



DFARS SAMPLE

AIRFASCO

INDUSTRIES

MANUFACTURER OF AEROSPACE PRODUCTS

2655 HARRISON AVE. SW
 CANTON, OH 44706
 PHONE: (330)430-6190
 FAX: (330)430-6199

PHYSICAL AND CHEMICAL CERTIFICATION

AFC LOT NO.: 16142 DATE MFG.: 11/18/08 SAMPLE SIZE: 15 QTY MFG.: 50,700

PART NO.: AFC42-428L PROCUREMENT SPECIFICATION: NASM25027 SEP 1999

CONFORMS TO: MS21042L4 per NASM21042 OCT 1998, NAS1291-4 rev. 12

HEAT TREAT PROCUREMENT SPECIFICATION: MIL-H-6875 H, HRC 39-44
 VENDOR: Brite Metal CERT NO.: B-141056 HARDNESS: HRC 41.00-42.00

PLATING PROCUREMENT SPECIFICATION: Cadmium plate AMS-QQ-P-416B, Type 1, Class 2
 VENDOR: Beringer Plating CERT NO.: 51684-16142 PROCESS: .0003" bake 23 hrs 375 F

LUBE PROCUREMENT SPECIFICATION: SAE AS5272 B type 1, bake 1 hour 375 F and tumble
 VENDOR: Everlube CERT NO.: PC09202 RESULTS: .0003"-.0005", 96 hr salt spray passed

NUT MATERIAL		Grade 8740 AMS6322L MIL-S-6049, Alloy Steel 139.7 mm billet hot rolled									
HEAT	L8396	MILL			Timken			COUNTRY OF MELT			USA
ELEMENT-ID	-C-	-MN-	-P-	-S-	-SI-	-NI-	-CR-	-MO-	-CU-	-AL-	
LADLE	.400	.880	.009	.010	.260	.430	.500	.230	.210	.037	
CHECK	.390	.880	.009	.011	.260	.430	.500	.240	.210	.039	

PHYSICAL PROPERTIES	AXIAL TENSILE	TORQUE IN MIN.	TORQUE OUT MAX.	WRENCH TORQUE	HARDNESS HRC
REQUIRED	6,200 lbs.	3.5 in-lbs.	30.0 in-lbs.	115 in-lbs. min.	HRC 39-44
ACTUAL LOW	7,628 lbs.	8.8 in-lbs.	8.4 in-lbs.	186 in-lbs. passed	HRC 41.00
ACTUAL AVG.	7,785 lbs.	17.2 in-lbs.	16.7 in-lbs.	186 in-lbs. passed	HRC 41.50
ACTUAL HIGH	8,152 lbs.	24.6 in-lbs.	24.5 in-lbs.	186 in-lbs. passed	HRC 42.00

23 hours stress embrittlement test 186 in-lbs. 4,650 lbs in accordance with MIL-STD-1312/14.
 Non-Destructive Magnetic Particle per ASTM-E-1444-05 sample lot size 15
 NASM1312-8 formally MIL-STD-1312/8 max.load before deformation, strip or test bolt failure (lbs.)
 100% Vision Inspected Lot - Forest City Technologies job order 24-0552, machine FV-8
 DFAR compliant 252.225-7014 Domestic Specialty Metals Alternate 1, Made in the USA

We hereby certify that the above data is correct and that the fasteners have been manufactured and inspected in accordance with Airfasco Industries quality requirements.

CONTROLLED

Airfasco Industries
 Quality Assurance Representative:

Wm. Dent
 Wm. Dent

Steel Certificate of Test

DIARS SAMPLE
LOCATION TIMKEN

1835 DUEBER AVE. S.W.
CANTON, OHIO 44706

WORLDWIDE LEADER IN BEARINGS AND STEEL
09/27/2001

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ID #0009839-1

S Denne Industries
O T 650 Sugar Lane
L O
D Elyria OH 44035 USA
ATTN: ERNST - QUALITY MANAGER

S
H T
I O
P

Customer Order: 5321 Customer Part Number:
Timken Order: 29574-A (1068610) Heat Number(s): L8396

Description of Material

HEIGHT: 5.500 in (139.700 mm) WIDTH: 5.500 in (139.700 mm)
Shape: RCS
Sales Type: 8740
Int Quality: ELECTRIC FURNACE-VACUUM DEGAS-AIRCRAFT-PARAPREMIUM-ULTRASONIC
Condition: HOT ROLL - FORGING QUALITY

Specification

- Military MIL S 6049 Rev. A 01/22/1991
- CHARTER STEEL SPEC FOR OUTSOURCED BILLETS Rev. 8 09/30/1999 EXCEPT AS NOTED
- AMS 6322 Rev. L 05/01/2000
- AMS 2304 01/01/1991
- AMS 2301 Rev. H 03/01/1996

Chemistry Information

	%C	%Mn	%P	%S	%Si	%Cr	%Ni	%Mo	%Cu	%Al
SPEC Ladle Min:	.38	.75			.15	.40	.40	.20		
SPEC Ladle Max:	.43	1.00	.025	.025	.35	.60	.70	.30	.35	
L8396 Ladle:	.40	.88	.009	.010	.26	.50	.43	.23	.21	.037
L8396 1:	.39	.88	.009	.011	.26	.50	.43	.24	.21	.039

Metallurgy Information

SPEC: Grain Size SIZE 5/FINER

Heat L8396 SIZE: 7

When shipping document is attached it becomes part of this certification.

We certify the above materials have been inspected and tested in accordance with the methods prescribed in the governing specifications, and the results of such inspections and tests conform with the applicable requirements. This certificate or report shall not be reproduced except in full, without the written approval of the Timken Corporation.

Approved: _____

NOTARY PUBLIC

by

Diane Chavers

Diane Chavers, SR CERTIFICATION ASSISTANT

THE TIMKEN CORPORATION

Steel Certificate of Test

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WORLDWIDE LEADER IN BEARINGS AND STEEL

09/27/2001

ID #0009839-1

Customer Order: 5321 Customer Part Number:
Timken Order: 29574-A (1068610) Heat Number(s): L8396

Metallurgy Information (cont.)

SPEC: Jominy English

Location:	1	2	3	4	5	6	7	8	9	10	12	14	16	18	20	24	28	32	36	40	
SPEC Min:					49			40		35											
SPEC Max:																					

L8396	58	57	57	56	55	54	54	53	50	48	41	39	36	34	33	32	30	30	30	29
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SPEC: Mag Std

Heat L8396 AMS 2301 FREQUENCY: 0.000 SEVERITY: 0.000

Heat L8396 AMS 2304 FREQUENCY: 0.000 SEVERITY: 0.000

Macroetch equal to or better than S2 R1 C2