INSPECTION CERTIFICATE

(MILL TEST) DIN 50049-3.1-B

TTU INDUSTRIAL CORP., LTD.

Tubrivalco, S.A. de C.V.
Av. 100 Metros #1057-A
Col. Nueva Industrial Vallejo
México, D.F. CP 07700

Certificate No. 050076

Purchaser :

Order No. PO M2411/04 (PTU-MXTVS-04-1119AA)

Commodity : SEAMLESS CARBON STEEL BUTT WELDING FITTINGS

Date : FEBRUARY 04, 2005

Spec. : ASTM A-234 WPB - 96A
ASME SA234 WPB - 96A L/C NO. T/T

Specification for Raw Material	Specification for Inspection	Visual Examination	Dimensional Inspection
ASTM A106 GR.B JIS G3103 SB42	ANSI B16.9 ANSI B16.28	GOOD	GOOD

Product & Size (Inch)		Heat id.	Quantity	Heat No.	Raw Material Manufacturer	
1 45 ELBOW LR SCH40	4"	430	50	61430	K.S.C.	NGY806
2 45 ELBOW LR SCH40	6"	430	50	61430	K.S.C.	NGY855
3 45 ELBOW LR SCH40	8"	992	30	85992	S.D.C.	49488
4 45 ELBOW LR SCH40	10"	921	10	61921	K.S.C.	NGY981
5 45 ELBOW LR STD	12"	430	10	61430	K.S.C.	PGY399
6 TEE SCH40	1/2"	181	50	567181	B.T.L.	41-059900/001/263
7 TEE SCH40	3/4"	322	50	567322	K.S.C.	41-059900/001/263
8 TEE SCH40	1"	429	50	61429	K.S.C.	NGY834

Tubrivalco
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Specification	Chemical Composition %										Tension Test			Hard Ness	Ce
	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Yield Strength	Tensile Strength	Elongation		Long F
	× 100	× 100	× 100	× 1000	× 1000	× 100	× 100	× 100	× 100	× 1000	P.S.I.	P.S.I.	%	Hb	x 100
MIN.		10	29								35000	60000	30		
MAX.	30		106	48	58	40	40	40	15	80				197	42
1	15	26	78	17	14	<1	1	3	<1	2	46700	67700	54	OK	29
2	15	25	78	17	14	<1	1	3	<1	2	41800	71200	42	OK	29
3	16	22	76	10	5	8	4	2	2	0	44236	70053	39	OK	32
4	16	24	81	14	12	<1	1	3	<1	2	42800	71200	42	OK	31
5	15	25	78	17	14	<1	1	3	<1	2	49500	71200	40	OK	29
6	14	17	76	6	2	11	6	5	2	1	58000	72000	46	OK	28
7	15	14	76	7	2	10	8	8	2	1	46000	71000	46	OK	31
8	15	26	79	22	13	1	1	3	<1	2	55300	73100	45	OK	29

ALL FITTINGS ARE HEAT TREATED TO MEET NACE MR0175 STANDARD SPECIFICATION AT 650-680 C x 1.0 HR.

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 resulte shown herein are correct.

REMARK : K.S.C. = KAWASAKI, JAPAN
S.D.C. = SUMITOMO, JAPAN
B.T.L = BENTELER, GERMANY
D.L.M = DALMINE, ITALY