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### FIREARMS

#### SHOTGUNS

# MODEL 1100 AUTOLOADING SHOTGUN

## Manufacturing Costs - 12 Gauge

The Model 1100 manufacturing cost in November was \$54.87, equivalent to \$2.68 less than the first year project estimate as shown in Figure 1 and Table 1, attached. This is the lowest monthly cost to date, and is mainly due to the sustained high level firearms sales which reduces the plant burden spread to the Model 1100. Total labor and material continue to exceed the project estimate as indicated in Table 1. Significant improvement in labor and material are expected in 1964 when an estimated \$100,000 cost reduction is scheduled to be completed on this model.

The November and December costs will probably exceed the first year project estimate due to low volume and high start-up costs as the 16 and 20 gauge production begins

# Start-Up and Production Status - 16 and 20 Gauge

The Production Department stated the 20 gauge Model 1100 will begin being warehoused the end of December, and the 16 gauge will follow in January. Warehousing has been delayed by the time to overcome the shell feeding problems which are more fully discussed below. Production stated there are very few Sportsman 50 % in inventory to be carried over into 1964.

Research described the two major shell feeding problems as failure of the shell from the magazine to trip the carrier latch and failure to feed from magazine. Both have been due to the difficulty of maintaining under control the small 20 gauge shell in the large space of a 12 gauge receiver. Research testing confirms that the current design with the changes to improve shell feeding will be successful. The 20 gauge malfunction rate as tested was 0.2% compared to a 0.5% rate for current production 12 gauge shotguns. There is still a die change to be made to the carrier that will be applied to all gauges, and is expected to reduce the 12 gauge malfunction rate to 0.3%.

Sales reported the field test of the 16 and 20 gauges was very good. Only minor functioning difficulties were reported. The major criticism was weight. Efforts to correct this problem are more fully discussed below.

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