



STAHLWERK THÜRINGEN

Grupo Alfonso Gallardo

Certificate No. 2000/3-2009

Advice No. A090330035

Inspection Certificate 3.1

according to ASTM A6

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

SWT

A04
A06
Plesa Anahuac y Cias, S.A. de C.V.
Colonia San Francisco Chilpan
Av. Valle de las Alamedas N°66
54490 Tultitlan
MÉXICO

A08 Our Order No.: 2006727109

A07 Your Order No.: TAC 34

B02 Grade: GRADE 50
according to: ASTM A572M

PED. 5956

Pos.	Charge	Dimension	Length	Pieces	Weight [kg]	Customer No.
A10	B07	B01	B09	B08	B13	A11
001	68447	C 10X15,3	480 in	96	26 465	
001	68448	C 10X15,3	480 in	240	66 300	
001	68449	C 10X15,3	480 in	208	57 555	
002	68460	C 10X20	480 in	12	4 485	
002	68461	C 10X20	480 in	168	61 285	
002	68462	C 10X20	480 in	84	30 550	
002	68463	C 10X20	480 in	12	4 370	
003	68471	C 10X25	480 in	96	43 920	
003	68472	C 10X25	480 in	72	33 055	
004	68474	C 10X30	480 in	48	26 450	
004	68475	C 10X30	480 in	92	50 585	
005	68440	C 12X20,7	480 in	123	46 299	
005	68441	C 12X20,7	480 in	282	105 472	
006	68438	C 12X25	480 in	176	79 410	
006	68439	C 12X25	480 in	56	25 255	
007	68437	C 12X30	480 in	142	76 902	
007	68443	C 12X30	480 in	6	3 245	

Heat Analysis [%]

Charge	C	Si	Mn	P	S	N	Nb	V
B07	C71	C72	C73	C74	C75	C76	C77	C78
max	0.23	0.40		0.040	0.050		0.050	0.150
min							0.005	
68437	0.08	0.20	1.13	0.018	0.023	0.010	0.013	0.007
68438	0.08	0.21	1.12	0.020	0.024	0.010	0.013	0.007
68439	0.08	0.21	1.12	0.020	0.024	0.010	0.013	0.007
68440	0.07	0.20	1.13	0.020	0.028	0.009	0.014	0.007
68441	0.08	0.20	1.19	0.020	0.024	0.009	0.014	0.008
68443	0.08	0.21	1.12	0.015	0.020	0.009	0.014	0.007
68447	0.08	0.20	1.12	0.018	0.024	0.007	0.012	0.007
68448	0.08	0.23	1.15	0.018	0.022	0.007	0.015	0.007
68449	0.08	0.20	1.15	0.020	0.027	0.007	0.017	0.006
68460	0.09	0.20	1.14	0.019	0.024	0.009	0.014	0.007
68461	0.08	0.21	1.17	0.015	0.021	0.010	0.012	0.007
68462	0.09	0.20	1.14	0.019	0.024	0.009	0.014	0.007
68463	0.08	0.20	1.16	0.019	0.025	0.010	0.012	0.007

Z03 Works inspector
Renate Schmidt

Z02 Mar 31, 2009



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B02 Grade: GRADE 50
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Heat Analysis [%]

Charge	C	Si	Mn	P	S	N	Nb	V
[B07]	[C71]	[C72]	[C73]	[C74]	[C75]	[C76]	[C77]	[C78]
max	0.23	0.40		0.040	0.050		0.050	0.150
min							0.005	
68471	0.08	0.20	1.14	0.019	0.020	0.007	0.013	0.006
68472	0.09	0.22	1.13	0.017	0.024	0.008	0.013	0.006
68474	0.09	0.22	1.15	0.019	0.025	0.009	0.012	0.008
68475	0.08	0.20	1.16	0.019	0.025	0.010	0.012	0.007

Tensile test

Charge	Yield stress [PSI]	Tensile strength [PSI]	Elongation 2 in [%]	Ys/Ts
[B07]	[C11]	[C12]	[C13]	[C14]
max	50000	65000	21.0	
min				
68437/1	56840	75110	39.6	0.76
68437/2	54375	72645	43.6	0.75
68438/1	53940	72065	42.2	0.75
68438/2	54375	72355	42.9	0.75
68439/1	59015	75545	40.9	0.78
68439/2	54375	72355	42.9	0.75
68440/1	53795	73370	39.6	0.73
68440/2	54665	72645	42.9	0.75
68441/1	54520	74095	38.3	0.74
68441/2	54520	72935	42.9	0.75
68443	56840	74530	38.3	0.76
68447/1	52780	70760	37.0	0.75
68447/2	53795	71050	42.9	0.76
68448/1	55680	76125	40.9	0.73
68448/2	55100	72500	42.2	0.76
68449/1	53070	73950	39.6	0.72
68449/2	55245	73080	42.2	0.76
68460	52490	71195	43.6	0.74
68461/1	54665	73515	38.3	0.74
68461/2	54810	72790	43.6	0.75
68462/1	54230	71920	43.6	0.75
68462/2	55245	72790	42.9	0.76

Z03 Works inspector
Renate Schmidt

Z02 Mar 31, 2009