

HYUNDAI STEEL	
Head Office	63, Jungbong-daero, Dong-gu, Incheon, 22525, S. Korea
Certificate No.	IH20161104366 - 1
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	S	Mo	Cr	Al	V	Nb	Sn	CE(1)	Yield Strength	Yield point		Elongation(2)	Yield Ratio	AVG	1	2	3
			x100	x100	x1000	x1000	x1000	x100	x100	x100	x100	x1000	x1000	x100	x100	x1000	x100	x100	N/mm ²		%	%	(%)	(%)	(%)	(%)
12X4X16 40.00 FT	D 135806	14 4,060	17	16	58	24	5	25	2	12	15	3	14	14	33	521	386	26.5	0.74							
12X4X22 40.00 FT	D 135845	101 40,299	11	17	116	23	4	26	1	11	11	38	4	12	36	541	423	25.0	0.78							
12X4X22 40.00 FT	D 136850	140 55,860	20	19	101	23	7	10	2	11	18	3	14	42	547	406	27.0	0.74								
12X4X22 40.00 FT	D 136854	50 19,950	16	17	105	31	4	29	3	23	20	5	16	42	554	415	25.0	0.75								
18X7-1/2X50 40.00 FT	E 192694	1 907	20	14	64	23	8	25	2	14	13	3	12	36	529	397	29.0	0.75								
18X7-1/2X50 40.00 FT	E 192710	1 907	18	18	64	25	6	21	1	16	15	4	9	34	524	398	28.0	0.76								
18X7-1/2X50 40.00 FT	E 192936	30 27,210	18	16	65	21	9	25	2	12	14	2	11	34	510	388	27.5	0.76								
18X7-1/2X50 40.00 FT	E 192963	7 6,349	18	18	69	23	7	26	2	12	10	4	3	35	533	397	25.5	0.74								
18X7-1/2X50 40.00 FT	E 192964	74 67,118	19	17	68	23	10	24	1	11	14	4	5	35	527	400	25.5	0.76								
SUB TOTAL		418 222,660																								

(Note) (1) Ceq: (CE=C+Mn/6+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