

CERTIFIED MILL TEST REPORT



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LOG NO. F0000000075229

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BONNEY FORGE CORPORATION

P.O. BOX 330 • 14496 CROGHAN PIKE • MOUNT UNION, PA 17066-0330

(814) 542-2545 • (800) 345-7546 • FAX (814) 542-4908

www.bonneyforge.com

CUSTOMER: WFI INTERNATIONAL, INC.

DATE 07/22/2015

CUSTOMER

BONNEY ORDER NO. B000190746

ORDER NO.: BD00072189

PO#365

SHIP TO: SHANNON FORWARDING, INC.

REF: C1518228

CONTACT: ALMA L. FLORES

13503 REGIONAL DRIVE

UNITEC INDUSTRIAL PARK

LAREDO TX 78045

United States

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
1	10	59457	2 X 2 X 1 3M HOT-DIP TEE T SA/A105 Al 0.024 C 0.200 Co 0.003 Cr 0.040 Cu 0.040 Mn 1.030 Mo 0.007 N 0.005 Nb 0.011 Ni 0.020 P 0.005 S 0.016 Si 0.210 V 0.003 CE(Long Formula) = 0.39 T/S(PSI) 74,607 Y/S(PSI) 49,926 EL(%) 34.25 RA(%) 64.33 Brinell 137 BHN 139 BHN
2	10	59442	2 X 2 X 3/4 3M HOT-DIP TEE T SA/A105 Al 0.018 C 0.200 Co 0.004 Cr 0.030 Cu 0.080 Mn 1.010 Mo 0.010 N 0.004 Nb 0.014 Ni 0.020 P 0.008 S 0.019 Si 0.210 V 0.003 CE(Long Formula) = 0.38 T/S(PSI) 76,250 Y/S(PSI) 50,000 EL(%) 31.55 RA(%) 63.95 Brinell 139 BHN 139 BHN
4	10	59725	2 X 2 X 3/4 3000 A105 TEE S SA/A105 Al 0.030 C 0.210 Co 0.004 Cr 0.030 Cu 0.060 Mn 1.030 Mo 0.005 N 0.003 Nb 0.015 Ni 0.020 P 0.006 S 0.022 Si 0.220 V 0.003 CE(Long Formula) = 0.39 T/S(PSI) 76,213 Y/S(PSI) 50,129 EL(%) 34.15 RA(%) 60.53 Brinell 139 BHN 141 BHN
4	30	59725	2 X 2 X 3/4 3000 A105 TEE S SA/A105 Al 0.030 C 0.210 Co 0.004 Cr 0.030 Cu 0.060 Mn 1.030 Mo 0.005 N 0.003 Nb 0.015 Ni 0.020 P 0.006 S 0.022 Si 0.220 V 0.003 CE(Long Formula) = 0.39 T/S(PSI) 76,213 Y/S(PSI) 50,129 EL(%) 34.15 RA(%) 60.53 Brinell 139 BHN 141 BHN

We certify that the data on this sheet is a true copy taken from our records of material furnished us by the production mill, or as obtained by additional laboratory checks.

by 

Kylee Ruiz

QUALITY PROCESS MANAGER

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ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO.	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
5	5	59729	2 X2 X 1/2 3000 A105 TEE S	SA/A105 Al 0.026 C 0.200 Co 0.003 Cr 0.030 Cu 0.050 Mn 1.010 Mo 0.006 Nb 0.017 Ni 0.020 P 0.005 S 0.022 Si 0.220 V 0.003 CE(Long Formula) = 0.38 T/S(PSI) 79,853 Y/S(PSI) 51,882 EL(%) 33.45 RA(%) 57.39 Brinell 144 BHN 139 BHN
6	20	59725	2 X2 X 11/2 3000 A105 TEE S	SA/A105 Al 0.030 C 0.210 Co 0.004 Cr 0.030 Cu 0.060 Mn 1.030 Mo 0.005 N 0.003 Nb 0.015 Ni 0.020 P 0.006 S 0.022 Si 0.220 V 0.003 CE(Long Formula) = 0.39 T/S(PSI) 76,213 Y/S(PSI) 50,129 EL(%) 34.15 RA(%) 60.53 Brinell 139 BHN 141 BHN
7	30	59717	1 3000 A105 TEE T	SA/A105 Al 0.027 C 0.200 Co 0.004 Cr 0.090 Cu 0.080 Mn 1.080 Mo 0.007 N 0.004 Nb 0.012 Ni 0.030 P 0.007 S 0.018 Si 0.250 V 0.003 CE(Long Formula) = 0.41 T/S(PSI) 76,663 Y/S(PSI) 49,449 EL(%) 34.45 RA(%) 59.18 Brinell 137 BHN 135 BHN
8	10	59718	1 X1 X 1/2 3000 A105 TEE T	SA/A105 Al 0.023 C 0.200 Co 0.004 Cr 0.060 Cu 0.060 Mn 1.040 Mo 0.005 N 0.003 Nb 0.013 Ni 0.020 P 0.005 S 0.018 Si 0.220 V 0.004 CE(Long Formula) = 0.39 T/S(PSI) 75,440 Y/S(PSI) 48,152 EL(%) 34.10 RA(%) 56.78 Brinell 132 BHN 137 BHN

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ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
9	100	59741	1/2 3000 A105 90EL T SA/A105 Al 0.029 C 0.210 Co 0.003 Cr 0.040 Cu 0.070 Mn 1.060 Mo 0.005 Nb 0.012 Ni 0.030 P 0.004 S 0.019 Si 0.250 V 0.003 CE(Long Formula) = 0.40 T/S(PST) 79,021 Y/S(PST) 51,871 EL(%) 33.20 RA(%) 57.65 Brinell 147 BHN 139 BHN
10	200	59653	1 3000 A105 90EL S SA/A105 Al 0.027 C 0.200 Co 0.004 Cr 0.040 Cu 0.060 Mn 1.010 Mo 0.008 N 0.004 Nb 0.009 Ni 0.040 P 0.005 S 0.024 Si 0.210 V 0.003 CE(Long Formula) = 0.39 T/S(PST) 75,889 Y/S(PST) 49,324 EL(%) 35.90 RA(%) 61.68 Brinell 139 BHN 139 BHN
11	30	59754	1 1/4 3000 A105 90EL S SA/A105 Al 0.023 C 0.200 Co 0.003 Cr 0.030 Cu 0.050 Mn 1.100 Mo 0.004 Nb 0.015 Ni 0.020 P 0.005 S 0.020 Si 0.210 V 0.004 CE(Long Formula) = 0.40 T/S(PST) 80,408 Y/S(PST) 53,398 EL(%) 33.55 RA(%) 62.41 Brinell 135 BHN 139 BHN
12	30	6811 MALE	1/2 3000 A105 UNAR T SA/A105 Al 0.027 C 0.210 Cb 0.000 Co 0.004 Cr 0.040 Cu 0.050 Mn 1.020 Mo 0.006 Nb 0.014 Ni 0.013 P 0.006 S 0.021 Si 0.210 V 0.004 CE(Long Formula) = 0.39 T/S(PST) 75,900 Y/S(PST) 46,700 EL(%) 28.00 RA(%) 45.40 Brinell 156 BHN 156 BHN

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ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO.	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
12	30	6928	1/2 3000 A105 UNAR T	SA/A105
		FEMALE	Al 0.027 C 0.200 Co 0.003 Cr 0.040 Cu 0.060 Mn 1.030 Mo 0.005 N 0.003 Nb 0.012 Ni 0.020 P 0.006 S 0.020 Si 0.270 V 0.004 CE(Long Formula) = 0.39 T/S(PSI) 77,900 Y/S(PSI) 47,500 EL(%) 30.00 RA(%) 54.00 Brinell 167 BHN 163 BHN	
12	30	MIAL	1/2 3000 A105 UNAR T	SA/A105
		NUT	Al 0.034 C 0.190 Co 0.000 Cr 0.120 Cu 0.210 Mn 0.980 Mo 0.030 Nb 0.001 Ni 0.080 P 0.014 S 0.021 Si 0.250 V 0.004 CE(Long Formula) = 0.40 T/S(PSI) 76,900 Y/S(PSI) 46,500 EL(%) 33.50 RA(%) 68.00 Brinell 142 BHN 144 BHN	
13	27	6991	2 3000 A105 UNAR T	SA/A105
		MALE	Al 0.022 C 0.210 Cb 0.000 Co 0.003 Cr 0.030 Cu 0.080 Mn 1.080 Mo 0.006 Nb 0.014 Ni 0.030 P 0.005 S 0.018 Si 0.200 V 0.004 CE(Long Formula) = 0.41 T/S(PSI) 76,800 Y/S(PSI) 51,700 EL(%) 28.00 RA(%) 61.60 Brinell 143 BHN 152 BHN	
13	27	6902	2 3000 A105 UNAR T	SA/A105
		FEMALE	Al 0.029 C 0.200 Co 0.006 Cr 0.080 Cu 0.200 Mn 1.010 Mo 0.011 N 0.005 Nb 0.012 Ni 0.050 P 0.008 S 0.025 Si 0.210 V 0.004 CE(Long Formula) = 0.40 T/S(PST) 74,100 Y/S(PST) 41,400 EL(%) 29.50 RA(%) 57.70 Brinell 162 BHN 158 BHN	

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CMTR: REV2

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CONTACT: ALMA L. FLORES
 13503 REGIONAL DRIVE
 UNITEC INDUSTRIAL PARK
 LAREDO TX 78045
 United States

ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO.	CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
13	27	T1BD NUT	2 3000 A105 UNAR T	SA/A105 Al 0.023 C 0.190 Cb 0.001 Co 0.000 Cr 0.140 Cu 0.090 Mn 1.020 Mo 0.030 Ni 0.090 P 0.010 S 0.016 Si 0.240 V 0.002 CE(Long Formula) = 0.41 T/S(PSI) 76,428 Y/S(PSI) 45,388 EL(%) 34.95 RA(%) 64.57 Brinell 139 BHN 139 BHN
13	3	6491 MALE	2 3000 A105 UNAR T	SA/A105 Al 0.026 C 0.200 Co 0.004 Cr 0.030 Cu 0.060 Mn 1.020 Mo 0.004 N 0.002 Nb 0.014 Ni 0.020 P 0.005 S 0.017 Si 0.240 V 0.003 CE(Long Formula) = 0.38 T/S(PSI) 74,600 Y/S(PSI) 46,800 EL(%) 30.00 RA(%) 55.60 Brinell 152 BHN 151 BHN
13	3	6994 FEMALE	2 3000 A105 UNAR T	SA/A105 Al 0.019 C 0.210 Cb 0.000 Co 0.004 Cr 0.040 Cu 0.060 Mn 1.120 Mo 0.006 Nb 0.013 Ni 0.030 P 0.006 S 0.016 Si 0.190 V 0.004 CE(Long Formula) = 0.41 T/S(PSI) 74,300 Y/S(PSI) 38,300 EL(%) 30.00 RA(%) 57.40 Brinell 156 BHN 152 BHN
13	3	T1BE NUT	2 3000 A105 UNAR T	SA/A105 Al 0.023 C 0.180 Co 0.000 Cr 0.130 Cu 0.100 Mn 1.000 Mo 0.030 N 0.007 Nb 0.000 Ni 0.100 P 0.008 S 0.015 Si 0.260 V 0.002 CE(Long Formula) = 0.39 T/S(PSI) 73,969 Y/S(PSI) 55,114 EL(%) 28.00 RA(%) 57.00 Brinell 152 BHN 152 BHN

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ITEM	QUANTITY	LOT NO.	GRADE OR SPECIFICATION NO. CHEMICAL ANALYSIS, PHYSICAL PROPERTIES, REMARKS:
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1. THE MATERIAL SUPPLIED IS FREE FROM MERCURY AND RADIUM CONTAMINATION.
2. THE FITTINGS SUPPLIED ARE IN ACCORDANCE WITH PURCHASE ORDER SPECIFICATIONS.
3. THE MATERIAL SUPPLIED MEETS THE REQUIREMENTS OF NACE MRO175/ISO 15156-2.
4. CERTIFYING ASTM A105-14 / ASME SA105-13 EDITION.
5. THE FITTINGS SUPPLIED WERE NOT SUBJECTED TO ANY FORM OF WELD REPAIR.
6. THE PRODUCT SUPPLIED WAS INSPECTED IN ACCORDANCE WITH EN 10204:2004 EDITION TYPE 3.1 INSPECTION DOCUMENT. (EUROPEAN STANDARD)
7. ELONGATION TEST RESULTS ARE OBTAINED USING STANDARD ROUND SPECIMEN, 2 INCH OR 50 MM GAGE LENGTH.
8. THE MATERIAL SUPPLIED IS IN THE AS-ROLLED CONDITION.
9. THE MATERIAL SUPPLIED IS IN THE AS-FORGED CONDITION.

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