



M4Y8_4in

METALLURGICAL TEST REPORT

Kent-WA
8462 S. 190th Street
Kent, WA 98031
USA

3462 S. 190th Street

Certificate: 980255 3
Customer: 000925 068

Mail To:
COPPER AND BRASS SALES, INC.
CUSTOMER PICKUP
8462 SOUTH 190TH STREET
KENT, WA 98031

Ship To:
COPPER AND BRASS SALES, INC.
CUSTOMER PICKUP
8462 SOUTH 190TH STREET
KENT, WA 98031

Date: 8/26/2014 Page: 1

Steel: 316/316L

Finish: RT

Corrosion: ASTM A262 Prac E OK

Red Ratio: 4.7 :1

Four Order: 5400223986

NAS Order: PN 0040959 10

PRODUCT DESCRIPTION :

Round Bar, Hot Rolled, Annealed, Rough Turned
UNS 31600/31603 EN 10204 3.1, ASTM A484/13a
ASTM A276/13, ASTM A479/13a, ASTM A182/13 CHEM ONLY,
ASME SA479/13, ASME SA182/10 CHEM ONLY, ASTM F899/11
AMS 5648L/AMS 5653G, AMS QQS-763B, QQS 763F
FACE MR0175/MR0103(MID RADIUS ONLY),
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/08 CL 1 GR B8M
ASTM A193/10A-ASME SA193/10 CL 1 GR B8M(EXC PAR 7.2)

REMARKS :

COMPLIES W/REQUIREMENTS OF DFAR 252.225-7009 EU DIRECTIVE
2011/65/EU.RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Table with columns: Product Id, Skid #, Diameter, Size, Weight, Length, Mark, Pieces, Commodity Code. Row: BG4137 5, 4.0000, 1,543, 144.00, 6, 1

CHEMICAL ANALYSIS CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan) Chemical Analysis per ASTM A751/08

Table with columns: HEAT, CM, C %, CO %, CR %, CU %, MN %, MO %, N %, NI %, P %. Row: M4Y8, US, .0151, .3015, 16.6380, .3755, 1.4215, 2.0375, .0492, 10.4650, .0325

MECHANICAL PROPERTIES

Table with columns: Product Id, d, HB, .2YS, UTS, RA, Elng. Row: BG4137 5, R L, 143.0, 36.00, 79.00, 73.00, 66.00

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test method used, the material meets the specifications stated. These results are only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical Dept. Mgr. ABHIJEET BHAVE 8/26/2014