

CONFIDENTIAL

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

TLW 1012

The four feet shall be measured from the surface of the rubber mat to the center of gravity of the firearm. The center of gravity shall be determined to an accuracy of $\pm$ one inch by any recognized method for finding the center of gravity of an irregular shaped object. 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 by design, with trigger/sear engagement set to the minimum specified by design, and with the fire control lubricated per the owner's manual.
- The test shall be conducted with the magazine or clip fully loaded with dummy cartridges 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 whether or not the firearm fires an empty primed case of its designated cartridge when tested in accordance with this procedure.
- Record round level
- TLW Number
- Testers' Names

TLW1012AM - Extended Jar-Off Test: (for Information only.) -

To establish design margin this test simulates the abusive impacting (e.g. bumping) of the firearm against a hard surface with the firearm in a state of maximum readiness under conditions more severe than the SAAMI recommendations. This test will be performed on a sample of six (or the number available after performing the std. SAAMI tests) firearms.

Method:

- With the firearm cocked and in the safety in the FIRE position the firearm shall be dropped from a height of 18 inches, 24 inches, 36 inches, and 48 inches onto an 85 $\pm$ 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 distance of drop will be measured from the test surface to the lowest point on the firearm. 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 cause it to strike the rubber mat surface 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 fire control well lubricated with Rem-Oil.

J.R. Snedeker

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Subject to Protective Order - Williams v. Remington

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