

Contract No.	
Customer	HYUNDAI CORPORATION
L/C No.	
P/O No.	32201601C141
Commodity	H-BEAM
Specification	ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM)

# INSPECTION CERTIFICATE



Head Office	63, Jungbong-daero, Dong-gu, Incheon, 401-712, S. Korea
Certificate No.	IH20160201771 - 1
Class Cert. No.	
Date of Issue	2016-02-16

EN 10204(2004) TYPE 3.1

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	Al V	Nb	Sn	CE <sup>(1)</sup>	Tensile Strength	Yield point	Elongation <sup>(2)</sup>	Yield Ratio	AVG	1	2	3	
			×100		×1000		×100		×1000		×100		N/mm <sup>2</sup>		%		( <sup>o</sup> )	C				
10X5-3/4X26 40.00 FT	D 132267	24 11,328	18	20	66	12	10	29 9	2 10	3 2	17	13	34	565 562	430 428	23.5 24.5	0.76 0.76					
18X7-1/2X50 40.00 FT	E 187709	5 4,535	18	17	70	28	9	24 9	2 24	4 13	2	23	37	532 527	392 387	26.0 27.0	0.74 0.73					
18X7-1/2X50 40.00 FT	E 187724	8 7,256	18	14	65	22	7	22 9	2 11	2 14	1	10	34	518 514	377 373	27.5 28.0	0.73 0.73					
18X7-1/2X50 40.00 FT	E 187725	2 1,814	18	13	66	23	7	22 7	1 14	2 14	1	11	34	527 524	389 382	26.0 27.0	0.74 0.73					
14X8X43 40.00 FT	E 187735	8 6,240	18	15	67	23	9	28 8	1 16	3 14	2	15	35	525 522	393 392	27.0 27.5	0.75 0.75					
14X8X43 40.00 FT	E 187736	8 6,240	18	16	63	22	10	22 7	1 14	6 14	1	15	34	521 518	385 383	25.0 25.5	0.74 0.74					
14X8X48 40.00 FT	E 186867	8 6,968	19	17	65	17	7	27 9	2 11	4 14	1	11	35	540 535	388 385	26.0 26.5	0.72 0.72					
14X8X48 40.00 FT	E 186868	4 3,484	18	17	63	18	10	24 8	2 14	3 13	1	12	34	520 507	370 367	28.5 27.0	0.71 0.72					
14X14-1/2X132 40.00 FT	N 031430	5 11,970	17	19	114	28	9	24 9	2 20	3 15	3	15	43	563 575	398 403	26.5 26.0	0.71 0.70					
SUB TOTAL		72 59,835																				

(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