



MAANSHAN IRON AND STEEL CO., LTD

Customer: TEWOO METAL (H.K.) LTD.

Commpdfity: NEWLY HOT ROLLED STEEL H-BEAMS

Specification: ASTM A6/A6M-13 ASTM A572/A572M-2012

ASTM A992/A992M-2011(B:0.0008%-0.0040%)

CERTIFICATE OF PRODUCT QUALITY

ADD: NO.8 JIUHUA WEST ROAD, MAANSHAN
CITY, ANHUI PROVINCE, P.R.CHINA
POSTCODE: 243000 TEL: (0555)2877326
QUALITY DEPARTMENT: BILU YU
TEL: (0555)2877321



INSPECTION NO.: QSR8132703406

17040139

DATE: 2017-4-17

| LOT No. | HEAT No. | STEEL GRADE | Size (INCH) | Length (M) | Pieces | Theoretical Weight (MT) | Chemical Composition (%) | | | | | | | | | | | | | | Mechanical Properties | | | | Yield Ratio |
|-----------|----------|-------------|-------------|------------|--------|-------------------------|--------------------------|------|------|-------|-------|------|------|------|-------|-------|-------|--------|----|------|---------------------------------|-----------------------------------|-------------------------------|------|-------------|
| | | | | | | | C | Si | Mn | P | S | Cr | Ni | Cu | V | Mo | Nb | B | Sn | CEV | Yield Strength σ_s (Mpa) | Tensile Strength σ_b (Mpa) | Elongation δ_{200} (%) | | |
| 117030403 | 17301899 | MC345B | W14*43 | 12.192 | 36 | 28.08 | 0.17 | 0.21 | 1.27 | 0.024 | 0.016 | 0.04 | 0.01 | 0.01 | 0.023 | 0.003 | 0.003 | 0.0013 | | 0.40 | 359 | 511 | 25.0 | 0.70 | |
| 117030404 | 17301899 | MC345B | W14*43 | 12.192 | 5 | 3.9 | 0.17 | 0.21 | 1.27 | 0.024 | 0.016 | 0.04 | 0.01 | 0.01 | 0.023 | 0.003 | 0.003 | 0.0013 | | 0.40 | 389 | 508 | 24.0 | 0.77 | |
| 117030400 | 17201859 | MC345B | W14*48 | 12.192 | 24 | 21.072 | 0.15 | 0.20 | 1.26 | 0.025 | 0.017 | 0.06 | 0.01 | 0.01 | 0.020 | 0.003 | 0.002 | 0.0012 | | 0.38 | 346 | 485 | 25.5 | 0.71 | |
| 117030401 | 17201859 | MC345B | W14*48 | 12.192 | 16 | 14.048 | 0.15 | 0.20 | 1.26 | 0.025 | 0.017 | 0.06 | 0.01 | 0.01 | 0.020 | 0.003 | 0.002 | 0.0012 | | 0.38 | 347 | 506 | 25.5 | 0.69 | |
| 117040257 | 17102841 | MC345B | W16*26 | 12.192 | 71 | 33.583 | 0.16 | 0.25 | 1.10 | 0.021 | 0.018 | 0.04 | 0.01 | 0.01 | 0.018 | 0.003 | 0.002 | 0.0022 | | 0.36 | 377 | 510 | 26.0 | 0.74 | |
| 117040258 | 17102841 | MC345B | W16*26 | 12.192 | 62 | 29.326 | 0.16 | 0.25 | 1.10 | 0.021 | 0.018 | 0.04 | 0.01 | 0.01 | 0.018 | 0.003 | 0.002 | 0.0022 | | 0.36 | 362 | 492 | 26.5 | 0.74 | |
| 117040259 | 17302896 | MC345B | W16*26 | 12.192 | 8 | 3.784 | 0.17 | 0.27 | 1.14 | 0.022 | 0.017 | 0.03 | 0.01 | 0.01 | 0.018 | 0.003 | 0.003 | 0.0025 | | 0.37 | 404 | 520 | 27.5 | 0.78 | |
| 117040239 | 17302896 | MC345B | W16*31 | 12.192 | 40 | 22.48 | 0.17 | 0.27 | 1.14 | 0.022 | 0.017 | 0.03 | 0.01 | 0.01 | 0.018 | 0.003 | 0.003 | 0.0025 | | 0.37 | 383 | 510 | 25.0 | 0.75 | |
| 117040240 | 17302895 | MC345B | W16*31 | 12.192 | 14 | 7.868 | 0.17 | 0.22 | 1.10 | 0.021 | 0.012 | 0.03 | 0.01 | 0.01 | 0.017 | 0.003 | 0.003 | 0.0023 | | 0.36 | 390 | 510 | 25.0 | 0.76 | |
| 117040206 | 17102839 | MC345B | W16*36 | 12.192 | 9 | 5.814 | 0.17 | 0.27 | 1.14 | 0.018 | 0.020 | 0.05 | 0.01 | 0.01 | 0.017 | 0.004 | 0.003 | 0.0027 | | 0.38 | 346 | 481 | 24.0 | 0.72 | |
| 117040207 | 17102838 | MC345B | W16*36 | 12.192 | 34 | 21.964 | 0.15 | 0.25 | 1.04 | 0.015 | 0.019 | 0.03 | 0.02 | 0.03 | 0.015 | 0.004 | 0.002 | 0.0024 | | 0.34 | 355 | 487 | 24.5 | 0.71 | |
| 117040208 | 17102838 | MC345B | W16*36 | 12.192 | 41 | 26.486 | 0.15 | 0.25 | 1.04 | 0.015 | 0.019 | 0.03 | 0.02 | 0.03 | 0.015 | 0.004 | 0.002 | 0.0024 | | 0.34 | 368 | 499 | 24.5 | 0.74 | |
| 117040209 | 17102837 | MC345B | W16*36 | 12.192 | 7 | 4.522 | 0.16 | 0.28 | 1.09 | 0.019 | 0.016 | 0.03 | 0.01 | 0.01 | 0.017 | 0.004 | 0.002 | 0.0026 | | 0.35 | 383 | 514 | 25.0 | 0.75 | |
| 117040176 | 17202815 | MC345B | W16*40 | 12.192 | 5 | 3.66 | 0.15 | 0.30 | 1.25 | 0.021 | 0.016 | 0.04 | 0.02 | 0.02 | 0.021 | 0.004 | 0.002 | 0.0025 | | 0.37 | 399 | 534 | 23.5 | 0.75 | |
| 117040177 | 17202815 | MC345B | W16*40 | 12.192 | 24 | 17.568 | 0.15 | 0.30 | 1.25 | 0.021 | 0.016 | 0.04 | 0.02 | 0.02 | 0.021 | 0.004 | 0.002 | 0.0025 | | 0.37 | 403 | 530 | 23.0 | 0.76 | |
| 117040155 | 17402770 | MC345B | W16*45 | 12.192 | 40 | 32.68 | 0.18 | 0.30 | 1.32 | 0.023 | 0.021 | 0.03 | 0.01 | 0.01 | 0.022 | 0.004 | 0.003 | 0.0020 | | 0.41 | 386 | 517 | 22.0 | 0.75 | |
| 117040156 | 17402771 | MC345B | W16*45 | 12.192 | 24 | 19.608 | 0.17 | 0.28 | 1.29 | 0.023 | 0.023 | 0.02 | 0.01 | 0.01 | 0.021 | 0.003 | 0.002 | 0.0018 | | 0.40 | 380 | 508 | 22.5 | 0.75 | |
| 117040135 | 17102832 | MC345B | W16*50 | 12.192 | 40 | 36.56 | 0.15 | 0.29 | 1.26 | 0.022 | 0.014 | 0.04 | 0.01 | 0.01 | 0.022 | 0.004 | 0.003 | 0.0021 | | 0.37 | 384 | 545 | 26.5 | 0.70 | |
| 117040136 | 17102833 | MC345B | W16*50 | 12.192 | 40 | 36.56 | 0.15 | 0.28 | 1.26 | 0.024 | 0.017 | 0.02 | 0.01 | 0.01 | 0.022 | 0.002 | 0.003 | 0.0025 | | 0.37 | 365 | 513 | 26.5 | 0.71 | |
| 117040137 | 17102833 | MC345B | W16*50 | 12.192 | 25 | 22.85 | 0.15 | 0.28 | 1.26 | 0.024 | 0.017 | 0.02 | 0.01 | 0.01 | 0.022 | 0.002 | 0.003 | 0.0025 | | 0.37 | 365 | 507 | 26.0 | 0.72 | |
| 117040138 | 17402769 | MC345B | W16*50 | 12.192 | 2 | 1.828 | 0.16 | 0.30 | 1.29 | 0.024 | 0.021 | 0.03 | 0.01 | 0.01 | 0.022 | 0.003 | 0.004 | 0.0021 | | 0.39 | 364 | 512 | 26.0 | 0.71 | |
| 117040139 | 17402769 | MC345B | W16*50 | 12.192 | 11 | 10.054 | 0.16 | 0.30 | 1.29 | 0.024 | 0.021 | 0.03 | 0.01 | 0.01 | 0.022 | 0.003 | 0.004 | 0.0021 | | 0.39 | 351 | 491 | 26.0 | 0.71 | |



MAANSHAN IRON AND STEEL CO., LTD

Customer: TEWOO METAL (H.K.) LTD.
 Commpdity: NEWLY HOT ROLLED STEEL H-BEAMS
 Specification: ASTM A6/A6M-13 ASTM A572/A572M-2012
 ASTM A992/A992M-2011 (B:0.0008%~0.0040%)

CERTIFICATE OF PRODUCT QUALITY

ADD: NO.8 JIUHUA WEST ROAD, MAANSHAN
 CITY, ANHUI PROVINCE, P.R.CHINA
 POSTCODE: 243000 TEL: (0555)2877326
 QUALITY DEPARTMENT :BILU YU
 TEL: (0555)2877321



CONTRACT NO.: QSR8132703406

1704E-5 楼荔

DATE: 2017-4-17

| LOT No. | HEAT No. | STEEL GRADE | Size (INCH) | Length (M) | Pieces | Theoretical Weight (MT) | Chemical Composition (%) | | | | | | | | | | | | | | Mechanical Properties | | | | Yield Ratio |
|---------------|----------|-------------|-------------|------------|-------------|-------------------------|---|------|------|-------|-------|------|------|------|-------|-------|-------|--------|----|------|---------------------------------|-----------------------------------|-------------------------------|------|-------------|
| | | | | | | | C | SI | Mn | P | S | Cr | NI | Cu | V | Mo | Nb | B | Sn | CEV | Yield Strength σ_s (Mpa) | Tensile Strength σ_b (Mpa) | Elongation δ_{200} (%) | | |
| 117040140 | 17402770 | MC345B | W16*50 | 12.192 | 14 | 12.796 | 0.18 | 0.30 | 1.32 | 0.023 | 0.021 | 0.03 | 0.01 | 0.01 | 0.022 | 0.004 | 0.003 | 0.0020 | | 0.41 | 358 | 501 | 25.5 | 0.71 | |
| 117040134 | 17102832 | MC345B | W16*57 | 12.192 | 21 | 21.756 | 0.15 | 0.29 | 1.26 | 0.022 | 0.014 | 0.04 | 0.01 | 0.01 | 0.022 | 0.004 | 0.003 | 0.0021 | | 0.37 | 347 | 495 | 27.5 | 0.70 | |
| TOTAL: | | | | | 1295 | 827.853 | | | | | | | | | | | | | | | | | | | |
| EXPLAINS: | | | | | | | 1.THE DUPLICATE SHOULD NOT BE EQUALLY AUTHENTIC AS THE ORIGINAL INSPECTION CERTIFICATE | | | | | | | | | | | | | | Consignor: | | | | |
| REMARKS: | | | | | | | 2.THE STEEL GRADE IS SUBJECT TO THE INSPECTION CERTIFICATE'S | | | | | | | | | | | | | | Quality Control center Auditor: | | | | |
| | | | | | | | 0.0040%>=B>=0.0008%, OTHERS ACCO. TO ASTM A572 GR50/A572M-2012, A992/A992M-2011, ASTM A6/A6M-2009 | | | | | | | | | | | | | | | | | | |