VOLZHSKY TRUBNY

"VOLZHSKY PIPE PLANT"
OJSC

404119, Volzhsky, Volgograd region, Russia

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QUALITY CERTIFICATE

MANUFACTURER:

VOLZHSKY PIPE PLANT OJSC
404119, VOLZHSKY, VOLGOGRAD REG.,
RUSSIA

Contract No. ST-1415/77, Spec. 09-0080
Description of Goods:
Steel seamless hot-finished pipes.
The pipes are supplied from secondary materials available in stock or finished production (Tel Quel).
Pipes for oil and gas application.

Consignee:
TMK North America Inc., USA.
(End user: "Tubos y Barras Huecas, S.A.", Henry Ford No. 1 y 7, Col. San Nicolas Tlalnepantla, Edo de Mexico, CP 54000, MX, Mexico.

CERTIFICATE № 764 DATE OF ISSUE 24.06.2009

SIZE	HEAT No / HEAT TREATMENT LOT No	LOT No	QUANTITY, PIPES	LENGTH, METRES	NET WEIGHT TONS	CHEMICAL COMPOSITION, % C x 100	Si x 100	Mn x 100	P x 1000	S x 1000	Cr x 100	Ni x 100	Cu x 100	Mo x 100	Ti x 100		MILL CONTROL PROT. No		ORIENTATION	TENSILE TEST TEST SPECIMEN	GL. 'C' YS MPa	GL. 'C' UTS MPa	EL. %	HARDNESS TEST	IMPACT TEST ORIENTATION	NOTCH	SIZE	TEST TEMP °C		IMPACT VALUE J	FRACTURE %	HEAT TREATMENT	NDT	HYDROSTATIC TEST DURATION (SECONDS)	PRESSURE KG/CM2 (MPa)	NOTE
				•		* 1	24 max		140 max	25 max	15 max	30 max		30 max		4 max			* 2	* 3	* 4	min 414.00 max 565.00	min 517.00 max 758.00	min 24.0		* 3	* 5	* 6	0	* 7	min 27.00	min 1.00	* 8	* 9 * (10)	min 5	min 211.14 (20.70)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
219.1x15.9MM						H	12	21	106	11	4	9	14	21	2	0				L	K					T	V	F					O&T	M & UT (12)	G	G	
GRADE X60						P	12	21	104	11	4	9	13	21	2	0		5452																			
API 5L						P	12	20	104	11	4	9	13	21	2	0		5452																			
PSL2 43-th	284132	1-1435	26	320.91	25.931																																
EDITION																																					
LENGTH:		3-1868	46	568.14	46.123																																
6.0-12.5M	11																	3257	L			448	538	49.4					0	A	196.5	90					
																														E	220.2	90					
																															177.1	90					
																															192.1	90					

DESCRIPTION OF TESTS	VISUAL AND DIMENSIONS	BEVELING INSPECTION	END'S PROTECTORS	NONDESTRUCTIVE INSPECTION	COATING							MARKING: STENCILING	STEEL MAKING PROCESS - ELECTRIC FURNACE
	G	G	G	G	G							G	

NOTES: G: GOOD
*1: H: HEAT ANALYSIS, P: PRODUCT ANALYSIS, C: CONTROL ANALYSIS, R: RECHECK ANALYSIS
*2: L: LOT TEST, H: HEAT CONTROL TEST, A: ADDITION TEST, R: RECHECK TEST
*3: L: LONGITUDINAL, T: TRANSVERSE
*4: STRIP G: 1/2 in, H: 3/4 in, N: 1 in, K: 1 1/2 in, S: 12 mm.
*5: V: 2mm V, U: 2mm U, B: 3mm U, C: 4mm U, E: 2mm U FASE NOTCH, F: 2mm V FASE NOTCH
*6: F: 10x10mm, 7: 10x7.5mm, 6: 10x6.7mm, 5: 10x5mm, 3: 10x3.3mm, 2: 10x2.5mm
*7: E - EACH VALUE, A - AVERAGE VALUE
*8: HEAT TREATMENT, O&T: QUENCHED & TEMPERED
*9: M: WET FLUORESCENT MAGNETIC PARTICLE TEST, EMI: ELECTROMAGNETIC TEST, UT: ULTRASONIC TEST
UTB: PIPE BODY UT FOR LAMINATION, UTE: PIPE ENDS UT FOR LAMINATION
UTS: PIPE WALL THICKNESS UT
*10: 5 - NOTCH 5%, 12 - NOTCH 12.5%

TOTAL: QUANTITY OF PIPES 72 PCS NET WEIGHT 72.054 T LENGTH 889.05 M

WE CONFIRM THAT PIPES COVERED BY THIS CERTIFICATE ARE MANUFACTURED, TESTED, AND INSPECTED IN ACCORDANCE WITH TERMS OF THE CONTRACT

ВОЛЖСКИЙ ТРУБНЫЙ ОТК для сертификатов ЗАВОД

MANAGER - INSPECTION
VOLZHSKY PIPE PLANT
DATE: 30 .06.09.

TUBOS Y BARRAS HUECAS DE MEXICO, S.A. DE C.V.
FECHA: 30 JUN. 2009
CLIENTE: 1 C 1 C 3
PEDIDO: 275521
CANTIDAD: 21,383

CHEMICAL
COMPOSITION,%

V	Nb	B	Nb+V+Ti	CE(IIW)	CE(Pcm)
x	x	x	x	x	x
100	100	10000	100	100	100
			15	43	25
			max	max	max
5	0	4	5	-	21
5	0	3	5	-	20
5	0	3	5	-	20

WE CONFIRM THAT PIPES COVERED BY THIS CERTIFICATE ARE MANUFACTURED, TESTED, AND INSPECTED IN ACCORDANCE WITH TERMS OF THE CONTRACT

ВОЛЖСКИЙ ТРУБНЫЙ ОТК для сертификатов завод

MANAGER - INSPECTION
VOLZHSKY PIPE PLANT
DATE: 30.06.09