



MAANSHAN IRON AND STEEL CO., LTD.

CERTIFICATE OF PRODUCT QUALITY

Customer: TEWOO METAL (H.K.) LIMITED

Material description: HOT ROLLED STEEL H-BEAM.

Steel type: ALLOYED, HOT/COLD ROLLED NO ALLOYED, ETC

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

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

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

QUALITY NO.: CSP8132703406
CONTRACT NO.: 6M/QE-B-9-148

DATE: 2016-10-8

LOT No.	Heat No.	Steel Grade	Size (INCH)	Length (M)	Pieces	Theoretical Weight (MT)	Chemical Composition (%)											Mechanical Properties					
							C	Si	Mn	P	S	Cr	Ni	Cu	V	Mo	Nb	B	CEV	Sn	Yield Strength σ_s (Mpa)	Tensile Strength σ_b (Mpa)	Elongation δ_{200} (%)
216070869	16306172	MC345B	W14*38	12.192	26	18.33	0.17	0.25	1.26	0.027	0.020	0.05	0.02	0.02	0.047	0.005	0.002	0.0014	0.40	396	537	28.5	0.74
116090783	16107919	MC345B	W16*26	12.192	52	24.596	0.18	0.32	1.30	0.026	0.013	0.05	0.01	0.03	0.022	0.003	0.003	0.0025	0.41	440	591	21.0	0.74
116090784	16107919	MC345B	W16*26	12.192	49	23.177	0.18	0.32	1.30	0.026	0.013	0.05	0.01	0.03	0.022	0.003	0.003	0.0025	0.41	425	583	20.5	0.73
116090790	16207394	MC345B	W16*26	12.192	18	8.514	0.19	0.26	1.13	0.027	0.011	0.04	0.01	0.02	0.019	0.003	0.003	0.0020	0.39	374	507	23.0	0.74
116090778	16207397	MC345B	W16*31	12.192	27	15.174	0.16	0.22	1.04	0.024	0.011	0.04	0.01	0.02	0.016	0.002	0.001	0.0018	0.35	358	490	26.0	0.73
116090791	16207316	MC345B	W16*31	12.192	16	8.992	0.17	0.30	1.25	0.032	0.022	0.03	0.01	0.01	0.023	0.004	0.003	0.0022	0.39	393	543	22.0	0.72
116090792	16207397	MC345B	W16*31	12.192	3	1.686	0.16	0.22	1.04	0.024	0.011	0.04	0.01	0.02	0.016	0.002	0.001	0.0018	0.35	386	503	22.0	0.77
116090768	16307554	MC345B	W16*36	12.192	32	20.672	0.15	0.23	1.06	0.027	0.009	0.03	0.01	0.02	0.018	0.002	0.002	0.0013	0.34	353	481	23.0	0.73
116090769	16107923	MC345B	W16*36	12.192	51	32.946	0.16	0.22	1.03	0.028	0.010	0.04	0.01	0.01	0.018	0.001	0.001	0.0016	0.34	351	486	23.5	0.72
116090754	16207390	MC345B	W16*40	12.192	48	35.136	0.18	0.28	1.24	0.024	0.012	0.04	0.01	0.02	0.022	0.002	0.002	0.0022	0.40	370	507	23.0	0.73
116090755	16207390	MC345B	W16*40	12.192	40	29.28	0.18	0.28	1.24	0.024	0.012	0.04	0.01	0.02	0.022	0.002	0.002	0.0022	0.40	366	505	22.5	0.72
116090756	16107915	MC345B	W16*40	12.192	32	23.424	0.17	0.28	1.25	0.021	0.014	0.04	0.01	0.03	0.022	0.003	0.002	0.0024	0.39	375	508	23.0	0.74
116090757	16207401	MC345B	W16*40	12.192	29	21.228	0.16	0.30	1.30	0.027	0.012	0.04	0.01	0.01	0.022	0.002	0.003	0.0018	0.39	372	507	24.0	0.73
116090749	16107839	MC345B	W16*45	12.192	48	39.216	0.16	0.31	1.23	0.026	0.021	0.04	0.01	0.02	0.021	0.005	0.002	0.0023	0.38	428	561	28.0	0.76
116090750	16107839	MC345B	W16*45	12.192	19	15.523	0.16	0.31	1.23	0.026	0.021	0.04	0.01	0.02	0.021	0.005	0.002	0.0023	0.38	361	492	22.5	0.74
116090753	16207316	MC345B	W16*45	12.192	7	5.719	0.17	0.30	1.25	0.032	0.022	0.03	0.01	0.01	0.023	0.004	0.003	0.0022	0.39	355	497	23.0	0.71
116090742	16207313	MC345B	W16*50	12.192	38	34.732	0.16	0.28	1.20	0.020	0.019	0.03	0.01	0.01	0.022	0.002	0.002	0.0022	0.37	381	497	25.5	0.77
116090743	16207313	MC345B	W16*50	12.192	32	29.248	0.16	0.28	1.20	0.020	0.019	0.03	0.01	0.01	0.022	0.002	0.002	0.0022	0.37	380	505	27.0	0.75
116090744	16107747	MC345B	W16*50	12.192	32	29.248	0.15	0.26	1.24	0.032	0.015	0.03	0.01	0.01	0.021	0.002	0.002	0.0014	0.37	391	537	25.5	0.73
116090737	16107747	MC345B	W16*57	12.192	21	21.756	0.15	0.26	1.24	0.032	0.015	0.03	0.01	0.01	0.021	0.002	0.002	0.0014	0.37	356	470	23.0	0.75