

SCOT FORGE



8001 Winn Rd., Box 8
Spring Grove, IL 60061
847/587-1000
FAX 847/587-2000

PO # P162753-423 MATERIAL CERTIFICATION

J00065 0 SS
Heat # 46405

Page 1 of 2

S O T L O D	EARLE M JORGENSEN CO 1900 MITCHELL BLVD SCHAUMBURG, IL 60193-4539	Shipping Information DATE Shipped: 06/16/2008 Via: SJ & K TRUCK Bill: 3-69452	Material Cert Number 601282 b8413R1
	46405		Revision Date 11/13/2008

Item 1 of 2	Part Number 527249
Material	Type 316/316L stainless steel in accordance with ASTM A 276-06, ASTM A 479-06a, ASME SA 479 2007 Edition, AMS 5648K, AMS 5653F, AMS-QQ-S-763A, NACE MR0175-2003
Heat Treat	per Specification
Destructive Test	per Specification
Finish	Rough Machine to sizes shown Straightness = 1/8" in 5 FT
Reference	Part Number: 527249
Size	OD Random Len (inches) 15 120 to 168
Surface	500 RMS Saw Cut

Heat Number	# of Pieces	(MILL - ELECTRALLOY CORP)
46405	1	MSDS Previously Sent

Note: Additional prefix letter stamped on product with heat number is for our inventory purposes only and not relevant to heat number.

Chemical Composition (Wt. %)

C	Mn	P	S	Si	Ni	Cr	Mo	Cu	V	N
0.020	1.77	0.026	0.021	0.50	10.35	16.51	2.18	0.40	0.07	0.088

Mechanical Properties:

Pcs	Tensile PSI	Yield ¹ PSI	Elongation in 2 - %	Reduction of Area %	Comments
1	80,800	40,400	60	76.4	LONGITUDINAL

¹(Offset: .2%)

Brinell Hardness Results:

Pcs	3000 Kg Load
1	163

Approved by:

Richard Gabrys
RICHARD GABRYS
QUALITY ASSURANCE DIR.

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Other Testing or Inspections:

Solution anneal at 1925 degrees for 9 hours

6.23:1 FORGING REDUCTION FROM ORIGINAL INGOT

QUENCH MEDIA - WATER

QUENCHANT 55 DEGREES F AT START OF QUENCH

QUENCHANT 58 DEGREES F AT END OF QUENCH

CORROSION SENSITIVE TEST PERFORMED PER ASTM A262 WITH RESULTS
OF 0% DITCHING OBSERVED

Compliance Statements:

We certify that the material listed was not processed with mercury bearing instruments and/or equipment which might cause contamination, nor was mercury handled in the immediate vicinity during the manufacturing process. We also certify that the material was not processed or cleaned with low melting point materials as alloying constituents, i.e. lead, zinc, cadmium, tin, antimony, bismuth, sulfur, or their compounds.

In accordance with the requirements of the Pressure Equipment Directive, all testing, inspection, and documentation is produced in accordance with EN 10204:2004 Type 3.1 and ISO 10474 Type 3.1.B

Material provided has been produced by Scot Forge under and approved quality program as defined within the Scot Forge QA Manual, Revision Dated 10/11/04.

The recording of false, fictitious or fraudulent statements or entries on this document may be punishable as a felony under Federal Statute.

The products supplied are in compliance with the quantity and quality requirements of the purchase order and specifications noted. The test reports represent the actual attributes of the items furnished and the test results are in full compliance with all applicable specifications and order requirements.

Approved by:


RICHARD GABRYS
QUALITY ASSURANCE DIR.