MILL'S QUALITY CERTIFICATES

HISTEEL CO. , LTD.

HEAD OFFICE & INCHON PLANT : 405-310 89BLOCK 4LOT, GOZANDONG, NAMDONG-KU, INCHON, KOREA
TEL : (032)815-6386-8
FAX : (032)815-6389

SEOUL OFFICE : 100-013 57-8, CHUNGMU-RO 3-GA, JUNG-KU , SEOUL, KOREA
TEL : (02)2273-2141~3
FAX : (02)2273-2157

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DATE OF ISSUE : Aug. 31, 2007

L/C NO (P/O NO) : 1103051406

COMMODITY : 577.245MT SQUARE AND RECTANGULAR PRIME STEEL PIPES/GRADE:ASTM A 500B. AS PER FOLLOWING BREAKDOWN

SPECIFICATION : ASTM A500 GR.B

CUSTOMER : DUFERCO SA

TYPE OF PIPE END	DIMENSION (OUTDIA. × THICK. × LENGTH)			QUAN-TITY (PCS)	WEIGHT (KG)	HYDRO-STATIC TEST Kg/㎠ PSI	※5	HEAT-NO.	PHYSICAL PROPERTIES YIELD STREN-GTH	TENSILE STRENGTH B ※6	W ※7	(EL)	CHEMICAL COMPOSITION	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	Nb	V	Ti	B	HARDNESS	Ceq	IMPACT TEST (0 ℃) ENERGY	SHEAR-VALUE	REMARK (HARDNESS)
※1	※2	※3	※4						MPa			%	※8	×100			×1000		×100				×1000				HV	×1000	JOULE	%	
BPE	NB	10"X4" X 0.375" X 40'		167	98,790			SR28367	318	473		26	H	17	1	30	11	4													
		TOTAL		167	98,790																										

※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 Heat Ladle Analysis , P:Product Analyics
※ 9 POST SEAM ANNEALING
※10 Visual & Dimension Test
※11 Flattening or Bending Test
※12 Weld Ductility Test
※13 Nondestructive Test
※14 Drift Test
※15 Flaring Test
※16 Crush Test
※17 Reverse Flattening Test

ORIGINAL

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

HISTEEL CO., LTD.

SUPERVISOR

INSPECTION MANAGER

J. K. UM / PRESIDENT