83

Field Debris #1

9/16

Test Lab Work Request Form

Date Submitted: 10 March, 2000	Tracking #: TLW 0010AN
Project #: 241095	Engineer: J.R.SNEDEKER

Test Objective:
TLW0010AN - Field Debris Test:

This test determines the effect of "field debris" on firearm performance, where the firing is conducted after the firearm has field debris directly placed in the action. *See Table No. 2 for field debris composition.*

Table No. 2 - Field Debris Mixture (By Volume)

Dried Grass Clippings	2 parts
Toothpicks (round, .25" long max.) to represent twigs	1 part
Bird Seed	1 part
Table Salt	1 part
Small Stones (.015" dia. to .125" dia.)	1 part
Crushed Dry Leaves	2 parts
Pine Needles	1 part
Hair Samples (no longer than 2 inch)	1 part

Test Description:

Method:

- Clean and lubricate one test gun to the procedure supplied by the design team.
- Remove the bolt. Set the safety in the SAFE position and verify that the firearm is unloaded.
- Record the weight of one level tablespoon of field debris mixture per following table. .015 lbs
- Expose the firearm as follows:
- Place the firearm in a shooting jack, turn bottom side up, and apply a tablespoon of debris in the firecontrol mechanism from the bottom. Tap the firearm three times, in the middle of the receiver, to jar the rifle and aid field debris getting into the mechanism.
- Turn the firearm to its normal upright horizontal position and apply a tablespoon of field debris to the top of the firecontrol mechanism from the top. Tap the firearm three times, in the middle of the receiver, to jar the rifle and aid the debris getting into the mechanism.
- Wipe away any debris that prevents the bolt from closing. Clean parts as much as possible by blowing sharply or wiping.

- Fire a full magazine from the firearm. If repeated malfunctions make this impossible, attempt to fire with another magazine. If firing is still unsatisfactory, attempt to fire with a clean magazine, container, etc., loaded with clean ammunition. If repeated malfunctions make it impractical to fire the remaining ammunition, stop the test.
- Cycle the safety from fire to safe every 5 rounds.
- At every 5 round interval verify the firearm is not loaded.
- Close the firearm as if to fire it and put the safety to the SAFE position
- Pull the trigger firmly (10 lb. maximum) - firearm must not fire.
- With the finger off the trigger, move the safety to the FIRE position - firearm must not fire.
- Disassemble the firearm over white paper and weigh or measure the amount of debris present in the main mechanism area. Debris should be removed from the parts for weighing.

Data Required:

- Record malfunctions. See attached sheet
- Record number of rounds fired. 3
- Record weight of debris in the gun at the conclusion of the test.
- Record any firing of the firearm without the trigger being pulled.
- Record any hang fires. 0

Filled in 83 by srf

Resource Usage: **Manpower Requirements -** **Facility Requirements -**	**Test Results Required:** **Formal Report:** **Data Only: X** **REQUESTED Completion Date:**
Required Materials/Parts/Equipment (include quantities):	
Test Parts Availability Date:	
Start Date: 9/16/00 **Completion Date:** **Report Date:**	**Test Assigned To:** ~~**JESSE ARNOLD & BOB LEE**~~ **16 MARCH 2000** Jeff Wade / Steve Wade (corrected by srf)

9-16-00 Gun B22 TLW 0010 AN

Put gun into field debris test per [redacted] test description.
Put gun into shooting jack with safety on - Tied lanyard to gun through trigger housing, Loaded 1 round into chamber, closed bolt, put 4 rounds into magazine and installed into gun, Put gun into fire position - went out of room, pulled lanyard, gun fired. Same for second round. On third round opened bolt to eject fired round, ~~[illegible] closed bolt~~ Put gun in safe position, chambered round, closed bolt, put safety into fire position - gun fired without pulling trigger. Stopped test at this point per Dale Danner.

JW / SW