

SHOTGUNS - contd.Model 870, 410 Gauge - contd.

has been endurance tested thirty-four hundred (3400) rounds. Results have been satisfactory. There are feeding problems with 3" Federal paper shells. The feeding angle on the edge of the Barrel chamber is critical and cannot be increased without the undesirable result of swelling the heads in firing.

Federal was contacted regarding the variations found in shell dimensions. They indicated the 3" shell as produced allowed a + .002" over the maximum SAAMI specifications. The adjustment of the Extractor to handle shells to specifications results in "hard under Extractor" and feeding problems with Federal shells. The gun performance using plastic shells or paper shells to SAAMI dimensions is considered to be satisfactory.

The problem was discussed and several recommendations made. In order to reduce adverse field reaction, the decision was made to change the Barrel marking to "3 inch or shorter plastic shells". Also the recommendation to use plastic shells will be added in the instruction folder and as part of the tag to be attached to each gun. This will require procurement of new marking rolls and delay initial warehouse production. 83

Production reported that for the pilot assembly of the Model 870, 410 gauge guns, production parts were used except for the Ejector Spring, Magazine Tube Insert and Support. Operations on these were performed in the Model Shop. Shell Latches and Carriers require hand adjustment until permanent heat treat and straightening equipment can be provided.

In plant testing, approximately 50% of the guns would satisfactorily handle Remington and competitive ammunition. While guns could be corrected, it is not possible to detect the difference in guns at assembly and the failures using Federal ammunition only were found in testing. Competitive ammunition is only used in the initial pilot testing to prove the adequacy of the gun. R & D expressed the opinion that even though some guns were satisfactory, the condition was borderline.