

Purchaser : TUBOS DE ACERO DE MEXICO S.A.

# INSPECTION CERTIFICATE

EN 10204 3.1B

-No. A-139 Purchase Order No. 3500014172 Job No.

D M Y Certificate No. 02/06/2005 T-2005740012

No.	MFG. No. (Heat Identification No.)	Specification for Material		Specification for Inspection		Visual Examination	Dimensional Inspe										
		Product & Size	Heat Treatment (T*)	Quantity	Heat Treatment (Note 1)												
1	05E10140	T WPB 6 S40		785/1,114	S	Good	Good										
2	05E10141	T WPB 6 S40		229/1,114	S												
3	05B10164	T WPB 6 S80		80/165	S												
4	05E10103	T WPB 6 S40		19/1,114	S												
5	05E10104	T WPB 6 S40		81/1,114	S												
Specification		Chemical Composition %															
Min.		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	C.E.	Tension Test #2			
Max.		X	X	X	X	X	X	X	X	X	X	X	X	YS	MPa	TS	E
Material Heat No.		100	100	100	1000	1000	100	100	100	100	1000	1000	100				
			10	29										240	415	30	HARDNESS MAX
		30		106	50	58	40	40	40	15	80	20			585		197 HB : GOOD
1	J5K1220	18	20	53	12	8	3	2	5	1	0	1	28	312	470	60	
2	J5K1220	18	20	53	12	8	3	2	5	1	0	1	28	312	470	60	
3	61290	19	21	68	10	1	5	5	3	1	1	1	32	305	476	40	
4	J5L1524	19	19	55	16	8	2	2	6	1	0	1	30	310	465	45	
5	J5L1524	19	19	55	16	8	2	2	6	1	0	1	30	310	465	45	

NOTE 1) A : HOT FORMED WITH FINAL TEMPERATURE BETWEEN 620 C - 980 C, AIR COOLING  
 B : NORMALIZING, 810 C, 30 MIN, AIR COOLING S : STRESS RELIEFING RATE EXAMINATION FOR TENS ONLY :  
 EN 10204 3.1B

We hereby certify that the product described herein has been manufactured in accordance with the specifications concerned and also with the purchaser's requirements and that the test results shown herein are correct.

Quality Assurance Manager  
 Thai Benkan Co., Ltd.  
 58 Soi Watkrumai, Bangkok, Prapadaeng,  
 Samutprakarn, 10130 Thailand.

1 : "T" symbolized wall thickness in mm. \* 2 : YS Yield strength TS = Tensile strength E = Elongation  
 Z-61