

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. **.005LBS**
- 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

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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. **Gun fired on third round.** (See report TLW0010AN)
- Record number of rounds fired. **3 rounds**
- Record weight of debris in the gun at the conclusion of the test. (See Mike Keeney)
- Record any firing of the firearm without the trigger being pulled. (See report)
- Record any hang fires. **0**

Resource Usage:	Test Results Required:
Manpower Requirements:	Formal Report: Data Only: X
Facility Requirements:	REQUESTED Completion Date:
Required Materials/Parts/Equipment (include quantities):	
Test Parts Availability Date:	
Start Date: 9/16/00	Test Assigned To: STEVE WADE AND JEFF WADE
Completion Date: 9/16/00	
Report Date:	

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- STEP # 1 CLEAN AND LUBRICATE TEST GUN.
- STEP # 2 REMOVE THE BOLT FROM GUN. SET THE SAFETY IN THE SAFE POSITION AND VERIFY THAT THE GUN IS UNLOADED.
- STEP # 3 WITH THE GUN BOTTOM SIDE UP APPLIED A TABLESPOON OF DEBRIS IN THE FIRECONTROL MECHANISM FROM THE BOTTOM.
- STEP # 4 TAPED THE GUN THREE TIMES IN THE MIDDLE OF THE RECEIVER, TO JAR THE GUN TO AID FIELD AND DEBRIS GETTING INTO THE MECHANISM.
- STEP # 5 TURN THE GUN TO ITS NORMAL UPRIGHT HORIZONTAL POSITION AND APPLY A TABLESPOON OF FIELD DIBRIS TO THE TOP OF THE FIRECONTROL MECHANISM.
- STEP # 6 TAPED THE GUN THREE TIMES IN THE MIDDLE OF THE RECEIVER, TO JAR THE GUN TO AID FIELD AND DEBRIS GETTING INTO THE MECHANISM.
- STEP # 7 WIPED AWAY ANY DEBRIS THAT WOULD PREVENT THE BOLT FROM CLOSING. CLEANED PARTS AS MUCH AS POSSIBLE BY BLOWING AWAY ANY DEBRIS.
- STEP # 8 REPLACED BOLT IN GUN. LOADED ONE LIVE ROUND IN CHAMBER AND CLOSED BOLT, SAFETY IN SAFE POSITION. LOADED FOUR ROUNDS OF LIVE AMMO IN MAGAZINE AND PUT INTO GUN.
- STEP # 9 CYCLED SAFETY FROM THE SAFE POSITION TO THE FIRE POSITION. WENT OUT OF ROOM AND PULLED TRIGGER WITH LANYARD. (GUN FIRED)
- STEP # 10 WENT BACK INTO ROOM EJECTED FIRED CASE. CYCLED SAFETY FROM THE FIRE POSITION TO THE SAFE POSITION. CLOSED BOLT TO CYCLE LIVE ROUND FROM THE MAGAZINE. CYCLED SAFETY FROM THE SAFE POSITION TO THE FIRE POSITION. WENT OUT OF ROOM AND PULLED TRIGGER WITH LANYARD (GUN FIRED)
- STEP # 11 WENT BACK INTO ROOM EJECTED FIRED CASE, CYCLED SAFETY FROM THE FIRE POSITION TO THE SAFE POSITION. CLOSED BOLT TO CYCLE LIVE ROUND FROM THE MAGAZINE. CYCLED SAFETY FROM THE SAFE POSITION TO THE FIRE POSITION. GUN FIRED. STOP TEST DALE DANNER.

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