

SHOTGUNS - contd.STEEL SHOT PROGRAM

There was no report.

ADHESIVE-FASTENED VENT RIB

What has been proposed is to adhesive-fasten a new design solid base vented rib to Model 1100 and 870 shotgun Barrels.

This development was proposed for reducing the cost of attaching Vent Ribs over the current welding and brazing operations (estimated \$50,000 per year gross). With the potential for attachment of the rib later in the process, additional cost reductions may be possible in finishing operations.

Other potential benefits are (1) improved appearance from the new designed Vent Rib and (2) more uniformly straight Barrels with the elimination of the heat distortion from welding or brazing.

This work was postponed to concentrate on startup of the photo-etch process. At that point, the new rib had been designed, a process outlined, new equipment designed and an adhesive selected.

The potential feasibility of bonding with Du Pont Resin PB-8019 (Plastics Dept.) was established. (PB-8019 is a hot-melt nylon resin with a Union Carbide silane additive for strength.) Test strips had been prepared and tested for strength and compatibility with the black oxide process. In combination with the increased contact area of the solid base rib, PB-8019 would give an adhesive bond equal to or slightly stronger than the current welding or brazing processes and a bond ten times stronger than the PolyChoke process.

In picking up the program again, it has been found that PB-8019 is no longer available but the components are available. Also a potentially more attractive two component adhesive (acrylic polymer and accelerator) with rapid cure time from Du Pont F & F Department has just been identified.

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