

TEST + MEASUREMENTS LAB
TEST RESULTS
TESTER R.W. HOWE

REQUESTER- J. SHADSKER

DATE 4-28-88

REPORT # 881032

WORK ORDER NO. 481011

TEST TYPE- DRY CYCLE "DEVELOPMENTAL"

FIRE ARMS STAFF. M/700

REASON FOR TEST.

TO CHECK THE FEASIBILITY OF USING ZINC PHOSPHATE COATING ON M/700
FIRE CONTROL HOUSINGS.

EQUIPMENT REQUIRED.

SIX M/700 FIRE CONTROLS WITH ZINC PHOSPHATE
COATING. TEST LAB M/700 COCK-FIRE AND SAFE LEVER
CYCLING DRY CYCLE MACHINE AND TEST LAB M/700
TEST RIFLE.

TEST PROCEDURE.

INDIVIDUAL M/700 FIRE CONTROL ASSEMBLIES NOS. 1 THRU 6
WERE PLACED IN TEST RIFLE IN DRY CYCLE MACHINE
AND CYCLED TO A TOTAL OF 20,000 CYCLES EACH OF
COCK + FIRE WITH SAFETY LEVER BEING CYCLED
"OFF-ON-OFF" ONCE EVERY FIFTEEN CYCLES.

ALL FIRE CONTROLS WERE VISUALLY CHECKED AT
10 AND 20,000 CYCLE LEVELS.

TOTAL SAFE "OFF ON OFF" CYCLES = 1,333 FOR 20,000.

TEST RESULTS

SEE ATTACHED SHEET.

TEST RESULTS:

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SLIGHT DETERIORATION (WEAR) OF THE ZINC PHOSPHATE COATING OCCURED AT RIGHT SIDE REAR OF FIRE CONTROL SIDE PLATE (AT SAFE ARM CONTACT AREA). NO FIRE CONTROL RELATED MALFUNCTION OCCURED IN ANY TEST SAMPLES DURING THE ENTIRE TEST.

TEST SAMPLE	VISUAL OBSERVATION 10,000 CYC.	VISUAL OBSERVATION 20,000 CYC.
# 1	OK	COATING SLIGHT WEAR AT REAR RIGHT PLATE, AT SAFE ARM CONTACT POINT (BRIGHT)
# 2	OK	" " "
# 3	OK	" " "
# 4	BRIGHT SPOT AT REAR RIGHT PLATE AT SAFE ARM CONTACT POINT	MORE BRIGHTNESS (COATING WEAR) ALSO AT LOWER DETENT BALL COUNTER BORE EDGE
# 5	OK	SLIGHT COATING WEAR AT REAR OF RIGHT PLATE. AT SAFE ARM CONTACT AREA (BRIGHT) ALSO AT LOWER DETENT BALL COUNTER BORE EDGE
# 6	OK	" " "

NOTE: BEFORE BEGINNING OF TEST SOME RUST WAS NOTICED AT THE CONTACT AREA BETWEEN THE FRONT SPACER AND TWO SIDE PLATES OF THE HOUSING SUB ASSM.