

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

MATCH QUALITY WEAPONS: SERVICEABILITY AND
MAINTENANCE INSPECTION INFORMATION

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TM 9-1005-223-12P

Headquarters, Department of the Army, Washington, D.C.

22 June 1971

1. Purpose. a This bulletin provides information and guidance of personnel responsible for the various types of match quality weapons. It outlines the responsibilities and the inspection procedures to be followed by maintenance personnel for determining the serviceability of match quality weapons.

b. The serviceability of a match quality weapon will be determined by the user. The weapon may be turned in for inspection, classification, and repairs, when in the opinion of the user the quality of the weapon is not considered adequate for match competition.

c. All field inspection and maintenance of the weapons described herein will be accomplished by pistol and rifle team armorers who have successfully completed a course in National Match weapon maintenance and repair.

2. Responsibilities. a. National Match pistols and rifles will be requisitioned through normal supply channels, in accordance with AR 711-16.

b. Rock Island Arsenal, Rock Island, Illinois is responsible for storage and issue of serviceable National Match pistols and rifles.

3. Identification and Description. Following is a brief identification and description of the match quality weapons used by the Armed Services for match competition.

a. *Automatic Caliber .45 Pistol M1911A1 (National Match).* Identifying mark (NM) National Match shall be noted on the weapon. The pistol is equipped with an adjustable rear sight, special front sight, and a machine checkered front strap. The pistol is assigned part No. 8426674 with the following basic issue items included:

Brush, Cleaning, Small Arms: M55504036 1 ea

Magazine, Cartridge5508694 3 ea

Rod, Cleaning, Small Arms: M45564102 1 ea

b. *7.62-MM Rifle M14 (National Match).* Identifying mark (NM) National Match shall be noted on the weapon. The rifle is of the same basic design and operation as the standard service issue M14 Rifle. The rear sight has a hooded eyepiece. Rifle is assigned part No. 5910841 with the following basic issue items included:

Magazine, Cartridge7790183 2 ea

Sling, Small Arms: M19077141245 1 ea

c. *7.62-MM Rifle M14 (M) (National Match).* The M14(M) (modified) rifle is basically the M14 service rifle with the addition of welding operations performed on the selector, shaft lock, the selector shaft lock-retaining pin, the selector shaft, the receiver and the sear release. Rifle is assigned part No. 5910842 with the following basic issue items included:

Magazine, Cartridge7790183 2 ea

Sling, Small Arms: M19077141245 1 ea

*This bulletin supersedes TB 9-1000-237-12, 28 March 1966.

d. *Caliber .30 Rifle M1 (National Match)*. Identifying mark (NM) National Match shall be noted on the weapon. The rifle is of the same basic design and operation as the standard service issue M1 rifle. The rear sight has a hooded eyepiece. The rifle is assigned part No. 5910565 with the following basic issue item included:

Sling, Small Arms: M190771412451 ea

4. Inspection. Inspections required for match grade weapons are described as follows:

a. *Caliber .45 Automatic Pistols*.

- (1) FIRST-Clear the weapon.
- (2) NEVER-Interchange parts between pistols.
- (3) Inspect barrel bore for obstructions, pits, or bulges.
- (4) Inspect the safety factors for serviceability.
- (5) Inspect the magazine for smoothness of operation.
- (6) Inspect the magazine catch for retention of magazines.
- (7) Inspect slide for operation and function.
- (8) Inspect security of barrel when slide is in battery.
- (9) Inspect the following, after disassembly.
 - (a) Inspect all pins for proper fit and size.
 - (b) Inspect condition of springs.
 - (c) Inspect bullet ramp for smoothness.
 - (d) Inspect disconnecter radial groove in slide for smoothness.
- (10) Inspect the following, after assembly.
 - (a) Inspect the weapon, function by hand cycle.
 - (b) Inspect trigger mechanism for creep.
 - (c) Inspect trigger pull for minimum 4-1/2 pounds, and maximum 5 pounds, pull requirement.
 - (d) Inspect trigger pull with each magazine.
- (11) Inspect to determine reliability and accuracy when required by the following functions and targeting tests.
 - (a) Fire three magazines of M1911 match ball caliber .45 ammunition.
 - (b) Inspect performance of pistol and magazine by slowly firing the first three rounds in each magazine.
 - (c) Inspect general performance of weapon by rapid firing of the four remaining rounds in each magazine.
 - (d) Pistol must group five out of seven shots within or cutting a 2-inch circle at 25 yards or 22.8 meters with match quality ammunition from bench rest.
 - (e) Pistol must group five out of seven shots within a 5-inch circle drawn concentrically above the bull's-eye, with sights aligned at 6 o'clock, on a 3-inch bull's-eye at 50 yards or 45.7 meters.
- (12) If a pistol malfunctions at any one of the above tests this is cause for rejection.

b. *7.62-MM Rifle M14*.

- (1) FIRST-clear the weapon.
- (2) Inspect the bore for obstructions such as bullet in bore or ruptured cartridge case in chamber.
- (3) Inspect the stock, handguards and exterior surfaces for cracks, burs, bent or broken, and/or missing parts.
- (4) Inspect the following, after disassembly:
 - (a) Inspect bore for pits, rings and/or bulges.
 - (b) Inspect chamber for pits.
 - (c) Inspect headspace of chamber:
Maximum1.6455Gage 7274790
 - (d) Inspect breechbore diameter:
Maximum0.306Gage 7274761
 - (e) Inspect gas cylinder piston hole diameter:
NOT-GO0.5009Gage 7274755
 - (f) Inspect gas piston diameter:
NOT-GO0.4968Gage 7274757
 - (g) Inspect firing pin hole:
0.083Gage 7458398
 - (h) Inspect firing pin protrusion:
Minimum0.044Gage 7274736
Maximum0.060Gage 7274736
- (5) Operating rod assembly shall function freely and without binding during a simulated firing cycle, after the removal of operating rod spring.

- (6) Inspect the following, after assembly.
 - (a) Inspect clearance between barrel and stock.
 - (b) Inspect for proper fit of barrel and receiver group in the stock.
 - (c) Inspect position of handguard and stock, use feeler gage.
 - (d) Inspect gas cylinder for fit with splines on the barrel.
 - (e) Inspect gas cylinder plug, for 15 foot-pounds of torque ± 2 foot-pounds.
 - (f) Inspect trigger pull:

Minimum	4.5 pounds
Maximum	6 pounds
 - (7) Inspect the following, after the weapon has been manually functioned.
 - (a) Function fire 30 rounds of standard ball ammunition.

<i>Range</i>	<i>Rear sight windage</i>	<i>aperture elevation</i>	<i>sights aligned</i>
100 meters	0.....	8 clicks	6 o'clock
 - (b) Use match quality ammunition, for targeting and accuracy.
 - (c) Group five consecutive shots within 3.1-inch circle, after a 3-shot warmup.
 - (d) Group five consecutive shots within 4-inch circle, after a 15-shot warmup.
 - (8) Targeting will be accomplished using a bench rest.
 - (9) Any malfunction is cause for rejection of the weapon.
- c. 7.62-MM Rifle M14(M). Refer to *b* above.
- d. Caliber .30 Rifle M1.
- (1) FIRST--Clear the weapon.
 - (2) Inspect the bore for obstruction such as bullet in bore or ruptured cartridge case in chamber.
 - (3) Inspect the stock, handguard and exterior surfaces for cracks, burs, bent or broken, and/or missing parts.
 - (4) Inspect the timing, utilizing gage 7319920.
 - (5) Inspect clearance between barrel and stock (0.005) with feeler gage.
 - (6) Inspect the following, after disassembly.
 - (a) Inspect bore for pits, rings and/or bulges.
 - (b) Inspect chamber for pits.
 - (c) Inspect headspace:

Minimum	1.940	Gage 7319944
Maximum	1.946	Gage 7319950
 - (d) Inspect breechbore diameter:

Reject.....	0.306	Gage 5564343
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 - (e) Inspect barrel gas cylinder bearing diameter:

NOT-GO.....	0.5991-0.0001	Gage 7319918
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 - (f) Inspect gas cylinder pistol hole diameter:
 - (g) Inspect gas piston diameter:

NOT-GO.....	0.5250	Gage 7319911
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 - (h) Inspect firing pin protrusion:

Minimum	0.044	7274736
Maximum	0.00	7274736
 - (7) Operating rod assembly shall function freely and without binding during a simulated firing cycle, after the removal of operating rod spring.
 - (8) Inspect the following, after assembly.
 - (a) Inspect clearance between barrel and stock, (d(5)) above.
 - (b) Inspect position of handguard and stock, use feeler gage.
 - (c) Inspect gas cylinder for fit with splines on the barrel.
 - (d) Inspect gas cylinder lock for correct locking position, / turn.
 - (e) Inspect trigger pull for minimum 4-1/2 pounds and maximum 6 pounds.

- (9) Inspect the following, after the weapon has been manually functioned.
- (a) Function fire 30 rounds of standard ball ammunition.
- | | | | |
|------------------|---------------------------|---------------------------|-----------------------|
| <i>Range</i> | <i>Rear sight windage</i> | <i>aperture elevation</i> | <i>sights aligned</i> |
| 100 meters | 0..... | 8 clicks | 6 o'clock |
- (b) Use match quality ammunition, for targeting and accuracy.
- (c) Group five consecutive shots within 3.1-inch circle, after a 3-shot warmup.
- (d) Group five consecutive shots within 4-inch circle, after a 15-shot warmup.
- (10) Targeting will be accomplished using a bench rest.
- (11) Any malfunction is cause for rejection of the weapon.

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