

**HYUNDAI STEEL**

63, Jungbong-daero, Dong-gu, Incheon, 22525, S. Korea

Certificate No. IH20161104366 - 2

Class Cert. No.

Date of issue 2016-11-22

## INSPECTION CERTIFICATE

EN 10204(2004) TYPE 3.1

Contract No.	
Customer	HYUNDAI CORPORATION
L/C No.	
P/O No.	32201610C311
Commodity	H-BEAM
Specification	ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM)

Dimensions & Length	Heat No.	Pieces Weights (kg)	Chemical Composition (%)											Tensile Test			Impact Test (V-notch)			Remarks (Impact Specimen Size)																
			C		Si		Mn		P		S		Cu		Ni		Mo		Cr		V		Al		Nb		Sn		CE(1)		Yield Ratio	Elongation(2)	AVG			
			x100	x100	x100	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000		x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	x1000	(%)			(%)	(%)		
18X7-1/2X50 40.00 FT	E 192983	19 17,233	19	19	64	29	7	26	2	8	18	15	5	2	12	36	540	402	25.0	0.74																
18X7-1/2X55 40.00 FT	E 192707	3 2,994	18	18	96	29	9	28	2	4	17	14	4	4	11	41	546	397	28.0	0.73																
18X7-1/2X55 40.00 FT	E 193061	80 79,840	18	16	95	24	6	29	2	5	15	13	3	3	10	40	553	402	26.0	0.73																
18X7-1/2X55 40.00 FT	E 193062	30 29,940	19	18	102	31	8	33	2	5	17	15	6	6	12	43	552	398	26.0	0.72																
14X5X26 40.00 FT	D 137246	55 25,960	17	15	59	24	4	32	2	3	14	16	32	32	32	32	523	393	22.5	0.75																
14X5X26 40.00 FT	D 137247	55 25,960	17	16	60	20	5	31	2	3	16	16	33	33	33	33	530	401	23.5	0.76																
16X5-1/2X31 40.00 FT	D 136883	124 69,688	16	11	64	24	5	31	2	3	17	15	34	34	34	34	524	386	26.0	0.74																
16X5-1/2X31 40.00 FT	D 136884	180 101,160	17	16	60	26	8	32	2	4	18	20	34	34	34	34	521	378	25.5	0.73																
16X5-1/2X31 40.00 FT	D 136885	232 130,384	16	14	59	28	2	35	2	3	17	19	32	32	32	32	520	379	25.5	0.73																
SUB TOTAL		778 483,159																																		

(Note) (1) Ceq: (CE=C+Mn/8+Cr/5+V/5+Mo/5+Ni/15+Cu/15) (2) Gauge length : 200 mm (3) Yield Ratio = YP/TS

J. C. Ahn

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