

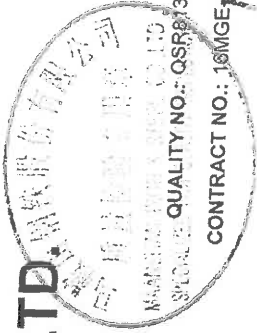


# MAANSHAN IRON AND STEEL CO., LTD.

## 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.: QSP88732703406

CONTRACT NO.: 16MGE-140

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 $\sigma_s$ (Mpa)	Tensile Strength $\sigma_b$ (Mpa)	Elongation $\delta$ 200 (%)
116090982	16207397	MC345B	W18*35	12.192	23	14.582	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	363	500	22.5	0.73
116090983	16107923	MC345B	W18*35	12.192	38	24.092	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	374	506	22.5	0.74
116090971	16107911	MC345B	W18*40	12.192	32	23.424	0.15	0.30	1.27	0.028	0.015	0.04	0.01	0.02	0.023	0.003	0.003	0.0023	0.38	368	516	24.5	0.71
116090972	16107911	MC345B	W18*40	12.192	24	17.568	0.15	0.30	1.27	0.028	0.015	0.04	0.01	0.02	0.023	0.003	0.003	0.0023	0.38	363	511	25.0	0.71
116090973	16307541	MC345B	W18*40	12.192	20	14.64	0.16	0.28	1.27	0.031	0.019	0.03	0.01	0.02	0.021	0.002	0.002	0.0021	0.38	368	515	25.5	0.71
116090976	16107910	MC345B	W18*40	12.192	5	3.66	0.18	0.30	1.28	0.029	0.016	0.04	0.01	0.02	0.022	0.003	0.002	0.0023	0.41	389	533	24.0	0.73
116090962	16107912	MC345B	W18*46	12.192	24	19.896	0.17	0.22	0.98	0.021	0.013	0.04	0.01	0.02	0.019	0.002	0.001	0.0021	0.35	381	522	24.5	0.73
116090953	16107912	MC345B	W18*50	12.192	24	21.648	0.17	0.22	0.98	0.021	0.013	0.04	0.01	0.02	0.019	0.002	0.001	0.0021	0.35	352	470	24.0	0.75
116090954	16307549	MC345B	W18*50	12.192	18	16.236	0.14	0.28	1.27	0.026	0.012	0.04	0.01	0.02	0.022	0.003	0.003	0.0022	0.37	348	495	24.5	0.70
116090949	16207388	MC345B	W18*55	12.192	19	19	0.17	0.32	1.33	0.026	0.014	0.05	0.01	0.03	0.023	0.003	0.002	0.0024	0.41	377	527	24.5	0.72
116090950	16207388	MC345B	W18*55	12.192	18	18	0.17	0.32	1.33	0.026	0.014	0.05	0.01	0.03	0.023	0.003	0.002	0.0024	0.41	378	523	24.0	0.72
116090936	16108041	MC345B	W18*76	12.192	24	33.072	0.16	0.28	1.33	0.029	0.014	0.03	0.01	0.01	0.023	0.002	0.003	0.0017	0.39	382	513	23.0	0.74
116090937	16207514	MC345B	W18*76	12.192	24	33.072	0.19	0.27	1.23	0.023	0.016	0.03	0.01	0.02	0.022	0.002	0.003	0.0020	0.41	373	502	23.5	0.74
116090938	16207514	MC345B	W18*76	12.192	22	30.316	0.19	0.27	1.23	0.023	0.016	0.03	0.01	0.02	0.022	0.002	0.003	0.0020	0.41	397	523	24.0	0.76
116090939	16307670	MC345B	W18*76	12.192	9	12.402	0.15	0.29	1.26	0.020	0.021	0.03	0.01	0.02	0.022	0.003	0.003	0.0026	0.37	372	511	24.0	0.73
116090935	16108041	MC345B	W18*86	12.192	21	32.781	0.16	0.28	1.33	0.029	0.014	0.03	0.01	0.01	0.023	0.002	0.003	0.0017	0.39	377	494	24.0	0.76
TOTAL:					1914	1268.998																	

<NOTE> STEEL GRADE IS BASED ON THIS CERTIFICATE.

Consignor:

Quality Control center Auditor: