



# MAANSHAN IRON AND STEEL CO., LTD.

Customer: TEWOO STEEL (H K ) LTD  
 Comppdity: NEWLY HOT ROLLED STEEL H-BEAM  
 Grade: MC345B  
 Specification: ASTM A572/A572M-2012 GR50 ASTM A6/A6M-2009  
 ASTM A992/A992M-2011

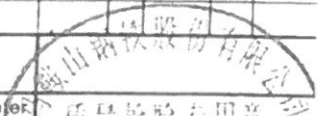
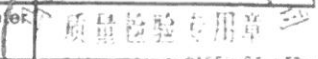
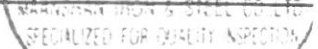
## CERTIFICATE OF PRODUCT QUALITY

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

QUALITY NO.: QSR8132703411  
 CONTRACT NO.: 14MGE-B-9-133-1  
 BATCH1  
 DATE: 2014-11-3

LOT No.	HEAT No.	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	CEV	Sn	Yield Strength $\sigma_s$ (Mpa)	Tensile Strength $\sigma_b$ (Mpa)	Elongation $\delta$ 200 (%)		
214100861	14106914	W8*18	12.192	57	8.468	0.17	0.29	1.24	0.029	0.017	0.03	0.01	0.01	0.021	0.005	0.003	0.0014	0.38	0.000	350	529	28.0	0.67	
214100309	14406914	W8*18	12.192	55	17.822	0.16	0.29	1.26	0.029	0.016	0.03	0.01	0.01	0.021	0.007	0.003	0.0014	0.38	0.000	351	524	36.0	0.67	
214100860	14109600	W12*35	12.192	30	19.021	0.18	0.29	1.23	0.028	0.020	0.03	0.01	0.01	0.021	0.008	0.003	0.0018	0.40	0.000	381	524	31.0	0.67	
214100864	14109603	W12*35	12.192	42	26.628	0.19	0.29	1.23	0.027	0.020	0.03	0.01	0.01	0.021	0.009	0.003	0.0018	0.40	0.000	356	516	35.5	0.70	
TOTAL:				184	81.936																			

EXPLAINS: 1. THE DUPLICATE SHOULD NOT BE EQUALLY AUTHENTIC AS THE ORIGINAL INSPECTION CERTIFICATE  
 2. THE STEEL GRADE IS SUBJECT TO THE INSPECTION CERTIFICATE'S  
 REMARKS: 0.0040% >= B >= 0.0008%, OTHERS ACCO. TO ASTM A572 GR50/A572M-2012, A992/A992M-2011, ASTM A6/A6M-2009

Consignor:   
 Quality Control center:   
 Auditor:   
 MAANSHAN IRON & STEEL CO., LTD.  
 SPECIALIZED FOR QUALITY INSPECTION

张俊