

55860

**OUTO
KUMPU**

Certificate of Test



* CERTIFICATION *

HEAT E60733

ORDER 0488670/004 SON D43424 BOL 0141379 TAG 1815894 02/01/07

SHIP TO:

BRAMPTON

----- YOUR ORDER & DATE -----
18314-OP 2/01/07 CUST TAG#11106005

----- ITEM DESCRIPTION -----
GRADE 304L/304 Country of Melt: BRI
Size 304L HRART RND BAR 6 STD Country of Mfg.: SWE
Ship Condition A NAFTA Country of Origin is Country of Melt

Total Bundles 1 SON Weight 2337

----- SPECIFICATIONS -----
AMS 5639H, 5647H SAE-AMS QQ-S-763
ASME SA182 E04 A06 CHEM. ONLY ASME SA193 E04 A06
ASME SA320 B8 CL1 E04 A05 ASME SA479 E04 A06
ASTM A182-05A CHEMISTRY ASTM A262 98 PRACTICE E
ASTM A276 05A ASTM A314 97
ASTM A479 06 ASTM A484 06A
ASTM E112 96 ASTM A320 04 B8 CLASS 1
ASTM A193 04B B8 DIN 50049/EN 10204 3.1B
SOLUTION ANNEALED CONDITION FREE OF CONT. CARBIDE NETWORK
SOL ANNEAL @ 1900F MIN/WQ TIME SUFF. TO SOLN CARBIDES
NACE MR0175-03 EXCEPT SURFACE ISO 15156:2003 EXCEPT SURFACE
FEDERAL SPEC. QQ-S-763F UNS S30400/S30403, AISI304/304L
PRODEC QUALITY L321/304/304L/304 MS-SS1
NO WELD REPAIR FREE OF MERCURY CONTAMINATION

----- MECHANICAL & OTHER TESTS -----
Test Condition A
Hardness as shipped (156 HBW)
Hardness as shipped 81 HRBS
Grain size 5.0 Tensile strength, KSI (MPa) 88.2 (608)
Micro OK 0.2% Yield Strngth, KSI(MPa) 37.7 (260)
Intergranular corrosion OK
Elongation % in 4D 61.0
Reduction of area % 75.0

----- CHEMICAL COMPOSITION -----
Carbon (C) .020 Manganese (Mn) 1.590
Phosphorus (P) .030 Sulphur (S) .025
Silicon (Si) .365 Chromium (Cr) 18.270
Nickel (Ni) 8.090 Cobalt (Co) .124
Copper (Cu) .365 Moly (Mo) .280
Nitrogen (N) .090 Columbium (Cb) .025
Titanium (Ti) .003 Aluminum (Al) .005
Tin (Sn) .014 Vanadium (V) .100
Columbium/
Tantalum (Cb+Ta) .025
Iron (Fe) Balance
Melt Practice EAF
Refining Practice AOD
De-long Ferrite

Knowingly & willfully falsifying or concealing a material act on this form, or making false, fictitious or fraudulent statements or representations herein could constitute a felony punishable under federal statutes.

We hereby certify that the test results shown in this report are correct and accurate as contained in the records of the company and are in compliance with the specifications, codes, and standards listed above.

Outokumpu Stainless Bar, Inc.
3043 Crenshaw Pkwy.
Richburg, SC 29729

M.F. Marcanio, Quality Manager