

**SCOT FORGE**

G14760

PO # P188422-423  
 REVISED MATERIAL CERT

8001 Winn Rd., Box 8  
 Spring Grove, IL 60081  
 847/587-1000  
 FAX 847/587-2000

J00065 0 SS  
 Heat # G14760

<b>S O L D</b>	EARLE M JORGENSEN CO 1900 MITCHELL BLVD SCHAUMBURG, IL 60193-4539	<b>Shipping Information</b> DATE Shipped: 09/30/2008 Via: SJ & K TRUCK Bill: 3-71708	<b>Material Cert Number</b> 612587 d5562R1
			<b>Revision Date</b> 01/20/2009

R6 + 1854

<b>Item #</b>	Part Number: 517486
<b>Material</b>	Type 316/316L stainless steel in accordance with ASTM A 276-08, ASTM A 479-06a, ASME SA 479 2007 Edition, AMS 5648K, AMS 5653F, AMS-QQ-S-763A
<b>Heat Treat</b>	per Specification
<b>Destructive Test</b>	per Specification
<b>Finish</b>	Rough Machine to sizes shown Straightness = 1/8" in 5 FT
<b>Reference</b>	Part Number: 517486
<b>Size</b>	OD Random Len (inches) 17 192 to 240
<b>Surface</b>	500 RMS Saw Cut

Heat Number	# of Pieces	(MILL - UNIVERSAL STAINLESS)
G14760	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	1.78	0.020	0.022	0.27	10.18	16.60	2.04	0.20	0.06	0.090

Mechanical Properties:					
Pcs	Tensile PSI	Yield <sup>1</sup> PSI	Elongation in 2 - %	Reduction of Area %	Comments
1	78,655	37,187	61.7	76.6	LONGITUDINAL
		<sup>1</sup> (Offset: .2%)			
Brinell Hardness Results:					
Pcs	3000 Kg Load				
1	179				

Approved by: Richard Gabrys  
 RICHARD GABRYS  
 QUALITY ASSURANCE DIR.

# SCOT FORGE



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J00065 0 SS  
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EARLE M JORGENSEN CO

Material Cert Number  
**612587 d5562R1**

### Other Testing or Inspections:

Solution anneal at 1900 degrees for 10 hours

4.74:1 FORGING REDUCTION FROM ORIGINAL INGOT

ELECTRIC FURNACE VACUUM DEGASSED

QUENCH MEDIA - WATER

QUENCHANT 68 DEGREES F AT START OF QUENCH

QUENCHANT 71 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.