AMERICAN ALLOY STEEL

AH 36 – DH 36 – EH 36 / 40

Overview

These grades used primarily in shipbuilding / repair and other marine applications. The high strength characteristics service the structural requirements of ships, barges, and other types of marine equipment. The EH 40 is utilized for applications which require added strength. ABS certification is normally provided.

Chemical Requirements

*Elements represented in percentage

Element	Chemical Composition[A] (heat analysis), % max unless otherwise specified Grades AH/DH/EH32, AH/DH/EH36 and AH/DH/EH40 Deoxidation Killed, Fine Grain Practice[B]
C	0.18
Mn	0.90-1.60[C]
Si	0.10-0.50[D]
P	0.035
S	0.035
Al (acid soluble), min[E,F]	0.015
Cb[F]	0.02-0.05
V[F]	0.05-0.10
Ti	0.02
Cu	0.35
Cr	0.20
Ni	0.40
Mo	0.08
N	–

Tensile Requirements

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Grade	Tensile Strength, ksi [MPa]	Yeild Point, min ksi [MPa]	Elongation in 8 in. [200 mm][A,B], min %	Elongation in 2 in. [50 mm][B,C], min %
AH32, DH32, EH32, FH32	64 to 85 [440 to 590]	46 [315]	19	22
AH36, DH36, EH36, FH36	71 to 90 [490 to 620]	51[365]	19	22
AH40, DH40, EH40, FH40	74 to 94 [510 to 650]	57[390]	19	22