AEROSPACE
MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

AMS 7320B

Issued 10-15-40
Revised 6-30-62

SEALING RINGS, CAST LEADED BRONZE
79Cu - 16Sn - 5Pb

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

2. APPLICATION: Primarily for drilled oil seal rings.

3. COMPOSITION:

Copper	78.0 - 82.0
Tin	15.0 - 17.0
Lead	4.0 - 6.0
Copper + Tin + Lead	99.0 min

4. CONDITION: As cast.

5. TECHNICAL REQUIREMENTS:

5.1 Hardness: Finished rings shall have hardness of Rockwell B 72 - 82 or equivalent.

5.2 Finish: Rings shall be finished all over. Periphery shall be turned smooth, inside diameter shall be turned smooth or ground, and sides shall be ground or lapped, unless otherwise specified on drawing. Markings resulting from hammering or rolling operations will be permissible.

5.3 Squareness of Periphery: The periphery shall be square with the sides within 0.0005 inch.

5.4 Light-Tightness of Periphery: When finished ring is placed in a circular gage having ID equal to the gage diameter of the ring ± 0.0005 in., not less than 85% of the periphery of the ring shall be light-tight; fuzzy light shall be considered the same as light-tight. Ring shall be rendered 100% light-tight by application of radial load not greater than 5 lb to the ID of the ring. Light source shall be a 40 w lamp.

5.5 Thickness: Wall thickness of rings shall be within the limits specified on the drawing, but shall vary not more than 0.004 in. throughout the circumference of any one ring.

6. QUALITY:

6.1 Finished rings shall be uniform in quality and condition, clean, sound, and free from foreign materials and from internal and external imperfections detrimental to their performance.

6.2 Fracture Test: When rings are broken for fracture test, the fracture shall have uniform color and be substantially free from oxides, blowholes, and other imperfections. Rings shall be sufficiently ductile to show some bending before rupture.