

849064-3A

Outokumpu Stainless Plate, Inc.

**OUTOKUMPU**

# Certificate of Analysis and Tests

OUR ORDER 0271708 - 01

HEAT & PIECE 849064-3A 05/26/10

SOLD TO: E. M. JORGENSEN  
1900 MITCHELL BLVD.

SHIP TO: E.M. JORGENSEN CO  
1900 MITCHELL BLVD

SCHAUMBURG IL 60193

847-307-2325  
SCHAUMBURG IL 60193

----- YOUR ORDER & DATE -----  
P301768-423 4/05/10 TAG# 542289

----- ITEM DESCRIPTION -----

HEAT & PIECE 849064 - 3A  
WEIGHT 10441  
FINISH 1  
GRADE 316LP / 316P UNS-S31603 / UNS-S31600  
DIMENSIONS 3.000 X 96.000 X 124.000 EXACT

R162551

\*\*\* MFG IN NEW CASTLE, IN, USA  
AMS 5507F WITH EXCEPTIONS  
ASTMA240-09ASMESA240 07E09AD  
LIST HEAT/PC/SIZE ON INVCE  
NO GRIPPER MARKS  
ASTM A262-02A PRACTICE A  
PRODEC QUALITY

----- SPECIFICATIONS -----  
FROM SLABS IMPORTED FROM BRITAIN  
AMS 5524L WITH EXCEPTIONS  
ASTMA480-09ASMESA480 07E09AD  
OUTOKUMPU MACH TEST LP020  
NO WELD REPAIRS  
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 74  
GRAIN SIZE 3  
YIELD STRENGTH (PSI) 35691  
TENSILE STRENGTH (PSI) 79610  
INTERGRANULAR CORROSION OK  
ELONGATION % IN 2" 58.0  
REDUCTION OF AREA % 60.9

----- CHEMICAL COMPOSITION -----

CARBON (C) .022  
MANGANESE (MN) 1.41  
PHOSPHORUS (P) .033  
SULFUR (S) .024  
SILICON (SI) .53  
CHROMIUM (CR) 16.71  
NICKEL (NI) 10.02  
COBALT (CO) .20  
COPPER (CU) .36  
MOLY (MO) 2.00  
NITROGEN (N) .05  
COLUMBIUM (CB) .030  
TITANIUM (TI) .002  
ALUMINUM (AL) .005  
TIN (SN) .009



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.

ISO 9001  
QMI Cert  
550004

JAMES DOUBMAN, QUALITY ASSURANCE MANAGER

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

*James Douman*

Outokumpu Stainless Plate, Inc.  
P.O. Box 370  
New Castle, Indiana 47362