

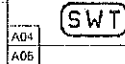


AG3 Certificate No. 2368/1-2013
Advice No. A130125003

1/3

AG2 Test Report
according to ASTM A6

A01 Stahlwerk Thüringen GmbH
A05 Quality Assurance Department
Kronacher Straße 6
07333 Unterwellenborn
Germany



Ferre Barniedo S.A. de C.V.
Col. san Cristóbal
Av. Revolucion N°81
55024 Ecatepec
MEXICO

A08 Our Order No.: 2033525 M2
A07 Your Order No.: # 6500549

B02 Quality: A36/A572 DUAL
according to: PRODUCED TO ASTM A36
AND ASTM A572 GRADE 50

48671

Pos.	Heat No.	Dimension	Length	Pieces	Theoretical Weight
A10	B07	B01	B09	B08	B12
001	29750	C 10X15,3	480 in	162	44 973 kg
001	29751	C 10X15,3	480 in	169	46 916 kg
001	29752	C 10X15,3	480 in	18	4 997 kg
002	29735	C 10X20	480 in	40	14 516 kg
002	29736	C 10X20	480 in	110	39 919 kg
003	29732	C 10X25	480 in	60	27 216 kg
003	29733	C 10X25	480 in	50	22 680 kg
004	29729	C 10X30	480 in	21	11 430 kg
004	29730	C 10X30	480 in	84	45 720 kg
004	29731	C 10X30	480 in	28	15 240 kg
005	29911	C 12X20,7	480 in	90	33 804 kg
005	29912	C 12X20,7	480 in	80	30 048 kg
005	29913	C 12X20,7	480 in	80	30 048 kg
005	29914	C 12X20,7	480 in	150	56 340 kg
005	29915	C 12X20,7	480 in	28	13 146 kg
006	29871	C 15X33,9	480 in	28	17 224 kg
006	29872	C 15X33,9	480 in	77	47 366 kg
006	29873	C 15X33,9	480 in	19	11 687 kg

Heat Analysis [%]									
Heat No.	C	Si	Mn	P	S	N	Nb		
B07	C71	C72	C73	C74	C75	C76	C77	C78	C79
max		0.40		0.040	0.050		0.050		
min							0.005		
29729	0.08	0.21	1.15	0.023	0.023	0.008	0.015	0.007	0.007
29730	0.08	0.21	1.13	0.020	0.022	0.008	0.015	0.007	0.007
29731	0.07	0.20	1.13	0.020	0.023	0.008	0.015	0.007	0.007
29732	0.08	0.21	1.15	0.018	0.022	0.008	0.015	0.007	0.007
29733	0.07	0.20	1.13	0.017	0.021	0.008	0.013	0.007	0.007
29735	0.07	0.19	1.11	0.018	0.021	0.005	0.011	0.006	0.006
29736	0.08	0.18	1.14	0.018	0.018	0.007	0.014	0.006	0.006
29750	0.07	0.19	1.12	0.021	0.023	0.008	0.011	0.006	0.006
29751	0.08	0.20	1.13	0.021	0.024	0.007	0.012	0.006	0.006
29752	0.08	0.20	1.13	0.020	0.020	0.007	0.011	0.006	0.006
29871	0.08	0.21	1.11	0.020	0.021	0.007	0.013	0.006	0.006

Z03 Works inspector
René Merbach

Z02 Jan 25, 2013

FERRERRE BARNIEDO, S.A. COPIA FIEL
 EL ORIGINAL DE NUESTRAS VENTAS
 PARA LA REMISION DE NUESTRAS VENTAS
 EL ALMACEN DEL ESTE



STAHLWERK THÜRINGEN

Certificate No. 2368/1-2013
Advice No. A130125003

2 / 3

Test Report

according to ASTM A6



Stahlwerk Thüringen GmbH
Quality Assurance Department
Kronacher Straße 6
07333 Unterwellenborn
Germany

Ferre Barniedo S.A. de C.V.
Col. san Cristóbal
Av. Revolucion N°81
55024 Ecatepec
MEXICO

Our Order No.: 2033525112
Your Order No.: # 6500549

Quality: A36/A572 DUAL
according to: PRODUCED TO ASTM A36
AND ASTM A572 GRADE 50

Heat No.	C	Si	Mn	P	S	N	Nb	V
[B07]	[C71]	[C72]	[C73]	[C74]	[C75]	[C76]	[C77]	[C78]
max		0.20		0.040	0.050		0.050	
min							0.005	
29872	0.08	0.21	1.10	0.022	0.024	0.009	0.015	0.006
29873	0.08	0.20	1.13	0.021	0.023	0.009	0.012	0.006
29914	0.08	0.21	1.14	0.021	0.022	0.008	0.015	0.006
29912	0.08	0.19	1.14	0.022	0.024	0.007	0.014	0.006
29913	0.08	0.19	1.14	0.021	0.022	0.007	0.014	0.006
29914	0.08	0.19	1.14	0.023	0.026	0.008	0.011	0.006
29915	0.08	0.20	1.14	0.028	0.025	0.008	0.012	0.007

Heat No.	Yield stress [PSI]	Tensile strength [PSI]	Elongation 2 in [%]	Ys/Ts
[B07]	[C11]	[C12]	[C13]	[C14]
max	58000	78000	21.0	
min	50000	65000		
29729/1	55390	75110	34.3	0.74
29729/2	55390	72645	42.2	0.76
29730/1	54810	75110	33.0	0.73
29730/2	55680	72355	42.2	0.77
29731/1	53940	70180	30.4	0.77
29731/2	54810	72790	42.2	0.75
29732/1	53795	73225	35.6	0.73
29732/2	54955	72790	42.2	0.75
29733/1	52490	69890	37.0	0.75
29733/2	53795	72355	42.9	0.74
29735/1	54230	74095	33.0	0.73
29735/2	52780	71340	33.6	0.74
29736/1	53940	74965	35.8	0.72
29736/2	53505	72210	43.8	0.74
29750/1	50605	72355	31.7	0.70
29750/2	53940	71340	43.6	0.76
29751/1	51040	72065	34.3	0.71
29751/2	54665	72065	43.6	0.76
29752	51620	71775	30.4	0.72

Works inspector
René Merbach

Jan 25, 2013

TEL: 01-36-10-00
LA ORIGINAL REMITIDA A FERRE BARNIEDO S.A. DE C.V.
REMITIDA A FERRE BARNIEDO S.A. DE C.V.
NUESTROS ARCHIVOS
COPIA DE FIEL
FIEL
ferrebarniedo.com.mx

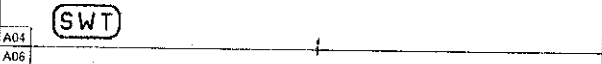


**STAHLWERK
THÜRINGEN**

A03 Certificate No. 2368/1-2013 3/3
Advice No. A130125003

A02 Test Report
according to ASTM A6

A01 Stahlwerk Thüringen GmbH
A05 Quality Assurance Department
Kronacher Straße 6
07333 Unterwellenborn
Germany



A06 Our Order No.: 2033525112
A07 Your Order No.: # 6500549

Ferre Barniedo S.A. de C.V.
Col. san Cristóbal
Av. Revolucion N°81
55024 Ecatepec
MEXICO

B02 Quality: A36/A572 DUAL
according to: PRODUCED TO ASTM A36
AND ASTM A572 GRADE 50


Tensile test Heat No.	Yield stress [PSI] [C11]	Tensile strength [PSI] [C12]	Elongation 2 in [%] [C13]	Ys/Ts [C14]
max		80000		
min	50000	65000	21.0	
29871/1	52780	73660	42.2	0.72
29871/2	55100	72500	42.9	0.76
29872/1	52490	71050	43.6	0.74
29872/2	55535	72065	42.9	0.77
29873/1	51620	71920	44.9	0.72
29873/2	54520	71195	43.6	0.77
29911/1	52780	72500	42.2	0.73
29911/2	55100	72500	42.9	0.76
29912/1	51330	69890	43.6	0.73
29912/2	54520	72210	42.9	0.76
29913/1	52345	71050	42.2	0.74
29913/2	54665	72500	42.9	0.75
29914/1	51910	68295	46.2	0.76
29914/2	53795	71920	43.6	0.75
29915/1	54085	69890	42.2	0.77
29915/2	54665	72210	42.2	0.76

Z01
- electric arc melting
- controlled rolled
- surface condition without complaint

We confirm herewith that the delivered material complies with the terms of the order.

TEL: 52-55-55-10-00
ventas@ferrebarniedo.com.mx

Z03 Works inspector
René Merbach



Z04 Jan 25, 2013

ESTAMPADO ORIGINAL
 REMISION NUESTROS ARCHIVOS
 COPIA DE C.V. FIEL
 FERREBARNIEDO S.A. DE C.V.