

ILION PLANT QUALITY PROGRAM

J.P. Linde - Review of Ilion Plant Quality Program - Contd.

METAL FINISHES - Contd.

3. We are presently reviewing the work done with Sodium Silicate treatment of metal parts. Sodium Silicate plugs the micropores, thereby improving wear resistance by 250% and rust resistance 50%. Other methods of rust prevention will also be investigated, as well as ways to improve the guns' out-of-the-box appearance.
4. The final item in improved metal finishes deals with Limited Edition firearms. The first of these, to be introduced this month, is the Model 1100 LE-80, (Exhibits 6-24 and 6-25). This shotgun features highly polished metal components and a Receiver with photoetched engraving and gold plating on the side panels. To achieve the finish required for this gun, three polishing operations and hand buff were added to the Barrel and Receiver process. The Trigger Plate is highly polished and then hand buffed prior to color, to bring out the lustre. Vent Ribs are hand selected for finish quality. The bolt is highly polished and buffed prior to chrome plate.

OTHER QUALITY IMPROVEMENTS

The following descriptions cover a few of the more significant quality items addressed over the last year.

1. The manually fed heater-upsetter has been supplemented with a new system which utilizes a manipulator to handle the Barrel Blanks, (Exhibit 6-26, 6-27, and 6-28). The system was justified on a savings project. In the execution of a fully automatic system it was recognized that all the variables had to be controlled.

The system utilizes an induction heater which eliminates hot spots. An optical pyrometer checks the temperature of every Barrel and if outside the desired temperature range, the manipulator will discard the Barrel. A new closed die system was developed which yields a straighter Barrel and also reduces the noise level. All of these engineered changes have resulted in a better, more controllable product at reduced cost.