

SHOTGUNS - contd.MODEL 3200 SHOTGUN - contd.

. Trial and pilot and production startup problems

738 machine studies were made to establish the controllability of 254 operations. 52 operations remain uncontrollable, 19 of which require 100% inspection.

It was necessary to revise manufacturing from a job shop to a job line concept. This reduced machine set-ups and established repetition of personnel and machine assignments.

Process improvements have been made as indicated by the 1400 tool design revisions completed in 1973. Additional clamping has been required to meet tolerances. Clamping sequence is critical in many cases and clamps have been color coded to assist the operator. Manual feed drill presses are not adequate on some operations and these are being replaced with power feed or Remington special machines. Testing of the action without the Stock Assembly was inadequate and the fully assembled gun is being tested. Specification for fits, margins, take-up torques, fire control adjustments, etc. were established and documented.

The N/C machining centers proved capable of producing to closer tolerances than conventional machine tools being used on a one machine, one operation basis.

Customer Complaints

At present, guns returned are 6% of new guns shipped versus the goal of 2-3%.

88% of complaints involved guns produced in the first 6 months of operation.

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