

CONFIDENTIAL

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

TLW 1012

To establish design margins this test simulates abusive dropping of the firearm in 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 safety in the SAFE state, the firearm shall be dropped from a height of 6 feet and 8 feet onto an 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 and come to rest without interference within the perimeter of the mat. The drop height 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.
- Test Procedure - 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 fire control well lubricated with Rem-Oil.
- 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.
- If a failure occurs on a test sample rifle at the 6 ft. height, finish all other orientations at that height and stop testing that rifle only. If a failure occurs on a test sample at the 8 ft. height, finish all other orientations at that height.

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 on the firearm.
- TLW Number
- Testers' Names

INTENTIONAL ABUSE SAFETY PRECAUTIONS:

Note that for the following tests, the test round is to be loaded remotely and in addition, the test setup shall have the capability of unloading the live round remotely if required.

TLW1012AP - Obstructed Bore Test:

The purpose of this test is to evaluate the effects of a bore obstruction on the strength and integrity of the rifle. This test simulates what might happen if a fired round results in a "squib" leaving an obstruction in the bore.

J.R. Snedeker

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03/21/03

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Revision # 1.3

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Subject to Protective Order - Williams v. Remington