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CLINTON ENGINEER WORKS - TENNESSEE EASTMAN CORPORATION
PROCESS IMPROVEMENT DIVISION
PILOT PLANT

BETA M2 G SLIT SUPPORT

Abstract

A new G slit support utilizing the standard G carbon now in use in all Beta production buildings was tested over approximately four months in the Pilot Plant with very successful results. A considerable saving has been made both in servicing time and in costs. The equipment has proved to be the best of any tried from the standpoint of run terminations due to alignment difficulties.

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C. Starr

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BETA M2 G SLIT SUPPORT

Because alignment difficulties have been encountered from time to time with the G slit support and adjustment assembly used on the standard Beta M units, a new support was designed and tested over approximately four months in the Pilot Plant. The results of this test are reported here.

The new support (see Figures 1, 2, and 3) utilized the standard G carbon now in regular use in all Beta production buildings. The carbon hanger was eliminated entirely and replaced with a stainless steel counterpart which could be used repeatedly and resulted in a savings in parts, costs and material. The jig which is at present used on the selective assembly of G carbon and hanger was readily adapted to use with the new support by a relocation of the three drill guide holes.

The routine of G carbon alignment after attachment of the entire assembly to the G standoff insulator was as follows:

1. The two outside screws on all clamps were loosened and the center screw on all clamps tightened, thereby increasing the diameter of the holes and freeing all rods for easy motion.
2. The carbon was held in the correct position against the alignment surfaces of the Christmas tree jigs.
3. Starting with the #1 clamp (the one on the G standoff insulator), the center screw was loosened and both outside screws tightened.
4. Proceeding to the horizontal row of screws on the #2 clamp, the same pattern of loosening and tightening was followed.
5. The loosening and tightening process was repeated on the vertical row

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of screws in the #2 clamp.

When the procedure outlined above was followed, no retracing of steps was necessary since no torque was applied to any movable portion of the assembly during the tightening process. As a result it was found that alignment of the G carbon on the M could be completed in from five to fifteen minutes, depending upon the skill of the workman. Mechanical servicing personnel have been favorably impressed with the new support because of this saving in servicing time.

The stainless steel G carbon support and adjustment assembly was installed as standard equipment on eight M units and tested in seventy-six runs in the Pilot Plant over a period of approximately four months. During this time only two cases of carbon misalignment were reported, both of which occurred during initial trials and could be attributed to faulty servicing technique, since the clamping members were found to be loose upon termination. On the whole, this equipment proved to be the best of any tried from the standpoint of run termination due to alignment difficulties. The advantages of this new support to production could best be evaluated by a track test in the Beta plant.

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CLAMP #2
XEM - B464

CLAMP #1
XEM - A462

PAD #1
XEM - A461

HORIZONTAL ARM
XEM - A463

10-32 x $\frac{5}{8}$ SOCKET HD. CAP SCREW
9 REQUIRED

PAD #2
XEM - A466

VERTICAL ARM
XEM - A465

Fig. 1. Parts for G Slit Support

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ASSEMBLED G SUPPORT

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Fig. 2. Assembled G Slit Support

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See page 1

Fig. 3. G Support Installed on Beta M2

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