MILL'S QUALITY CERTIFICATE

SěAH SeAH Steel Corp.
(주)세 아 제 강

HEAD OFFICE ; BONGNAE-DONG 1GA, JUNG-GU, SEOUL, KOREA
POHANG PLANT ; 14-1, JANGHEUNG-DONG, NAM-GU, POHANG

증명서번호
CERTIFICATE NO.: E200701-0393-000393(5000987)
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 : 2007.01.19
계 약 서 번 호
L/C No. (P/O No.) : 1103044853
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
25	110887B (SHH1091050)	BME	16" X 16" X 0.500 " X 40.000 FT	14	560.000 FT	26.239	
26	310178B (SHH1091060)	BME	16" X 16" X 0.500 " X 40.000 FT	14	560.000 FT	26.239	
27	309567B (SHH1091070)	✓BME	16" X 16" X 0.500 " X 40.000 FT	14	560.000 FT	26.239	
28	110021A (SHH1091080)	BME	16" X 16" X 0.500 " X 40.000 FT	15	600.000 FT	28.114	

COPY

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NO.	HEAT NO (BATCH NO.)	HYDROSTATIC TEST Sec.	HYDROSTATIC TEST RESULT	N·D·T *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	균일성 C.S *4	알칼리 ALK *5
기준 SPEC																		
25	110887B (SHH1091050)				G													
26	310178B (SHH1091060)				G													
27	309567B (SHH1091070)				G													
28	110021A (SHH1091080)				G													

NO.	HEAT NO (BATCH NO.)	CHEMICAL COMPOSITION(%) DESIG *6	C	Si	Mn	P	S							CEQ *8	DIR *9	TENSILE TEST (Gage Length : 50mm) TENSILE STRENGTH psi	YIELD STRENGTH psi	E.L % *10	IMPACT TEST (℃) ENERGY Joule	SHEAR AREA %	HARDNESS TEST	HEAT TREATMENT *11	PROTECTIVE COATING & LINING THICKNESS	P.H
			2			3								*7										
기준 SPEC		MAX	30			45	45																	
		MIN														58000	46000	23						
25	110887B (SHH1091050)	H	20	5	23	14	8																	
		P	20	4	23	16	9								L	67560	49920	33						
		P	20	5	23	13	7																	
26	310178B (SHH1091060)	H	20	7	22	10	6																	
		P	19	6	21	12	5								L	67700	47930	33.5						
		P	19	6	23	11	7																	
27	309567B (SHH1091070)	H	20	8	22	9	9																	
		P	19	9	23	8	10								L	70260	49920	35						
		P	21	9	23	11	11																	
28	110021A (SHH1091080)	H	19	9	22	16	6																	
		P	19	10	21	14	6								L	68840	48500	34.5						
		P	20	10	23	15	5																	

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

주식회사세아제강 포항강관품질경영팀장 SěAH