



Designation: A 291 – 023

An American National Standard

Standard Specification for Steel Forgings, Carbon and Alloy, for Pinions, Gears and Shafts for Reduction Gears¹

This standard is issued under the fixed designation A 291; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This specification covers normalized and tempered carbon steel and quenched and tempered alloy steel forgings for pinions, gears, and shafts.

1.2 Several ~~classes~~ grades of steel are covered as follows:

1.2.1 ~~Class~~Grade 1 Class A is normalized and tempered carbon steel.

1.2.2 ~~Classes~~Grade 2 Class B, Grade 3 Class C, Grade 3A Class D, Grades 4 to 7 Classes E, F, G, and H, Grade 8 Class I, and Grade 9, incl. Class J are liquid quenched and tempered alloy steel.

1.3 All grades and classes are considered weldable under proper conditions. Welding technique is of fundamental importance and it is presupposed that welding procedure and inspection shall be in accordance with approved methods for the class of material used.

1.4 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 *ASTM Standards:*

A 275/A 275M Test Method for Magnetic Particle Examination of Steel Forgings²

¹ This specification is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel and Related Alloys, and is the direct responsibility of Subcommittee A01.06 on Steel Forgings and Billets.

Current edition approved ~~June~~ Apr. 10, 20023. Published June 20023. Originally ~~published as A291-46; approved in 1946.~~ Last previous edition ~~A291-95 (1999); approved in 2002 as A291-02.~~

*A Summary of Changes section appears at the end of this standard.