TorqBolt Inc

MATERIAL GRADE DATA SHEET

SB 564

HIGH TENSILE

NICKEL ALLOY

BOLTING MATERIAL FOR HIGH TEMPERATURE SERVICE

SB 564 covers nickel alloy forgings. These alloys are classified into different grades according to their chemical composition. A chemical analysis shall be employed on each alloy in order to determine its chemical composition. Grain size and mechanical properties like tensile strength, yield strength, and elongation shall be measured. A tension test and nondestructive ultrasonic test shall be done on each specimen. SB 564 coveres low-carbon Cr-Ni-Fe-N alloy UNS R20033. The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

Chemical Properties

C	Mn	P	S	Si	Cr	Mo	Ni	Cu	N
0.015 Max	2.0 Max	0.02 Max	0.01 Max	0.50 Max	31.0-35.0	0.50-2.0	30.0-33.0	0.30-1.20	0.35-0.60

Mechanical Properties

Yeild strength	Tensile strength	Elongation
Mpa	Mpa	%
min	min	min
380	750	40

Heat Treatment

Solution Annealed @ 1080°C & Liquid Quenched

Equivalent Designation

UNS R20033
EN number
EN Name
W.Nr.
SS
AFNOR

TorqBolt Inc

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