7496
LINE CONNECTS KEYPOINTS 219 162				
LINE NO.= 147	KP1= 219	TAN1= -0.9578	0.1437	-0.2489
	KP2= 162	TAN2= 0.9578	-0.1437	0.2489
LINE CONNECTS KEYPOINTS 159 160				
LINE NO.= 148	KP1= 159	TAN1= -1.0000	0.0000	0.0000
	KP2= 160	TAN2= 1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 189 188				
LINE NO.= 149	KP1= 189	TAN1= 0.0000	-0.5000	0.8660
	KP2= 188	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 202 138				
LINE NO.= 150	KP1= 202	TAN1= 0.0000	-0.5000	0.8660
	KP2= 138	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 145 139				
LINE NO.= 151	KP1= 145	TAN1= 0.0000	-0.5000	0.8660
	KP2= 139	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 202 145				
LINE NO.= 152	KP1= 202	TAN1= -1.0000	0.0000	0.0000
	KP2= 145	TAN2= 1.0000	0.0000	0.0000

LINE CONNECTS KEYPOINTS	138	139			
LINE NO.= 153 KP1=	138	TAN1=	-1.0000	0.0000	0.0000
KP2=	139	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS	146	140			
LINE NO.= 154 KP1=	146	TAN1=	0.0000	-0.5000	0.8660
KP2=	140	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	147	141			
LINE NO.= 155 KP1=	147	TAN1=	0.0000	-0.5000	0.8660
KP2=	141	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	146	147			
LINE NO.= 156 KP1=	146	TAN1=	-1.0000	0.0000	0.0000
KP2=	147	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS	140	141			
LINE NO.= 157 KP1=	140	TAN1=	-1.0000	0.0000	0.0000
KP2=	141	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS	148	142			
LINE NO.= 158 KP1=	148	TAN1=	0.0000	-0.5000	0.8660
KP2=	142	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	149	143			
LINE NO.= 159 KP1=	149	TAN1=	0.0000	-0.5000	0.8660
KP2=	143	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	148	149			
LINE NO.= 160 KP1=	148	TAN1=	-0.9889	0.0742	-0.1285
KP2=	149	TAN2=	0.9889	-0.0742	0.1285
LINE CONNECTS KEYPOINTS	142	143			
LINE NO.= 161 KP1=	142	TAN1=	-0.9889	-0.0742	0.1285
KP2=	143	TAN2=	0.9889	0.0742	-0.1285
LINE CONNECTS KEYPOINTS	150	144			
LINE NO.= 162 KP1=	150	TAN1=	-0.1722	-0.4925	0.8531
KP2=	144	TAN2=	0.1722	0.4925	-0.8531
LINE CONNECTS KEYPOINTS	69	70			
LINE NO.= 163 KP1=	69	TAN1=	0.0000	-0.5000	0.8660
KP2=	70	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	18	85			
LINE NO.= 164 KP1=	18	TAN1=	0.0000	-0.5000	0.8660
KP2=	85	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	19	25			
LINE NO.= 165 KP1=	19	TAN1=	0.0000	-0.5000	0.8660
KP2=	25	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	18	19			
LINE NO.= 166 KP1=	18	TAN1=	-1.0000	0.0000	0.0000
KP2=	19	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS	85	25			
LINE NO.= 167 KP1=	85	TAN1=	-1.0000	0.0000	0.0000
KP2=	25	TAN2=	1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS	20	26			
LINE NO.= 168 KP1=	20	TAN1=	0.0000	-0.5000	0.8660
KP2=	26	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	21	27			
LINE NO.= 169 KP1=	21	TAN1=	0.0000	-0.5000	0.8660
KP2=	27	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS	20	21			

LINE NO.= 170	KP1= 20	TAN1= -1.0000	0.0000	0.0000
	KP2= 21	TAN2= 1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 26 27				
LINE NO.= 171	KP1= 26	TAN1= -1.0000	0.0000	0.0000
	KP2= 27	TAN2= 1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 22 28				
LINE NO.= 172	KP1= 22	TAN1= 0.0000	-0.5000	0.8660
	KP2= 28	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 22 23				
LINE NO.= 173	KP1= 22	TAN1= -0.9889	0.0742	-0.1285
	KP2= 23	TAN2= 0.9889	-0.0742	0.1285
LINE CONNECTS KEYPOINTS 28 29				
LINE NO.= 174	KP1= 28	TAN1= -0.9889	-0.0742	0.1285
	KP2= 29	TAN2= 0.9889	0.0742	-0.1285
LINE CONNECTS KEYPOINTS 23 29				
LINE NO.= 175	KP1= 23	TAN1= 0.0000	-0.5000	0.8660
	KP2= 29	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 24 30				
LINE NO.= 176	KP1= 24	TAN1= 0.1722	-0.4925	0.8531
	KP2= 30	TAN2= -0.1722	0.4925	-0.8531
LINE CONNECTS KEYPOINTS 73 74				
LINE NO.= 177	KP1= 73	TAN1= 0.0000	-0.5000	0.8660
	KP2= 74	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 86 87				
LINE NO.= 178	KP1= 86	TAN1= 0.0000	-0.5000	0.8660
	KP2= 87	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 92 93				
LINE NO.= 179	KP1= 92	TAN1= 0.0000	-0.5000	0.8660
	KP2= 93	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 86 92				
LINE NO.= 180	KP1= 86	TAN1= -1.0000	0.0000	0.0000
	KP2= 92	TAN2= 1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 87 93				
LINE NO.= 181	KP1= 87	TAN1= -1.0000	0.0000	0.0000
	KP2= 93	TAN2= 1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 39 106				
LINE NO.= 182	KP1= 39	TAN1= 0.0000	-0.5000	0.8660
	KP2= 106	TAN2= 0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 40 42				
LINE NO.= 183	KP1= 40	TAN1= -0.2873	-0.4789	0.8295
	KP2= 42	TAN2= 0.2873	0.4789	-0.8295
LINE CONNECTS KEYPOINTS 39 40				
LINE NO.= 184	KP1= 39	TAN1= -1.0000	0.0000	0.0000
	KP2= 40	TAN2= 1.0000	0.0000	0.0000
LINE CONNECTS KEYPOINTS 106 42				
LINE NO.= 185	KP1= 106	TAN1= -0.9578	-0.1437	0.2489
	KP2= 42	TAN2= 0.9578	0.1437	-0.2489
LINE CONNECTS KEYPOINTS 38 41				
LINE NO.= 186	KP1= 38	TAN1= 0.5008	-0.4328	0.7496
	KP2= 41	TAN2= -0.5008	0.4328	-0.7496
LINE CONNECTS KEYPOINTS 41 43				
LINE NO.= 187	KP1= 41	TAN1= 0.5201	-0.4270	0.7397
	KP2= 43	TAN2= -0.5201	0.4270	-0.7397

LINE CONNECTS KEYPOINTS		77	78			
LINE NO.=	188	KP1=	77	TAN1=	0.0000	-0.5000 0.8660
		KP2=	78	TAN2=	0.0000	0.5000 -0.8660
LINE CONNECTS KEYPOINTS		88	89			
LINE NO.=	189	KP1=	88	TAN1=	0.1483	-0.4945 0.8564
		KP2=	89	TAN2=	-0.1483	0.4945 -0.8564
LINE CONNECTS KEYPOINTS		94	95			
LINE NO.=	190	KP1=	94	TAN1=	-0.1483	-0.4945 0.8564
		KP2=	95	TAN2=	0.1483	0.4945 -0.8564
LINE CONNECTS KEYPOINTS		88	94			
LINE NO.=	191	KP1=	88	TAN1=	-1.0000	0.0000 0.0000
		KP2=	94	TAN2=	1.0000	0.0000 0.0000
LINE CONNECTS KEYPOINTS		89	95			
LINE NO.=	192	KP1=	89	TAN1=	-1.0000	0.0000 0.0000
		KP2=	95	TAN2=	1.0000	0.0000 0.0000
LINE CONNECTS KEYPOINTS		90	96			
LINE NO.=	193	KP1=	90	TAN1=	-0.9851	0.0861 -0.1491
		KP2=	96	TAN2=	0.9851	-0.0861 0.1491
LINE CONNECTS KEYPOINTS		109	107			
LINE NO.=	194	KP1=	109	TAN1=	0.8541	-0.2601 0.4504
		KP2=	107	TAN2=	-0.8541	0.2601 -0.4504
LINE CONNECTS KEYPOINTS		107	104			
LINE NO.=	195	KP1=	107	TAN1=	0.8656	-0.2504 0.4337
		KP2=	104	TAN2=	-0.8656	0.2504 -0.4337
LINE CONNECTS KEYPOINTS		224	225			
LINE NO.=	196	KP1=	224	TAN1=	-0.9851	-0.0861 0.1491
		KP2=	225	TAN2=	0.9851	0.0861 -0.1491
LINE CONNECTS KEYPOINTS		230	231			
LINE NO.=	197	KP1=	230	TAN1=	-0.9851	-0.0861 0.1491
		KP2=	231	TAN2=	0.9851	0.0861 -0.1491
LINE CONNECTS KEYPOINTS		236	237			
LINE NO.=	198	KP1=	236	TAN1=	-0.9851	-0.0861 0.1491
		KP2=	237	TAN2=	0.9851	0.0861 -0.1491
LINE CONNECTS KEYPOINTS		226	227			
LINE NO.=	199	KP1=	226	TAN1=	-0.8656	-0.2504 0.4337
		KP2=	227	TAN2=	0.8656	0.2504 -0.4337
LINE CONNECTS KEYPOINTS		227	228			
LINE NO.=	200	KP1=	227	TAN1=	-0.8541	-0.2601 0.4504
		KP2=	228	TAN2=	0.8541	0.2601 -0.4504
LINE CONNECTS KEYPOINTS		232	233			
LINE NO.=	201	KP1=	232	TAN1=	-0.8656	-0.2504 0.4337
		KP2=	233	TAN2=	0.8656	0.2504 -0.4337
LINE CONNECTS KEYPOINTS		233	234			
LINE NO.=	202	KP1=	233	TAN1=	-0.8541	-0.2601 0.4504
		KP2=	234	TAN2=	0.8541	0.2601 -0.4504
LINE CONNECTS KEYPOINTS		238	239			
LINE NO.=	203	KP1=	238	TAN1=	-0.8656	-0.2504 0.4337
		KP2=	239	TAN2=	0.8656	0.2504 -0.4337
LINE CONNECTS KEYPOINTS		239	240			
LINE NO.=	204	KP1=	239	TAN1=	-0.8541	-0.2601 0.4504
		KP2=	240	TAN2=	0.8541	0.2601 -0.4504
LINE CONNECTS KEYPOINTS		171	170			

LINE NO.=	205	KP1=	171	TAN1=	-0.5201	-0.4270	0.7397
		KP2=	170	TAN2=	0.5201	0.4270	-0.7397
LINE CONNECTS KEYPOINTS 170 169							
LINE NO.=	206	KP1=	170	TAN1=	-0.5008	-0.4328	0.7496
		KP2=	169	TAN2=	0.5008	0.4328	-0.7496
LINE CONNECTS KEYPOINTS 178 177							
LINE NO.=	207	KP1=	178	TAN1=	-0.5201	-0.4270	0.7397
		KP2=	177	TAN2=	0.5201	0.4270	-0.7397
LINE CONNECTS KEYPOINTS 177 176							
LINE NO.=	208	KP1=	177	TAN1=	-0.5008	-0.4328	0.7496
		KP2=	176	TAN2=	0.5008	0.4328	-0.7496
LINE CONNECTS KEYPOINTS 185 184							
LINE NO.=	209	KP1=	185	TAN1=	-0.5201	-0.4270	0.7397
		KP2=	184	TAN2=	0.5201	0.4270	-0.7397
LINE CONNECTS KEYPOINTS 184 183							
LINE NO.=	210	KP1=	184	TAN1=	-0.5008	-0.4328	0.7496
		KP2=	183	TAN2=	0.5008	0.4328	-0.7496
LINE CONNECTS KEYPOINTS 168 167							
LINE NO.=	211	KP1=	168	TAN1=	-0.1722	-0.4925	0.8531
		KP2=	167	TAN2=	0.1722	0.4925	-0.8531
LINE CONNECTS KEYPOINTS 175 174							
LINE NO.=	212	KP1=	175	TAN1=	-0.1722	-0.4925	0.8531
		KP2=	174	TAN2=	0.1722	0.4925	-0.8531
LINE CONNECTS KEYPOINTS 182 181							
LINE NO.=	213	KP1=	182	TAN1=	-0.1722	-0.4925	0.8531
		KP2=	181	TAN2=	0.1722	0.4925	-0.8531
LINE CONNECTS KEYPOINTS 47 48							
LINE NO.=	214	KP1=	47	TAN1=	0.1722	-0.4925	0.8531
		KP2=	48	TAN2=	-0.1722	0.4925	-0.8531
LINE CONNECTS KEYPOINTS 54 55							
LINE NO.=	215	KP1=	54	TAN1=	0.1722	-0.4925	0.8531
		KP2=	55	TAN2=	-0.1722	0.4925	-0.8531
LINE CONNECTS KEYPOINTS 61 62							
LINE NO.=	216	KP1=	61	TAN1=	0.1722	-0.4925	0.8531
		KP2=	62	TAN2=	-0.1722	0.4925	-0.8531
LINE CONNECTS KEYPOINTS 49 50							
LINE NO.=	217	KP1=	49	TAN1=	0.5008	-0.4328	0.7496
		KP2=	50	TAN2=	-0.5008	0.4328	-0.7496
LINE CONNECTS KEYPOINTS 50 51							
LINE NO.=	218	KP1=	50	TAN1=	0.5201	-0.4270	0.7397
		KP2=	51	TAN2=	-0.5201	0.4270	-0.7397
LINE CONNECTS KEYPOINTS 56 57							
LINE NO.=	219	KP1=	56	TAN1=	0.5008	-0.4328	0.7496
		KP2=	57	TAN2=	-0.5008	0.4328	-0.7496
LINE CONNECTS KEYPOINTS 57 58							
LINE NO.=	220	KP1=	57	TAN1=	0.5201	-0.4270	0.7397
		KP2=	58	TAN2=	-0.5201	0.4270	-0.7397
LINE CONNECTS KEYPOINTS 63 64							
LINE NO.=	221	KP1=	63	TAN1=	0.5008	-0.4328	0.7496
		KP2=	64	TAN2=	-0.5008	0.4328	-0.7496
LINE CONNECTS KEYPOINTS 64 65							
LINE NO.=	222	KP1=	64	TAN1=	0.5201	-0.4270	0.7397
		KP2=	65	TAN2=	-0.5201	0.4270	-0.7397

LINE CONNECTS KEYPOINTS 117 116
 LINE NO.= 223 KP1= 117 TAN1= 0.8541 -0.2601 0.4504
 KP2= 116 TAN2= -0.8541 0.2601 -0.4504

LINE CONNECTS KEYPOINTS 116 115
 LINE NO.= 224 KP1= 116 TAN1= 0.8656 -0.2504 0.4337
 KP2= 115 TAN2= -0.8656 0.2504 -0.4337

LINE CONNECTS KEYPOINTS 124 123
 LINE NO.= 225 KP1= 124 TAN1= 0.8541 -0.2601 0.4504
 KP2= 123 TAN2= -0.8541 0.2601 -0.4504

LINE CONNECTS KEYPOINTS 123 122
 LINE NO.= 226 KP1= 123 TAN1= 0.8656 -0.2504 0.4337
 KP2= 122 TAN2= -0.8656 0.2504 -0.4337

LINE CONNECTS KEYPOINTS 131 130
 LINE NO.= 227 KP1= 131 TAN1= 0.8541 -0.2601 0.4504
 KP2= 130 TAN2= -0.8541 0.2601 -0.4504

LINE CONNECTS KEYPOINTS 130 129
 LINE NO.= 228 KP1= 130 TAN1= 0.8656 -0.2504 0.4337
 KP2= 129 TAN2= -0.8656 0.2504 -0.4337

LINE CONNECTS KEYPOINTS 114 113
 LINE NO.= 229 KP1= 114 TAN1= 0.9851 -0.0861 0.1491
 KP2= 113 TAN2= -0.9851 0.0861 -0.1491

LINE CONNECTS KEYPOINTS 121 120
 LINE NO.= 230 KP1= 121 TAN1= 0.9851 -0.0861 0.1491
 KP2= 120 TAN2= -0.9851 0.0861 -0.1491

LINE CONNECTS KEYPOINTS 128 127
 LINE NO.= 231 KP1= 128 TAN1= 0.9851 -0.0861 0.1491
 KP2= 127 TAN2= -0.9851 0.0861 -0.1491

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 1, SPACING RATIO = 1.000
 line set 7 tube thickness

LINE CONNECTS KEYPOINTS 196 195
 LINE NO.= 232 KP1= 196 TAN1= 0.0000 -0.5000 0.8660
 KP2= 195 TAN2= 0.0000 0.5000 -0.8660

LINE CONNECTS KEYPOINTS 205 201
 LINE NO.= 233 KP1= 205 TAN1= 0.7071 -0.3536 0.6124
 KP2= 201 TAN2= -0.7071 0.3536 -0.6124

LINE CONNECTS KEYPOINTS 204 200
 LINE NO.= 234 KP1= 204 TAN1= 0.7071 0.3536 -0.6124
 KP2= 200 TAN2= -0.7071 -0.3536 0.6124

LINE CONNECTS KEYPOINTS 193 194
 LINE NO.= 235 KP1= 193 TAN1= 0.0000 0.5000 -0.8660
 KP2= 194 TAN2= 0.0000 -0.5000 0.8660

LINE CONNECTS KEYPOINTS 210 215
 LINE NO.= 236 KP1= 210 TAN1= -0.7071 -0.3536 0.6124
 KP2= 215 TAN2= 0.7071 0.3536 -0.6124

LINE CONNECTS KEYPOINTS 220 217
 LINE NO.= 237 KP1= 220 TAN1= 0.6084 -0.3968 0.6873
 KP2= 217 TAN2= -0.6084 0.3968 -0.6873

LINE CONNECTS KEYPOINTS 219 216
 LINE NO.= 238 KP1= 219 TAN1= 0.7071 0.3536 -0.6124
 KP2= 216 TAN2= -0.7071 -0.3536 0.6124

LINE CONNECTS KEYPOINTS 209 214

LINE NO.=	239	KP1=	209	TAN1=	-0.7071	0.3536	-0.6124
		KP2=	214	TAN2=	0.7071	-0.3536	0.6124
LINE CONNECTS KEYPOINTS 192 191							
LINE NO.=	240	KP1=	192	TAN1=	0.0000	-0.5000	0.8660
		KP2=	191	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 203 199							
LINE NO.=	241	KP1=	203	TAN1=	0.7071	-0.3536	0.6124
		KP2=	199	TAN2=	-0.7071	0.3536	-0.6124
LINE CONNECTS KEYPOINTS 202 198							
LINE NO.=	242	KP1=	202	TAN1=	0.7071	0.3536	-0.6124
		KP2=	198	TAN2=	-0.7071	-0.3536	0.6124
LINE CONNECTS KEYPOINTS 189 190							
LINE NO.=	243	KP1=	189	TAN1=	0.0000	0.5000	-0.8660
		KP2=	190	TAN2=	0.0000	-0.5000	0.8660
LINE CONNECTS KEYPOINTS 208 213							
LINE NO.=	244	KP1=	208	TAN1=	-0.7071	-0.3536	0.6124
		KP2=	213	TAN2=	0.7071	0.3536	-0.6124
LINE CONNECTS KEYPOINTS 159 155							
LINE NO.=	245	KP1=	159	TAN1=	0.7071	-0.3536	0.6124
		KP2=	155	TAN2=	-0.7071	0.3536	-0.6124
LINE CONNECTS KEYPOINTS 146 152							
LINE NO.=	246	KP1=	146	TAN1=	0.7071	0.3536	-0.6124
		KP2=	152	TAN2=	-0.7071	-0.3536	0.6124
LINE CONNECTS KEYPOINTS 145 151							
LINE NO.=	247	KP1=	145	TAN1=	-0.7071	0.3536	-0.6124
		KP2=	151	TAN2=	0.7071	-0.3536	0.6124
LINE CONNECTS KEYPOINTS 160 156							
LINE NO.=	248	KP1=	160	TAN1=	-0.7071	-0.3536	0.6124
		KP2=	156	TAN2=	0.7071	0.3536	-0.6124
LINE CONNECTS KEYPOINTS 161 157							
LINE NO.=	249	KP1=	161	TAN1=	0.7936	-0.3042	0.5269
		KP2=	157	TAN2=	-0.7936	0.3042	-0.5269
LINE CONNECTS KEYPOINTS 148 154							
LINE NO.=	250	KP1=	148	TAN1=	0.7071	0.3536	-0.6124
		KP2=	154	TAN2=	-0.7071	-0.3536	0.6124
LINE CONNECTS KEYPOINTS 147 153							
LINE NO.=	251	KP1=	147	TAN1=	-0.7071	0.3536	-0.6124
		KP2=	153	TAN2=	0.7071	-0.3536	0.6124
LINE CONNECTS KEYPOINTS 188 187							
LINE NO.=	252	KP1=	188	TAN1=	0.0000	-0.5000	0.8660
		KP2=	187	TAN2=	0.0000	0.5000	-0.8660
LINE CONNECTS KEYPOINTS 138 133							
LINE NO.=	253	KP1=	138	TAN1=	0.7071	-0.3536	0.6124
		KP2=	133	TAN2=	-0.7071	0.3536	-0.6124
LINE CONNECTS KEYPOINTS 18 13							
LINE NO.=	254	KP1=	18	TAN1=	0.7071	0.3536	-0.6124
		KP2=	13	TAN2=	-0.7071	-0.3536	0.6124
LINE CONNECTS KEYPOINTS 69 68							
LINE NO.=	255	KP1=	69	TAN1=	0.0000	0.5000	-0.8660
		KP2=	68	TAN2=	0.0000	-0.5000	0.8660
LINE CONNECTS KEYPOINTS 139 134							
LINE NO.=	256	KP1=	139	TAN1=	-0.7071	-0.3536	0.6124
		KP2=	134	TAN2=	0.7071	0.3536	-0.6124

LINE CONNECTS KEYPOINTS	140	135			
LINE NO.= 257	KP1= 140	TAN1= 0.7071	-0.3536	0.6124	
	KP2= 135	TAN2= -0.7071	0.3536	-0.6124	
LINE CONNECTS KEYPOINTS	20	15			
LINE NO.= 258	KP1= 20	TAN1= 0.7071	0.3536	-0.6124	
	KP2= 15	TAN2= -0.7071	-0.3536	0.6124	
LINE CONNECTS KEYPOINTS	19	14			
LINE NO.= 259	KP1= 19	TAN1= -0.7071	0.3536	-0.6124	
	KP2= 14	TAN2= 0.7071	-0.3536	0.6124	
LINE CONNECTS KEYPOINTS	141	136			
LINE NO.= 260	KP1= 141	TAN1= -0.7071	-0.3536	0.6124	
	KP2= 136	TAN2= 0.7071	0.3536	-0.6124	
LINE CONNECTS KEYPOINTS	142	137			
LINE NO.= 261	KP1= 142	TAN1= 0.7071	-0.3536	0.6124	
	KP2= 137	TAN2= -0.7071	0.3536	-0.6124	
LINE CONNECTS KEYPOINTS	22	17			
LINE NO.= 262	KP1= 22	TAN1= 0.7071	0.3536	-0.6124	
	KP2= 17	TAN2= -0.7071	-0.3536	0.6124	
LINE CONNECTS KEYPOINTS	21	16			
LINE NO.= 263	KP1= 21	TAN1= -0.7071	0.3536	-0.6124	
	KP2= 16	TAN2= 0.7071	-0.3536	0.6124	
LINE CONNECTS KEYPOINTS	70	71			
LINE NO.= 264	KP1= 70	TAN1= 0.0000	-0.5000	0.8660	
	KP2= 71	TAN2= 0.0000	0.5000	-0.8660	
LINE CONNECTS KEYPOINTS	85	80			
LINE NO.= 265	KP1= 85	TAN1= 0.7071	-0.3536	0.6124	
	KP2= 80	TAN2= -0.7071	0.3536	-0.6124	
LINE CONNECTS KEYPOINTS	86	81			
LINE NO.= 266	KP1= 86	TAN1= 0.7071	0.3536	-0.6124	
	KP2= 81	TAN2= -0.7071	-0.3536	0.6124	
LINE CONNECTS KEYPOINTS	73	72			
LINE NO.= 267	KP1= 73	TAN1= 0.0000	0.5000	-0.8660	
	KP2= 72	TAN2= 0.0000	-0.5000	0.8660	
LINE CONNECTS KEYPOINTS	25	31			
LINE NO.= 268	KP1= 25	TAN1= -0.7071	-0.3536	0.6124	
	KP2= 31	TAN2= 0.7071	0.3536	-0.6124	
LINE CONNECTS KEYPOINTS	26	32			
LINE NO.= 269	KP1= 26	TAN1= 0.7071	-0.3536	0.6124	
	KP2= 32	TAN2= -0.7071	0.3536	-0.6124	
LINE CONNECTS KEYPOINTS	39	35			
LINE NO.= 270	KP1= 39	TAN1= 0.7071	0.3536	-0.6124	
	KP2= 35	TAN2= -0.7071	-0.3536	0.6124	
LINE CONNECTS KEYPOINTS	92	98			
LINE NO.= 271	KP1= 92	TAN1= -0.7071	0.3536	-0.6124	
	KP2= 98	TAN2= 0.7071	-0.3536	0.6124	
LINE CONNECTS KEYPOINTS	27	33			
LINE NO.= 272	KP1= 27	TAN1= -0.7071	-0.3536	0.6124	
	KP2= 33	TAN2= 0.7071	0.3536	-0.6124	
LINE CONNECTS KEYPOINTS	28	34			
LINE NO.= 273	KP1= 28	TAN1= 0.7071	-0.3536	0.6124	
	KP2= 34	TAN2= -0.7071	0.3536	-0.6124	
LINE CONNECTS KEYPOINTS	41	37			

LINE NO.= 274 KP1= 41 TAN1= 0.7936 0.3042 -0.5269
 KP2= 37 TAN2= -0.7936 -0.3042 0.5269

LINE CONNECTS KEYPOINTS 40 36
 LINE NO.= 275 KP1= 40 TAN1= -0.7071 0.3536 -0.6124
 KP2= 36 TAN2= 0.7071 -0.3536 0.6124

LINE CONNECTS KEYPOINTS 74 75
 LINE NO.= 276 KP1= 74 TAN1= 0.0000 -0.5000 0.8660
 KP2= 75 TAN2= 0.0000 0.5000 -0.8660

LINE CONNECTS KEYPOINTS 87 82
 LINE NO.= 277 KP1= 87 TAN1= 0.7071 -0.3536 0.6124
 KP2= 82 TAN2= -0.7071 0.3536 -0.6124

LINE CONNECTS KEYPOINTS 88 83
 LINE NO.= 278 KP1= 88 TAN1= 0.7071 0.3536 -0.6124
 KP2= 83 TAN2= -0.7071 -0.3536 0.6124

LINE CONNECTS KEYPOINTS 77 76
 LINE NO.= 279 KP1= 77 TAN1= 0.0000 0.5000 -0.8660
 KP2= 76 TAN2= 0.0000 -0.5000 0.8660

LINE CONNECTS KEYPOINTS 93 99
 LINE NO.= 280 KP1= 93 TAN1= -0.7071 -0.3536 0.6124
 KP2= 99 TAN2= 0.7071 0.3536 -0.6124

LINE CONNECTS KEYPOINTS 106 102
 LINE NO.= 281 KP1= 106 TAN1= 0.7071 -0.3536 0.6124
 KP2= 102 TAN2= -0.7071 0.3536 -0.6124

LINE CONNECTS KEYPOINTS 107 103
 LINE NO.= 282 KP1= 107 TAN1= 0.6084 0.3968 -0.6873
 KP2= 103 TAN2= -0.6084 -0.3968 0.6873

LINE CONNECTS KEYPOINTS 94 100
 LINE NO.= 283 KP1= 94 TAN1= -0.7071 0.3536 -0.6124
 KP2= 100 TAN2= 0.7071 -0.3536 0.6124

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 1, SPACING RATIO = 1.000

ACTIVE COORDINATE SYSTEM SET TO 13 (CYLINDRICAL)
 line set 8, arc 1 bottom

LINE CONNECTS KEYPOINTS 222 207
 LINE NO.= 284 KP1= 222 TAN1= -1.0000 0.0000 0.0000
 KP2= 207 TAN2= 0.9863 0.0825 -0.1430

LINE CONNECTS KEYPOINTS 223 224
 LINE NO.= 285 KP1= 223 TAN1= -1.0000 0.0000 0.0000
 KP2= 224 TAN2= 0.9863 0.0825 -0.1430

LINE CONNECTS KEYPOINTS 229 230
 LINE NO.= 286 KP1= 229 TAN1= -1.0000 0.0000 0.0000
 KP2= 230 TAN2= 0.9863 0.0825 -0.1430

LINE CONNECTS KEYPOINTS 235 236
 LINE NO.= 287 KP1= 235 TAN1= -1.0000 0.0000 0.0000
 KP2= 236 TAN2= 0.9863 0.0825 -0.1430

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 4, SPACING RATIO = 1.000
 line set 9, arc 2 side arcs

LINE CONNECTS KEYPOINTS 212 218
 LINE NO.= 288 KP1= 212 TAN1= -0.9838 -0.0896 0.1552
 KP2= 218 TAN2= 0.8726 0.2442 -0.4230

LINE CONNECTS KEYPOINTS 225 226

LINE NO.= 289 KP1= 225 TAN1= -0.9838 -0.0896 0.1552
 KP2= 226 TAN2= 0.8726 0.2442 -0.4230

LINE CONNECTS KEYPOINTS 231 232
 LINE NO.= 290 KP1= 231 TAN1= -0.9838 -0.0896 0.1552
 KP2= 232 TAN2= 0.8726 0.2442 -0.4230

LINE CONNECTS KEYPOINTS 237 238
 LINE NO.= 291 KP1= 237 TAN1= -0.9838 -0.0896 0.1552
 KP2= 238 TAN2= 0.8726 0.2442 -0.4230

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 4, SPACING RATIO = 1.000
 line set 10, arc 3 side arcs

LINE CONNECTS KEYPOINTS 221 163
 LINE NO.= 292 KP1= 221 TAN1= -0.8497 -0.2636 0.4566
 KP2= 163 TAN2= 0.5272 0.4249 -0.7359

LINE CONNECTS KEYPOINTS 228 171
 LINE NO.= 293 KP1= 228 TAN1= -0.8497 -0.2636 0.4566
 KP2= 171 TAN2= 0.5272 0.4249 -0.7359

LINE CONNECTS KEYPOINTS 234 178
 LINE NO.= 294 KP1= 234 TAN1= -0.8497 -0.2636 0.4566
 KP2= 178 TAN2= 0.5272 0.4249 -0.7359

LINE CONNECTS KEYPOINTS 240 185
 LINE NO.= 295 KP1= 240 TAN1= -0.8497 -0.2636 0.4566
 KP2= 185 TAN2= 0.5272 0.4249 -0.7359

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 4, SPACING RATIO = 1.000
 line set 11, arc 4 side arcs

LINE CONNECTS KEYPOINTS 158 150
 LINE NO.= 296 KP1= 158 TAN1= -0.4884 -0.4363 0.7557
 KP2= 150 TAN2= 0.1793 0.4919 -0.8520

LINE CONNECTS KEYPOINTS 169 168
 LINE NO.= 297 KP1= 169 TAN1= -0.4884 -0.4363 0.7557
 KP2= 168 TAN2= 0.1793 0.4919 -0.8520

LINE CONNECTS KEYPOINTS 176 175
 LINE NO.= 298 KP1= 176 TAN1= -0.4884 -0.4363 0.7557
 KP2= 175 TAN2= 0.1793 0.4919 -0.8520

LINE CONNECTS KEYPOINTS 183 182
 LINE NO.= 299 KP1= 183 TAN1= -0.4884 -0.4363 0.7557
 KP2= 182 TAN2= 0.1793 0.4919 -0.8520

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 4, SPACING RATIO = 1.000
 line set 12, arc 5 side arcs

LINE CONNECTS KEYPOINTS 144 24
 LINE NO.= 300 KP1= 144 TAN1= -0.1651 -0.4931 0.8541
 KP2= 24 TAN2= -0.1651 0.4931 -0.8541

LINE CONNECTS KEYPOINTS 167 47
 LINE NO.= 301 KP1= 167 TAN1= -0.1651 -0.4931 0.8541
 KP2= 47 TAN2= -0.1651 0.4931 -0.8541

LINE CONNECTS KEYPOINTS 174 54
 LINE NO.= 302 KP1= 174 TAN1= -0.1651 -0.4931 0.8541
 KP2= 54 TAN2= -0.1651 0.4931 -0.8541

LINE CONNECTS KEYPOINTS 181 61
 LINE NO.= 303 KP1= 181 TAN1= -0.1651 -0.4931 0.8541
 KP2= 61 TAN2= -0.1651 0.4931 -0.8541

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
TO NDIV = 4, SPACING RATIO = 1.000
line set 13, arc 6 side arcs

LINE CONNECTS KEYPOINTS 30 38
LINE NO.= 304 KP1= 30 TAN1= 0.1793 -0.4919 0.8520
KP2= 38 TAN2= -0.4884 0.4363 -0.7557

LINE CONNECTS KEYPOINTS 48 49
LINE NO.= 305 KP1= 48 TAN1= 0.1793 -0.4919 0.8520
KP2= 49 TAN2= -0.4884 0.4363 -0.7557

LINE CONNECTS KEYPOINTS 55 56
LINE NO.= 306 KP1= 55 TAN1= 0.1793 -0.4919 0.8520
KP2= 56 TAN2= -0.4884 0.4363 -0.7557

LINE CONNECTS KEYPOINTS 62 63
LINE NO.= 307 KP1= 62 TAN1= 0.1793 -0.4919 0.8520
KP2= 63 TAN2= -0.4884 0.4363 -0.7557

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
TO NDIV = 4, SPACING RATIO = 1.000
line set 14, arc 7 side arcs

LINE CONNECTS KEYPOINTS 43 109
LINE NO.= 308 KP1= 43 TAN1= 0.5272 -0.4249 0.7359
KP2= 109 TAN2= -0.8497 0.2636 -0.4566

LINE CONNECTS KEYPOINTS 51 117
LINE NO.= 309 KP1= 51 TAN1= 0.5272 -0.4249 0.7359
KP2= 117 TAN2= -0.8497 0.2636 -0.4566

LINE CONNECTS KEYPOINTS 58 124
LINE NO.= 310 KP1= 58 TAN1= 0.5272 -0.4249 0.7359
KP2= 124 TAN2= -0.8497 0.2636 -0.4566

LINE CONNECTS KEYPOINTS 65 131
LINE NO.= 311 KP1= 65 TAN1= 0.5272 -0.4249 0.7359
KP2= 131 TAN2= -0.8497 0.2636 -0.4566

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
TO NDIV = 4, SPACING RATIO = 1.000
line set 15, arc 8 side arcs

LINE CONNECTS KEYPOINTS 104 96
LINE NO.= 312 KP1= 104 TAN1= 0.8726 -0.2442 0.4230
KP2= 96 TAN2= -0.9838 0.0896 -0.1552

LINE CONNECTS KEYPOINTS 115 114
LINE NO.= 313 KP1= 115 TAN1= 0.8726 -0.2442 0.4230
KP2= 114 TAN2= -0.9838 0.0896 -0.1552

LINE CONNECTS KEYPOINTS 122 121
LINE NO.= 314 KP1= 122 TAN1= 0.8726 -0.2442 0.4230
KP2= 121 TAN2= -0.9838 0.0896 -0.1552

LINE CONNECTS KEYPOINTS 129 128
LINE NO.= 315 KP1= 129 TAN1= 0.8726 -0.2442 0.4230
KP2= 128 TAN2= -0.9838 0.0896 -0.1552

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
TO NDIV = 4, SPACING RATIO = 1.000
line set 16, arc 9 top arcs

LINE CONNECTS KEYPOINTS 90 110
LINE NO.= 316 KP1= 90 TAN1= 0.9863 -0.0825 0.1430
KP2= 110 TAN2= -1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 113 112

LINE NO.= 317 KP1= 113 TAN1= 0.9863 -0.0825 0.1430
 KP2= 112 TAN2= -1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 120 119

LINE NO.= 318 KP1= 120 TAN1= 0.9863 -0.0825 0.1430
 KP2= 119 TAN2= -1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 127 126

LINE NO.= 319 KP1= 127 TAN1= 0.9863 -0.0825 0.1430
 KP2= 126 TAN2= -1.0000 0.0000 0.0000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES

TO NDIV = 4, SPACING RATIO = 1.000

ACTIVE COORDINATE SYSTEM SET TO 12 (CARTESIAN)

line set 17 IB thickness

LINE CONNECTS KEYPOINTS 222 223

LINE NO.= 320 KP1= 222 TAN1= 0.0000 0.5000 -0.8660
 KP2= 223 TAN2= 0.0000 -0.5000 0.8660

LINE CONNECTS KEYPOINTS 207 224

LINE NO.= 321 KP1= 207 TAN1= -0.1651 0.4931 -0.8541
 KP2= 224 TAN2= 0.1651 -0.4931 0.8541

LINE CONNECTS KEYPOINTS 212 225

LINE NO.= 322 KP1= 212 TAN1= -0.1793 0.4919 -0.8520
 KP2= 225 TAN2= 0.1793 -0.4919 0.8520

LINE CONNECTS KEYPOINTS 218 226

LINE NO.= 323 KP1= 218 TAN1= -0.4884 0.4363 -0.7557
 KP2= 226 TAN2= 0.4884 -0.4363 0.7557

LINE CONNECTS KEYPOINTS 220 227

LINE NO.= 324 KP1= 220 TAN1= -0.5130 0.4292 -0.7434
 KP2= 227 TAN2= 0.5130 -0.4292 0.7434

LINE CONNECTS KEYPOINTS 221 228

LINE NO.= 325 KP1= 221 TAN1= -0.5272 0.4249 -0.7359
 KP2= 228 TAN2= 0.5272 -0.4249 0.7359

LINE CONNECTS KEYPOINTS 163 171

LINE NO.= 326 KP1= 163 TAN1= -0.8497 0.2636 -0.4566
 KP2= 171 TAN2= 0.8497 -0.2636 0.4566

LINE CONNECTS KEYPOINTS 161 170

LINE NO.= 327 KP1= 161 TAN1= -0.8584 0.2565 -0.4443
 KP2= 170 TAN2= 0.8584 -0.2565 0.4443

LINE CONNECTS KEYPOINTS 158 169

LINE NO.= 328 KP1= 158 TAN1= -0.8726 0.2442 -0.4230
 KP2= 169 TAN2= 0.8726 -0.2442 0.4230

LINE CONNECTS KEYPOINTS 150 168

LINE NO.= 329 KP1= 150 TAN1= -0.9838 0.0896 -0.1552
 KP2= 168 TAN2= 0.9838 -0.0896 0.1552

LINE CONNECTS KEYPOINTS 144 167

LINE NO.= 330 KP1= 144 TAN1= -0.9863 0.0825 -0.1430
 KP2= 167 TAN2= 0.9863 -0.0825 0.1430

LINE CONNECTS KEYPOINTS 24 47

LINE NO.= 331 KP1= 24 TAN1= -0.9863 -0.0825 0.1430
 KP2= 47 TAN2= 0.9863 0.0825 -0.1430

LINE CONNECTS KEYPOINTS 30 48

LINE NO.= 332 KP1= 30 TAN1= -0.9838 -0.0896 0.1552
 KP2= 48 TAN2= 0.9838 0.0896 -0.1552

LINE CONNECTS KEYPOINTS 38 49

LINE NO.= 333 KP1= 38 TAN1= -0.8726 -0.2442 0.4230
 KP2= 49 TAN2= 0.8726 0.2442 -0.4230

LINE CONNECTS KEYPOINTS 41 50
 LINE NO.= 334 KP1= 41 TAN1= -0.8584 -0.2565 0.4443
 KP2= 50 TAN2= 0.8584 0.2565 -0.4443

LINE CONNECTS KEYPOINTS 43 51
 LINE NO.= 335 KP1= 43 TAN1= -0.8497 -0.2636 0.4566
 KP2= 51 TAN2= 0.8497 0.2636 -0.4566

LINE CONNECTS KEYPOINTS 109 117
 LINE NO.= 336 KP1= 109 TAN1= -0.5272 -0.4249 0.7359
 KP2= 117 TAN2= 0.5272 0.4249 -0.7359

LINE CONNECTS KEYPOINTS 107 116
 LINE NO.= 337 KP1= 107 TAN1= -0.5130 -0.4292 0.7434
 KP2= 116 TAN2= 0.5130 0.4292 -0.7434

LINE CONNECTS KEYPOINTS 104 115
 LINE NO.= 338 KP1= 104 TAN1= -0.4884 -0.4363 0.7557
 KP2= 115 TAN2= 0.4884 0.4363 -0.7557

LINE CONNECTS KEYPOINTS 96 114
 LINE NO.= 339 KP1= 96 TAN1= -0.1793 -0.4919 0.8520
 KP2= 114 TAN2= 0.1793 0.4919 -0.8520

LINE CONNECTS KEYPOINTS 90 113
 LINE NO.= 340 KP1= 90 TAN1= -0.1651 -0.4931 0.8541
 KP2= 113 TAN2= 0.1651 0.4931 -0.8541

LINE CONNECTS KEYPOINTS 110 112
 LINE NO.= 341 KP1= 110 TAN1= 0.0000 -0.5000 0.8660
 KP2= 112 TAN2= 0.0000 0.5000 -0.8660

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 2, SPACING RATIO = 1.000
 line set 18 OB inner thickness

LINE CONNECTS KEYPOINTS 223 229
 LINE NO.= 342 KP1= 223 TAN1= 0.0000 0.5000 -0.8660
 KP2= 229 TAN2= 0.0000 -0.5000 0.8660

LINE CONNECTS KEYPOINTS 224 230
 LINE NO.= 343 KP1= 224 TAN1= -0.1651 0.4931 -0.8541
 KP2= 230 TAN2= 0.1651 -0.4931 0.8541

LINE CONNECTS KEYPOINTS 225 231
 LINE NO.= 344 KP1= 225 TAN1= -0.1793 0.4919 -0.8520
 KP2= 231 TAN2= 0.1793 -0.4919 0.8520

LINE CONNECTS KEYPOINTS 226 232
 LINE NO.= 345 KP1= 226 TAN1= -0.4884 0.4363 -0.7557
 KP2= 232 TAN2= 0.4884 -0.4363 0.7557

LINE CONNECTS KEYPOINTS 227 233
 LINE NO.= 346 KP1= 227 TAN1= -0.5130 0.4292 -0.7434
 KP2= 233 TAN2= 0.5130 -0.4292 0.7434

LINE CONNECTS KEYPOINTS 228 234
 LINE NO.= 347 KP1= 228 TAN1= -0.5272 0.4249 -0.7359
 KP2= 234 TAN2= 0.5272 -0.4249 0.7359

LINE CONNECTS KEYPOINTS 171 178
 LINE NO.= 348 KP1= 171 TAN1= -0.8497 0.2636 -0.4566
 KP2= 178 TAN2= 0.8497 -0.2636 0.4566

LINE CONNECTS KEYPOINTS 170 177
 LINE NO.= 349 KP1= 170 TAN1= -0.8584 0.2565 -0.4443
 KP2= 177 TAN2= 0.8584 -0.2565 0.4443

LINE CONNECTS KEYPOINTS 169 176
 LINE NO.= 350 KP1= 169 TAN1= -0.8726 0.2442 -0.4230
 KP2= 176 TAN2= 0.8726 -0.2442 0.4230

LINE CONNECTS KEYPOINTS 168 175
 LINE NO.= 351 KP1= 168 TAN1= -0.9838 0.0896 -0.1552
 KP2= 175 TAN2= 0.9838 -0.0896 0.1552

LINE CONNECTS KEYPOINTS 167 174
 LINE NO.= 352 KP1= 167 TAN1= -0.9863 0.0825 -0.1430
 KP2= 174 TAN2= 0.9863 -0.0825 0.1430

LINE CONNECTS KEYPOINTS 47 54
 LINE NO.= 353 KP1= 47 TAN1= -0.9863 -0.0825 0.1430
 KP2= 54 TAN2= 0.9863 0.0825 -0.1430

LINE CONNECTS KEYPOINTS 48 55
 LINE NO.= 354 KP1= 48 TAN1= -0.9838 -0.0896 0.1552
 KP2= 55 TAN2= 0.9838 0.0896 -0.1552

LINE CONNECTS KEYPOINTS 49 56
 LINE NO.= 355 KP1= 49 TAN1= -0.8726 -0.2442 0.4230
 KP2= 56 TAN2= 0.8726 0.2442 -0.4230

LINE CONNECTS KEYPOINTS 50 57
 LINE NO.= 356 KP1= 50 TAN1= -0.8584 -0.2565 0.4443
 KP2= 57 TAN2= 0.8584 0.2565 -0.4443

LINE CONNECTS KEYPOINTS 51 58
 LINE NO.= 357 KP1= 51 TAN1= -0.8497 -0.2636 0.4566
 KP2= 58 TAN2= 0.8497 0.2636 -0.4566

LINE CONNECTS KEYPOINTS 117 124
 LINE NO.= 358 KP1= 117 TAN1= -0.5272 -0.4249 0.7359
 KP2= 124 TAN2= 0.5272 0.4249 -0.7359

LINE CONNECTS KEYPOINTS 116 123
 LINE NO.= 359 KP1= 116 TAN1= -0.5130 -0.4292 0.7434
 KP2= 123 TAN2= 0.5130 0.4292 -0.7434

LINE CONNECTS KEYPOINTS 115 122
 LINE NO.= 360 KP1= 115 TAN1= -0.4884 -0.4363 0.7557
 KP2= 122 TAN2= 0.4884 0.4363 -0.7557

LINE CONNECTS KEYPOINTS 114 121
 LINE NO.= 361 KP1= 114 TAN1= -0.1793 -0.4919 0.8520
 KP2= 121 TAN2= 0.1793 0.4919 -0.8520

LINE CONNECTS KEYPOINTS 113 120
 LINE NO.= 362 KP1= 113 TAN1= -0.1651 -0.4931 0.8541
 KP2= 120 TAN2= 0.1651 0.4931 -0.8541

LINE CONNECTS KEYPOINTS 112 119
 LINE NO.= 363 KP1= 112 TAN1= 0.0000 -0.5000 0.8660
 KP2= 119 TAN2= 0.0000 0.5000 -0.8660

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
 TO NDIV = 1, SPACING RATIO = 1.000
 line set 19 skirt thickness

LINE CONNECTS KEYPOINTS 229 235
 LINE NO.= 364 KP1= 229 TAN1= 0.0000 0.5000 -0.8660
 KP2= 235 TAN2= 0.0000 -0.5000 0.8660

LINE CONNECTS KEYPOINTS 230 236
 LINE NO.= 365 KP1= 230 TAN1= -0.1651 0.4931 -0.8541
 KP2= 236 TAN2= 0.1651 -0.4931 0.8541

LINE CONNECTS KEYPOINTS 231 237

LINE NO.= 366	KP1= 231	TAN1= -0.1793	0.4919	-0.8520
	KP2= 237	TAN2= 0.1793	-0.4919	0.8520
LINE CONNECTS KEYPOINTS 232 238				
LINE NO.= 367	KP1= 232	TAN1= -0.4884	0.4363	-0.7557
	KP2= 238	TAN2= 0.4884	-0.4363	0.7557
LINE CONNECTS KEYPOINTS 233 239				
LINE NO.= 368	KP1= 233	TAN1= -0.5130	0.4292	-0.7434
	KP2= 239	TAN2= 0.5130	-0.4292	0.7434
LINE CONNECTS KEYPOINTS 234 240				
LINE NO.= 369	KP1= 234	TAN1= -0.5272	0.4249	-0.7359
	KP2= 240	TAN2= 0.5272	-0.4249	0.7359
LINE CONNECTS KEYPOINTS 178 185				
LINE NO.= 370	KP1= 178	TAN1= -0.8497	0.2636	-0.4566
	KP2= 185	TAN2= 0.8497	-0.2636	0.4566
LINE CONNECTS KEYPOINTS 177 184				
LINE NO.= 371	KP1= 177	TAN1= -0.8584	0.2565	-0.4443
	KP2= 184	TAN2= 0.8584	-0.2565	0.4443
LINE CONNECTS KEYPOINTS 176 183				
LINE NO.= 372	KP1= 176	TAN1= -0.8726	0.2442	-0.4230
	KP2= 183	TAN2= 0.8726	-0.2442	0.4230
LINE CONNECTS KEYPOINTS 175 182				
LINE NO.= 373	KP1= 175	TAN1= -0.9838	0.0896	-0.1552
	KP2= 182	TAN2= 0.9838	-0.0896	0.1552
LINE CONNECTS KEYPOINTS 174 181				
LINE NO.= 374	KP1= 174	TAN1= -0.9863	0.0825	-0.1430
	KP2= 181	TAN2= 0.9863	-0.0825	0.1430
LINE CONNECTS KEYPOINTS 54 61				
LINE NO.= 375	KP1= 54	TAN1= -0.9863	-0.0825	0.1430
	KP2= 61	TAN2= 0.9863	0.0825	-0.1430
LINE CONNECTS KEYPOINTS 55 62				
LINE NO.= 376	KP1= 55	TAN1= -0.9838	-0.0896	0.1552
	KP2= 62	TAN2= 0.9838	0.0896	-0.1552
LINE CONNECTS KEYPOINTS 56 63				
LINE NO.= 377	KP1= 56	TAN1= -0.8726	-0.2442	0.4230
	KP2= 63	TAN2= 0.8726	0.2442	-0.4230
LINE CONNECTS KEYPOINTS 57 64				
LINE NO.= 378	KP1= 57	TAN1= -0.8584	-0.2565	0.4443
	KP2= 64	TAN2= 0.8584	0.2565	-0.4443
LINE CONNECTS KEYPOINTS 58 65				
LINE NO.= 379	KP1= 58	TAN1= -0.8497	-0.2636	0.4566
	KP2= 65	TAN2= 0.8497	0.2636	-0.4566
LINE CONNECTS KEYPOINTS 124 131				
LINE NO.= 380	KP1= 124	TAN1= -0.5272	-0.4249	0.7359
	KP2= 131	TAN2= 0.5272	0.4249	-0.7359
LINE CONNECTS KEYPOINTS 123 130				
LINE NO.= 381	KP1= 123	TAN1= -0.5130	-0.4292	0.7434
	KP2= 130	TAN2= 0.5130	0.4292	-0.7434
LINE CONNECTS KEYPOINTS 122 129				
LINE NO.= 382	KP1= 122	TAN1= -0.4884	-0.4363	0.7557
	KP2= 129	TAN2= 0.4884	0.4363	-0.7557
LINE CONNECTS KEYPOINTS 121 128				
LINE NO.= 383	KP1= 121	TAN1= -0.1793	-0.4919	0.8520
	KP2= 128	TAN2= 0.1793	0.4919	-0.8520

LINE CONNECTS KEYPOINTS 120 127
LINE NO.= 384 KP1= 120 TAN1= -0.1651 -0.4931 0.8541
KP2= 127 TAN2= 0.1651 0.4931 -0.8541

LINE CONNECTS KEYPOINTS 119 126
LINE NO.= 385 KP1= 119 TAN1= 0.0000 -0.5000 0.8660
KP2= 126 TAN2= 0.0000 0.5000 -0.8660

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
TO NDIV = 2, SPACING RATIO = 1.000
area set 1, tubes (Areas 1 - 47)

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 195 196 205 201
AREA NUMBER = 1

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 200 201 205 204
AREA NUMBER = 2

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 193 194 200 204
AREA NUMBER = 3

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 191 192 203 199
AREA NUMBER = 4

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 198 199 203 202
AREA NUMBER = 5

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 189 190 198 202
AREA NUMBER = 6

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 187 188 138 133
AREA NUMBER = 7

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 133 138 18 13
AREA NUMBER = 8

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 69 68 13 18
AREA NUMBER = 9

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 71 70 85 80
AREA NUMBER = 10

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 80 85 86 81
AREA NUMBER = 11

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 73 72 81 86

AREA NUMBER = 12
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 75 74 87 82
AREA NUMBER = 13
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 82 87 88 83
AREA NUMBER = 14
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 77 76 83 88
AREA NUMBER = 15
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 209 210 215 214
AREA NUMBER = 16
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 215 210 220 217
AREA NUMBER = 17
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 216 217 220 219
AREA NUMBER = 18
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 209 214 216 219
AREA NUMBER = 19
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 145 208 213 151
AREA NUMBER = 20
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 213 208 159 155
AREA NUMBER = 21
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 152 155 159 146
AREA NUMBER = 22
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 145 151 152 146
AREA NUMBER = 23
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 134 139 140 135
AREA NUMBER = 24
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 135 140 20 15
AREA NUMBER = 25
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 19 14 15 20

AREA NUMBER = 26
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 19 139 134 14
AREA NUMBER = 27
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 92 25 31 98
AREA NUMBER = 28
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 31 25 26 32
AREA NUMBER = 29
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 32 26 39 35
AREA NUMBER = 30
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 92 98 35 39
AREA NUMBER = 31
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 94 93 99 100
AREA NUMBER = 32
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 99 93 106 102
AREA NUMBER = 33
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 102 106 107 103
AREA NUMBER = 34
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 94 100 103 107
AREA NUMBER = 35
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 156 160 161 157
AREA NUMBER = 36
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 157 161 148 154
AREA NUMBER = 37
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 147 153 154 148
AREA NUMBER = 38
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 147 160 156 153
AREA NUMBER = 39
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 136 141 142 137

AREA NUMBER = 40
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 137 142 22 17
AREA NUMBER = 41
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 21 16 17 22
AREA NUMBER = 42
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 21 141 136 16
AREA NUMBER = 43
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 33 27 28 34
AREA NUMBER = 44
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 34 28 41 37
AREA NUMBER = 45
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 40 36 37 41
AREA NUMBER = 46
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 40 27 33 36
AREA NUMBER = 47
area set 2, plates (Areas 48-71)
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 204 205 210 209
AREA NUMBER = 48
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 192 193 204 203
AREA NUMBER = 49
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 203 204 209 208
AREA NUMBER = 50
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 208 209 219 159
AREA NUMBER = 51
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 202 203 208 145
AREA NUMBER = 52
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 146 159 160 147
AREA NUMBER = 53
DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 188 189 202 138

AREA NUMBER = 54

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 138 202 145 139

AREA NUMBER = 55

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 139 145 146 140

AREA NUMBER = 56

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 140 146 147 141

AREA NUMBER = 57

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 141 147 148 142

AREA NUMBER = 58

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 18 138 139 19

AREA NUMBER = 59

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 20 140 141 21

AREA NUMBER = 60

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 70 69 18 85

AREA NUMBER = 61

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 85 18 19 25

AREA NUMBER = 62

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 25 19 20 26

AREA NUMBER = 63

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 26 20 21 27

AREA NUMBER = 64

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 27 21 22 28

AREA NUMBER = 65

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 86 85 25 92

AREA NUMBER = 66

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 39 26 27 40

AREA NUMBER = 67

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 74 73 86 87

AREA NUMBER = 68

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 87 86 92 93

AREA NUMBER = 69

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 93 92 39 106

AREA NUMBER = 70

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 88 87 93 94

AREA NUMBER = 71

area set 3, side guides (Areas 72-86)

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 196 197 206 205

AREA NUMBER = 72

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 205 206 211 210

AREA NUMBER = 73

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 206 207 212 211

AREA NUMBER = 74

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 210 211 218 220

AREA NUMBER = 75

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 148 161 158 149

AREA NUMBER = 76

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 142 148 149 143

AREA NUMBER = 77

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 143 149 150 144

AREA NUMBER = 78

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 22 142 143 23

AREA NUMBER = 79

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 28 22 23 29

AREA NUMBER = 80

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 29 23 24 30

AREA NUMBER = 81

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 41 28 29 38

AREA NUMBER = 82

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 95 94 107 104

AREA NUMBER = 83

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 89 88 94 95

AREA NUMBER = 84

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 90 89 95 96

AREA NUMBER = 85

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 78 77 88 89

AREA NUMBER = 86

area set 4, corner guides (Areas 87-92)

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 219 220 221 162

AREA NUMBER = 87

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 159 219 162 160

AREA NUMBER = 88

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 160 162 163 161

AREA NUMBER = 89

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 107 106 42 109

AREA NUMBER = 90

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 106 39 40 42

AREA NUMBER = 91

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 42 40 41 43

AREA NUMBER = 92

ACTIVE COORDINATE SYSTEM SET TO 1 (CYLINDRICAL)
area set 5, inner barrier (Areas 93-113)

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 222 223 224 207

AREA NUMBER = 93

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 207 224 225 212

AREA NUMBER = 94

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 212 225 226 218
AREA NUMBER = 95
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 218 226 227 220
AREA NUMBER = 96
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 220 227 228 221
AREA NUMBER = 97
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 221 228 171 163
AREA NUMBER = 98
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 163 171 170 161
AREA NUMBER = 99
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 161 170 169 158
AREA NUMBER = 100
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 158 169 168 150
AREA NUMBER = 101
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 150 168 167 144
AREA NUMBER = 102
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 144 167 47 24
AREA NUMBER = 103
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 24 47 48 30
AREA NUMBER = 104
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 30 48 49 38
AREA NUMBER = 105
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 38 49 50 41
AREA NUMBER = 106
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 41 50 51 43
AREA NUMBER = 107
DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 43 51 117 109
AREA NUMBER = 108
DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 109 117 116 107

AREA NUMBER = 109

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 107 116 115 104

AREA NUMBER = 110

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 104 115 114 96

AREA NUMBER = 111

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 90 96 114 113

AREA NUMBER = 112

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 90 113 112 110

AREA NUMBER = 113

area set 6, outer barrier (Areas 114-155)

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 223 229 230 224

AREA NUMBER = 114

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 224 230 231 225

AREA NUMBER = 115

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 225 231 232 226

AREA NUMBER = 116

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 226 232 233 227

AREA NUMBER = 117

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 227 233 234 228

AREA NUMBER = 118

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 228 234 178 171

AREA NUMBER = 119

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 171 178 177 170

AREA NUMBER = 120

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 170 177 176 169

AREA NUMBER = 121

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 169 176 175 168

AREA NUMBER = 122

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 168 175 174 167

AREA NUMBER = 123

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 167 174 54 47

AREA NUMBER = 124

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 47 54 55 48

AREA NUMBER = 125

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 48 55 56 49

AREA NUMBER = 126

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 49 56 57 50

AREA NUMBER = 127

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 50 57 58 51

AREA NUMBER = 128

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 51 58 124 117

AREA NUMBER = 129

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 117 124 123 116

AREA NUMBER = 130

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 116 123 122 115

AREA NUMBER = 131

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 115 122 121 114

AREA NUMBER = 132

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 114 121 120 113

AREA NUMBER = 133

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 113 120 119 112

AREA NUMBER = 134

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 229 235 236 230

AREA NUMBER = 135

DEFINE AREA BY LIST OF KEYPOINTS
KEYPOINT LIST = 236 237 231 230

AREA NUMBER = 136

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 231 237 238 232

AREA NUMBER = 137

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 238 239 233 232

AREA NUMBER = 138

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 239 240 234 233

AREA NUMBER = 139

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 240 185 178 234

AREA NUMBER = 140

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 185 184 177 178

AREA NUMBER = 141

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 184 183 176 177

AREA NUMBER = 142

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 176 183 182 175

AREA NUMBER = 143

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 175 182 181 174

AREA NUMBER = 144

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 174 181 61 54

AREA NUMBER = 145

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 54 61 62 55

AREA NUMBER = 146

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 55 62 63 56

AREA NUMBER = 147

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 56 63 64 57

AREA NUMBER = 148

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 57 64 65 58

AREA NUMBER = 149

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 58 65 131 124

AREA NUMBER = 150

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 124 131 130 123

AREA NUMBER = 151

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 123 130 129 122

AREA NUMBER = 152

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 122 129 128 121

AREA NUMBER = 153

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 121 128 127 120

AREA NUMBER = 154

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 120 127 126 119

AREA NUMBER = 155

ACTIVE COORDINATE SYSTEM SET TO 0 (CARTESIAN)

area set 7, Side Guide Covers (Areas 156-162)

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 222 207 206 197

AREA NUMBER = 156

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 211 212 218 218

AREA NUMBER = 157

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 150 149 158 158

AREA NUMBER = 158

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 144 24 23 143

AREA NUMBER = 159

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 29 30 38 38

AREA NUMBER = 160

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 96 95 104 104

AREA NUMBER = 161

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 90 110 78 89

AREA NUMBER = 162

area set 8, Corner Stiffeners (Area 163-164)

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 162 221 163 163

AREA NUMBER = 163

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 42 43 109 109

AREA NUMBER = 164

area set 9, Remaining Lid Sections (Areas 165-177)

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 195 201 200 194

AREA NUMBER = 165

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 215 217 216 214

AREA NUMBER = 166

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 191 199 198 190

AREA NUMBER = 167

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 213 155 152 151

AREA NUMBER = 168

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 156 157 154 153

AREA NUMBER = 169

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 187 133 13 68

AREA NUMBER = 170

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 134 135 15 14

AREA NUMBER = 171

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 136 137 17 16

AREA NUMBER = 172

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 71 80 81 72

AREA NUMBER = 173

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 31 32 35 98

AREA NUMBER = 174

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 33 34 37 36

AREA NUMBER = 175

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 75 82 83 76

AREA NUMBER = 176

DEFINE AREA BY LIST OF KEYPOINTS

KEYPOINT LIST = 99 102 103 100

AREA NUMBER = 177

ACTIVE COORDINATE SYSTEM SET TO 13 (CYLINDRICAL)

SELECT FOR ITEM=AREA COMPONENT=
IN RANGE 135 TO 155 STEP 1

21 AREAS (OF 177 DEFINED) SELECTED BY ASEL COMMAND.

DRAG ALL SELECTED AREAS
ALONG LINES
1,

*** WARNING *** CP= 6.290 TIME= 16:33:19
Area 135 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.290 TIME= 16:33:19
Area 136 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.290 TIME= 16:33:19
Area 137 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.290 TIME= 16:33:19
Area 138 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.290 TIME= 16:33:19
Area 139 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.290 TIME= 16:33:19
Area 140 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.300 TIME= 16:33:19
Area 141 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.300 TIME= 16:33:19
Area 142 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.300 TIME= 16:33:19
Area 143 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.300 TIME= 16:33:19
Area 144 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.300 TIME= 16:33:19
Area 145 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.300 TIME= 16:33:19
Area 146 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.300 TIME= 16:33:19
Area 147 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.300 TIME= 16:33:19
Area 148 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.300 TIME= 16:33:19
Area 149 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.300 TIME= 16:33:19
Area 150 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.300 TIME= 16:33:19
Area 151 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.310 TIME= 16:33:19
Area 152 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.310 TIME= 16:33:19
Area 153 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.310 TIME= 16:33:19
Area 154 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 6.310 TIME= 16:33:19
Area 155 is not meshed. Volume will be generated without elements.

SELECT FOR ITEM=AREA COMPONENT=
IN RANGE 1 TO 177 STEP 1

177 AREAS (OF 262 DEFINED) SELECTED BY ASEL COMMAND.

GENERATE 2 TOTAL SETS OF AREAS
SET IS ALL SELECTED AREAS
DX,DY,DZ= 0.000E+00 0.000E+00 0.225 CSYS= 13

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 0.22500 AND 0.22500
KABS= 0. TOLERANCE= 0.112500E-02

177 AREAS (OF 439 DEFINED) SELECTED BY ASEL COMMAND.

DRAG ALL SELECTED AREAS
ALONG LINES
2,

*** WARNING *** CP= 10.160 TIME= 16:33:23
Area 263 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.170 TIME= 16:33:23
Area 264 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.170 TIME= 16:33:23
Area 265 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.170 TIME= 16:33:23
Area 266 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.170 TIME= 16:33:23
Area 267 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.170 TIME= 16:33:23
Area 268 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.170 TIME= 16:33:23
Area 269 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.170 TIME= 16:33:23
Area 270 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.170 TIME= 16:33:23
Area 271 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.170 TIME= 16:33:23
Area 272 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.170 TIME= 16:33:23
Area 273 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.180 TIME= 16:33:23
Area 274 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.180 TIME= 16:33:23
Area 275 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.180 TIME= 16:33:23
Area 276 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.180 TIME= 16:33:23
Area 277 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.180 TIME= 16:33:23
Area 278 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.180 TIME= 16:33:23
Area 279 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.180 TIME= 16:33:23
Area 280 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.180 TIME= 16:33:23
Area 281 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.180 TIME= 16:33:23
Area 282 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.180 TIME= 16:33:23
Area 283 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.180 TIME= 16:33:23
Area 284 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.190 TIME= 16:33:23
Area 285 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.190 TIME= 16:33:23
Area 286 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.190 TIME= 16:33:23
Area 287 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.190 TIME= 16:33:23
Area 288 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.190 TIME= 16:33:23
Area 289 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.190 TIME= 16:33:23
Area 290 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.190 TIME= 16:33:23
Area 291 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.190 TIME= 16:33:23
Area 292 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.190 TIME= 16:33:23
Area 293 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.190 TIME= 16:33:23
Area 294 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.190 TIME= 16:33:23
Area 295 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.200 TIME= 16:33:23
Area 296 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.200 TIME= 16:33:23
Area 297 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.200 TIME= 16:33:23
Area 298 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.200 TIME= 16:33:23
Area 299 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.200 TIME= 16:33:23
Area 300 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.200 TIME= 16:33:23
Area 301 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.200 TIME= 16:33:23

Area 302 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.200 TIME= 16:33:23
Area 303 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.200 TIME= 16:33:23
Area 304 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.200 TIME= 16:33:23
Area 305 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.200 TIME= 16:33:23
Area 306 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.210 TIME= 16:33:23
Area 307 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.210 TIME= 16:33:23
Area 308 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.210 TIME= 16:33:23
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*** WARNING *** CP= 10.210 TIME= 16:33:23
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*** WARNING *** CP= 10.210 TIME= 16:33:23
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*** WARNING *** CP= 10.210 TIME= 16:33:23
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*** WARNING *** CP= 10.210 TIME= 16:33:23
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*** WARNING *** CP= 10.210 TIME= 16:33:23
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*** WARNING *** CP= 10.210 TIME= 16:33:23
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*** WARNING *** CP= 10.210 TIME= 16:33:23
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*** WARNING *** CP= 10.210 TIME= 16:33:23
Area 317 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.220 TIME= 16:33:23
Area 318 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.220 TIME= 16:33:23
Area 319 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.220 TIME= 16:33:23
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*** WARNING *** CP= 10.230 TIME= 16:33:23
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*** WARNING *** CP= 10.240 TIME= 16:33:23
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*** WARNING *** CP= 10.250 TIME= 16:33:23
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*** WARNING *** CP= 10.270 TIME= 16:33:23

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*** WARNING *** CP= 10.280 TIME= 16:33:23
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*** WARNING *** CP= 10.300 TIME= 16:33:23
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*** WARNING *** CP= 10.310 TIME= 16:33:23
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Area 423 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.320 TIME= 16:33:23
Area 424 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.320 TIME= 16:33:23
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*** WARNING *** CP= 10.330 TIME= 16:33:23
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Area 435 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.330 TIME= 16:33:23
Area 436 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.330 TIME= 16:33:23
Area 437 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.330 TIME= 16:33:23
Area 438 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 10.330 TIME= 16:33:23
Area 439 is not meshed. Volume will be generated without elements.

SELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 0.33500 AND 0.33500
KABS= 0. TOLERANCE= 0.167500E-02

177 AREAS (OF 992 DEFINED) SELECTED BY ASEL COMMAND.

DRAG ALL SELECTED AREAS
ALONG LINES

3,

*** WARNING *** CP= 21.100 TIME= 16:33:36
Area 444 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.100 TIME= 16:33:36
Area 448 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.110 TIME= 16:33:36
Area 452 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.110 TIME= 16:33:36
Area 457 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.110 TIME= 16:33:36
Area 461 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.110 TIME= 16:33:36
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*** WARNING *** CP= 21.110 TIME= 16:33:36
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*** WARNING *** CP= 21.110 TIME= 16:33:36
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*** WARNING *** CP= 21.110 TIME= 16:33:36
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*** WARNING *** CP= 21.110 TIME= 16:33:36
Area 491 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.120 TIME= 16:33:36
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*** WARNING *** CP= 21.120 TIME= 16:33:36
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*** WARNING *** CP= 21.120 TIME= 16:33:36
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*** WARNING *** CP= 21.120 TIME= 16:33:36
Area 509 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.120 TIME= 16:33:36
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*** WARNING *** CP= 21.120 TIME= 16:33:36
Area 536 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.130 TIME= 16:33:36
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Area 552 is not meshed. Volume will be generated without elements.

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*** WARNING *** CP= 21.130 TIME= 16:33:36
Area 561 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.130 TIME= 16:33:36
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*** WARNING *** CP= 21.130 TIME= 16:33:36
Area 581 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.140 TIME= 16:33:36
Area 584 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.140 TIME= 16:33:36
Area 589 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.140 TIME= 16:33:36
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Area 616 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.140 TIME= 16:33:36
Area 621 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.140 TIME= 16:33:36
Area 625 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.150 TIME= 16:33:36
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*** WARNING *** CP= 21.150 TIME= 16:33:36
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*** WARNING *** CP= 21.150 TIME= 16:33:36
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*** WARNING *** CP= 21.160 TIME= 16:33:36
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*** WARNING *** CP= 21.160 TIME= 16:33:36
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*** WARNING *** CP= 21.160 TIME= 16:33:36
Area 668 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.160 TIME= 16:33:36
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*** WARNING *** CP= 21.160 TIME= 16:33:36
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*** WARNING *** CP= 21.160 TIME= 16:33:36
Area 682 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.170 TIME= 16:33:36
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*** WARNING *** CP= 21.170 TIME= 16:33:36
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*** WARNING *** CP= 21.170 TIME= 16:33:36
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*** WARNING *** CP= 21.170 TIME= 16:33:36
Area 703 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.170 TIME= 16:33:36
Area 706 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.170 TIME= 16:33:36
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*** WARNING *** CP= 21.170 TIME= 16:33:36
Area 713 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.170 TIME= 16:33:36
Area 717 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.180 TIME= 16:33:36
Area 720 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.180 TIME= 16:33:36
Area 723 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.180 TIME= 16:33:36
Area 727 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.180 TIME= 16:33:36
Area 730 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.180 TIME= 16:33:36
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*** WARNING *** CP= 21.180 TIME= 16:33:36
Area 737 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.180 TIME= 16:33:36
Area 741 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.180 TIME= 16:33:36
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*** WARNING *** CP= 21.180 TIME= 16:33:36
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*** WARNING *** CP= 21.180 TIME= 16:33:36
Area 750 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.190 TIME= 16:33:36
Area 753 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.190 TIME= 16:33:36
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*** WARNING *** CP= 21.190 TIME= 16:33:36
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*** WARNING *** CP= 21.190 TIME= 16:33:36
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*** WARNING *** CP= 21.190 TIME= 16:33:36
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*** WARNING *** CP= 21.190 TIME= 16:33:36
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*** WARNING *** CP= 21.190 TIME= 16:33:36
Area 787 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.200 TIME= 16:33:36
Area 790 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.200 TIME= 16:33:36
Area 794 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.200 TIME= 16:33:36
Area 797 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.200 TIME= 16:33:36
Area 801 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.200 TIME= 16:33:36
Area 804 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.200 TIME= 16:33:36
Area 808 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.200 TIME= 16:33:36
Area 811 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.200 TIME= 16:33:36
Area 814 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.200 TIME= 16:33:36
Area 818 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.200 TIME= 16:33:36
Area 821 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.200 TIME= 16:33:36
Area 824 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.210 TIME= 16:33:36
Area 828 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.210 TIME= 16:33:36
Area 831 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.210 TIME= 16:33:36
Area 835 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.210 TIME= 16:33:36
Area 839 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.210 TIME= 16:33:36
Area 842 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.210 TIME= 16:33:36
Area 845 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.210 TIME= 16:33:36
Area 848 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.210 TIME= 16:33:36
Area 851 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.210 TIME= 16:33:36
Area 854 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.210 TIME= 16:33:36
Area 857 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.210 TIME= 16:33:36
Area 860 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.220 TIME= 16:33:36
Area 863 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.220 TIME= 16:33:36
Area 866 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.220 TIME= 16:33:36
Area 869 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.220 TIME= 16:33:36
Area 872 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.220 TIME= 16:33:36
Area 875 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.220 TIME= 16:33:36
Area 878 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.220 TIME= 16:33:36
Area 881 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.220 TIME= 16:33:36
Area 884 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.220 TIME= 16:33:36
Area 887 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.220 TIME= 16:33:36
Area 890 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.220 TIME= 16:33:36
Area 893 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.230 TIME= 16:33:36
Area 896 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.230 TIME= 16:33:36
Area 899 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.230 TIME= 16:33:36
Area 903 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.230 TIME= 16:33:36
Area 906 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.230 TIME= 16:33:36
Area 909 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.230 TIME= 16:33:36
Area 912 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.230 TIME= 16:33:36
Area 915 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.230 TIME= 16:33:36

Area 918 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.230 TIME= 16:33:36
Area 921 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.230 TIME= 16:33:36
Area 924 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.230 TIME= 16:33:36
Area 927 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.240 TIME= 16:33:36
Area 930 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.240 TIME= 16:33:36
Area 933 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.240 TIME= 16:33:36
Area 936 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.240 TIME= 16:33:36
Area 939 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.240 TIME= 16:33:36
Area 942 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.240 TIME= 16:33:36
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Area 948 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.240 TIME= 16:33:36
Area 951 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.240 TIME= 16:33:36
Area 954 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.240 TIME= 16:33:36
Area 957 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.250 TIME= 16:33:36
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*** WARNING *** CP= 21.250 TIME= 16:33:36
Area 963 is not meshed. Volume will be generated without elements.

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Area 968 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.250 TIME= 16:33:36
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Area 970 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.250 TIME= 16:33:36
Area 972 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.250 TIME= 16:33:36
Area 973 is not meshed. Volume will be generated without elements.

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Area 974 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.260 TIME= 16:33:36
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*** WARNING *** CP= 21.260 TIME= 16:33:36
Area 983 is not meshed. Volume will be generated without elements.

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Area 985 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.260 TIME= 16:33:36
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*** WARNING *** CP= 21.260 TIME= 16:33:36
Area 988 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.260 TIME= 16:33:36
Area 989 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.270 TIME= 16:33:36
Area 991 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 21.270 TIME= 16:33:36
Area 992 is not meshed. Volume will be generated without elements.

SELECT FOR ITEM=AREA COMPONENT=
IN RANGE 1 TO 155 STEP 1

155 AREAS (OF 1545 DEFINED) SELECTED BY ASEL COMMAND.

GENERATE 2 TOTAL SETS OF AREAS
SET IS ALL SELECTED AREAS
DX,DY,DZ= 0.000E+00 0.000E+00 0.360 CSYS= 13

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 0.36000 AND 0.36000
KABS= 0. TOLERANCE= 0.180000E-02

155 AREAS (OF 1700 DEFINED) SELECTED BY ASEL COMMAND.

DRAG ALL SELECTED AREAS
ALONG LINES
4,

*** WARNING *** CP= 34.210 TIME= 16:33:49
Area 1546 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.210 TIME= 16:33:49
Area 1547 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.210 TIME= 16:33:49
Area 1548 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.210 TIME= 16:33:49
Area 1549 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.210 TIME= 16:33:49
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*** WARNING *** CP= 34.210 TIME= 16:33:49
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*** WARNING *** CP= 34.220 TIME= 16:33:49
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*** WARNING *** CP= 34.250 TIME= 16:33:49
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Area 1599 is not meshed. Volume will be generated without elements.

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Area 1600 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.260 TIME= 16:33:49
Area 1601 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.260 TIME= 16:33:49
Area 1602 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.260 TIME= 16:33:49
Area 1603 is not meshed. Volume will be generated without elements.

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*** WARNING *** CP= 34.270 TIME= 16:33:49
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*** WARNING *** CP= 34.270 TIME= 16:33:49
Area 1610 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.270 TIME= 16:33:49
Area 1611 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.270 TIME= 16:33:49
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Area 1616 is not meshed. Volume will be generated without elements.

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Area 1617 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.280 TIME= 16:33:49
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Area 1619 is not meshed. Volume will be generated without elements.

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*** WARNING *** CP= 34.290 TIME= 16:33:49
Area 1637 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.300 TIME= 16:33:49
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*** WARNING *** CP= 34.300 TIME= 16:33:49
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Area 1640 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.300 TIME= 16:33:49
Area 1641 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.300 TIME= 16:33:49

Area 1642 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.300 TIME= 16:33:49
Area 1643 is not meshed. Volume will be generated without elements.

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*** WARNING *** CP= 34.300 TIME= 16:33:49
Area 1646 is not meshed. Volume will be generated without elements.

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Area 1647 is not meshed. Volume will be generated without elements.

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*** WARNING *** CP= 34.310 TIME= 16:33:49
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Area 1698 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.350 TIME= 16:33:49
Area 1699 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 34.350 TIME= 16:33:49
Area 1700 is not meshed. Volume will be generated without elements.

SELECT FOR ITEM=AREA COMPONENT=
IN RANGE 93 TO 155 STEP 1

63 AREAS (OF 2224 DEFINED) SELECTED BY ASEL COMMAND.

GENERATE 2 TOTAL SETS OF AREAS
SET IS ALL SELECTED AREAS
DX,DY,DZ= 0.000E+00 0.000E+00 4.94 CSYS= 13

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 4.9592 AND 4.9592
KABS= 0. TOLERANCE= 0.247959E-01

63 AREAS (OF 2287 DEFINED) SELECTED BY ASEL COMMAND.

DRAG ALL SELECTED AREAS
ALONG LINES
5,

*** WARNING *** CP= 45.620 TIME= 16:34:01
Area 2225 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.620 TIME= 16:34:01
Area 2226 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.620 TIME= 16:34:01
Area 2227 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.620 TIME= 16:34:01
Area 2228 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.620 TIME= 16:34:01
Area 2229 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.630 TIME= 16:34:01

Area 2230 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.630 TIME= 16:34:01
Area 2231 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.630 TIME= 16:34:01
Area 2232 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.630 TIME= 16:34:01
Area 2233 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.630 TIME= 16:34:01
Area 2234 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.630 TIME= 16:34:01
Area 2235 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.630 TIME= 16:34:01
Area 2236 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.630 TIME= 16:34:01
Area 2237 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.630 TIME= 16:34:01
Area 2238 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.640 TIME= 16:34:01
Area 2239 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.640 TIME= 16:34:01
Area 2240 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.640 TIME= 16:34:01
Area 2241 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.640 TIME= 16:34:01
Area 2242 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.640 TIME= 16:34:01
Area 2243 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.640 TIME= 16:34:01
Area 2244 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.640 TIME= 16:34:01
Area 2245 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.640 TIME= 16:34:01
Area 2246 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.640 TIME= 16:34:01
Area 2247 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.650 TIME= 16:34:01
Area 2248 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.650 TIME= 16:34:01
Area 2249 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.650 TIME= 16:34:01
Area 2250 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.650 TIME= 16:34:01
Area 2251 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.650 TIME= 16:34:01
Area 2252 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.650 TIME= 16:34:01
Area 2253 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.650 TIME= 16:34:01
Area 2254 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.650 TIME= 16:34:01
Area 2255 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.650 TIME= 16:34:01
Area 2256 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.660 TIME= 16:34:01
Area 2257 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.660 TIME= 16:34:01
Area 2258 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.660 TIME= 16:34:01
Area 2259 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.660 TIME= 16:34:01
Area 2260 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.660 TIME= 16:34:01
Area 2261 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.660 TIME= 16:34:01
Area 2262 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.660 TIME= 16:34:01
Area 2263 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.660 TIME= 16:34:01
Area 2264 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.660 TIME= 16:34:01
Area 2265 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.660 TIME= 16:34:01
Area 2266 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.670 TIME= 16:34:01
Area 2267 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.670 TIME= 16:34:01
Area 2268 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.670 TIME= 16:34:01
Area 2269 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.670 TIME= 16:34:01
Area 2270 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.670 TIME= 16:34:01
Area 2271 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.670 TIME= 16:34:01
Area 2272 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.670 TIME= 16:34:01
Area 2273 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.670 TIME= 16:34:01
Area 2274 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.670 TIME= 16:34:01
Area 2275 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 45.670 TIME= 16:34:01
Area 2276 is not meshed. Volume will be generated without elements.

```

*** WARNING ***                CP= 45.680 TIME= 16:34:01
Area 2277 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 45.680 TIME= 16:34:01
Area 2278 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 45.680 TIME= 16:34:01
Area 2279 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 45.680 TIME= 16:34:01
Area 2280 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 45.680 TIME= 16:34:01
Area 2281 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 45.680 TIME= 16:34:01
Area 2282 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 45.680 TIME= 16:34:01
Area 2283 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 45.680 TIME= 16:34:01
Area 2284 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 45.680 TIME= 16:34:01
Area 2285 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 45.680 TIME= 16:34:01
Area 2286 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 45.690 TIME= 16:34:01
Area 2287 is not meshed. Volume will be generated without elements.

```

```

SELECT      FOR ITEM=AREA COMPONENT=
IN RANGE    1 TO      177 STEP      1

```

177 AREAS (OF 2500 DEFINED) SELECTED BY ASEL COMMAND.

```

GENERATE    2 TOTAL SETS OF AREAS
SET IS ALL SELECTED AREAS
DX,DY,DZ=   0.000E+00  0.000E+00  4.95          CSYS= 13

```

```

RESELECT    FOR ITEM=LOC COMPONENT=Z    BETWEEN 4.9692    AND 4.9692
KABS= 0.    TOLERANCE= 0.248462E-01

```

177 AREAS (OF 2677 DEFINED) SELECTED BY ASEL COMMAND.

```

DRAG ALL SELECTED AREAS
ALONG LINES
6,

```

```

*** WARNING ***                CP= 52.390 TIME= 16:34:08
Area 2501 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 52.390 TIME= 16:34:08
Area 2502 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 52.390 TIME= 16:34:08
Area 2503 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 52.400 TIME= 16:34:08
Area 2504 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 52.400 TIME= 16:34:08
Area 2505 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 52.400 TIME= 16:34:08
Area 2506 is not meshed. Volume will be generated without elements.

*** WARNING ***                CP= 52.400 TIME= 16:34:08

```


Area 2507 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.400 TIME= 16:34:08
Area 2508 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.400 TIME= 16:34:08
Area 2509 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.400 TIME= 16:34:08
Area 2510 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.400 TIME= 16:34:08
Area 2511 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.400 TIME= 16:34:08
Area 2512 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.400 TIME= 16:34:08
Area 2513 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.400 TIME= 16:34:08
Area 2514 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.410 TIME= 16:34:08
Area 2515 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.410 TIME= 16:34:08
Area 2516 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.410 TIME= 16:34:08
Area 2517 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.410 TIME= 16:34:08
Area 2518 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.410 TIME= 16:34:08
Area 2519 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.410 TIME= 16:34:08
Area 2520 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.410 TIME= 16:34:08
Area 2521 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.410 TIME= 16:34:08
Area 2522 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.420 TIME= 16:34:08
Area 2523 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.420 TIME= 16:34:08
Area 2524 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.420 TIME= 16:34:08
Area 2525 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.420 TIME= 16:34:08
Area 2526 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.420 TIME= 16:34:08
Area 2527 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.420 TIME= 16:34:08
Area 2528 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.420 TIME= 16:34:08
Area 2529 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.420 TIME= 16:34:08
Area 2530 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.420 TIME= 16:34:08
Area 2531 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.420 TIME= 16:34:08
Area 2532 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.430 TIME= 16:34:08
Area 2533 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.430 TIME= 16:34:08
Area 2534 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.430 TIME= 16:34:08
Area 2535 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.430 TIME= 16:34:08
Area 2536 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.430 TIME= 16:34:08
Area 2537 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.430 TIME= 16:34:08
Area 2538 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.430 TIME= 16:34:08
Area 2539 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.430 TIME= 16:34:08
Area 2540 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.430 TIME= 16:34:08
Area 2541 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.430 TIME= 16:34:08
Area 2542 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.440 TIME= 16:34:08
Area 2543 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.440 TIME= 16:34:08
Area 2544 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.440 TIME= 16:34:08
Area 2545 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.440 TIME= 16:34:08
Area 2546 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.440 TIME= 16:34:08
Area 2547 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.440 TIME= 16:34:08
Area 2548 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.440 TIME= 16:34:08
Area 2549 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.440 TIME= 16:34:08
Area 2550 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.440 TIME= 16:34:08
Area 2551 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.440 TIME= 16:34:08
Area 2552 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.440 TIME= 16:34:08
Area 2553 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.450 TIME= 16:34:08
Area 2554 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.450 TIME= 16:34:08
Area 2555 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.450 TIME= 16:34:08
Area 2556 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.450 TIME= 16:34:08
Area 2557 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.450 TIME= 16:34:08
Area 2558 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.450 TIME= 16:34:08
Area 2559 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.450 TIME= 16:34:08
Area 2560 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.450 TIME= 16:34:08
Area 2561 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.450 TIME= 16:34:08
Area 2562 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.450 TIME= 16:34:08
Area 2563 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.460 TIME= 16:34:08
Area 2564 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.460 TIME= 16:34:08
Area 2565 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.460 TIME= 16:34:08
Area 2566 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.460 TIME= 16:34:08
Area 2567 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.460 TIME= 16:34:08
Area 2568 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.460 TIME= 16:34:08
Area 2569 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.460 TIME= 16:34:08
Area 2570 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.460 TIME= 16:34:08
Area 2571 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.460 TIME= 16:34:08
Area 2572 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.460 TIME= 16:34:08
Area 2573 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.470 TIME= 16:34:08
Area 2574 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.470 TIME= 16:34:08
Area 2575 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.470 TIME= 16:34:08
Area 2576 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.470 TIME= 16:34:08

Area 2577 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.470 TIME= 16:34:08
Area 2578 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.470 TIME= 16:34:08
Area 2579 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.470 TIME= 16:34:08
Area 2580 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.470 TIME= 16:34:08
Area 2581 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.470 TIME= 16:34:08
Area 2582 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.470 TIME= 16:34:08
Area 2583 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.470 TIME= 16:34:08
Area 2584 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.480 TIME= 16:34:08
Area 2585 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.480 TIME= 16:34:08
Area 2586 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.480 TIME= 16:34:08
Area 2587 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.480 TIME= 16:34:08
Area 2588 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.480 TIME= 16:34:08
Area 2589 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.480 TIME= 16:34:08
Area 2590 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.480 TIME= 16:34:08
Area 2591 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.480 TIME= 16:34:08
Area 2592 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.480 TIME= 16:34:08
Area 2593 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.480 TIME= 16:34:08
Area 2594 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.480 TIME= 16:34:08
Area 2595 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.490 TIME= 16:34:08
Area 2596 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.490 TIME= 16:34:08
Area 2597 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.490 TIME= 16:34:08
Area 2598 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.490 TIME= 16:34:08
Area 2599 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.490 TIME= 16:34:08
Area 2600 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.490 TIME= 16:34:08
Area 2601 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.490 TIME= 16:34:08
Area 2602 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.490 TIME= 16:34:08
Area 2603 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.490 TIME= 16:34:08
Area 2604 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.490 TIME= 16:34:08
Area 2605 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.490 TIME= 16:34:08
Area 2606 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.500 TIME= 16:34:08
Area 2607 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.500 TIME= 16:34:08
Area 2608 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.500 TIME= 16:34:08
Area 2609 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.500 TIME= 16:34:08
Area 2610 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.500 TIME= 16:34:08
Area 2611 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.500 TIME= 16:34:08
Area 2612 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.500 TIME= 16:34:08
Area 2613 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.500 TIME= 16:34:08
Area 2614 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.500 TIME= 16:34:08
Area 2615 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.500 TIME= 16:34:08
Area 2616 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.500 TIME= 16:34:08
Area 2617 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.510 TIME= 16:34:08
Area 2618 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.510 TIME= 16:34:08
Area 2619 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.510 TIME= 16:34:08
Area 2620 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.510 TIME= 16:34:08
Area 2621 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.510 TIME= 16:34:08
Area 2622 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.510 TIME= 16:34:08
Area 2623 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.510 TIME= 16:34:08
Area 2624 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.510 TIME= 16:34:08
Area 2625 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.510 TIME= 16:34:08
Area 2626 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.510 TIME= 16:34:08
Area 2627 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.520 TIME= 16:34:08
Area 2628 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.520 TIME= 16:34:08
Area 2629 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.520 TIME= 16:34:08
Area 2630 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.520 TIME= 16:34:08
Area 2631 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.520 TIME= 16:34:08
Area 2632 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.520 TIME= 16:34:08
Area 2633 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.520 TIME= 16:34:08
Area 2634 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.520 TIME= 16:34:08
Area 2635 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.520 TIME= 16:34:08
Area 2636 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.520 TIME= 16:34:08
Area 2637 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.520 TIME= 16:34:08
Area 2638 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.530 TIME= 16:34:08
Area 2639 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.530 TIME= 16:34:08
Area 2640 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.530 TIME= 16:34:08
Area 2641 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.530 TIME= 16:34:08
Area 2642 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.530 TIME= 16:34:08
Area 2643 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.530 TIME= 16:34:08
Area 2644 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.530 TIME= 16:34:08
Area 2645 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.530 TIME= 16:34:08
Area 2646 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.530 TIME= 16:34:08

Area 2647 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.530 TIME= 16:34:08
Area 2648 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.530 TIME= 16:34:08
Area 2649 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.540 TIME= 16:34:08
Area 2650 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.540 TIME= 16:34:08
Area 2651 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.540 TIME= 16:34:08
Area 2652 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.540 TIME= 16:34:08
Area 2653 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.540 TIME= 16:34:08
Area 2654 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.540 TIME= 16:34:08
Area 2655 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.540 TIME= 16:34:08
Area 2656 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.540 TIME= 16:34:08
Area 2657 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.540 TIME= 16:34:08
Area 2658 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.540 TIME= 16:34:08
Area 2659 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.540 TIME= 16:34:08
Area 2660 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.550 TIME= 16:34:08
Area 2661 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.550 TIME= 16:34:08
Area 2662 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.550 TIME= 16:34:08
Area 2663 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.550 TIME= 16:34:08
Area 2664 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.550 TIME= 16:34:08
Area 2665 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.550 TIME= 16:34:08
Area 2666 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.550 TIME= 16:34:08
Area 2667 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.550 TIME= 16:34:08
Area 2668 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.550 TIME= 16:34:08
Area 2669 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.550 TIME= 16:34:08
Area 2670 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.550 TIME= 16:34:08
Area 2671 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.560 TIME= 16:34:08
Area 2672 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.560 TIME= 16:34:08
Area 2673 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.560 TIME= 16:34:08
Area 2674 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.560 TIME= 16:34:08
Area 2675 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.560 TIME= 16:34:08
Area 2676 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 52.560 TIME= 16:34:08
Area 2677 is not meshed. Volume will be generated without elements.

SELECT FOR ITEM=AREA COMPONENT=
IN RANGE 114 TO 155 STEP 1

42 AREAS (OF 3230 DEFINED) SELECTED BY ASEL COMMAND.

GENERATE 2 TOTAL SETS OF AREAS
SET IS ALL SELECTED AREAS
DX,DY,DZ= 0.000E+00 0.000E+00 4.97 CSYS= 13

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 4.9944 AND 4.9944
KABS= 0. TOLERANCE= 0.249718E-01

42 AREAS (OF 3272 DEFINED) SELECTED BY ASEL COMMAND.

DRAG ALL SELECTED AREAS
ALONG LINES
7,

*** WARNING *** CP= 64.760 TIME= 16:34:20
Area 3231 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.760 TIME= 16:34:20
Area 3232 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.760 TIME= 16:34:20
Area 3233 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.760 TIME= 16:34:20
Area 3234 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.770 TIME= 16:34:20
Area 3235 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.770 TIME= 16:34:20
Area 3236 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.770 TIME= 16:34:20
Area 3237 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.770 TIME= 16:34:20
Area 3238 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.770 TIME= 16:34:20
Area 3239 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.770 TIME= 16:34:20
Area 3240 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.770 TIME= 16:34:20
Area 3241 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.770 TIME= 16:34:20
Area 3242 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.770 TIME= 16:34:20
Area 3243 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.770 TIME= 16:34:20
Area 3244 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.780 TIME= 16:34:20
Area 3245 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.780 TIME= 16:34:20
Area 3246 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.780 TIME= 16:34:20
Area 3247 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.780 TIME= 16:34:20
Area 3248 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.780 TIME= 16:34:20
Area 3249 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.780 TIME= 16:34:20
Area 3250 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.780 TIME= 16:34:20
Area 3251 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.780 TIME= 16:34:20
Area 3252 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.780 TIME= 16:34:20
Area 3253 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.780 TIME= 16:34:20
Area 3254 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.780 TIME= 16:34:20
Area 3255 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.790 TIME= 16:34:20
Area 3256 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.790 TIME= 16:34:20
Area 3257 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.790 TIME= 16:34:20
Area 3258 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.790 TIME= 16:34:20
Area 3259 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.790 TIME= 16:34:20
Area 3260 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.790 TIME= 16:34:20
Area 3261 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.790 TIME= 16:34:20
Area 3262 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.790 TIME= 16:34:20
Area 3263 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.790 TIME= 16:34:20

Area 3264 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.790 TIME= 16:34:20
Area 3265 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.790 TIME= 16:34:20
Area 3266 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.800 TIME= 16:34:20
Area 3267 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.800 TIME= 16:34:20
Area 3268 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.800 TIME= 16:34:20
Area 3269 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.800 TIME= 16:34:20
Area 3270 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.800 TIME= 16:34:20
Area 3271 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 64.800 TIME= 16:34:20
Area 3272 is not meshed. Volume will be generated without elements.

SELECT FOR ITEM=AREA COMPONENT=
IN RANGE 1 TO 177 STEP 1

177 AREAS (OF 3421 DEFINED) SELECTED BY ASEL COMMAND.

GENERATE 2 TOTAL SETS OF AREAS
SET IS ALL SELECTED AREAS
DX,DY,DZ= 0.000E+00 0.000E+00 5.00 CSYS= 13

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 5.0245 AND 5.0245
KABS= 0. TOLERANCE= 0.251225E-01

177 AREAS (OF 3598 DEFINED) SELECTED BY ASEL COMMAND.

DRAG ALL SELECTED AREAS
ALONG LINES
8,

*** WARNING *** CP= 70.370 TIME= 16:34:26
Area 3422 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.370 TIME= 16:34:26
Area 3423 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.370 TIME= 16:34:26
Area 3424 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.370 TIME= 16:34:26
Area 3425 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.370 TIME= 16:34:26
Area 3426 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.370 TIME= 16:34:26
Area 3427 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.370 TIME= 16:34:26
Area 3428 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.370 TIME= 16:34:26
Area 3429 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.370 TIME= 16:34:26
Area 3430 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.370 TIME= 16:34:26
Area 3431 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.380 TIME= 16:34:26
Area 3432 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.380 TIME= 16:34:26
Area 3433 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.380 TIME= 16:34:26
Area 3434 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.380 TIME= 16:34:26
Area 3435 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.380 TIME= 16:34:26
Area 3436 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.380 TIME= 16:34:26
Area 3437 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.380 TIME= 16:34:26
Area 3438 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.380 TIME= 16:34:26
Area 3439 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.380 TIME= 16:34:26
Area 3440 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.380 TIME= 16:34:26
Area 3441 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.390 TIME= 16:34:26
Area 3442 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.390 TIME= 16:34:26
Area 3443 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.390 TIME= 16:34:26
Area 3444 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.390 TIME= 16:34:26
Area 3445 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.390 TIME= 16:34:26
Area 3446 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.390 TIME= 16:34:26
Area 3447 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.390 TIME= 16:34:26
Area 3448 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.390 TIME= 16:34:26
Area 3449 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.390 TIME= 16:34:26
Area 3450 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.390 TIME= 16:34:26
Area 3451 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.400 TIME= 16:34:26
Area 3452 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.400 TIME= 16:34:26
Area 3453 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.400 TIME= 16:34:26
Area 3454 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.400 TIME= 16:34:26
Area 3455 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.400 TIME= 16:34:26
Area 3456 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.400 TIME= 16:34:26
Area 3457 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.400 TIME= 16:34:26
Area 3458 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.400 TIME= 16:34:26
Area 3459 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.400 TIME= 16:34:26
Area 3460 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.400 TIME= 16:34:26
Area 3461 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.410 TIME= 16:34:26
Area 3462 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.410 TIME= 16:34:26
Area 3463 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.410 TIME= 16:34:26
Area 3464 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.410 TIME= 16:34:26
Area 3465 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.410 TIME= 16:34:26
Area 3466 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.410 TIME= 16:34:26
Area 3467 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.410 TIME= 16:34:26
Area 3468 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.410 TIME= 16:34:26
Area 3469 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.410 TIME= 16:34:26
Area 3470 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.410 TIME= 16:34:26
Area 3471 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.410 TIME= 16:34:26
Area 3472 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.420 TIME= 16:34:26
Area 3473 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.420 TIME= 16:34:26
Area 3474 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.420 TIME= 16:34:26
Area 3475 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.420 TIME= 16:34:26
Area 3476 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.420 TIME= 16:34:26

Area 3477 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.420 TIME= 16:34:26
Area 3478 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.420 TIME= 16:34:26
Area 3479 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.420 TIME= 16:34:26
Area 3480 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.420 TIME= 16:34:26
Area 3481 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.420 TIME= 16:34:26
Area 3482 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.430 TIME= 16:34:26
Area 3483 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.430 TIME= 16:34:26
Area 3484 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.430 TIME= 16:34:26
Area 3485 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.430 TIME= 16:34:26
Area 3486 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.430 TIME= 16:34:26
Area 3487 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.430 TIME= 16:34:26
Area 3488 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.430 TIME= 16:34:26
Area 3489 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.430 TIME= 16:34:26
Area 3490 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.430 TIME= 16:34:26
Area 3491 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.430 TIME= 16:34:26
Area 3492 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.440 TIME= 16:34:26
Area 3493 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.440 TIME= 16:34:26
Area 3494 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.440 TIME= 16:34:26
Area 3495 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.440 TIME= 16:34:26
Area 3496 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.440 TIME= 16:34:26
Area 3497 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.440 TIME= 16:34:26
Area 3498 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.440 TIME= 16:34:26
Area 3499 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.440 TIME= 16:34:26
Area 3500 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.450 TIME= 16:34:26
Area 3501 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.450 TIME= 16:34:26
Area 3502 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.450 TIME= 16:34:26
Area 3503 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.450 TIME= 16:34:26
Area 3504 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.450 TIME= 16:34:26
Area 3505 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.450 TIME= 16:34:26
Area 3506 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.450 TIME= 16:34:26
Area 3507 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.450 TIME= 16:34:26
Area 3508 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.450 TIME= 16:34:26
Area 3509 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.450 TIME= 16:34:26
Area 3510 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.460 TIME= 16:34:26
Area 3511 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.460 TIME= 16:34:26
Area 3512 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.460 TIME= 16:34:26
Area 3513 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.460 TIME= 16:34:26
Area 3514 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.460 TIME= 16:34:26
Area 3515 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.460 TIME= 16:34:26
Area 3516 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.460 TIME= 16:34:26
Area 3517 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.460 TIME= 16:34:26
Area 3518 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.460 TIME= 16:34:26
Area 3519 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.460 TIME= 16:34:26
Area 3520 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.470 TIME= 16:34:26
Area 3521 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.470 TIME= 16:34:26
Area 3522 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.470 TIME= 16:34:26
Area 3523 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.470 TIME= 16:34:26
Area 3524 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.470 TIME= 16:34:26
Area 3525 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.470 TIME= 16:34:26
Area 3526 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.470 TIME= 16:34:26
Area 3527 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.470 TIME= 16:34:26
Area 3528 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.470 TIME= 16:34:26
Area 3529 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.470 TIME= 16:34:26
Area 3530 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.470 TIME= 16:34:26
Area 3531 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.480 TIME= 16:34:26
Area 3532 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.480 TIME= 16:34:26
Area 3533 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.480 TIME= 16:34:26
Area 3534 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.480 TIME= 16:34:26
Area 3535 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.480 TIME= 16:34:26
Area 3536 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.480 TIME= 16:34:26
Area 3537 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.480 TIME= 16:34:26
Area 3538 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.480 TIME= 16:34:26
Area 3539 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.480 TIME= 16:34:26
Area 3540 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.480 TIME= 16:34:26
Area 3541 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.480 TIME= 16:34:26
Area 3542 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.490 TIME= 16:34:26
Area 3543 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.490 TIME= 16:34:26
Area 3544 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.490 TIME= 16:34:26
Area 3545 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.490 TIME= 16:34:26
Area 3546 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.490 TIME= 16:34:26

Area 3547 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.490 TIME= 16:34:26
Area 3548 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.490 TIME= 16:34:26
Area 3549 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.490 TIME= 16:34:26
Area 3550 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.490 TIME= 16:34:26
Area 3551 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.490 TIME= 16:34:26
Area 3552 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.500 TIME= 16:34:26
Area 3553 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.500 TIME= 16:34:26
Area 3554 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.500 TIME= 16:34:26
Area 3555 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.500 TIME= 16:34:26
Area 3556 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.500 TIME= 16:34:26
Area 3557 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.500 TIME= 16:34:26
Area 3558 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.500 TIME= 16:34:26
Area 3559 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.500 TIME= 16:34:26
Area 3560 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.500 TIME= 16:34:26
Area 3561 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.500 TIME= 16:34:26
Area 3562 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.500 TIME= 16:34:26
Area 3563 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.510 TIME= 16:34:26
Area 3564 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.510 TIME= 16:34:26
Area 3565 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.510 TIME= 16:34:26
Area 3566 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.510 TIME= 16:34:26
Area 3567 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.510 TIME= 16:34:26
Area 3568 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.510 TIME= 16:34:26
Area 3569 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.510 TIME= 16:34:26
Area 3570 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.510 TIME= 16:34:26
Area 3571 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.510 TIME= 16:34:26
Area 3572 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.510 TIME= 16:34:26
Area 3573 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.510 TIME= 16:34:26
Area 3574 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.520 TIME= 16:34:26
Area 3575 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.520 TIME= 16:34:26
Area 3576 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.520 TIME= 16:34:26
Area 3577 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.520 TIME= 16:34:26
Area 3578 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.520 TIME= 16:34:26
Area 3579 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.520 TIME= 16:34:26
Area 3580 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.520 TIME= 16:34:26
Area 3581 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.520 TIME= 16:34:26
Area 3582 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.520 TIME= 16:34:26
Area 3583 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.520 TIME= 16:34:26
Area 3584 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.520 TIME= 16:34:26
Area 3585 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.530 TIME= 16:34:26
Area 3586 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.530 TIME= 16:34:26
Area 3587 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.530 TIME= 16:34:26
Area 3588 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.530 TIME= 16:34:26
Area 3589 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.530 TIME= 16:34:26
Area 3590 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.530 TIME= 16:34:26
Area 3591 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.530 TIME= 16:34:26
Area 3592 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.530 TIME= 16:34:26
Area 3593 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.530 TIME= 16:34:26
Area 3594 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.530 TIME= 16:34:26
Area 3595 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.530 TIME= 16:34:26
Area 3596 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.540 TIME= 16:34:26
Area 3597 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 70.540 TIME= 16:34:26
Area 3598 is not meshed. Volume will be generated without elements.

SELECT FOR ITEM=AREA COMPONENT=
IN RANGE 135 TO 155 STEP 1

21 AREAS (OF 4151 DEFINED) SELECTED BY ASEL COMMAND.

GENERATE 2 TOTAL SETS OF AREAS
SET IS ALL SELECTED AREAS
DX,DY,DZ= 0.000E+00 0.000E+00 5.11 CSYS= 13

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN 5.1350 AND 5.1350
KABS= 0. TOLERANCE= 0.256752E-01

21 AREAS (OF 4172 DEFINED) SELECTED BY ASEL COMMAND.

DRAG ALL SELECTED AREAS
ALONG LINES
9,

*** WARNING *** CP= 82.720 TIME= 16:34:38
Area 4152 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.720 TIME= 16:34:38
Area 4153 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.720 TIME= 16:34:38
Area 4154 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.720 TIME= 16:34:38
Area 4155 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.720 TIME= 16:34:38
Area 4156 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.720 TIME= 16:34:38
Area 4157 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.720 TIME= 16:34:38
Area 4158 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.720 TIME= 16:34:38
Area 4159 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.730 TIME= 16:34:38
Area 4160 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.730 TIME= 16:34:38
Area 4161 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.730 TIME= 16:34:38
Area 4162 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.730 TIME= 16:34:38
Area 4163 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.730 TIME= 16:34:38

Area 4164 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.730 TIME= 16:34:38
Area 4165 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.730 TIME= 16:34:38
Area 4166 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.730 TIME= 16:34:38
Area 4167 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.730 TIME= 16:34:38
Area 4168 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.730 TIME= 16:34:38
Area 4169 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.730 TIME= 16:34:38
Area 4170 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.740 TIME= 16:34:38
Area 4171 is not meshed. Volume will be generated without elements.

*** WARNING *** CP= 82.740 TIME= 16:34:38
Area 4172 is not meshed. Volume will be generated without elements.

SELECT ALL ENTITIES OF TYPE= ALL AND BELOW

ALL SELECT FOR ITEM=VOLU COMPONENT=
IN RANGE 1 TO 1010 STEP 1

1010 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALL SELECT FOR ITEM=AREA COMPONENT=
IN RANGE 1 TO 4257 STEP 1

4257 AREAS (OF 4257 DEFINED) SELECTED BY ASEL COMMAND.

ALL SELECT FOR ITEM=LINE COMPONENT=
IN RANGE 1 TO 5703 STEP 1

5703 LINES (OF 5703 DEFINED) SELECTED BY LSEL COMMAND.

ALL SELECT FOR ITEM=KP COMPONENT=
IN RANGE 1 TO 20008 STEP 1

2470 KEYPOINTS (OF 2470 DEFINED) SELECTED BY KSEL COMMAND.

ALL SELECT FOR ITEM=ELEM COMPONENT=
IN RANGE 0 TO 0 STEP 1

0 ELEMENTS (OF 0 DEFINED) SELECTED BY ESEL COMMAND.

ALL SELECT FOR ITEM=NODE COMPONENT=
IN RANGE 0 TO 0 STEP 1

0 NODES (OF 0 DEFINED) SELECTED BY NSEL COMMAND.

MERGE COINCIDENT KEYPOINTS WITHIN TOLERANCE OF 0.10000E-03

KEYPOINT	2 USED FOR KEYPOINT(S)	414
KEYPOINT	3 USED FOR KEYPOINT(S)	436
KEYPOINT	4 USED FOR KEYPOINT(S)	437
KEYPOINT	5 USED FOR KEYPOINT(S)	415
KEYPOINT	6 USED FOR KEYPOINT(S)	438
KEYPOINT	7 USED FOR KEYPOINT(S)	416
KEYPOINT	8 USED FOR KEYPOINT(S)	439
KEYPOINT	9 USED FOR KEYPOINT(S)	417
KEYPOINT	10 USED FOR KEYPOINT(S)	440
KEYPOINT	11 USED FOR KEYPOINT(S)	418
KEYPOINT	12 USED FOR KEYPOINT(S)	441

KEYPOINT	67 USED FOR KEYPOINT(S)	419
KEYPOINT	79 USED FOR KEYPOINT(S)	442
KEYPOINT	84 USED FOR KEYPOINT(S)	420
KEYPOINT	91 USED FOR KEYPOINT(S)	443
KEYPOINT	97 USED FOR KEYPOINT(S)	421
KEYPOINT	101 USED FOR KEYPOINT(S)	444
KEYPOINT	105 USED FOR KEYPOINT(S)	422
KEYPOINT	108 USED FOR KEYPOINT(S)	445
KEYPOINT	111 USED FOR KEYPOINT(S)	423
KEYPOINT	118 USED FOR KEYPOINT(S)	446
KEYPOINT	125 USED FOR KEYPOINT(S)	424
KEYPOINT	132 USED FOR KEYPOINT(S)	447
KEYPOINT	164 USED FOR KEYPOINT(S)	425
KEYPOINT	166 USED FOR KEYPOINT(S)	448
KEYPOINT	173 USED FOR KEYPOINT(S)	426
KEYPOINT	180 USED FOR KEYPOINT(S)	449
KEYPOINT	241 USED FOR KEYPOINT(S)	427
KEYPOINT	242 USED FOR KEYPOINT(S)	450
KEYPOINT	243 USED FOR KEYPOINT(S)	428
KEYPOINT	244 USED FOR KEYPOINT(S)	451
KEYPOINT	245 USED FOR KEYPOINT(S)	429
KEYPOINT	246 USED FOR KEYPOINT(S)	452
KEYPOINT	247 USED FOR KEYPOINT(S)	430
KEYPOINT	248 USED FOR KEYPOINT(S)	453
KEYPOINT	249 USED FOR KEYPOINT(S)	431
KEYPOINT	250 USED FOR KEYPOINT(S)	454
KEYPOINT	251 USED FOR KEYPOINT(S)	432
KEYPOINT	252 USED FOR KEYPOINT(S)	455
KEYPOINT	253 USED FOR KEYPOINT(S)	433
KEYPOINT	254 USED FOR KEYPOINT(S)	456
KEYPOINT	255 USED FOR KEYPOINT(S)	434
KEYPOINT	256 USED FOR KEYPOINT(S)	457
KEYPOINT	257 USED FOR KEYPOINT(S)	435
KEYPOINT	658 USED FOR KEYPOINT(S)	859
KEYPOINT	659 USED FOR KEYPOINT(S)	858
KEYPOINT	660 USED FOR KEYPOINT(S)	860
KEYPOINT	661 USED FOR KEYPOINT(S)	861
KEYPOINT	662 USED FOR KEYPOINT(S)	862
KEYPOINT	663 USED FOR KEYPOINT(S)	863
KEYPOINT	664 USED FOR KEYPOINT(S)	864
KEYPOINT	665 USED FOR KEYPOINT(S)	865
KEYPOINT	666 USED FOR KEYPOINT(S)	867
KEYPOINT	667 USED FOR KEYPOINT(S)	866
KEYPOINT	668 USED FOR KEYPOINT(S)	868
KEYPOINT	669 USED FOR KEYPOINT(S)	869
KEYPOINT	670 USED FOR KEYPOINT(S)	870
KEYPOINT	671 USED FOR KEYPOINT(S)	871
KEYPOINT	672 USED FOR KEYPOINT(S)	872
KEYPOINT	673 USED FOR KEYPOINT(S)	873
KEYPOINT	674 USED FOR KEYPOINT(S)	875
KEYPOINT	675 USED FOR KEYPOINT(S)	874
KEYPOINT	676 USED FOR KEYPOINT(S)	876
KEYPOINT	677 USED FOR KEYPOINT(S)	877
KEYPOINT	678 USED FOR KEYPOINT(S)	878
KEYPOINT	679 USED FOR KEYPOINT(S)	879
KEYPOINT	680 USED FOR KEYPOINT(S)	880
KEYPOINT	681 USED FOR KEYPOINT(S)	881
KEYPOINT	682 USED FOR KEYPOINT(S)	883
KEYPOINT	683 USED FOR KEYPOINT(S)	882
KEYPOINT	684 USED FOR KEYPOINT(S)	884
KEYPOINT	685 USED FOR KEYPOINT(S)	885
KEYPOINT	686 USED FOR KEYPOINT(S)	886
KEYPOINT	687 USED FOR KEYPOINT(S)	887
KEYPOINT	688 USED FOR KEYPOINT(S)	888
KEYPOINT	689 USED FOR KEYPOINT(S)	889
KEYPOINT	690 USED FOR KEYPOINT(S)	891
KEYPOINT	691 USED FOR KEYPOINT(S)	890
KEYPOINT	692 USED FOR KEYPOINT(S)	892
KEYPOINT	693 USED FOR KEYPOINT(S)	893
KEYPOINT	694 USED FOR KEYPOINT(S)	894

KEYPOINT	695	USED	FOR	KEYPOINT(S)	895
KEYPOINT	696	USED	FOR	KEYPOINT(S)	896
KEYPOINT	697	USED	FOR	KEYPOINT(S)	897
KEYPOINT	698	USED	FOR	KEYPOINT(S)	899
KEYPOINT	699	USED	FOR	KEYPOINT(S)	898
KEYPOINT	700	USED	FOR	KEYPOINT(S)	900
KEYPOINT	701	USED	FOR	KEYPOINT(S)	901
KEYPOINT	702	USED	FOR	KEYPOINT(S)	902
KEYPOINT	703	USED	FOR	KEYPOINT(S)	903
KEYPOINT	704	USED	FOR	KEYPOINT(S)	904
KEYPOINT	705	USED	FOR	KEYPOINT(S)	905
KEYPOINT	706	USED	FOR	KEYPOINT(S)	907
KEYPOINT	707	USED	FOR	KEYPOINT(S)	906
KEYPOINT	708	USED	FOR	KEYPOINT(S)	908
KEYPOINT	709	USED	FOR	KEYPOINT(S)	909
KEYPOINT	710	USED	FOR	KEYPOINT(S)	910
KEYPOINT	711	USED	FOR	KEYPOINT(S)	911
KEYPOINT	712	USED	FOR	KEYPOINT(S)	912
KEYPOINT	713	USED	FOR	KEYPOINT(S)	913
KEYPOINT	714	USED	FOR	KEYPOINT(S)	915
KEYPOINT	715	USED	FOR	KEYPOINT(S)	914
KEYPOINT	716	USED	FOR	KEYPOINT(S)	916
KEYPOINT	717	USED	FOR	KEYPOINT(S)	917
KEYPOINT	718	USED	FOR	KEYPOINT(S)	918
KEYPOINT	719	USED	FOR	KEYPOINT(S)	919
KEYPOINT	720	USED	FOR	KEYPOINT(S)	920
KEYPOINT	721	USED	FOR	KEYPOINT(S)	921
KEYPOINT	722	USED	FOR	KEYPOINT(S)	923
KEYPOINT	723	USED	FOR	KEYPOINT(S)	922
KEYPOINT	724	USED	FOR	KEYPOINT(S)	924
KEYPOINT	725	USED	FOR	KEYPOINT(S)	925
KEYPOINT	726	USED	FOR	KEYPOINT(S)	926
KEYPOINT	727	USED	FOR	KEYPOINT(S)	927
KEYPOINT	728	USED	FOR	KEYPOINT(S)	928
KEYPOINT	729	USED	FOR	KEYPOINT(S)	929
KEYPOINT	730	USED	FOR	KEYPOINT(S)	931
KEYPOINT	731	USED	FOR	KEYPOINT(S)	930
KEYPOINT	732	USED	FOR	KEYPOINT(S)	932
KEYPOINT	733	USED	FOR	KEYPOINT(S)	933
KEYPOINT	734	USED	FOR	KEYPOINT(S)	934
KEYPOINT	735	USED	FOR	KEYPOINT(S)	935
KEYPOINT	736	USED	FOR	KEYPOINT(S)	936
KEYPOINT	737	USED	FOR	KEYPOINT(S)	937
KEYPOINT	738	USED	FOR	KEYPOINT(S)	939
KEYPOINT	739	USED	FOR	KEYPOINT(S)	938
KEYPOINT	740	USED	FOR	KEYPOINT(S)	940
KEYPOINT	741	USED	FOR	KEYPOINT(S)	941
KEYPOINT	742	USED	FOR	KEYPOINT(S)	942
KEYPOINT	743	USED	FOR	KEYPOINT(S)	943
KEYPOINT	744	USED	FOR	KEYPOINT(S)	944
KEYPOINT	745	USED	FOR	KEYPOINT(S)	945
KEYPOINT	746	USED	FOR	KEYPOINT(S)	947
KEYPOINT	747	USED	FOR	KEYPOINT(S)	946
KEYPOINT	748	USED	FOR	KEYPOINT(S)	948
KEYPOINT	749	USED	FOR	KEYPOINT(S)	949
KEYPOINT	750	USED	FOR	KEYPOINT(S)	950
KEYPOINT	751	USED	FOR	KEYPOINT(S)	951
KEYPOINT	752	USED	FOR	KEYPOINT(S)	952
KEYPOINT	753	USED	FOR	KEYPOINT(S)	953
KEYPOINT	754	USED	FOR	KEYPOINT(S)	955
KEYPOINT	755	USED	FOR	KEYPOINT(S)	954
KEYPOINT	756	USED	FOR	KEYPOINT(S)	956
KEYPOINT	757	USED	FOR	KEYPOINT(S)	957
KEYPOINT	758	USED	FOR	KEYPOINT(S)	958
KEYPOINT	759	USED	FOR	KEYPOINT(S)	959
KEYPOINT	760	USED	FOR	KEYPOINT(S)	960
KEYPOINT	761	USED	FOR	KEYPOINT(S)	961
KEYPOINT	762	USED	FOR	KEYPOINT(S)	962
KEYPOINT	763	USED	FOR	KEYPOINT(S)	963
KEYPOINT	764	USED	FOR	KEYPOINT(S)	964

KEYPOINT	765	USED FOR KEYPOINT(S)	965
KEYPOINT	766	USED FOR KEYPOINT(S)	966
KEYPOINT	767	USED FOR KEYPOINT(S)	967
KEYPOINT	768	USED FOR KEYPOINT(S)	968
KEYPOINT	769	USED FOR KEYPOINT(S)	969
KEYPOINT	770	USED FOR KEYPOINT(S)	970
KEYPOINT	771	USED FOR KEYPOINT(S)	971
KEYPOINT	772	USED FOR KEYPOINT(S)	972
KEYPOINT	773	USED FOR KEYPOINT(S)	973
KEYPOINT	774	USED FOR KEYPOINT(S)	974
KEYPOINT	775	USED FOR KEYPOINT(S)	975
KEYPOINT	776	USED FOR KEYPOINT(S)	976
KEYPOINT	777	USED FOR KEYPOINT(S)	977
KEYPOINT	778	USED FOR KEYPOINT(S)	978
KEYPOINT	779	USED FOR KEYPOINT(S)	979
KEYPOINT	780	USED FOR KEYPOINT(S)	980
KEYPOINT	781	USED FOR KEYPOINT(S)	981
KEYPOINT	782	USED FOR KEYPOINT(S)	982
KEYPOINT	783	USED FOR KEYPOINT(S)	983
KEYPOINT	784	USED FOR KEYPOINT(S)	984
KEYPOINT	785	USED FOR KEYPOINT(S)	985
KEYPOINT	786	USED FOR KEYPOINT(S)	986
KEYPOINT	787	USED FOR KEYPOINT(S)	987
KEYPOINT	788	USED FOR KEYPOINT(S)	988
KEYPOINT	789	USED FOR KEYPOINT(S)	989
KEYPOINT	790	USED FOR KEYPOINT(S)	990
KEYPOINT	791	USED FOR KEYPOINT(S)	991
KEYPOINT	792	USED FOR KEYPOINT(S)	992
KEYPOINT	793	USED FOR KEYPOINT(S)	993
KEYPOINT	794	USED FOR KEYPOINT(S)	994
KEYPOINT	795	USED FOR KEYPOINT(S)	995
KEYPOINT	796	USED FOR KEYPOINT(S)	996
KEYPOINT	797	USED FOR KEYPOINT(S)	997
KEYPOINT	798	USED FOR KEYPOINT(S)	998
KEYPOINT	799	USED FOR KEYPOINT(S)	999
KEYPOINT	800	USED FOR KEYPOINT(S)	1000
KEYPOINT	801	USED FOR KEYPOINT(S)	1002
KEYPOINT	802	USED FOR KEYPOINT(S)	1003
KEYPOINT	803	USED FOR KEYPOINT(S)	1004
KEYPOINT	804	USED FOR KEYPOINT(S)	1005
KEYPOINT	805	USED FOR KEYPOINT(S)	1006
KEYPOINT	806	USED FOR KEYPOINT(S)	1007
KEYPOINT	807	USED FOR KEYPOINT(S)	1008
KEYPOINT	808	USED FOR KEYPOINT(S)	1009
KEYPOINT	809	USED FOR KEYPOINT(S)	1010
KEYPOINT	810	USED FOR KEYPOINT(S)	1011
KEYPOINT	811	USED FOR KEYPOINT(S)	1012
KEYPOINT	812	USED FOR KEYPOINT(S)	1013
KEYPOINT	813	USED FOR KEYPOINT(S)	1014
KEYPOINT	814	USED FOR KEYPOINT(S)	1015
KEYPOINT	815	USED FOR KEYPOINT(S)	1016
KEYPOINT	816	USED FOR KEYPOINT(S)	1017
KEYPOINT	817	USED FOR KEYPOINT(S)	1018
KEYPOINT	818	USED FOR KEYPOINT(S)	1019
KEYPOINT	819	USED FOR KEYPOINT(S)	1020
KEYPOINT	820	USED FOR KEYPOINT(S)	1021
KEYPOINT	821	USED FOR KEYPOINT(S)	1022
KEYPOINT	822	USED FOR KEYPOINT(S)	1023
KEYPOINT	823	USED FOR KEYPOINT(S)	1024
KEYPOINT	824	USED FOR KEYPOINT(S)	1025
KEYPOINT	825	USED FOR KEYPOINT(S)	1026
KEYPOINT	826	USED FOR KEYPOINT(S)	1027
KEYPOINT	827	USED FOR KEYPOINT(S)	1028
KEYPOINT	828	USED FOR KEYPOINT(S)	1029
KEYPOINT	829	USED FOR KEYPOINT(S)	1030
KEYPOINT	830	USED FOR KEYPOINT(S)	1031
KEYPOINT	831	USED FOR KEYPOINT(S)	1032
KEYPOINT	832	USED FOR KEYPOINT(S)	1033
KEYPOINT	833	USED FOR KEYPOINT(S)	1034
KEYPOINT	834	USED FOR KEYPOINT(S)	1035

KEYPOINT	835 USED FOR KEYPOINT(S)	1036
KEYPOINT	836 USED FOR KEYPOINT(S)	1037
KEYPOINT	837 USED FOR KEYPOINT(S)	1038
KEYPOINT	838 USED FOR KEYPOINT(S)	1039
KEYPOINT	839 USED FOR KEYPOINT(S)	1040
KEYPOINT	840 USED FOR KEYPOINT(S)	1041
KEYPOINT	841 USED FOR KEYPOINT(S)	1042
KEYPOINT	842 USED FOR KEYPOINT(S)	1043
KEYPOINT	843 USED FOR KEYPOINT(S)	1044
KEYPOINT	844 USED FOR KEYPOINT(S)	1045
KEYPOINT	845 USED FOR KEYPOINT(S)	1046
KEYPOINT	846 USED FOR KEYPOINT(S)	1047
KEYPOINT	847 USED FOR KEYPOINT(S)	1048
KEYPOINT	848 USED FOR KEYPOINT(S)	1049
KEYPOINT	849 USED FOR KEYPOINT(S)	1050
KEYPOINT	850 USED FOR KEYPOINT(S)	1051
KEYPOINT	851 USED FOR KEYPOINT(S)	1052
KEYPOINT	852 USED FOR KEYPOINT(S)	1053
KEYPOINT	853 USED FOR KEYPOINT(S)	1054
KEYPOINT	854 USED FOR KEYPOINT(S)	1055
KEYPOINT	855 USED FOR KEYPOINT(S)	1056
KEYPOINT	856 USED FOR KEYPOINT(S)	1057
KEYPOINT	857 USED FOR KEYPOINT(S)	1058
KEYPOINT	1103 USED FOR KEYPOINT(S)	1268
KEYPOINT	1137 USED FOR KEYPOINT(S)	1294
KEYPOINT	1141 USED FOR KEYPOINT(S)	1274
KEYPOINT	1159 USED FOR KEYPOINT(S)	1288
KEYPOINT	1166 USED FOR KEYPOINT(S)	1262
KEYPOINT	1167 USED FOR KEYPOINT(S)	1264
KEYPOINT	1168 USED FOR KEYPOINT(S)	1266
KEYPOINT	1169 USED FOR KEYPOINT(S)	1276
KEYPOINT	1172 USED FOR KEYPOINT(S)	1278
KEYPOINT	1173 USED FOR KEYPOINT(S)	1280
KEYPOINT	1176 USED FOR KEYPOINT(S)	1282
KEYPOINT	1177 USED FOR KEYPOINT(S)	1284
KEYPOINT	1178 USED FOR KEYPOINT(S)	1286
KEYPOINT	1180 USED FOR KEYPOINT(S)	1296
KEYPOINT	1182 USED FOR KEYPOINT(S)	1299
KEYPOINT	1183 USED FOR KEYPOINT(S)	1298
KEYPOINT	1185 USED FOR KEYPOINT(S)	1270
KEYPOINT	1187 USED FOR KEYPOINT(S)	1272
KEYPOINT	1189 USED FOR KEYPOINT(S)	1292
KEYPOINT	1190 USED FOR KEYPOINT(S)	1290
KEYPOINT	1191 USED FOR KEYPOINT(S)	1259
KEYPOINT	1192 USED FOR KEYPOINT(S)	1260
KEYPOINT	1193 USED FOR KEYPOINT(S)	1261
KEYPOINT	1194 USED FOR KEYPOINT(S)	1263
KEYPOINT	1195 USED FOR KEYPOINT(S)	1265
KEYPOINT	1196 USED FOR KEYPOINT(S)	1267
KEYPOINT	1197 USED FOR KEYPOINT(S)	1269
KEYPOINT	1198 USED FOR KEYPOINT(S)	1271
KEYPOINT	1199 USED FOR KEYPOINT(S)	1273
KEYPOINT	1200 USED FOR KEYPOINT(S)	1275
KEYPOINT	1201 USED FOR KEYPOINT(S)	1277
KEYPOINT	1202 USED FOR KEYPOINT(S)	1279
KEYPOINT	1203 USED FOR KEYPOINT(S)	1281
KEYPOINT	1204 USED FOR KEYPOINT(S)	1283
KEYPOINT	1205 USED FOR KEYPOINT(S)	1285
KEYPOINT	1206 USED FOR KEYPOINT(S)	1287
KEYPOINT	1207 USED FOR KEYPOINT(S)	1289
KEYPOINT	1208 USED FOR KEYPOINT(S)	1291
KEYPOINT	1209 USED FOR KEYPOINT(S)	1293
KEYPOINT	1210 USED FOR KEYPOINT(S)	1295
KEYPOINT	1211 USED FOR KEYPOINT(S)	1297
KEYPOINT	1212 USED FOR KEYPOINT(S)	1300
KEYPOINT	1213 USED FOR KEYPOINT(S)	1301
KEYPOINT	1214 USED FOR KEYPOINT(S)	1302
KEYPOINT	1215 USED FOR KEYPOINT(S)	1303
KEYPOINT	1216 USED FOR KEYPOINT(S)	1304
KEYPOINT	1217 USED FOR KEYPOINT(S)	1305

KEYPOINT	1218	USED	FOR	KEYPOINT(S)	1306
KEYPOINT	1219	USED	FOR	KEYPOINT(S)	1307
KEYPOINT	1220	USED	FOR	KEYPOINT(S)	1308
KEYPOINT	1221	USED	FOR	KEYPOINT(S)	1309
KEYPOINT	1222	USED	FOR	KEYPOINT(S)	1310
KEYPOINT	1223	USED	FOR	KEYPOINT(S)	1311
KEYPOINT	1224	USED	FOR	KEYPOINT(S)	1312
KEYPOINT	1225	USED	FOR	KEYPOINT(S)	1313
KEYPOINT	1226	USED	FOR	KEYPOINT(S)	1314
KEYPOINT	1227	USED	FOR	KEYPOINT(S)	1315
KEYPOINT	1228	USED	FOR	KEYPOINT(S)	1316
KEYPOINT	1229	USED	FOR	KEYPOINT(S)	1317
KEYPOINT	1230	USED	FOR	KEYPOINT(S)	1318
KEYPOINT	1231	USED	FOR	KEYPOINT(S)	1319
KEYPOINT	1232	USED	FOR	KEYPOINT(S)	1320
KEYPOINT	1233	USED	FOR	KEYPOINT(S)	1321
KEYPOINT	1234	USED	FOR	KEYPOINT(S)	1322
KEYPOINT	1235	USED	FOR	KEYPOINT(S)	1323
KEYPOINT	1236	USED	FOR	KEYPOINT(S)	1324
KEYPOINT	1237	USED	FOR	KEYPOINT(S)	1325
KEYPOINT	1238	USED	FOR	KEYPOINT(S)	1326
KEYPOINT	1239	USED	FOR	KEYPOINT(S)	1327
KEYPOINT	1240	USED	FOR	KEYPOINT(S)	1328
KEYPOINT	1241	USED	FOR	KEYPOINT(S)	1329
KEYPOINT	1242	USED	FOR	KEYPOINT(S)	1330
KEYPOINT	1243	USED	FOR	KEYPOINT(S)	1331
KEYPOINT	1244	USED	FOR	KEYPOINT(S)	1332
KEYPOINT	1245	USED	FOR	KEYPOINT(S)	1333
KEYPOINT	1246	USED	FOR	KEYPOINT(S)	1334
KEYPOINT	1247	USED	FOR	KEYPOINT(S)	1335
KEYPOINT	1248	USED	FOR	KEYPOINT(S)	1336
KEYPOINT	1249	USED	FOR	KEYPOINT(S)	1337
KEYPOINT	1250	USED	FOR	KEYPOINT(S)	1338
KEYPOINT	1251	USED	FOR	KEYPOINT(S)	1339
KEYPOINT	1252	USED	FOR	KEYPOINT(S)	1340
KEYPOINT	1253	USED	FOR	KEYPOINT(S)	1341
KEYPOINT	1254	USED	FOR	KEYPOINT(S)	1342
KEYPOINT	1255	USED	FOR	KEYPOINT(S)	1343
KEYPOINT	1256	USED	FOR	KEYPOINT(S)	1344
KEYPOINT	1257	USED	FOR	KEYPOINT(S)	1345
KEYPOINT	1258	USED	FOR	KEYPOINT(S)	1346
KEYPOINT	1347	USED	FOR	KEYPOINT(S)	1567
KEYPOINT	1348	USED	FOR	KEYPOINT(S)	1568
KEYPOINT	1349	USED	FOR	KEYPOINT(S)	1569
KEYPOINT	1350	USED	FOR	KEYPOINT(S)	1542
KEYPOINT	1351	USED	FOR	KEYPOINT(S)	1570
KEYPOINT	1352	USED	FOR	KEYPOINT(S)	1543
KEYPOINT	1353	USED	FOR	KEYPOINT(S)	1571
KEYPOINT	1354	USED	FOR	KEYPOINT(S)	1544
KEYPOINT	1355	USED	FOR	KEYPOINT(S)	1572
KEYPOINT	1356	USED	FOR	KEYPOINT(S)	1479
KEYPOINT	1357	USED	FOR	KEYPOINT(S)	1573
KEYPOINT	1358	USED	FOR	KEYPOINT(S)	1561
KEYPOINT	1359	USED	FOR	KEYPOINT(S)	1574
KEYPOINT	1360	USED	FOR	KEYPOINT(S)	1563
KEYPOINT	1361	USED	FOR	KEYPOINT(S)	1575
KEYPOINT	1362	USED	FOR	KEYPOINT(S)	1517
KEYPOINT	1363	USED	FOR	KEYPOINT(S)	1576
KEYPOINT	1364	USED	FOR	KEYPOINT(S)	1545
KEYPOINT	1365	USED	FOR	KEYPOINT(S)	1577
KEYPOINT	1366	USED	FOR	KEYPOINT(S)	1548
KEYPOINT	1367	USED	FOR	KEYPOINT(S)	1578
KEYPOINT	1368	USED	FOR	KEYPOINT(S)	1549
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LINE 1740 USED FOR LINE(S) 2209
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LINE 1744 USED FOR LINE(S) 2211
LINE 1745 USED FOR LINE(S) 2212

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AREA	1456	USED	FOR	AREA(S)	1680
AREA	1459	USED	FOR	AREA(S)	1681
AREA	1462	USED	FOR	AREA(S)	1682
AREA	1465	USED	FOR	AREA(S)	1683
AREA	1468	USED	FOR	AREA(S)	1684
AREA	1471	USED	FOR	AREA(S)	1685
AREA	1474	USED	FOR	AREA(S)	1686
AREA	1477	USED	FOR	AREA(S)	1687
AREA	1480	USED	FOR	AREA(S)	1688
AREA	1483	USED	FOR	AREA(S)	1689
AREA	1486	USED	FOR	AREA(S)	1690
AREA	1489	USED	FOR	AREA(S)	1691
AREA	1492	USED	FOR	AREA(S)	1692
AREA	1495	USED	FOR	AREA(S)	1693
AREA	1498	USED	FOR	AREA(S)	1694
AREA	1501	USED	FOR	AREA(S)	1695
AREA	1504	USED	FOR	AREA(S)	1696
AREA	1507	USED	FOR	AREA(S)	1697
AREA	1510	USED	FOR	AREA(S)	1698
AREA	1513	USED	FOR	AREA(S)	1699
AREA	1516	USED	FOR	AREA(S)	1700
AREA	2028	USED	FOR	AREA(S)	2225
AREA	2031	USED	FOR	AREA(S)	2226
AREA	2035	USED	FOR	AREA(S)	2227
AREA	2038	USED	FOR	AREA(S)	2228
AREA	2041	USED	FOR	AREA(S)	2229
AREA	2045	USED	FOR	AREA(S)	2230
AREA	2048	USED	FOR	AREA(S)	2231
AREA	2051	USED	FOR	AREA(S)	2232
AREA	2055	USED	FOR	AREA(S)	2233
AREA	2058	USED	FOR	AREA(S)	2234
AREA	2062	USED	FOR	AREA(S)	2235
AREA	2065	USED	FOR	AREA(S)	2236
AREA	2069	USED	FOR	AREA(S)	2237
AREA	2072	USED	FOR	AREA(S)	2238
AREA	2075	USED	FOR	AREA(S)	2239
AREA	2079	USED	FOR	AREA(S)	2240
AREA	2082	USED	FOR	AREA(S)	2241
AREA	2085	USED	FOR	AREA(S)	2242
AREA	2089	USED	FOR	AREA(S)	2243
AREA	2092	USED	FOR	AREA(S)	2244
AREA	2096	USED	FOR	AREA(S)	2245
AREA	2100	USED	FOR	AREA(S)	2246
AREA	2103	USED	FOR	AREA(S)	2247
AREA	2106	USED	FOR	AREA(S)	2248
AREA	2109	USED	FOR	AREA(S)	2249
AREA	2112	USED	FOR	AREA(S)	2250
AREA	2115	USED	FOR	AREA(S)	2251
AREA	2118	USED	FOR	AREA(S)	2252
AREA	2121	USED	FOR	AREA(S)	2253
AREA	2124	USED	FOR	AREA(S)	2254
AREA	2127	USED	FOR	AREA(S)	2255
AREA	2130	USED	FOR	AREA(S)	2256
AREA	2133	USED	FOR	AREA(S)	2257
AREA	2136	USED	FOR	AREA(S)	2258
AREA	2139	USED	FOR	AREA(S)	2259
AREA	2142	USED	FOR	AREA(S)	2260
AREA	2145	USED	FOR	AREA(S)	2261
AREA	2148	USED	FOR	AREA(S)	2262
AREA	2151	USED	FOR	AREA(S)	2263
AREA	2154	USED	FOR	AREA(S)	2264
AREA	2157	USED	FOR	AREA(S)	2265
AREA	2160	USED	FOR	AREA(S)	2266
AREA	2164	USED	FOR	AREA(S)	2267
AREA	2167	USED	FOR	AREA(S)	2268
AREA	2170	USED	FOR	AREA(S)	2269
AREA	2173	USED	FOR	AREA(S)	2270
AREA	2176	USED	FOR	AREA(S)	2271
AREA	2179	USED	FOR	AREA(S)	2272

AREA	2182	USED	FOR	AREA(S)	2273
AREA	2185	USED	FOR	AREA(S)	2274
AREA	2188	USED	FOR	AREA(S)	2275
AREA	2191	USED	FOR	AREA(S)	2276
AREA	2194	USED	FOR	AREA(S)	2277
AREA	2197	USED	FOR	AREA(S)	2278
AREA	2200	USED	FOR	AREA(S)	2279
AREA	2203	USED	FOR	AREA(S)	2280
AREA	2206	USED	FOR	AREA(S)	2281
AREA	2209	USED	FOR	AREA(S)	2282
AREA	2212	USED	FOR	AREA(S)	2283
AREA	2215	USED	FOR	AREA(S)	2284
AREA	2218	USED	FOR	AREA(S)	2285
AREA	2221	USED	FOR	AREA(S)	2286
AREA	2224	USED	FOR	AREA(S)	2287
AREA	2292	USED	FOR	AREA(S)	2593
AREA	2296	USED	FOR	AREA(S)	2594
AREA	2300	USED	FOR	AREA(S)	2595
AREA	2304	USED	FOR	AREA(S)	2596
AREA	2308	USED	FOR	AREA(S)	2597
AREA	2312	USED	FOR	AREA(S)	2598
AREA	2316	USED	FOR	AREA(S)	2599
AREA	2320	USED	FOR	AREA(S)	2600
AREA	2324	USED	FOR	AREA(S)	2601
AREA	2328	USED	FOR	AREA(S)	2602
AREA	2332	USED	FOR	AREA(S)	2603
AREA	2336	USED	FOR	AREA(S)	2604
AREA	2340	USED	FOR	AREA(S)	2605
AREA	2344	USED	FOR	AREA(S)	2606
AREA	2348	USED	FOR	AREA(S)	2607
AREA	2352	USED	FOR	AREA(S)	2608
AREA	2356	USED	FOR	AREA(S)	2609
AREA	2360	USED	FOR	AREA(S)	2610
AREA	2364	USED	FOR	AREA(S)	2611
AREA	2368	USED	FOR	AREA(S)	2612
AREA	2372	USED	FOR	AREA(S)	2613
AREA	2376	USED	FOR	AREA(S)	2614
AREA	2379	USED	FOR	AREA(S)	2615
AREA	2382	USED	FOR	AREA(S)	2616
AREA	2385	USED	FOR	AREA(S)	2617
AREA	2388	USED	FOR	AREA(S)	2618
AREA	2391	USED	FOR	AREA(S)	2619
AREA	2394	USED	FOR	AREA(S)	2620
AREA	2397	USED	FOR	AREA(S)	2621
AREA	2400	USED	FOR	AREA(S)	2622
AREA	2403	USED	FOR	AREA(S)	2623
AREA	2406	USED	FOR	AREA(S)	2624
AREA	2409	USED	FOR	AREA(S)	2625
AREA	2412	USED	FOR	AREA(S)	2626
AREA	2415	USED	FOR	AREA(S)	2627
AREA	2418	USED	FOR	AREA(S)	2628
AREA	2421	USED	FOR	AREA(S)	2629
AREA	2424	USED	FOR	AREA(S)	2630
AREA	2427	USED	FOR	AREA(S)	2631
AREA	2430	USED	FOR	AREA(S)	2632
AREA	2433	USED	FOR	AREA(S)	2633
AREA	2436	USED	FOR	AREA(S)	2634
AREA	2440	USED	FOR	AREA(S)	2635
AREA	2443	USED	FOR	AREA(S)	2636
AREA	2446	USED	FOR	AREA(S)	2637
AREA	2449	USED	FOR	AREA(S)	2638
AREA	2452	USED	FOR	AREA(S)	2639
AREA	2455	USED	FOR	AREA(S)	2640
AREA	2458	USED	FOR	AREA(S)	2641
AREA	2461	USED	FOR	AREA(S)	2642
AREA	2464	USED	FOR	AREA(S)	2643
AREA	2467	USED	FOR	AREA(S)	2644
AREA	2470	USED	FOR	AREA(S)	2645
AREA	2473	USED	FOR	AREA(S)	2646
AREA	2476	USED	FOR	AREA(S)	2647

AREA	2479	USED	FOR AREA(S)	2648
AREA	2482	USED	FOR AREA(S)	2649
AREA	2485	USED	FOR AREA(S)	2650
AREA	2488	USED	FOR AREA(S)	2651
AREA	2491	USED	FOR AREA(S)	2652
AREA	2494	USED	FOR AREA(S)	2653
AREA	2497	USED	FOR AREA(S)	2654
AREA	2500	USED	FOR AREA(S)	2655
AREA	3077	USED	FOR AREA(S)	3231
AREA	3080	USED	FOR AREA(S)	3232
AREA	3083	USED	FOR AREA(S)	3233
AREA	3086	USED	FOR AREA(S)	3234
AREA	3089	USED	FOR AREA(S)	3235
AREA	3092	USED	FOR AREA(S)	3236
AREA	3095	USED	FOR AREA(S)	3237
AREA	3098	USED	FOR AREA(S)	3238
AREA	3101	USED	FOR AREA(S)	3239
AREA	3104	USED	FOR AREA(S)	3240
AREA	3107	USED	FOR AREA(S)	3241
AREA	3110	USED	FOR AREA(S)	3242
AREA	3113	USED	FOR AREA(S)	3243
AREA	3116	USED	FOR AREA(S)	3244
AREA	3119	USED	FOR AREA(S)	3245
AREA	3122	USED	FOR AREA(S)	3246
AREA	3125	USED	FOR AREA(S)	3247
AREA	3128	USED	FOR AREA(S)	3248
AREA	3131	USED	FOR AREA(S)	3249
AREA	3134	USED	FOR AREA(S)	3250
AREA	3137	USED	FOR AREA(S)	3251
AREA	3141	USED	FOR AREA(S)	3252
AREA	3144	USED	FOR AREA(S)	3253
AREA	3147	USED	FOR AREA(S)	3254
AREA	3150	USED	FOR AREA(S)	3255
AREA	3153	USED	FOR AREA(S)	3256
AREA	3156	USED	FOR AREA(S)	3257
AREA	3159	USED	FOR AREA(S)	3258
AREA	3162	USED	FOR AREA(S)	3259
AREA	3165	USED	FOR AREA(S)	3260
AREA	3168	USED	FOR AREA(S)	3261
AREA	3171	USED	FOR AREA(S)	3262
AREA	3174	USED	FOR AREA(S)	3263
AREA	3177	USED	FOR AREA(S)	3264
AREA	3180	USED	FOR AREA(S)	3265
AREA	3183	USED	FOR AREA(S)	3266
AREA	3186	USED	FOR AREA(S)	3267
AREA	3189	USED	FOR AREA(S)	3268
AREA	3192	USED	FOR AREA(S)	3269
AREA	3195	USED	FOR AREA(S)	3270
AREA	3198	USED	FOR AREA(S)	3271
AREA	3201	USED	FOR AREA(S)	3272
AREA	3277	USED	FOR AREA(S)	3535
AREA	3281	USED	FOR AREA(S)	3536
AREA	3285	USED	FOR AREA(S)	3537
AREA	3289	USED	FOR AREA(S)	3538
AREA	3293	USED	FOR AREA(S)	3539
AREA	3297	USED	FOR AREA(S)	3540
AREA	3301	USED	FOR AREA(S)	3541
AREA	3305	USED	FOR AREA(S)	3542
AREA	3309	USED	FOR AREA(S)	3543
AREA	3313	USED	FOR AREA(S)	3544
AREA	3317	USED	FOR AREA(S)	3545
AREA	3321	USED	FOR AREA(S)	3546
AREA	3325	USED	FOR AREA(S)	3547
AREA	3329	USED	FOR AREA(S)	3548
AREA	3333	USED	FOR AREA(S)	3549
AREA	3337	USED	FOR AREA(S)	3550
AREA	3341	USED	FOR AREA(S)	3551
AREA	3345	USED	FOR AREA(S)	3552
AREA	3349	USED	FOR AREA(S)	3553
AREA	3353	USED	FOR AREA(S)	3554

AREA 3357 USED FOR AREA(S) 3555
 AREA 3361 USED FOR AREA(S) 3556
 AREA 3364 USED FOR AREA(S) 3557
 AREA 3367 USED FOR AREA(S) 3558
 AREA 3370 USED FOR AREA(S) 3559
 AREA 3373 USED FOR AREA(S) 3560
 AREA 3376 USED FOR AREA(S) 3561
 AREA 3379 USED FOR AREA(S) 3562
 AREA 3382 USED FOR AREA(S) 3563
 AREA 3385 USED FOR AREA(S) 3564
 AREA 3388 USED FOR AREA(S) 3565
 AREA 3391 USED FOR AREA(S) 3566
 AREA 3394 USED FOR AREA(S) 3567
 AREA 3397 USED FOR AREA(S) 3568
 AREA 3400 USED FOR AREA(S) 3569
 AREA 3403 USED FOR AREA(S) 3570
 AREA 3406 USED FOR AREA(S) 3571
 AREA 3409 USED FOR AREA(S) 3572
 AREA 3412 USED FOR AREA(S) 3573
 AREA 3415 USED FOR AREA(S) 3574
 AREA 3418 USED FOR AREA(S) 3575
 AREA 3421 USED FOR AREA(S) 3576
 AREA 4062 USED FOR AREA(S) 4152
 AREA 4065 USED FOR AREA(S) 4153
 AREA 4068 USED FOR AREA(S) 4154
 AREA 4071 USED FOR AREA(S) 4155
 AREA 4074 USED FOR AREA(S) 4156
 AREA 4077 USED FOR AREA(S) 4157
 AREA 4080 USED FOR AREA(S) 4158
 AREA 4083 USED FOR AREA(S) 4159
 AREA 4086 USED FOR AREA(S) 4160
 AREA 4089 USED FOR AREA(S) 4161
 AREA 4092 USED FOR AREA(S) 4162
 AREA 4095 USED FOR AREA(S) 4163
 AREA 4098 USED FOR AREA(S) 4164
 AREA 4101 USED FOR AREA(S) 4165
 AREA 4104 USED FOR AREA(S) 4166
 AREA 4107 USED FOR AREA(S) 4167
 AREA 4110 USED FOR AREA(S) 4168
 AREA 4113 USED FOR AREA(S) 4169
 AREA 4116 USED FOR AREA(S) 4170
 AREA 4119 USED FOR AREA(S) 4171
 AREA 4122 USED FOR AREA(S) 4172

ACTIVE COORDINATE SYSTEM SET TO 0 (CARTESIAN)

Mesh Volumes

Mesh the CS Tubes

SELECT FOR ITEM=VOLU COMPONENT=
 IN RANGE 376 TO 422 STEP 1

47 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ELEMENT TYPE SET TO 1

MATERIAL NUMBER SET TO 1

GENERATE NODES AND ELEMENTS IN ALL SELECTED VOLUMES

*** WARNING *** CP= 94.850 TIME= 16:34:50
 Meshing of volume 376 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 376 WITH EXCESSIVE ASPECT RATIO ***

1	2	3	4	6	7	8	9
11	12	13	14	16	17	18	19

*** WARNING *** CP= 94.970 TIME= 16:34:50
 Meshing of volume 377 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 377 WITH EXCESSIVE ASPECT RATIO ***

21	22	23	26	27	28	31	32
33	36	37	38				

*** WARNING *** CP= 95.090 TIME= 16:34:50
 Meshing of volume 378 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 378 WITH EXCESSIVE ASPECT RATIO ***

41	42	43	44	46	47	48	49
51	52	53	54	56	57	58	59

*** WARNING *** CP= 95.210 TIME= 16:34:50
 Meshing of volume 379 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 379 WITH EXCESSIVE ASPECT RATIO ***

61	62	63	64	66	67	68	69
71	72	73	74	76	77	78	79

*** WARNING *** CP= 95.330 TIME= 16:34:50
 Meshing of volume 380 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 380 WITH EXCESSIVE ASPECT RATIO ***

81	82	83	86	87	88	91	92
93	96	97	98				

*** WARNING *** CP= 95.450 TIME= 16:34:51
 Meshing of volume 381 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 381 WITH EXCESSIVE ASPECT RATIO ***

101	102	103	104	106	107	108	109
111	112	113	114	116	117	118	119

*** WARNING *** CP= 95.580 TIME= 16:34:51
 Meshing of volume 382 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 382 WITH EXCESSIVE ASPECT RATIO ***

121	122	123	124	126	127	128	129
131	132	133	134	136	137	138	139

*** WARNING *** CP= 95.700 TIME= 16:34:51
 Meshing of volume 383 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 383 WITH EXCESSIVE ASPECT RATIO ***

141	142	143	146	147	148	151	152
153	156	157	158				

*** WARNING *** CP= 95.810 TIME= 16:34:51
 Meshing of volume 384 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 384 WITH EXCESSIVE ASPECT RATIO ***

161	162	163	164	166	167	168	169
-----	-----	-----	-----	-----	-----	-----	-----

171 172 173 174 176 177 178 179

*** WARNING *** CP= 95.940 TIME= 16:34:51
 Meshing of volume 385 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 385 WITH EXCESSIVE ASPECT RATIO ***
 181 182 183 184 186 187 188 189
 191 192 193 194 196 197 198 199

*** WARNING *** CP= 96.060 TIME= 16:34:51
 Meshing of volume 386 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 386 WITH EXCESSIVE ASPECT RATIO ***
 201 202 203 206 207 208 211 212
 213 216 217 218

*** WARNING *** CP= 96.180 TIME= 16:34:51
 Meshing of volume 387 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 387 WITH EXCESSIVE ASPECT RATIO ***
 221 222 223 224 226 227 228 229
 231 232 233 234 236 237 238 239

*** WARNING *** CP= 96.300 TIME= 16:34:51
 Meshing of volume 388 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 388 WITH EXCESSIVE ASPECT RATIO ***
 241 242 243 244 246 247 248 249
 251 252 253 254 256 257 258 259

*** WARNING *** CP= 96.420 TIME= 16:34:52
 Meshing of volume 389 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 389 WITH EXCESSIVE ASPECT RATIO ***
 261 262 263 266 267 268 271 272
 273 276 277 278

*** WARNING *** CP= 96.540 TIME= 16:34:52
 Meshing of volume 390 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 390 WITH EXCESSIVE ASPECT RATIO ***
 281 282 283 284 286 287 288 289
 291 292 293 294 296 297 298 299

*** WARNING *** CP= 96.660 TIME= 16:34:52
 Meshing of volume 391 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 391 WITH EXCESSIVE ASPECT RATIO ***
 301 302 303 306 307 308 311 312
 313 316 317 318

*** WARNING *** CP= 96.780 TIME= 16:34:52
 Meshing of volume 392 produced 11 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 392 WITH EXCESSIVE ASPECT RATIO ***

321	322	323	326	327	328	331	332
333	336	337					

*** WARNING *** CP= 96.850 TIME= 16:34:52
Volume 393 area 1070 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 96.850 TIME= 16:34:52
Volume 393 area 1778 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 96.900 TIME= 16:34:52
Meshing of volume 393 produced 12 elements with excessive aspect ratio. Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 393 WITH EXCESSIVE ASPECT RATIO ***

341	342	343	346	347	348	351	352
353	356	357	358				

*** WARNING *** CP= 96.900 TIME= 16:34:52
Meshing of volume 393 produced 5 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 393 WITH EXCESSIVE DISTORTION ***

356	357	358	359	360
-----	-----	-----	-----	-----

*** WARNING *** CP= 97.020 TIME= 16:34:52
Meshing of volume 394 produced 12 elements with excessive aspect ratio. Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 394 WITH EXCESSIVE ASPECT RATIO ***

361	362	363	366	367	368	371	372
373	376	377	378				

*** WARNING *** CP= 97.140 TIME= 16:34:52
Meshing of volume 395 produced 12 elements with excessive aspect ratio. Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 395 WITH EXCESSIVE ASPECT RATIO ***

381	382	383	386	387	388	391	392
393	396	397	398				

*** WARNING *** CP= 97.260 TIME= 16:34:52
Meshing of volume 396 produced 12 elements with excessive aspect ratio. Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 396 WITH EXCESSIVE ASPECT RATIO ***

401	402	403	406	407	408	411	412
413	416	417	418				

*** WARNING *** CP= 97.380 TIME= 16:34:53
Meshing of volume 397 produced 12 elements with excessive aspect ratio. Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 397 WITH EXCESSIVE ASPECT RATIO ***

421	422	423	426	427	428	431	432
433	436	437	438				

*** WARNING *** CP= 97.490 TIME= 16:34:53
Meshing of volume 398 produced 12 elements with excessive aspect ratio. Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 398 WITH EXCESSIVE ASPECT RATIO ***

441	442	443	446	447	448	451	452
453	456	457	458				

*** WARNING *** CP= 97.620 TIME= 16:34:53
 Meshing of volume 399 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 399 WITH EXCESSIVE ASPECT RATIO ***

461	462	463	466	467	468	471	472
473	476	477	478				

*** WARNING *** CP= 97.740 TIME= 16:34:53
 Meshing of volume 400 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 400 WITH EXCESSIVE ASPECT RATIO ***

481	482	483	486	487	488	491	492
493	496	497	498				

*** WARNING *** CP= 97.850 TIME= 16:34:53
 Meshing of volume 401 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 401 WITH EXCESSIVE ASPECT RATIO ***

501	502	503	506	507	508	511	512
513	516	517	518				

*** WARNING *** CP= 97.970 TIME= 16:34:53
 Meshing of volume 402 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 402 WITH EXCESSIVE ASPECT RATIO ***

521	522	523	526	527	528	531	532
533	536	537	538				

*** WARNING *** CP= 98.090 TIME= 16:34:53
 Meshing of volume 403 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 403 WITH EXCESSIVE ASPECT RATIO ***

541	542	543	546	547	548	551	552
553	556	557	558				

*** WARNING *** CP= 98.210 TIME= 16:34:53
 Meshing of volume 404 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 404 WITH EXCESSIVE ASPECT RATIO ***

561	562	563	566	567	568	571	572
573	576	577	578				

*** WARNING *** CP= 98.330 TIME= 16:34:53
 Meshing of volume 405 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 405 WITH EXCESSIVE ASPECT RATIO ***

581	582	583	586	587	588	591	592
593	596	597	598				

*** WARNING *** CP= 98.440 TIME= 16:34:54
 Meshing of volume 406 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 406 WITH EXCESSIVE ASPECT RATIO ***
 601 602 603 606 607 608 611 612
 613 616 617 618

*** WARNING *** CP= 98.570 TIME= 16:34:54
 Meshing of volume 407 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 407 WITH EXCESSIVE ASPECT RATIO ***
 621 622 623 626 627 628 631 632
 633 636 637 638

*** WARNING *** CP= 98.690 TIME= 16:34:54
 Meshing of volume 408 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 408 WITH EXCESSIVE ASPECT RATIO ***
 641 642 643 646 647 648 651 652
 653 656 657 658

*** WARNING *** CP= 98.750 TIME= 16:34:54
 Volume 409 area 1134 has a corner angle of 37 degrees. This is not
 recommended for hexahedral elements.

*** WARNING *** CP= 98.760 TIME= 16:34:54
 Volume 409 area 1842 has a corner angle of 37 degrees. This is not
 recommended for hexahedral elements.

*** WARNING *** CP= 98.810 TIME= 16:34:54
 Meshing of volume 409 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 409 WITH EXCESSIVE ASPECT RATIO ***
 661 662 663 666 667 668 671 672
 673 676 677 678

*** WARNING *** CP= 98.810 TIME= 16:34:54
 Meshing of volume 409 produced 5 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 409 WITH EXCESSIVE DISTORTION ***
 676 677 678 679 680

*** WARNING *** CP= 98.930 TIME= 16:34:54
 Meshing of volume 410 produced 11 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 410 WITH EXCESSIVE ASPECT RATIO ***
 681 682 683 686 687 688 691 692
 693 696 697

*** WARNING *** CP= 99.000 TIME= 16:34:54
 Volume 411 area 1142 has a corner angle of 37 degrees. This is not
 recommended for hexahedral elements.

*** WARNING *** CP= 99.010 TIME= 16:34:54
 Volume 411 area 1850 has a corner angle of 37 degrees. This is not
 recommended for hexahedral elements.

*** WARNING *** CP= 99.060 TIME= 16:34:54
 Meshing of volume 411 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 411 WITH EXCESSIVE ASPECT RATIO ***

701	702	703	706	707	708	711	712
713	716	717	718				

*** WARNING *** CP= 99.060 TIME= 16:34:54
 Meshing of volume 411 produced 5 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 411 WITH EXCESSIVE DISTORTION ***

716	717	718	719	720
-----	-----	-----	-----	-----

*** WARNING *** CP= 99.180 TIME= 16:34:54
 Meshing of volume 412 produced 11 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 412 WITH EXCESSIVE ASPECT RATIO ***

721	722	726	727	728	731	732	733
736	737	738					

*** WARNING *** CP= 99.290 TIME= 16:34:54
 Meshing of volume 413 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 413 WITH EXCESSIVE ASPECT RATIO ***

741	742	743	746	747	748	751	752
753	756	757	758				

*** WARNING *** CP= 99.410 TIME= 16:34:55
 Meshing of volume 414 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 414 WITH EXCESSIVE ASPECT RATIO ***

761	762	763	766	767	768	771	772
773	776	777	778				

*** WARNING *** CP= 99.530 TIME= 16:34:55
 Meshing of volume 415 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 415 WITH EXCESSIVE ASPECT RATIO ***

781	782	783	786	787	788	791	792
793	796	797	798				

*** WARNING *** CP= 99.650 TIME= 16:34:55
 Meshing of volume 416 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 416 WITH EXCESSIVE ASPECT RATIO ***

801	802	803	806	807	808	811	812
813	816	817	818				

*** WARNING *** CP= 99.770 TIME= 16:34:55
 Meshing of volume 417 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 417 WITH EXCESSIVE ASPECT RATIO ***

821	822	823	826	827	828	831	832
833	836	837	838				

*** WARNING *** CP= 99.890 TIME= 16:34:55
 Meshing of volume 418 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 418 WITH EXCESSIVE ASPECT RATIO ***

841	842	843	846	847	848	851	852
853	856	857	858				

*** WARNING *** CP= 100.010 TIME= 16:34:55
 Meshing of volume 419 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 419 WITH EXCESSIVE ASPECT RATIO ***

861	862	863	866	867	868	871	872
873	876	877	878				

*** WARNING *** CP= 100.130 TIME= 16:34:55
 Meshing of volume 420 produced 11 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 420 WITH EXCESSIVE ASPECT RATIO ***

881	882	883	886	887	888	891	892
893	896	897					

*** WARNING *** CP= 100.190 TIME= 16:34:55
 Volume 421 area 1182 has a corner angle of 37 degrees. This is not
 recommended for hexahedral elements.

*** WARNING *** CP= 100.200 TIME= 16:34:55
 Volume 421 area 1890 has a corner angle of 37 degrees. This is not
 recommended for hexahedral elements.

*** WARNING *** CP= 100.250 TIME= 16:34:55
 Meshing of volume 421 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 421 WITH EXCESSIVE ASPECT RATIO ***

901	902	903	906	907	908	911	912
913	916	917	918				

*** WARNING *** CP= 100.250 TIME= 16:34:55
 Meshing of volume 421 produced 5 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 421 WITH EXCESSIVE DISTORTION ***

916	917	918	919	920
-----	-----	-----	-----	-----

*** WARNING *** CP= 100.370 TIME= 16:34:56
 Meshing of volume 422 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 422 WITH EXCESSIVE ASPECT RATIO ***

921	922	923	926	927	928	931	932
933	936	937	938				

NUMBER OF VOLUMES MESHED = 47
 MAXIMUM NODE NUMBER = 2316
 MAXIMUM ELEMENT NUMBER = 940
 Mesh SS-B Plates

SELECT FOR ITEM=VOLU COMPONENT=
 IN RANGE 423 TO 446 STEP 1

24 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ELEMENT TYPE SET TO 2

MATERIAL NUMBER SET TO 2

GENERATE NODES AND ELEMENTS IN ALL SELECTED VOLUMES

*** WARNING *** CP= 100.930 TIME= 16:34:56
 Meshing of volume 423 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 423 WITH EXCESSIVE ASPECT RATIO ***

941	942	943	944	945	946	947	948
949	950	951	952				

*** WARNING *** CP= 101.040 TIME= 16:34:56
 Meshing of volume 424 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 424 WITH EXCESSIVE ASPECT RATIO ***

961	962	963	964	966	967	968	969
971	972	973	974	976	977	978	979

*** WARNING *** CP= 101.110 TIME= 16:34:56
 Meshing of volume 425 produced 5 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 425 WITH EXCESSIVE ASPECT RATIO ***

981	982	983	984	985
-----	-----	-----	-----	-----

*** WARNING *** CP= 101.210 TIME= 16:34:56
 Meshing of volume 426 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 426 WITH EXCESSIVE ASPECT RATIO ***

986	987	988	991	992	993	996	997
998	1001	1002	1003				

*** WARNING *** CP= 101.320 TIME= 16:34:56
 Meshing of volume 427 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 427 WITH EXCESSIVE ASPECT RATIO ***

1006	1007	1008	1009	1010	1011	1012	1013
1014	1015	1016	1017				

*** WARNING *** CP= 101.420 TIME= 16:34:57
 Meshing of volume 428 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 428 WITH EXCESSIVE ASPECT RATIO ***

1026	1027	1028	1029	1030	1031	1032	1033
1034	1035	1036	1037				

*** WARNING *** CP= 101.530 TIME= 16:34:57
 Meshing of volume 429 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 429 WITH EXCESSIVE ASPECT RATIO ***

1046	1047	1048	1049	1051	1052	1053	1054
1056	1057	1058	1059	1061	1062	1063	1064

*** WARNING *** CP= 101.610 TIME= 16:34:57
 Meshing of volume 430 produced 5 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 430 WITH EXCESSIVE ASPECT RATIO ***

1066	1067	1068	1069	1070
------	------	------	------	------

*** WARNING *** CP= 101.710 TIME= 16:34:57
 Meshing of volume 431 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 431 WITH EXCESSIVE ASPECT RATIO ***
 1071 1072 1073 1076 1077 1078 1081 1082
 1083 1086 1087 1088

*** WARNING *** CP= 101.780 TIME= 16:34:57
 Meshing of volume 432 produced 5 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 432 WITH EXCESSIVE ASPECT RATIO ***
 1091 1092 1093 1094 1095

*** WARNING *** CP= 101.880 TIME= 16:34:57
 Meshing of volume 433 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 433 WITH EXCESSIVE ASPECT RATIO ***
 1096 1097 1098 1101 1102 1103 1106 1107
 1108 1111 1112 1113

*** WARNING *** CP= 101.990 TIME= 16:34:57
 Meshing of volume 434 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 434 WITH EXCESSIVE ASPECT RATIO ***
 1116 1117 1118 1119 1120 1121 1122 1123
 1124 1125 1126 1127

*** WARNING *** CP= 102.090 TIME= 16:34:57
 Meshing of volume 435 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 435 WITH EXCESSIVE ASPECT RATIO ***
 1136 1137 1138 1139 1140 1141 1142 1143
 1144 1145 1146 1147

*** WARNING *** CP= 102.200 TIME= 16:34:57
 Meshing of volume 436 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 436 WITH EXCESSIVE ASPECT RATIO ***
 1156 1157 1158 1159 1161 1162 1163 1164
 1166 1167 1168 1169 1171 1172 1173 1174

*** WARNING *** CP= 102.270 TIME= 16:34:57
 Meshing of volume 437 produced 5 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 437 WITH EXCESSIVE ASPECT RATIO ***
 1176 1177 1178 1179 1180

*** WARNING *** CP= 102.380 TIME= 16:34:58
 Meshing of volume 438 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 438 WITH EXCESSIVE ASPECT RATIO ***
 1181 1182 1183 1186 1187 1188 1191 1192
 1193 1196 1197 1198

*** WARNING *** CP= 102.450 TIME= 16:34:58
 Meshing of volume 439 produced 5 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 439 WITH EXCESSIVE ASPECT RATIO ***
 1201 1202 1203 1204 1205

*** WARNING *** CP= 102.550 TIME= 16:34:58
 Meshing of volume 440 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 440 WITH EXCESSIVE ASPECT RATIO ***
 1206 1207 1208 1211 1212 1213 1216 1217
 1218 1221 1222 1223

*** WARNING *** CP= 102.650 TIME= 16:34:58
 Meshing of volume 441 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 441 WITH EXCESSIVE ASPECT RATIO ***
 1226 1227 1228 1229 1230 1231 1232 1233
 1234 1235 1236 1237

*** WARNING *** CP= 102.760 TIME= 16:34:58
 Meshing of volume 442 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 442 WITH EXCESSIVE ASPECT RATIO ***
 1246 1247 1248 1249 1250 1251 1252 1253
 1254 1255 1256 1257

*** WARNING *** CP= 102.870 TIME= 16:34:58
 Meshing of volume 443 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 443 WITH EXCESSIVE ASPECT RATIO ***
 1266 1267 1268 1269 1271 1272 1273 1274
 1276 1277 1278 1279 1281 1282 1283 1284

*** WARNING *** CP= 102.940 TIME= 16:34:58
 Meshing of volume 444 produced 5 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 444 WITH EXCESSIVE ASPECT RATIO ***
 1286 1287 1288 1289 1290

*** WARNING *** CP= 103.040 TIME= 16:34:58
 Meshing of volume 445 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 445 WITH EXCESSIVE ASPECT RATIO ***
 1291 1292 1293 1296 1297 1298 1301 1302
 1303 1306 1307 1308

*** WARNING *** CP= 103.140 TIME= 16:34:58
 Meshing of volume 446 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 446 WITH EXCESSIVE ASPECT RATIO ***
 1311 1312 1313 1314 1315 1316 1317 1318
 1319 1320 1321 1322

NUMBER OF VOLUMES MESHED = 24
 MAXIMUM NODE NUMBER = 2316
 MAXIMUM ELEMENT NUMBER = 1330
 Mesh Side Guides

SELECT FOR ITEM=VOLUME COMPONENT=
 IN RANGE 447 TO 461 STEP 1

15 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ELEMENT TYPE SET TO 3

MATERIAL NUMBER SET TO 3

GENERATE NODES AND ELEMENTS IN ALL SELECTED VOLUMES

*** WARNING *** CP= 103.610 TIME= 16:34:59
 Meshing of volume 447 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 447 WITH EXCESSIVE ASPECT RATIO ***
 1331 1332 1333 1336 1337 1338 1341 1342
 1343 1346 1347 1348

*** WARNING *** CP= 103.680 TIME= 16:34:59
 Meshing of volume 448 produced 5 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 448 WITH EXCESSIVE ASPECT RATIO ***
 1351 1352 1353 1354 1355

*** WARNING *** CP= 103.800 TIME= 16:34:59
 Meshing of volume 449 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 449 WITH EXCESSIVE ASPECT RATIO ***
 1356 1357 1358 1359 1361 1362 1363 1364
 1366 1367 1368 1369 1371 1372 1373 1374

*** WARNING *** CP= 103.850 TIME= 16:34:59
 Volume 450 area 1259 has a corner angle of 32 degrees. This is not
 recommended for hexahedral elements.

*** WARNING *** CP= 103.860 TIME= 16:34:59
 Volume 450 area 1967 has a corner angle of 32 degrees. This is not
 recommended for hexahedral elements.

*** WARNING *** CP= 103.910 TIME= 16:34:59
 Meshing of volume 450 produced 12 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 450 WITH EXCESSIVE ASPECT RATIO ***
 1376 1377 1378 1381 1382 1383 1386 1387
 1388 1391 1392 1393

*** WARNING *** CP= 103.910 TIME= 16:34:59
 Meshing of volume 450 produced 10 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 450 WITH EXCESSIVE DISTORTION ***
 1386 1387 1388 1389 1390 1391 1392 1393
 1394 1395

*** WARNING *** CP= 103.970 TIME= 16:34:59
 Volume 451 area 1263 has a corner angle of 32 degrees. This is not

recommended for hexahedral elements.

*** WARNING *** CP= 103.980 TIME= 16:34:59
Volume 451 area 1971 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 104.030 TIME= 16:34:59
Meshing of volume 451 produced 12 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 451 WITH EXCESSIVE ASPECT RATIO ***
1396 1397 1398 1399 1400 1401 1402 1403
1404 1405 1406 1407

*** WARNING *** CP= 104.030 TIME= 16:34:59
Meshing of volume 451 produced 10 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 451 WITH EXCESSIVE DISTORTION ***
1396 1397 1400 1401 1404 1405 1408 1409
1412 1413

*** WARNING *** CP= 104.110 TIME= 16:34:59
Meshing of volume 452 produced 5 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 452 WITH EXCESSIVE ASPECT RATIO ***
1416 1417 1418 1419 1420

*** WARNING *** CP= 104.220 TIME= 16:34:59
Meshing of volume 453 produced 16 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 453 WITH EXCESSIVE ASPECT RATIO ***
1421 1422 1423 1424 1426 1427 1428 1429
1431 1432 1433 1434 1436 1437 1438 1439

*** WARNING *** CP= 104.330 TIME= 16:34:59
Meshing of volume 454 produced 12 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 454 WITH EXCESSIVE ASPECT RATIO ***
1441 1442 1443 1444 1445 1446 1447 1448
1449 1450 1451 1452

*** WARNING *** CP= 104.410 TIME= 16:35:00
Meshing of volume 455 produced 5 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 455 WITH EXCESSIVE ASPECT RATIO ***
1461 1462 1463 1464 1465

*** WARNING *** CP= 104.530 TIME= 16:35:00
Meshing of volume 456 produced 16 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 456 WITH EXCESSIVE ASPECT RATIO ***
1466 1467 1468 1469 1471 1472 1473 1474
1476 1477 1478 1479 1481 1482 1483 1484

*** WARNING *** CP= 104.580 TIME= 16:35:00
Volume 457 area 1283 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 104.590 TIME= 16:35:00
Volume 457 area 1991 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 104.640 TIME= 16:35:00
Meshing of volume 457 produced 12 elements with excessive aspect ratio. Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 457 WITH EXCESSIVE ASPECT RATIO ***
1486 1487 1488 1489 1490 1491 1492 1493
1494 1495 1496 1497

*** WARNING *** CP= 104.640 TIME= 16:35:00
Meshing of volume 457 produced 10 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 457 WITH EXCESSIVE DISTORTION ***
1488 1489 1492 1493 1496 1497 1500 1501
1504 1505

*** WARNING *** CP= 104.700 TIME= 16:35:00
Volume 458 area 1287 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 104.710 TIME= 16:35:00
Volume 458 area 1995 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 104.760 TIME= 16:35:00
Meshing of volume 458 produced 12 elements with excessive aspect ratio. Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 458 WITH EXCESSIVE ASPECT RATIO ***
1506 1507 1508 1511 1512 1513 1516 1517
1518 1521 1522 1523

*** WARNING *** CP= 104.770 TIME= 16:35:00
Meshing of volume 458 produced 10 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 458 WITH EXCESSIVE DISTORTION ***
1516 1517 1518 1519 1520 1521 1522 1523
1524 1525

*** WARNING *** CP= 104.840 TIME= 16:35:00
Meshing of volume 459 produced 5 elements with excessive aspect ratio. Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 459 WITH EXCESSIVE ASPECT RATIO ***
1526 1527 1528 1529 1530

*** WARNING *** CP= 104.960 TIME= 16:35:00
Meshing of volume 460 produced 16 elements with excessive aspect ratio. Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 460 WITH EXCESSIVE ASPECT RATIO ***
1531 1532 1533 1534 1536 1537 1538 1539
1541 1542 1543 1544 1546 1547 1548 1549

*** WARNING *** CP= 105.070 TIME= 16:35:00
Meshing of volume 461 produced 12 elements with excessive aspect ratio. Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 461 WITH EXCESSIVE ASPECT RATIO ***
1551 1552 1553 1556 1557 1558 1561 1562
1563 1566 1567 1568

NUMBER OF VOLUMES MESHD = 15
MAXIMUM NODE NUMBER = 2718
MAXIMUM ELEMENT NUMBER = 1570
Mesh Corner Guides

SELECT FOR ITEM=VOLUME COMPONENT=
IN RANGE 462 TO 467 STEP 1

6 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ELEMENT TYPE SET TO 4

MATERIAL NUMBER SET TO 4

GENERATE NODES AND ELEMENTS IN ALL SELECTED VOLUMES

*** WARNING *** CP= 105.330 TIME= 16:35:00
Meshing of volume 462 produced 12 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 462 WITH EXCESSIVE ASPECT RATIO ***
1571 1572 1573 1574 1575 1576 1577 1578
1579 1580 1581 1582

*** WARNING *** CP= 105.400 TIME= 16:35:01
Meshing of volume 463 produced 5 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 463 WITH EXCESSIVE ASPECT RATIO ***
1591 1592 1593 1594 1595

*** WARNING *** CP= 105.510 TIME= 16:35:01
Meshing of volume 464 produced 12 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 464 WITH EXCESSIVE ASPECT RATIO ***
1596 1597 1598 1601 1602 1603 1606 1607
1608 1611 1612 1613

*** WARNING *** CP= 105.620 TIME= 16:35:01
Meshing of volume 465 produced 12 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 465 WITH EXCESSIVE ASPECT RATIO ***
1616 1617 1618 1619 1620 1621 1622 1623
1624 1625 1626 1627

*** WARNING *** CP= 105.690 TIME= 16:35:01
Meshing of volume 466 produced 5 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 466 WITH EXCESSIVE ASPECT RATIO ***
1636 1637 1638 1639 1640

*** WARNING *** CP= 105.800 TIME= 16:35:01
Meshing of volume 467 produced 12 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 467 WITH EXCESSIVE ASPECT RATIO ***
1641 1642 1643 1646 1647 1648 1651 1652
1653 1656 1657 1658

NUMBER OF VOLUMES MESHED = 6
MAXIMUM NODE NUMBER = 2826
MAXIMUM ELEMENT NUMBER = 1660
Mesh Inner Barrier and Lids

SELECT FOR ITEM=VOLU COMPONENT=
IN RANGE 199 TO 311 STEP 1

113 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALSO SELECT FOR ITEM=VOLU COMPONENT=
IN RANGE 354 TO 375 STEP 1

135 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALSO SELECT FOR ITEM=VOLU COMPONENT=
IN RANGE 468 TO 488 STEP 1

156 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALSO SELECT FOR ITEM=VOLU COMPONENT=
IN RANGE 531 TO 551 STEP 1

177 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALSO SELECT FOR ITEM=VOLU COMPONENT=
IN RANGE 594 TO 706 STEP 1

290 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALSO SELECT FOR ITEM=VOLU COMPONENT=
IN RANGE 749 TO 770 STEP 1

312 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ELEMENT TYPE SET TO 5

MATERIAL NUMBER SET TO 5

GENERATE NODES AND ELEMENTS IN ALL SELECTED VOLUMES

*** WARNING *** CP= 113.720 TIME= 16:35:09
Volume 216 area 517 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 113.730 TIME= 16:35:09
Volume 216 area 1070 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 113.740 TIME= 16:35:09
Meshing of volume 216 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 216 WITH EXCESSIVE DISTORTION ***
1732

*** WARNING *** CP= 114.820 TIME= 16:35:10
Volume 232 area 581 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 114.830 TIME= 16:35:10
Volume 232 area 1134 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 114.840 TIME= 16:35:10
Meshing of volume 232 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 232 WITH EXCESSIVE DISTORTION ***
1796

*** WARNING *** CP= 114.960 TIME= 16:35:10
Volume 234 area 589 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 114.970 TIME= 16:35:10
Volume 234 area 1142 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 114.980 TIME= 16:35:10
Meshing of volume 234 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 234 WITH EXCESSIVE DISTORTION ***
1804

*** WARNING *** CP= 115.650 TIME= 16:35:11
Volume 244 area 629 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 115.660 TIME= 16:35:11
Volume 244 area 1182 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 115.670 TIME= 16:35:11
Meshing of volume 244 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 244 WITH EXCESSIVE DISTORTION ***
1844

*** WARNING *** CP= 117.340 TIME= 16:35:13
Volume 273 area 706 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 117.350 TIME= 16:35:13
Volume 273 area 1259 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 117.370 TIME= 16:35:13
Meshing of volume 273 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 273 WITH EXCESSIVE DISTORTION ***
1938 1939

*** WARNING *** CP= 117.420 TIME= 16:35:13
Volume 274 area 710 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 117.420 TIME= 16:35:13
Volume 274 area 1263 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 117.440 TIME= 16:35:13
Meshing of volume 274 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 274 WITH EXCESSIVE DISTORTION ***
1940 1941

*** WARNING *** CP= 117.780 TIME= 16:35:13
Volume 280 area 730 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 117.790 TIME= 16:35:13
Volume 280 area 1283 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 117.810 TIME= 16:35:13

Meshing of volume 280 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 280 WITH EXCESSIVE DISTORTION ***
1960 1961

*** WARNING *** CP= 117.860 TIME= 16:35:13
Volume 281 area 734 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 117.870 TIME= 16:35:13
Volume 281 area 1287 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 117.880 TIME= 16:35:13
Meshing of volume 281 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 281 WITH EXCESSIVE DISTORTION ***
1964 1965

*** WARNING *** CP= 120.540 TIME= 16:35:16
Volume 355 area 966 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 120.560 TIME= 16:35:16
Volume 355 area 1519 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 120.600 TIME= 16:35:16
Meshing of volume 355 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 355 WITH EXCESSIVE DISTORTION ***
2106 2108 2110 2113 2114 2115 2116

*** WARNING *** CP= 120.630 TIME= 16:35:16
Volume 356 area 967 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 120.640 TIME= 16:35:16
Volume 356 area 1520 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 120.680 TIME= 16:35:16
Meshing of volume 356 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 356 WITH EXCESSIVE DISTORTION ***
2118 2121 2122 2125 2126 2127 2128

*** WARNING *** CP= 120.800 TIME= 16:35:16
Volume 358 area 969 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 120.810 TIME= 16:35:16
Volume 358 area 1522 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 120.850 TIME= 16:35:16
Meshing of volume 358 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 358 WITH EXCESSIVE DISTORTION ***
2146 2148 2150 2153 2154 2155 2156

*** WARNING *** CP= 120.880 TIME= 16:35:16
Volume 359 area 970 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 120.900 TIME= 16:35:16
Volume 359 area 1523 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 120.940 TIME= 16:35:16
Meshing of volume 359 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 359 WITH EXCESSIVE DISTORTION ***
2158 2161 2162 2165 2166 2167 2168

*** WARNING *** CP= 121.110 TIME= 16:35:16
Meshing of volume 361 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 361 WITH EXCESSIVE DISTORTION ***
2186

*** WARNING *** CP= 121.190 TIME= 16:35:16
Meshing of volume 362 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 362 WITH EXCESSIVE DISTORTION ***
2198

*** WARNING *** CP= 122.560 TIME= 16:35:18
Meshing of volume 468 produced 24 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 468 WITH EXCESSIVE ASPECT RATIO ***
2417 2418 2419 2422 2423 2424 2427 2428
2429 2432 2433 2434 2437 2438 2439 2442
2443 2444 2447 2448 2449 2452 2453 2454

*** WARNING *** CP= 122.650 TIME= 16:35:18
Meshing of volume 469 produced 10 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 469 WITH EXCESSIVE ASPECT RATIO ***
2457 2458 2459 2460 2461 2462 2463 2464
2465 2466

*** WARNING *** CP= 122.840 TIME= 16:35:18
Meshing of volume 470 produced 24 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 470 WITH EXCESSIVE ASPECT RATIO ***
2467 2468 2469 2470 2471 2472 2477 2478
2479 2480 2481 2482 2487 2488 2489 2490
2491 2492 2497 2498 2499 2500 2501 2502

*** WARNING *** CP= 122.920 TIME= 16:35:18
Meshing of volume 471 produced 8 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 471 WITH EXCESSIVE ASPECT RATIO ***
2507 2508 2509 2510 2511 2512 2513 2514

*** WARNING *** CP= 123.010 TIME= 16:35:18
Meshing of volume 472 produced 10 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 472 WITH EXCESSIVE ASPECT RATIO ***
2517 2518 2519 2520 2521 2522 2523 2524
2525 2526

*** WARNING *** CP= 123.210 TIME= 16:35:18
 Meshing of volume 473 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 473 WITH EXCESSIVE ASPECT RATIO ***

2527	2528	2529	2530	2537	2538	2539	2540
2547	2548	2549	2550	2557	2558	2559	2560

*** WARNING *** CP= 123.290 TIME= 16:35:18
 Meshing of volume 474 produced 10 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 474 WITH EXCESSIVE ASPECT RATIO ***

2567	2568	2569	2570	2571	2572	2573	2574
2575	2576						

*** WARNING *** CP= 123.370 TIME= 16:35:19
 Meshing of volume 475 produced 8 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 475 WITH EXCESSIVE ASPECT RATIO ***

2577	2578	2579	2580	2581	2582	2583	2584
------	------	------	------	------	------	------	------

*** WARNING *** CP= 123.560 TIME= 16:35:19
 Meshing of volume 476 produced 24 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 476 WITH EXCESSIVE ASPECT RATIO ***

2587	2588	2589	2590	2591	2592	2597	2598
2599	2600	2601	2602	2607	2608	2609	2610
2611	2612	2617	2618	2619	2620	2621	2622

*** WARNING *** CP= 123.650 TIME= 16:35:19
 Meshing of volume 477 produced 10 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 477 WITH EXCESSIVE ASPECT RATIO ***

2627	2628	2629	2630	2631	2632	2633	2634
2635	2636						

*** WARNING *** CP= 123.830 TIME= 16:35:19
 Meshing of volume 478 produced 24 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 478 WITH EXCESSIVE ASPECT RATIO ***

2637	2638	2639	2640	2641	2642	2647	2648
2649	2650	2651	2652	2657	2658	2659	2660
2661	2662	2667	2668	2669	2670	2671	2672

*** WARNING *** CP= 123.920 TIME= 16:35:19
 Meshing of volume 479 produced 10 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 479 WITH EXCESSIVE ASPECT RATIO ***

2677	2678	2679	2680	2681	2682	2683	2684
2685	2686						

*** WARNING *** CP= 124.110 TIME= 16:35:19
 Meshing of volume 480 produced 24 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 480 WITH EXCESSIVE ASPECT RATIO ***

2687	2688	2689	2690	2691	2692	2697	2698
2699	2700	2701	2702	2707	2708	2709	2710
2711	2712	2717	2718	2719	2720	2721	2722

*** WARNING *** CP= 124.190 TIME= 16:35:19
 Meshing of volume 481 produced 8 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 481 WITH EXCESSIVE ASPECT RATIO ***

2727	2728	2729	2730	2731	2732	2733	2734
------	------	------	------	------	------	------	------

*** WARNING *** CP= 124.270 TIME= 16:35:19
 Meshing of volume 482 produced 10 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 482 WITH EXCESSIVE ASPECT RATIO ***

2737	2738	2739	2740	2741	2742	2743	2744
2745	2746						

*** WARNING *** CP= 124.480 TIME= 16:35:20
 Meshing of volume 483 produced 16 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 483 WITH EXCESSIVE ASPECT RATIO ***

2747	2748	2749	2750	2757	2758	2759	2760
2767	2768	2769	2770	2777	2778	2779	2780

*** WARNING *** CP= 124.560 TIME= 16:35:20
 Meshing of volume 484 produced 10 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 484 WITH EXCESSIVE ASPECT RATIO ***

2787	2788	2789	2790	2791	2792	2793	2794
2795	2796						

*** WARNING *** CP= 124.640 TIME= 16:35:20
 Meshing of volume 485 produced 8 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 485 WITH EXCESSIVE ASPECT RATIO ***

2797	2798	2799	2800	2801	2802	2803	2804
------	------	------	------	------	------	------	------

*** WARNING *** CP= 124.830 TIME= 16:35:20
 Meshing of volume 486 produced 24 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 486 WITH EXCESSIVE ASPECT RATIO ***

2807	2808	2809	2810	2811	2812	2817	2818
2819	2820	2821	2822	2827	2828	2829	2830
2831	2832	2837	2838	2839	2840	2841	2842

*** WARNING *** CP= 124.920 TIME= 16:35:20
 Meshing of volume 487 produced 10 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 487 WITH EXCESSIVE ASPECT RATIO ***

2847	2848	2849	2850	2851	2852	2853	2854
2855	2856						

*** WARNING *** CP= 125.090 TIME= 16:35:20
 Meshing of volume 488 produced 24 elements with excessive aspect ratio.
 Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 488 WITH EXCESSIVE ASPECT RATIO ***

2857	2858	2859	2860	2861	2862	2867	2868
2869	2870	2871	2872	2877	2878	2879	2880
2881	2882	2887	2888	2889	2890	2891	2892

*** NOTE *** CP= 127.100 TIME= 16:35:22
Page file used.

*** WARNING *** CP= 128.150 TIME= 16:35:23
Volume 611 area 2518 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 128.160 TIME= 16:35:23
Volume 611 area 2755 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 128.180 TIME= 16:35:23
Meshing of volume 611 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 611 WITH EXCESSIVE DISTORTION ***
3064

*** WARNING *** CP= 129.330 TIME= 16:35:25
Volume 627 area 2534 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 129.340 TIME= 16:35:25
Volume 627 area 2819 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 129.360 TIME= 16:35:25
Meshing of volume 627 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 627 WITH EXCESSIVE DISTORTION ***
3128

*** WARNING *** CP= 129.490 TIME= 16:35:25
Volume 629 area 2536 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 129.500 TIME= 16:35:25
Volume 629 area 2827 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 129.520 TIME= 16:35:25
Meshing of volume 629 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 629 WITH EXCESSIVE DISTORTION ***
3136

*** WARNING *** CP= 130.230 TIME= 16:35:25
Volume 639 area 2546 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 130.240 TIME= 16:35:25
Volume 639 area 2867 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 130.260 TIME= 16:35:25
Meshing of volume 639 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 639 WITH EXCESSIVE DISTORTION ***
3176

*** WARNING *** CP= 132.030 TIME= 16:35:27
Volume 668 area 2575 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 132.040 TIME= 16:35:27
Volume 668 area 2944 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 132.060 TIME= 16:35:27
Meshing of volume 668 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 668 WITH EXCESSIVE DISTORTION ***
3270 3271

*** WARNING *** CP= 132.120 TIME= 16:35:27
Volume 669 area 2576 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 132.130 TIME= 16:35:27
Volume 669 area 2948 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 132.150 TIME= 16:35:27
Meshing of volume 669 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 669 WITH EXCESSIVE DISTORTION ***
3272 3273

*** WARNING *** CP= 132.520 TIME= 16:35:28
Volume 675 area 2582 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 132.530 TIME= 16:35:28
Volume 675 area 2968 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 132.550 TIME= 16:35:28
Meshing of volume 675 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 675 WITH EXCESSIVE DISTORTION ***
3292 3293

*** WARNING *** CP= 132.600 TIME= 16:35:28
Volume 676 area 2583 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 132.610 TIME= 16:35:28
Volume 676 area 2972 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 132.630 TIME= 16:35:28
Meshing of volume 676 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 676 WITH EXCESSIVE DISTORTION ***
3296 3297

*** WARNING *** CP= 135.050 TIME= 16:35:30
Volume 750 area 2657 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 135.060 TIME= 16:35:30
Volume 750 area 3204 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 135.110 TIME= 16:35:30
Meshing of volume 750 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 750 WITH EXCESSIVE DISTORTION ***
3438 3440 3442 3445 3446 3447 3448

*** WARNING *** CP= 135.140 TIME= 16:35:30
Volume 751 area 2658 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 135.150 TIME= 16:35:30
Volume 751 area 3205 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 135.190 TIME= 16:35:30
Meshing of volume 751 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 751 WITH EXCESSIVE DISTORTION ***
3450 3453 3454 3457 3458 3459 3460

*** WARNING *** CP= 135.310 TIME= 16:35:31
Volume 753 area 2660 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 135.330 TIME= 16:35:31
Volume 753 area 3207 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 135.370 TIME= 16:35:31
Meshing of volume 753 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 753 WITH EXCESSIVE DISTORTION ***
3478 3480 3482 3485 3486 3487 3488

*** WARNING *** CP= 135.400 TIME= 16:35:31
Volume 754 area 2661 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 135.420 TIME= 16:35:31
Volume 754 area 3208 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 135.460 TIME= 16:35:31
Meshing of volume 754 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 754 WITH EXCESSIVE DISTORTION ***
3490 3493 3494 3497 3498 3499 3500

*** WARNING *** CP= 135.630 TIME= 16:35:31
Meshing of volume 756 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 756 WITH EXCESSIVE DISTORTION ***
3518

*** WARNING *** CP= 135.720 TIME= 16:35:31
Meshing of volume 757 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 757 WITH EXCESSIVE DISTORTION ***
3530

NUMBER OF VOLUMES MESHED = 312
MAXIMUM NODE NUMBER = 6210
MAXIMUM ELEMENT NUMBER = 3748
Mesh Outer Barrier and Lids

SELECT FOR ITEM=VOLU COMPONENT=

IN RANGE 1 TO 198 STEP 1

198 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALSO SELECT FOR ITEM=VOLU COMPONENT=

IN RANGE 312 TO 353 STEP 1

240 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALSO SELECT FOR ITEM=VOLU COMPONENT=

IN RANGE 489 TO 530 STEP 1

282 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALSO SELECT FOR ITEM=VOLU COMPONENT=

IN RANGE 552 TO 593 STEP 1

324 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALSO SELECT FOR ITEM=VOLU COMPONENT=

IN RANGE 707 TO 748 STEP 1

366 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALSO SELECT FOR ITEM=VOLU COMPONENT=

IN RANGE 771 TO 1010 STEP 1

606 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ELEMENT TYPE SET TO 6

MATERIAL NUMBER SET TO 6

GENERATE NODES AND ELEMENTS IN ALL SELECTED VOLUMES

*** WARNING *** CP= 153.610 TIME= 16:35:49
Volume 39 area 280 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 153.620 TIME= 16:35:49
Volume 39 area 517 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 153.630 TIME= 16:35:49
Meshing of volume 39 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 39 WITH EXCESSIVE DISTORTION ***
4012

*** WARNING *** CP= 154.720 TIME= 16:35:50
Volume 55 area 296 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 154.720 TIME= 16:35:50
Volume 55 area 581 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 154.740 TIME= 16:35:50
Meshing of volume 55 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 55 WITH EXCESSIVE DISTORTION ***
4076

*** WARNING *** CP= 154.860 TIME= 16:35:50
Volume 57 area 298 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 154.870 TIME= 16:35:50

Volume 57 area 589 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 154.880 TIME= 16:35:50
Meshing of volume 57 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 57 WITH EXCESSIVE DISTORTION ***
4084

*** WARNING *** CP= 155.570 TIME= 16:35:51
Volume 67 area 308 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 155.570 TIME= 16:35:51
Volume 67 area 629 has a corner angle of 37 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 155.590 TIME= 16:35:51
Meshing of volume 67 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 67 WITH EXCESSIVE DISTORTION ***
4124

*** WARNING *** CP= 157.270 TIME= 16:35:52
Volume 96 area 337 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 157.280 TIME= 16:35:52
Volume 96 area 706 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 157.300 TIME= 16:35:53
Meshing of volume 96 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 96 WITH EXCESSIVE DISTORTION ***
4218 4219

*** WARNING *** CP= 157.350 TIME= 16:35:53
Volume 97 area 338 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 157.360 TIME= 16:35:53
Volume 97 area 710 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 157.370 TIME= 16:35:53
Meshing of volume 97 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 97 WITH EXCESSIVE DISTORTION ***
4220 4221

*** WARNING *** CP= 157.720 TIME= 16:35:53
Volume 103 area 344 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 157.730 TIME= 16:35:53
Volume 103 area 730 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 157.750 TIME= 16:35:53
Meshing of volume 103 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 103 WITH EXCESSIVE DISTORTION ***
4240 4241

*** WARNING *** CP= 157.790 TIME= 16:35:53
Volume 104 area 345 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 157.800 TIME= 16:35:53
Volume 104 area 734 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 157.820 TIME= 16:35:53
Meshing of volume 104 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 104 WITH EXCESSIVE DISTORTION ***
4244 4245

*** WARNING *** CP= 163.100 TIME= 16:35:58
Volume 178 area 419 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 163.140 TIME= 16:35:58
Meshing of volume 178 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 178 WITH EXCESSIVE DISTORTION ***
4530 4532 4534 4537 4538 4539 4540

*** WARNING *** CP= 163.180 TIME= 16:35:58
Volume 179 area 420 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 163.230 TIME= 16:35:58
Meshing of volume 179 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 179 WITH EXCESSIVE DISTORTION ***
4542 4545 4546 4549 4550 4551 4552

*** WARNING *** CP= 163.340 TIME= 16:35:59
Volume 181 area 422 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 163.390 TIME= 16:35:59
Meshing of volume 181 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 181 WITH EXCESSIVE DISTORTION ***
4570 4572 4574 4577 4578 4579 4580

*** WARNING *** CP= 163.420 TIME= 16:35:59
Volume 182 area 423 has a corner angle of 31 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 163.470 TIME= 16:35:59
Meshing of volume 182 produced 7 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 182 WITH EXCESSIVE DISTORTION ***
4582 4585 4586 4589 4590 4591 4592

*** WARNING *** CP= 163.640 TIME= 16:35:59
Meshing of volume 184 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 184 WITH EXCESSIVE DISTORTION ***
4610

*** WARNING *** CP= 163.710 TIME= 16:35:59
Meshing of volume 185 produced 1 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 185 WITH EXCESSIVE DISTORTION ***

4622

*** WARNING *** CP= 167.860 TIME= 16:36:03
Meshing of volume 489 produced 8 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 489 WITH EXCESSIVE ASPECT RATIO ***
4985 4986 4990 4991 4995 4996 5000 5001

*** WARNING *** CP= 167.930 TIME= 16:36:03
Meshing of volume 490 produced 3 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 490 WITH EXCESSIVE ASPECT RATIO ***
5005 5006 5007

*** WARNING *** CP= 168.060 TIME= 16:36:03
Meshing of volume 491 produced 4 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 491 WITH EXCESSIVE ASPECT RATIO ***
5010 5015 5020 5025

*** WARNING *** CP= 168.130 TIME= 16:36:03
Meshing of volume 492 produced 2 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 492 WITH EXCESSIVE ASPECT RATIO ***
5030 5031

*** WARNING *** CP= 168.200 TIME= 16:36:03
Meshing of volume 493 produced 3 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 493 WITH EXCESSIVE ASPECT RATIO ***
5035 5036 5037

*** WARNING *** CP= 168.410 TIME= 16:36:04
Meshing of volume 495 produced 3 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 495 WITH EXCESSIVE ASPECT RATIO ***
5060 5061 5062

*** WARNING *** CP= 168.490 TIME= 16:36:04
Meshing of volume 496 produced 2 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 496 WITH EXCESSIVE ASPECT RATIO ***
5065 5066

*** WARNING *** CP= 168.610 TIME= 16:36:04
Meshing of volume 497 produced 4 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 497 WITH EXCESSIVE ASPECT RATIO ***
5070 5075 5080 5085

*** WARNING *** CP= 168.680 TIME= 16:36:04
Meshing of volume 498 produced 3 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 498 WITH EXCESSIVE ASPECT RATIO ***
5090 5091 5092

*** WARNING *** CP= 168.820 TIME= 16:36:04
Meshing of volume 499 produced 4 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 499 WITH EXCESSIVE ASPECT RATIO ***
5095 5100 5105 5110

*** WARNING *** CP= 168.890 TIME= 16:36:04
Meshing of volume 500 produced 3 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 500 WITH EXCESSIVE ASPECT RATIO ***
5115 5116 5117

*** WARNING *** CP= 169.010 TIME= 16:36:04
Meshing of volume 501 produced 4 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 501 WITH EXCESSIVE ASPECT RATIO ***
5120 5125 5130 5135

*** WARNING *** CP= 169.080 TIME= 16:36:04
Meshing of volume 502 produced 2 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 502 WITH EXCESSIVE ASPECT RATIO ***
5140 5141

*** WARNING *** CP= 169.150 TIME= 16:36:04
Meshing of volume 503 produced 3 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 503 WITH EXCESSIVE ASPECT RATIO ***
5145 5146 5147

*** WARNING *** CP= 169.370 TIME= 16:36:05
Meshing of volume 505 produced 3 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 505 WITH EXCESSIVE ASPECT RATIO ***
5170 5171 5172

*** WARNING *** CP= 169.440 TIME= 16:36:05
Meshing of volume 506 produced 2 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 506 WITH EXCESSIVE ASPECT RATIO ***
5175 5176

*** WARNING *** CP= 169.570 TIME= 16:36:05
Meshing of volume 507 produced 4 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 507 WITH EXCESSIVE ASPECT RATIO ***
5180 5185 5190 5195

*** WARNING *** CP= 169.640 TIME= 16:36:05

Meshing of volume 508 produced 3 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 508 WITH EXCESSIVE ASPECT RATIO ***
5200 5201 5202

*** WARNING *** CP= 169.760 TIME= 16:36:05
Meshing of volume 509 produced 8 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 509 WITH EXCESSIVE ASPECT RATIO ***
5205 5206 5210 5211 5215 5216 5220 5221

*** WARNING *** CP= 169.930 TIME= 16:36:05
Meshing of volume 510 produced 16 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 510 WITH EXCESSIVE ASPECT RATIO ***
5225 5226 5230 5231 5235 5236 5240 5241
5245 5246 5250 5251 5255 5256 5260 5261

*** WARNING *** CP= 170.010 TIME= 16:36:05
Meshing of volume 511 produced 6 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 511 WITH EXCESSIVE ASPECT RATIO ***
5265 5266 5267 5270 5271 5272

*** WARNING *** CP= 170.180 TIME= 16:36:05
Meshing of volume 512 produced 8 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 512 WITH EXCESSIVE ASPECT RATIO ***
5275 5276 5285 5286 5295 5296 5305 5306

*** WARNING *** CP= 170.270 TIME= 16:36:05
Meshing of volume 513 produced 4 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 513 WITH EXCESSIVE ASPECT RATIO ***
5315 5316 5320 5321

*** WARNING *** CP= 170.350 TIME= 16:36:06
Meshing of volume 514 produced 6 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 514 WITH EXCESSIVE ASPECT RATIO ***
5325 5326 5327 5330 5331 5332

*** WARNING *** CP= 170.530 TIME= 16:36:06
Meshing of volume 515 produced 8 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 515 WITH EXCESSIVE ASPECT RATIO ***
5335 5340 5345 5350 5355 5360 5365 5370

*** WARNING *** CP= 170.620 TIME= 16:36:06
Meshing of volume 516 produced 6 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 516 WITH EXCESSIVE ASPECT RATIO ***
5375 5376 5377 5380 5381 5382

*** WARNING *** CP= 170.700 TIME= 16:36:06
Meshing of volume 517 produced 4 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 517 WITH EXCESSIVE ASPECT RATIO ***
5385 5386 5390 5391

*** WARNING *** CP= 170.870 TIME= 16:36:06
Meshing of volume 518 produced 8 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 518 WITH EXCESSIVE ASPECT RATIO ***
5395 5396 5405 5406 5415 5416 5425 5426

*** WARNING *** CP= 170.960 TIME= 16:36:06
Meshing of volume 519 produced 6 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 519 WITH EXCESSIVE ASPECT RATIO ***
5435 5436 5437 5438 5439 5440

*** WARNING *** CP= 171.130 TIME= 16:36:06
Meshing of volume 520 produced 8 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 520 WITH EXCESSIVE ASPECT RATIO ***
5445 5446 5455 5456 5465 5466 5475 5476

*** WARNING *** CP= 171.210 TIME= 16:36:06
Meshing of volume 521 produced 6 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 521 WITH EXCESSIVE ASPECT RATIO ***
5485 5486 5487 5488 5489 5490

*** WARNING *** CP= 171.390 TIME= 16:36:07
Meshing of volume 522 produced 8 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 522 WITH EXCESSIVE ASPECT RATIO ***
5495 5496 5505 5506 5515 5516 5525 5526

*** WARNING *** CP= 171.470 TIME= 16:36:07
Meshing of volume 523 produced 4 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 523 WITH EXCESSIVE ASPECT RATIO ***
5535 5536 5537 5538

*** WARNING *** CP= 171.550 TIME= 16:36:07
Meshing of volume 524 produced 6 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 524 WITH EXCESSIVE ASPECT RATIO ***
5545 5546 5547 5548 5549 5550

*** WARNING *** CP= 171.730 TIME= 16:36:07
Meshing of volume 525 produced 8 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 525 WITH EXCESSIVE ASPECT RATIO ***
5555 5556 5565 5566 5575 5576 5585 5586

*** WARNING *** CP= 171.820 TIME= 16:36:07
Meshing of volume 526 produced 6 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 526 WITH EXCESSIVE ASPECT RATIO ***
5595 5596 5597 5598 5599 5600

*** WARNING *** CP= 171.900 TIME= 16:36:07
Meshing of volume 527 produced 4 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 527 WITH EXCESSIVE ASPECT RATIO ***
5605 5606 5607 5608

*** WARNING *** CP= 172.070 TIME= 16:36:07
Meshing of volume 528 produced 8 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 528 WITH EXCESSIVE ASPECT RATIO ***
5615 5616 5625 5626 5635 5636 5645 5646

*** WARNING *** CP= 172.150 TIME= 16:36:07
Meshing of volume 529 produced 6 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 529 WITH EXCESSIVE ASPECT RATIO ***
5655 5656 5657 5658 5659 5660

*** WARNING *** CP= 172.320 TIME= 16:36:08
Meshing of volume 530 produced 16 elements with excessive aspect ratio.
Changing the element divisions on this volume may help.

*** LIST OF ELEMENTS IN VOLUME 530 WITH EXCESSIVE ASPECT RATIO ***
5665 5666 5667 5668 5675 5676 5677 5678
5685 5686 5687 5688 5695 5696 5697 5698

*** WARNING *** CP= 182.950 TIME= 16:36:18
Volume 830 area 3439 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 182.960 TIME= 16:36:18
Volume 830 area 3676 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 182.990 TIME= 16:36:18
Meshing of volume 830 produced 3 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 830 WITH EXCESSIVE DISTORTION ***
6350 6351 6352

*** WARNING *** CP= 184.550 TIME= 16:36:20
Volume 846 area 3455 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 184.560 TIME= 16:36:20
Volume 846 area 3740 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 184.590 TIME= 16:36:20
Meshing of volume 846 produced 3 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 846 WITH EXCESSIVE DISTORTION ***
6542 6543 6544

*** WARNING *** CP= 184.760 TIME= 16:36:20
Volume 848 area 3457 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 184.770 TIME= 16:36:20
Volume 848 area 3748 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 184.800 TIME= 16:36:20
Meshing of volume 848 produced 3 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 848 WITH EXCESSIVE DISTORTION ***
6566 6567 6568

*** WARNING *** CP= 185.780 TIME= 16:36:21
Volume 858 area 3467 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 185.780 TIME= 16:36:21
Volume 858 area 3788 has a corner angle of 37 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 185.820 TIME= 16:36:21
Meshing of volume 858 produced 3 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 858 WITH EXCESSIVE DISTORTION ***
6686 6687 6688

*** WARNING *** CP= 188.190 TIME= 16:36:23
Volume 887 area 3496 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 188.200 TIME= 16:36:23
Volume 887 area 3865 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 188.230 TIME= 16:36:23
Meshing of volume 887 produced 6 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 887 WITH EXCESSIVE DISTORTION ***
6968 6969 6970 6971 6972 6973

*** WARNING *** CP= 188.300 TIME= 16:36:24
Volume 888 area 3497 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 188.310 TIME= 16:36:24
Volume 888 area 3869 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 188.350 TIME= 16:36:24
Meshing of volume 888 produced 6 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 888 WITH EXCESSIVE DISTORTION ***
6974 6975 6978 6979 6982 6983

*** WARNING *** CP= 188.830 TIME= 16:36:24
Volume 894 area 3503 has a corner angle of 32 degrees. This is not
recommended for hexahedral elements.

*** WARNING *** CP= 188.840 TIME= 16:36:24

Volume 894 area 3889 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 188.880 TIME= 16:36:24
Meshing of volume 894 produced 6 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 894 WITH EXCESSIVE DISTORTION ***
7030 7031 7034 7035 7038 7039

*** WARNING *** CP= 188.930 TIME= 16:36:24
Volume 895 area 3504 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 188.940 TIME= 16:36:24
Volume 895 area 3893 has a corner angle of 32 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 188.980 TIME= 16:36:24
Meshing of volume 895 produced 6 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 895 WITH EXCESSIVE DISTORTION ***
7046 7047 7048 7049 7050 7051

*** WARNING *** CP= 196.220 TIME= 16:36:31
Volume 969 area 3578 has a corner angle of 31 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 196.240 TIME= 16:36:31
Volume 969 area 4125 has a corner angle of 31 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 196.320 TIME= 16:36:32
Meshing of volume 969 produced 21 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 969 WITH EXCESSIVE DISTORTION ***
7902 7904 7906 7908 7910 7912 7914 7918
7922 7925 7926 7927 7928 7929 7930 7931
7932 7933 7934 7935 7936

*** WARNING *** CP= 196.360 TIME= 16:36:32
Volume 970 area 3579 has a corner angle of 31 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 196.380 TIME= 16:36:32
Volume 970 area 4126 has a corner angle of 31 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 196.460 TIME= 16:36:32
Meshing of volume 970 produced 21 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 970 WITH EXCESSIVE DISTORTION ***
7938 7942 7946 7949 7950 7953 7954 7957
7958 7961 7962 7963 7964 7965 7966 7967
7968 7969 7970 7971 7972

*** WARNING *** CP= 196.660 TIME= 16:36:32
Volume 972 area 3581 has a corner angle of 31 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 196.670 TIME= 16:36:32
Volume 972 area 4128 has a corner angle of 31 degrees. This is not recommended for hexahedral elements.

*** WARNING *** CP= 196.760 TIME= 16:36:32
Meshing of volume 972 produced 21 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 972 WITH EXCESSIVE DISTORTION ***
 8022 8024 8026 8028 8030 8032 8034 8038
 8042 8045 8046 8047 8048 8049 8050 8051
 8052 8053 8054 8055 8056

*** WARNING *** CP= 196.800 TIME= 16:36:32
 Volume 973 area 3582 has a corner angle of 31 degrees. This is not
 recommended for hexahedral elements.

*** WARNING *** CP= 196.810 TIME= 16:36:32
 Volume 973 area 4129 has a corner angle of 31 degrees. This is not
 recommended for hexahedral elements.

*** WARNING *** CP= 196.900 TIME= 16:36:32
 Meshing of volume 973 produced 21 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 973 WITH EXCESSIVE DISTORTION ***
 8058 8062 8066 8069 8070 8073 8074 8077
 8078 8081 8082 8083 8084 8085 8086 8087
 8088 8089 8090 8091 8092

*** WARNING *** CP= 197.190 TIME= 16:36:32
 Meshing of volume 975 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 975 WITH EXCESSIVE DISTORTION ***
 8142 8150

*** WARNING *** CP= 197.330 TIME= 16:36:33
 Meshing of volume 976 produced 2 elements with excessive distortion.

*** LIST OF ELEMENTS IN VOLUME 976 WITH EXCESSIVE DISTORTION ***
 8178 8186

NUMBER OF VOLUMES MESHED = 606
 MAXIMUM NODE NUMBER = 13175
 MAXIMUM ELEMENT NUMBER = 9220

SELECT ALL ENTITIES OF TYPE= ALL AND BELOW

ALL SELECT FOR ITEM=VOLU COMPONENT=
 IN RANGE 1 TO 1010 STEP 1

1010 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

ALL SELECT FOR ITEM=AREA COMPONENT=
 IN RANGE 1 TO 4257 STEP 1

3850 AREAS (OF 3850 DEFINED) SELECTED BY ASEL COMMAND.

ALL SELECT FOR ITEM=LINE COMPONENT=
 IN RANGE 1 TO 5703 STEP 1

4692 LINES (OF 4692 DEFINED) SELECTED BY LSEL COMMAND.

ALL SELECT FOR ITEM=KP COMPONENT=
 IN RANGE 1 TO 20008 STEP 1

1874 KEYPOINTS (OF 1874 DEFINED) SELECTED BY KSEL COMMAND.

ALL SELECT FOR ITEM=ELEM COMPONENT=
 IN RANGE 1 TO 9220 STEP 1

9220 ELEMENTS (OF 9220 DEFINED) SELECTED BY ESEL COMMAND.

ALL SELECT FOR ITEM=NODE COMPONENT=
 IN RANGE 1 TO 13175 STEP 1

13175 NODES (OF 13175 DEFINED) SELECTED BY NSEL COMMAND.
Create Contact Surface

LINE CONNECTS KEYPOINTS 20001 20002
LINE NO.= 778 KP1= 20001 TAN1= -1.0000 0.0000 0.0000
KP2= 20002 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 20004 20003
LINE NO.= 780 KP1= 20004 TAN1= -1.0000 0.0000 0.0000
KP2= 20003 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 20005 20006
LINE NO.= 782 KP1= 20005 TAN1= -1.0000 0.0000 0.0000
KP2= 20006 TAN2= 1.0000 0.0000 0.0000

LINE CONNECTS KEYPOINTS 20008 20007
LINE NO.= 784 KP1= 20008 TAN1= -1.0000 0.0000 0.0000
KP2= 20007 TAN2= 1.0000 0.0000 0.0000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
TO NDIV = 4, SPACING RATIO = 1.000

*** WARNING *** CP= 202.960 TIME= 16:36:39
Some lines in the currently selected set were meshed and could not be altered.

LINE CONNECTS KEYPOINTS 20001 20004
LINE NO.= 786 KP1= 20001 TAN1= 0.0000 0.0000 1.0000
KP2= 20004 TAN2= 0.0000 0.0000 -1.0000

LINE CONNECTS KEYPOINTS 20002 20003
LINE NO.= 788 KP1= 20002 TAN1= 0.0000 0.0000 1.0000
KP2= 20003 TAN2= 0.0000 0.0000 -1.0000

LINE CONNECTS KEYPOINTS 20005 20008
LINE NO.= 790 KP1= 20005 TAN1= 0.0000 0.0000 1.0000
KP2= 20008 TAN2= 0.0000 0.0000 -1.0000

LINE CONNECTS KEYPOINTS 20006 20007
LINE NO.= 792 KP1= 20006 TAN1= 0.0000 0.0000 1.0000
KP2= 20007 TAN2= 0.0000 0.0000 -1.0000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
TO NDIV = 8, SPACING RATIO = 1.000

*** WARNING *** CP= 203.140 TIME= 16:36:39
Some lines in the currently selected set were meshed and could not be altered.

LINE CONNECTS KEYPOINTS 20001 20005
LINE NO.= 794 KP1= 20001 TAN1= 0.0000 -1.0000 0.0000
KP2= 20005 TAN2= 0.0000 1.0000 0.0000

LINE CONNECTS KEYPOINTS 20002 20006
LINE NO.= 796 KP1= 20002 TAN1= 0.0000 -1.0000 0.0000
KP2= 20006 TAN2= 0.0000 1.0000 0.0000

LINE CONNECTS KEYPOINTS 20003 20007
LINE NO.= 798 KP1= 20003 TAN1= 0.0000 -1.0000 0.0000
KP2= 20007 TAN2= 0.0000 1.0000 0.0000

LINE CONNECTS KEYPOINTS 20004 20008
LINE NO.= 800 KP1= 20004 TAN1= 0.0000 -1.0000 0.0000
KP2= 20008 TAN2= 0.0000 1.0000 0.0000

SET DIVISIONS ON ALL SELECTED UNMESHED LINES
TO NDIV = 3, SPACING RATIO = 1.000

*** WARNING *** CP= 203.320 TIME= 16:36:39

Some lines in the currently selected set were meshed and could not be altered.

NONE SELECT FOR ITEM=VOLU COMPONENT=
IN RANGE 1 TO 1010 STEP 1

0 VOLUMES (OF 1010 DEFINED) SELECTED BY VSEL COMMAND.

VOLUME CONNECTING KEYPOINTS 20001 20002 20003 20004 20005 20006 20007 20008
(GENERATED LINES AND AREAS FITTED IN ACTIVE CSYS = 0)

VOLUME NUMBER = 1011

ELEMENT TYPE SET TO 7

MATERIAL NUMBER SET TO 7

GENERATE NODES AND ELEMENTS IN ALL SELECTED VOLUMES

NUMBER OF VOLUMES MESHED = 1
MAXIMUM NODE NUMBER = 13355
MAXIMUM ELEMENT NUMBER = 9316

ALL SELECT FOR ITEM=VOLU COMPONENT=
IN RANGE 1 TO 1011 STEP 1

1011 VOLUMES (OF 1011 DEFINED) SELECTED BY VSEL COMMAND.
Contact Elements Generation

ELEMENT TYPE SET TO 8

REAL CONSTANT NUMBER= 8

MATERIAL NUMBER SET TO 8

ACTIVE COORDINATE SYSTEM SET TO 13 (CYLINDRICAL)

SELECT FOR ITEM=LOC COMPONENT=X BETWEEN 0.83160 AND 0.83180
KABS= 0. TOLERANCE= 0.000000E+00

980 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Y BETWEEN -90.000 AND -73.000
KABS= 0. TOLERANCE= 0.000000E+00

140 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

DEFINITION OF COMPONENT = SURFA ENTITY=NODE

ACTIVE COORDINATE SYSTEM SET TO 0 (CARTESIAN)

SELECT FOR ITEM=LOC COMPONENT=Y BETWEEN -0.41595 AND -0.41575
KABS= 0. TOLERANCE= 0.000000E+00

46 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=X BETWEEN -0.10000E-02 AND 0.30000
KABS= 0. TOLERANCE= 0.000000E+00

19 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

RESELECT FOR ITEM=LOC COMPONENT=Z BETWEEN -2.0000 AND 6.4000
KABS= 0. TOLERANCE= 0.000000E+00

19 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

UNSELECT FOR ITEM=NODE COMPONENT=
IN RANGE 6212 TO 6212 STEP 1

18 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

DEFINITION OF COMPONENT = SURFB ENTITY=NODE

ALL SELECT FOR ITEM=NODE COMPONENT=
IN RANGE 1 TO 13355 STEP 1

13355 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

GENERATE ELEMENTS BETWEEN CONTACT (SURFA) AND TARGET (SURFB) SURFACES.
TARGET SURFACE OF PLATE OR BEAM ELEMENTS IS TOP.
ELEMENT TYPE TO BE GENERATED = CONTAC49.

NUMBER OF CONTACT ELEMENTS GENERATED = 1120

SELECT ALL ENTITIES OF TYPE= ALL AND BELOW

ALL SELECT FOR ITEM=VOLU COMPONENT=
IN RANGE 1 TO 1011 STEP 1

1011 VOLUMES (OF 1011 DEFINED) SELECTED BY VSEL COMMAND.

ALL SELECT FOR ITEM=AREA COMPONENT=
IN RANGE 1 TO 4257 STEP 1

3856 AREAS (OF 3856 DEFINED) SELECTED BY ASEL COMMAND.

ALL SELECT FOR ITEM=LINE COMPONENT=
IN RANGE 1 TO 5703 STEP 1

4704 LINES (OF 4704 DEFINED) SELECTED BY LSEL COMMAND.

ALL SELECT FOR ITEM=KP COMPONENT=
IN RANGE 1 TO 20008 STEP 1

1874 KEYPOINTS (OF 1874 DEFINED) SELECTED BY KSEL COMMAND.

ALL SELECT FOR ITEM=ELEM COMPONENT=
IN RANGE 1 TO 10436 STEP 1

10436 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

ALL SELECT FOR ITEM=NODE COMPONENT=
IN RANGE 1 TO 13355 STEP 1

13355 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

Apply Symmetry Constraints

ACTIVE COORDINATE SYSTEM SET TO 0 (CARTESIAN)

IN COORDINATE SYSTEM 0, ROTATE ALL SELECTED NODES.

SELECT FOR ITEM=LOC COMPONENT=X BETWEEN 0.00000E+00 AND 0.00000E+00
KABS= 0. TOLERANCE= 0.100000E-05

737 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

SYMMETRY CONSTRAINTS FOR COORDINATE SYSTEM 0 IN DIRECTION X
ON SURFACE DEFINED BY ALL SELECTED NODES

*** NOTE *** CP= 211.020 TIME= 16:36:49
Nodes on symmetry surfaces are rotated into coordinate system 0.

TOTAL SPECIFIED CONSTRAINTS= 737
Apply Constraint to Bottom of Unyielding Surface

SELECT FOR ITEM=LOC COMPONENT=Y BETWEEN -0.92585 AND -0.90585
KABS= 0. TOLERANCE= 0.000000E+00

45 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

SPECIFIED CONSTRAINT UY FOR SELECTED NODES 1 TO 13355 BY 1
REAL= 0.000000000E+00 IMAG= 0.000000000E+00
ADDITIONAL DOFS= UZ
Constrain translational dof at the point of contact

SELECT FOR ITEM=NODE COMPONENT=
IN RANGE 6212 TO 6212 STEP 1

1 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

SPECIFIED CONSTRAINT UY FOR SELECTED NODES 1 TO 13355 BY 1
REAL= 0.000000000E+00 IMAG= 0.000000000E+00
ADDITIONAL DOFS= UZ

SELECT ALL ENTITIES OF TYPE= ALL AND BELOW

ALL SELECT FOR ITEM=VOLU COMPONENT=
IN RANGE 1 TO 1011 STEP 1

1011 VOLUMES (OF 1011 DEFINED) SELECTED BY VSEL COMMAND.

ALL SELECT FOR ITEM=AREA COMPONENT=
IN RANGE 1 TO 4257 STEP 1

3856 AREAS (OF 3856 DEFINED) SELECTED BY ASEL COMMAND.

ALL SELECT FOR ITEM=LINE COMPONENT=
IN RANGE 1 TO 5703 STEP 1

4704 LINES (OF 4704 DEFINED) SELECTED BY LSEL COMMAND.

ALL SELECT FOR ITEM=KP COMPONENT=
IN RANGE 1 TO 20008 STEP 1

1874 KEYPOINTS (OF 1874 DEFINED) SELECTED BY KSEL COMMAND.

ALL SELECT FOR ITEM=ELEM COMPONENT=
IN RANGE 1 TO 10436 STEP 1

10436 ELEMENTS (OF 10436 DEFINED) SELECTED BY ESEL COMMAND.

ALL SELECT FOR ITEM=NODE COMPONENT=
IN RANGE 1 TO 13355 STEP 1

13355 NODES (OF 13355 DEFINED) SELECTED BY NSEL COMMAND.

REORDER SELECTED ELEMENTS BY SORTING ON CENTROID X LOCATION.

ELEMENTS ARE SORTED IN ASCENDING ORDER
IN COORDINATE SYSTEM 0

KEEP NEW REORDERING WHEN MAX WAVEFRONT IS LESS THAN 6042

New MAX WF(DOF)= 2826 previous MAX= 6042
New RMS WF(DOF)= 2116 previous RMS= 3140.

REORDER SELECTED ELEMENTS BY SORTING ON CENTROID Y LOCATION.

ELEMENTS ARE SORTED IN ASCENDING ORDER
IN COORDINATE SYSTEM 0

KEEP NEW REORDERING WHEN MAX WAVEFRONT IS LESS THAN 2826

New MAX WF(DOF)= 2709 previous MAX= 2826
New RMS WF(DOF)= 1882 previous RMS= 2116.

REORDER SELECTED ELEMENTS BY SORTING ON CENTROID Z LOCATION.

ELEMENTS ARE SORTED IN ASCENDING ORDER
IN COORDINATE SYSTEM 0

KEEP NEW REORDERING WHEN MAX WAVEFRONT IS LESS THAN 2709

New MAX WF(DOF)= 3153 previous MAX= 2709
New RMS WF(DOF)= 2281 previous RMS= 1882.

*** NOTE *** CP= 216.170 TIME= 16:36:55
Previous ordering restored.

ALL CURRENT ANSYS DATA WRITTEN TO FILE NAME= toverc22.db
FOR POSSIBLE RESUME FROM THIS POINT

***** ROUTINE COMPLETED ***** CP = 238.050

***** ANSYS SOLUTION ROUTINE *****

PERFORM A TRANSIENT ANALYSIS
THIS WILL BE A NEW ANALYSIS

LARGE DEFORMATION ANALYSIS

*** NOTE *** CP= 238.050 TIME= 16:37:57
Damping (if present) may be ignored only in reduced transient analyses.

PERFORM A FULL TRANSIENT ANALYSIS

USE A MAXIMUM OF 50 EQUILIBRIUM ITERATIONS EACH SUBSTEP

ACEL= 0.00000E+00 9.8100 0.00000E+00

STEP BOUNDARY CONDITION KEY= 1

TIME= 0.10000E-02

USE 3 SUBSTEP(S) THIS LOAD STEP FOR ALL DOFS

WRITE ALL ITEMS TO THE DATABASE WITH A FREQUENCY OF 1
FOR ALL APPLICABLE ENTITIES

***** ANSYS SOLVE COMMAND *****

*** WARNING *** CP= 244.100 TIME= 16:38:40
Element 356 has an angle between adjacent edges of 36.5045638 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.100 TIME= 16:38:40
Element 356 has an angle between adjacent edges of 36.5045638 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.110 TIME= 16:38:40
Element 357 has an angle between adjacent edges of 36.5045638 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.110 TIME= 16:38:40
Element 357 has an angle between adjacent edges of 36.5045638 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.110 TIME= 16:38:40
Element 358 has an angle between adjacent edges of 36.5045638 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.110 TIME= 16:38:40
Element 358 has an angle between adjacent edges of 36.5045638 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.110 TIME= 16:38:40
Element 359 has an angle between adjacent edges of 36.5045638 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.110 TIME= 16:38:40
Element 359 has an angle between adjacent edges of 36.5045638 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.120 TIME= 16:38:40
Element 360 has an angle between adjacent edges of 36.5045638 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.120 TIME= 16:38:40
Element 360 has an angle between adjacent edges of 36.5045638 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.310 TIME= 16:38:40
Element 676 has an angle between adjacent edges of 142.522539 on face 2
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.310 TIME= 16:38:40
Element 676 has an angle between adjacent edges of 36.5045638 on face 4
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.310 TIME= 16:38:40
Element 677 has an angle between adjacent edges of 142.522539 on face 2
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.310 TIME= 16:38:40
Element 677 has an angle between adjacent edges of 36.5045638 on face 4
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.310 TIME= 16:38:40
Element 678 has an angle between adjacent edges of 142.522539 on face 2
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.320 TIME= 16:38:40
Element 678 has an angle between adjacent edges of 36.5045638 on face 4
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.320 TIME= 16:38:40
Element 679 has an angle between adjacent edges of 142.522539 on face 2
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.320 TIME= 16:38:40
Element 679 has an angle between adjacent edges of 36.5045638 on face 4
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.320 TIME= 16:38:40
Element 680 has an angle between adjacent edges of 142.522539 on face 2
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.320 TIME= 16:38:40
Element 680 has an angle between adjacent edges of 36.5045638 on face 4
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.350 TIME= 16:38:40
Element 716 has an angle between adjacent edges of 36.5045638 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.350 TIME= 16:38:40
Element 716 has an angle between adjacent edges of 142.522539 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.350 TIME= 16:38:40
Element 717 has an angle between adjacent edges of 36.5045638 on face 3

which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.350 TIME= 16:38:40
Element 717 has an angle between adjacent edges of 142.522539 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.350 TIME= 16:38:40
Element 718 has an angle between adjacent edges of 36.5045638 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.350 TIME= 16:38:40
Element 718 has an angle between adjacent edges of 142.522539 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.360 TIME= 16:38:40
Element 719 has an angle between adjacent edges of 36.5045638 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.360 TIME= 16:38:40
Element 719 has an angle between adjacent edges of 142.522539 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.360 TIME= 16:38:40
Element 720 has an angle between adjacent edges of 36.5045638 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.360 TIME= 16:38:40
Element 720 has an angle between adjacent edges of 142.522539 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.480 TIME= 16:38:40
Element 916 has an angle between adjacent edges of 142.522539 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.480 TIME= 16:38:40
Element 916 has an angle between adjacent edges of 36.5045638 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.480 TIME= 16:38:40
Element 917 has an angle between adjacent edges of 142.522539 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.480 TIME= 16:38:40
Element 917 has an angle between adjacent edges of 36.5045638 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.490 TIME= 16:38:40
Element 918 has an angle between adjacent edges of 142.522539 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.490 TIME= 16:38:40
Element 918 has an angle between adjacent edges of 36.5045638 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.490 TIME= 16:38:40
Element 919 has an angle between adjacent edges of 142.522539 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.490 TIME= 16:38:40
Element 919 has an angle between adjacent edges of 36.5045638 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.490 TIME= 16:38:40
Element 920 has an angle between adjacent edges of 142.522539 on face 3
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.490 TIME= 16:38:40
Element 920 has an angle between adjacent edges of 36.5045638 on face 5
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 244.780 TIME= 16:38:40
Element 1386 has an angle between adjacent edges of 40.0089821 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.780 TIME= 16:38:40
Element 1386 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.780 TIME= 16:38:40
Element 1387 has an angle between adjacent edges of 40.0089821 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.780 TIME= 16:38:40
Element 1387 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.780 TIME= 16:38:40
Element 1388 has an angle between adjacent edges of 40.0089821 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.780 TIME= 16:38:40
Element 1388 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.790 TIME= 16:38:40
Element 1389 has an angle between adjacent edges of 40.0089821 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.790 TIME= 16:38:40
Element 1389 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.790 TIME= 16:38:40
Element 1390 has an angle between adjacent edges of 40.0089821 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.790 TIME= 16:38:40
Element 1390 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.790 TIME= 16:38:40
Element 1391 has an angle between adjacent edges of 31.6980231 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.800 TIME= 16:38:40
Element 1391 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.800 TIME= 16:38:40
Element 1392 has an angle between adjacent edges of 31.6980231 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.800 TIME= 16:38:40
Element 1392 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.800 TIME= 16:38:40
Element 1393 has an angle between adjacent edges of 31.6980231 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.800 TIME= 16:38:40
Element 1393 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.800 TIME= 16:38:40
Element 1394 has an angle between adjacent edges of 31.6980231 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.810 TIME= 16:38:40
Element 1394 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.810 TIME= 16:38:40
Element 1395 has an angle between adjacent edges of 31.6980231 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.810 TIME= 16:38:40
Element 1395 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.810 TIME= 16:38:40
Element 1396 has an angle between adjacent edges of 40.1841322 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.810 TIME= 16:38:40
Element 1396 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.810 TIME= 16:38:40
Element 1397 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.820 TIME= 16:38:40
Element 1397 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.820 TIME= 16:38:40
Element 1400 has an angle between adjacent edges of 40.1841322 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.820 TIME= 16:38:40
Element 1400 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.820 TIME= 16:38:40
Element 1401 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.820 TIME= 16:38:40
Element 1401 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.830 TIME= 16:38:40
Element 1404 has an angle between adjacent edges of 40.1841322 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.830 TIME= 16:38:40
Element 1404 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.830 TIME= 16:38:40
Element 1405 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.830 TIME= 16:38:40
Element 1405 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.840 TIME= 16:38:40
Element 1408 has an angle between adjacent edges of 40.1841322 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.840 TIME= 16:38:40
Element 1408 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.840 TIME= 16:38:40
Element 1409 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.840 TIME= 16:38:40
Element 1409 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.840 TIME= 16:38:40
Element 1412 has an angle between adjacent edges of 40.1841322 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.840 TIME= 16:38:40
Element 1412 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.850 TIME= 16:38:40
Element 1413 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.850 TIME= 16:38:40
Element 1413 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.890 TIME= 16:38:40
Element 1488 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.900 TIME= 16:38:40
Element 1488 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.900 TIME= 16:38:40
Element 1489 has an angle between adjacent edges of 148.126827 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.900 TIME= 16:38:40
Element 1489 has an angle between adjacent edges of 40.1841322 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.900 TIME= 16:38:40
Element 1492 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.900 TIME= 16:38:40
Element 1492 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.910 TIME= 16:38:40
Element 1493 has an angle between adjacent edges of 148.126827 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.910 TIME= 16:38:40
Element 1493 has an angle between adjacent edges of 40.1841322 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.910 TIME= 16:38:40
Element 1496 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.910 TIME= 16:38:40
Element 1496 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.910 TIME= 16:38:40
Element 1497 has an angle between adjacent edges of 148.126827 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.920 TIME= 16:38:40
Element 1497 has an angle between adjacent edges of 40.1841322 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.920 TIME= 16:38:40
Element 1500 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.920 TIME= 16:38:40
Element 1500 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.920 TIME= 16:38:40
Element 1501 has an angle between adjacent edges of 148.126827 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.920 TIME= 16:38:40
Element 1501 has an angle between adjacent edges of 40.1841322 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.930 TIME= 16:38:40
Element 1504 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.930 TIME= 16:38:40
Element 1504 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.930 TIME= 16:38:40
Element 1505 has an angle between adjacent edges of 148.126827 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.930 TIME= 16:38:40
Element 1505 has an angle between adjacent edges of 40.1841322 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.940 TIME= 16:38:40
Element 1516 has an angle between adjacent edges of 40.0089821 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.940 TIME= 16:38:40
Element 1516 has an angle between adjacent edges of 139.815868 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.940 TIME= 16:38:40
Element 1517 has an angle between adjacent edges of 40.0089821 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.950 TIME= 16:38:40
Element 1517 has an angle between adjacent edges of 139.815868 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.950 TIME= 16:38:40
Element 1518 has an angle between adjacent edges of 40.0089821 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.950 TIME= 16:38:40
Element 1518 has an angle between adjacent edges of 139.815868 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.950 TIME= 16:38:40
Element 1519 has an angle between adjacent edges of 40.0089821 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.950 TIME= 16:38:40
Element 1519 has an angle between adjacent edges of 139.815868 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.950 TIME= 16:38:40
Element 1520 has an angle between adjacent edges of 40.0089821 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.960 TIME= 16:38:40
Element 1520 has an angle between adjacent edges of 139.815868 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.960 TIME= 16:38:40
Element 1521 has an angle between adjacent edges of 31.6980231 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.960 TIME= 16:38:40
Element 1521 has an angle between adjacent edges of 148.126827 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.960 TIME= 16:38:40
Element 1522 has an angle between adjacent edges of 31.6980231 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.960 TIME= 16:38:40
Element 1522 has an angle between adjacent edges of 148.126827 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.960 TIME= 16:38:40
Element 1523 has an angle between adjacent edges of 31.6980231 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.970 TIME= 16:38:41
Element 1523 has an angle between adjacent edges of 148.126827 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.970 TIME= 16:38:41
Element 1524 has an angle between adjacent edges of 31.6980231 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.970 TIME= 16:38:41
Element 1524 has an angle between adjacent edges of 148.126827 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.970 TIME= 16:38:41
Element 1525 has an angle between adjacent edges of 31.6980231 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 244.970 TIME= 16:38:41
Element 1525 has an angle between adjacent edges of 148.126827 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.100 TIME= 16:38:41
Element 1732 has an angle between adjacent edges of 36.5045638 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.100 TIME= 16:38:41
Element 1732 has an angle between adjacent edges of 36.5045638 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.140 TIME= 16:38:41
Element 1796 has an angle between adjacent edges of 142.522539 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.140 TIME= 16:38:41
Element 1796 has an angle between adjacent edges of 36.5045638 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.150 TIME= 16:38:41
Element 1804 has an angle between adjacent edges of 36.5045638 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.150 TIME= 16:38:41
Element 1804 has an angle between adjacent edges of 142.522539 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.180 TIME= 16:38:41
Element 1844 has an angle between adjacent edges of 142.522539 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.180 TIME= 16:38:41
Element 1844 has an angle between adjacent edges of 36.5045638 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.240 TIME= 16:38:41
Element 1938 has an angle between adjacent edges of 40.0089821 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.240 TIME= 16:38:41
Element 1938 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.240 TIME= 16:38:41
Element 1939 has an angle between adjacent edges of 31.6980231 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.240 TIME= 16:38:41
Element 1939 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.240 TIME= 16:38:41
Element 1940 has an angle between adjacent edges of 40.1841322 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.240 TIME= 16:38:41
Element 1940 has an angle between adjacent edges of 148.126827 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.250 TIME= 16:38:41
Element 1941 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.250 TIME= 16:38:41
Element 1941 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.260 TIME= 16:38:41
Element 1960 has an angle between adjacent edges of 139.815868 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.260 TIME= 16:38:41
Element 1960 has an angle between adjacent edges of 139.815868 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.270 TIME= 16:38:41
Element 1961 has an angle between adjacent edges of 148.126827 on face
2 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.270 TIME= 16:38:41
Element 1961 has an angle between adjacent edges of 40.1841322 on face
4 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.270 TIME= 16:38:41
Element 1964 has an angle between adjacent edges of 40.0089821 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.270 TIME= 16:38:41
Element 1964 has an angle between adjacent edges of 139.815868 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.270 TIME= 16:38:41
Element 1965 has an angle between adjacent edges of 31.6980231 on face
3 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.270 TIME= 16:38:41
Element 1965 has an angle between adjacent edges of 148.126827 on face
5 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.360 TIME= 16:38:41
Element 2106 has an angle between adjacent edges of 40.6519285 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.360 TIME= 16:38:41
Element 2106 has an angle between adjacent edges of 40.6519285 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.370 TIME= 16:38:41
Element 2108 has an angle between adjacent edges of 42.2927906 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.370 TIME= 16:38:41
Element 2108 has an angle between adjacent edges of 42.2927906 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.370 TIME= 16:38:41
Element 2110 has an angle between adjacent edges of 145.020697 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.370 TIME= 16:38:41
Element 2110 has an angle between adjacent edges of 43.6281998 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.370 TIME= 16:38:41
Element 2113 has an angle between adjacent edges of 30.6357403 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.380 TIME= 16:38:41
Element 2113 has an angle between adjacent edges of 145.003042 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.380 TIME= 16:38:41
Element 2114 has an angle between adjacent edges of 29.8043358 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.380 TIME= 16:38:41
Element 2114 has an angle between adjacent edges of 29.8043358 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.380 TIME= 16:38:41
Element 2115 has an angle between adjacent edges of 28.6950568 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.380 TIME= 16:38:41
Element 2115 has an angle between adjacent edges of 141.285132 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.380 TIME= 16:38:41
Element 2116 has an angle between adjacent edges of 33.9872188 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.390 TIME= 16:38:41
Element 2116 has an angle between adjacent edges of 33.9872188 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.390 TIME= 16:38:41
Element 2118 has an angle between adjacent edges of 43.6281998 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.390 TIME= 16:38:41
Element 2118 has an angle between adjacent edges of 43.6281998 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.390 TIME= 16:38:41
Element 2121 has an angle between adjacent edges of 138.627306 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.400 TIME= 16:38:41
Element 2121 has an angle between adjacent edges of 42.2927906 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.400 TIME= 16:38:41
Element 2122 has an angle between adjacent edges of 147.81002 on face 1
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.400 TIME= 16:38:41
Element 2122 has an angle between adjacent edges of 40.6519285 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.400 TIME= 16:38:41
Element 2125 has an angle between adjacent edges of 33.9872188 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.400 TIME= 16:38:41
Element 2125 has an angle between adjacent edges of 144.53707 on face 6
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.410 TIME= 16:38:41
Element 2126 has an angle between adjacent edges of 29.8043358 on face

1 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.410 TIME= 16:38:41
Element 2126 has an angle between adjacent edges of 29.8043358 on face 6 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.410 TIME= 16:38:41
Element 2127 has an angle between adjacent edges of 28.6950568 on face 1 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.410 TIME= 16:38:41
Element 2127 has an angle between adjacent edges of 149.36426 on face 6 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.410 TIME= 16:38:41
Element 2128 has an angle between adjacent edges of 30.6357403 on face 1 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.420 TIME= 16:38:41
Element 2128 has an angle between adjacent edges of 137.707209 on face 6 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.430 TIME= 16:38:41
Element 2146 has an angle between adjacent edges of 40.6519285 on face 1 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.430 TIME= 16:38:41
Element 2146 has an angle between adjacent edges of 40.6519285 on face 6 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.430 TIME= 16:38:41
Element 2148 has an angle between adjacent edges of 42.2927906 on face 1 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.430 TIME= 16:38:41
Element 2148 has an angle between adjacent edges of 42.2927906 on face 6 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.440 TIME= 16:38:41
Element 2150 has an angle between adjacent edges of 145.020697 on face 1 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.440 TIME= 16:38:41
Element 2150 has an angle between adjacent edges of 43.6281998 on face 6 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.440 TIME= 16:38:41
Element 2153 has an angle between adjacent edges of 30.6357402 on face 1 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.440 TIME= 16:38:41
Element 2153 has an angle between adjacent edges of 145.003042 on face 6 which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.440 TIME= 16:38:41
Element 2154 has an angle between adjacent edges of 29.8043358 on face 1 which is outside the recommended range of 90 plus or minus 45

degrees.

*** WARNING *** CP= 245.450 TIME= 16:38:41
Element 2154 has an angle between adjacent edges of 29.8043358 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.450 TIME= 16:38:41
Element 2155 has an angle between adjacent edges of 28.6950568 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.450 TIME= 16:38:41
Element 2155 has an angle between adjacent edges of 141.285132 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.450 TIME= 16:38:41
Element 2156 has an angle between adjacent edges of 33.9872188 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.450 TIME= 16:38:41
Element 2156 has an angle between adjacent edges of 33.9872188 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.450 TIME= 16:38:41
Element 2158 has an angle between adjacent edges of 43.6281998 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.460 TIME= 16:38:41
Element 2158 has an angle between adjacent edges of 43.6281998 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.460 TIME= 16:38:41
Element 2161 has an angle between adjacent edges of 138.627306 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.460 TIME= 16:38:41
Element 2161 has an angle between adjacent edges of 42.2927906 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.460 TIME= 16:38:41
Element 2162 has an angle between adjacent edges of 147.81002 on face 1
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.460 TIME= 16:38:41
Element 2162 has an angle between adjacent edges of 40.6519285 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.470 TIME= 16:38:41
Element 2165 has an angle between adjacent edges of 33.9872188 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.470 TIME= 16:38:41
Element 2165 has an angle between adjacent edges of 144.53707 on face 6
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.470 TIME= 16:38:41
Element 2166 has an angle between adjacent edges of 29.8043358 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.470 TIME= 16:38:41
Element 2166 has an angle between adjacent edges of 29.8043358 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.470 TIME= 16:38:41
Element 2167 has an angle between adjacent edges of 28.6950568 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.480 TIME= 16:38:41
Element 2167 has an angle between adjacent edges of 149.36426 on face 6
which is outside the recommended range of 90 plus or minus 45 degrees.

*** WARNING *** CP= 245.480 TIME= 16:38:41
Element 2168 has an angle between adjacent edges of 30.6357403 on face
1 which is outside the recommended range of 90 plus or minus 45
degrees.

*** WARNING *** CP= 245.480 TIME= 16:38:41
Element 2168 has an angle between adjacent edges of 137.707209 on face
6 which is outside the recommended range of 90 plus or minus 45
degrees.

Error messages discontinued after 200 messages were displayed.
More may exist. See (toverc22.err) for suppressed messages.

*** NOTE *** CP= 250.460 TIME= 16:38:46
The model data was checked and warning messages were found.
Please review output or errors file (toverc22.err) for these warning
messages.

1

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
38303-971212 VERSION=HP 9000/7XX 16:38:46 JAN 02, 1998 CP= 250.460
FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

SOLUTION OPTIONS

PROBLEM DIMENSIONALITY.3-D
DEGREES OF FREEDOM.UX UY UZ
ANALYSIS TYPETRANSIENT
SOLUTION METHOD.FULL
NONLINEAR GEOMETRIC EFFECTSON
PLASTIC MATERIAL PROPERTIES INCLUDED.YES
NEWTON-RAPHSON OPTIONPROGRAM CHOSEN

*** NOTE *** CP= 251.680 TIME= 16:38:47
Nonlinear analysis, NROPT set to 1 (full Newton-Raphson solution
procedure) for ALL DOFs.

LOAD STEP OPTIONS

LOAD STEP NUMBER.1
TIME AT END OF THE LOAD STEP.0.10000E-02
NUMBER OF SUBSTEPS.3
MAXIMUM NUMBER OF EQUILIBRIUM ITERATIONS.50
STEP CHANGE BOUNDARY CONDITIONSYES
TRANSIENT (INERTIA) EFFECTS
STRUCTURAL DOFS.ON
TRANSIENT INTEGRATION PARAMETERS
ALPHA.0.25251
DELTA.0.50500
TERMINATE ANALYSIS IF NOT CONVERGEDYES (EXIT)
CONVERGENCE CONTROLS.USE DEFAULTS

CALCULATIONS ASSUME ELEMENT MASS AT ELEMENT CENTROID

TOTAL MASS = 32790.

CENTROID	MOM. OF INERTIA ABOUT ORIGIN	MOM. OF INERTIA ABOUT CENTROID
XC = 0.40497	IXX = 0.3308E+06	IXX = 0.1501E+06
YC = 1.6417	IYY = 0.1584E+06	IYY = 0.6072E+05
ZC = 1.6776	IZZ = 0.1869E+06	IZZ = 0.9315E+05
	IXY = -0.2050E+05	IXY = 1298.
	IYZ = -0.8471E+05	IYZ = 5600.
	IZX = -0.2298E+05	IZX = -707.2

*** MASS SUMMARY BY ELEMENT TYPE ***

TYPE	MASS
1	9842.21
2	1087.36
3	632.301
4	372.044
5	2169.61
6	11400.2
7	7285.89

Range of element maximum matrix coefficients in global coordinates
Maximum= 1.648654442E+12 at element 9230.
Minimum= 200000000 at element 10157.

*** ELEMENT MATRIX FORMULATION TIMES				
TYPE	NUMBER	ENAME	TOTAL CP	AVE CP
1	940	SOLID45	9.200	0.010
2	390	SOLID45	3.880	0.010
3	240	SOLID45	2.350	0.010
4	90	SOLID45	0.890	0.010
5	2088	SOLID45	20.320	0.010
6	5472	SOLID45	53.590	0.010
7	96	SOLID45	0.910	0.009
8	1120	CONTC49	0.910	0.001

Time at end of element matrix formulation CP= 346.2.
FORCE CONVERGENCE VALUE = 7302. CRITERION= 7.302

Estimated number of active DOF= 39236.
Maximum wavefront= 2665.

```

Time at end of matrix triangularization CP= 2692.07.
Equation solver maximum pivot= 1.180817233E+13 at node 13332 UY.
Equation solver minimum pivot= 257937695 at node 13128 UZ.
EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.2838E-06
FORCE CONVERGENCE VALUE = 0.9913E-03 CRITERION= 11.15 <<< CONVERGED
>>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 1

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*** ELEMENT RESULT CALCULATION TIMES

TYPE	NUMBER	ENAME	TOTAL CP	AVE CP
1	940	SOLID45	6.810	0.007
2	390	SOLID45	2.750	0.007
3	240	SOLID45	1.680	0.007
4	90	SOLID45	0.690	0.008
5	2088	SOLID45	15.090	0.007
6	5472	SOLID45	40.090	0.007
7	96	SOLID45	0.620	0.006
8	1120	CONTAC49	1.010	0.001

*** NODAL LOAD CALCULATION TIMES

TYPE	NUMBER	ENAME	TOTAL CP	AVE CP
1	940	SOLID45	0.350	0.000
2	390	SOLID45	0.200	0.001
3	240	SOLID45	0.100	0.000
4	90	SOLID45	0.010	0.000
5	2088	SOLID45	0.810	0.000
6	5472	SOLID45	2.170	0.000
7	96	SOLID45	0.030	0.000
8	1120	CONTAC49	0.180	0.000

*** LOAD STEP 1 SUBSTEP 1 COMPLETED. CUM ITER = 1
 *** TIME = 0.333333E-03 TIME INC = 0.333333E-03
 *** RESPONSE FREQ = 34.74 PERIOD= 0.2879E-01 PTS/CYC = 86.

FORCE CONVERGENCE VALUE = 0.1804E+05 CRITERION= 21.21
 EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1107E-05
 FORCE CONVERGENCE VALUE = 0.1648E-01 CRITERION= 11.30 <<< CONVERGED
 >>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 1

*** LOAD STEP 1 SUBSTEP 2 COMPLETED. CUM ITER = 2
 *** TIME = 0.666667E-03 TIME INC = 0.333333E-03
 *** RESPONSE FREQ = 32.02 PERIOD= 0.3123E-01 PTS/CYC = 94.

FORCE CONVERGENCE VALUE = 0.3589E+05 CRITERION= 37.65
 EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.2200E-05
 FORCE CONVERGENCE VALUE = 0.7449E-01 CRITERION= 11.91 <<< CONVERGED
 >>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 1

*** LOAD STEP 1 SUBSTEP 3 COMPLETED. CUM ITER = 3
 *** TIME = 0.100000E-02 TIME INC = 0.333333E-03
 *** RESPONSE FREQ = 31.89 PERIOD= 0.3136E-01 PTS/CYC = 94.

*** PROBLEM STATISTICS
 ACTUAL NO. OF ACTIVE DEGREES OF FREEDOM = 39236
 R.M.S. WAVEFRONT SIZE = 1794.9

*** ANSYS BINARY FILE STATISTICS
 BUFFER SIZE USED= 4096
 49.688 MB WRITTEN ON ELEMENT MATRIX FILE: toverc22.emat
 74.094 MB WRITTEN ON ELEMENT SAVED DATA FILE: toverc22.esav
 505.016 MB WRITTEN ON TRIANGULARIZED MATRIX FILE: /users/zekai/toverc22.tri
 72.203 MB WRITTEN ON RESULTS FILE: toverc22.rst

INCLUDE TRANSIENT EFFECTS FOR ALL DOFS THIS LOAD STEP

TIME= 1.5000

USE 10 SUBSTEP(S) THIS LOAD STEP FOR ALL DOFS

WRITE ALL ITEMS TO THE DATABASE WITH A FREQUENCY OF 1
 FOR ALL APPLICABLE ENTITIES

***** ANSYS SOLVE COMMAND *****

*** NOTE *** CP= 8219.630 TIME= 19:41:57
 Nonlinear analysis, NROPT set to 1 (full Newton-Raphson solution
 procedure) for ALL DOFS.

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 19:41:57 JAN 02, 1998 CP= 8219.630
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

LOAD STEP OPTIONS

LOAD STEP NUMBER. 2
 TIME AT END OF THE LOAD STEP. 1.5000
 NUMBER OF SUBSTEPS. 10
 MAXIMUM NUMBER OF EQUILIBRIUM ITERATIONS. 50
 STEP CHANGE BOUNDARY CONDITIONS YES
 TRANSIENT (INERTIA) EFFECTS
 STRUCTURAL DOFS. ON
 TRANSIENT INTEGRATION PARAMETERS
 ALPHA. 0.25251
 DELTA. 0.50500
 TERMINATE ANALYSIS IF NOT CONVERGEDYES (EXIT)
 CONVERGENCE CONTROLS.USE DEFAULTS
 INERTIA LOADS
 X Y Z
 ACEL 0.00000E+00 9.8100 0.00000E+00
 COPY INTEGRATION POINT VALUES TO NODEYES, FOR ELEMENTS WITH
 ACTIVE MAT. NONLINEARITIES
 PRINT OUTPUT CONTROLSNO PRINTOUT
 DATABASE OUTPUT CONTROLS
 ITEM FREQUENCY COMPONENT
 ALL ALL

FORCE CONVERGENCE VALUE = 8928. CRITERION= 14.95
 EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3622E-01
 FORCE CONVERGENCE VALUE = 0.1311E+08 CRITERION= 986.1
 * RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
 FORCE CONVERGENCE VALUE = 8928. CRITERION= 14.95
 EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3622E-01
 FORCE CONVERGENCE VALUE = 0.1311E+08 CRITERION= 982.4
 EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1061E-02
 FORCE CONVERGENCE VALUE = 0.2479E+06 CRITERION= 422.9
 EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.2697E-03
 FORCE CONVERGENCE VALUE = 0.9245E+05 CRITERION= 382.6
 EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1652E-03
 FORCE CONVERGENCE VALUE = 0.5687E+05 CRITERION= 379.6
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
 EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.9323E-04
 FORCE CONVERGENCE VALUE = 0.3890E+05 CRITERION= 379.2
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
 EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.6182E-04
 FORCE CONVERGENCE VALUE = 0.2172E+05 CRITERION= 377.8
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
 EQUIL ITER 8 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.4883E-04
 FORCE CONVERGENCE VALUE = 0.1005E+05 CRITERION= 376.3
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
 EQUIL ITER 9 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.3062E-04
 FORCE CONVERGENCE VALUE = 1958. CRITERION= 375.5
 EQUIL ITER 10 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.8804E-05
 FORCE CONVERGENCE VALUE = 66.25 CRITERION= 375.2 <<< CONVERGED
 >>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 10

*** WARNING *** CP= 33047.080 TIME= 05:06:17
 Contact node 6221 is in contact with more than one target. Check your
 results carefully.

*** WARNING *** CP= 33047.210 TIME= 05:06:17
 Contact node 6221 is in contact with more than one target. Check your
 results carefully.

*** LOAD STEP 2 SUBSTEP 1 COMPLETED. CUM ITER = 13
 *** TIME = 0.150900 TIME INC = 0.149900


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*** MAX PLASTIC STRAIN STEP = 0.1853E-01
*** RESPONSE FREQ = 1.710 PERIOD= 0.5849 PTS/CYC = 3.9

FORCE CONVERGENCE VALUE = 9592. CRITERION= 375.2
EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1114
FORCE CONVERGENCE VALUE = 0.1216E+09 CRITERION= 8176.
* RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
FORCE CONVERGENCE VALUE = 9592. CRITERION= 375.2
EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1116
FORCE CONVERGENCE VALUE = 0.1248E+09 CRITERION= 8385.
EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1158E-02
FORCE CONVERGENCE VALUE = 0.2639E+05 CRITERION= 161.8
EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2812E-05
FORCE CONVERGENCE VALUE = 1371. CRITERION= 161.7
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1007E-05
FORCE CONVERGENCE VALUE = 550.7 CRITERION= 161.6
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.4992E-06
FORCE CONVERGENCE VALUE = 88.93 CRITERION= 161.6 <<< CONVERGED
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
>>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 6

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*** WARNING *** CP= 48151.600 TIME= 10:52:54
Contact node 6221 is in contact with more than one target. Check your
results carefully.

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*** WARNING *** CP= 48151.740 TIME= 10:52:55
Contact node 6221 is in contact with more than one target. Check your
results carefully.

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*** LOAD STEP 2 SUBSTEP 2 COMPLETED. CUM ITER = 19
*** TIME = 0.300800 TIME INC = 0.149900
*** MAX PLASTIC STRAIN STEP = 0.4575E-03
*** RESPONSE FREQ = 4.153 PERIOD= 0.2408 PTS/CYC = 1.6

FORCE CONVERGENCE VALUE = 0.1120E+05 CRITERION= 162.0
EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1879
FORCE CONVERGENCE VALUE = 0.3576E+09 CRITERION= 0.2405E+05
* RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
FORCE CONVERGENCE VALUE = 0.1120E+05 CRITERION= 162.0
EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1879
FORCE CONVERGENCE VALUE = 0.3571E+09 CRITERION= 0.2402E+05
EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.5517E-02
FORCE CONVERGENCE VALUE = 0.6014E+05 CRITERION= 362.6
EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1398E-03
FORCE CONVERGENCE VALUE = 1813. CRITERION= 362.9
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.4014E-05
FORCE CONVERGENCE VALUE = 1468. CRITERION= 362.9
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1479E-05
FORCE CONVERGENCE VALUE = 598.5 CRITERION= 363.2
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.7451E-06
FORCE CONVERGENCE VALUE = 336.6 CRITERION= 363.3 <<< CONVERGED
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
>>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 7

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*** WARNING *** CP= 65711.930 TIME= 17:34:52
Contact node 6221 is in contact with more than one target. Check your
results carefully.

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*** WARNING *** CP= 65712.070 TIME= 17:34:52
Contact node 6221 is in contact with more than one target. Check your
results carefully.

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*** LOAD STEP 2 SUBSTEP 3 COMPLETED. CUM ITER = 26
*** TIME = 0.450700 TIME INC = 0.149900
*** MAX PLASTIC STRAIN STEP = 0.4887E-03
*** RESPONSE FREQ = 7.162 PERIOD= 0.1396 PTS/CYC = 0.93

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FORCE CONVERGENCE VALUE = 0.1361E+05 CRITERION= 363.4
 EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2820
 FORCE CONVERGENCE VALUE = 0.8188E+09 CRITERION= 0.5506E+05
 * RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
 FORCE CONVERGENCE VALUE = 0.1361E+05 CRITERION= 363.4
 EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2820
 FORCE CONVERGENCE VALUE = 0.8212E+09 CRITERION= 0.5522E+05
 EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.7568E-02
 FORCE CONVERGENCE VALUE = 0.1127E+07 CRITERION= 136.8
 EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.8886E-05
 FORCE CONVERGENCE VALUE = 783.0 CRITERION= 114.3
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
 EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3543E-07
 FORCE CONVERGENCE VALUE = 0.6785 CRITERION= 114.3 <<< CONVERGED
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
 >>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 5

*** WARNING *** CP= 78362.560 TIME= 22:26:03
 Contact node 6221 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 78362.710 TIME= 22:26:03
 Contact node 6221 is in contact with more than one target. Check your results carefully.

*** LOAD STEP 2 SUBSTEP 4 COMPLETED. CUM ITER = 31
 *** TIME = 0.600600 TIME INC = 0.149900
 *** RESPONSE FREQ = 10.61 PERIOD= 0.9421E-01 PTS/CYC = 0.63

FORCE CONVERGENCE VALUE = 0.1755E+05 CRITERION= 115.7
 EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3751
 FORCE CONVERGENCE VALUE = 0.1527E+10 CRITERION= 0.1176E+06
 * RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
 FORCE CONVERGENCE VALUE = 0.1755E+05 CRITERION= 115.7
 EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3751
 FORCE CONVERGENCE VALUE = 0.1527E+10 CRITERION= 0.1176E+06
 EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1712E-01
 FORCE CONVERGENCE VALUE = 0.2695E+07 CRITERION= 392.1
 EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3030E-03
 FORCE CONVERGENCE VALUE = 0.4085E+05 CRITERION= 352.4
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
 EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.8375E-05
 FORCE CONVERGENCE VALUE = 0.1510E+05 CRITERION= 353.0
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
 EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1237E-04
 FORCE CONVERGENCE VALUE = 7110. CRITERION= 351.6
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
 EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1218E-04
 FORCE CONVERGENCE VALUE = 2548. CRITERION= 350.1
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
 EQUIL ITER 8 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2064E-05
 FORCE CONVERGENCE VALUE = 81.26 CRITERION= 350.4 <<< CONVERGED
 >>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 8

*** WARNING *** CP= 98397.720 TIME= 06:03:43
 Contact node 6221 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 98397.860 TIME= 06:03:43
 Contact node 6221 is in contact with more than one target. Check your results carefully.

*** LOAD STEP 2 SUBSTEP 5 COMPLETED. CUM ITER = 39
 *** TIME = 0.750500 TIME INC = 0.149900
 *** MAX PLASTIC STRAIN STEP = 0.8427E-03
 *** RESPONSE FREQ = 14.64 PERIOD= 0.6829E-01 PTS/CYC = 0.46

FORCE CONVERGENCE VALUE = 0.2182E+05 CRITERION= 350.9
 EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.4959
 FORCE CONVERGENCE VALUE = 0.2885E+10 CRITERION= 0.2427E+06
 * RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
 FORCE CONVERGENCE VALUE = 0.2182E+05 CRITERION= 350.9

EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.4959
FORCE CONVERGENCE VALUE = 0.2889E+10 CRITERION= 0.2431E+06
EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.2437E-01
FORCE CONVERGENCE VALUE = 0.1287E+08 CRITERION= 864.6
EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1141E-03
FORCE CONVERGENCE VALUE = 0.3030E+05 CRITERION= 76.51
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.2582E-06
FORCE CONVERGENCE VALUE = 71.46 CRITERION= 76.49 <<< CONVERGED
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
>>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 5

*** WARNING *** CP= 111065.990 TIME= 10:55:07
Contact node 6212 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 111066.080 TIME= 10:55:07
Contact node 6221 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 111066.190 TIME= 10:55:08
Contact node 6212 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 111066.220 TIME= 10:55:08
Contact node 6221 is in contact with more than one target. Check your results carefully.

*** LOAD STEP 2 SUBSTEP 6 COMPLETED. CUM ITER = 44
*** TIME = 0.900400 TIME INC = 0.149900
*** RESPONSE FREQ = 19.52 PERIOD= 0.5122E-01 PTS/CYC = 0.34

FORCE CONVERGENCE VALUE = 0.2864E+05 CRITERION= 81.73
EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.6050
FORCE CONVERGENCE VALUE = 0.4793E+10 CRITERION= 0.4182E+06
* RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
FORCE CONVERGENCE VALUE = 0.2864E+05 CRITERION= 81.73
EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.6050
FORCE CONVERGENCE VALUE = 0.4793E+10 CRITERION= 0.4182E+06
EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.4441E-01
FORCE CONVERGENCE VALUE = 0.3192E+08 CRITERION= 2122.
EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1059E-02
FORCE CONVERGENCE VALUE = 0.2179E+06 CRITERION= 347.6
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.4500E-04
FORCE CONVERGENCE VALUE = 0.4318E+05 CRITERION= 355.0
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.4800E-04
FORCE CONVERGENCE VALUE = 0.1994E+05 CRITERION= 355.5
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3618E-04
FORCE CONVERGENCE VALUE = 4111. CRITERION= 355.0
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
EQUIL ITER 8 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.6785E-05
FORCE CONVERGENCE VALUE = 597.0 CRITERION= 354.5
EQUIL ITER 9 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.6517E-06
FORCE CONVERGENCE VALUE = 40.13 CRITERION= 354.4 <<< CONVERGED
>>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 9

*** WARNING *** CP= 133566.230 TIME= 19:28:16
Contact node 6212 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 133566.300 TIME= 19:28:16
Contact node 6221 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 133566.390 TIME= 19:28:16
Contact node 6212 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 133566.420 TIME= 19:28:17

Contact node 6221 is in contact with more than one target. Check your results carefully.

*** LOAD STEP 2 SUBSTEP 7 COMPLETED. CUM ITER = 53

*** TIME = 1.05030 TIME INC = 0.149900

*** MAX PLASTIC STRAIN STEP = 0.1081E-02

*** RESPONSE FREQ = 25.35 PERIOD= 0.3945E-01 PTS/CYC = 0.26

FORCE CONVERGENCE VALUE = 0.3547E+05 CRITERION= 356.2
 EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.7272
 FORCE CONVERGENCE VALUE = 0.8251E+10 CRITERION= 0.7370E+06
 * RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
 FORCE CONVERGENCE VALUE = 0.3547E+05 CRITERION= 356.2
 EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.7272
 FORCE CONVERGENCE VALUE = 0.8251E+10 CRITERION= 0.7370E+06
 EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.5850E-01
 FORCE CONVERGENCE VALUE = 0.9987E+08 CRITERION= 6742.
 EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.7302E-03
 FORCE CONVERGENCE VALUE = 0.6486E+06 CRITERION= 105.6
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
 EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.5148E-04
 FORCE CONVERGENCE VALUE = 0.1658E+05 CRITERION= 84.99
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
 EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1989E-04
 FORCE CONVERGENCE VALUE = 3167. CRITERION= 78.87
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
 EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2795E-05
 FORCE CONVERGENCE VALUE = 20.80 CRITERION= 79.69 <<< CONVERGED
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
 >>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 7

*** WARNING *** CP= 151477.200 TIME= 02:22:36

Contact node 6212 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 151477.410 TIME= 02:22:37

Contact node 6212 is in contact with more than one target. Check your results carefully.

*** LOAD STEP 2 SUBSTEP 8 COMPLETED. CUM ITER = 60

*** TIME = 1.20020 TIME INC = 0.149900

*** RESPONSE FREQ = 32.47 PERIOD= 0.3080E-01 PTS/CYC = 0.21

FORCE CONVERGENCE VALUE = 0.4568E+05 CRITERION= 91.89
 EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.9557
 FORCE CONVERGENCE VALUE = 0.1296E+11 CRITERION= 0.1173E+07
 * RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
 FORCE CONVERGENCE VALUE = 0.4568E+05 CRITERION= 91.89
 EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.9557
 FORCE CONVERGENCE VALUE = 0.1296E+11 CRITERION= 0.1173E+07
 EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.9812E-01
 FORCE CONVERGENCE VALUE = 0.2357E+09 CRITERION= 0.1587E+05
 EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3276E-02
 FORCE CONVERGENCE VALUE = 0.2567E+07 CRITERION= 296.6
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
 EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1617E-03
 FORCE CONVERGENCE VALUE = 0.3893E+05 CRITERION= 197.5
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
 EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.3388E-04
 FORCE CONVERGENCE VALUE = 5155. CRITERION= 174.4
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
 EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.4658E-05
 FORCE CONVERGENCE VALUE = 53.51 CRITERION= 177.0 <<< CONVERGED
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
 >>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 7

*** WARNING *** CP= 169060.070 TIME= 09:04:58

Contact node 6212 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 169060.260 TIME= 09:04:58

Contact node 6212 is in contact with more than one target. Check your results carefully.

*** LOAD STEP 2 SUBSTEP 9 COMPLETED. CUM ITER = 67
 *** TIME = 1.35010 TIME INC = 0.149900
 *** RESPONSE FREQ = 40.76 PERIOD= 0.2453E-01 PTS/CYC = 0.16

FORCE CONVERGENCE VALUE = 0.5584E+05 CRITERION= 185.8
 EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -1.302
 FORCE CONVERGENCE VALUE = 0.2081E+11 CRITERION= 0.1906E+07
 * RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
 FORCE CONVERGENCE VALUE = 0.5584E+05 CRITERION= 185.8
 EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -1.302
 FORCE CONVERGENCE VALUE = 0.2081E+11 CRITERION= 0.1906E+07
 EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1694
 FORCE CONVERGENCE VALUE = 0.5985E+09 CRITERION= 0.4057E+05
 EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.4529E-02
 FORCE CONVERGENCE VALUE = 0.9177E+07 CRITERION= 671.7
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
 EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.3522E-03
 FORCE CONVERGENCE VALUE = 0.1691E+06 CRITERION= 258.7
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
 EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1953E-03
 FORCE CONVERGENCE VALUE = 0.3266E+05 CRITERION= 254.2
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
 EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1560E-03
 FORCE CONVERGENCE VALUE = 0.1165E+05 CRITERION= 249.0
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
 EQUIL ITER 8 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1422E-03
 FORCE CONVERGENCE VALUE = 3507. CRITERION= 242.0
 EQUIL ITER 9 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.7588E-04
 FORCE CONVERGENCE VALUE = 520.5 CRITERION= 239.2
 EQUIL ITER 10 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1671E-05
 FORCE CONVERGENCE VALUE = 18.65 CRITERION= 239.2 <<< CONVERGED
 >>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 10

*** WARNING *** CP= 194041.390 TIME= 21:25:21
 Contact node 6212 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 194041.590 TIME= 21:25:22
 Contact node 6212 is in contact with more than one target. Check your results carefully.

*** LOAD STEP 2 SUBSTEP 10 COMPLETED. CUM ITER = 77
 *** TIME = 1.50000 TIME INC = 0.149900
 *** MAX PLASTIC STRAIN STEP = 0.1761E-01
 *** RESPONSE FREQ = 50.31 PERIOD= 0.1987E-01 PTS/CYC = 0.13

INCLUDE TRANSIENT EFFECTS FOR ALL DOFS THIS LOAD STEP

USE AUTOMATIC TIME STEPPING THIS LOAD STEP

TIME= 1.5300

USE 10 SUBSTEPS INITIALLY THIS LOAD STEP FOR ALL DOFS
 FOR AUTOMATIC TIME STEPPING:
 USE 100 SUBSTEPS AS A MAXIMUM
 USE 5 SUBSTEPS AS A MINIMUM
 USE THE FINAL TIME STEP SIZE OF THE PREVIOUS LOAD STEP
 AS THE STARTING TIME STEP SIZE.

WRITE ALL ITEMS TO THE DATABASE WITH A FREQUENCY OF 1
 FOR ALL APPLICABLE ENTITIES

***** ANSYS SOLVE COMMAND *****

*** NOTE *** CP= 194133.350 TIME= 21:29:09
 Nonlinear analysis, NROPT set to 1 (full Newton-Raphson solution
 procedure) for ALL DOFS.

***** ANSYS - ENGINEERING ANALYSIS SYSTEM REVISION 5.1 24 *****
 38303-971212 VERSION=HP 9000/7XX 21:29:09 JAN 05, 1998 CP= 194133.350
 FOR SUPPORT CALL ROBERT BAHNEY PHONE (702) 295-4595 FAX (702) 295-4438

21 PWR UCF WP Tipover Analysis

LOAD STEP OPTIONS

LOAD STEP NUMBER. 3
 TIME AT END OF THE LOAD STEP. 1.5300
 AUTOMATIC TIME STEPPING ON
 INITIAL NUMBER OF SUBSTEPS 10
 MAXIMUM NUMBER OF SUBSTEPS 100
 MINIMUM NUMBER OF SUBSTEPS 5
 START WITH TIME STEP FROM PREVIOUS SUBSTEP . YES
 MAXIMUM NUMBER OF EQUILIBRIUM ITERATIONS. . . . 50
 STEP CHANGE BOUNDARY CONDITIONS YES
 TRANSIENT (INERTIA) EFFECTS
 STRUCTURAL DOFS. ON
 TRANSIENT INTEGRATION PARAMETERS
 ALPHA. 0.25251
 DELTA. 0.50500
 TERMINATE ANALYSIS IF NOT CONVERGEDYES (EXIT)
 CONVERGENCE CONTROLS.USE DEFAULTS
 INERTIA LOADS X Y Z
 ACEL. 0.00000E+00 9.8100 0.00000E+00
 COPY INTEGRATION POINT VALUES TO NODEYES, FOR ELEMENTS WITH
 ACTIVE MAT. NONLINEARITIES
 PRINT OUTPUT CONTROLSNO PRINTOUT
 DATABASE OUTPUT CONTROLS
 ITEM FREQUENCY COMPONENT
 ALL ALL

FORCE CONVERGENCE VALUE = 0.1540E+07 CRITERION= 1559.
 EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.5921E-01
 FORCE CONVERGENCE VALUE = 0.3675E+08 CRITERION= 2481.
 * RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
 FORCE CONVERGENCE VALUE = 0.1540E+07 CRITERION= 1559.
 EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.5925E-01
 FORCE CONVERGENCE VALUE = 0.3683E+08 CRITERION= 2494.
 EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2150E-03
 FORCE CONVERGENCE VALUE = 0.1810E+06 CRITERION= 397.1
 EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.9077E-04
 FORCE CONVERGENCE VALUE = 0.6355E+05 CRITERION= 352.0
 EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2977E-04
 FORCE CONVERGENCE VALUE = 0.2007E+05 CRITERION= 338.3
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
 EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.9412E-05
 FORCE CONVERGENCE VALUE = 0.1157E+05 CRITERION= 335.1
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
 EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3325E-05
 FORCE CONVERGENCE VALUE = 3048. CRITERION= 332.9
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
 EQUIL ITER 8 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2248E-05
 FORCE CONVERGENCE VALUE = 456.3 CRITERION= 331.8
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
 EQUIL ITER 9 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3221E-06
 FORCE CONVERGENCE VALUE = 22.78 CRITERION= 331.6 <<< CONVERGED
 >>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 9

*** WARNING *** CP= 216527.910 TIME= 05:58:25
 Contact node 6212 is in contact with more than one target. Check your
 results carefully.

*** WARNING *** CP= 216528.100 TIME= 05:58:25
 Contact node 6212 is in contact with more than one target. Check your
 results carefully.

*** LOAD STEP 3 SUBSTEP 1 COMPLETED. CUM ITER = 86

```

*** TIME = 1.50600          TIME INC = 0.600000E-02
*** MAX PLASTIC STRAIN STEP = 0.9243E-02  CRITERION = 0.5000E-01
*** RESPONSE FREQ = 2.266      PERIOD= 0.4412    PTS/CYC = 74.
*** AUTO STEP TIME:  NEXT TIME INC = 0.60000E-02  UNCHANGED

FORCE CONVERGENCE VALUE = 0.1558E+07  CRITERION= 1592.
EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.5957E-01
FORCE CONVERGENCE VALUE = 0.1710E+09  CRITERION= 2484.
* RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
FORCE CONVERGENCE VALUE = 0.1558E+07  CRITERION= 1592.
EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.5960E-01
FORCE CONVERGENCE VALUE = 0.1714E+09  CRITERION= 2490.
EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1139E-01
FORCE CONVERGENCE VALUE = 0.2630E+08  CRITERION= 0.1515E+05
EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.6196E-02
FORCE CONVERGENCE VALUE = 0.2980E+07  CRITERION= 7669.
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1299E-02
FORCE CONVERGENCE VALUE = 0.8760E+06  CRITERION= 7393.
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.4436E-03
FORCE CONVERGENCE VALUE = 0.8230E+06  CRITERION= 7370.
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1028E-03
FORCE CONVERGENCE VALUE = 0.9112E+05  CRITERION= 7363.
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
EQUIL ITER 8 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3063E-04
FORCE CONVERGENCE VALUE = 0.1089E+05  CRITERION= 7363.
EQUIL ITER 9 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.2717E-05
FORCE CONVERGENCE VALUE = 207.9      CRITERION= 7363.    <<< CONVERGED
>>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 9

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*** WARNING *** CP= 239892.200 TIME= 14:48:40
Contact node 6215 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239892.260 TIME= 14:48:40
Contact node 7302 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239892.330 TIME= 14:48:40
Contact node 7653 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239892.350 TIME= 14:48:40
Contact node 6214 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239892.360 TIME= 14:48:40
Contact node 6215 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239892.400 TIME= 14:48:40
Contact node 7656 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239892.430 TIME= 14:48:41
Contact node 6226 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239892.440 TIME= 14:48:41
Contact node 7299 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239892.720 TIME= 14:48:41
Contact node 8014 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239892.770 TIME= 14:48:41
Contact node 7997 is in contact with more than one target. Check your results carefully.

results carefully.

*** WARNING *** CP= 239892.930 TIME= 14:48:42
Contact node 8015 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239892.990 TIME= 14:48:42
Contact node 7998 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.190 TIME= 14:48:42
Contact node 8016 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.210 TIME= 14:48:42
Contact node 7999 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.280 TIME= 14:48:42
Contact node 8000 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.280 TIME= 14:48:42
Contact node 11475 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.320 TIME= 14:48:42
Contact node 8682 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.320 TIME= 14:48:42
Contact node 11478 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.330 TIME= 14:48:42
Contact node 11479 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.340 TIME= 14:48:42
Contact node 12607 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.340 TIME= 14:48:42
Contact node 12608 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.340 TIME= 14:48:42
Contact node 8685 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.350 TIME= 14:48:43
Contact node 8011 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.400 TIME= 14:48:43
Contact node 8878 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.400 TIME= 14:48:43
Contact node 12589 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.410 TIME= 14:48:43
Contact node 8881 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.430 TIME= 14:48:43
Contact node 8535 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.450 TIME= 14:48:43
Contact node 12590 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.460 TIME= 14:48:43
Contact node 8017 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.460 TIME= 14:48:43
Contact node 12591 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.470 TIME= 14:48:43
Contact node 11466 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.470 TIME= 14:48:43
Contact node 8538 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.470 TIME= 14:48:43
Contact node 7996 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.480 TIME= 14:48:43
Contact node 11467 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 239893.480 TIME= 14:48:43
Contact node 11468 is in contact with more than one target. Check your results carefully.

*** LOAD STEP 3 SUBSTEP 2 COMPLETED. CUM ITER = 95
*** TIME = 1.51200 TIME INC = 0.600000E-02
*** MAX PLASTIC STRAIN STEP = 0.4694E-01 CRITERION = 0.5000E-01
*** RESPONSE FREQ = 145.1 PERIOD= 0.6893E-02 PTS/CYC = 1.1
*** AUTO TIME STEP: NEXT TIME INC = 0.20000E-02 DECREASED (FACTOR = 0.3333)

FORCE CONVERGENCE VALUE = 0.2963E+07 CRITERION= 8013.
EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.7695E-02
FORCE CONVERGENCE VALUE = 0.1656E+08 CRITERION= 0.2463E+05
* RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
FORCE CONVERGENCE VALUE = 0.2963E+07 CRITERION= 8013.
EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.5859E-02
FORCE CONVERGENCE VALUE = 0.1283E+08 CRITERION= 0.2841E+05
EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1784E-02
FORCE CONVERGENCE VALUE = 0.8592E+07 CRITERION= 0.2827E+05
EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1380E-02
FORCE CONVERGENCE VALUE = 0.7037E+07 CRITERION= 0.2672E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.7823E-03
FORCE CONVERGENCE VALUE = 0.7878E+07 CRITERION= 0.2597E+05
* RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
FORCE CONVERGENCE VALUE = 0.7037E+07 CRITERION= 0.2672E+05
EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.7823E-03
FORCE CONVERGENCE VALUE = 0.7844E+07 CRITERION= 0.2597E+05
>>> PREDICTED NUMBER OF ITERATIONS FOR CONVERGENCE= 66 EXCEEDS MAX OF 50

*** LOAD STEP 3 SUBSTEP 3 NOT COMPLETED. CUM ITER = 102
*** BEGIN BISECTION NUMBER 1 NEW TIME INCREMENT= 0.10000E-02

FORCE CONVERGENCE VALUE = 0.6331E+07 CRITERION= 9847.
EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.5537E-02
FORCE CONVERGENCE VALUE = 0.9458E+07 CRITERION= 0.1928E+05
* RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
FORCE CONVERGENCE VALUE = 0.6331E+07 CRITERION= 9847.
EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.4730E-02
FORCE CONVERGENCE VALUE = 0.8637E+07 CRITERION= 0.2367E+05
EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1339E-02
FORCE CONVERGENCE VALUE = 0.4952E+07 CRITERION= 0.2247E+05
EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.7794E-03
FORCE CONVERGENCE VALUE = 0.3348E+07 CRITERION= 0.2018E+05

RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.4651E-03
FORCE CONVERGENCE VALUE = 0.2371E+07 CRITERION= 0.1917E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2661E-03
FORCE CONVERGENCE VALUE = 0.1517E+07 CRITERION= 0.1875E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.2165E-03
FORCE CONVERGENCE VALUE = 0.5261E+06 CRITERION= 0.1852E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
EQUIL ITER 8 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1937E-03
FORCE CONVERGENCE VALUE = 0.1075E+06 CRITERION= 0.1841E+05
EQUIL ITER 9 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1816E-03
FORCE CONVERGENCE VALUE = 0.1279E+05 CRITERION= 0.1838E+05 <<< CONVERGED
>>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 9

*** WARNING *** CP= 279371.200 TIME= 05:46:04
Contact node 6215 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.220 TIME= 05:46:04
Contact node 6229 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.260 TIME= 05:46:04
Contact node 7302 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.350 TIME= 05:46:05
Contact node 7653 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.360 TIME= 05:46:05
Contact node 6214 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.370 TIME= 05:46:05
Contact node 6215 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.410 TIME= 05:46:05
Contact node 7656 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.440 TIME= 05:46:05
Contact node 6226 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.460 TIME= 05:46:05
Contact node 7299 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.480 TIME= 05:46:05
Contact node 6229 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.710 TIME= 05:46:05
Contact node 8014 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.750 TIME= 05:46:06
Contact node 8018 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.770 TIME= 05:46:06
Contact node 7997 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279371.950 TIME= 05:46:06
Contact node 8015 is in contact with more than one target. Check your results carefully.

results carefully.

*** WARNING *** CP= 279371.970 TIME= 05:46:06
Contact node 8019 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.020 TIME= 05:46:06
Contact node 7998 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.220 TIME= 05:46:07
Contact node 8016 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.240 TIME= 05:46:07
Contact node 7999 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.250 TIME= 05:46:07
Contact node 8020 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.300 TIME= 05:46:07
Contact node 8000 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.300 TIME= 05:46:07
Contact node 11475 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.310 TIME= 05:46:07
Contact node 11476 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.340 TIME= 05:46:07
Contact node 8682 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.340 TIME= 05:46:07
Contact node 11478 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.350 TIME= 05:46:07
Contact node 11479 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.360 TIME= 05:46:07
Contact node 12607 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.360 TIME= 05:46:07
Contact node 12608 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.370 TIME= 05:46:07
Contact node 8685 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.370 TIME= 05:46:07
Contact node 8011 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.370 TIME= 05:46:07
Contact node 8012 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.380 TIME= 05:46:07
Contact node 12609 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 279372.380 TIME= 05:46:07
Contact node 8686 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.390 TIME= 05:46:07
Contact node 11480 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.410 TIME= 05:46:07
Contact node 12610 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.430 TIME= 05:46:07
Contact node 8878 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.430 TIME= 05:46:07
Contact node 11481 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.440 TIME= 05:46:07
Contact node 12589 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.440 TIME= 05:46:07
Contact node 8881 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.450 TIME= 05:46:07
Contact node 8882 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.470 TIME= 05:46:07
Contact node 8535 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.480 TIME= 05:46:07
Contact node 12590 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.490 TIME= 05:46:07
Contact node 8017 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.500 TIME= 05:46:07
Contact node 12591 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.500 TIME= 05:46:07
Contact node 11466 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.500 TIME= 05:46:07
Contact node 8538 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.510 TIME= 05:46:07
Contact node 7996 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.510 TIME= 05:46:07
Contact node 11467 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.520 TIME= 05:46:07
Contact node 11468 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 279372.520 TIME= 05:46:07
Contact node 8539 is in contact with more than one target. Check your results carefully.

results carefully.

*** WARNING *** CP= 279372.540 TIME= 05:46:07
 Contact node 8021 is in contact with more than one target. Check your results carefully.
 *** LOAD STEP 3 SUBSTEP 3 COMPLETED. CUM ITER = 111
 *** TIME = 1.51300 TIME INC = 0.100000E-02
 *** MAX PLASTIC STRAIN STEP = 0.7098E-01 CRITERION = 0.5000E-01
 *** RESPONSE FREQ = 73.96 PERIOD= 0.1352E-01 PTS/CYC = 14.
 *** AUTO TIME STEP: NEXT TIME INC = 0.70443E-03 DECREASED (FACTOR = 0.7044)

FORCE CONVERGENCE VALUE = 0.6761E+07 CRITERION= 0.1972E+05
 EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.2565E-02
 FORCE CONVERGENCE VALUE = 0.5174E+07 CRITERION= 0.2270E+05
 EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.6145E-03
 FORCE CONVERGENCE VALUE = 0.4950E+07 CRITERION= 0.2235E+05
 EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2124E-03
 FORCE CONVERGENCE VALUE = 0.1515E+07 CRITERION= 0.2226E+05
 EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.2157E-03
 FORCE CONVERGENCE VALUE = 0.7014E+06 CRITERION= 0.2230E+05
 EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3662E-03
 FORCE CONVERGENCE VALUE = 0.7615E+06 CRITERION= 0.2230E+05
 * RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
 FORCE CONVERGENCE VALUE = 0.5582E+06 CRITERION= 0.2229E+05
 EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1424E-03
 FORCE CONVERGENCE VALUE = 0.1598E+06 CRITERION= 0.2228E+05
 EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.2633E-04
 FORCE CONVERGENCE VALUE = 0.6016E+05 CRITERION= 0.2229E+05
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
 EQUIL ITER 8 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1051E-04
 FORCE CONVERGENCE VALUE = 0.3912E+05 CRITERION= 0.2229E+05
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
 EQUIL ITER 9 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.9134E-05
 FORCE CONVERGENCE VALUE = 0.1802E+05 CRITERION= 0.2229E+05 <<< CONVERGED
 RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
 >>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 9

*** WARNING *** CP= 303164.660 TIME= 14:44:39
 Contact node 6215 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303164.690 TIME= 14:44:39
 Contact node 6229 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303164.730 TIME= 14:44:40
 Contact node 7302 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303164.810 TIME= 14:44:40
 Contact node 7653 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303164.820 TIME= 14:44:40
 Contact node 6214 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303164.830 TIME= 14:44:40
 Contact node 6215 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303164.870 TIME= 14:44:40
 Contact node 7656 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303164.900 TIME= 14:44:40
 Contact node 6226 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303164.910 TIME= 14:44:40

Contact node 7299 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303164.930 TIME= 14:44:40
Contact node 6229 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.170 TIME= 14:44:40
Contact node 8014 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.210 TIME= 14:44:41
Contact node 8018 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.220 TIME= 14:44:41
Contact node 7997 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.390 TIME= 14:44:41
Contact node 8015 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.410 TIME= 14:44:41
Contact node 8019 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.440 TIME= 14:44:41
Contact node 8023 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.460 TIME= 14:44:41
Contact node 7998 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.510 TIME= 14:44:41
Contact node 8024 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.660 TIME= 14:44:42
Contact node 8016 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.680 TIME= 14:44:42
Contact node 7999 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.700 TIME= 14:44:42
Contact node 8020 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.750 TIME= 14:44:42
Contact node 8000 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.750 TIME= 14:44:42
Contact node 11475 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.760 TIME= 14:44:42
Contact node 11476 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.790 TIME= 14:44:42
Contact node 8682 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.790 TIME= 14:44:42
Contact node 11478 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.800 TIME= 14:44:42
Contact node 11479 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.810 TIME= 14:44:42
Contact node 12607 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.810 TIME= 14:44:42
Contact node 12608 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.810 TIME= 14:44:42
Contact node 8685 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.820 TIME= 14:44:42
Contact node 8011 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.820 TIME= 14:44:42
Contact node 8012 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.830 TIME= 14:44:42
Contact node 8686 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.840 TIME= 14:44:42
Contact node 11480 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.850 TIME= 14:44:42
Contact node 8687 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.860 TIME= 14:44:42
Contact node 12610 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.880 TIME= 14:44:42
Contact node 8878 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.880 TIME= 14:44:42
Contact node 11481 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.890 TIME= 14:44:42
Contact node 12589 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.900 TIME= 14:44:42
Contact node 8881 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.900 TIME= 14:44:42
Contact node 8882 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.900 TIME= 14:44:42
Contact node 8883 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.910 TIME= 14:44:42
Contact node 11482 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.920 TIME= 14:44:42

Contact node 8535 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.920 TIME= 14:44:42
Contact node 11483 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.930 TIME= 14:44:42
Contact node 12590 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.950 TIME= 14:44:42
Contact node 8017 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.950 TIME= 14:44:42
Contact node 11466 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.960 TIME= 14:44:42
Contact node 8538 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.960 TIME= 14:44:42
Contact node 7996 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.960 TIME= 14:44:42
Contact node 11467 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.970 TIME= 14:44:42
Contact node 11468 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.970 TIME= 14:44:42
Contact node 8539 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 303165.990 TIME= 14:44:42
Contact node 8021 is in contact with more than one target. Check your results carefully.

*** LOAD STEP 3 SUBSTEP 4 COMPLETED. CUM ITER = 120
*** TIME = 1.51370 TIME INC = 0.704427E-03
*** MAX PLASTIC STRAIN STEP = 0.3178E-01 CRITERION = 0.5000E-01
*** RESPONSE FREQ = 79.78 PERIOD= 0.1253E-01 PTS/CYC = 18.
*** AUTO STEP TIME: NEXT TIME INC = 0.70443E-03 UNCHANGED

FORCE CONVERGENCE VALUE = 0.4838E+07 CRITERION= 0.2288E+05
EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1648E-02
FORCE CONVERGENCE VALUE = 0.5976E+07 CRITERION= 0.2516E+05
* RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
FORCE CONVERGENCE VALUE = 0.4838E+07 CRITERION= 0.2288E+05
EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1307E-02
FORCE CONVERGENCE VALUE = 0.6920E+07 CRITERION= 0.2601E+05
EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.4690E-03
FORCE CONVERGENCE VALUE = 0.5590E+07 CRITERION= 0.2735E+05
EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.8871E-04
FORCE CONVERGENCE VALUE = 0.4526E+07 CRITERION= 0.2729E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.7493E-04
FORCE CONVERGENCE VALUE = 0.3579E+07 CRITERION= 0.2718E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1107E-03
FORCE CONVERGENCE VALUE = 0.2233E+07 CRITERION= 0.2700E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1551E-03
FORCE CONVERGENCE VALUE = 0.1239E+07 CRITERION= 0.2683E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
EQUIL ITER 8 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1427E-03

FORCE CONVERGENCE VALUE = 0.3579E+06 CRITERION= 0.2675E+05
EQUIL ITER 9 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.7252E-04
FORCE CONVERGENCE VALUE = 0.5502E+05 CRITERION= 0.2674E+05
EQUIL ITER 10 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.1423E-04
FORCE CONVERGENCE VALUE = 2134. CRITERION= 0.2674E+05 <<< CONVERGED
>>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 10

*** WARNING *** CP= 329732.550 TIME= 00:44:29
Contact node 6215 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329732.570 TIME= 00:44:29
Contact node 6229 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329732.610 TIME= 00:44:29
Contact node 7302 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329732.680 TIME= 00:44:29
Contact node 7653 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329732.700 TIME= 00:44:29
Contact node 6214 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329732.710 TIME= 00:44:29
Contact node 6215 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329732.750 TIME= 00:44:29
Contact node 7656 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329732.780 TIME= 00:44:30
Contact node 6226 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329732.800 TIME= 00:44:30
Contact node 7299 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329732.820 TIME= 00:44:30
Contact node 6229 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.050 TIME= 00:44:30
Contact node 8014 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.080 TIME= 00:44:30
Contact node 8018 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.100 TIME= 00:44:30
Contact node 7997 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.260 TIME= 00:44:31
Contact node 8015 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.280 TIME= 00:44:31
Contact node 8019 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.310 TIME= 00:44:31
Contact node 8023 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.330 TIME= 00:44:31
Contact node 7998 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.370 TIME= 00:44:31
Contact node 8024 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.490 TIME= 00:44:31
Contact node 8015 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.530 TIME= 00:44:31
Contact node 8016 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.530 TIME= 00:44:31
Contact node 7998 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.550 TIME= 00:44:31
Contact node 7999 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.560 TIME= 00:44:31
Contact node 8019 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.570 TIME= 00:44:31
Contact node 8020 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.580 TIME= 00:44:31
Contact node 8023 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.600 TIME= 00:44:31
Contact node 8540 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.610 TIME= 00:44:31
Contact node 8000 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.610 TIME= 00:44:31
Contact node 11475 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.620 TIME= 00:44:31
Contact node 8025 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.620 TIME= 00:44:31
Contact node 11476 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.630 TIME= 00:44:31
Contact node 11477 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.650 TIME= 00:44:31
Contact node 8682 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.660 TIME= 00:44:31
Contact node 11478 is in contact with more than one target. Check your
results carefully.

*** WARNING *** CP= 329733.670 TIME= 00:44:31

Contact node 11479 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.670 TIME= 00:44:31
Contact node 12607 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.680 TIME= 00:44:31
Contact node 12608 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.680 TIME= 00:44:31
Contact node 8685 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.680 TIME= 00:44:32
Contact node 8011 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.680 TIME= 00:44:32
Contact node 8012 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.690 TIME= 00:44:32
Contact node 12609 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.690 TIME= 00:44:32
Contact node 8686 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.700 TIME= 00:44:32
Contact node 11480 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.700 TIME= 00:44:32
Contact node 8013 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.710 TIME= 00:44:32
Contact node 8687 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.720 TIME= 00:44:32
Contact node 12610 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.730 TIME= 00:44:32
Contact node 8878 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.740 TIME= 00:44:32
Contact node 11481 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.740 TIME= 00:44:32
Contact node 12589 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.750 TIME= 00:44:32
Contact node 12611 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.760 TIME= 00:44:32
Contact node 8881 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.760 TIME= 00:44:32
Contact node 8882 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.760 TIME= 00:44:32
Contact node 8883 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.770 TIME= 00:44:32
Contact node 11482 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.780 TIME= 00:44:32
Contact node 8535 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.780 TIME= 00:44:32
Contact node 11483 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.790 TIME= 00:44:32
Contact node 12590 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.810 TIME= 00:44:32
Contact node 8017 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.810 TIME= 00:44:32
Contact node 12591 is in contact with more than one target. Check your results carefully.

*** WARNING *** CP= 329733.820 TIME= 00:44:32
Contact node 11466 is in contact with more than one target. Check your results carefully.

Error messages discontinued after 200 messages were displayed.
More may exist. See (toverc22.err) for suppressed messages.

*** LOAD STEP 3 SUBSTEP 5 COMPLETED. CUM ITER = 130
*** TIME = 1.51441 TIME INC = 0.704427E-03
*** MAX PLASTIC STRAIN STEP = 0.1404E-01 CRITERION = 0.5000E-01
*** RESPONSE FREQ = 57.61 PERIOD= 0.1736E-01 PTS/CYC = 25.
*** AUTO STEP TIME: NEXT TIME INC = 0.70443E-03 UNCHANGED

FORCE CONVERGENCE VALUE = 0.4230E+07 CRITERION= 0.2704E+05
EQUIL ITER 1 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1341E-02
FORCE CONVERGENCE VALUE = 0.1584E+08 CRITERION= 0.2461E+05
* RESIDUAL INCREASED. PREV SOLN REMOVED. DESCENT PARAM SET TO 1.000
FORCE CONVERGENCE VALUE = 0.4230E+07 CRITERION= 0.2704E+05
EQUIL ITER 2 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.1348E-02
FORCE CONVERGENCE VALUE = 0.2558E+07 CRITERION= 0.2430E+05
EQUIL ITER 3 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2554E-03
FORCE CONVERGENCE VALUE = 0.1815E+07 CRITERION= 0.2436E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.2500
EQUIL ITER 4 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= -0.6634E-04
FORCE CONVERGENCE VALUE = 0.1478E+07 CRITERION= 0.2436E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.6250E-01
EQUIL ITER 5 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.5559E-04
FORCE CONVERGENCE VALUE = 0.9804E+06 CRITERION= 0.2436E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.1563E-01
EQUIL ITER 6 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.5776E-04
FORCE CONVERGENCE VALUE = 0.3588E+06 CRITERION= 0.2437E+05
RESIDUAL DECREASED. DESCENT PARAMETER SET TO 0.0000E+00
EQUIL ITER 7 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.2562E-04
FORCE CONVERGENCE VALUE = 0.5324E+05 CRITERION= 0.2437E+05
EQUIL ITER 8 COMPLETED. NEW TRIANG MATRIX. MAX DOF INC= 0.3714E-05
FORCE CONVERGENCE VALUE = 5055. CRITERION= 0.2438E+05 <<< CONVERGED
>>> SOLUTION CONVERGED AFTER EQUILIBRIUM ITERATION 8
*** LOAD STEP 3 SUBSTEP 6 COMPLETED. CUM ITER = 138
*** TIME = 1.51511 TIME INC = 0.704427E-03
*** MAX PLASTIC STRAIN STEP = 0.1846E-01 CRITERION = 0.5000E-01