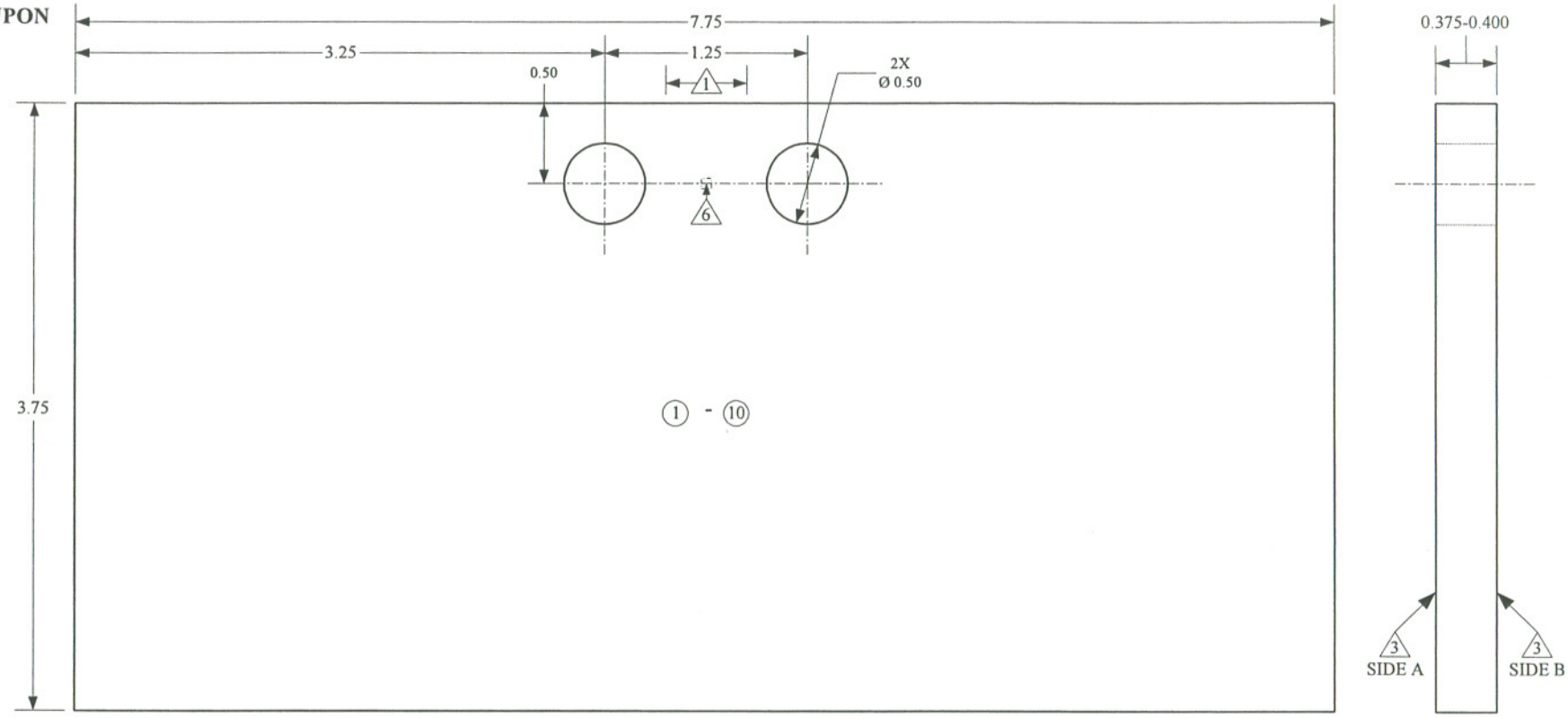
S1A COUPON

COUPON



NOTES

1. SERIALIZE THE COUPONS S1A-01 TO S1A-22 ON TOP EDGE AT NOTED LOCATION USING 0.25 IMPRESSION STAMP, 0.004-0.008 DEEP
2. HEAT TREAT AND PROCESS TO 260-280 KSI ULTIMATE TENSILE STRENGTH PER AMS-H-6875, MAXIMUM ALLOWABLE DECARBURIZATION 0.003
3. 0.025 125/64 M BEFORE 2, 125/64 M AFTER 2
4. BREAK ALL SHARP EDGES 0.005-0.015
5. FLUORESCENT MAGNETIC PARTICLE INSPECT PER ASTM E1444
6. FOR COUPONS WITH EVEN SERIAL NUMBERS: PERFORM ROCKWELL HARDNESS C TEST PER ASTM A370 AT NOTED LOCATION
7. FOR COUPONS WITH EVEN SERIAL NUMBERS: PERFORM SURFACE ROUGHNESS MEASUREMENT PER ASME B46.1

1 – 10 MARK SIDE A WITH DATA MATRIX™ SYMBOLS

ALGLE PROGRAM	TITLE	DRAWING NUMBER	REVISION	DIMENSIONS	TOLERANCES	DRAWN
	COUPON	S1A	B	ALL DIMENSIONS IN INCHES	UNLESS OTHERWISE NOTED X.X = ± 0.1 X.XX = ± 0.05 ANGLES = ± 0.5°	JOHN COATES
DPM EVALUATION	MATERIAL 4340 PER AMS 6415	DATE 10/18/00	SHEET 1 OF 1	SCALE NOT TO SCALE		CHECKED FRANK ZUECH

Northwest Machining and Mfg., Inc.
1957 LANARK STREET • MERIDIAN, IDAHO 83642
PHONE (208) 888-5334 • FAX (208) 888-0917
e-mail nwmm@micron.net

Date: 12/02/00

Job Order Number: 14552

Customer: GENERAL ATOMICS

Part Number: S1A REV: ~~A~~ B bm DEC 0 2 2000

Description: COUPON

Quantity: 22

Purchase Order Number: H030105

Customer Supplied Material? NO

CERTIFICATION OF CONFORMANCE

NORTHWEST MACHINING & MFG., INC., DOES HEREBY CERTIFY THAT PARTS MANUFACTURED UNDER THE ABOVE NOTED PURCHASE ORDER WERE PRODUCED AS STIPULATED BY THAT PURCHASE ORDER.

IT IS FURTHER CERTIFIED THAT TEST REPORTS VERIFYING COMPLIANCE WITH DESIGN STANDARDS, MATERIAL CONTROLS, & INSPECTION REQUIREMENTS NOTED ON THE PURCHASE ORDER, ARE ON FILE AND AVAILABLE UPON REQUEST.

SIGNED: Sid Harmon
SID HARMON / (QCM)

INSPECTION REPORT

MATERIAL: 4340 STL.
SPEC: AMS-6415
P.O/CERT: EMO # T145493
SHEET 1 OF 4
hat # 8095101

NW 3

.X +/- .1
.XX +/- .05
.XXX +/-
ANGLE +/- .5°

CUSTOMER: GENERAL ATOMICS
P/O #: H030105
DRWG #: S1A
PART NAME: COUPON
DCN:

JOB #: 14452
S/O #:
REV #: WAB
QTY: 02
ADCN:

DIM NO.	CHARACTERISTIC OR DIMENSIONAL NOTATION	FIRST PART	BY	DATE	INPROCESS INSP.	BY	HI LO ~~01~~	DIMENSION OF RESPECTIVE PARTS 02	~~03~~	04	~~05~~	06	BY	DATE
1	2x⌀ .50	.497	NW 3	NOV 30 2000	.496	NW 3	orgel hogo gage	pins					NW 3	NOV 30 2000
2	7.75	7.753-7.757	NW 3	NOV 20 2000	7.763	NW 3	7.765	7.753						
3	1.25	1.250	NW 2	NOV 30 2000	1.250	NW 3	1.253	1.248						
4	.50	.506	NW 3		.505 x2	NW 3	.508	.502						
5	3.25	3.249	NW 3	NOV 30 2000	3.247	NW 3	3.250	3.246						
6	.375-.400	.377-.382	NW 3	NOV 30 2000		NW 3	.388	.376						
7	3.75	3.754-3.756	NW 3	NOV 20 2000	3.766	NW 3	3.766	3.742						
8	SERIALIZE ↓.004-.008 x .125 .005-.006	.235 .005-.006	NW 2	NOV 30 2000	.235 x .005 .006		.235 .007	.005					NW 3	NOV 30 2000
9	125 - 64 BEFORE H.T.							A-~~122~~ 64 B-122		A-125 B-98		A-108 B-110		
10	125 - 64 AFTER H.T.							A 64 B 125		A 129 B 96		A 110 B 110		
11	R.C. TEST @ NOTED LOC. BEFORE H.T							RC 22		RC 20		RC 20.5		
	R.C. TEST AFTER HT TR							RC 51 ~~RC 50~~		RC 50.5		RC 51		
A	HT. TR. TO 260-280 KSI PER MIL-H-6875	Pacific Metallurgical # 270215 (2L)						NW 3 DEC 02 2000						
B	MAG. INSPECT PER ASTM-E1444													

QTY INSPECTED _____ BY _____ ACCEPTED _____ REJ _____

INSPECTION REPORT

MATERIAL: 4340 STL.
SPEC: AMS-6415
P.O/CERT:
SHEET 2 OF 2

.X +/- .1
.XX +/- .05
.XXX +/-
ANGLE +/- .5°

CUSTOMER: GENERAL ATOMICS
P/O #: HC30185
DRWG #: STA
PART NAME: COUPON
DCN: ~

JOB #: 14552
S/O #:
REV #: ~~A~~ B
QTY: 22
ADCN:

DIM NO.	CHARACTERISTIC OR DIMENSIONAL NOTATION	FIRST PART	BY	DATE	INPROCESS INSP.	BY	DIMENSION OF RESPECTIVE PARTS 07	08	09	10	11	12	BY	DATE
1	2xØ .50													
2	2.75													
3	1.25													
4	.50													
5	3.25													
6	.375-.400													
7	3.25													
8	SERIALIZE ±.004-.008 .125													
9	125μ-64μ BEFORE H.T.							A-116 B-116		A-118 B-125		A-118 B-125		
10	125μ-64μ AFTER H.T.							A 116 B 110		A 120 B 120		A 122 B 120		
11	R.C. TEST @ NOTED LOC. BEFORE HT & TR							RC21.5		RC21		RC20		
12	R.C. TEST AFTER HT. TR							RC.51		RC52		RC51		

QTY INSPECTED _____ BY _____ ACCEPTED _____ REJ _____

INSPECTION REPORT

MATERIAL: 4340 STL.
SPEC: AMS-6415
P.O/CERT:
SHEET 3 OF 4

.X +/- .1
.XX +/- .05
.XXX +/-
ANGLE +/- .5°

CUSTOMER: GENERAL ATOMICS
P/O #: HC30105
DRWG #: S1A
PART NAME: COUPON
DCN: —

JOB #: 14552
S/O #: —
REV #: ~~A~~ B
QTY: 22
ADCN: —

DIM NO.	CHARACTERISTIC OR DIMENSIONAL NOTATION	FIRST PART	BY	DATE	INPROCESS INSP.	BY	DIMENSION OF RESPECTIVE PARTS ~~13~~	14	~~15~~	16	~~17~~	18	BY	DATE
1	2x⌀ .50													
2	7.75													
3	1.25													
4	.50													
5	3.25													
6	.375-.400													
7	3.75													
8	SERIALIZE ↧.004-.008 x .125													
9	125√-64√ BEFORE H.T.							A- 72 B-114		A- 120 B-114		A- 116 B-120		
10	125√-64√ AFTER H.T.							A ~~113~~ 74 B ~~113~~ 114		A 120 B 104		A 118 B 118		
11	R.C. TEST @ BEFORE HT TR. NOTED LOC							RC 20.5		RC 20.5		RC 20.5		
12	R.C. TEST AFTER HT. TR							RC 51.5		RC 50.5		RC 51		

QTY INSPECTED _____ BY _____ ACCEPTED _____ REJ _____

INSPECTION REPORT

MATERIAL: 4340 STL.
SPEC: AMS-6415
P.O/CERT:
SHEET 4 OF 4

.X +/- .1
.XX +/- .05
.XXX +/-
ANGLE +/- .5°

CUSTOMER: GENERAL ATOMICS
P/O #: H030105
DRWG #: S1A
PART NAME: COUPON
DCN: —

JOB #: 14452
S/O #: —
REV #: ~~A~~ B
QTY: 22
ADCN: —

DIM NO.	CHARACTERISTIC OR DIMENSIONAL NOTATION	FIRST PART	BY	DATE	INPROCESS INSP.	BY	DIMENSION OF RESPECTIVE PARTS ~~19~~	20	~~21~~	22			BY	DATE
1	2x⌀ .50													
2	7.75													
3	1.25													
4	.50													
5	3.25													
6	.375-.400													
7	3.75													
8	SERIALIZE ↧.004-.008 x .125													
9	125√-64√ BEFORE H.T.							A 98 B 120		A-100 B-110				
10	125√-64√ AFTER H.T.							A 110 A 98		A 100 B 110				
11	R.C. TEST @ NOTED LOC. BEFORE H.T.							RC 21		RC 22				
12	AFTER HT. TR.							RC 51		RC 51				

QTY INSPECTED _____ BY _____ ACCEPTED _____ REJ _____

Diamond H Testing Laboratories

3640 U.S. Highway 30, Pocatello, Idaho 83201
Phone 208/232-2663 Fax 208/232-2772

Report No. 1177

Certified Inspection Report
QSD 250

Customer NorthWest Machine	Date 12-2-00	DHT Job No. 00-0601-12
Project Description	P.O. No 14731	Customer Job. No.
Job Location DHT Boise	Percent Inspected 100%	DHT Procedure No. 1200
Surface Condition AS welded	Type of Material Steel 4340	Temperature of Material Ambient
Heat Treat Before After	Acceptance Standard ASTM E1444	Inspection Standard Ambient
Type of inspection (MT) PT	Type of Work (New) Repair	

MT	MT Equipment STATIONARY	Dry ___ Wet X	Visible ___ Fluorescent X	AC X DC ___	Prod Spacing ___ Coil X	Mag Particle color florescent
PT	Penetrant material	Water washable ___ Visible PT ___	Solvent ___ Fluorescent ___	Dwell time	Develop Time	Dry ___ Wet ___

DEFECT CODE IP - Incomplete penetration IF - Incomplete fusion UC - Undercut C - Crack P - Porosity S - Slag

Serial No., Piece No., Part No.	Accept	Reject	Defect code	Comments
JN 14552				22 pieces
S1A-01 thru 22	/			
JN 14553				16 pieces
S1B-01 Thru 16	/			
JN 14554				12 pieces
S2A-01 thru 12	/			
JN 14555				6 pieces
S2B-01 thru 06	/			

NW 7 DEC 02 2000

The recorded results are the opinion of the technician to the best of his knowledge based on the information provided to him by the customer at the time of the inspection.

Customer [signature]	Technician [signature]	Level II
	Assistant Technician [signature]	Level

Pacific Metallurgical, Inc.
925 5th Ave. S., P.O. Box 399
Kent, Washington 98035
Phone: 854-4241 Fax: 854-4475

QUALITY HEAT TREATING

TI

No. 270215

NORTHWEST MACHINING & MFG INC
1957 Lanark Street

Meridian, Id 83642

DATE REC'D:	DATE SHIPPED:	INVOICE DATE:
11/30/00		

SPECIFICATION: AMS-2759/2B

MATERIAL:	TENSILE KSI:	ROCKWELL REQUIRED:
4340	260-280	BELOW

CUST. P.O.:	WEIGHT:	LAB REQUIRED:
14723/14724		SURFACE CONTAMINATION 50.5-53 HRC

HOW REC'D:	HOW SHIP:	NO. PIECES:	PART NO. & NAME:
T-T	T-T	22	S1A, REV. A, JOB # 14552
		12	S2A, REV. A, JOB # 14554

REMARKS:

TEMPERATURE:	1500°F	425°F	475°F
TIME IN:	11:10	3:35	6:20
TIME HELD AT TEMPERATURE:	1hr	2hrs	2hrs
TIME OUT:	1.25	6:05	8:45

Received Above Material Subject to Terms and Conditions on Reverse Side

AUTHORIZED SIGNATURE

- ☐ LAB TEST PERFORMED BY CUSTOMER
- ☐ PASSIVATED BEFORE H.T. PER BAC 5625 & 5619
- ☐ CLEANED AFTER H.T.
- ☐ COPPER PLATE PER BAC 5722 & MIL-C-14550
- ☐ STRIP COPPER & OIL PER BAC 5771
- ☐ D - 2 TEST RESULTS 15N _____ RA _____
- ☐ PROCESSED PER BAC 5619 EXCEPT NO CLEANING AFTER HEAT TREAT
- ☐ BAKED AFTER STRIP @ _____ °F FOR _____ HRS
- ☐ PROCESSED IN VACUUM FOR D1/D2 CONTROL
- ☐ OILED
- ☐ RAW STOCK NO PASSIVATE RQD

CERTIFICATION

WE HEREBY CERTIFY THAT ALL HEAT TREATMENT GIVEN THE ABOVE MATERIAL AND ALL HARDNESS TESTING WAS DONE BY APPROVED METHODS AND INDUSTRY STANDARDS. PROPRIETORY AND GOVERNMENT SPECIFICATIONS (WHEN APPLICABLE) WERE FOLLOWED AND RECORDS OF SUCH HEAT TREATMENT IS ON FILE AND TRACEABLE BY DOCUMENTS. COPIES OF LAB TEST REPORTS AND FURNACE REPORTS ARE AVAILABLE AT NORMAL FEES IF REQUIRED.

PMI 26

QUALITY CONTROL APPROVAL — DATE 12-1-00

HARDNESS TEST BY B. Emry

NO. OF PIECES 34

RESULTS 50.5-53 HRC

DATE 12-1-00

LAB NO.

PARTS RELEASED
SUBJECT TO LAB REPORT

NW 3 DEC 02 2000

FINAL TEMPER/AGE 475°F

PACKING SLIP - CERTIFICATION

PACIFIC METALLURGICAL LABORATORY

925 S.5th Ave., P.O.Box 399
Kent, WA., 98031
(253) 854-4241

DATE: 12/5/00

LAB NO: 11387-12103

CUSTOMER: NW MACHINING & MFG.

PART NO: S1A, S2A

CUSTOMER P.O: 14723/14724

CONDITION: 260-280ksi
(Coupon as Quenched)

PMI JOB NO: 270215

MATERIAL: 4340

SPECIFICATION: SEE BELOW.

TEST TYPE: SURFACE CONTAMINATION DETERMINATION

TEST RESULTS

DECARBURIZATION DETERMINATION, KNOOP, 500grams.

Depth (inches)	HK500	HRC
0.00013	622.3	54.8
0.00026	670.2	57.0
0.00039	692.4	58.1
0.00052	695.5	58.3
0.00065	700.1	58.5
0.00078	695.5	58.3
0.00090	711.0	59.0
0.00103	719.0	59.4
0.00300	663.0	56.7
0.00500	651.8	56.1
0.01000	646.3	55.8
Average Core:	651.8	56.1

INTERGRANULAR OXIDATION DETERMINATION, MAG. 500X

Depth of Intergranular Oxidation: 0.0002 in.

SPECIFICATION COMPLIANCE SUMMARY

SPECIFICATION	PASS/FAIL
MIL-H-6875h(>220ksi)	PASS
AMS2759/2B(>220ksi)	FAIL

PMI 25 12-5-00

NOTE: Hardness Conversions Per ASTM A370, Table 2A.

Respectfully Submitted,

Michael P. Walker

YOUR EMJ BRANCH LOCATION:

Earle M. Jorgensen Company
6650 NORTH ENSIGN STREET
PORTLAND, OR 97217

Invoice

OUR INFORMATION

INVOICE NUMBER	T145494271
CUSTOMER NUMBER	70016
DATE	10-NOV-00
SHIPPED ON DOCUMENT NUMBER	T145494271

SOLD TO:

NORTHWEST MACHINING & MFG.

1957 LANARK STREET
MERIDIAN, ID 83642

YOUR INFORMATION

ORDERED BY	VIVIAN
DATE ORDERED	09-NOV-00
PO #	14629

YOUR ORDER

ITEM DESCRIPTION	QTY. DESC.	SHIPPED	X UNIT PRICE	= EXT. PRICE
E4340 CD N & T AQ BAR MIL S 5000 C 1/2 X 2-1/2 FLAT X 12' R/L Part # JOB # 14554 & 14555	1 Bar	51.04 LB	4.97 LB	253.71

14554 14555 ~~Bad~~ G.A

RECEIVED
NOV 17 2000

Thank You. Remember EMJ, accepts VISA, MasterCard and American Express at point of sale.

Check out e-metals, EMJ's new customer information and order processing system at www.emjmetals.com.

For further information about your order, please contact your materials specialist:

LARRY
AT 503 2832251
EMJ - PORTLAND
SERVICE CENTER

We hereby certify that the goods and services covered by this invoice were produced in compliance with the fair labor standards act, as amended, and the regulations thereunder. Terms and conditions: The complete terms and conditions of sale are stated on the reverse side of this invoice. Aluminum Product Net 30 Days. Black Pipe Products 2%10 Days Net 30. Unit price is displayed in two decimal places but priced by four.

TOTAL MATERIALS AND SERVICES	$	253.71
SALES TAX	$	
INVOICE TOTAL	$	253.71

SHIPPING INFORMATION

SHIPPING DATE	09-NOV-00
FREIGHT PAYMENT	PREPAID
FOB	D
SHIPPED VIA	VIKING

SHIPPING ADDRESS:
N.W. MACHINING & MANUFACTURING

1957 LANARK STREET
MERIDIAN, ID 83642

Form: FOONYY

TEAR OFF THIS SLIP AND RETURN WITH CHECK PAYABLE TO:

Earle M. Jorgensen Company
DEPT 0934
LOS ANGELES, CA 900840934
(REMITTANCE ADDRESS ONLY)

INVOICE NUMBER		T145494271
INVOICE TOTAL	$	253.71

PAYMENT TERMS

1/2% 10 DAYS NET 30
Except Aluminum - ALUMINUM Net 30

CERTIFICATE OF TEST

Certification Date
13-NOV-2000

CUSTOMER ORDER NUMBER
14629

CUSTOMER PART NUMBER
JOB # 14552 & 14553

6650 NORTH ENSIGN STREET
PORTLAND OR 97217

Invoice Number
T145493

Ship# T171060

SOLD TO: NORTHWEST MACHINING & MFG.
1957 LANARK STREET
MERIDIAN ID 83642

SHIP TO: N.W. MACHINING & MANUFACTURING
1957 LANARK STREET
MERIDIAN ID 83642

Description: E4340 CD N & T AQ BAR MIL S 5000 CND E4
1/2 X 4 FLAT X 12' R/L
Line Total: 3 PCS
HEAT: 8095101
ITEM: 508603

Specifications:
MIL S 5000 AMS 2301 AMS 6415

CHEMICAL ANALYSIS

C	MN	P	S	SI	CU	NI	CR
0.4	0.75	0.01	0.016	0.21	0.12	1.71	0.8

MO	V	SN	AL	TI	CB	CA
0.25	0.008	0.007	0.024	0.003	0.002	0.0001

RCPT: R314463
MILL : REPUBLIC ENGINEERED STEELS COUNTRY OF ORIGIN : USA

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 00 IN	%RED IN AREA	HARDNESS BHN
					241
					255

NW 3
NOV 14 2000

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination.

We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes.

Material did not come in contact with mercury while in our possession.

LINDY FARR

Lindy Farr

MANAGER, QUALITY ASSURANCE

CERTIFICATE OF TEST

Certification Date
13-NOV-2000

CUSTOMER ORDER NUMBER
14629

CUSTOMER PART NUMBER
JOB # 14552 & 14553

6650 NORTH ENSIGN STREET
PORTLAND OR 97217

Invoice Number
T145493

Ship# T171060

SOLD TO: NORTHWEST MACHINING & MFG.
1957 LANARK STREET
MERIDIAN ID 83642

SHIP TO: N.W. MACHINING & MANUFACTURING
1957 LANARK STREET
MERIDIAN ID 83642

Description: E4340 CD N & T AQ BAR MIL S 5000 CND E4
1/2 X 4 FLAT X 12' R/L Line Total: 3 PCS
HEAT: 8095101 ITEM: 508603
END-QUENCH HARDENABILITY (JOMINY - RC) IN

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
57	57	56	56	56	56	56	55	56	55	55	55	54	55	54

16	18	20	22	24	26	28	30	32
54	53	52	51	50	49	48	45	45

GRAIN SIZE :7 -

MATERIAL IS FREE FROM MERCURY CONTAMINATION
NO WELD REPAIR PERFORMED ON MATERIAL
DECARB: OK
MACRO: OK
AMS NO :2301
SEVERITY :0.0
FREQUENCY:0.0

NW 3 NOV 14 2000

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination.

We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes.

Material did not come in contact with mercury while in our possession.

LINDY FARR

Lindy Farr

MANAGER, QUALITY ASSURANCE

Earle M. Jorgensen Company

FROM: EARLE M. JORGENSEN COMPANY
6650 NORTH ENSIGN STREET
PORTLAND

S.I.D. ORDER NO.

ORDERED BY: 00274
PHONE: VIVIAN
CUST. ORD. NO.: 208 888-5334
14629
PAGE 1 OF 1

SOLD TO

SHIP TO: N.W. MACHINING & MANUFACTURING
1957 LANARK STREET
MERIDIAN
ID 83642

00274 CT
XLER # 00271 TL45493
TL71060
000

DATE ORD.	CUSTOMER P.O.	F.O.B.	DEL AREA	VIA	CUST. ACCT.	PROM. DATE
09-NOV-00	14629	D	0	VIKNG	70016	10-NOV-00

ORDER WGT.	I/S	TERR.	TYPE	TAX RATE	PPD/COLL	C.O.D.	TEST REPORT	SHIP DATE
251.82	106 LARRY KING		CT		P	2	Y PRO#:	10-NOV-00

*** To be DIRECT SHIPPED from Branch 00274

508603 E4340 CD N & T AQ BAR MIL S 5000 CND E4
3 Bars 1/2 X 4 FLAT X 12' R/L 251.8220 LB
JOB # 14552 & 14553 YEL W/FT 6.8060 EXT WGT: 252
PART#JOB # 14552 & 14553 JOB# PO LN

NOV 14 2000
NW 3

RECEIVED ABOVE GOODS ON TERMS AND CONDITIONS APPEARING ON BACK OF INVOICE X	INVOICE AMT.	ADDITIONAL CHARGES	V.A.T. TAX	TAX/AMT.	TOTAL

NO. OF PKGS.	PKG. TYPE	NO. OF PKGS.	PKG. TYPE	TOTAL PCS.	DESCRIPTION OF ARTICLES	SHIP WGT.	CLS
	Ttl				IRN/STL BAR 104	252	050
					TOTAL	252	

PACKING SLIP

FREIGHT CHARGES ARE TO BE PREPAID UNLESS THIS BLOCK IS CHECKED. ☐

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement. The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
(Signature of Consignor)

CARRIER SEND FREIGHT BILL TO.

SHIPPER PER X

C.O.D. AMOUNT

C.O.D. FEE TO BE PAID BY
SHIPPER ☐ CONSIGNEE ☐

CARRIER
AGENT
PER:

NOV 14 2000 3:43 AM FR EARLE M JORGENSEN03 283 1108 TO 12088880917 P.02

** TOTAL PAGE.02 **

☐ SEE BACK OF MEMO COPY

DATE 00/11/10 11/13

2869006

FREIGHT BILL PRO# 718282783

FOR QUESTIONS CALL CUSTOMER SERVICE
(800) 845-4647

00/11/11 00:40:37

viking freight

P.O. BOX 649001
SAN JOSE, CA 95164-9001
1-800-VIKINGS (1-800-845-4647)
www.vikingfreight.com
CAL T84,649 (VIKN)

A FedEx Company

CONSIGNEE COPY

SHIPPER
JORGENSEN STEEL ALUMINUM
22011 76TH AVE S
KENT WA 98032

PRO # 718282783
ROUTING PAGE 1 OF 1
SEA/BSE-24B
49392/999999
IL

CONSIGNEE BILL: ERL650NNPR REF. #
NW MACHINING AND MFG
VIVIAN SH# T145493
1957 LANARK ST
MERIDIAN ID 83642 PO# 14629

UNITS	HM	DESCRIPTION	WEIGHT IN LBS	RATE	CHARGES	
1		* SHIPPER PH 206 872 0100 IRON/STEEL BAR *CONSIGNEE PHONE 208/888-5334 SHIPPED AT MINIMUM FUEL SURCHARGE FUEL SURCHARGE IS 4.00%	252			CODE DATE EMP#
1			252			

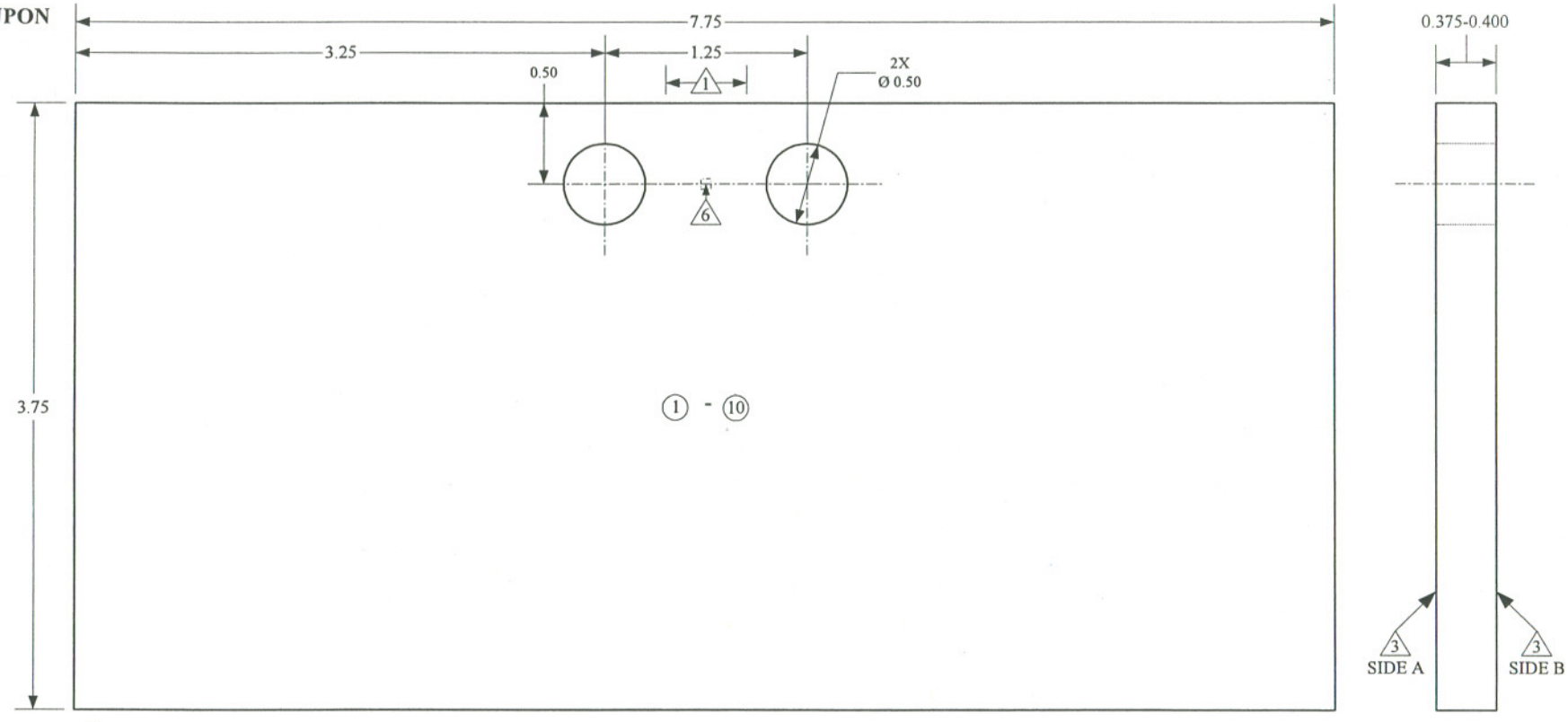
Responsiveness. It means Viking

PCS	DATE	TIME	DRVR#	RECEIVED IN GOOD ORDER EXCEPT AS NOTED		SURCHARGE		AMT. COLLECTED
3	11-13	1320	1671	PRINT RECEIVER'S LAST NAME	RECEIVING CO-NAME	AMT. DUE	PREPAID	

TRANSPORTATION PROVIDED PER THE TERMS AND CONDITIONS OF THE BILL OF LADING, AND THE CONSIGNEE'S NATIONAL MOTOR FREIGHT CLASSIFICATION, AND CARRIER'S TARIFF. LIABILITY LIMITATIONS MAY APPLY.

S1B COUPON

COUPON



NOTES

1. SERIALIZE THE COUPONS S1B-01 TO S1B-16 ON TOP EDGE AT NOTED LOCATION USING 0.25 IMPRESSION STAMP, 0.004-0.008 DEEP
2. HEAT TREAT AND PROCESS TO 260-280 KSI ULTIMATE TENSILE STRENGTH PER AMS-H-6875, MAXIMUM ALLOWABLE DECARBURIZATION 0.003
3. 0.025 125/64 M BEFORE 2, 125/64 M AFTER 2
4. BREAK ALL SHARP EDGES 0.005-0.015
5. i) FLUORESCENT MAGNETIC PARTICLE INSPECT PER ASTM E1444
   ii) INSPECT BEFORE AND AFTER MARKING 1 – 10
6. FOR COUPONS WITH EVEN SERIAL NUMBERS: PERFORM ROCKWELL HARDNESS C TEST PER ASTM A370 AT NOTED LOCATION
7. FOR COUPONS WITH EVEN SERIAL NUMBERS: PERFORM SURFACE ROUGHNESS MEASUREMENT PER ASME B46.1

1 – 10
i) MARK BEFORE 2
ii) MARK SIDE A WITH DATA MATRIX™ SYMBOLS

ALGLE PROGRAM	TITLE	DRAWING NUMBER	REVISION	DIMENSIONS	TOLERANCES	DRAWN
ALGLE	COUPON	S1B	B	ALL DIMENSIONS IN INCHES	UNLESS OTHERWISE NOTED X.X = ± 0.1 X.XX = ± 0.05 ANGLES = ± 0.5°	JOHN COATES
DPM EVALUATION	MATERIAL 4340 PER AMS 6415	DATE 10/18/00	SHEET 1 OF 1	SCALE NOT TO SCALE		CHECKED FRANK ZUECH

Northwest Machining and Mfg., Inc.
1957 LANARK STREET • MERIDIAN, IDAHO 83642
PHONE (208) 888-5334 • FAX (208) 888-0917
e-mail nwmm@micron.net

ISO 9002 Registered
GSA-PES SIN 871-3

Date: 03/28/01

Job Order Number: 14553

Customer: GENERAL ATOMICS

Part Number: S1B REV: B

Description: COUPON

Quantity: 14

Purchase Order Number: H030105

Customer Supplied Material? NO

CERTIFICATION OF CONFORMANCE

NORTHWEST MACHINING & MFG., INC., DOES HEREBY CERTIFY THAT PARTS MANUFACTURED UNDER THE ABOVE NOTED PURCHASE ORDER WERE PRODUCED AS STIPULATED BY THAT PURCHASE ORDER.

IT IS FURTHER CERTIFIED THAT TEST REPORTS VERIFYING COMPLIANCE WITH DESIGN STANDARDS, MATERIAL CONTROLS, & INSPECTION REQUIREMENTS NOTED ON THE PURCHASE ORDER, ARE ON FILE AND AVAILABLE UPON REQUEST.

SIGNED: S. Harmon
SID HARMON / (QCM)

INSPECTION REPORT

MATERIAL: 4340 STL.
SPEC: AMS-6415
P.O/CERT: EMA# T145493
SHEET 1 OF 4
H# 8095101

.X +/- .1
.XX +/- .05
.XXX +/-
ANGLE +/- .5°

CUSTOMER: GENERAL ATOMICS
P/O #: HC.30165
DRWG #: S1B
PART NAME: COUPON
DCN:

JOB #: #14553
S/O #:
REV #: B
QTY: 16
ADCN:

DIM NO.	CHARACTERISTIC OR DIMENSIONAL NOTATION	FIRST PART	BY	DATE	INPROCESS INSP.	BY	HI 01	LO DIMENSION OF RESPECTIVE PARTS 02	03	04	05	06	BY	DATE
1	2xØ .50	1.492	NW 2	DEC 01 2000			Ok on 11 pcs	Ok on 5 pcs					NW 3	DEC 01 2000
2	7.25	7.752	NW 2	DEC 01 2000	7.751 – 7.754	NW 3	7.759	7.750					NW 3	NOV 20 2000
3	1.25	1.250	NW 2	DEC 01 2000			1.251	1.248					NW 3	DEC 01 2000
4	.50	.501	NW 2	DEC 01 2000			.501	.491						
5	3.25	3.255	2	DEC 01 2000			3.255	3.249					NW 3	DEC 01 2000
6	.375-.400	.387-.391	NW 2	DEC 01 2000			.392	.377					NW 3	NOV 20 2000
7	3.75	3.750	2	DEC 01 2000	3.753 – 3.753	NW 3	3.756	3.749					3	DEC 01 2000
8	SERIALIZE ±.004-.008X	.005 .238	NW 3	DEC 01 2000			.006	.238 .005						
9	125μ-64μ BEFORE H.T.							A 112 B 100		A 112 B 110		A 122 B 110		
10	125μ-64μ AFTER H.T.							A B		A 100 B 100		A 106 B 100		
11	R.C. TEST @ BEFORE H.T. NOTED LOC.							RC22		RC22		RC20.5		
12	RC TEST AFTER HT.TR							RC52		RC52		RC52.5		
A	HT.TR. TO 260-280 KSI PER MIL-H-6875	Pacific Metallurgical # 26-7007(14)						NW 3	MAR 22 2001					
B	MAG. INSPECT PER ASTM-E1444	DIAMOND H. TESTING # 1177	NW 2	DEC 01 2000				Diamond H Testing # 1243(14) After Heat					NW 3	MAR 27 2001

QTY INSPECTED 14 BY NW 3 DEC 01 2000 ACCEPTED 14 REJ 0

INSPECTION REPORT

MATERIAL: 4340 STL.
SPEC: AMS-6415
P.O/CERT:
SHEET 2 OF 4

.X +/- .1
.XX +/- .05
.XXX +/-
ANGLE +/- .5°

CUSTOMER: GENERAL ATOMICS
P/O #:
DRWG #: STB
PART NAME: COUPON
DCN:

JOB #:
S/O #:
REV #: B
QTY:
ADCN:

DIM NO.	CHARACTERISTIC OR DIMENSIONAL NOTATION	FIRST PART	BY	DATE	INPROCESS INSP.	BY	DIMENSION OF RESPECTIVE PARTS 07	08	09	10	11	12	BY	DATE
1	2xØ .50													
2	2.75													
3	1.25													
4	.50													
5	3.25													
6	.375-.400													
7	3.25													
8	SERIALIZE ±.004-.008x .125													
9	125μ-64μ BEFORE H.T.							A 80 B 112		A 108 B 116		A ~~100~~ 112 B ~~96~~ 108		
10	125μ-64μ AFTER H.T.							A 68 B 104		A 96 B 104		A 100 B 96		
11	R.C. TEST @ Pocket NEED LOC							RC20.5		RC21		RC21		
	RC Test After Heat							RC52		RC53		RC52		

QTY INSPECTED 16 BY AW 3 ACCEPTED 16 REJ 0

DEC 01 2000

INSPECTION REPORT

MATERIAL: 4340 STL.
SPEC: AMS-6415
P.O/CERT:
SHEET 3 OF 4

.X +/- .1
.XX +/- .05
.XXX +/-
ANGLE +/- .5°

CUSTOMER: GENERAL ATOMICS
P/O #:
DRWG #: STR
PART NAME: COUPON
DCN:

JOB #:
S/O #:
REV #: B
QTY:
ADCN:

DIM NO.	CHARACTERISTIC OR DIMENSIONAL NOTATION	FIRST PART	BY	DATE	INPROCESS INSP.	BY	DIMENSION OF RESPECTIVE PARTS 13	14	15	16			BY	DATE
1	2xØ .50													
2	7.75													
3	1.25													
4	.50													
5	3.25													
6	.375-.400													
7	3.75													
8	SERIALIZE ∓.004-.008 .125 X													
9	125µ-64µ BEFORE H.T.							A 86 B 148		A ~~148~~ 112 B ~~96~~ 112				
10	125µ-64µ AFTER H.T.							A 86 B 102		A B				
11	R.C. TEST @ NOTED LOC Before							RC 21.5		RC 22				
12	RC Test After Heat							RC 52						

QTY INSPECTED 16 BY NTW 3 DEC 01 2000 ACCEPTED 16 REJ 0

Diamond H Testing Laboratories

Certified Inspection Report

Report No. 1243

QSD 252

Customer Northwest Machining & Mfg.	Date 3/26/2001	DHT Job No. 01-3023-32	DHT Proc No. PT1110, MT1210
Project Description MT 18 plates	P.O. No. 15282	Cust. Job. No. 14553-6A, 14555-6A	
Job Location DHT Lab	Inspection Std ASTM 1444, FWDC, Flourescent or		
Surface Cond. As machined	Acceptance Standard No Defects Allowed	Percent Inspected 100%	
Heat Treat: Before After	Material Type 4340 steel per AMS-6415		
Type of Inspection: MT x PT ___	Type of Work: New x Repair ___ In service ___	Temp of Material Ambient	

MT Equipment	Magna Flux	Dry ___ Wet X	Visible ___ Fluorescent X	AC ___ DC X	Prod Spacing N/A Coil X	Mag Particle color	PP

Penetrant material		Water washable ___ Visible PT	Solvent ___ Fluorescent	Dwell time	Develop Time	Dry ___ Wet	

DEFECT CODE IP - Incomplete penetration IF - Incomplete fusion UC - Undercut C - Crack P - Porosity S - Slag

Piece No., Part No.	Material	Accept	Reject	Defect code	Comments
S2B-02 (168-01)	4340	X			
S2B-03 (168-02)	4340	X			
S2B-04 (168-03)	4340	X			
S2B-05 (168-04)	4340	X			
S1B-01 (168-05)	4340	X			
S1B-02 (168-06)	4340	X			
S1B-03 (168-07)	4340	X			
S1B-04 (168-08)	4340	X			
S1B-05 (168-09)	4340	X			
S1B-06 (168-10)	4340	X			
S1B-07 (168-11)	4340	X			
S1B-08 (168-12)	4340	X			
S1B-09 (168-13)	4340	X			
S1B-10 (168-14)	4340	X			
S1B-11 (168-15)	4340	X			
S1B-12 (168-16)	4340	X			
S1B-13 (168-17)	4340	X			
S1B-14 (168-18)	4340	X			

MAR 27 2001

NW 3

The recorded results are the opinion of the technician to the best of his knowledge based on the information provided to him by the customer at the time of the inspection.

Customer Dave Berther	Technician Michael Hatchings	Level II
	Assistant Technician	Level

925 6th Ave. S., P.O. Box 389
Kent, Washington 98035
Phone: 854-4241 Fax: 854-4475

NO. 276067

NORTHWEST MACHINING & MFG INC
1957 Lanark Street

Meridian, Id 83642

DATE REC'D: 03/14/01	DATE SHIPPED: 3-20-01	INVOICE DATE:	
SPECIFICATION: MIL-H-6875H			
MATERIAL: 4340	TENSILE KSI: 260-280	ROCKWELL REQUIRED: 51-53	
CUST. P.O.: 15216	WEIGHT: 47.75#T	LAB REQUIRED: **********DECARB*********	
HOW REC'D: UPS	HOW SHIP: OVERNITE	NO. PIECES: 14 / 4	PART NO. & NAME: S1B JOB ~~14555-GA~~ 14553-GA / S2B JOB ~~14553-GA~~ 14555-GA
REMARKS:			

PMI 23 3/23/01

corrected certification

Received Above Material Subject to Terms and Conditions on Reverse Side

UPS Red
AUTHORIZED SIGNATURE

- ☐ LAB TEST PERFORMED BY CUSTOMER
- ☐ PASSIVATED BEFORE H.T. PER BAC 5023 & 5019
- ☐ CLEANED AFTER H.T.
- ☐ COPPER PLATE PER BAC 5722 & MIL-C-14550
- ☐ STRIP COPPER & OIL PER BAC 5771
- ☐ 0 - 2 TEST RESULTS 15N _____ RA _____
- ☐ PROCESSED PER BAC 5619 EXCEPT NO CLEANING AFTER HEAT TREAT
- ☐ BAKED AFTER STRIP @ _____ °F FOR _____ HRS
- ☐ PROCESSED IN VACUUM FOR OXIDE CONTROL
- ☒ OILED
- ☐ RAW STOCK NO PASSIVATE ROD

CERTIFICATION

WE HEREBY CERTIFY THAT ALL HEAT TREATMENT GIVEN THE ABOVE MATERIAL AND ALL HARDNESS TESTING WAS DONE BY APPROVED METHODS AND INDUSTRY STANDARDS. PROPRIETORY AND GOVERNMENT SPECIFICATIONS (WHEN APPLICABLE) WERE FOLLOWED AND RECORDS OF SUCH HEAT TREATMENT IS ON FILE AND TRACEABLE BY DOCUMENTS. COPIES OF LAB TEST REPORTS AND FURNACE REPORTS ARE AVAILABLE AT NORMAL FEES IF REQUIRED:

PMI 28

QUALITY CONTROL APPROVAL — DATE 3/20/01

HARDNESS TEST BY: V Gordon
NO. OF PIECES: 2
RESULTS: 52.5-53 HRC
DATE: 3-20-01
LAB NO.: 47227

S2B-02
S2B-04

MAR 23 2001
NW 3

FINAL TEMPERATURE: 425°F

FILE COPY

METALTEST, INC.
1205 5th Avenue South
Kent, Washington 98032
Phone (253) 813-5970 Fax (253) 813-5971
(800) 288-1376

Pacific Metallurgical, Inc.	LAB	47227	03/20/2001
PO Box 399	PO#	12854	
Kent	MATL	4340 Cond. 260-280 KSI	
WA 98035	SPEC	MIL-H-6875H	
Kevin Billington	SIZE		

** Corrected Certification 3/26/01 ** - Corrected Part Number information per revised PO.

Cust : Northwest Machining & Mfg. Inc.

Cert#	Cust PO#	Part Number
276067	15216	S1B JOB# 14553-GA
		S2B JOB# 14555-GA

Microhardness Survey

Distance From Surface (In.)	Knoop 500gr
.003	565
.005	572
.010	581
Core	581

Decarburization:	Satisfactory
Carburization/Nitriding:	Satisfactory
IGA (@ 500X):	(.0002"

Conforms to Spec. XX

Does Not Conform to Spec.

Respectfully,

Blaine Maki
General Manager

NW 3

MAR 27 2001