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TENSION PROPERTIES OF TIE RODS

Part No. 944C732 Spec. Grade

Quality Control Request No. 274

by

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INTRODUCTION:

Fifteen tie rods from V500 and V600 series were submitted for tension test by Quality Control. Test procedure was the same as in all previous tests and in accordance with P.S.294535 par. 5.2.

RESULTS:

Tabulation of all pertinent data from the tests is shown in Table I.

REMARKS:

Yield strength properties of V500 and V600 series tie rods are somewhat higher than those reported for all other V-series rods (5 to 10% greater).

TABLE I
RESULTS OF TENSILE TESTS OF WANL TIE RODS AT 75°F

<u>Rod#</u>	<u>Yield Strength</u>		<u>Ultimate Strength</u>		<u>Dia</u>	<u>Elongation</u>	<u>Reduction</u>	<u>Fracture Point (3)</u>
	<u>lb</u>	<u>psi (1)</u>	<u>lb</u>	<u>psi</u>	<u>in.</u>	<u>% (2)</u>	<u>Area %</u>	
534	1000	103,100	1655	170,600	0.111	10.9	35.1	1-1/16" From Bottom
536	1000	103,100	1685	173,700	0.111	13.9	43.1	22-9/16" From Top
543	1025	105,650	1685	173,700	0.111	13.7	35.1	1/2" From Top
554	1025	105,650	1680	173,200	0.111	11.9	35.1	1" From Bottom
573	1012	104,350	1695	174,750	0.111	14.8	41.2	23-1/2" From Top
579	1000	104,000	1680	173,200	0.111	13.7	37.1	23-11/16" From Top
585	985	101,550	1640	169,050	0.111	13.5	37.1	1-1/16" From Bottom
586	1015	104,650	1670	172,150	0.111	12.7	37.1	1" From Bottom
587	1020	105,150	1650	170,100	0.111	11.3	37.1	1/2" From Top
589	1015	104,650	1675	172,700	0.111	13.8	37.1	1/2" From Top
593	995	103,000	1645	169,600	0.111	13.1	39.1	1" From Bottom
615	985	101,550	1655	170,600	0.111	14.4	39.1	1/2" From Top
642	1010	104,100	1665	170,600	0.111	12.3	37.1	1" From Bottom
671	1025	105,650	1685	173,700	0.111	13.6	33.0	9-9/16" From Bottom
692	985	101,550	1635	168,550	0.111	14.3	43.1	1-1/16" From Bottom

(1) Y. S. based on 0.2 percent off-set.

(2) Elongation based on total increase in length.

(3) Bottom is threaded end, top the upset head; measurements made from the ends.