

MIL-W-13855D
AMENDMENT 2

~~30 May 1975~~
~~SUPERSEDING~~
AMENDMENT 1
22 February 1974

MILITARY SPECIFICATION

WEAPONS: SMALL ARMS AND AIRCRAFT ARMAMENT

SUBSYSTEMS, GENERAL SPECIFICATION FOR

This amendment forms a part of Military Specification MIL-W-13855D, dated 21 February 1973, and is approved for use by all Departments and Agencies of the Department of Defense.

Page 1 and 2

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

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

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

Page 5

Para 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."

Para 3.4.3 - Delete in its entirety.

Page 6

Para 3.4.4.3, line 6 - Change "0.005 to 0.15" to "0.005 to 0.015 inch".

Para 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

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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 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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Para 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."

Para 3.5.4.4.2 - Delete in its entirety and substitute:

"Para 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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Para 3.5.5.2 b - Delete in its entirety and substitute:

"Para 3.5.5.2 b. Black oxide finishes shall be coated with a film of oil conforming to VV-L-800."

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Para 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

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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. Tests 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 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. Tests 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 and item identity.
- c. Furnace heat treat batch number.
- d. Specification 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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Para 6.2 - Add:

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

Custodians:

Army - WC

Navy - OS

Air Force - 84

Preparing activity:

Army - WC

Project number:

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Review activities:

Navy - OS, AS, MC

Air Force - 84