MILL TEST CERTIFICATE

CERTIFICATE NO : HIE2004-878 PAGE : 1

DATE OF ISSUE : Sep. 20, 2006

L/C NO (P/O NO) : 1103037682

COMMODITY : ERW STEEL STRUCTURAL TUBING

CUSTOMER : DUFERCO SA

SPECIFICATION : ASTM A500 GR. B

HISTEEL CO. , LTD.

405-310

HEAD OFFICE & INCHON PLANT : 89BLOCK 4LOT, GOZANDONG, NAMDONG-KU, INCHON, KOREA
TEL : (032)815-6386-8
FAX : (032)815-6389

100-013

SEOUL OFFICE : 57-8, CHUNGMU-RO 3-GA, JUNG-KU , SEOUL, KOREA
TEL : (02)2273-2141~3
FAX : (02)2273-2157

TYPE OF PIPE END	DIMENSION (OUTDIA. × THICK. × LENGTH)	QUAN-TITY	WEIGHT	HYDRO-STATIC TEST		HEAT-NO.	TENSILE TEST				CHEMICAL COMPOSITION																		IMPACT TEST (0 ℃)		REMARK (HARDNESS)
				Kg/㎠ PSI			YIELD STREN-GTH	TENSILE STRENGTH B ※6	TENSILE STRENGTH W ※7	(EL)		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	Ti	B	HARDNESS	Ceq	ENERGY	SHEAR-VALUE	
※1	※2 ※3 ※4	(PCS)	(KG)		※5		PSI			%	※8	× 100			× 1000		× 100					× 1000				HV	× 1000	JOULE	%	
BPE	NB 10"X10" X 0.500" X 40'	67	75,887			SP58233	46,252	67,711		30	H	19	1	80	13	8													
BPE	NB 12"X8" X 0.500" X 40'	24	27,183			SP58233	46,252	67,711		30	H	19	1	80	13	8													
BPE	NB 8"X4" X 0.500" X 40'	72	46,086			SB52702	46,107	64,086		29	H	19	1	77	14	5													
	TOTAL	163	149,156																										

※9 P. S. A	※10 VISUAL & DIMENSION TEST	※11 FLATTENING (B) TEST	※12 WELD DUCTILITY TEST	※13 NONDESTRUCTIVE TEST (U.T)	※14 DRIFT TEST	※15 FLARING TEST	※16 CRUSH TEST	※17 REVERSE FLATTENING TEST
	GOOD							

NOTE 1 ※1 Type of pipe End

BPE :Black Plain End Square-cut	GPE :Galvanized Plain End Square-cut
BPEB :Black Plain End Beveled	GPEB :Galvanized Plain End Beveled
BTC :Black Threaded & Coupled	GTC :Galvanized Threaded & Coupled
BVJ :Black Victaulic Joint	GVJ :Galvanized Victaulic Joint
ETC :Enameled Threaded & Coupled	

※ 2 NB:Norminal Bore, OD:Outside Diameter
※ 3 Unit (M:mm, I:Inch)
※ 4 Unit (M:Meter, F:Feet, I:Inch)
※ 5 G:Good
※ 6 Base Metal
※ 7 W : Weld Part
※ 8 H:Heat Code Traceability & Product Analytics
※ 9 POST SEAM ANNEALING
※10 Visual & Dimension Test
※11 Flattening Bending Test
※12 Weld Ductility Test
※13 Nondestructive Test
※14 Drift Test
※15 Flaring Test
※16 Crush Test
※17 Reverse Flattening Test

ORIGINAL

SUPERVISOR

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN ACCEPED IN ACCORDANCE WITH THE PRESCRIBED SPECIFICATION AND ORDER

INSPECTION MANAGER