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Modification of Rod Mill No. 228- ARMCO, Kansas City

Maurice Knott

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MORGAN CONSTRUCTION CO.
ROLLING MILL DEPT. MEMORANDUM

TO:
Steve Ordog

FROM:
Maurice Knott

DATE: 19 October 1965

SUBJECT:
Modification of Rod Mill No. 228 - ARMCO, Kansas City
All the Gears for the No-Twist Finishing Mill
Reference to Memo of October 18th on Bethlehem Gears

DISCUSSION

1. When the modifications in this mill are finally completed, each finishing mill will have 10 stands, two 8" stands and eight 6" stands, and each will be driven by two 1250 H.P. motors. At that time all the finishing mill gears will be the same as those for Bethlehem, Sparrows Point.

2. The interim situation is a finishing mill with eight 6" stands and driven by one 1250 H.P. driving motor. This requires a special pair of gears in the single stage increaser. The purpose of this pair of gears is to reduce the speeds to the capability of the one motor.

The Bethlehem, Sparrows Point, single stage increaser box will be used. The interim gears are -

- 92 T Driving 71 T
- 3 NDP
- 9" Face
- 14° Helix Angle
- Tip Relief (J & L Cutters)

The important point is that room must be provided in the Bethlehem box for the 71 T gear. This gear is about 2-1/4" larger in radius than Bethlehem's 58 T gear.

The face width of the above pair of gears could be reduced to 7" as far as loads are concerned. If it is decided to do this when designing the box, a new pair of gears with a larger helix angle and different numbers of teeth can be selected.

Maurice Knott