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| Contract No. | |
| Customer | DUFERCO |
| L/C No. | |
| P/O No. | 32201305C100 |
| Commodity | H-BEAM |
| Specification | ASTM A572 G50/A992/ CSA 350W |

MILL TEST CERTIFICATE

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| Head Office | 1, Songhyeon-dong, Dong-gu, Incheon, 401-712, S. Korea |
| Certificate No. | IH20130701409 - 11 |
| Class Cert. No. | |
| Date of Issue | 2013-07-09 |

| Dimensions & Length | Heat No. | Pieces Weights (kg) | Chemical Composition (%) | | | | | | | | | | | Tensile Test | | | | Impact Test (V-notch) | | | | Remarks (Impact Specimen Size) | |
|---------------------------|----------|------------------------|--------------------------|----|-------|----|------|----|-------|----|------|----|-------------------|------------------|-------------|---------------|-------------|-----------------------|---|---|---|-----------------------------------|--|
| | | | C | Si | Mn | P | S | Cu | Mo | Al | Nb | Sn | CE(1) | Tensile Strength | Yield point | Elongation(2) | Yield Ratio | AVG | 1 | 2 | 3 | | |
| | | | ×100 | | ×1000 | | ×100 | | ×1000 | | ×100 | | N/mm ² | | % | | C | | | | | | |
| 21X12-1/4X122 40.00 FT | N 020778 | 8 17,712 | 18 | 15 | 70 | 26 | 20 | 26 | 2 | 9 | 3 | 16 | 15 | 34 | 535.4 | 382.5 | 25.0 | 0.71 | | | | | |
| 21X12-1/4X122 40.00 FT | N 020792 | 2 4,428 | 20 | 14 | 103 | 31 | 17 | 30 | 2 | 9 | 13 | 24 | 13 | 43 | 534.5 | 404.0 | 24.0 | 0.76 | | | | | |
| 24X9X68 40.00 FT | N 020277 | 2 2,468 | 18 | 14 | 64 | 30 | 14 | 25 | 9 | 8 | 14 | 10 | 34 | 545.2 | 416.8 | 25.0 | 0.76 | | | | | | |
| 24X9X68 40.00 FT | N 020278 | 22 27,148 | 18 | 16 | 64 | 33 | 14 | 27 | 2 | 8 | 18 | 5 | 16 | 35 | 551.1 | 419.7 | 24.6 | 0.76 | | | | | |
| 24X9X68 40.00 FT | N 020280 | 28 34,552 | 20 | 15 | 69 | 33 | 20 | 28 | 8 | 15 | 15 | 14 | 11 | 36 | 539.2 | 423.6 | 24.5 | 0.77 | | | | | |
| 24X9X76 40.00 FT | N 020282 | 19 26,201 | 18 | 17 | 68 | 25 | 19 | 30 | 8 | 15 | 15 | 3 | 17 | 35 | 521.7 | 392.3 | 27.5 | 0.75 | | | | | |
| 24X9X76 40.00 FT | N 020283 | 20 27,580 | 17 | 14 | 65 | 30 | 17 | 28 | 7 | 11 | 15 | 10 | 33 | 528.7 | 393.2 | 26.0 | 0.75 | | | | | | |
| 24X9X76 40.00 FT | N 020284 | 5 6,895 | 19 | 17 | 69 | 28 | 13 | 24 | 2 | 3 | 17 | 10 | 35 | 526.6 | 399.1 | 25.5 | 0.76 | | | | | | |
| 24X9X94 40.00 FT | N 020274 | 19 32,414 | 17 | 14 | 104 | 22 | 20 | 28 | 2 | 4 | 33 | 22 | 11 | 40 | 575.7 | 427.6 | 22.0 | 0.74 | | | | | |
| SUB TOTAL | | 125 179,398 | | | | | | | | | | | | | | | | | | | | | |

(Note) (1) Ceq: (CE=C+Mn/6+Cr/5+V/5+Mo/5+Ni/15+Cu/15) (2) Gauge length: 200 mm (3) Yield Ratio = YP/TS

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| K.S. Shim | WE HEREBY CERTIFY THAT THE MATERIAL HAS BEEN MADE AND TESTED IN ACCORDANCE WITH THE ABOVE SPECIFICATION AND ALSO WITH THE REQUIREMENTS CALLED FOR THE ABOVE ORDER |
| General Manager of Q.A Team | |

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