

No.	
Manufacturer	DUFERCO
Product No.	32201711C611
Grade	H-BEAM
Specification	ASTM A572 G50/A992/CSA G40.21-13 50MM(345MM)

## INSPECTION CERTIFICATE

### EN 10204(2004) TYPE 3.1



Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20180202206-3
Class certificate No.	
Issue date	2018-02-13

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	CE <sub>eq</sub>	Tensile Strength	Yield Strength	Elongation (2)	V-Notch					°C					
					×100			×1000		×100			×1000				×100	N/mm2		%	-	-	AVG	1			2	3				
L4-1/2X90	40.00 FT	N 041206	36	58,752	19	15	94	22	11	24	8	2	13	4	13	2	12	40	558	409	24.5	0.733										
L4-1/2X90	40.00 FT	N 041207	22	35,904	18	15	97	18	12	23	13	2	10	3	15	5	10	39	544	412	25.0	0.758										
L4-1/2X99	40.00 FT	N 041194	19	34,124	19	14	93	22	11	27	9	2	7	2	14	1	9	39	566	387	25.5	0.684										
L4-1/2X99	40.00 FT	N 041195	25	44,900	18	15	96	22	11	24	9	2	11	3	14	2	8	39	581	400	24.5	0.689										
L4-1/2X99	40.00 FT	N 041196	14	25,144	18	17	95	23	10	23	9	2	13	3	14	2	9	39	556	397	26.5	0.715										
L4-1/2X99	40.00 FT	N 041197	16	28,736	18	15	95	19	11	24	8	2	9	2	14	1	9	38	547	376	25.5	0.688										
4-1/2X120	40.00 FT	N 041163	7	15,239	18	15	98	18	9	22	10	3	9	3	15	4	8	39	571	442	23.5	0.775										
4-1/2X120	40.00 FT	N 041215	5	10,885	18	14	94	23	10	22	8	2	12	2	13	1	10	39	564	430	23.5	0.763										
4-1/2X120	40.00 FT	N 041220	25	54,425	19	15	95	24	10	25	8	2	11	3	13	2	11	40	566	411	24.0	0.727										
4-1/2X120	40.00 FT	N 041221	20	43,540	18	15	93	22	9	21	10	2	11	3	14	3	13	38	561	432	24.0	0.771										
<b>B TOTAL</b>			<b>189</b>	<b>351,649</b>																												

===== NEXT =====

CE=C+Mn/6+Cr/5+V/5+Mo/5+Ni/15+Cu/15)  
 length : 200 mm  
 Y.S./T.S

Note

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. C. Ahn*

General Manager of Q.A Team