

carrier desired by the Sales Department. Work is continuing.

Receiver and Barrel Extension Design - As a result of the Research and Development investigation of receiver cracking, it has been decided that a long, integral barrel extension will be used in this model. Diameter of the barrel extension has been reduced by .020", permitting an increase of .010" in the receiver wall section surrounding the barrel extension. These design changes have reduced forward receiver stress loadings by 50%.

Elimination of stress raisers at the forward ejection port wall, by careful profiling, is probably the most important factor in assuring long receiver life. Elimination of notch effects in the observed area of highest stress can increase receiver life from 500% to 1000%. Some changes in production operations will be required to insure proper port wall contour and finish.

A collateral benefit resulting from adoption of the long barrel extension is elimination of the receiver riveted ejector. The ejector will now be mounted on the barrel extension, in the manner used in Model 11-48 construction.

Gas System Design - Research and Development reports that the barrel guide ring seal has been relocated from its staked-in position in the barrel guide ring, to the magazine tube. Spring tension of the seal ring holds it on the periphery of the magazine tube in position to detent the piston and backing ring, when the barrel is removed. Relocation of the ring has provided better gas sealing, permitting a smaller barrel gas orifice. Fouling of the gas system is thus reduced.

Receiver and Bolt Decorations - The Sales Department has accepted receiver and bolt decorations of scroll form, for use on the Sportsman 68.

12 Gauge Magnum Development - The Research and Development Department has established August 1, 1962 as the date at which preliminary design and model of the 12 Gauge Sportsman 58 will be completed. August 15, 1962 is set as the date for final release of this design to the Plant.

On the basis of the above dates, the Production Department will project date for completion of pilot work, and warehouse date, for inclusion in the Development Schedule of March 6, 1962.