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Roll Grinding

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MORGAN CONSTRUCTION CO.
MEMORANDUM

TO: As noted

FROM: ESM

DATE: 5 Aug. '60

SUBJECT: Roll Grinding - Telephone conversation with Frank Zipf of Bethlehem-Johnstown

1 - Bethlehem - Johnstown have placed an order (approx. $500,000) with Sheffield Corp. for Crush Grinding equipment and expect delivery in fifteen months.

2 - They intend to grind all rod mill rolls, and also rolls for some of their other mills.

3 - Reason for grinding is to save time over roll turning, and also increase groove life. Zipf hopes for an 8/1 saving in time when grinding over turning.

4 - They are now using 84/86 Shore rolls in rod finishing train, and they are being turned. It takes double the time to turn them, over conventional (softer rolls). 86 Shore is the hardest roll that they can turn. They have a pair of 89/90 Shore rolls that they tried to turn with no success.

5 - With conventional rolls in rod finishing they get 125/150 tons per groove. With 84/86 Shore rolls they get 250/275 tons per groove. The rod tolerances are the same for both types of rolls.

6 - The 84/86 rolls are doubled poured. Zipf states that they are doubled poured to avoid brittleness of roll necks and not necessarily for hardness.

7 - After they get the crush grinder they will try still harder rolls and hope to obtain still longer groove life.

8 - He stated that the grinding time when using the crush method is less than the grinding wheel method like Naxos Union.

9 - Zipf stated that rod speed had no effect on groove life, it was tons rolled, that determined life. The surface finish of a ground roll is different than a turned roll; however, they have experienced no difference in surface finish of the rod, nor in the rod biting the rolls.

E. S. Murrah