MILL'S QUALITY CERTIFICATES

SeAH Steel Corp.
(주)세아제강
HEAD OFFICE ; BONGNAE-DONG 1GA, JUNG-GU, SEOUL, KOREA
POHANG PLANT ; 14-1, JANGHEUNG-DONG, NAM-GU, POHANG

증명서번호 CERTIFICATE NO. : E200709-0080-002316(5001666)
제 품 명 COMMODITY : E.R.W STEEL PIPE
제 품 규 격 SPECIFICATION : ASTM A500 B(2003A)

발 급 일 자 DATE OF ISSUE : 2007.09.21
계 약 서 번 호 L/C No. (P/O No.) : PLESA
수 요 가 CUSTOMER : DUFERCO SA
주 문 자 SHIPPER : SEAH STEEL CORPORATION

NO.	HEAT NO. (BATCH NO.)	관 단 TYPE *1	주 문 치 수 ORDER SIZE	수 량 QUANTITY 본 수 PCS	총 길 이 TOTAL LENGTH	중량(M/T) WEIGHT	비 고 REMARK
5	SA65843 (SHH6251070)	BME	12" X 12" X 0.313 " X 40.000 FT	24	960.000 FT	20.938	ORIGINAL
6	SA66205 (SHH6251080)	BME	12" X 12" X 0.313 " X 40.000 FT	25	1,000.000 FT	21.810	
7	SQ11436 (SHH6261010)	BME	14" X 10" X 0.312 " X 40.000 FT	81	3,240.000 FT	71.669	
8	SQ11433 (SHH6261020)	BME	14" X 10" X 0.375 " X 40.000 FT	65	2,600.000 FT	68.562	

NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST Sec.	HYDROSTATIC TEST RESULT	N·D·T RESULT *2	VISUAL & DIMENSION	FLATTENING	SHOCK	COMPRESSION	RESIDUAL MAGNETISM GAUSS	BENDING *3	DRIFT	CRUSH	FLARING	FLANGE	REVERSE FLATTENING	ZINC COATING TEST WEIGHT OF ZINC COAT-ING	규산성 C.S *4	알칼리 ALK *5	CHEMICAL COMPOSITION(%) DESIG *6	C	Si	Mn	P	S	CEQ *8	TENSILE TEST (Gage Length : 50mm) DIR *9	TENSILE STRENGTH psi	YIELD STRENGTH psi	E.L % *10	IMPACT TEST (℃) ENERGY Joule	IMPACT TEST (℃) SHEAR AREA %	HARDNESS TEST	HEAT TREATMENT *11	PROTECTIVE COATING & LINING THICKNESS	PROTECTIVE COATING & LINING P.H
																				2			3												
기준 SPEC																			MAX	30			45	45											
																			MIN								58000	46000	23						
5	SA65843 (SHH6251070)				G														H	18	3	80	15	5											
																			P	17	3	82	17	6		L	73100	48500	27						
																			P	19	4	80	15	3											
6	SA66205 (SHH6251080)				G														H	17	3	80	15	7											
																			P	18	2	80	16	9		L	77510	53330	26						
																			P	17	4	81	14	7											
7	SQ11436 (SHH6261010)				G														H	17	1	78	15	5											
																			P	16	TR	78	13	5		L	73100	50060	27						
																			P	16	2	77	17	7											
8	SQ11433 (SHH6261020)				G														H	17	1	81	16	7											
																			P	18	2	81	18	7		L	77650	50630	27						
																			P	18	2	80	15	9											

NOTE *1 ~ *12 : Refer To The Attached Section Designation

OTHER

Surveyor :

- WE HEREBY CERTIFY THAT THE MATERIAL HEREIN HAS BEEN MADE AND TESTED IN ACCORDANCE WITH ABOVE SPECIFICATION AND THE RESULTS OF ALL TEST ARE ACCEPTABLE.
- THE USE OF THE MATERIAL OUTSIDE THE SPECIFICATIONS INDICATED ON THIS CERTIFICATE MAY CAUSE SAFETY AND/OR MONETARY PROBLEMS. FURTHERMORE, ANY ORGANIZATION OR PERSON(S) WHO DELIBERATELY MODIFIES THE CERTIFICATE WILL BE PROSECUTED FOR FORGING AN OFFICIAL DOCUMENT (ACCORDING TO THE PROVISIONS OF THE CRIMINAL CODE 231)

Manager of Q.M Dept.
J. E. KIM