

MIL-W-13855D(AR)  
INT. AMENDMENT 4  
9 October 1994  
SUPERSEDING  
AMENDMENT 3  
20 April 1983

## MILITARY SPECIFICATION

### WEAPONS: SMALL ARMS AND AIRCRAFT ARMAMENT SUBSYSTEMS, GENERAL SPECIFICATION FOR

This interim amendment is approved for use by the Department of the Army with Military Specification MIL-W-13855D(AR) dated 21 February 1973.

PAGE 1 AND 2

- 2.1 Delete "MIL-STD-1000 - Drawings, Engineering and Associated Lists".

Delete "MIL-STD-100 - Engineering Drawing Practice".

Delete "MIL-STD-143 - Specifications and Standards: Order of Precedence of the Selection of".

PAGE 5

- 3.4.2 Delete in its entirety and substitute:

"3.4.2 Contractor's design. When specified (see 6.2), the contractor shall provide technical data as specified on the Contract Data Requirements List (DD Form 1423) on items or parts for which the Government does not prescribe the design.

- 3.4.3 Delete in its entirety.

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- 3.4.4.3 line 6 Change "0.005 to 0.015" to "0.0000 to 0.015 inch".

- 3.4.6.1 Delete in its entirety and substitute:

"3.4.6.1 Commercial repair parts. Repair parts specified by commercial designations shall be interchangeable. If these parts are no longer manufactured, the contractor shall furnish the procuring activity a statement to that effect with information, including name and number, regarding the part he proposes to furnish. Each such part shall be interchangeable

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with the part originally specified and shall be approved by the procuring activity prior to acceptance. If not interchangeable the contractor shall furnish information on adaptation required to utilize the part he proposes to furnish in place of the part originally specified."

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3.5.2.2 Delete: "Surfaces and sections that are not riveted together to make a rigid assembly shall make good contact with each other". And substitute: "Surfaces and sections that are riveted together to make a rigid assembly shall make good contact with each other".

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3.5.4.4.1 Delete in its entirety and substitute:

"3.5.4.4.1 Carburized case depth. The carburized case depth shall be as specified on the drawings and is established as the total distance of carbon penetration from the outer cased surface to the point of uniform inner core structure."

3.5.4.4.2 delete in its entirety and substitute:

"3.5.4.4.2 Effective case depth. The effective case depth shall be as specified on the drawings and is established as the perpendicular hardness measured from the outer cased surface toward the inner softer core structure to a point where the hardness is equivalent to Rockwell C-50."

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3.5.5.2b Delete in its entirety and substitute:

"3.5.5.2b Black Oxide finishes shall be coated with a film of oil conforming to W-L-800."

PAGE 10

TABLE I, "TOUCH UP (REFINISHING) SCHEDULE":

Delete "6.4.2 + Lacquer, MIL-L-19538: Colorless" and substitute "6.4.2 + MIL-L-46147".

Delete "Lacquer, MIL-L-19538: Colorless" and substitute "MIL-L-46147".

Delete "Lacquer, MIL-L-19538: Color: Flat Black No. 37038" (three places) and substitute MIL-L-46147"

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Delete "Lacquer, MIL-L-19538: Color: As applicable" (three places) and substitute "MIL-L-46147 and MIL-L-46168, Color: As applicable".

Delete "Brush applied 7.3 series + Lacquer, MIL-L-19538: Color: As applicable" and substitute "Brush applied 7.3 series + MIL-L-46147 and MIL-L-46168, Color: As applicable".

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3.6.4 Delete in its entirety.

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Add the following two paragraphs:

"4.5.8 Carburized case depth test. When carburized case depths are specified on the drawing, the contractor shall record and maintain on file, for the Government representative, certified test reports of case depth tests of three samples from each heat treat batch. The test specimen shall be a component, a scrap component, or a test piece of the same material and of similar cross section. The test specimen shall be cut perpendicular to the cased surface and the cut surface shall then be prepared by grinding and/or rough Polishing to remove the effects of the original cut. The prepared surface shall be etched with a 1-10% solution of nitric acid in alcohol and for sufficient length of time to develop a contrast in case and core structure. The measurement of case depth shall be determined at a magnification not lower than 10 diameters. Test shall be performed on three items or test specimens strategically located within, and processed simultaneously with the respective heat treat batch. The three items or test specimens shall be retained by the contractor. The test reports shall contain, as a minimum, carburized case depth test data as follows:

- a. Test specimen identification.
- b. Material identity.
- c. Item identity (nomenclature).
- d. Furnace heat treat batch number.
- e. Specification and/or drawing number with revision symbol and date.
- f. Test method and criteria applicable.
- g. Number of specimens tested and specific test results obtained."

"4.5.9 Effective case depth test. When effective case depths are specified on the drawing, the contractor shall record and maintain on file, certified test reports and three test

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specimens from each heat treat batch. The test specimen shall be a component, a scrap component or a test piece-of the same material and of similar cross section. The test specimen shall be cut perpendicular to the cased surface and the cut surface shall then be prepared by grinding and/or rough polishing to remove the effects of the original cut. A hardness test capable of providing a valid reading shall be used to establish the Rockwell C-50 point for the effective case depth. Where the validity of a Rockwell "C" test is suspected, an alternate test such as Rockwell Superficial, Rockwell Microficial, Knoop, or Diamond Pyramid Hardness should be used to establish the equivalent Rockwell "C" point. Test shall be performed on three items or test specimens strategically located within, and processed simultaneously with, the respective heat treat batch. "The test reports shall contain, as a minimum, effective case depth test data as follows:

- a. Test specimen identification.
- b. Material identity and item identity.
- c. Furnace heat treat batch number.
- d. Specifications and/or drawing number with revision symbol and date.
- e. Test method and criteria applicable.
- f. Number of specimens tested and specific test results obtained."

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6.2 Add:

"j. Technical data requirements, when required (see 3.4.2)."

The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Preparing activity:  
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