


Contract No.	
Customer	DUFERCO
PO No.	32201910C221
L/C No.	
Commodity	H-BEAM
Specification	ASTM A572 G50/A992/CSA G40.21-13 50MM(345MM)

ORIGINAL

INSPECTION CERTIFICATE

EN 10204(2004) TYPE 3.1

HYUNDAI STEEL H(CORE)		
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Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea	
Certificate No.	IH20191106159-3	
Class certificate No.		
Issue date	2019-12-04	

Dimensions	Length	Heat No.	Quantity (PCS)	Weight (kg)	Chemical Composition														Tensile Test			Yield Ratio(%)	BEND TEST	Impact Test(L)				Remarks (Impact Specimen Size)	
					C	Si	Mn	P	S	Cu	Ni	Mo	Cr	Al	V	Nb	Sn	CEq	Tensile Strength	Yield Strength	Elongation (%)			V-Notch	℃				
					×100		×1000		×100			×1000			×100	N/mm2		%	AVG	1	2			3					
21X12-1/4X122	40.00 FT	N 050824	10	22,130	18	15	95	24	10	28	10	2	10	2	13	1	11	39	553 546	381 378	28.5 28.0	0.689 0.693							
21X12-1/4X122	40.00 FT	N 050825	4	8,852	19	14	94	27	7	26	9	2	16	3	14	1	14	41	564 555	392 386	27.5 27.0	0.696 0.696							
21X12-1/4X132	40.00 FT	N 050454	1	2,394	17	19	110	21	4	26	10	1	12	3	15	1	14	41	561 560	399 390	26.5 27.0	0.712 0.697							
21X12-1/4X132	40.00 FT	N 050807	12	28,728	17	13	112	24	12	28	9	2	13	2	14	1	12	41	547 544	385 380	29.5 27.5	0.704 0.699							
24X12-3/4X104	40.00 FT	N 050725	3	5,661	18	16	95	20	6	26	9	2	12	3	13	1	11	39	568 562	409 389	26.5 25.5	0.721 0.693							
24X12-3/4X104	40.00 FT	N 050726	6	11,322	18	15	94	24	6	26	10	2	18	2	14	1	10	40	570 567	424 401	24.5 26.5	0.744 0.708							
24X12-3/4X104	40.00 FT	N 050727	6	11,322	19	16	93	29	7	29	10	2	17	3	13	1	13	41	573 572	406 408	26.5 27.0	0.709 0.714							
24X12-3/4X104	40.00 FT	N 050728	24	45,288	18	16	95	25	8	25	9	4	18	4	14	1	11	41	575 569	402 392	27.0 27.5	0.700 0.689							
24X12-3/4X104	40.00 FT	N 050729	9	16,983	18	15	93	23	4	24	9	3	21	2	12	1	10	41	582 575	419 393	26.5 27.0	0.720 0.684							
24X12-3/4X104	40.00 FT	N 050730	6	11,322	17	15	95	24	10	25	9	2	27	1	12	1	8	41	570 567	425 396	25.0 24.0	0.746 0.699							
SUB TOTAL			81	164,002																									

===== NEXT =====

(1) Ceq: (CE=C+Mn/6+Cr/5+V/5+Mo/5+Ni/15+Cu/15) (2) Gauge length : 200 mm (3) Y.R. = Y.S/T.S	Note
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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.

J. K. Han

General Manager of Q.A Team