

INCH-POUND

MIL-C-15726F  
AMENDMENT 1  
8 October 1991

## MILITARY SPECIFICATION

### COPPER-NICKEL ALLOY, SHEET, PLATE, STRIP, BAR, ROD, AND WIRE

This amendment forms a part of MIL-C-15726F, dated 25 October 1988, and is approved for use by all Departments and Agencies of the Department of Defense.

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4.3, Delete and substitute "4.3 Test procedures."

4.3.3, Delete and substitute:

"4.3.3 Nondestructive tests. Items selected as specified in 4.2.5 shall be inspected by ultrasonic and liquid penetrant inspections as specified herein."

4.3.3.1, Delete and substitute:

"4.3.3.1 Ultrasonic inspection. Ultrasonic inspection shall be performed in accordance with MIL-STD-271 as modified by the requirements specified herein. Testing shall be done by the longitudinal wave technique as specified herein. Sheet, strip and wire do not require ultrasonic inspection."

4.3.3.1.1, Delete and substitute:

"4.3.3.1.1 Calibration. The longitudinal wave test shall be calibrated on a flat bottomed reference hole of a diameter as specified in table IV. Holes shall be drilled either into the piece to be tested or into a separate defect free specimen of the same size, shape, material and condition. Holes are to be drilled to mid-section in material up to 1-1/2 inches thick and at least 3/4 inch deep, but no greater than mid-section, in material over 1- 1/2 inches thick, and are to be normal to the surface. The ultrasonic test instrument shall be adjusted so that the response from the reference hole shall be not less than 25 percent and not more than 100 percent of screen height."

AMSC N/A

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Table IV - Ultrasonic testing reference hole.

Bars and Rods	
Material thickness, inches	Hole diameter, inches
Up to and including 6	1/8
Over 6 and including 16	1/4
Plate	
Material thickness, inches	Hole diameter, inches
Up to and including 4	1/4
Over 4	1/2

4.3.3.1.2 through 4.3.3.1.4: Add new paragraphs as follow:

"4.3.3.1.2 Procedure. The following paragraphs describe the requirements for rod, bar and plate. Procedures for inspecting shapes other than those listed below shall be approved.

a. Rod and round bar. Rod and round bar shall be tested using the longitudinal wave technique. The scanning path shall be circumferential or helical with the beam directed along a radius of the rod.

b. Multisided bar. Multisided bar shall be tested using the longitudinal wave technique through each pair of parallel sides.

c. Plate. Plate shall be inspected using the longitudinal wave technique using continuous scanning on an 8 inch grid, and one diagonal in each grid.

4.3.3.1.3 Acceptance criteria. Any material which produces indications equal to or larger than the response from the flat bottomed hole or which produces a complete loss of back reflection shall be rejected.

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4.3.3.1.4 Reference notch removal. If flat-bottomed holes are made in the material to be tested, they shall be so located that their subsequent removal will not impair the suitability of the material for its intended use."

4.3.3.2, Delete and substitute:

"4.3.3.2 Liquid penetrant inspection. Liquid penetrant inspection shall be in accordance with MIL-STD-271."

4.3.3.2.1: Add new paragraph:

"4.3.3.2.1 Acceptance criteria. All surfaces shall be free of linear indications and of linearly disposed rounded indications. Rounded indications are defined as any indications which are circular or elliptical with the long axis less than three times as long as the other axis and with no sharp corners. Linearly disposed rounded indications are defined as four or more rounded indications in a line with each separated from the adjacent indications by less than 1/16 inch. Rounded indications which are not linearly disposed shall be evaluated in accordance with table V. Material exhibiting rounded indications in excess of those permitted by table V shall be rejected."

Table V - Allowable non-linear rounded indications.

Maximum size inch	Cumulative Number per square inch
Up to 1/32, incl.	20
Over 1/32 to 1/16, incl.	10
Over 1/16	0

Custodian:  
Navy - SH  
Army - MR

Preparing activity:  
Navy - SH  
(Project 9525-0172)

Review activities:  
Army - MI  
Navy - MC  
DLA -IS

User activity:  
Army - ME