LIBERTY

STEEL

AMS 6415 / 6414 (4340)

A fatigue-resistent alloy with high toughness and strength

Air Melt and Vacuum Arc Remelted (VAR)

MEMBER OF GFG ALLIANCE

libertyhousegroup.com

AMS 6415 / 6414 (4340)

A fatigue-resistent alloy with high toughness and strength

Features and benefits

- High Strength (1800MPa)
- Good ductility
- Resistant to shock
- Excellent transverse properties in VAR material

Typical applications

- Aircraft landing gear components
- Gears
- Con Rods
- Shafts
- Structural aircraft components
- Bearing components
- Connecting rods

Related specifications

- AMS 6409
- RMS 7-26
- MIL-S-5000

Chemical analysis

	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Cu
Min	0.38	0.15	0.65			0.70	0.20	1.65		3.00
Max	0.43	0.35	0.90	0.010	0.010	0.90	0.30	2.00	0.35	5.00

Mechanical properties of typical specifications

Mechanical properties are AMS 6415 / 6414 (4340) limits

	Longitudinal	Transverse
Nominal & sectional area (Cm^2)		646 - 929
0.2 % Proof stress MPa	1469	1793
Tensile Strength MPa	1793	1496
Elongation %	10	5
Reduction of area %	30	
Reduction of area % (average of all tests)	65	25
Reduction of area % (individual test)	36	20

Supply condition and availability

- Supplied annealed, normalised or normalised and tempered
- Also available untreated for forging
- Stock sizes range in 12.7*mm - 250mm diameter

*Upon request by exception

Heat treatment

Quench and double temper

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

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