



# E4330M

## NiCrMoV hardened and tempered

A high strength alloy steel for applications in the aerospace industry



libertyhousegroup.com

#### Features and benefits

- A high strength alloy
- Exceptional low temperature impact properties
- Provides excellent value for money due to careful compositional and property balance

#### Heat treatment

- Normalise 899°C / Air cool
- Harden 816°C / Oil quench
- Double temper 246°C / 2 hours air cool

#### **Related specifications**

- AMS 6427, 6411
- SAE AMS 4330M
- ASTM A646
- UNS K23080

### Chemical analysis

	С	Si	Mn	Р	S	Cr	Мо	Ni	V	Cu
Min	0.30	0.15	0.75			0.75	0.40	1.65	0.05	
Max	0.33	0.35	1.00	0.025	0.010	1.00	0.50	2.00	0.10	0.35

#### Mechanical properties of typical specifications

Mechanical properties are E4330M limits after final heat treatment

	Longitudinal				
0.2%	Ksi	217			
0.2 % proof stress	ΜΡα	1496			
LITS	Ksi	260			
013	ΜΡα	1793			
Elongation	10	)			
Reduction of Area (Average)	30				
Reduction of Area (individual)	35	5			

#### Supply condition and availability

- Supplied in the hardened and tempered condition to customer specified mechanical properties
- Supplied annealed or normalised and tempered for forging and machining
- Stock sizes range in range 80mm 300mm diameter

#### **Typical applications**

Aerospace – bolting and air frames

#### Technical support

We have a comprehensive technical support team available to advise on grade selection and product range to achieve the maximum benefit. Customer Technical support provide specialist advice and help with day-to-day problem solving.

Works based metallurgists and the full resources of our Steel Research and Development Laboratories are available to assist with longer-term developments.

For further information, enquiries or any technical guidance on our range of Aerospace products please contact our experts using the details below.

#### LIBERTY SPECIALITY STEELS

7 Fox Valley Way, Stocksbridge, Sheffield, S36 2JA, United Kingdom **T:** + 44 (0) 114 288 2361 **E:** contactus@specialityuk.com

While care has been taken to ensure that the information contained in this publication is accurate, Liberty House Group does not accept

responsibility or liability for information which is found to be misleading. ©Copyright 2018 Liberty House Group.



I NiCrMoV hardened and tempered high strength alloy steel for applications in the aerospace industry