


ORIGINAL

Contract No.	
Customer	DUFERCO
L/C No.	
P/O No.	32201608C11P
Commodity	Hot rolled H-Beam or I-Beam
Specification	ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM)

MILL TEST CERTIFICATE

EN 10204(2004) TYPE 3.1

HYUNDAI STEEL		
Head Office	6363, Donghaean-ro, Nam-gu, Pohang, 37864, S. Korea	
Certificate No.	IH20160807135	
Class Cert. No.		
Date of issue	2016-09-02	

Dimensions & Length	Heat No.	Pieces Weights (kg)	Chemical Composition (%)											Tensile Test			Yield Ratio	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⁾		AVG	1	2	3					
			x100	x1000	x100	x1000	x100	x100	x1000	x100	x100	x100	x100	N/mm ²	N/mm ²	%		()								
33X11-1/2X118 40.00 FT	3F9630	22 59,943	18	15	104	20	9	23	11	13	29						41	552	412	24.8	0.01					
33X11-1/2X118 40.00 FT	3F9631	17 36,397	17	13	101	13	11	19	3	2	29						40	543	401	26.5	0.01					
33X11-1/2X118 40.00 FT	3F9632	6 12,845	17	15	101	19	11	18	2	3	29						41	545	405	26.2	0.01					
33X11-1/2X118 40.00 FT	3F9633	14 29,974	18	16	103	13	12	20	2	3	30						40	527	387	26.0	0.01					
33X11-1/2X118 40.00 FT	3F9634	41 67,781	18	16	102	20	15	21	3	4	29						41	526	375	24.0	0.01					
33X11-1/2X118 40.00 FT	3F9635	24 51,384	18	15	103	21	14	28	2	3	29						42	529	385	28.0	0.01					
33X11-1/2X169 40.00 FT	3F7066	1 3,053	17	15	103	17	10	22	2	3	30						40	584	423	22.5	0.01					
33X11-1/2X169 40.00 FT	3F9639	3 9,159	19	15	106	24	9	22	2	3	30						43	582	397	22.6	0.01					
TOTAL		244 487,313												===== E N D =====												

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

Conditions of supply As Rolled

As Rolled
General Manager of Q.A Team

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

