

2880 Bergey Road, Suite R
Hatfield, PA 19440-1764
T: (215) 996-9963
F: (215) 996-9850

Recipient
Acme Corporation
123 Main Street
Anytown, PA 19440

Date: 5/5/2011

Order & Part Details

Invoice#: 61714	Lot Code: LUE	Heat#: M66N1KG-13	Part#: 1234-5678
PO#: 123456	Quantity: 24	Spec: MIL-S-1222H IA 3	Drawing: ANSI B18.3.3

Description: 1/2"-13 UNC 3A Socket Head Cap Screw (1960) x 4.5" long, Type II, K-Monel 500, QQ-N-286G, MIL-S-1222H IA 3, Type N Self-Locking IAW MIL-DTL-18240F, Placement IAW NASM15981

Our Certifications & Statements

Certification of Conformance

All items furnished on this contract are in full compliance with all specification and contract requirements.

Mercury Free Certification

Equipment containing mercury or mercury compounds has not been used for fabrication, packaging, examination, or testing of parts, assemblies, or material supplied on this order.

Domestic Material Certification

All items furnished on this contract have been manufactured from domestic raw material.

Lot Definition A

These parts have been marked with the lot identification code listed at the top of this document. Reference the adjacent full heat number on attached certifications and test reports.

Asbestos Free Certification

These parts have not been exposed to asbestos and are asbestos free.

Alloy ID Statement

We hereby certify that all material furnished to you has been alloy tested with a Technicorp WT Alloy Separator Model 850/950 and was found acceptable as listed in the part description. Alloy standards are traceable to NIST through independent lab analysis.

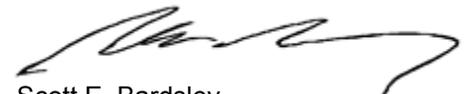
Gas and Oil Statement

The sulfur content of the gas and oil fuels used in firing furnaces for forging, extruding, or other hot working processes and for heat treatment of NiCu (N04400), NiCuAl(N05500), CuNi (C70600/C71500), and other nickel base alloys has been limited to 30 grains per 100 cubic feet for gas and 0.5% of weight for oil.

Magnetic Permeability Statement

These parts were checked for magnetic permeability using a Severn Permeability Indicator, Serial #6613, and found to be less than 2.0µ.

**LEVEL I
C-A MATERIAL**



Scott E. Bardsley
President
Inofast Manufacturing, Inc.



Quality Assurance Documentation

Rev: 0

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Huntington Alloys Statement

These parts were manufactured from material produced by Huntington Alloys (formally Inco Alloys) with a pour date after December 31st, 1976.

Fraud and Falsification Statement

The recording of false, fictitious, or fraudulent statements or entries on this document may be punished as a felony under federal statues including Federal Law, Title 18, Chapter 47.

MS18116 Traceability Statement

We herby certify that records are available covering the heat/melt numbers of the material used, the processing of bar stock or fastener blanks, the forming of threads and their gauging, the method of dimensional control employed, and any applied heat treatments.

Method of Manufacture

These parts were machined from certified bar stock with no further heat treatment or cold working. Threads were formed by cutting.

System 22 Statement

Inspection performed in accordance with MIL-S-1222H IA 3, System 22, and found acceptable.

Verification of Hardness Certification

We herby certify that all material furnished to you has had its actual hardness verified by subsequent hardness testing at Inofast Mfg. and was found acceptable as listed below:

Required Hardness Range: 24.0 - 35.0 HRC

Pc #	Test 1	Test 2	Test 3	Average
1	31.0	31.0	31.0	31
2	31.0	32.0	33.0	32

LEVEL I C-A MATERIAL



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Top-Level Specifications In Effect

<i>Specification Type</i>	<i>Specification Name</i>
Primary Procurement Spec	MIL-S-1222H IA 3

Chemical Properties

Raw Material Physical Properties

C	0.15	Pb	0	Tensile Strength	162,900.00 PSI
Al	2.93	Sn	0	Yield Strength	105,100.00 PSI
Si	0.12	Zn	< 0	Elongation	23.70 %
P	0.007	Cu	31.04	Reduction of Area	42.80 %
S	0.001	Ni	63.63	Hardness	31.70 HRC
Ti	0.55	Co	0.02		
Mn	0.73	Fe	0.82		

LEVEL I
C-A MATERIAL


 Scott E. Bardsley
 President
 Inofast Manufacturing, Inc.



Date: 7-1-9
INOFASST MANUF
SUITE R
2880 BERGEY RD
HATFIELD PA 19440

This is to certify that the material referenced below meets the following specifications:

Your Order #: P12298
Castle Order #: 763550
Weight: 54LBS
Pieces: 1 BDL 3 PCS
Description: 0.7500 RD K500 ALLOY CF ANN AH
Heat #: M66N1KG13

During storage at A.M. Castle & Co., no mercury, mercury compounds or mercury devices with a single boundary of containment came into contact with the items furnished. Furthermore, during storage at A.M. Castle & Co., no weld repair has been performed on the items furnished.

The willful recording of false, fictitious, or fraudulent statements on this document may be punishable as a felony under federal statues.

This certification is given subject to A.M. Castle & Co.'s terms and conditions of sale.

Sincerely,

A.M. CASTLE & CO.

Ann Bloch
Authorized Test Report Clerk

/ds

A.M. Castle & Co. 299 Canal Road Fairless Hills, PA 19030
Telephone: (215) 736-8600



Date: 7-1-9
INOFASST MANUF
SUITE R
2880 BERGEY RD
HATFIELD PA 19440

This is to certify that the material referenced below meets the following specifications:

Your Order #: P12308
Castle Order #: 763724
Weight: 175LBS
Pieces: 1 BDL 9 PCS 1296"
Description: 0.7500 RD K500 ALLOY CD ANN AH
Heat #: M66N1KG13

During storage at A.M. Castle & Co., no mercury, mercury compounds or mercury devices with a single boundary of containment came into contact with the items furnished. Furthermore, during storage at A.M. Castle & Co., no weld repair has been performed on the items furnished.

The willful recording of false, fictitious, or fraudulent statements on this document may be punishable as a felony under federal statutes.

This certification is given subject to A.M. Castle & Co.'s terms and conditions of sale.

Sincerely,

A.M. CASTLE & CO.

Ann Bloch
Authorized Test Report Clerk

/ds

A.M. Castle & Co. 299 Canal Road Fairless Hills, PA 19030
Telephone: (215) 736-8600

05-28-'09 11:55 FROM-AM Castle

8474558824

T-248 P036/128 F-437

WESTERN U.S.		D	
A N CASTLE & CO 2600 MILES RD BEDFORD HTS OH 44146		HUNTINGTON ALLOYS CORPORATION A Special Metals Company HUNTINGTON, WEST VIRGINIA 25705-1771	
A N CASTLE & CO 3400 N WOLF RD FRANKLIN PARK IL 60131		NOTE: THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS ON ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.	
CERTIFIED MATERIAL TEST REPORT		NO. 82419	
HA ORDER NO./T3A 300018791 1	DATE 05/27/09	PAGE 1	OF 3
QUANTITY 1635 LBS	INSPECTED BY KA/SNC	THIS IS TO CERTIFY THAT ALL REQUIRED QUALITY ASSURANCE INSPECTIONS AND TESTS HAVE BEEN PERFORMED IN ACCORDANCE WITH THE ORDER AND SPECIFICATION REQUIREMENTS. THE TEST REPORT REPRESENTS THE ACTUAL ATTAINMENT OF THE MATERIAL FURNISHER AND THE VALUES SHOWN ARE CORRECT IN FULL. THE MATERIAL DESCRIBED BY THIS CERTIFICATE IS IN FULL COMPLIANCE WITH ALL ORDER AND INSPECTION REQUIREMENTS. WE HEREBY CERTIFY THAT THE BELLOW INFORMATION ACCORDS WITH THE SPECIFIED CONTRACT REQUIREMENTS. REV. 008	
CHANGE ORDER NO. 10 43723 20145	WORK ORDER NO. 10 43723 20145	SPECIFICATION: HA 326 REV F\US FED QQ-N-286E IA 1 FM 2 MARKING WAIVED\	
INSPECTION OF MATERIAL 10 43723 20145	NONEL ALLOY K500 AIR CD END CD ANN 8 AGE HD	US FED QQ-N-286E IA 2 FM 2 PER NAVSEA SER; 05M2\ 116 OF 4-17-90 MARKING WAIVED\ US FED QQ-N-00286F FM 2 MARKING WAIVED\ US FED QQ-N-286G FM 2 MARKING WAIVED\ QUALITY SYSTEM CERTIFICATION: ISO 9001:2000 (ABS-QE CERT. 301251); EN 10 204/DIN 50049 (TYPE 8.1)	

*****THIS REPORT RELATES ONLY TO THE ITEM(S) TESTED AND MAY NOT BE REPRODUCED EXCEPT IN FULL.*****

SPECIFICATIONS: HA 326 REV F\US FED QQ-N-286E IA 1 FM 2 MARKING WAIVED\
 US FED QQ-N-286E IA 2 FM 2 PER NAVSEA SER; 05M2\
 116 OF 4-17-90 MARKING WAIVED\
 US FED QQ-N-00286F FM 2 MARKING WAIVED\
 US FED QQ-N-286G FM 2 MARKING WAIVED\
 QUALITY SYSTEM CERTIFICATION: ISO 9001:2000 (ABS-QE CERT. 301251);
 EN 10 204/DIN 50049 (TYPE 8.1)

HEAT#	C	AN	FE	S	SI	CU	NI	AL	TI
CO	P	PB/PPM	SN/PPM	ZN/PPM	NI+CO				
M66N1KG	0.15	0.73	0.82	0.001	0.12	31.04	63.63	2.93	0.55
	0.02	0.007	5.2	1.5	<0.1	63.65			

TO CONVERT PPM TO WT.%, MOVE DECIMAL POINT FOUR PLACES TO THE LEFT.

MELT METHOD: AIR + ELECTROSLAG REMELTED

MECHANICAL PROPERTIES

HEAT/LOT	QUANTITY	HARDNESS	GRAIN SIZE	YIELD TENSILE	TENSILE	ELG	R/A	DEC
M66N1KG 13	91 PCS							
ROOM TEMP-HRC	-AS SHIPPED	31.7		1051	1629	23.7	42.3	
GRAIN SIZE-AS SHIPPED	AGS ASTM NO.							
NORMAL - TRAN								
GRAIN SIZE-AS SHIPPED	AGS ASTM NO.							
NORMAL - TRAN								
GRAIN SIZE-AS SHIPPED	AGS ASTM NO.							
NORMAL - TRAN								
GRAIN SIZE-AS SHIPPED	AGS ASTM NO.							
NORMAL - TRAN								

THE DIFFERENCE IN AVERAGE GRAIN SIZE BETWEEN THE COARSEST AND FINEST AREAS OF THE CROSS-SECTION IS "0" ASTM GRAIN SIZE NUMBERS.

CASTLE METALS CORP
 DATE RCVD 5/28/09
 IAC 20146
 APPROVED BY [Signature]

05-28-'09 11:55 FROM-AM Castle

8474558824

T-248 P037/128 F-437

WESTERN U.S.

D

HUNTINGTON ALLOYS CORPORATION
 A Special Metals Company
 HUNTINGTON, WEST VIRGINIA 25705-1771

NOTE: THE REQUIREMENTS OF FAILURE FIXTURES OR EQUIVALENT
 STATEMENTS ON ORDERS OR THE REQUIREMENTS MAY BE FURNISHED
 AS A SEPARATE DOCUMENT UPON REQUEST.

A N CASTLE & CO 2600 MILES RD BEDFORD HTS OH 44146		CERTIFIED MATERIAL TEST REPORT		No. 62419	
A N CASTLE & CO 3400 N WOLF RD FRANLIN PARK IL 60131		HUNTINGTON ALLOY K500 AIR CD RND CB ANN & AGE HD		PAGE 2 OF 3	
QUANTITY 1635 LBS		DATE 05/27/09		INSPECTED BY RA/SBC	
CHANGE ORDER NO. 10 48723 20145		MARK ORDER NO. 10 48723 20145		REV. 408	
REWORK ORDER NO. 10 48723 20145		REWORK ORDER NO. 10 48723 20145		REWORK ORDER NO. 10 48723 20145	

YIELD STRENGTH WAS DETERMINED USING A STRESS STRAIN CURVE

 SLOW STRAIN RATE RESULTS

HEAT/LOT N 66N1KG
 SLOW STRAIN RATE & AVG. G.S. = 37.8 MICROMETERS
 SAMPLE: 1031211 SUFFIX: 001 TEST TEMP: 0700
 DISPLACEMENT RATE: 0.00088 IN/IN/MIN
 NTS: 157.9 KSI AVG. GRAIN SIZE: 06.5

SLOW STRAIN RATE & AVG. G.S. = 37.8 MICROMETERS
 SAMPLE: 1031211 SUFFIX: 002 TEST TEMP: 0700
 DISPLACEMENT RATE: 0.00091 IN/IN/MIN
 NTS: 156.9 KSI AVG. GRAIN SIZE: 06.5

SLOW STRAIN RATE & AVG. G.S. = 37.8 MICROMETERS
 SAMPLE: 1031211 SUFFIX: 003 TEST TEMP: 0700
 DISPLACEMENT RATE: 0.05557 IN/IN/MIN
 NTS: 166.5 KSI AVG. GRAIN SIZE: 06.5

CAPABILITY HEAT TREATMENT: (SRT) ANNEALED AT 1900 DEG F FOR 30 MINUTES
 THEN WATER QUENCHED. AGED AT 1100 DEG F FOR 8 HOURS THEN FURNACE COOLED
 25 DEG/HR TO 900 DEG F AND THEN AIR COOLED.

QQ-N-2066 SRT TESTED.

SRT PHOTOS ATTACHED.

SLOW STRAIN RATE TEST(S): SATISFACTORY.

QQ-N-002066 FIRST ARTICLE TESTED PER NAVSEA SER. 05N2/013 OF 2-13-01.

COUNTRY OF ORIGIN: MELTED AND MANUFACTURED IN THE USA

05-28-'09 11:55 FROM-AM Castle

8474558824

T-248 P038/128 F-437

WESTERN U.S.

D

HUNTINGTON ALLOYS CORPORATION
 A Special Metals Company
 HUNTINGTON, WEST VIRGINIA 25706-1771

NOTE: THE RECORDS OF SALES, INQUIRIES OR FRAUDULENT
 ATTEMPTS TO OBTAIN INFORMATION ON THIS DOCUMENT MAY BE PUNISHABLE
 AS A PERSON UNDER FEDERAL STATUTE.

A M CASTLE & CO 2600 MILES RD BEDFORD HTS OH 44146		CERTIFIED MATERIAL TEST REPORT		No. 02419	
A M CASTLE & CO 3400 N HOLF RD FRANKLIN PARK IL 60131		NA ORDER NUMBER 300016791 1	DATE 05/27/09	PAGE 3	OF 3
QUANTITY 1.635 LBS		INSPECTED BY HA/SAC	MATERIAL NO. CD RND CD ANN & AGE HD		
CHANGE ORDER NO. 10 43723 20145		MATERIAL NO. MONEL ALLOY K500 AIN		CD RND CD ANN & AGE HD	
INSPECTION DATE 05/27/09		MATERIAL NO. MONEL ALLOY K500 AIN		CD RND CD ANN & AGE HD	
MATERIAL NO. MONEL ALLOY K500 AIN		CD RND CD ANN & AGE HD		CD RND CD ANN & AGE HD	

VISUAL AND DIMENSIONAL EXAMINATION SATISFACTORY.
 MATERIAL, WHEN SHIPPED, IS FREE FROM CONTAMINATION BY MERCURY, RADIUM, ALPHA SOURCE, & LOW MELTING ELEMENTS.
 "CHEMICAL ANALYSIS AS REQUIRED FOR CARBON, SULFUR, NITROGEN OR OXYGEN IS PERFORMED BY COMBUSTION TECHNIQUES.
 ALL OTHER REPORTED ELEMENTS ARE ANALYZED BY X-RAY AND/OR EMISSION SPECTROSCOPY."
 "QUALITY SYSTEM MEETS REQUIREMENTS OF DIRECTIVE 97/23/EC (PRESSURE EQUIPMENT DIRECTIVE),
 ANNEX 1, CHAPTER 4.3 PER ABS GROUP LTD CERTIFICATE 41734 (EXPIRES JULY 31, 2011)."
 AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES:
 W.F. BOLEN, P.D. CUSTER, M.A. MORRISON, P. VAUGH, D.K. MILLER

W.F. Bolen



LABORATORY TESTING INC.

2331 Topaz Drive, Hatfield, PA 19440
 TEL: 800-219-9095 • FAX: 800-219-9096

SOLD TO

Inofast Manufacturing, Inc.
 2880 Bergey Road
 Suite R
 Hatfield, PA 19440

CUSTOMER P.O.

61714

Certified Test Report

IMI002-10-02-04559-1



Materials Testing Laboratory
 Nondestructive Testing

SHIP TO

Inofast Manufacturing, Inc.
 Suite R, 2880 Bergey Road
 Hatfield, PA 19440
 ATTN: Jim Adelsberger

CERTIFICATION DATE

2/18/2010

SHIP VIA

EMAIL & LTI DELIVERY

DESCRIPTION

Quantity: 22
Size: 1/2" - 13 (UNC 3A) x 4.5" Long
Description: Socket Head Cap Screw (1960)
Material: Type 2, K-Monel 500, QQ-N-286G, MIL-S-1222H, IA 3
Inofast Reference No: 61714
Heat No.: M66N1KG-13
Lot Code: LUE
Lot Size: 27 + 1 Test Piece
Miscellaneous Info.: Self Locking IAW MIL-DTL-18240F,
 Placement IAW NASM15981, Type N

Twenty pieces of the above material were 100% Liquid Penetrant inspected in accordance with T9074-AS-GIB-010/271, and T9074-AS-GIB-010/271, Notice 1 using L.T.I. Procedure LP-T9074-AS-GB-010/271-1A, Rev.7, dated 6/5/08, Acceptance Criteria per MIL-S-1222H, IA3, SAE J123 and Addenda 1222J-IC 1/J123-F788, Rev.0, dated 5/25/05. See Test Results below.

Testing performed by Don Meyers, SNT-TC-1A, Level II.

Inspected	Accepted	Rejected	Reason for Rejection
20	20	0	

WEDGE TENSILE TEST: 10°
APPLICABLE SPECIFICATIONS: MIL-S-1222H, IA 3, K-Monel 500
KEY: C - Conforms NC - Non-Conformance R - Report for Information

REQUIRED: 18,447 # **MINIMUM**
 130 KSI **MINIMUM**

<u>SAMPLE ID</u>	<u>POUNDS</u>	<u>KSI</u>	<u>FAILURE LOCATION</u>	<u>KEY</u> C/NC/R
1	22,375	158	Thread Failure	C
2	22,375	158	Thread Failure	C

The services performed above were done in accordance with LTI's Quality System Program Manual Revision 18 dated 7/27/07 and ISO/IEC 17025. These results relate only to the items tested and this report shall not be reproduced, except in full, without the written approval of Laboratory Testing, Inc. L.T.I. is accredited by PRI to ISO17025 and by Nadcap for NDT and Materials Testing for the test methods and specific services as listed in the Scopes of Accreditation available at www.labtesting.com and www.eAuditNet.com. The results reported on this test report represent the actual attributes of the material tested and indicate full compliance with all applicable specification and contract requirements.

MERCURY CONTAMINATION: During the testing and inspection, the product did not come in direct contact with mercury or any of its compounds nor with any mercury containing devices employing a single boundary of containment.

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

Sherri L. Scheifele
 QA Specialist

Sherri L. Scheifele

Authorized Signature

ND INDUSTRIES

CERTIFICATION

EASTERN DIVISION

128-2 BAUER DRIVE
 OAKLAND NJ07436
 (201) 651-1500
 FAX(201) 651-1400

CERT NO.
23490

CUSTOMER NAME	INOFAST MFG
PO NO.	61714
ND SHOP NO.	2042
PART NO.	1/2-13 X 4.5 SHCS
HEAT NO.	M66N1KG-13
LOT NO.	LUE
QUANTITY	26
MATERIAL	
MFG.	
MISC.	

MIL DTL 18240 REV F	<input checked="" type="checkbox"/>	MILF 18240 REV E	<input type="checkbox"/>
ND PELL-IT TYPE N ®	<input checked="" type="checkbox"/>	PROCESS ONLY	<input checked="" type="checkbox"/>
ND VIBRATITE ®	<input type="checkbox"/>	COMPLETE	<input type="checkbox"/>
ND PATCH TYPE P ®	<input type="checkbox"/>	ND STRIP TYPE L ®	<input type="checkbox"/>
ND RING PATCH ®	<input type="checkbox"/>	ND MICROSPHERES ®	<input type="checkbox"/>
ND PLASTISOL ®	<input type="checkbox"/>	ND EPOXY-LOCK ®	<input type="checkbox"/>

- THESE PARTS HAVE NOT BEEN CONTAMINATED WITH MERCURY IN ANY FORM WHILE IN OUR POSSE. THE MATERIAL AND/OR PARTS SHIPPED AGAINST THIS ORDER CONFORM TO APPLICABLE BLUEPRINTS OR SPECIFICATIONS.
- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL LAW.
- TEST REPORT COVERING THE CHARACTERISTICS OF THESE PARTS ARE ON FILE SUBJECT TO EXAMINATION AND INDICATE CONFORMANCE WITH APPLICABLE SPECIFICATION REQUIREMENTS
- TEST REPORTS COVERING THE CHARACTERISTICS OF THESE PARTS ARE ATTACHED
- SPC TO FOLLOW
- ON CUSTOMER FURNISHED MATERIAL NO TORQUE TESTING IS PERFORMED WITHOUT PRIOR AUTHORIZATION FROM THE CUSTOMER
- TORQUE TEST REPORTS COVERING THE PERFORMANCE OF THE LOCKING ELEMENT ARE ATTACHED

ND INDUSTRIES
 1000 N. CROOKS
 RD. CLAWSON MI.
 48017
 (248) 288-0000

 AUTHORIZED SIGNATURE

3/2/10

 DATE

Rocco J. Molinari
 Rocco J. Molinari
 Quality Control Manager
 Eastern Division

8.2.f.02

ND MIL-DTL 18240F TORQUE TEST

6159

CERTIFIED ISO 9001: 2008

CUST. INOFASST MANUFACTURING DATE 3-2-10
 PART NUM _____ S.O. # 2042
 SIZE 1/2-13 X 4.5 SHCS LOT# LUE
 HEAT# M66N1KG-13 SAMPLE SIZE 4 PCS

PREVAILING TORQUE MAX 220"LBS PREVAILING TORQUE MIN 16"LBS

	1st. sample		2nd sample		3rd sample		4th sample		5th sample	
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
1st cycle	90	80	70	60	75	65	70	60		
2nd cycle	65	50	60	45	65	60	60	45		
3rd cycle	60	45	45	40	60	50	45	40		
4th cycle	50	40	40	30	50	45	40	30		
5th cycle	45	40	30	30	40	35	35	30		

	6th sample		7th sample		8th sample		9th sample		10th sample	
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
1st cycle										
2nd cycle										
3rd cycle										
4th cycle										
5th cycle										

Revision-Date 02-02/22/06

TESTED BY Ross Molinar

INOFAST MANUFACTURING INC. FINAL INSPECTION REPORT

SHOP NUMBER 61714	REF NUMBER 46676 2
----------------------	-----------------------

Heat #: M66N1KG-13

Lot code: LUE Mtl Grade: 500

Num Ord: 24 Num Acc: 27

1/2" -13 (UNC 3A) SOCKET HEAD CAP SCREW (1960) x 4.5" LONG, TYPE 2, GRADE K-MONEL 500 QQ-N-286G, MIL-S-1222H IA 3 SELF LOCKING IAW MIL-DTL-18240F

Nominal Dia	TPI	CLASS	AQL	# INSP	AC	RE	ACTUALS	INSTRUMENT	ID NUMBER
0.5	13	UNC 3A							
Major Dia. Max	0.5000		2.5	5	5	φ	0.4940	CALIPER/OD MICROMETER	850H7275
Major Dia. Min	0.4891						0.4935		
Pitch Dia. Max	0.4500		2.5	5	5	φ	0.4484	TY IV TRI-ROLL SET PLUG #	TR2 148 009A
Pitch Dia. Min	0.4463						0.4478		
Func Dia. Max	0.4500		2.5	5	5	φ	0.4487	TY III TRI-ROLLS SET PLUG #	TR2 147 009A
Func Dia. Min	0.4463						0.4483		
Body Dia. Max	0.5000		4.0	3	3	φ	0.497	CALIPER/OD MICROMETER	850H7275
Body Dia. Min	0.4919						0.496		
Head Hght. Max	0.500		4.0	3	3	φ	0.498	CALIPER/OD MICROMETER	08246390
Head Hght. Min	0.492						0.497		
Head Dia. max	0.750		4.0	3	3	φ	0.744	CALIPER/OD MICROMETER	850H7275
Head Dia. min	0.735						0.743		
Hex Socket Size	0.375		4.0	3	3	φ	OK	SOCKET GAGE	B5
Max Radius:	0.026		4.0	3	3	φ	OK	RADIUS GAGE	
Min Radius:	0.020								
Thread Lg Max:	1.88		4.0	3	3	φ	1.560	CALIPER	08246390
Thread Lg Min:	1.50						1.540		
Total Runout (Concentricity)			4.0	3	3	φ	OK	FIXTURE	
Max WF Dia.			4.0	3			N/A	CALIPER/OD MICROMETER	
Min WF Dia.									
Overall Lg Max	5.000		4.0	3	3	φ	4.966	CALIPER	08246390
Overall Lg Min:	4.932						4.964		
Straightness			4.0	3	3	φ	OK	FIXTURE	
Quality			4.0	3	3	φ	OK	VISUAL	GOOD
Key Engag Min:	0.245		4.0	3	3	φ	0.264	CALIPER/PLUG GAGE	08246390
							0.260		
Identification Symbols	IN *K* LUE 6 DOTS		100%	100	100	φ	OK	VISUAL	GOOD

61714

Material Certification Approved By: [Signature]
 Inspected By: [Signature]
 Specification: MIL-S-1222H IA 3
 Lot Accepted Lot Rejected

Date: 2/9/10
 Inspection Level: I

Approved By: [Signature] Date: 2/9/2010
James P. Adelsberger
 Quality Assurance Manager Page 1 of 1
 Inofast Manufacturing Inc.