Contract No.	
Customer	HYUNDAI CORPORATION
PO No.	32201705CP11
L/C No.	
Commodity	**H-BEAM**
Specification	**HOT ROLLED WIDE FLANGE BEAM ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM) PARA MATERIAL DE VIGA**

INSPECTION CERTIFICATE

EN 10204(2004) TYPE 3.1

HYUNDAI STEEL

Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20170702477-1
Class certificate No.	
Issue date	2017-07-17

Dimensions	Length	Heat No.	Quantity (PCS)	Weight (kg)	Chemical Composition C	Si	Mn	P	S	Cu	Ni	Mo	Cr	Al	V	Nb	Sn	CE(1)				Tensile Test Tensile Strength	Yield Strength	Elongation (2)	Yield Ratio(3)	BEND TEST	Impact Test(L) V-Notch AVG	1	2	3 (°C)	Remarks (Impact Specimen Size)
					×100			×1000		×100				×1000				×100				N/mm2		%	-	-	-				
6X6X20	40.00 FT	D 141167	8	2,904	16	14	59	25	6	34	9	1	21	4	3	16	12	33				529 533	417 422	24.5 25.0	0.79 0.79						
6X6X20	40.00 FT	D 141184	24	8,712	17	14	62	11	9	32	9	1	7	3	2	15	14	32				523 520	380 377	26.0 26.5	0.73 0.72						
6X6X25	40.00 FT	D 141177	8	3,624	18	17	71	26	7	33	9	1	23	3	3	20	14	37				537 541	403 398	25.5 25.0	0.75 0.74						
6X6X25	40.00 FT	D 141180	40	18,120	11	18	111	15	7	20	7	2	10	32	40	4	11	35				499 503	382 385	28.0 27.5	0.77 0.77						
8X5-1/4X18	40.00 FT	D 140847	8	2,616	17	14	59	23	6	31	10	3	12	3	2	16	16	33				534 538	418 421	25.0 24.5	0.78 0.78						
8X5-1/4X18	40.00 FT	D 140850	18	5,886	18	16	58	20	7	33	10	2	13	3	3	16	16	34				534 530	413 415	24.5 25.0	0.77 0.78						
8X5-1/4X18	40.00 FT	D 140851	8	2,616	17	15	59	23	9	28	9	3	11	3	2	17	13	32				527 531	418 421	25.0 24.5	0.79 0.79						
8X5-1/4X18	40.00 FT	D 140852	32	10,464	17	14	60	20	5	24	8	2	10	2	1	16	10	32				525 535	429 425	24.5 25.0	0.82 0.80						
8X5-1/4X21	40.00 FT	D 140844	16	6,096	16	14	59	25	7	34	11	3	20	3	3	16	15	33				520 520	417 412	26.0 25.5	0.80 0.79						
8X5-1/4X21	40.00 FT	D 140845	16	6,096	16	14	60	28	7	33	11	2	21	3	3	18	14	34				520 521	418 420	24.0 24.0	0.80 0.81						
SUB TOTAL			**178**	**67,134**	====== N E X T ======																										

(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

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

Contract No.	
Customer	HYUNDAI CORPORATION
PO No.	32201705CP11
L/C No.	
Commodity	**H-BEAM**
Specification	**HOT ROLLED WIDE FLANGE BEAM ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM) PARA MATERIAL DE VIGA**

INSPECTION CERTIFICATE

EN 10204(2004) TYPE 3.1

HYUNDAI STEEL

Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20170702477-2
Class certificate No.	
Issue date	2017-07-17

Dimensions	Length	Heat No.	Quantity (PCS)	Weight (kg)	Chemical Composition																		Tensile Test			Yield Ratio(3)	BEND TEST	Impact Test(L)				Remarks (Impact Specimen Size)
																												V-Notch			℃	
					C	Si	Mn	P	S	Cu	Ni	Mo	Cr	Al	V	Nb	Sn	CE(1)					Tensile Strength	Yield Strength	Elongation (2)			AVG	1	2	3	
					×100			×1000		×100				×1000				×100					N/mm2		%	-	-	-				
8X6-1/2X24	40.00 FT	D 141198	24	10,440	18	14	59	26	11	31	9	1	15	5	3	16	17	34					540 534	410 402	23.5 24.0	0.76 0.75						
8X6-1/2X24	40.00 FT	D 141202	8	3,480	17	14	60	33	9	33	10	1	14	4	2	16	17	33					520 518	384 380	23.5 24.0	0.74 0.73						
8X6-1/2X28	40.00 FT	D 141469	8	4,064	18	14	66	27	6	34	10	1	19	6	2	15	16	36					551 544	413 405	25.0 25.5	0.75 0.74						
8X6-1/2X28	40.00 FT	D 141471	8	4,064	17	15	57	22	10	36	10	2	17	3	2	17	14	33					542 547	392 399	26.5 26.0	0.72 0.73						
8X6-1/2X28	40.00 FT	D 141472	8	4,064	16	15	57	22	4	31	10	2	23	3	3	17	14	33					534 539	392 398	26.5 26.0	0.74 0.74						
10X4X19	40.00 FT	D 141672	30	10,350	16	15	59	25	10	30	13	2	14	3	3	16	15	32					547 544	423 420	24.0 24.5	0.77 0.77						
10X5-3/4X22	40.00 FT	D 141389	72	28,728	14	23	112	20	5	31	10	3	16	30	33	4	18	40					575 569	443 440	23.5 24.0	0.77 0.77						
10X5-3/4X22	40.00 FT	D 141394	16	6,384	18	13	58	15	11	28	9	2	10	4	2	14	16	33					532 529	400 397	26.0 26.5	0.75 0.75						
10X5-3/4X30	40.00 FT	D 141332	40	21,760	16	24	59	29	3	28	8	2	19	6	3	15	13	32					540 536	408 406	24.5 25.0	0.76 0.76						
10X5-3/4X30	40.00 FT	D 141333	16	8,704	19	14	59	25	7	26	8	1	19	5	2	16	14	35					525 524	396 399	25.5 25.0	0.76 0.76						
SUB TOTAL			**230**	**102,038**	====== N E X T ======																											

(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

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

Contract No.	
Customer	HYUNDAI CORPORATION
PO No.	32201705CP11
L/C No.	
Commodity	**H-BEAM**
Specification	**HOT ROLLED WIDE FLANGE BEAM ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM) PARA MATERIAL DE VIGA**

INSPECTION CERTIFICATE

EN 10204(2004) TYPE 3.1

HYUNDAI STEEL

Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20170702477-3
Class certificate No.	
Issue date	2017-07-17

Dimensions	Length	Heat No.	Quantity (PCS)	Weight (kg)	Chemical Composition																		Tensile Test			Yield Ratio(3)	BEND TEST	Impact Test(L)				Remarks (Impact Specimen Size)
																												V-Notch			°C	
					C	Si	Mn	P	S	Cu	Ni	Mo	Cr	Al	V	Nb	Sn	CE(1)					Tensile Strength	Yield Strength	Elongation (2)			AVG	1	2	3	
					×100			×1000		×100				×1000				×100					N/mm2		%	-	-	-				
10X10X49	40.00 FT	E 197958	6	5,334	19	14	66	20	10	25	8	2	14	3	14	4	13	36					535 539	383 386	25.5 24.5	0.72 0.72						
10X10X49	40.00 FT	E 197959	18	16,002	18	16	65	28	6	27	9	2	18	4	17	3	17	36					522 527	387 395	28.5 29.0	0.74 0.75						
10X10X54	40.00 FT	E 197918	5	4,900	19	15	98	24	2	27	8	1	12	4	14	2	12	41					551 556	402 398	27.4 26.5	0.73 0.72						
10X10X54	40.00 FT	E 197920	6	5,880	19	16	96	18	8	28	7	1	10	3	13	3	12	40					553 556	404 409	27.2 28.0	0.73 0.74						
10X10X68	40.00 FT	E 197917	20	24,680	19	18	96	22	7	25	8	1	11	4	14	3	11	40					552 549	415 413	25.0 25.5	0.75 0.75						
10X10X68	40.00 FT	E 197918	2	2,468	19	15	98	24	2	27	8	1	12	4	14	2	12	41					556 551	410 406	26.5 26.0	0.74 0.74						
12X4X14	40.00 FT	D 141136	20	5,080	17	14	56	23	7	30	11	2	13	3	3	18	12	32					571 566	447 440	23.5 23.5	0.78 0.78						
12X4X14	40.00 FT	D 141137	20	5,080	17	15	68	25	7	32	10	2	19	3	2	15	13	35					545 596	412 411	24.5 24.5	0.76 0.69						
12X4X14	40.00 FT	D 141163	10	2,540	17	15	62	25	7	29	9	1	22	3	3	15	11	35					560 555	438 430	25.0 25.5	0.78 0.78						
12X4X16	40.00 FT	D 141163	75	21,750	17	15	62	25	7	29	9	1	22	3	3	15	11	35					543 540	422 420	23.5 24.0	0.78 0.78						
SUB TOTAL			**182**	**93,714**	====== N E X T ======																											

(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

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

Contract No.	
Customer	HYUNDAI CORPORATION
PO No.	32201705CP11
L/C No.	
Commodity	**H-BEAM**
Specification	**HOT ROLLED WIDE FLANGE BEAM ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM) PARA MATERIAL DE VIGA**

INSPECTION CERTIFICATE

EN 10204(2004) TYPE 3.1

HYUNDAI STEEL

Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20170702477-4
Class certificate No.	
Issue date	2017-07-17

Dimensions	Length	Heat No.	Quantity (PCS)	Weight (kg)	Chemical Composition																		Tensile Test			Yield Ratio(3)	BEND TEST	Impact Test(L)				Remarks (Impact Specimen Size)
																												V-Notch			℃	
					C	Si	Mn	P	S	Cu	Ni	Mo	Cr	Al	V	Nb	Sn	CE(1)					Tensile Strength	Yield Strength	Elongation (2)			AVG	1	2	3	
					×100			×1000		×100				×1000				×100					N/mm2		%	-	-	-				
12X6-1/2X26	40.00 FT	D 141652	24	11,328	18	17	59	26	5	28	10	2	12	3	2	15	11	33					539 535	396 391	24.5 24.5	0.74 0.73						
12X6-1/2X26	40.00 FT	D 141653	78	36,816	16	14	57	28	7	28	10	2	13	3	2	16	13	31					526 522	384 382	25.0 25.5	0.73 0.73						
12X6-1/2X26	40.00 FT	D 141654	24	11,328	17	13	59	30	10	31	11	2	12	4	2	16	16	32					539 533	398 387	26.0 25.0	0.74 0.73						
12X6-1/2X30	40.00 FT	D 141658	12	6,528	18	14	60	30	6	33	10	2	16	3	2	16	19	35					521 532	381 389	24.5 24.0	0.73 0.73						
12X6-1/2X30	40.00 FT	D 141659	18	9,792	16	16	61	27	4	30	11	2	19	3	2	15	11	33					518 523	380 389	25.0 24.0	0.73 0.74						
12X6-1/2X35	40.00 FT	D 141631	12	7,620	15	13	59	11	5	25	8	2	11	3	2	17	12	30					490 494	362 364	27.5 27.0	0.74 0.74						
12X6-1/2X35	40.00 FT	D 141632	18	11,430	16	16	59	12	8	29	9	2	10	3	2	17	14	31					492 501	373 380	26.5 26.5	0.76 0.76						
18X7-1/2X55	40.00 FT	E 197859	20	19,960	19	15	94	23	7	28	8	1	11	3	13	3	14	40					548 544	401 395	26.5 27.0	0.73 0.73						
12X12X65	40.00 FT	E 197473	3	3,537	18	16	96	23	12	26	8	2	10	1	13	4	11	39					541 537	390 388	24.5 25.0	0.72 0.72						
12X12X65	40.00 FT	E 197474	9	10,611	18	17	96	28	9	30	9	2	14	3	13	5	17	40					540 535	391 389	25.0 25.5	0.72 0.73						
SUB TOTAL			**218**	**128,950**	====== N E X T ======																											

(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

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

Contract No.	
Customer	HYUNDAI CORPORATION
PO No.	32201705CP11
L/C No.	
Commodity	**H-BEAM**
Specification	HOT ROLLED WIDE FLANGE BEAM ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM) PARA MATERIAL DE VIGA

INSPECTION CERTIFICATE

EN 10204(2004) TYPE 3.1

HYUNDAI STEEL

Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20170702477-5
Class certificate No.	
Issue date	2017-07-17

Dimensions	Length	Heat No.	Quantity (PCS)	Weight (kg)	Chemical Composition																	Tensile Test			Yield Ratio(3)	BEND TEST	Impact Test(L)				Remarks (Impact Specimen Size)
																											V-Notch			°C	
					C	Si	Mn	P	S	Cu	Ni	Mo	Cr	Al	V	Nb	Sn	CE(1)				Tensile Strength	Yield Strength	Elongation (2)			AVG	1	2	3	
					×100			×1000		×100				×1000				×100				N/mm2		%	-	-	-				
12X12X65	40.00 FT	E 197485	1	1,179	19	17	96	28	6	23	8	2	22	3	13	2	19	42				562 566	415 417	26.0 25.5	0.74 0.74						
12X12X65	40.00 FT	E 197673	4	4,716	19	14	97	29	10	32	10	2	20	2	13	2	12	43				550 555	393 396	25.5 25.0	0.72 0.71						
12X12X65	40.00 FT	E 198199	3	3,537	19	16	95	20	11	21	7	1	7	4	16	5	20	39				535 525	395 392	27.5 28.5	0.74 0.75						
14X6-3/4X30	40.00 FT	E 198421	19	10,336	13	15	53	22	10	26	9	2	11	3	12	3	10	27				482 478	378 376	27.0 28.0	0.78 0.79						
14X6-3/4X30	40.00 FT	E 198422	11	5,984	14	15	54	23	13	28	10	2	12	3	11	3	14	29				492 481	382 374	25.0 25.5	0.78 0.78						
14X14-1/2X132	40.00 FT	N 037243	1	2,394	17	20	113	28	11	27	8	1	12	4	14	3	11	41				567 564	388 386	23.0 23.5	0.68 0.68						
14X14-1/2X132	40.00 FT	N 037244	1	2,394	17	17	111	27	8	28	12	2	12	4	14	3	14	41				560 556	385 382	23.0 23.5	0.69 0.69						
14X14-1/2X132	40.00 FT	N 037258	4	9,576	17	17	111	25	6	23	8	2	15	3	14	3	12	41				569 572	397 407	22.5 22.5	0.70 0.71						
16X7X36	40.00 FT	E 197817	1	653	14	14	51	24	8	29	10	2	13	4	12	4	13	28				505 498	410 405	25.5 26.0	0.81 0.81						
16X7X36	40.00 FT	E 197818	15	9,795	14	17	53	28	8	34	11	2	18	4	12	4	19	30				536 532	430 434	23.0 23.5	0.80 0.82						
SUB TOTAL			**60**	**50,564**	====== N E X T ======																										

(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

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

Contract No.	
Customer	HYUNDAI CORPORATION
PO No.	32201705CP11
L/C No.	
Commodity	**H-BEAM**
Specification	**HOT ROLLED WIDE FLANGE BEAM ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM) PARA MATERIAL DE VIGA**

INSPECTION CERTIFICATE

EN 10204(2004) TYPE 3.1

HYUNDAI STEEL

Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20170702477-6
Class certificate No.	
Issue date	2017-07-17

Dimensions	Length	Heat No.	Quantity (PCS)	Weight (kg)	Chemical Composition																	Tensile Test			Yield Ratio(3)	BEND TEST	Impact Test(L)				Remarks (Impact Specimen Size)
																											V-Notch			°C	
					C	Si	Mn	P	S	Cu	Ni	Mo	Cr	Al	V	Nb	Sn	CE(1)				Tensile Strength	Yield Strength	Elongation (2)			AVG	1	2	3	
					×100			×1000		×100				×1000				×100				N/mm2		%	-	-	-				
16X7X40	40.00 FT	E 197834	1	726	18	17	65	28	9	28	9	1	13	4	13	5	14	34				540 546	411 423	25.0 24.5	0.76 0.78						
16X7X40	40.00 FT	E 197835	14	10,164	18	18	65	24	7	27	8	2	10	4	13	3	13	34				533 531	398 392	25.5 27.0	0.75 0.74						
18X6X35	40.00 FT	E 197807	11	6,985	13	16	51	19	7	24	9	2	9	4	11	3	10	26				486 481	374 370	25.0 25.5	0.77 0.77						
18X6X35	40.00 FT	E 197816	14	8,890	14	15	53	24	7	33	10	2	14	4	12	4	13	29				496 497	390 394	25.0 24.5	0.79 0.79						
18X6X40	40.00 FT	E 197793	6	4,356	18	16	63	22	6	30	9	2	13	4	14	2	22	34				536 546	406 434	25.0 23.0	0.76 0.80						
18X6X40	40.00 FT	E 197803	13	9,438	20	17	63	28	5	27	9	2	16	5	14	2	19	37				551 584	422 450	24.0 23.0	0.77 0.77						
18X6X40	40.00 FT	E 197804	3	2,178	19	19	63	26	6	27	9	2	19	5	13	3	11	36				566 560	449 449	22.5 23.0	0.79 0.80						
18X6X40	40.00 FT	E 197805	10	7,260	18	18	64	20	7	31	11	2	12	5	15	4	14	35				539 547	424 430	24.0 23.5	0.79 0.79						
18X6X40	40.00 FT	E 197806	5	3,630	19	17	63	22	9	31	9	2	11	4	13	4	15	35				546 541	440 435	23.5 23.0	0.81 0.80						
18X11X76	40.00 FT	N 037711	2	2,758	18	17	98	28	11	31	9	2	16	4	14	4	17	41				559 563	415 412	25.5 26.5	0.74 0.73						
SUB TOTAL			**79**	**56,385**	====== N E X T ======																										

(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

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

Contract No.	
Customer	HYUNDAI CORPORATION
PO No.	32201705CP11
L/C No.	
Commodity	**H-BEAM**
Specification	**HOT ROLLED WIDE FLANGE BEAM ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM) PARA MATERIAL DE VIGA**

INSPECTION CERTIFICATE

EN 10204(2004) TYPE 3.1

HYUNDAI STEEL

Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20170702477-7
Class certificate No.	
Issue date	2017-07-17

Dimensions	Length	Heat No.	Quantity (PCS)	Weight (kg)	Chemical Composition C	Si	Mn	P	S	Cu	Ni	Mo	Cr	Al	V	Nb	Sn	CE(1)				Tensile Test Tensile Strength	Yield Strength	Elongation (2)	Yield Ratio(3)	BEND TEST	Impact Test(L) V-Notch AVG	1	2	°C 3	Remarks (Impact Specimen Size)
					×100			×1000		×100				×1000				×100				N/mm2		%	-	-	-				
18X11X76	40.00 FT	N 037712	6	8,274	18	15	94	29	9	32	9	2	16	3	13	3	17	40				556 553	405 401	26.5 27.0	0.73 0.73						
18X11X76	40.00 FT	N 037724	6	8,274	18	15	98	26	10	28	11	2	17	3	16	6	12	41				548 550	406 404	27.0 26.5	0.74 0.74						
18X11X76	40.00 FT	N 037725	1	1,379	18	15	94	27	9	30	11	2	20	4	12	4	13	41				555 551	405 400	28.0 29.5	0.73 0.73						
21X8-1/4X73	40.00 FT	E 198055	20	26,480	18	13	96	23	10	30	10	1	14	3	14	4	14	40				543 535	388 382	29.0 29.5	0.72 0.72						
21X8-1/4X93	40.00 FT	E 198053	6	10,122	18	15	96	18	7	25	8	2	14	3	15	3	10	40				547 542	385 378	23.5 23.0	0.70 0.70						
21X8-1/4X93	40.00 FT	E 198054	4	6,748	19	15	98	19	11	28	9	2	12	3	15	4	13	41				535 544	367 380	26.5 26.0	0.69 0.70						
21X6-1/2X57	40.00 FT	E 198064	14	14,476	18	17	64	15	10	25	9	1	10	4	14	3	13	33				508 500	380 375	25.0 25.0	0.75 0.75						
21X6-1/2X57	40.00 FT	E 198065	16	16,544	18	16	66	18	9	23	8	1	11	4	13	3	14	34				502 496	377 368	26.0 27.0	0.75 0.74						
24X9X76	40.00 FT	N 037733	1	1,379	18	14	96	27	7	30	10	2	15	3	13	4	12	40				554 550	392 384	25.0 25.5	0.71 0.70						
24X9X76	40.00 FT	N 037735	3	4,137	18	14	94	28	8	26	10	2	20	3	13	3	14	41				556 551	413 408	25.0 25.5	0.74 0.74						
SUB TOTAL			**77**	**97,813**	====== N E X T ======																										

(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

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

Contract No.	
Customer	HYUNDAI CORPORATION
PO No.	32201705CP11
L/C No.	
Commodity	**H-BEAM**
Specification	**HOT ROLLED WIDE FLANGE BEAM ASTM A572 G50/A992/CSA G 40.21-13 50WM(345WM) PARA MATERIAL DE VIGA**

INSPECTION CERTIFICATE

EN 10204(2004) TYPE 3.1

HYUNDAI STEEL

Factory	63, Jungbong-Daero, Dong-gu, Incheon, S. Korea
Certificate No.	IH20170702477-8
Class certificate No.	
Issue date	2017-07-17

Dimensions	Length	Heat No.	Quantity (PCS)	Weight (kg)	Chemical Composition																		Tensile Test			Yield Ratio(3)	BEND TEST	Impact Test(L)				Remarks (Impact Specimen Size)
					C	Si	Mn	P	S	Cu	Ni	Mo	Cr	Al	V	Nb	Sn	CE(1)					Tensile Strength	Yield Strength	Elongation (2)			V-Notch			°C	
																												AVG	1	2	3	
					×100			×1000		×100				×1000				×100					N/mm2		%	-	-	-				
24X9X76	40.00 FT	N 037736	1	1,379	18	14	95	25	11	28	9	2	16	3	12	4	22	40					547 542	399 392	28.0 27.5	0.73 0.72						
24X9X76	40.00 FT	N 037760	2	2,758	19	15	96	25	9	23	8	2	13	3	13	3	11	40					553 557	409 406	28.0 27.5	0.74 0.73						
24X7X62	40.00 FT	E 198069	10	11,250	18	15	64	18	9	23	8	2	10	3	13	2	14	33					513 508	386 372	25.0 26.0	0.75 0.73						
24X12-3/4X117	40.00 FT	N 038349	3	6,369	18	13	95	19	10	27	9	2	11	2	13	3	14	39					532 526	380 375	26.5 26.5	0.72 0.71						
24X12-3/4X117	40.00 FT	N 038350	3	6,369	18	13	95	19	11	21	8	2	13	4	13	1	11	39					529 528	377 373	28.5 28.0	0.71 0.71						
TOTAL			1,043	624,723	====== E N D ======																											

(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

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