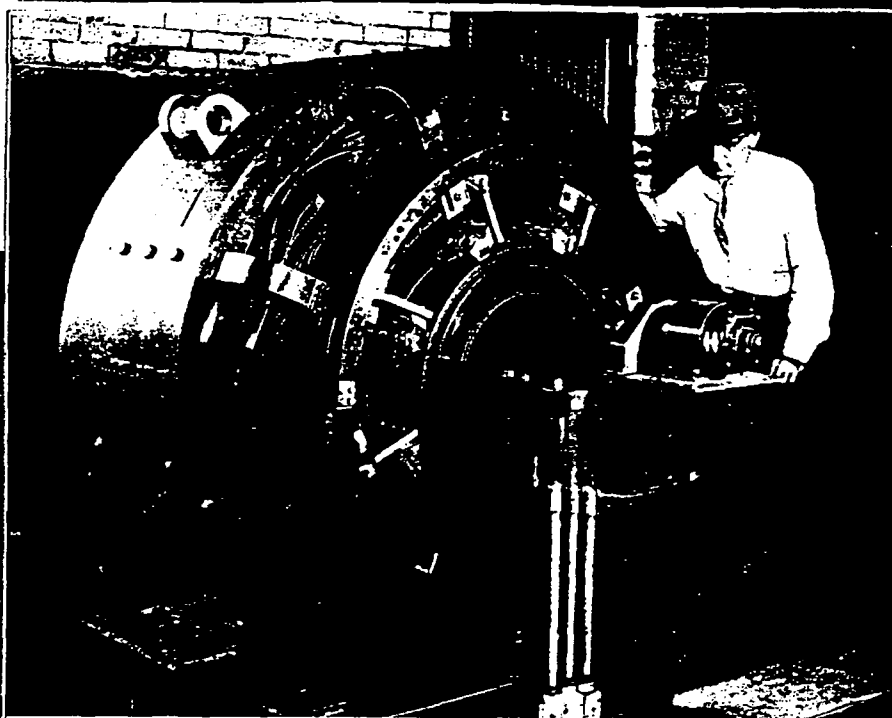




*The Elliott 1000-hp 400/800-rpm motor was installed very conveniently in the existing motor room.*

to be 1000 hp at 400/800 rpm.

The study further showed that with slab reductions per pass according to schedules, the motor loads were distributed so that they were within capacity ratings and the existing supporting motor-generator sets could carry the increased loading.

It was found possible to design the 1000-hp drive for No. 1A and 2A stands so that the new motor could be installed in the existing motor room thus saving the cost of a new building.

The speed cones for both the old mill and the new mill are shown in

chart below. The maximum fi speed of No. 10 stand was in about 45 percent, with the sp other stands raised to get the speed cones shown. These changes were obtained by ins new gears, which was done w loss of production in the mill.

With the foregoing speeds an ing schedules established, it i sible to examine the operation mill as a unit.

Based on the ability of the furnace to heat 80 tons of sla hour, this would result in 66 2500-lb slabs about 30 ft long, and 5¼ in. wide availat rolling each hour. The top sp the new stand 1A is 62 fpm o fps. With a 4-in. spacing be slabs, these slabs would be roll 29 seconds in this stand. Her operated at top speed, the roughing stand could roll 124 per hour, whereas the furnace heat only 66 such slabs.

If we make a further check o last finishing stand we find it l top speed of 1692 fpm. Assumin coil is 1300 ft long leaving No stand, and a 20 percent reducti made in this stand, the ente length would be 1040 ft. With a face speed of 1692 fpm, or 28.2 the piece would be in the roll seconds. Hence, if the pass coul kept full, 97 pieces could be r each hour.

This indicates that the mill normal operations can roll all steel the furnace can heat wit comfortable margin for the u mill adjustments and delays.

The new equipment for this has been installed, mill char made, and mill operation was sta

*Speed cones for old and new mills show the increase in speed obtained by the addition of two new stands.*

