



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
TWO PENNSYLVANIA PLAZA, NEW YORK, N. Y. 1000

AMS 2375

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Revised

APPROVAL AND CONTROL OF CRITICAL FORGINGS

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. APPLICATION:
 - 2.1 Primarily for critically stressed forgings which require approval of the forging and where assurance is required that production runs of the part are of the same metallurgical quality and are produced by the same basic procedures as the forgings originally qualified.
 - 2.2 These requirements shall be applicable only when this AMS is referenced on the purchaser's part drawing, or purchase order.
3. TECHNICAL REQUIREMENTS:
 - 3.1 Material:
 - 3.1.1 Vendor shall determine that the forging stock complies with the requirements of the applicable material specification.
 - 3.1.2 When specified, forging stock shall be procured only from sources approved by the purchaser.
 - 3.2 Preproduction Forgings:
 - 3.2.1 The vendor shall produce preproduction forgings, heat treat these forgings as specified in the applicable material specification or on the drawing, and shall test a representative forging or section thereof in accordance with the types of tests and designated test locations shown on the forging drawing or purchase order. When specified, a second forging or balance of the vendor test forging shall be furnished the purchaser for test. Unless otherwise specified, the qualification forgings may be produced as part of the initial production run.
 - 3.2.2 One or more sections taken through designated areas in the test forgings shall be suitably prepared and etched to reveal the cross sectional structure (grain flow, if discernible) developed in the forging. The section or sections may also be used for general macrostructure examination and hardness surveys. Photographs of the section or sections shall be furnished to the purchaser, when requested.
 - 3.2.3 A resume of the control factors of processing used to produce preproduction forgings shall be submitted with the results of tests conducted on the qualification forgings. This shall include nominal stock size, type(s) of equipment used, number and types of forging operations, forging temperature range, heat treatment temperatures, times, and methods of cooling. Alternatively, the resume need not be submitted with the test results but shall be prepared and kept on file for inspection by the purchaser at any time.
 - 3.2.4 Production forgings shall not be shipped until receipt of written approval of the preproduction material from the purchaser.

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