



P.M.S CO., LTD
'Pioneer Manufacturing & Supply'

711 Byucksan digital valley, #303, Daedong-ro,
Sasang-ku, Busan, Korea
TEL : 82-51-713-8300 FAX : 82-51-713-8397

CERTIFICATE LIST

Client : FARNIKAN
Project : HX-127
Shipper : P.M.S

Date : 2024. 12. 11
Ref. No. :
P/O. No. : PMS-24-050






- DESCRIPTION : PLATE

APPLICATION NO. : T-410

*** ENCLOSED CERTIFICATE**

		PAGE	Ref. No.
Inspection Item List (T-410)	-----	(1)	()
1. PLATE			
1) Inspection Certificate	-----	(2~6)	()
2) Calibration Cert	-----	(7~8)	()

*** REMARKS**

결	담당	팀장	이사	전무	사장
재					

INSPECTION ITEM LIST

HX-127

T-410

No.	Equip.	Item	Material	Description	Q'ty	Product No.	Heat No.	Remark
1	HX-127	PLATE	SA516 Gr.70N	10T x 610W x 1,920L	1	B388146-01	XK458101	
2	HX-127	PLATE	SA516 Gr.70N	12T x 2,200W x 6,000L	1	B437430-04	XK652211	
3	HX-127	PLATE	SA516 Gr.70N	12T x 2,250W x 6,000L	1	B437430-05	XK652211	
4	HX-127	PLATE	SA283 Gr.C	12T x 2,000W x 11,700L	1	B438521-01	X4830107	
TOTAL					4			

REVIEWED BY
WITNESSED BY
2024.12.11.
S. M. KIM

ORIGINAL

검사증명서
MILL TEST CERTIFICATE



주문번호/Order No. : P241400463
발주번호/PO No. : MYUNGSUNG STEEL
품명/Commodity : STEEL PLATE
제품규격/Specification : ASTM A516-70MT LTV 2017ED/SA516-70 MT LTV 2021ED
고객사/Supplier : MYUNGSUNG STEEL
수요자/Customer : MYUNGSUNG STEEL
검사증명서번호/Certificate No. : DP3-2-240305-032-003
발행일자/Date of issue : 2024-03-05

제품치수 Dimension 단위 Unit Inch: ", mm: Space	제품번호 Product No	수량 Quantity	중량 Weight kg	제강번호 Heat No	인장시험 Tensile Test			충격시험 Impact Test			경도시험 Hardness	화합성분(%) Chemical Composition						Remarks
					YP02	TS	EL	TS	U	V Notch		C	Si	Mn	P	S	Cr	
					GL	N/mm ²	%	T	P	J								
1) → *Specimen No: DP10966607-a, DP10966607-c, DP10966614-d, DP10966608-e ** Normalized: 910 °C, 23min	B388146-01		1,167	XK458101	1	381	533	22	2	1	157	0.15	0.34	1.47	0.014	0.005	0.02	0.01
												0.14	0.36	1.46	0.015	0.005	0.029	0.009
	Sub Total (50)	1	1,167															
	B388195-01		1,167	XK458101	1	373	535	24	2	1	157	0.15	0.34	1.47	0.014	0.005	0.02	0.01
*Specimen No: DP10966615-c, DP10966614-d, DP10966608-e ** Normalized: 910 °C, 23min												0.14	0.36	1.46	0.015	0.005	0.029	0.009
	Sub Total (50)	1	1,167															
	B388145-02_03_06		1,459	XK458099	1	359	527	24	2	1	151	0.14	0.32	1.48	0.014	0.003	0.01	0.01
												0.13	0.34	1.45	0.015	0.002	0.016	0.008
*Specimen No: DP10963917-a, DP10963917-c, DP10963917-d, DP10963906-e ** Normalized: 910 °C, 23min																		
	Sub Total (70)	3	4,377															

* Tensile Test Direction-Transverse-TOP
* Impact Test Direction-Longitudinal-TOP
* Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+V)/5
* Supply Condition - Normalized

We hereby certify that the material has been made by basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirement for that element is less than 0.02% and/or of Nb, V is blank, it is less than 0.008%. * Inspection documents : According to EN 10204 Type 3.1, No welding repair. NACE MR0175/ISO15156/MRO103 Hardness only. Vacuum degassed.

본 주문품은 상기의 규격용도의 타용도로 사용시 제품상 및 안전사고등의 문제가 발생할 수 있으며, 본 검사증명서를 위조 또는 변조시 형사법에 의해 처벌될 수 있습니다.

원본검증 방법 : 동국제강 E-Biz 홈페이지 접속(https://ebiz.dongkuksteel.com/) → 고객포탈 선택 → 검사증명서 조회/검열(우측 하단) → 정품인력후 검색 QR Code 이용 방법 : Google Play / App Store / QR Code 스캔 / IOS : App Store / QR Code 스캔



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Surveyor to : _____ Surveyor to : _____ Surveyor to : _____
Chief of Quality Control Team / J.W.Lee
Page : 1/2



ORIGINAL

검사증명서
MILL TEST CERTIFICATE



주문번호/Order No. : P241400463

발주번호/PO No. : MYUNGSUNG STEEL

품명/Commodity : STEEL PLATE

제품규격/Specification : ASTM A516-70MT LTV 2017ED/SA516-70 MT LTV 2021ED

고객사/Supplier : MYUNGSUNG STEEL

수요자/Customer : MYUNGSUNG STEEL

검사증명서번호/Certificate No. : DP3-2-240305-032-003

발행일자/Date of issue : 2024-03-05

제품 치 수 Dimension 단위 Unit Inch: ", mm: Space	제 품 번 호 Product No	수량 Quantity y	중량 Weight kg	화합성분(%) Chemical Composition								Remarks		
				Cu	Mo	Nb	Ti	V	T.Al	S.Al	Ceq		B	
10. 00*2438*6096 *Specimen No:DP10966607-a, DP10966607-c, DP10966614-d, DP10966608-e ** Normalized:910 ° C,23min	B388146-01		1, 167	0. 01 0. 012	0. 004 0. 002	0. 02 0. 02	0. 015 0. 013	0. 001 0. 002	0. 031 0. 035	0. 03 0	0. 401 0. 391	0. 0002 0. 0001	MYUNGSUNG STEEL	
	Sub Total (50)	1	1, 167											
	B388195-01		1, 167	0. 01 0. 012	0. 004 0. 002	0. 02 0. 02	0. 015 0. 013	0. 001 0. 002	0. 031 0. 035	0. 03 0	0. 401 0. 391	0. 0002 0. 0001		
10. 00*3048*6096 *Specimen No:DP10963917-a, DP10963917-c, DP10963917-d, DP10963906-e ** Normalized:910 ° C,23min	B388145-02,03,06		1, 459	0. 01 0. 011	0. 002 0. 001	0. 02 0. 018	0. 014 0. 013	0. 002 0. 002	0. 033 0. 038	0. 032 0	0. 391 0. 379	0. 0002 0. 0001	MYUNGSUNG STEEL	
	Sub Total (50)	1	1, 459											
	Sub Total (70)	3	4, 377											
* Tensile Test Direction-Transverse-TOP * Impact Test Direction-Longitudinal-TOP * Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+V)/5 * Supply Condition - Normalized				We hereby certify that the material has been made by basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirement called for by the above order. If the amount of Cr, Ni, Cu, Mo, Ti or Si is blank, the heat analysis for that element is less than 0.02% and/or of Nb, V is blank, it is less than 0.008%. * Inspection documents : According to EN 10204 Type 3.1. No welding repair. NACE MR0175(ISO15156)/MR0103 Hardness only. Vacuum degassed.									* Specimen No. : a-Tension, c-Impact, d-Hardness, e-Product Analysis. * Division : L-Ladle Analysis, P-Product Analysis * Sub(Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5*10, 2-5.0*10 * G(L Gauge Length, mm) : 1-200(Rec.), 3-80(Rec.); 5-50(Round), 6-5.65(S(Converted/Rec.), 10-50(Rec.) * T(S),A(: Total(Soluble) Al *Tr : Trace * NRL Result : G-No Break, B-Break * TTP(Through Thickness Position) : 1-Surface, 2-1/4T, 3-1/2T	
본 주문품은 상기의 규격용도 외 타용도로 사용시 제품손상 및 안전사고등의 문제가 발생할 수 있으며, 본 검사증명서를 위조 또는 변조시 형사법에 의해 처벌될 수 있습니다.														

원본검출 방법 : 동국제강 E-Biz 홈페이지 접속(<https://ebiz.dongkuksteel.com/>) → 검사증명서 원본검출 클릭(우측 하단) → 정보인력주 검색
QR Code 이용 방법 : Google Play 'QReal' 검색 후 다운로드 → QR Code 스캔 → QR Code 스캔 → QR Code 스캔

Surveyor to

Surveyor to

Surveyor to

Chief of Quality Control Team / J.W.Lee

Page : 2/2

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검사증명서
MILL TEST CERTIFICATE



주문번호/Order No. : P248400229
발주번호/PO No. :
품명/Commodity : STEEL PLATE
제품규격/Specification : ASME SA516-70 MT SEC II PART "A" 2023ED
고객사/Supplier : SEJIN
수요가/Customer : P.M.S CO.LTD
검사증명서번호/Certificate No : DP3-2-241210-012-001
발행일자/Date of issue : 2024-12-10
QR 이용 방법: Google Play 'QReal'

제 품 치 수 Dimension 단위 Unit / Weight inch: " ", mm: Space, kg: Space	제 품 번 호 Product No	수량 Quantity	중량 Weight kg	제강번호 Heat No	인장시험 Tensile Test				D i v i s i o n	화합성분(%) Chemical Composition											Remarks		
					GL	YP02 N/mm ²	TS	EL %		C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	Ti		V	S. Al
12.00*2200*6000 / 1.243 *Specimen No: DP11054528-a ** Normalized: 910 °C, 24min 12.00*2250*6000 / 1.272 *Specimen No: DP11054528-a ** Normalized: 910 °C, 24min <Grand Total>	B437430-04	1	1,243	XK652211	1	342	530	25	L	0.15	0.35	1.41	0.021	0.007	0.01	0.01	0.003	0.001	0.001	0.002	0.044		
B437430-05	1	1,272	XK652211	1	342	530	25	L	0.15	0.35	1.41	0.021	0.007	0.01	0.01	0.003	0.001	0.001	0.002	0.044			
		2	2,515																				

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2024.12.11.

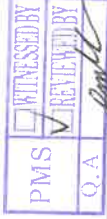
S. M. KIM

We hereby certify that the material has been made by basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirement called for by the above order. If the amount of Cr, Ni, Cu, Mo, Ti or Si is blank, the heat analysis for that element is less than 0.02% and/or of Nb, V is blank, it is less than 0.008%. * Inspection documents : According to EN 10204 Type 3.1. No welding repair. Vacuum degassed.

* Specimen No. : a-Tension
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5*10, 2-5.0*10
* GL(Gauge Length, mm) : 1-200(Rec.), 3-80(Rec.), 5-50(Round), 6-5.65y
S(Converted/Rec.), 10-50(Rec.)
* T(S), Al : Total(Soluble) Al *Tr : Trace
* NRL Result : G-No Break, B-Break
* TTP(Through Thickness Position) : 1-Surface, 2-1/4T, 3-1/2T

본 주문품은 상기의 규격용도 외 타용도로 사용시 제품손상 및 안전사고등의 문제가 발생할 수 있으며, 본 검사증명서를 위조 또는 변조시 형사법에 의해 처벌될 수 있습니다.

원본검증 방법 : 동국제강 E-812 홈페이지 접속(<https://ebiz.dongkuksteel.com/>) → 고객포탈 선택 → 검사증명서 원본검증 클릭(우측 하단) → 정보관리국 클릭



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검사증명서
MILL TEST CERTIFICATE



QR 이용 방법: Google Play 'QReal'

주문번호/Order No. : P248400229
발주번호/PO No. :
품명/Commodity : STEEL PLATE
제품규격/Specification : ASME SA516-70 MT SEC II PART " A" 2023ED

검사증명서번호/Certificate No : DP3-2-241210-012-001
발행일자/Date of issue : 2024-12-10

고객사/Supplier : SEJIN
수요가/Customer : P.M.S CO.LTD

제품치수 Dimension 단위 Unit / Weight inch:"", mm:Space, kg:Space	제품번호 Product No	수량 Quantity	중량 Weight kg	화학성분(%) Chemical Composition		Remarks
				Ceq	B	
12.00*2200*6000 / 1.243 *Specimen No: DP11054528-a ** Normalized: 910 °C, 24min 12.00*2250*6000 / 1.272 *Specimen No: DP11054528-a ** Normalized: 910 °C, 24min <Grand Total>	B437430-04	1	1.243	0.389	0.0001	
	B437430-05	1	1.272	0.389	0.0001	
		2	2.515			

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2024.12.11
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* Tensile Test Direction-Transverse-TOP
* Ceq = C+Mn/6+(Ni-Cu)/15+(Cr+Mo-V)/5
* Supply Condition - Normalized

We hereby certify that the material has been made by basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirement called for by the above order. If the amount of Cr, Ni, Cu, Mo, Ti or Si is blank, the heat analysis for that element is less than 0.02% and/or of Nb, V is blank, it is less than 0.008%. * Inspection documents : According to EN 10204 Type 3.1. No welding repair. Vacuum degassed.

* Specimen No. : a-Tension
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5*10, 2-5.0*10
* GL(Gauge Length, mm) : 1-200(Rec.), 3-80(Rec.), 5-50(Round), 6-5.65*
S(Converted/Rec.), 10-50(Rec.)
* T(S), Al : Total(Soluble) Al *Tr : Trace
* NRL Result : G-No Break, B-Break
* TTP(Through Thickness Position) : 1-Surface, 2-1/4T, 3-1/2T

본 증명서는 상기의 규격종도 외 타용도로 사용시 재품순산 및 안전사고등의 문제가 발생할 수 있으며, 본 검사증명서를 위조 또는 변조시 형사법에 의해 처벌될 수 있습니다.

원본검증 방법 : 동국제강 E-Biz 홈페이지 접속(<https://ebiz.dongkuksteel.com/>) → 고객포탈 선택 → 검사증명서 원본검증 클릭(우측 하단) → 정도관리팀 후 검색

PMS
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검사증명서
MILL TEST CERTIFICATE



QR 이용 방법: Google Play 'QReal'

주문번호/Order No. : P248400232
발주번호/PO No. :
품명/Commodity : STEEL PLATE
제품규격/Specification : ASME SA283-C SEC II PART "A" 2
023ED

검사증명서번호/Certificate No : DP3-2-241210-013-001
발행일자/Date of issue : 2024-12-10

고객사/Supplier : SEJIN
수요자/Customer : P.M.S CO.LTD

제품 치 수 Dimension 단위 Unit / Weight Inch: ", mm: Space, kg: Space	제 품 번 호 Product No	수량 Quantity	중량 Weight kg	제강번호 Heat No	인장시험 Tensile Test				화합성분(%) Chemical Composition													Remarks
					GL	YP	TS	EL	C	Si	Mn	P	S	Cr	Ni	Cu	Mo	Nb	V	Ceq	B	
12.00*2000*11700 / 2,204 *Specimen No: DP11134215-a, DP11134202-e <Grand Total>	B438521-01	1	2,204	X4830107	1	302	468	29	L	0.15	0.2	0.88	0.014	0.003	0.02	0.02	0.01	Tr	0.001	0.303	Tr	
		1	2,204						P	0.16	0.2	0.89	0.015	0.003	0.022	0.016	0.011	Tr	0.002	0.316	0.0001	

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2024.12.11

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2024.12.11
S. M. KIM

* Tensile Test Direction-Transverse-TOP
* Ceq = C+Mn/6+(Ni+Cu)/15+(Cr+Mo+V)/5
* Supply Condition - As Rolled

We hereby certify that the material has been made by basic oxygen process (Fully killed steel, Fine grain practice) and satisfactorily tested in accordance with above specification requirement called for by the above order. If the amount of Cr, Ni, Cu, Mo, Ti or Si is blank, the heat analysis for that element is less than 0.02% and/or of Nb, V is blank, it is less than 0.008%. * Inspection documents : According to EN 10204 Type 3.1. No welding repair.

본 주문품은 상기의 규격용도 외 타용도로 사용시 제품손상 및 안전사고등의 문제가 발생할 수 있으며, 본 검사증명서를 위조 또는 변조시 형사법에 의해 처벌될 수 있습니다.

원본검증 방법 : 동국제강 E-8iz 홈페이지 접속(<https://ebiz.dongkuksteel.com/>) → 고객포탈 선택 → 검사증명서 원본검증 클릭(우측 하단) → 정보인력후 검색

* Specimen No. : a-Tension, e-Product Analysis.
* Division : L-Ladle Analysis, P-Product Analysis
* Sub(Sub Size, Real Value, mm) : Blank-Full Size, 1-7.5*10, 2-5.0*10
* GL(Gauge Length, mm) : 1-200(Rec.), 3-80(Rec.), 5-50(Round), 6-5.65*
S(Converted/Rec.), 10-50(Rec.)
* T(S), Al : Total(Soluble) Al *Tr : Trace
* NRL Result : G-No Break, B-Break
* TTP(Through Thickness Position) : 1-Surface, 2-1/4T, 3-1/2T

Surveyor to
Dangjin Works, 25, Godaegongdan 1-gil, Songak-eup, Dangjin-si, Chungcheongnam-do, Republic of Korea/Quality Control Team, TEL. 041-351-4633

Surveyor to
Chief of Quality Control Team / J.W.Lee

Page : 1/1

Calibration Certificate

Q & Q Corporation

58, Hwajeonsandan 3-ro, Gangseo-gu, Busan, Korea
Tel : 051-292-0395, Fax : 051-292-0397

Certificate No : Q2403326-106-001

Page (1) of (2)



1. Client

Name : P.M.S Co., LTD

Address : 296, Dae Dong-Ro, Sasang-Gu, Busan, Korea

2. Calibration Subject

Description : Inside/Outside Caliper(Digital type)

Manufacturer & Type : Mitutoyo / (0 ~ 300) mm, 0.01 mm

Serial Number : 0023118



3. Date of Calibration : 12. Apr. 2024

4. Environment

Temperature : (20.7 ± 0.1) °C

Humidity : (48 ± 2) % R.H.

Location : ☒ Permanent Calibration Lab

☐ Mobile Lab

☐ On Site Calibration

[Address : 58, Hwajeonsandan 3-ro, Gangseo-gu, Busan, Korea]

5. Traceability

Calibration method and/or brief description

The above instrument has been calibrated according to the calibration instruction of Inside/Outside Calipers (QECI - LE601) using the below standard instrument which is established a traceability to National Metrology Institute.

List of used standards/specifications

Description	Manufacturer and Model	Serial Number	The due date of next calibration	Calibration laboratory
Caliper Checker	Mitutoyo, 660 mm	559	18. Sep. 2026.	Q & Q Corp.
Surface Plate	Kumsung, (1 000 × 750) mm	260919	21. Jan. 2025.	Q & Q Corp.
Surface Thermometer	TES, 1300	990407368	29. Jun. 2024.	Q & Q Corp.

6. Calibration result : Refer to the attached Calibration Result.

7. Measurement uncertainty : Refer to the attached Calibration Result.

Affirmation	Measurements performed by Name : Hyung Kyu Kim (signature)	Approved by Title : Technical Manager Name : Myeon Keol Kim (signature)
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The above certificate of calibration is the accredited calibration items by Korea Laboratory Accreditation Scheme, which signed the ILAC-MRA.



15. Apr. 2024.

Q & Q Corporation
Accredited by KOLAS, Republic of KOREA

(NOTE) If any significant instability or other adverse factor(overload, temperature, humidity etc.) manifests itself before, during or after calibration, and is likely to affect the validity of the calibration.

Calibration Result

Q & Q Corporation

58, Hwajeonsandan 3-ro, Gangseo-gu, Busan, Korea
Tel : 051-292-0395, Fax : 051-292-0397

Certificate No : Q2403326-106-001

Page (2) of (2)



- * Manufacturer : Mitutoyo
- * Model Name : (0 ~ 300) mm, 0.01 mm
- * Serial number : 0023118

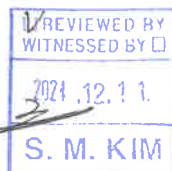
■ Inside/Outside Caliper(Digital type) Calibration

Graduation value (mm)	Correction value (mm)	
	Outside	Intside
0	0.00	-
20	-0.01	0.00
50	-0.01	0.00
100	0.00	0.00
150	0.00	-0.01
200	0.00	-0.01
300	-0.01	-0.02

Measurement uncertainty : 0.01 mm

(Coverage probability of approximately 95 % , $k = 2$)

※ The calibration value is obtained by adding the correction value to the graduation value.
The end.



* The recommended calibration interval is 12 month according to the KOLAS guide (KOLAS-G-008).

QE-R-002-1 (Rev. 3)



(210 × 297) mm