# INSPECTION CERTIFICATE

**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.: E200906-0132-000740(5004392)
제 품 명
COMMODITY : E.R.W STEEL PIPE
제 품 규 격
SPECIFICATION : API 5L X42/B(PSL1) 44RD. /ASTM A53B(2007)/ASM SA53B(2006)

발 급 일 자
DATE OF ISSUE : 2009.06.30
계 약 서 번 호
L/C No. (P/O No.) : 092-L154 (SRC09-0002)
수 요 가
CUSTOMER : SEAH STEEL AMERICA,INC.
주 문 자
SHIPPER : SEAH STEEL AMERICA,INC.

| 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 |
|---|---|---|---|---|---|---|---|---|---|
| 29 | 0-35827 (SIJ6091040) | BBE | 24 " | X 0.375 " | X 21.000 FT | 13 | 273.000 FT | 11.728 | *WELDING METHOD : HFW(HIGH FREQUENCY WELDING) |
| 30 | SA18173 (SIJ6262040) | BBE | 18 " | X 0.375 " | X 42.000 FT | 3 | 126.000 FT | 4.038 | |
| 31 | SB42665 (SIJ6262050) | BBE | 18 " | X 0.375 " | X 42.000 FT | 18 | 756.000 FT | 24.230 | |
| 32 | SB40189 (SIJ6262060) | BBE | 18 " | X 0.375 " | X 42.000 FT | 19 | 798.000 FT | 25.576 | |

| NO. | HEAT NO (BATCH NO.) | HYDROSTATIC TEST 5 Sec. psi | RESULT | N·D·T U *2 | VISUAL & DIMENSION | FLATTENING | SHOCK | COMPRESSION | RESIDUAL MAGNETISM GAUSS | BENDING *3 | DRIFT | CRUSH | FLARING | FLANGE | REVERSE | FLATTENING |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 기준 SPEC | | | | | | | | | 30 | | | | | | | |
| 29 | 0-35827 (SIJ6091040) | 1190 | G | G | G | G | | | G | | | | | | | |
| 30 | SA18173 (SIJ6262040) | 1500 | G | G | G | G | | | G | | | | | | | |
| 31 | SB42665 (SIJ6262050) | 1500 | G | G | G | G | | | G | | | | | | | |
| 32 | SB40189 (SIJ6262060) | 1500 | G | G | G | G | | | G | | | | | | | |

| NO. | HEAT NO (BATCH NO.) | ZINC COATING TEST WEIGHT OF ZINC COAT-ING | 균열 C.S *4 | 알칼리 ALK *5 | CHEMICAL COMPOSITION(%) DESIG *6 | C | Si | Mn | P | S | Cu | Ni | Cr | Mo | V | CEQ *8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 2 | | | 3 | | 2 | 2 | 2 | 2 | 3 | |
| 기준 SPEC | | | | | MAX | 26 | | 120 | 30 | 30 | 40 | 40 | 40 | 15 | 80 | |
| | | | | | MIN | | | | | | | | | | | |
| 29 | 0-35827 (SIJ6091040) | | | | H | 15 | 18 | 62 | 17 | 4 | | | | | | |
| | | | | | P | 14 | 17 | 63 | 16 | 2 | 2 | TR | 1 | TR | 1 | |
| | | | | | P | 15 | 19 | 63 | 16 | 5 | 2 | TR | 1 | TR | 1 | |
| 30 | SA18173 (SIJ6262040) | | | | H | 18 | 1 | 81 | 15 | 8 | | | | | | |
| | | | | | P | 17 | 2 | 80 | 17 | 7 | TR | TR | TR | TR | TR | |
| | | | | | P | 18 | 2 | 80 | 13 | 10 | TR | TR | TR | TR | TR | |
| 31 | SB42665 (SIJ6262050) | | | | H | 18 | 1 | 75 | 18 | 8 | | | | | | |
| | | | | | P | 17 | 2 | 74 | 20 | 8 | TR | TR | 1 | TR | TR | |
| | | | | | P | 18 | 1 | 75 | 20 | 11 | TR | TR | 1 | TR | TR | |
| 32 | SB40189 (SIJ6262060) | | | | H | 18 | 1 | 73 | 12 | 6 | | | | | | |
| | | | | | P | 17 | TR | 73 | 12 | 5 | TR | 2 | 1 | TR | 1 | |
| | | | | | P | 18 | 2 | 74 | 12 | 6 | TR | 2 | 1 | TR | 1 | |

| NO. | HEAT NO (BATCH NO.) | TENSILE TEST (Gage Length : 50mm) DIR *9 | TENSILE STRENGTH psi | YIELD STRENGTH psi | E.L % *10 | IMPACT TEST (℃) ENERGY Joule | SHEAR AREA % | HARDNESS TEST | HEAT TREAT MENT SN *11 | PROTECTIVE COATING & LINING THICKNESS | P.H |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 기준 SPEC | | | 60200 | 42100 | | | | | | | |
| 29 | 0-35827 (SIJ6091040) | T | 73810 | 55750 | 36 | | | | G | | |
| | | W | 75540 | | | | | | | | |
| 30 | SA18173 (SIJ6262040) | T | 72680 | 52760 | 35 | | | | G | | |
| | | W | 74100 | | | | | | | | |
| 31 | SB42665 (SIJ6262050) | T | 71820 | 51340 | 35 | | | | G | | |
| | | W | 73540 | | | | | | | | |
| 32 | SB40189 (SIJ6262060) | T | 72680 | 50200 | 35 | | | | G | | |
| | | W | 72550 | | | | | | | | |

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.

N. J. Baek