

Issued June 13, 1940

Revised \_\_\_\_\_

Revised \_\_\_\_\_

## AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.

29 West 39th Street

New York City

AMS  
2800

Page 1 of 3 Pages

### IDENTIFICATION Machined Parts

1. **ACKNOWLEDGMENT:** A vendor must mention this specification number and its last revision in all quotations and when acknowledging purchase orders.
2. **OBJECT:** This specification includes instructions for either temporary or permanent marking of parts, and its application may be for one of the following purposes:

(a) To prevent the use of any detrimental or damaging marks on parts so indicated.

Note. When the drawing carries this specification number, but does not indicate a method and location of marking, no further requirements of this specification need be considered; however, inspection or temporary identification marks in accordance with sections 12 and 13 are permissible. Drawings may or may not show location of such marks, but when not shown, location is optional except as indicated in paragraph 12c.

(b) To definitely establish and describe methods of marking parts when a permanent identification is required. Drawings of such parts must clearly indicate the method of marking to be used and its location on the part. Inspection or temporary identification marks are also permissible in accordance with sections 12 and 13. Drawings may or may not show location of such marks, but when not shown, location is optional except as indicated in paragraph 12c.

#### Permanent Markings

3. **STAMP:** (a) The word "stamp" used on drawings is intended to be a permanent identification and is an impression cut, pressed or stamped into the part with suitable tools. The impressions shall not be deeper than 0.003" and all intersecting surfaces of the impressions shall have fillets of not less than 0.006". Care must be exercised to prevent distortion while marking; parts damaged by marking are subject to rejection.
4. **ENGRAVE:** (a) The word "engrave" used on drawings is intended to be a permanent identification and is an impression cut or peened into the part by means of a suitable round-nosed tool. A pantograph transferring machine, or a machine producing a similar impression, is satisfactory. The depth of the impressions shall be 0.001" - 0.003". Acid etching may be substituted for engraving but the same depth of impression must be produced.

(b) The words "deep engrave" used on drawings indicate the same type of marking as "engrave", except that the depth of the impressions shall be 0.002" - 0.006".

5. **ELECTRIC ETCH:** (a) The words "electric etch" used on drawings is intended to be a permanent identification and is an impression made in the part by means of an electric arc between the part and a suitable scriber. The desired intensity of etch can usually be produced by an open circuit AC voltage of not over 2 volts, but samples shall be subject to approval by the purchaser.
- (b) The words "deep electric etch" used on drawings indicate the same type of marking as "electric etch", except that the usual voltage will be 1.5 to 3 volts, producing a greater intensity of etch.
6. **ACID ETCH:** (a) The words "acid etch" used on drawings is intended to be a permanent identification and is an impression made in the part by the use of strong acids. A machine may or may not be used to form the characters, but care must be exercised to prevent acid spreading to surrounding areas. The depth of the impressions shall be 0.001" - 0.003". The surface to be etched must be clean, and after etching the acid must be neutralized and the surface oiled to prevent corrosion.
- (b) The words "deep acid etch" used on drawings indicate the same type of marking as "acid etch", except that the depth of the impressions shall be 0.003" - 0.005".
7. **SCRIBE:** (a) The word "scribe" used on drawings is intended to be a permanent identification and is an impression cut or scratched into the part by means of a suitable tool, operated by hand. The depth of the impressions shall be 0.001" - 0.003". Acid etching may be substituted for scribing but the same depth of impression must be produced.
- (b) The words "heavy scribe" indicate the same type of marking as "scribe", except that the depth of the impressions shall be 0.002" - 0.006".
8. **CONTACT SURFACES:** When permanent marking is specified on a surface which will be in contact with another surface, the drawing will indicate that the marked surface shall have all raised metal or burrs removed, if this is considered necessary.
9. **PRECAUTIONS:** (a) No permanent marking shall be nearer than 1/32" to any corner, fillet, or sharp edge, unless otherwise shown on the drawing.
- (b) No permanent marking of any kind shall be placed on a surface which is moving against another surface.
10. **VENDOR'S IDENTIFICATION:** Purchased parts shall not be marked with the manufacturer's name or trade-mark unless so specified on the drawing. Where identification of the vendor is desired, this shall be accomplished by a letter or letters allocated to each vendor by the purchaser, unless a serial number is used to identify the vendor. The location and method of marking will be specified on the drawing. When identification of a sub-assembly which is made by a vendor is desired, this shall be accomplished by an "A" dash (A-) followed by the letter or letters allocated to that vendor. When all the details of a sub-assembly are made by the same vendor who makes the sub-assembly and are purchased assembled, it is not necessary to mark each detail with the vendor's identification. When feasible, instead of allocated letters the drawing will specify that vendor's identification of a particular part is to be accomplished by small variations in finishing corners, fillets, etc., permissible variations being shown on the drawing and allocated by purchaser.