

# Test Lab Work Request Form

**Date Submitted:** 10 March, 2000

**Tracking #:** TLW 0010AR

**Project #:** 241095

**Engineer:** J.R.SNEDEKER

**Test Objective:**

**TLW0010AR – SAAMI Jar-Off Test:**

The objective of the jar-off test is to simulate the abusive impacting (bumping) of the firearm against a hard surface with the firearm in a condition of maximum readiness. With the firearm in the ready to fire condition, the firearm shall be capable of withstanding a jar-off shock equivalent to being dropped from a height of 12" inches onto a 1" thick 85 Durometer (Shore A) rubber mat backed by concrete. Trigger Pull weight will be adjusted to minimum specification. The test will be performed according to SAAMI Technical Committee procedures. Magazine will be loaded to maximum capacity with dummy rounds, according to SAAMI procedures. A fresh primed case will be chambered prior to each drop. After each drop the primed case will be discharged to verify its validity. This test will be performed on a sample of firearms made up of .30-06 caliber.

**Test Description:**

**Method:**

- With the firearm cocked and the safety in the FIRE position the firearm shall be capable of withstanding jar-off shock equivalent to being dropped from a height of twelve inches onto a 85±5 Durometer, Shore A, rubber mat, one-inch thick backed by concrete. The mat and concrete shall be large enough so that when the gun is dropped it will fall within the perimeter of the mat striking the mat once. The twelve inches will be measured from the test surface to the lowest point on the firearm. As an alternate to free dropping, other methods may be substituted if they provide equivalent impact characteristics. The primed case shall be discharged following the drop and a fresh primed cartridge re-chambered prior to the next drop. A "fresh" firearm may be substituted into the test at any point.
- The firearm or firearms shall be dropped in such a way as to strike the rubber mat surface once in each of the following attitudes:
  - Barrel vertical, muzzle down.
  - Barrel vertical, muzzle up.
  - Barrel horizontal, bottom up
  - Barrel horizontal, bottom down.
  - Barrel horizontal, left side up.
  - Barrel horizontal, right side up.
- Tests shall be conducted with the trigger pull force set at the minimum force specified, with engagement set to the minimum specified, and with the firecontrol lubricated per the owner's manual.
- The test shall be conducted with the magazine or clip fully loaded with dummy cartridges

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and inserted in the firearm.

- Parts breakage or other damage as a result of drop testing does not constitute failure as long as the empty primed case does not fire and the firearm can be unloaded safely after each drop. More stocks are required than the amount of test guns to allow for breakage due to the drop testing. If a stock cracks - replace before continuing test.

Data required:

- Record engagement and trigger pull.
- Record whether or not the firearm fires an empty primed case of its designated cartridge when tested in accordance with this procedure.
- Record the round level on the firearm.

<b>Resource Usage:</b> <b>Manpower Requirements -</b>  <b>Facility Requirements -</b>	<b>Test Results Required:</b> <b>Formal Report:</b> <b>Data Only: X</b> <b>REQUESTED Completion Date:</b> 83
<b>Required Materials/Parts/Equipment (include quantities):</b>	
<b>Test Parts Availability Date:</b>	
<b>Start Date:</b> 9/10/00 <b>Completion Date:</b> 9/10/00 <b>Report Date:</b>	<b>Test Assigned To:</b> Steve & Jeff Wude

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