#### SAFETY PERFORMANCE CHECK

After reassembly, the following checks for proper function of the safety should be made.

Close bolt. Put safety ON SAFE. Lift bolt handle. (Bolt handle should not raise). Pull trigger (firing pin should not fall). Action of trigger pull should be smooth (no bind, drag, click or catch). Release trigger (trigger should return to former position). Put safety ON FIRE position (firing pin should not fall). Pull trigger (firing pin should fall). Repeat test at least three (3) times.

Safety should function on two (2) positive stop positions (ON SAFE – FIRE). If positions are not positive, check parts. Inspect detent holes, retainer, retainer pin, detent, detent spring and related parts for possible cause. Replace any worn or damaged parts and lubricate with a dry lubricant. Reassemble and check. If stop positions are not positive replace complete trigger housing assembly.

**NOTE:** Lubrication should not be used as a remedy for trigger housing assembly problems. The cause should be positively located and corrected.

When repairing trigger housing assembly wash parts thoroughly with a petroleum solvent. An accumulation of gun oil or dried oil can build a film that may cause malfunctions. Relubricate with a dry lubricant and reassemble. Check clearance between trigger and trigger connector .010 MAX. slip fit (MIN.) with feeler gage (see Fig. 1). Check trigger connector for straightness and cracks at trigger stop screw hole. Make sure there is no bind or catch in trigger, sear safety cam or safety lever about pivots.



When replacing trigger housing assembly, take care not to bend or spring the housing. Sear safety cam should pivot freely. To check, remove bolt, move safety to OFF SAFE, pull trigger and press down on rear of sear safety cam and release.

For proper safety function there must be clearance between trigger connector and sear safety cam. To check close bolt and put safety ON SAFE. Visually inspect through hole in side of trigger housing (see Fig. 2). If there is no clearance, replace safety assembly, or trigger housing assembly. Corners must be sharp. (arrows).



Sear safety cam and trigger connector engagement of .010'' - .015'' on target rifles is critical (see Fig. 3). Replace any worn or damaged parts. To adjust, close bolt and place safety OFF SAFE. Turn trigger engagement screw clockwise until rifle fires. Turn screw counterclockwise  $\frac{1}{2}$  turn (90<sup>0</sup>) and check engagement. (see note A). Corners must be sharp. (Arrows).



To adjust trigger stop screw, close bolt and put safety OFF SAFE. Turn trigger stop screw clockwise until it touches trigger. Pull and hold trigger rearward. Turn trigger stop screw counter clockwise until rifle fires. Turn an additional 1/8 turn for clearance. (see note A).

Trigger pull adjustment on any target rifle should never be adjusted below two (2) pounds. (see note A).

To adjust trigger housing assembly design with trigger adjusting screw through trigger. (see Fig. 4). Relieve tension on trigger adjusting screw. Adjust trigger spring screw to spring load trigger connector. Trigger connector – trigger must return to initial position after each firing cycle. Adjust trigger adjusting screw to desired trigger pull weight. (see note A).



To adjust trigger housing assembly design with trigger adjusting screw located at bottom of trigger housing assembly. (see Fig. 5). Trigger spring is trapped on trigger stop screw and requires no adjustment. Trigger housing assembly of earlier design has no spring on trigger stop screw. Tension is applied to trigger connector by trigger adjusting screw spring and is adjusted with trigger adjusting screw. Adjust trigger adjusting screw to desired trigger pull weight. Trigger connector trigger must return to initial position after each firing cycle. Visually inspect through hole in side of trigger housing for sufficient engagement between trigger adjusting screw trigger adjusting ball. Stake trigger housing to prevent loss of trigger adjusting screw and / or ball. (see note A).



**NOTE A:** After any adjustments to trigger housing assembly screws, repeat all safety checks. Check for "follow down" See malfunctions. Restake or reseal screws with DuPont Duco cement.

When replacing stock assembly, check for clearance between following parts: Safety Lever – Stock; Trigger – Trigger Guard: Trigger – Stock.

#### MALFUNCTIONS

- "Follow Down." After reassembling rifle, check for "follow down" condition. (Firing pin moves to uncocked position as bolt is closed. Put safety OFF SAFE. Close bolt smartly. Firing pin should remain cocked (dry fire to check). "Follow down" may be caused by improper sear safety cam – trigger connector engagement or by trigger being held back by interference between trigger and stock, trigger and trigger guard, and / or trigger housing. "Follow down" can also be caused by sear safety cam binding, by missing parts and / or broken connector. (see note B).
- 2. "Firing Pin Falls." If firing pin falls when rifle is jarred or when bolt handle is lifted check following:

Firing pin head binds in guide slot in receiver. Firing pin head and slot should align. To check, remove firing pin assembly from bolt. Reassemble bolt to receiver. Small cocking notch on rear edge of bolt should align with slot in receiver.

Guide slot in receiver should be free of burrs. Remove trigger housing and clean any burrs from slot.

This malfunction may also be caused by improper sear safety cam – trigger connector engagement. Adjust engagement as previously described. (see note B).

3. "Firing Pin Fails to Fall." If firing pin fails to fall when trigger is pulled or trigger has to be pulled more than once. See firing pin falls for possible cause and corrections. (see note B).

NOTE B: Correct malfunction 100% or return rifle to factory.

For smooth operation, a good quality gun grease should be applied to threads on bolt plug, firing pin head cocking cam at rear of bolt and on locking lug engagement area.

> JPL-RES. 3-76

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> JPL-RES. 3-76