

(742) Improvements vs. Current 740

2. Reduced Receiver Rail Upset
(Addition of new bolt over
ride latch)

3. Reduction of Ejection Failures

- a. Re-position of extractor to increase ejection torque on shell approximately 50%.
- b. Increased shell clearance around ejection port opening.
- c. Re-positioning of ejector plunger for ejection of shell on center line of ejection port.

4. Improve Action Bar and Rivet Life.
(Failure after 250 to 500 rounds)

- a. Rivet material specification change.
- b. Added material to front end of action bar in rivet area.

5. Reduced Action Bar Saddle Breakage.

- a. Design change for added strength.

Benefits and Improvements

Rotational whip or torque of bolt on current M/740 guns produces upsetting and damage to receiver rails causing a binding action on the bolt carrier after approximately 500 to 600 rounds. This binding action can cause numerous gun malfunctions categorized by customer complaints as gun jams, hangs, fails to feed, eject, opens hard, closes hard, fails to close, etc. The proposed bolt over ride latch reduces this receiver rail upsetting by arresting the rotational movement or whip of the bolt at the rear end of stroke.

Failure to eject has been the No. 1 complaint both from customers and from plant audit and gallery testing. 83 The new extractor and ejector position, along with increased shell clearance around ejection port has indicated a substantial reduction in this chronic malfunction.

Loosening of action bar rivets causes action bars to bind inside of fore end. This failure caused numerous gun malfunctions categorized by customer complaints as hard opening, fail to eject, jams, hangs, closes hard, fails to close, fails to lock up, fails to fire, etc. Heat treated rivet material and added strength to action bar front end has eliminated this early failure.

Previous breakage on approximately 1200 rounds was improved by increasing saddle filllet across breakage area.