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Remington Arms Company Inc.
RESEARCH & DEVELOPMENT TECHNICAL CENTER
315 WEST RING ROAD
ELIZABETHTOWN, KY 42701

TLW 1012

Note that these procedures for proof testing were developed to consistently position the propellant thereby providing greater consistency of proof pressures. Failure to follow this procedure during the definitive proof testing of each chamber of the firearm could result in pressure levels significantly below the minimum proof pressure specification as determined for the cartridge.

Any firearms components, such as bolts, bolt heads, receivers including chambers, etc. which were previously subjected to proof testing and, which subsequently, have any proof sensitive components changed, altered, or substituted, should be re-proofed.

Method:

- Record headspace before proof testing *(see previous procedure "TLW1012B - Measure Headspace.")*
- Before proof testing the firearm should be inspected for:
  - Barrel Obstructions
  - Bore and chamber are free of grease or oil and other debris.
- After firing the proof round, the firearm will be carefully examined to determine if any damage to the product has occurred due to exposure to the proof pressure.
- This inspection includes:
  - Visual inspection for damage,
  - Damaged receiver or bolt, especially the locking lugs on the bolt or the receiver
  - Bulged chamber or bore; split, cracked or otherwise damaged barrel,
  - Broken stock,
  - Any other part subjected to the proofing stress, which can be visually examined for damage.
  - Any "suspicious" areas should be submitted to magna-flux inspection before proceeding.
- The fired proof cartridge should be examined to determine that no firearm fault has introduced cartridge failure, such as:
  - Expanded cartridge head.
  - Excessive roughness, rings, or bulging, which would affect extraction.
  - Beginning separation or material stretching in front of the case head indicating excessive headspace or excessive pressure as stated above.
  - Any cartridge case failure indicating a firearm fault.
- In addition, the spent proof round should be examined for the presence of unusual deformation, split case or split head, and for any evidence of a pierced primer. Any of these conditions may be indicative that high-pressure gases may have vented into the action where other damage to components may have occurred.
- Take note of any indication of significant gas leakage. If present, it may indicate that the firearm was not subjected to full proof pressures and the proof test would then be invalid and would require re-proofing.
- A firearm is only properly proofed when the cartridge has been fired without evidence of significant gas leakage.
- Save the spent proof case in a Zip-Lock plastic bag and label and place in the data packet for possible future reference. If any parts were broken or otherwise damaged, place these parts in the same bag as the proof case and label. Place a warning label on the firearm and withdraw the firearm from the test.
- Each sample firearms' headspace *(see following procedure "TLW1012D -Re-Measure Headspace after Proof")* must remain in range from min. to min. + .007" (i.e. Rimfire headspace gauge 0.050") (this is to allow for normal growth due to wear) after proofing, with no individual firearm's headspace to grow more than .002" after firing one proof round.
- After successful proofing and the headspace is within allowed specifications, stamp the underside of the bolt handle with a prick punch mark. If a prick punch mark is present indicating that the bolt was previously proofed do not re-mark with prick punch mark. In addition to stamping the bolt on the underside of the handle, stamp the firearm on the barrel with an authorized Remington proof stamp. Locate the proof mark on the right rear of the barrel in the specified location for the Remington proof stamp. **DO NOT STAMP if the headspace exceeds Min + .008" (i.e. Rimfire headspace gauge 0.051".)** If this is a barrel that has previously been proofed and already has a Remington proof mark, do not re-stamp.
- Because of the higher pressures involved in shooting proof cartridges, adequate precautions, both mechanical and procedural, must be taken to protect personnel performing the firearms proof testing. To this end, the firearm should be securely mounted, completely shielded from the operator and firing accomplished by a remote control method such as firing by use of a lanyard.