



CARRS STAINLESS STEELS

A Division of ELG Haniel Metals Ltd.
Wadsley Bridge, Sheffield, S6 1LL, England

Telephone: 0114 285 5866
Fax No.: 0114 285 4982
Website: <http://www.elgcarrs.co.uk>
E-mail: info@elgcarrs.co.uk

C155264
10/3

Purchaser - Baselineur	Inspection Certificate Certificat de reception:	DIN 50049 3.1 EN 10204	Cert. No. Zeugnis Nr. Cert. No.	145910	Date: Datum:	28/04/16
Customer Order No. Kundenbestellnummer: No. of Commercial Order:	P04220	Product Description - Beschreibung des Erzeugnisses - Description du Produit:	19.125H Dia. x 10000 lbs Electric Melt & Vacuum Degassed Stainless Steel Solution Annealed Forged SST REV 5 316/316L/316F/316L ASTM A276-35, A479-14, A182-14b, A484-14a, A193-14 B8M CL1 ASTM A276-35, A479-14, A182-14b, A484-14a, A193-14 B8M CL1 ASME SA182, ASME SA479, ASME SA193 B8M CL1, SA2AMS-QQ-S-763B AMS 5653, AMS 5648, NACE MR0175, ISO 15156-3, NACE MR0103	16996 LB	7705 Kgs.	
Our Order No. Unsere Auftr.-Nr. Refus Command. No.	55171					
	W14843400					

Chemical Analysis - Chimische Analyse - Analyse Chimique	C	S	Mn	P	S	Cr	Mo	Ni	Cu	N	Co
CD25643	.021	.25	1.26	.039	.025	16.86	2.08	10.22	.37	.047	.20

Heat Treatment - Wärmebehandlung - Traitement Thermique: Solution annealed @ 1940 F for 5hrs and water quenched

Mechanical Properties - Mechanische Eigenschaften - Caracteristiques Mechanique		Impact								
Test No. Probe Nr. No. deessai	Test description Probendeskription Description	Proof Stress Streckgrenze Limite d'elasticite	0.2%	10%	Tensile strength Zugfestigkeit Resistance a la traction	Rim Rand	Elong % A Bruchdehnung % Lc 5D 4D	Red of Area % Z Bruchdehnung % Schnitt %	Impact Kerbschlagzähigkeit Resistance	Hardness Helle Durete
MR6327	19.125" L	286 MPa		303 MPa	534 MPa		60 %	67 %	78 %	131 HB

Remarks - Bemerkungen - Remarques

Ultrasonically tested to ASTM A388 and found satisfactory
Intercrystalline corrosion test to ASTM A262E satisfactory
Intercrystalline corrosion test to ASTM A262A satisfactory
Grain size to ASTM E412 - Avg 2.5
Microstructure and mapstructure see attached sheet.
No welding performed
No contact with Mercury or radioactive elements
***Nominal Size = 19.0 Dia
Material produced by ELG Carrs Stainless Steels in the United Kingdom
Hot Working Reduction + 2.76:1

This report is a copy of original mill certificate and verifies that the product meets the requirements as originally ordered by Energy Steel Products.

DATE: 4/19/16 VERIFIED BY: *AD*

The material detailed has been manufactured and tested in accordance with the Quality Assurance system ISO 9001:2008 and the requirements of the specification/order.

Signed: *C. Kyrill*

Chief/Kyrill - Quality Manager

Approved signatory for ELG Carrs Stainless Steels

