

**MERITOR®**2135 West Maple Road
Troy, MI 48084-7121

Material Specification

Specification: B-79

Revision Date: 12/09/2013

Revision Level: J

ALLOY STEEL STRUCTURAL GRADE - SAE 8822H

- 1.0 GENERAL SPECIFICATION: Material Specification B-1. All the requirements for the general specifications apply unless superseded by the requirements within this specification.
- 2.0 SCOPE: This specification covers a carburizing grade alloy steel, SAE 8822H.
- 3.0 CHEMISTRY:

Chemical Property	Range (wt.%)
Carbon	0.19 - 0.25
Manganese	0.70 - 1.05
Silicon	0.15 - 0.35
Nickel	0.35 - 0.75
Chromium	0.35 - 0.65
Molybdenum	0.30 - 0.40
Phosphorus	0.035 max
Sulfur*	0.025 - 0.040

* The material must still meet the inclusion ratings specified per B-1. Aim sulfur 0.028-0.040% to aid in machinability

- 4.0 HARDENABILITY: For Drive Axle Gearing only.

Jominy Distance (1/16 inch)			
Scale	J4	J8	J12
HRC min	40	30	26
HRC max	46	35	31

- 5.0 HARDNESS: For Ring Gears - 229 BHW maximum for Aichi Forge.

- 6.0 REFERENCE SPECIFICATIONS:

Industry Affiliation	Standard Number and revision Date	Title of Standard
Meritor	B-1	General Wrought Steel Standard

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Date	Change
12/9/2013 Level J Request 30272-176	Reformatted and updated the Header / Footer. Added clarifying sentence to General Specification section. Tabularized Chemistry and Hardenability sections. Added Reference Specification section.
12/05/2009 Level H Request 31521-2	Name change. Aichi Forge was formerly Louisville Forge.
11/5/2008 Level G Request 30272-82	Added (1/16 inch) to Jominy Distance
12/5/2006 Level F Request 26188-28	Sulfur aim was 0.028-0.032%. Changed "sulphur" to "sulfur"
2/5/2006 Level E Request 25813-2	Added minimum on sulfur range; sulfur content was 0.040% max. Sulfur aim was 0.025% minimum. Reiterated the requirement of inclusion ratings per B1
10/5/2004 Level D Request 24691-1	Added a 0.025% min. sulfur aim
3/15/95 Level C	Added Hardness sect
4/15/93 Level B	Chemistry ranges were non H steel
8/15/92 Level A	J8 min was HRC 31
12/15/91	Issued

Approved By: S. Doyle
Director - Materials Engineering