M.E.G.A.

INSPECTION CERTIFICATE

Certificato d'ispezione

REPORT N. Rapporto N.	TC-019212-16-0001	**Issued on**	31/01/2017	**Customer** Cliente	PROVEEDORA DE MATERIALES ANCER SA DE CV, AV ADOLFO LOPEZ MATEOS 150, COL LAGRANGE, SAN NICOLAS DE LOS GARZA, N.L. - 66490, MEXICO	**Job n.** / Com. n.	19212
		Revised on				**Page n.**/ Pagina n.	5 of 8
Revision Revisione	0	**According to** In accordo a	EN 10204:2004 UNI EN 10204:2005	**Type** Tipo	3.1	**Purchase order and project**/Ordine e progetto	7902

DESCRIPTION / DESCRIZIONE

Test Prova	Item Pos.	Qty Q.tà	Customer code Codice cliente	Material Materiale	Heat Colata	Product Prodotto
1BLD	52	1020		A/SA105-14	020573	HEX. HEAD PLUG NPT A/SA105N 1.1/2
ZNAS	57	4000	*	A/SA105-14	244302	90 DEG. ELBOW S. 3000 SW A/SA105N 3/4
YRAX	60	2974		A/SA105-14	15/77185	90 DEG. ELBOW S. 3000 SW A/SA105N 1.1/2
YUDU	60	2030		A/SA105-14	431812	90 DEG. ELBOW S. 3000 SW A/SA105N 1.1/2
YTLL	63	325		A/SA105-14	14/71264	45 DEG. ELBOW S. 3000 SW A/SA105N 3/4

Test Prova	HEAT TREATMENT DATA AND REFERENCES TO OTHER CERTIFICATES / Dettagli di trattamento termico e riferimenti ad altri certificati	RAW AND FORGING MATERIAL CERTIFICATES / Certificati di acciaieria/forgia
1BLD	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR.	CERT.9157.91 RODACCIAI*
ZNAS	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR.	CERT.000466.EVASI*
YRAX	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 880 C COOLED IN STILL AIR.	CERT.FC-005329-15-0014.MEGA/CERT.2437.MEGA*
YUDU	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 900 C COOLED IN STILL AIR.	CERT.000284.EVASI*
YTLL	MATERIAL PRODUCED BY ELECT.FURNACE-NORMALIZED AT 880 C COOLED IN STILL AIR.	CERT.FC-005494-15-0008.MEGA/CERT.3108.MEGA*

Test Prova	Test loc. Preso a	Orient. Direz.	TENSILE TEST AT ROOM TEMPERATURE / Trazione a tempertura ambiente: Specimen / Provino Shape Forma	A [mm²] Sezione	L [mm] Lungh.	Yield strength Snerv. [Mpa] Min:	Tensile strength Rottura [Mpa] Min:	Elongation Allung. [%] Min:	Red. Of Area Contraz. [%] Min:	CVN (KV) / Prova di resilienza: Dimens. Dimens. [mm]	T Temp. [°C]	Abs. Energy Energia ass. [J]	Shear A Area d [%]	Lat Exp Esp. Lat. [mm]	Bend [B] Flatt. [F] Piega Schiacc.	Hardness Durezza
1BLD	T/2	LONG	Round	122.600	50.000	400.000	550.000	29.000	63.000	10x10x55	0	46-48-54	--	--		HBW 156-160
ZNAS	T/2	LONG	Round	121.400	50.000	306.200	487.800	34.400	73.100	10x10x55	-10	182-153-167	85-75-80	1.89-1.69-1.79		HBW 148-149
YRAX	T/2	LONG	Round	125.100	50.000	308.400	506.100	33.100	66.300	10x10x55	-1	60-76-69	--	--		HBW 150-151
YUDU	T/2	LONG	Round	61.000	35.000	293.400	490.300	33.400	63.500	10x10x55	-1	86-142-111	45-70-55	1.12-1.60-1.36		HBW 141-144
YTLL	T/2	LONG	Round	29.800	25.000	329.900	502.800	24.700	47.800	10x10x55	-10	71-88-69	35-45-35	0.95-1.12-0.93		HBW 152-154

Test Prova	C [%]	Si [%]	Mn [%]	S [%]	P [%]	Cr [%]	Ni [%]	Mo [%]	Ti [%]	Cu [%]	V [%]	Al [%]	H [%]	Nb [%]	N [%]	Sn [%]	O [%]	B [%]	Fe [%]	Zr [%]	CE[A] [%]	PREN[B] [%]	X fact.[C] [%]	J fact.[D] [%]
1BLD	0.2100	0.2680	0.9510	0.0100	0.0200	0.1230	0.0100	0.0050		0.0160	<0.0800										0.3958			
ZNAS	0.1640	0.2000	1.0270	0.0030	0.0070	0.1190	0.0910	0.0160	0.0120	0.0830	0.0030	0.0230	0.00015	0.0010	0.0088	0.0050	0.0016				0.3743			
YRAX	0.1800	0.1900	1.0500	0.0070	0.0150	0.1100	0.0500	0.0100	0.0150	0.1500	0.0030	0.0200	0.00020	0.0010	0.0100	0.0080	0.0018				0.3929			
YUDU	0.1680	0.1900	0.9800	0.0020	0.0060	0.2100	0.0800	0.0200	0.0020	0.1100	0.0040	0.0190	0.00009	0.0030	0.0057	0.0080	0.0014				0.3907			
YTLL	0.2000	0.2100	0.9700	0.0030	0.0130	0.1100	0.0400	0.0200	0.0200	0.1400	0.0030	0.0340	0.00019	0.0020	0.0089	0.0100	0.0011				0.4002			

REMARKS / Note

1: MATERIAL ACCORDING TO NACE MR0175/ISO 15156-1-2-3 Ed.2009
2: MATERIAL ACCORDING TO ASME Sect. II Part. A 2015 Edition.
3: FULLY KILLED STEEL, FINE GRAIN TREATED.

A: CE = C + Mn/6 + (Cr+Mo+V)/5 + (Cu+Ni)/15 | B: PREN = Cr + 3.3Mo + 16N
C: X factor = (10P + 5Sb+4Sn+As)/100 - elements expressed in ppm
D: J factor = ((Mn + Si)(P + Sn)) x 10E4

Additional elements: 'YUDU': Co 0,0060 Ca 0,0010 As 0,0040 Sb 0,0010 |

Quality inspector representative
Ispettore controllo qualità

Riccardo Scorsetti

This certificate is issued by a computerized system and it is valid with electronic signature. On the original certificate the trademark M.E.G.A. is printed in green color.

Form QC-01-01 Rev. 0 2013-03-15

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