



Certificate of Analysis and Tests

* RE-CERTIFICATION *

OUR ORDER 0270483 - 17

848826-1A

HEAT & PIECE 848826-1A 11/09/10

SOLD TO: C.F.F. SPECIALTY STEELS INC.
1840 BURLINGTON ST. E.

SHIP TO: CUSTOMER PICK UP
CONTACT NATALIE FAX 905-549-29
OR NHILDEBRANDT@CFFSTAINLESS.C
ONTARIO CN 00000

ONTARIO L8H 3L4

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ONTARIO CN 00000

YOUR ORDER & DATE
C71995 12/17/09
ITEM DESCRIPTION
HEAT & PIECE 848826 - 1A
WEIGHT 16384
FINISH 1
GRADE 316L / 316 UNS-S31603 / UNS-S31600
DIMENSIONS 2.750 X 78.000 X 262.000 EXACT

SPECIFICATIONS
*** MFG IN NEW CASTLE, IN, USA FROM SLABS IMPORTED FROM BRITAIN
ASTM A240-10 ASME SA240 10ED ASTM A480-09A ASME SA480 10E
NACE MRO175-2003/ISO 15156 NO GRIPPER MARKS
NO WELD REPAIRS
ASTM A262-02A PRACTICE A ASTM A262-02A PRACTICE E

PLATES & TEST PCS SOLUTION ANNEALED @ 1900 DEGREES FAHRENHEIT MINIMUM.
THEN WATER COOLED OR RAPIDLY COOLED BY AIR
FREE FROM MERCURY CONTAMINATION AT CURRENT DETECTION LIMITS
HOT ROLLED, ANNEALED & PICKLED (HRAP)

MECHANICAL & OTHER TESTS
HARDNESS RB 75
GRAIN SIZE 5
YIELD STRENGTH (PSI) 40230
TENSILE STRENGTH (PSI) 85260
INTERGRANULAR CORROSION OK
ELONGATION % IN 2" 56.0
REDUCTION OF AREA % 73.0

CHEMICAL COMPOSITION
CARBON (C) .015
MANGANESE (MN) 1.66
PHOSPHORUS (P) .036
SULFUR (S) .001
SILICON (SI) .32
CHROMIUM (CR) 16.26
NICKEL (NI) 10.10
COBALT (CO) .22
COPPER (CU) .26
MOLY (MO) 2.05
NITROGEN (N) .04
COLUMBIUM (CB) .008
TITANIUM (TI) .002
ALUMINUM (AL) .007
TIN (SN) .007
TANTALUM (TA) .005



ISO 9001-2005

SAIC CERTIFICATE 0000000000

WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE AND TESTED IN ACCORDANCE WITH THE LISTED SPECIFICATION(S) AND THAT THE RESULTS OF ALL TESTS ARE ACCEPTABLE.

JAMES DOUBMAN, QUALITY ASSURANCE MANAGER

CERTIFICATE IN CONFORMANCE WITH EN10204-95 3.1.B/EN10204-2004 3.1

James Douberman signature