

AERONAUTICAL MATERIAL SPECIFICATION

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IDENTIFICATION Finished Parts

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. APPLICATION: Prevention of detrimental marking and instructions for restricted and unrestricted marking of parts.
3. GENERAL REQUIREMENTS:
 - 3.1 Parts shall not be marked except in accordance with this specification, unless otherwise specified.
 - 3.2 Parts for which the drawings do not indicate a method and location of marking shall have neither Restricted Markings as described below nor other harmful markings, either intentional or caused by poor workmanship.
 - 3.3 When practicable, the part number shall be on the part. If possible, the part number shall be located so as to be visible after assembly. Assemblies which are permanently attached together by welding, brazing, soldering, or riveting shall include, in addition to the number, the letters "ASSY" located following or immediately below the number.
 - 3.4 Vendor Identification: Purchased parts shall not be marked with the vendor's identification, unless so specified on the drawing or by other authorization.
 - 3.4.1 Vendor's identification shall be by a letter or letters or other characters assigned by the purchaser and these marks, in addition to other marks specified, shall be applied to the parts when, and only when, specified by method and location.
 - 3.4.2 When vendor identification of a sub-assembly is specified, this shall be accomplished by an "A dash" (A-) followed by the characters assigned to that vendor. When all the details of a brazed, welded or riveted 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.
 - 3.5 Restricted marking is not recommended on contacting surfaces or on a surface which is in motion with respect to the mating surface during the operation of the parts, but, when specified, the drawing will also specify that all raised metal and burrs be removed, if considered necessary.
 - 3.6 Restricted marking shall be not nearer than 0.031 in. to any corner, fillet, or sharp edge, unless otherwise shown on the drawing.
 - 3.7 The height of the marking characters to be used for 4.1 shall not exceed 0.10 in. and for 4.2, 4.3, 4.4, 4.5, and 5.2 shall be 0.09-0.20 in., unless otherwise specified on the drawing.

Section 7C of the SAE Technical Board rules provides that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended practice, and no commitment to conform to or be guided by any technical report, in formulating and approving technical reports, the Board and its Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents."

4. RESTRICTED MARKINGS:

4.1 Stamp:

4.1.1 The word "stamp" indicates a permanent marking which is an impression cut, pressed, stamped, rolled, or peened into the part with suitable tools. The depth of the impressions shall be 0.001-0.003 in. and all intersecting surfaces of the impressions shall have fillets of not less than 0.006 in. Care shall be exercised to prevent distortion while marking; parts damaged by marking are subject to rejection.

4.1.2 The words "heavy stamp" indicate the same type of marking as "stamp", except that the depth of the impressions shall be 0.002-0.006 in.

4.2 Engrave:

4.2.1 The word "engrave" indicates a permanent marking which is an impression cut or peened into the part by means of a suitable round-nosed tool. A rotating cutter or an axially vibrating needle is satisfactory and a pantograph transferring machine may be used to guide the marking tool. The depth of the impressions shall be 0.001-0.003 in.

4.2.2 The words "deep engrave" indicate the same type of marking as "engrave", except that the depth of the impressions shall be 0.002-0.006 in.

4.3 Electric Etch:

4.3.1 The words "electric etch" indicate a permanent marking which is an impression made on 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.

4.3.2 The words "deep electric etch" indicate the same type of marking as "electric etch", except that the usual voltage will be 1.5-3 volts, producing a greater intensity of etch.

4.4 Acid Etch:

4.4.1 The words "acid etch" or "stencil etch" indicate a permanent marking which 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 shall be exercised to prevent acid or fumes spreading to surrounding areas. The depth of the impressions shall be 0.0006-0.003 in. The surface to be etched shall be clean, and, after etching, the acid shall be neutralized and the surface oiled to prevent corrosion.

4.4.2 The words "deep acid etch" indicate the same type of marking as "acid etch", except that the depth of the impressions shall be 0.002-0.004 in.