AERONAUTICAL MATERIAL SPECIFICATION
Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 2666
Issued 6-15-50
Revised

SILVER BRAZING
High Temperature

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

2. APPLICATION: Joining iron, copper, nickel and cobalt alloys by the use of silver alloys where joints having high strength up to 800 F are required.

3. PROCESS REQUIREMENTS:

3.1 Surface Condition: The surfaces to be joined shall be clean prior to assembly. Surfaces shall not be highly polished.

3.2 Fluxing: Unless gaseous flux is used in conjunction with furnace brazing, suitable paste or liquid flux shall be applied so that the surfaces to be joined are completely coated.

3.3 Assembly: The parts to be joined shall be assembled so that the clearances between mating surfaces are within the tolerances specified on the drawing. (Note: A clearance of 0.0015 inch on a side is considered optimum.) The assembly should be supported so that the parts will be in proper alignment after brazing.

3.4 Brazing Material: Unless otherwise specified, silver brazing alloy shall conform to AMS 4772. Sufficient brazing alloy shall be placed within, or in close proximity to, the joint.

3.5 Joining: Unless otherwise specified, heating and joining may be effected by any of the following methods: furnace, electrical induction, electrical resistance, molten salt, molten brazing alloy, torch or burner. Furnace brazing shall be performed in a suitable protective atmoshpere. Parts shall be heated until the brazing alloy melts and the joint is formed. Further heating shall be held to a minimum. The temperature to which joint areas are heated will vary with the method of heating and the flux used but should not exceed 1725 F. Furnace brazing and immersion brazing may be used only when hardness of detail parts will not be reduced below the drawing limits.

3.6 Cooling: After brazing, and prior to handling, assemblies shall be cooled for a sufficient time to allow the brazing alloy to solidify and in such a manner as to prevent cracks and minimize internal stress, distortion and scaling.

3.7 Flux Removal: After brazing and cooling, flux shall be removed from the parts by a method not injurious to the specified surface finish.

4. QUALITY:

4.1 Visual examination of joints shall show at all joint edges a complete line or ring of silver brazing material.

Printed in U.S.A.