AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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BEARINGS - SILVER
Steel Back

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

2. FORM: Bearings shall consist of silver electrodeposited on a steel back.

3. COMPOSITION: (a) Silver as plated shall be not less than 99.9% pure, but actual determination of purity shall not be required as a routine inspection procedure; the process of plating shall be controlled to produce this purity.

(b) Unless otherwise specified on drawing, composition of steel back shall conform to the following:

Carbon	0.10 - 0.25
Manganese	0.30 - 1.00
Phosphorus	0.04 max
Sulphur	0.05 max

4. PROCEDURE: (a) Unless otherwise specified, roughness of surfaces to be plated shall not exceed 80 microinches RMS prior to cleaning.
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(b) Bearings having hardness greater than Rockwell C55 in any area which is ground before plating shall be suitably stress-relieved between grinding and cleaning for plating.

(c) Bearings shall be clean when immersed in plating solutions.

(d) Electrical contacts shall be made in such manner as will insure that no chemical or immersion deposition will occur.

(e) Unless otherwise specified by purchaser, plating of bearings shall be conducted in the following sequence:

(1) Nickel strike unless copper strike is authorized.
(2) Silver strike.
(3) Silver plate.

(f) Unless otherwise specified, bearings, after plating, shall be heated as follows:

(1) Bearings plated using nickel strike shall be heated to 940 - 960°F and held at temperature not less than 20 minutes nor more than 1 hour; temperature of the parts shall not be over 400°F more than 7 hours, and above 400°F the heating and cooling medium shall be a neutral or reducing atmosphere or a neutral or non-oxidizing molten salt bath.