

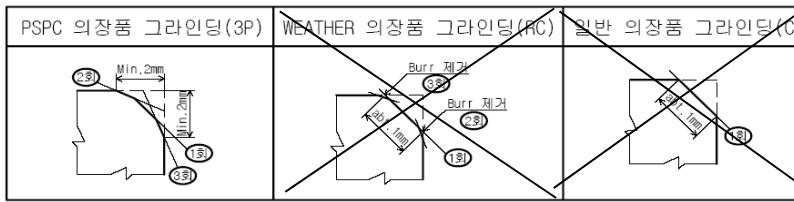
PLAN HISTORY					
DATE	REV. NO.	DESCRIPTION	DRAWN	CHECKED	APPROVED
2022. 12. 26	O	8140, 8189/8199 호선 LADDER & PLATFORM FOR NO.4 W.B.TANK 제작 도면으로 작성함.	이승안	김광백	정호진
2022. 12. 28	001	8140, 8189/8199 호선, 본도제작을 대칭제작으로 개정함. (SEE PAGE: 03,04,10~13)	이승안	김광백	정호진

**HYUNDAI
SAMHO HEAVY INDUSTRIES
(주)한진기공**

NOTE

1. 본도는 LADDER & PLATFORM FOR NO.4 W.B.TANK 제작 도면임.

2. 모서리 부분은 하기와 같이 GRINDING 할 것.



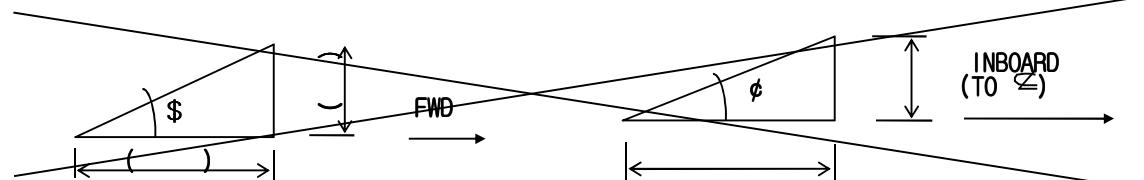
3. 용접은 특기외 하기 표 참조하고 연속 용접 할 것.

* THE LEG LENGTH OF FILLET WELD TO BE AS FOLLOWS.

MAT'L THICKNESS	4.5	6	7~8	9~10	11~12	13	14~15	16~18	19~20
LEG LENGTH	3	4	4.5	5	5.5	6	7	7.5	9

4. 제작 시 DECK 상의 SHEER (\$: /)와 CAMBER (φ : /)를 필히 적용할 것.

SHEER :



CAMBER :

5. 한 도면에서 서로 상이부분이 있거나 제작상 문제점 발생시 필히 당부와 협의/확인 후 제작 완료할 것.

6. 본 도면상에 표기된 자재 중 SS400, 단조품(SF자재) 및 용접되는 주강품(SC42)은 탄소(C) 함유량이 0.23% 이하가 되어야 함에 유의할 것 (자재 MILL SHEET 제출 요). 또한, 주강품은 용접 시 PRE-HEATING(200°C) 한 후 용접하여 용접균열을 방지할 것.

7. BOLT 길이는 NUT 체결후 ABT. 2-3 산이 남도록 할 것.

8. 이름/경고판 시공기준 : 모든 이름/경고판은 전면에 페인트나 신나에 녹지 않는 비닐테이프를 부착한 상태로 뒤집어 조립하고, 그 후면에 도어 또는 벤트(VENT) 이름을 매직펜으로 기록하여 입력하고, 애드에서 정방향 설치시 나사의 위치가 불일치 되지 않도록 구멍의 간격을 잘 유지하여 입고 할 것.

(이름, 경고판 재질: SUS316 & SUS316 SCREW BOLT)

9. 그리스 니쁠 : JIS B 1571 A-PT 1/8" BALL TYPE 러버캡을 씌울것(MAT'L : BRASS)

10. P.O.R NO. : JWF

11. TOTAL WEIGHT : 5284.4 KG/SHIP (표지 포함 14 매)

DEPT.	SHIP NO.	SHIP TYPE
B126	8140, 8198/8199	174,000 CBM CLASS LNGC [MEGA-TWIN SCREW]

TEL.	부서명	도면명
2907	선장설계부	

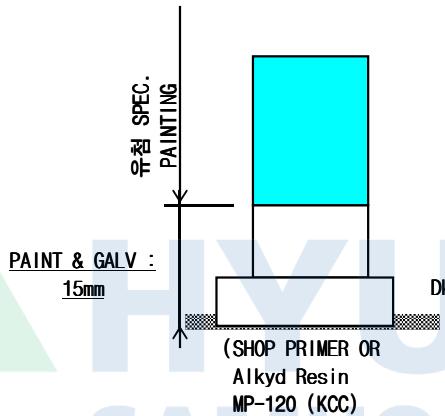
승인 정호진	LADDER & PLATFORM FOR NO.4 W.B.TANK 제작도
검토 김광백	
작성 이승안	

도면번호 S13W0-C26-56BB - 0
날짜 2022. 12. 26



製作仕様書(외주구매용)

- GALV. 두께 : HOT DIP GALV. 55~80 μ (단, BOLT/NUT류는 45~65 μ 시공)
- GREASE NIPPLE은 FULL GREASING하고 규정된 고무 CAP을 씌울것.
- SS400이 아닌 재질의 BOLT/NUT는 재질을 PUNCHING할것.
- 도장 : 유첨 SPEC.에 준하되 특히 DECK에 취부되는 부위는
DECK OR WALL에서 15mm까지는 SHOP PRIMER 시공할 것.
- HOT GALV. : DECK/WALL에서 취부되는 부위는 DECK/WALL에서 15mm까지는
Alkyd Resin MP-120(KCC) Coating 하여 도금이 되지 않도록 할것.



- GALV. 용 HOLE 시공할 경우는 GALV. 후 메공하고 GALV. 손상부위 수정 후
입고할 것.
- 납품 시 P.O.R SHEET와 유첨도를 첨부할 것.
- MAKER CERTIFICATE (특수재료는 MILL SHEET) 를 첨부할 것.
- 무도장으로 입고되는 품목으로서 그 품목의 일부분이 도금이 되어있는 경우는
SHOT BLASTING으로부터 도금부분이 훼손되지 않도록 보호 MASKING을 하여 입고할 것.
(단, 도금표면에 다시 PAINTING하는 경우는 제외됨)
- 의장품 자재 PALLET 고박용 번선 및 고박 ITEM에 대한 끓음 WIRE(철사)는 필히
부식 방지용 COATING WIRE를 사용하여 입고시킬 것.
- 의장품 자재 입고시 상.하.좌.우로 움직일수 있는 항목들은 상기 10)번항에 의거하여
반드시 고박하여 입고할 것.(안전사고 사전방지)
- 납품 시 하기와 같은 TAG를 식별하기 쉬운 위치에 적의 부착하여 입고할 것.

- 용접선 있는 자재는 용접선 부근 50mm 이내 PAINT MARKER 마킹 적용
(설치 후 은폐 도장작업 쉽게 하기 위함)
- 용접선 없는 자재는 자재 인식표(TAG) 또는 안티 울트라테이프에 마킹 후 부착
(자재 TAG 및 안티 울트라테이프 제거는 의장 1,2부에서 실시함)
- 적용대상 : 강재로 제작되는 모든 철의장품
- MARKING 방법 : SHIP NO., BLOCK NO., POR NO., MARKING(PC'S) NO.

제작품별 납기 LIST

SHIP NO.	8140, 8198/8199	01
DWG NO.	S13W0-C26-56BB	

P.O.R NO	SEQ NO	BLOCK	STAGE	MARK NO	DESCRIPTION	PAINT CODE	Q'TY /SHIP	WEIGHT (KG/SET)	설치부서
JWF	01	D31P0	CS	VL-S101P	VERTICAL LADDER	PP	1	42.9	SS1
	02	D31S0	CS	VL-S101S	VERTICAL LADDER	PP	1	42.9	SS1
	03	B51P0	CS	VL-B101P	VERTICAL LADDER	PP	1	22.7	BS2
	04	B51S0	CS	VL-B101S	VERTICAL LADDER	PP	1	22.7	BS2
	05	S13P0	CS	VL-B103P	VERTICAL LADDER	PP	1	57.7	BS1
	06	S13S0	CS	VL-B103S	VERTICAL LADDER	PP	1	57.7	BS1
	07	S11P0	CS	IL-S101P	INCLINED LADDER	PP	1	363.4	LB1
	08	S11S0	CS	IL-S101S	INCLINED LADDER	PP	1	363.4	LB1
	09	S11P0	CS	IL-S102P	INCLINED LADDER	PP	1	235.3	LB1
	10	S11S0	CS	IL-S102S	INCLINED LADDER	PP	1	235.3	LB1
	11	S11P0	CS	IL-S103P	INCLINED LADDER	PP	1	236.4	LB1
	12	S11S0	CS	IL-S103S	INCLINED LADDER	PP	1	236.4	LB1
	13	S11P0	CS	IL-S104P	INCLINED LADDER	PP	1	303.7	LB1
	14	S11S0	CS	IL-S104S	INCLINED LADDER	PP	1	303.7	LB1
	15	B51P0	CS	IL-B101P	INCLINED LADDER	PP	1	164.4	BS2
	16	B51S0	CS	IL-B101S	INCLINED LADDER	PP	1	164.4	BS2
	17	B51P0	CS	IL-B102P	INCLINED LADDER	PP	1	297.1	BS1
	18	B51S0	CS	IL-B102S	INCLINED LADDER	PP	1	297.1	BS1
	19	B51P0	CS	PF-B101P	PLATFORM	PP	1	62.5	BS2
	20	B51S0	CS	PF-B101S	PLATFORM	PP	1	62.5	BS2
	21	B51P0	CS	PF-B102P	PLATFORM	PP	1	133.4	BS2
	22	B51S0	CS	PF-B102S	PLATFORM	PP	1	133.4	BS2
	23	B51P0	CS	PF-B103P	PLATFORM	PP	1	234.2	BS1
	24	B51S0	CS	PF-B103S	PLATFORM	PP	1	234.2	BS1
	25	S13P0	CS	PF-B104P	PLATFORM	PP	1	306.2	BS1
	26	S13S0	CS	PF-B104S	PLATFORM	PP	1	306.2	BS1
	27	S13P0	C1	PF-B105P	PLATFORM	PP	1	182.3	SS1
	28	S13S0	C1	PF-B105S	PLATFORM	PP	1	182.3	SS1

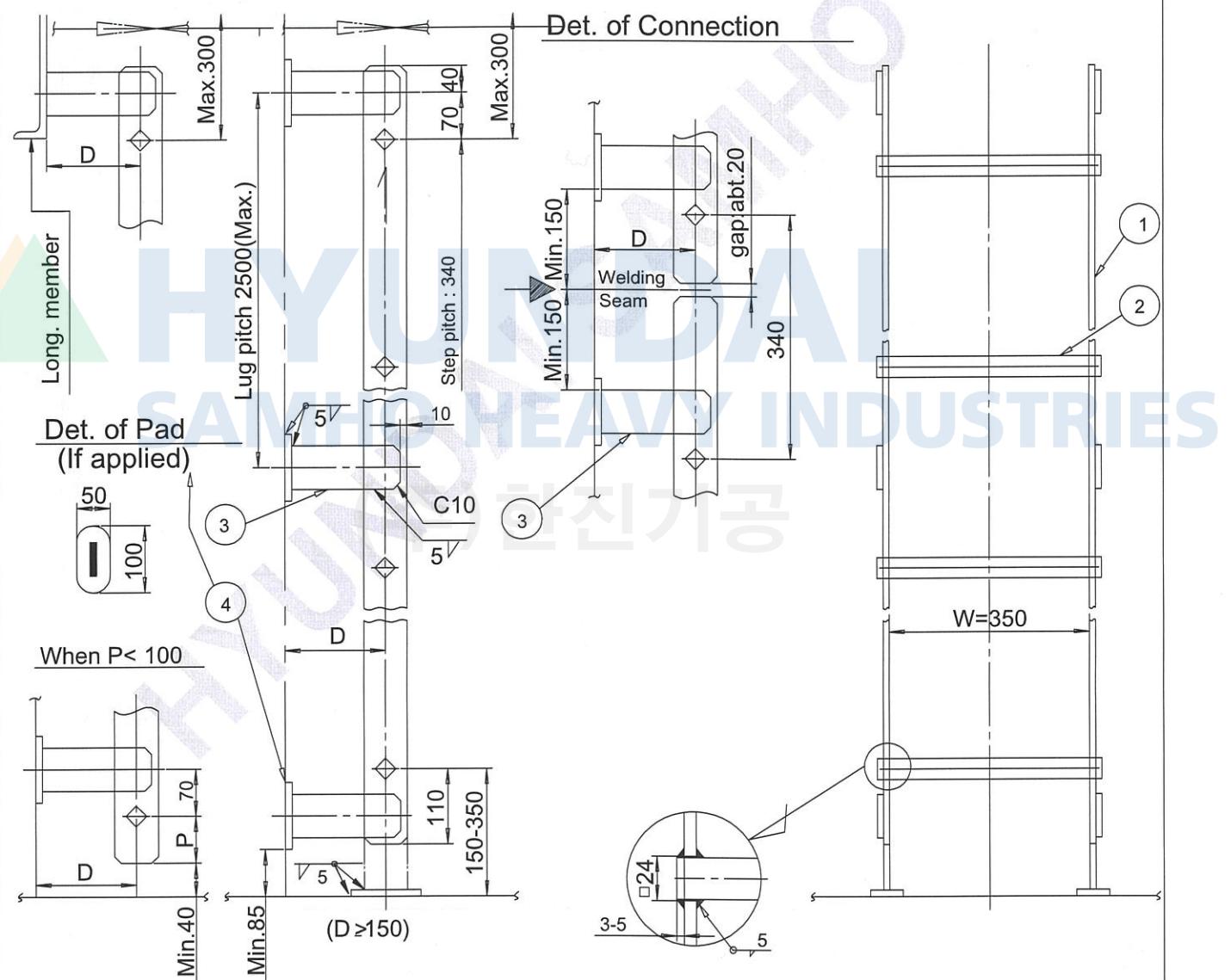


Vertical Ladder (VL-A)

(Fixed type) Standard

NO	Description	Spec	Mat'l	Weight	Remark
1	Side frame	65 X 9t F.B	SS400 or SS275	4.59/m	
2	Step	22 Sq.B	SS400 or SS275	3.80/m	
3	Lug	65 X 9t F.B	SS400 or SS275	0.76/ea	
4	Pad	9t Plate	SS400 or SS275	0.35/ea	If applied

< FOR REFERENCE >



Note

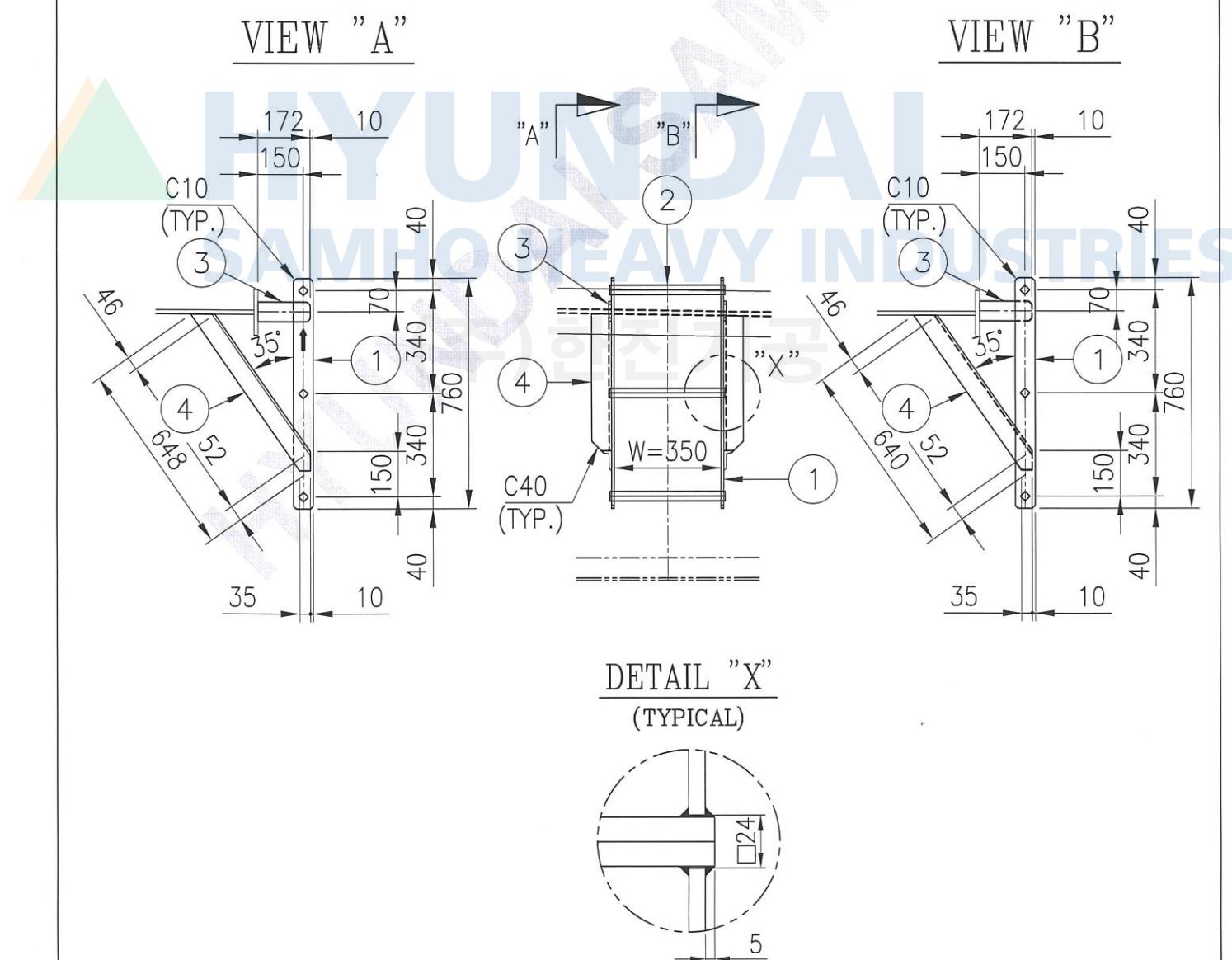
1. Application : All space except vent mast
 2. Surface treatment shall be done in accordance with painting specification.
 3. Connection : Shall be applied between ladders when ladders are installed
in way of block welding seam or fabrication welding seam of mast/post body.

DET. OF VERTICAL LADDER

DET. OF VERTICAL LADDER			SHIP NO.	8140, 8198/8199	02
NO.	DESCRIPTION	SIZE	DWG NO.	S13W0-C26-56BB	
			MAT'L	Q'TY/SET	W.T (kg)
1	SIDE FRAME	65x9t F.B	SS400 OR SS275	2	7.0
2	STEP	□22 SQ. BAR	SS400 OR SS275	3	4.2
3	LUG	65x9t F.B	SS400 OR SS275	2	1.6
4	LUG	65x65x8t E.A	SS400 OR SS275	2	9.9

TOTAL W.T : 22.7 KG/SET

BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
B51P0	VL-B101P	1	본도제작	B51S0	VL-B101S	1	대칭제작



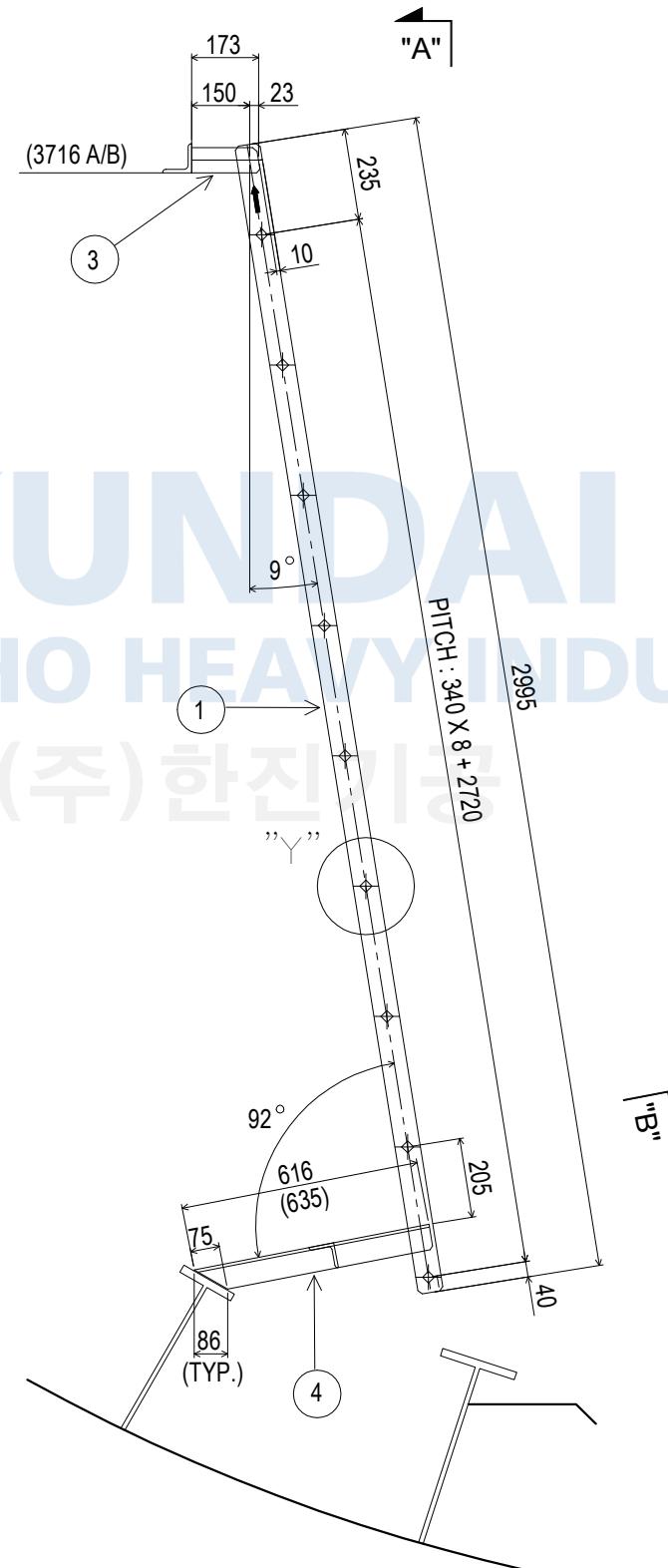
DETAIL OF VERTICAL LADDER

SHIP NO. 8140.8198/8199 03
DWG NO. S13W0-C26-56BB

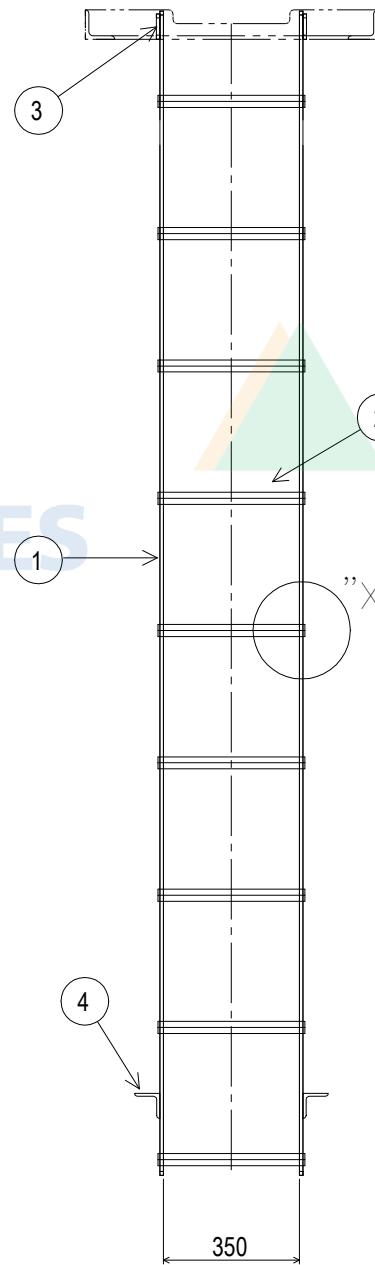
BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
S13P0	VL-B103P	1	57.7	본도제작
S13S0	VL-B103S	1	57.7	대청제작

설치 BLOCK

S13P0
S13S0

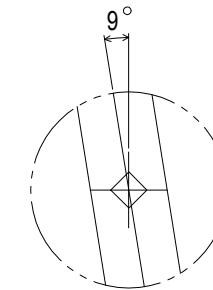


VIEW - "A"

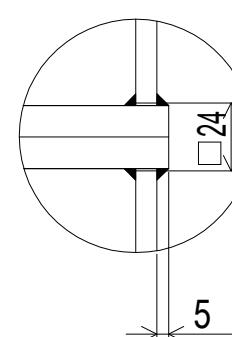


VIEW "B"

DETAIL "Y"
(TYPICAL)



DETAIL "X"
(TYPICAL)



NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
4	LUG	65 X 65 X 8t E.A	SS400 & SS275	2	15.9	
3	LUG	65 X 9t F.B	SS400 & SS275	2	1.6	
2	STEP	22 SQ.BAR	SS400 & SS275	9	12.6	
1	SIDE FRAME	65 X 9t F.B	SS400 & SS275	2	27.6	

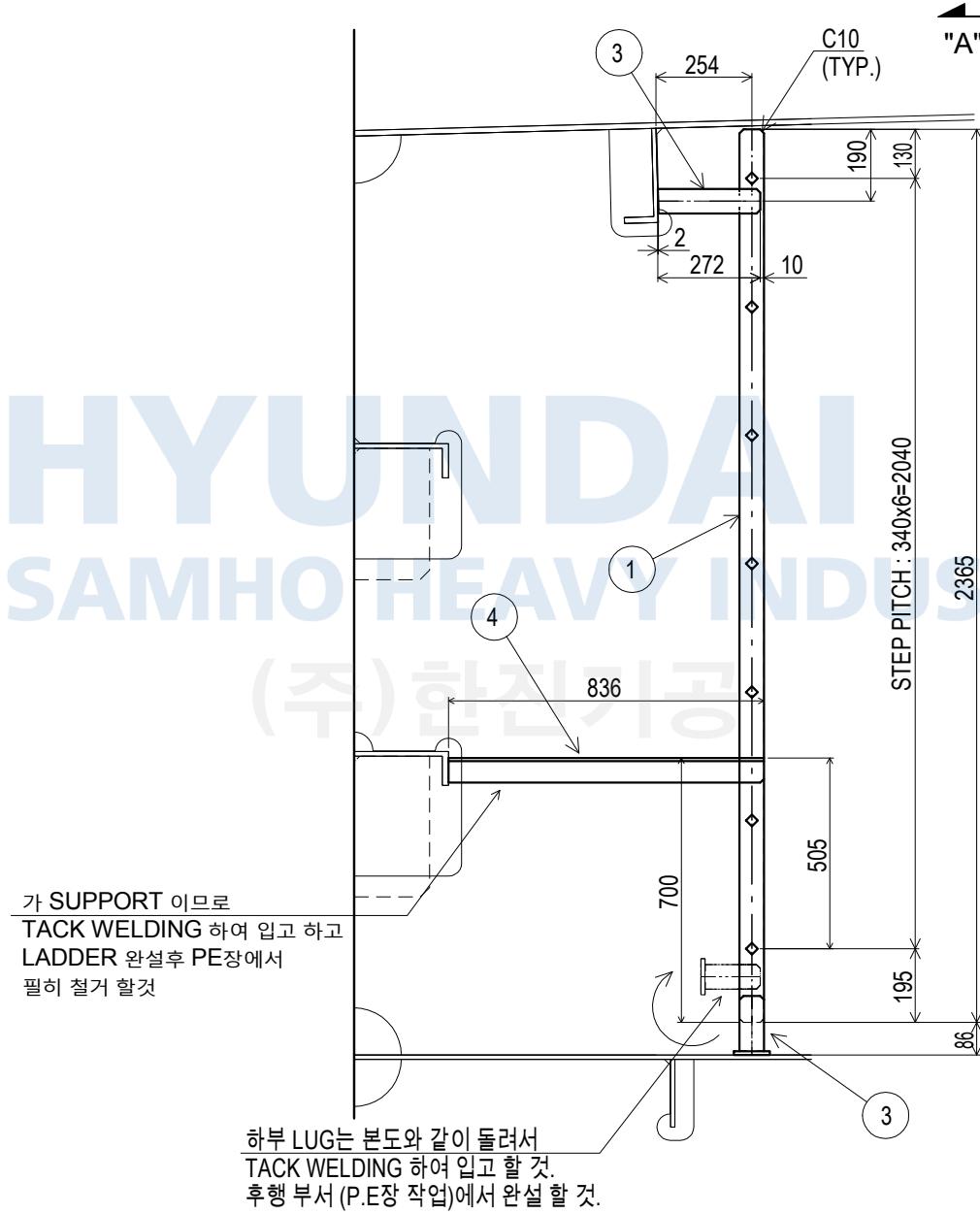
DETAIL OF VERTICAL LADDER

SHIP NO. 8140,8198/8199 04
DWG NO. S13W0-C26-56BB

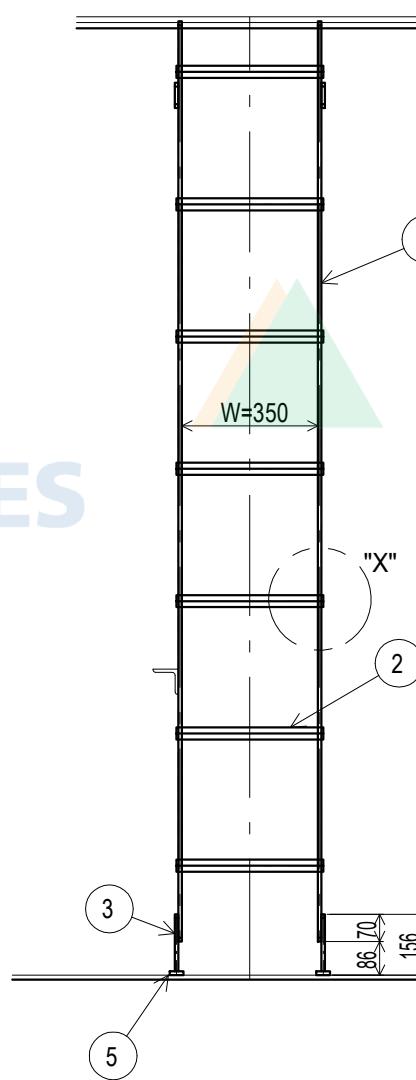
BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
D31P0	VL-S101P	1	42.9	본도제작
D31S0	VL-S101S	1	42.9	대칭제작

설치 BLOCK

D31P0
D31S0



VIEW - "A"



DET. OF "PAD" 5



DETAIL "X"
(TYPICAL)

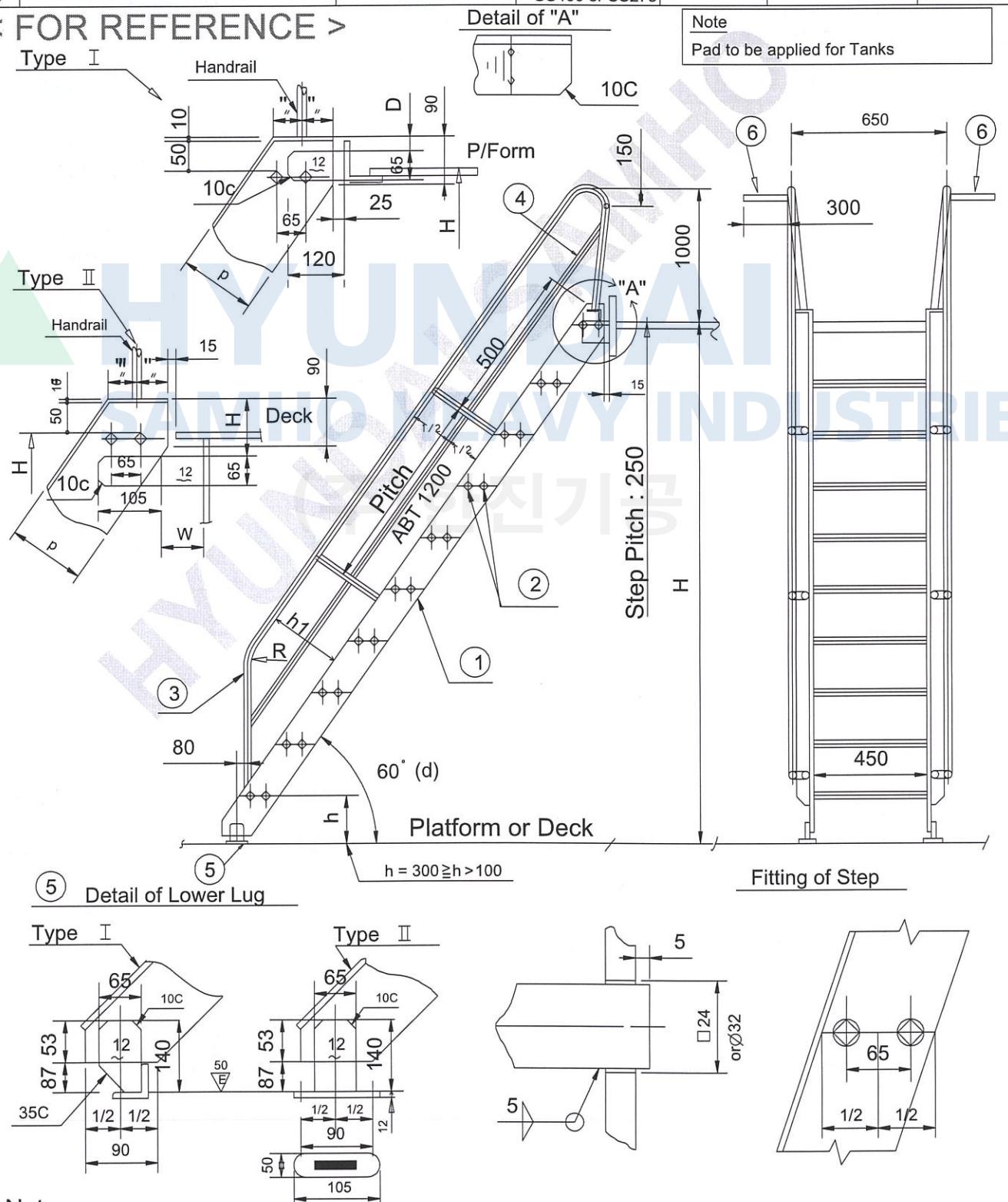
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
5	PAD	10t PLATE	SS400 & SS275	2	0.8	
4	가 SUPPORT	65 X 65 X 8t E.A	SS400 & SS275	1	6.5	
3	LUG	65 X 9t F.B	SS400 & SS275	4	3.9	
2	STEP	22 SQ.BAR	SS400 & SS275	7	10.0	
1	SIDE FRAME	65 X 9t F.B	SS400 & SS275	2	21.7	



Inclined Ladder (Type-D2) Standard

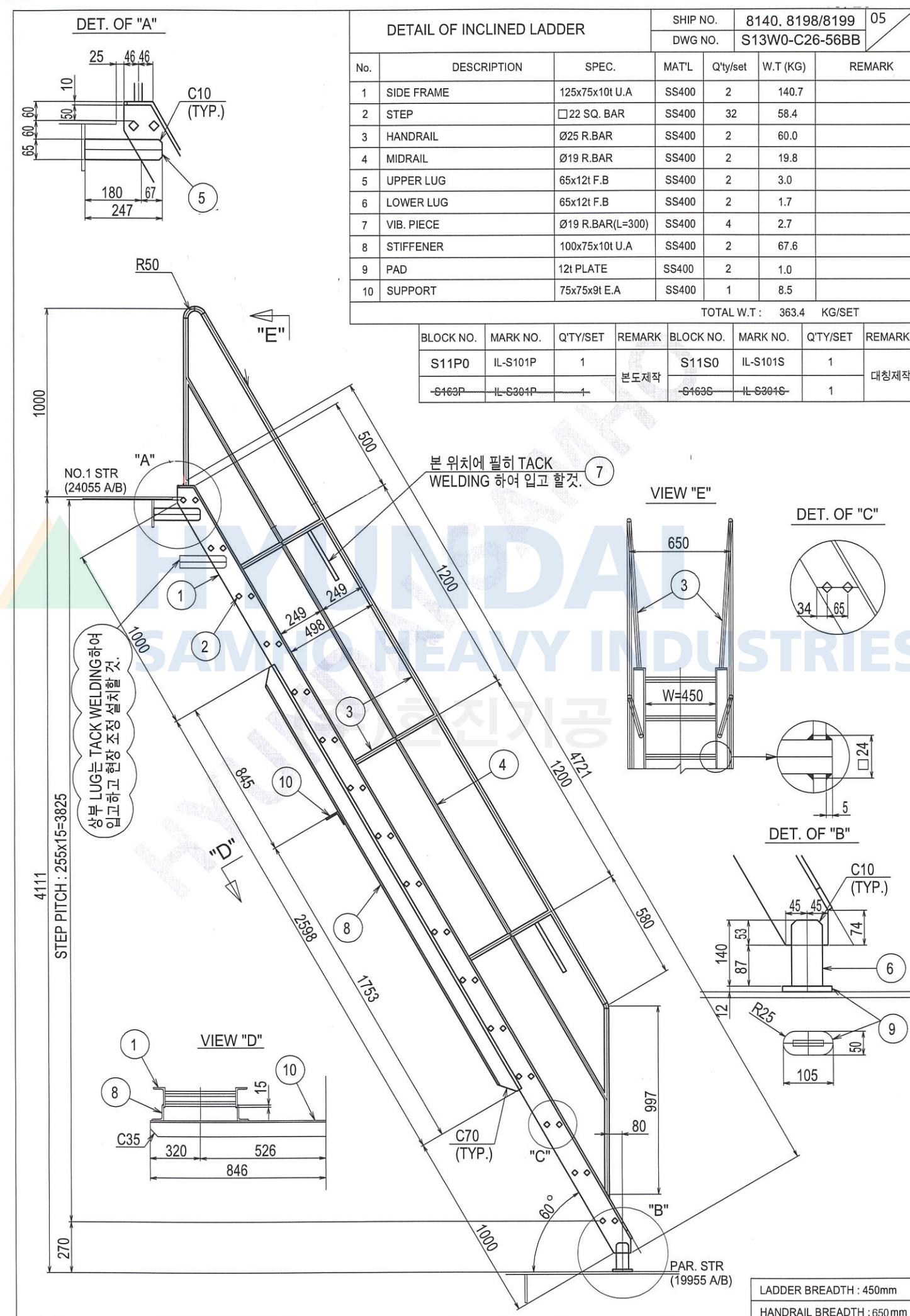
No.	Description	Size	Mat'l	Q'ty	Weight(kg)	Remark
1	Side Frame	125x75x10U.A	SS400 or SS275	2	14.9/m	
2	Step	22 SQ,B	SS400 or SS275		3.8/m	
3	Handrail	Ø 25 R.B.	SS400 or SS275	2	3.85/m	
4	Mid rail	Ø 19 R.B.	SS400 or SS275	2	2.23/m	
5	Lower Lug	12t Plate	SS400 or SS275	2		
6	Anti-Vibration Piece	Ø 19 R.B.	SS400 or SS275	2		

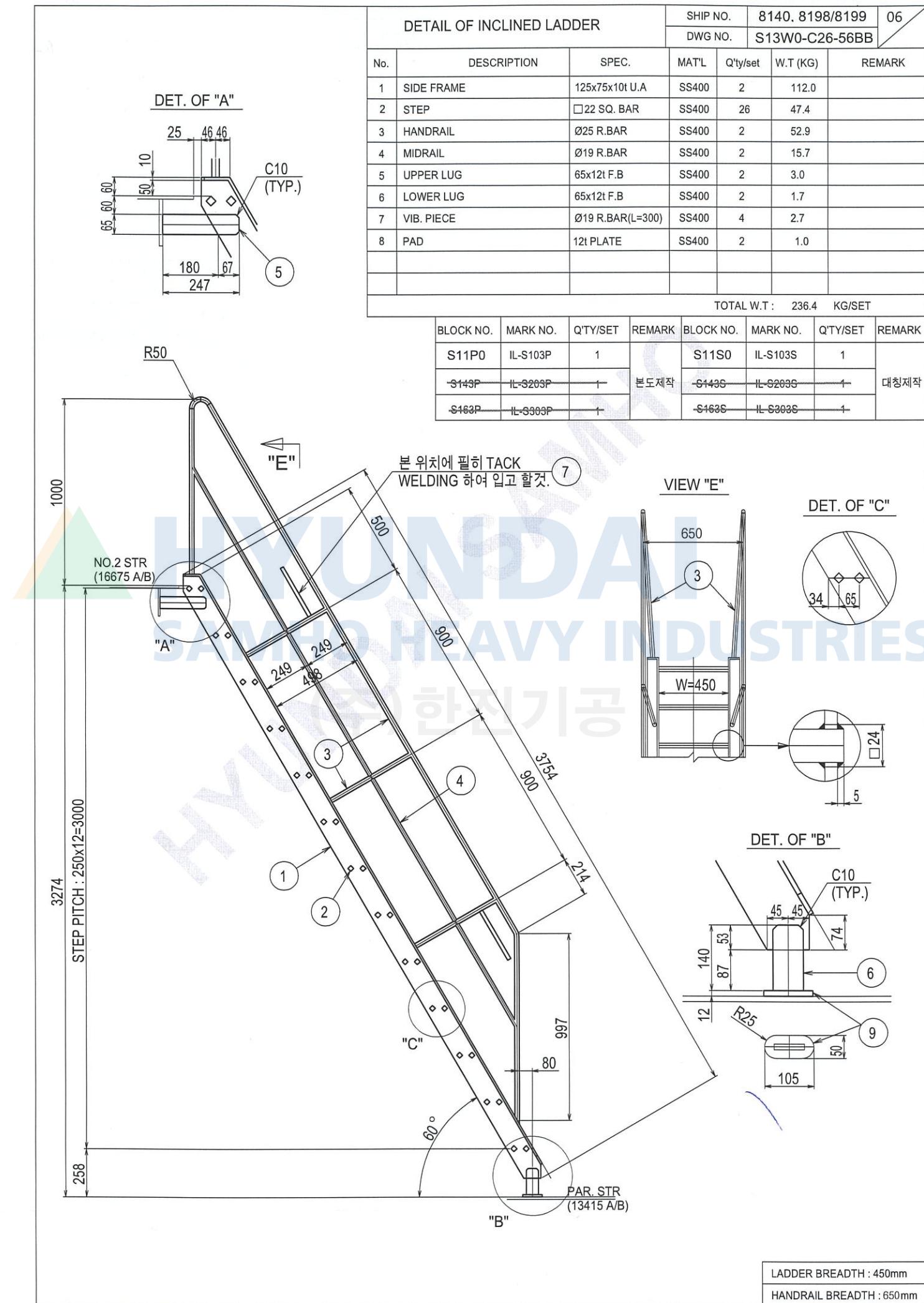
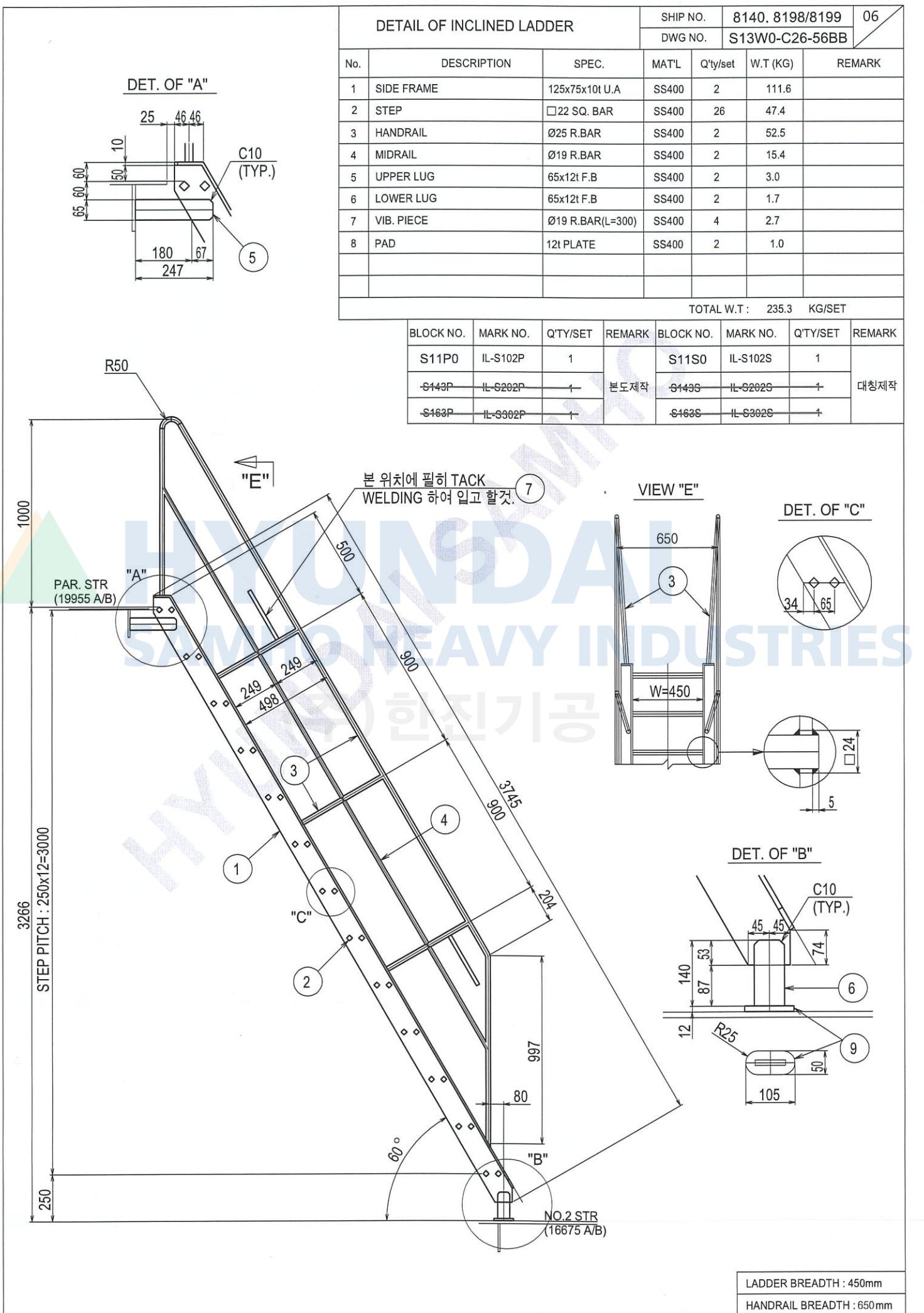
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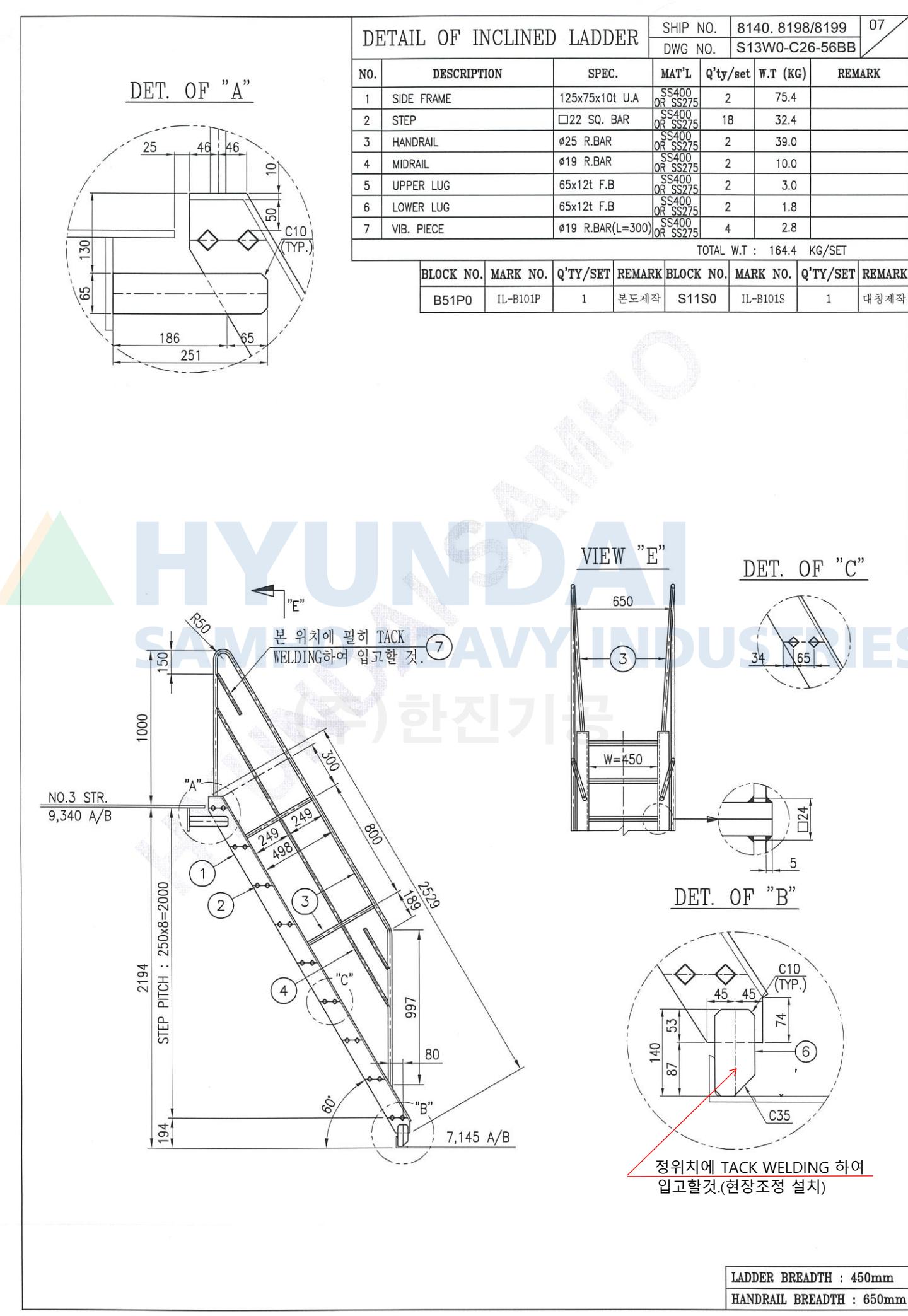
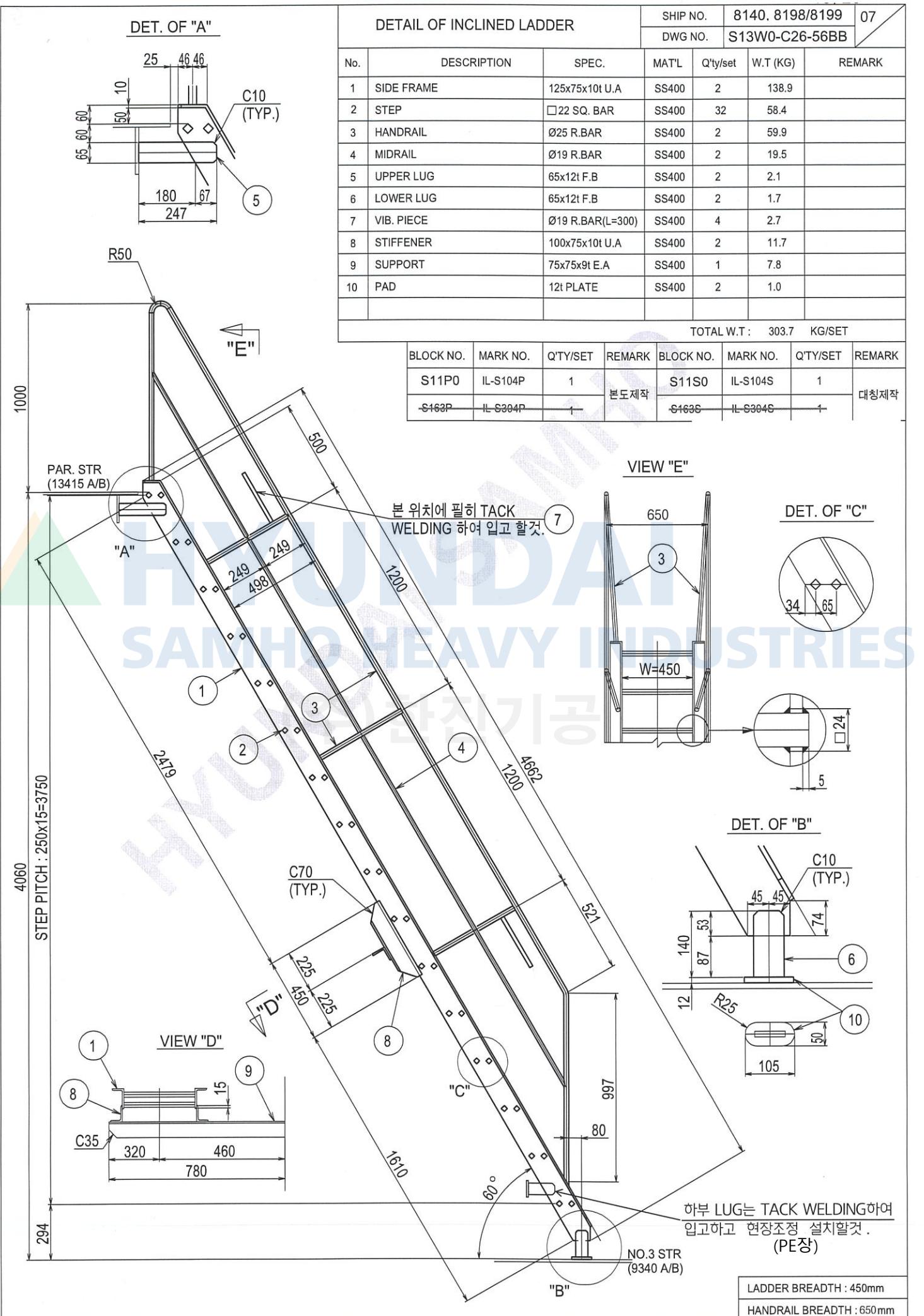


DETAIL OF INCLINED LADDER

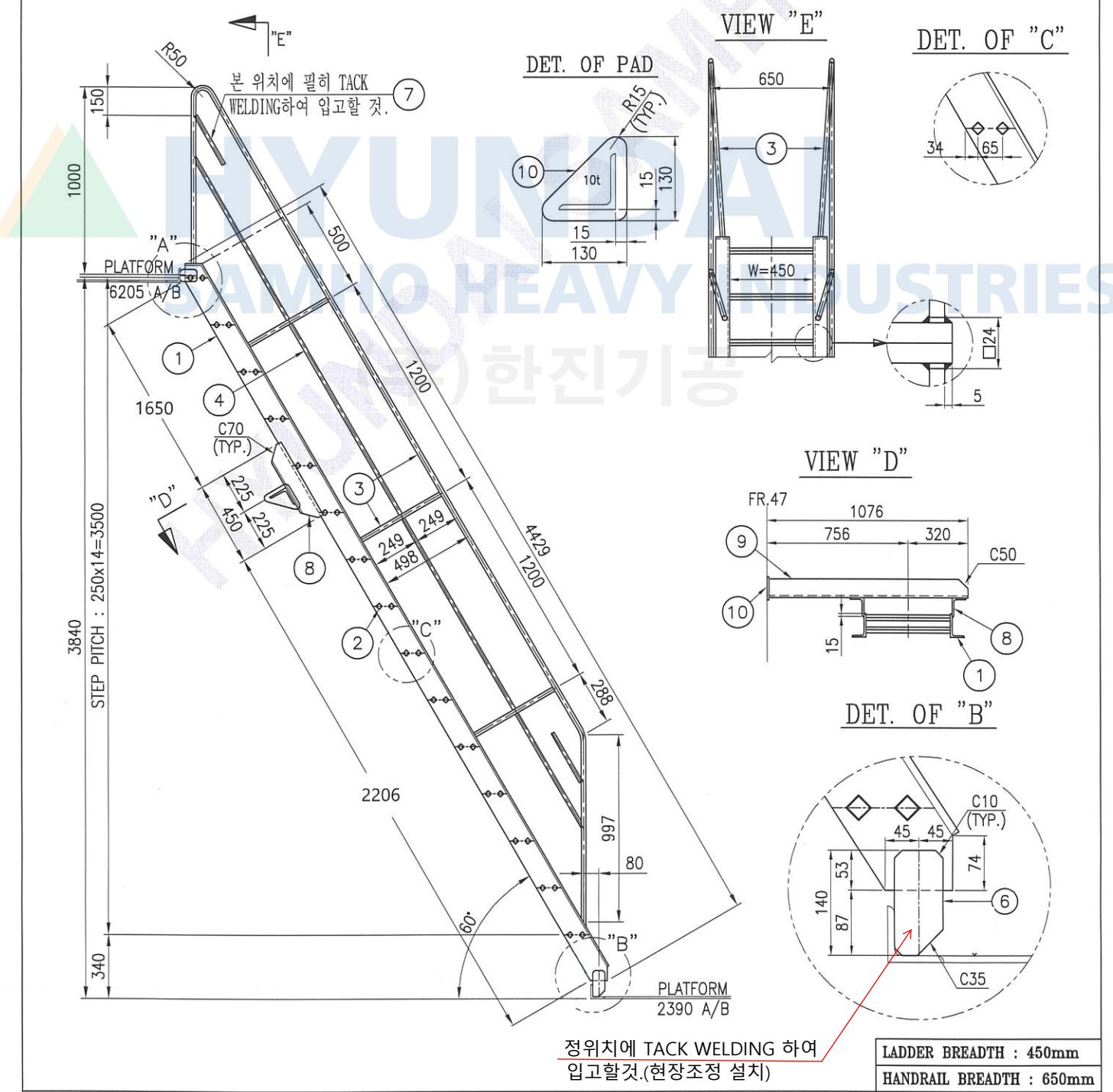
DETAIL OF INCLINED LADDER			SHIP NO.		8140. 8198/8199	05
			DWG NO.		S13W0-C26-56BB	
No.	DESCRIPTION	SPEC.	MAT'L	Q'ty/set	W.T (KG)	REMARK
1	SIDE FRAME	125x75x10t U.A	SS400	2	140.7	
2	STEP	□22 SQ. BAR	SS400	32	58.4	
3	HANDRAIL	Ø25 R.BAR	SS400	2	60.0	
4	MIDRAIL	Ø19 R.BAR	SS400	2	19.8	
5	UPPER LUG	65x12t F.B	SS400	2	3.0	
6	LOWER LUG	65x12t F.B	SS400	2	1.7	
7	VIB. PIECE	Ø19 R.BAR(L=300)	SS400	4	2.7	
8	STIFFENER	100x75x10t U.A	SS400	2	67.6	
9	PAD	12t PLATE	SS400	2	1.0	
10	SUPPORT	75x75x9t E.A	SS400	1	8.5	
			TOTAL W.T :	363.4	KG/SET	

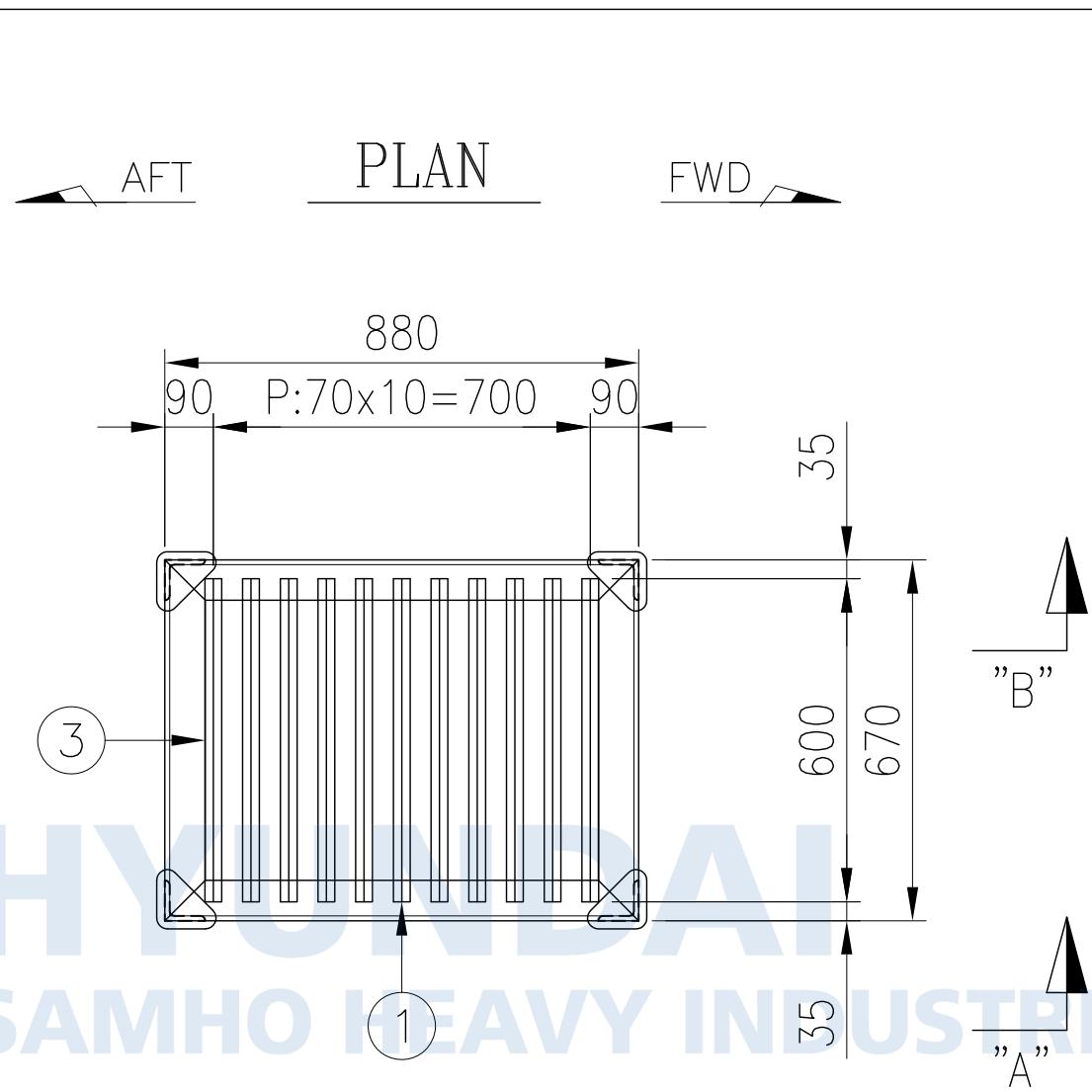






DETAIL OF INCLINED LADDER			SHIP NO.	8140.8198/8199		08		
			DWG NO.	S13W0-C26-56BB				
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	W.T (KG)	REMARK		
1	SIDE FRAME	125x75x10t U.A	SS400 OR SS275	2	132.0			
2	STEP	□22 SQ. BAR	SS400 OR SS275	30	54.0			
3	HANDRAIL	ø25 R.BAR	SS400 OR SS275	2	57.6			
4	MIDLAIL	ø19 R.BAR	SS400 OR SS275	2	18.4			
5	UPPER LUG	65x12t F.B	SS400 OR SS275	2	1.2			
6	LOWER LUG	65x12t F.B	SS400 OR SS275	2	2.4	TACK WELDING 하역 입고		
7	VIB. PIECE	ø19 R.BAR(L=300)	SS400 OR SS275	4	2.8			
8	STIFFENER	100x75x10t U.A	SS400 OR SS275	2	11.8			
9	SUPPORT	100x100x10t E.A	SS400 OR SS275	1	16.0			
10	PAD	10t PLATE	SS400 OR SS275	1	0.9			
TOTAL W.T : 297.1 KG/SET								
BLOCK NO.	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
	B51P0	IL-B102P	1	본도제작	B51P0	IL-B102S	1	대청제작





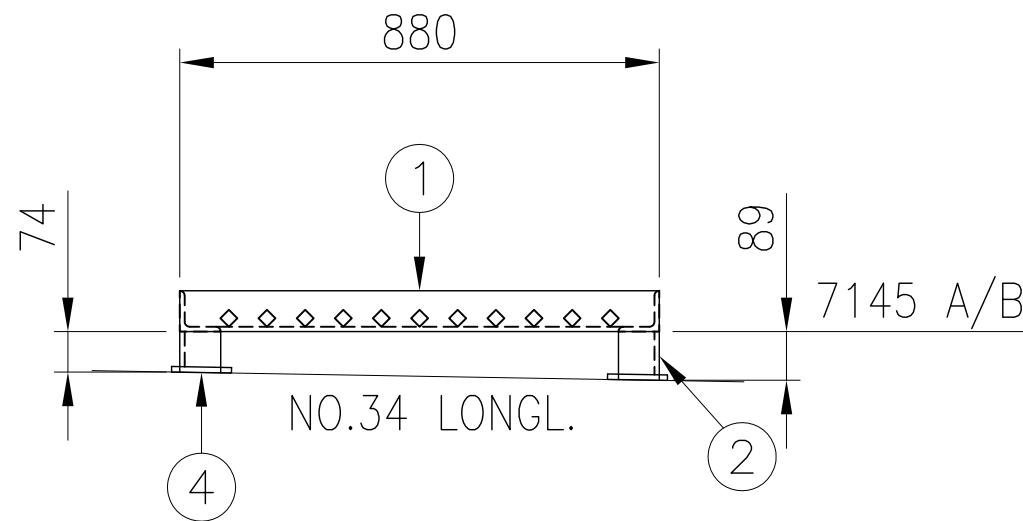
TOTAL W.T : 62.5 KG/SFT

BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
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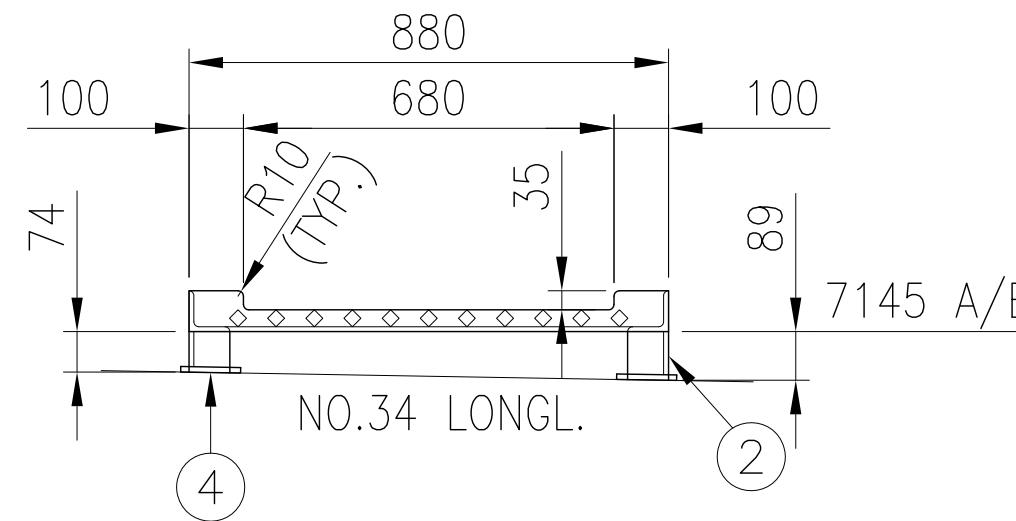
NOTE

- 본도는 PORT SIDE를 나타낸 도면임.
(STB'D SIDE는 대칭으로 제작/설치할 것.)

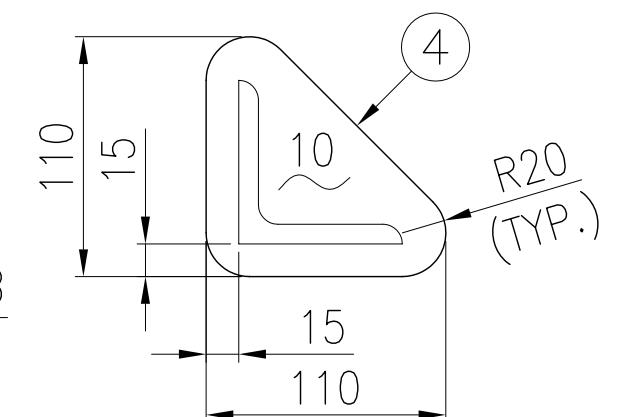
VIEW "A"



VIEW "B"



DET. OF PAD

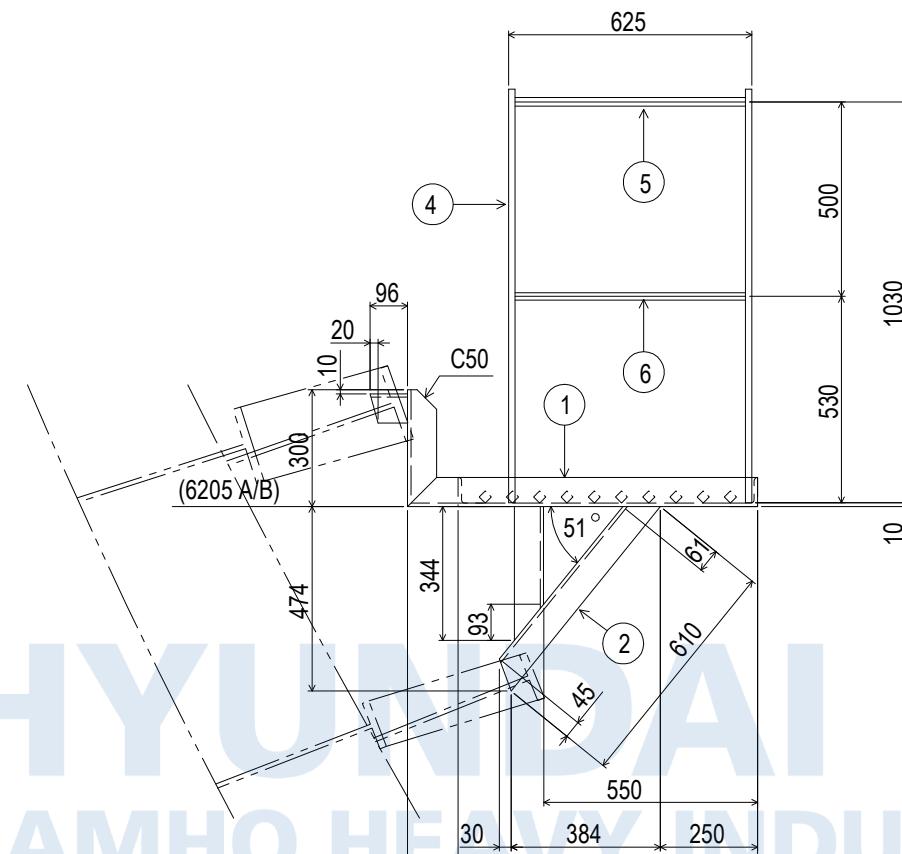




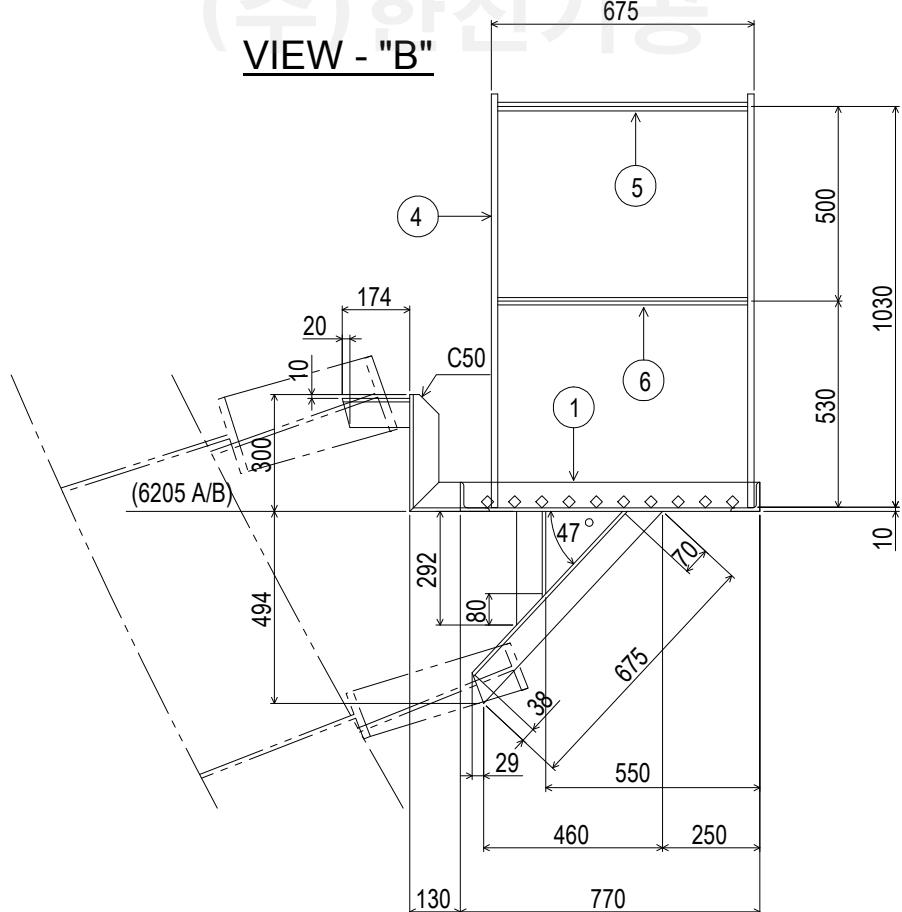
DETAIL OF PLATFORM

SHIP NO. 8140.8198/8199 10
DWG NO. S13W0-C26-56BB

VIEW - "A"



VIEW - "B"

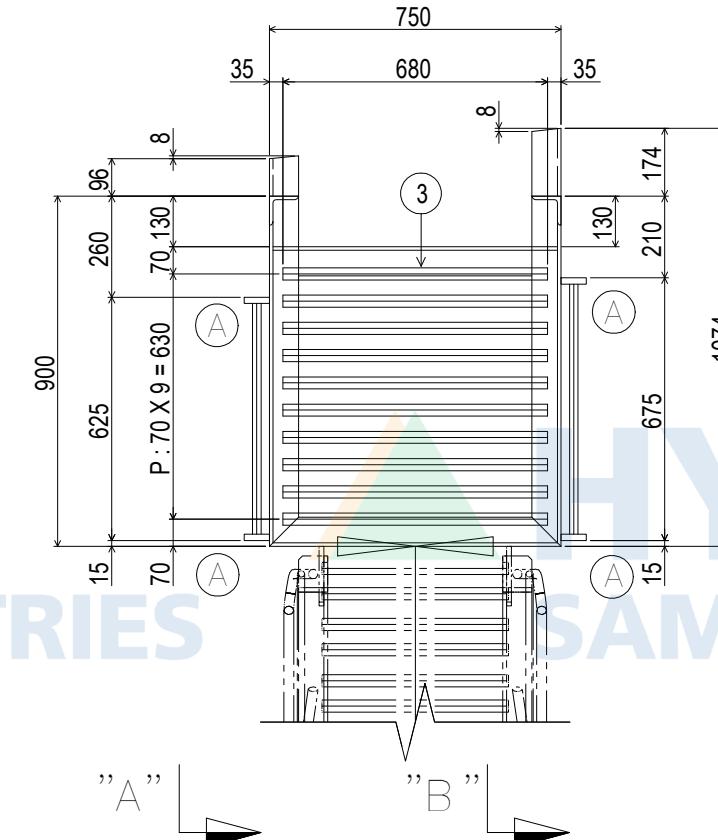


BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
B51P0	PF-B102P	1	133.4	분도제작
B51S0	PF-B102S	1	133.4	대칭제작

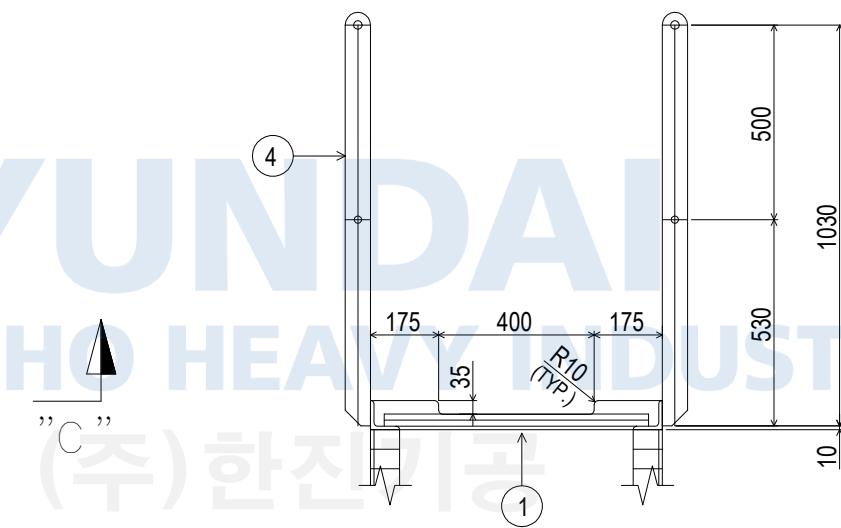
설치 BLOCK

B51P0 B51S0

AFT PLAN FWD

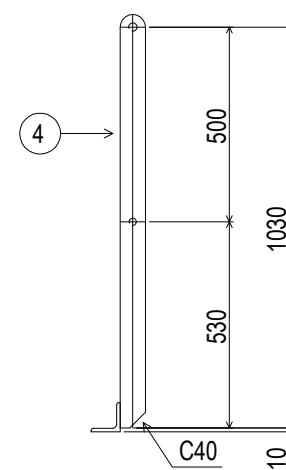


VIEW - "C"



HANDRAIL STANCHION

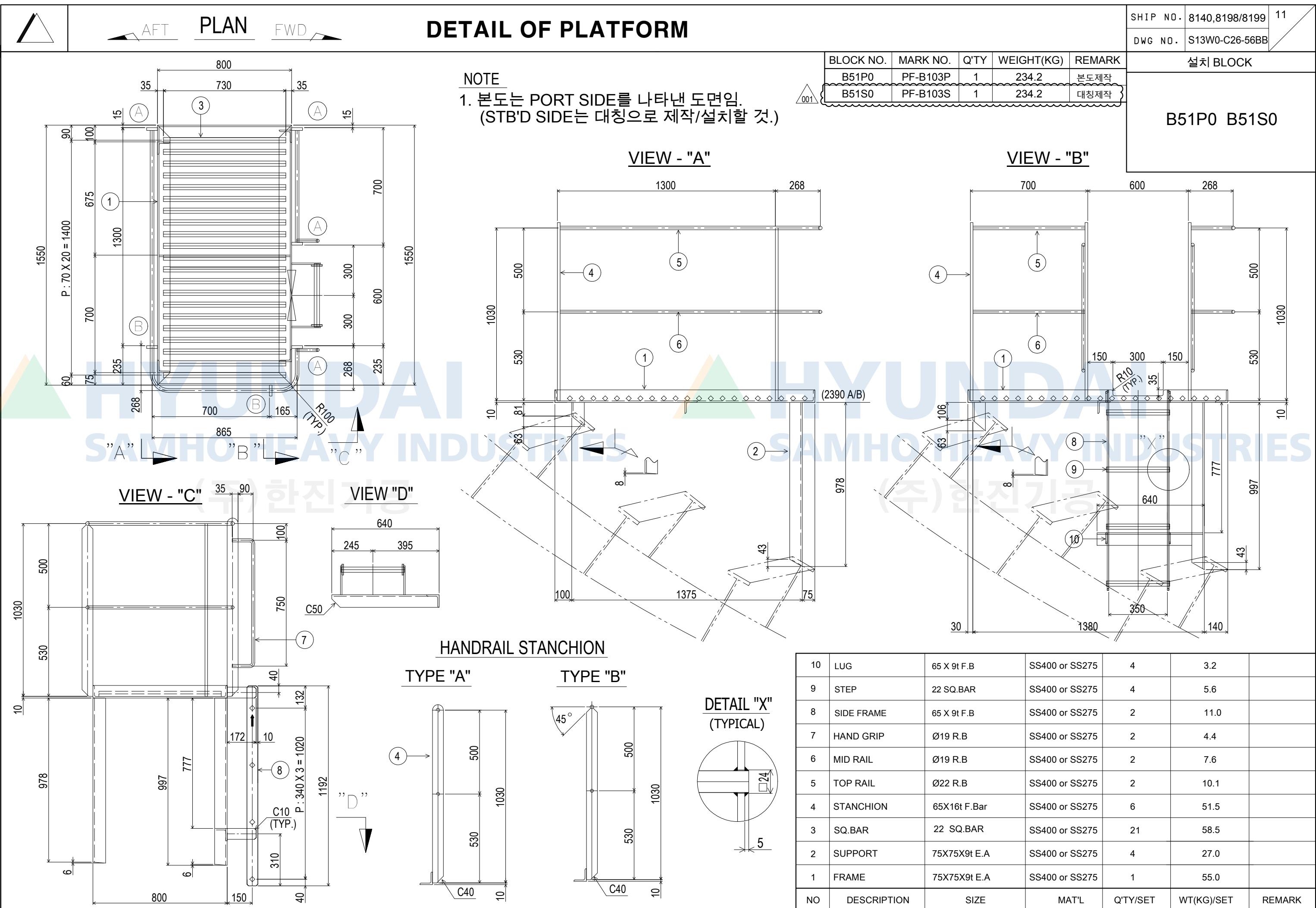
TYPE "A"



NOTE

1. 본도는 PORT SIDE를 나타낸 도면임.
(STB'D SIDE는 대칭으로 제작/설치할 것.)

NO	DESCRIPTION	SIZE	MAT'L	Q'TY/SET	WT(KG)/SET	REMARK
6	MID RAIL	Ø19 R.B	SS400 or SS275	2	2.9	
5	TOP RAIL	Ø22 R.B	SS400 or SS275	2	3.9	
4	STANCHION	65X16t F.Bar	SS400 or SS275	4	34.8	
3	SQ.BAR	□22 SQ.BAR	SS400 or SS275	10	26.0	
2	SUPPORT	75X75X9t E.A	SS400 or SS275	2	21.3	
1	FRAME	75X75X9t E.A	SS400 or SS275	1	44.5	
NO	DESCRIPTION	SIZE	MAT'L	Q'TY/SET	WT(KG)/SET	REMARK



설치 BLOCK

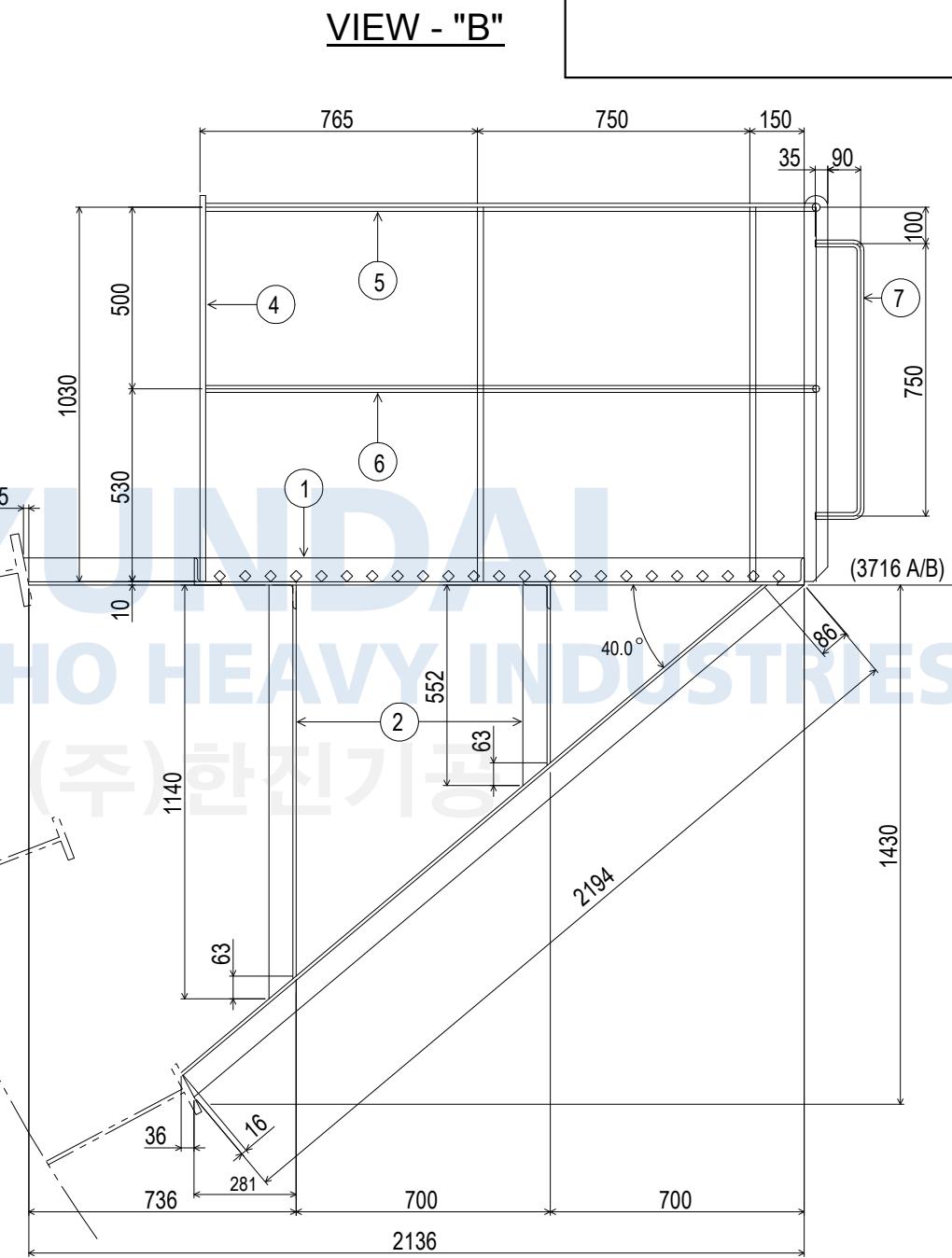
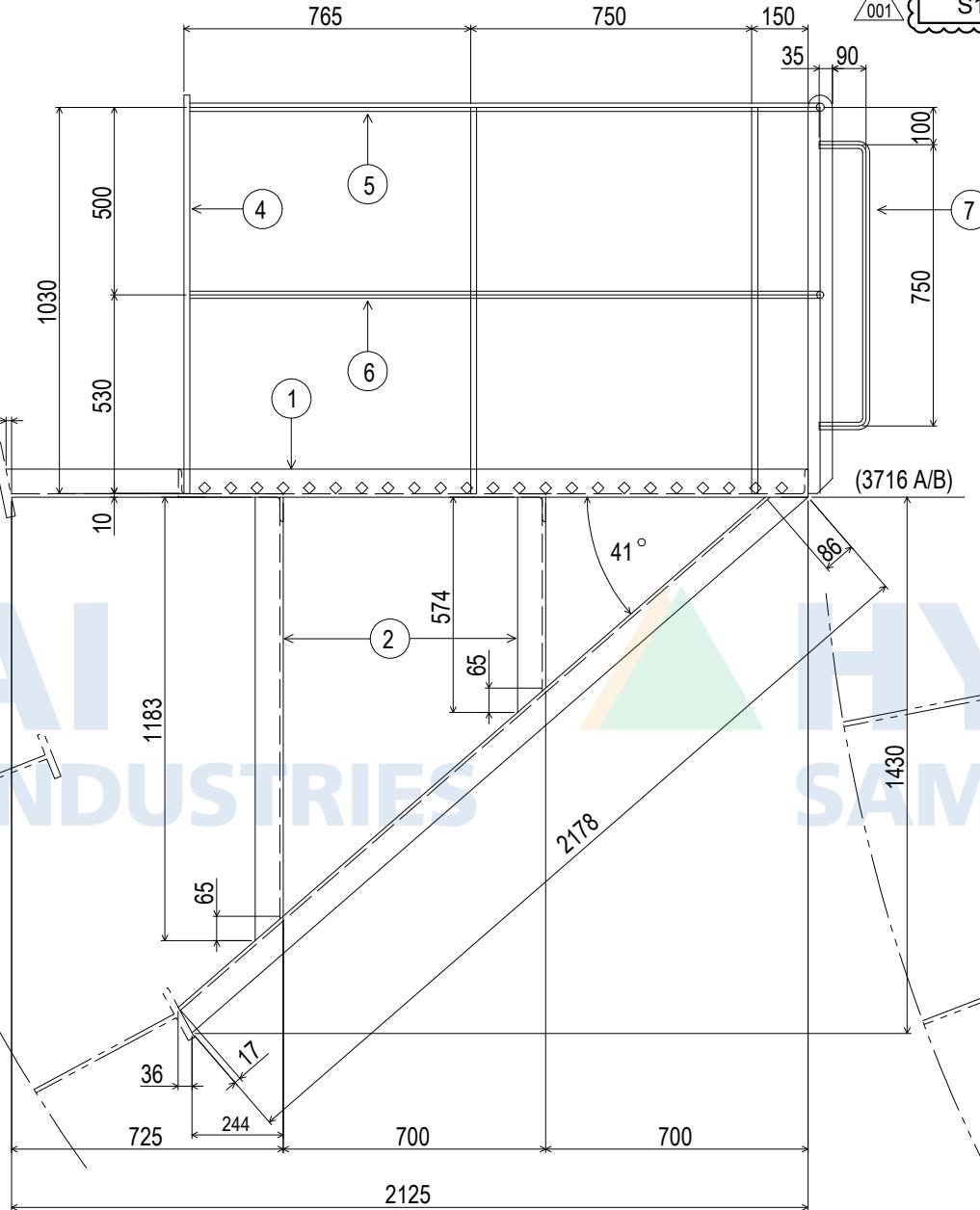
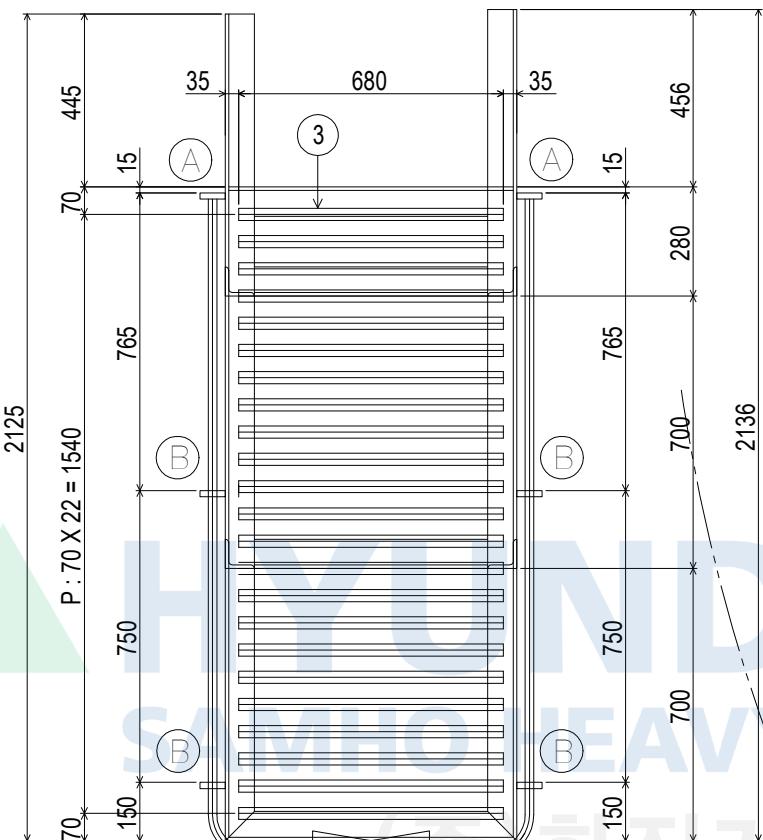
PLAN

FWD

VIEW - "A"

BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
S13P0	PF-B104P	1	306.2	본도제작
S13S0	PF-B104S	1	306.2	대청제작

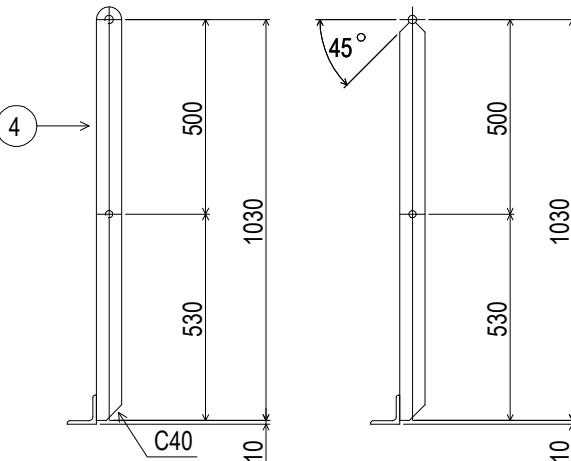
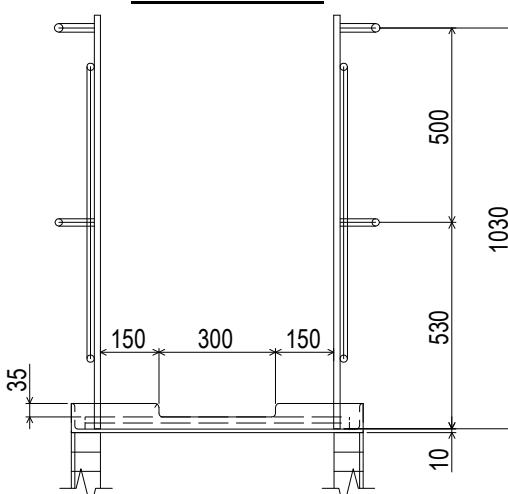
S13P0 S13S0



HANDRAIL STANCHION

TYPE "A"

TYPE "B"

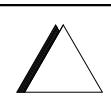


7	HAND GRIP	Ø19 R.B	SS400 or SS275	2	4.4	
6	MID RAIL	Ø19 R.B	SS400 or SS275	2	8.0	
5	TOP RAIL	Ø22 R.B	SS400 or SS275	2	10.8	
4	STANCHION	65X16t F.Bar	SS400 or SS275	8	68.2	
3	SQ.BAR	22 SQ.BAR	SS400 or SS275	23	59.8	
2	SUPPORT	75X75X9t E.A	SS400 or SS275	6	80.0	
1	FRAME	75X75X9t E.A	SS400 or SS275	1	75.0	
NO	DESCRIPTION	SIZE	MAT'L	Q'TY/SET	WT(KG)/SET	REMARK

NOTE

1. 본도는 PORT SIDE를 나타낸 도면임.
(STB'D SIDE는 대칭으로 제작/설치할 것.)

DETAIL OF PLATFORM



SHIP NO. 8140,8198/8199 13
DWG NO. S13W0-C26-56BB

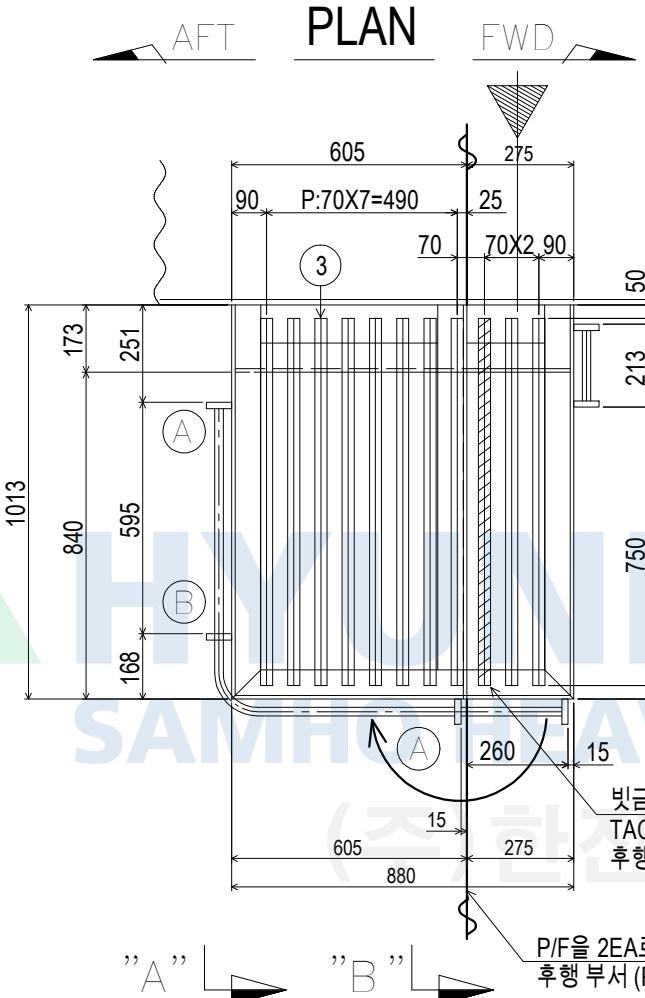
NOTE

1. 본도는 PORT SIDE를 나타낸 도면임.
(STB'D SIDE는 대칭으로 제작/설치할 것.)

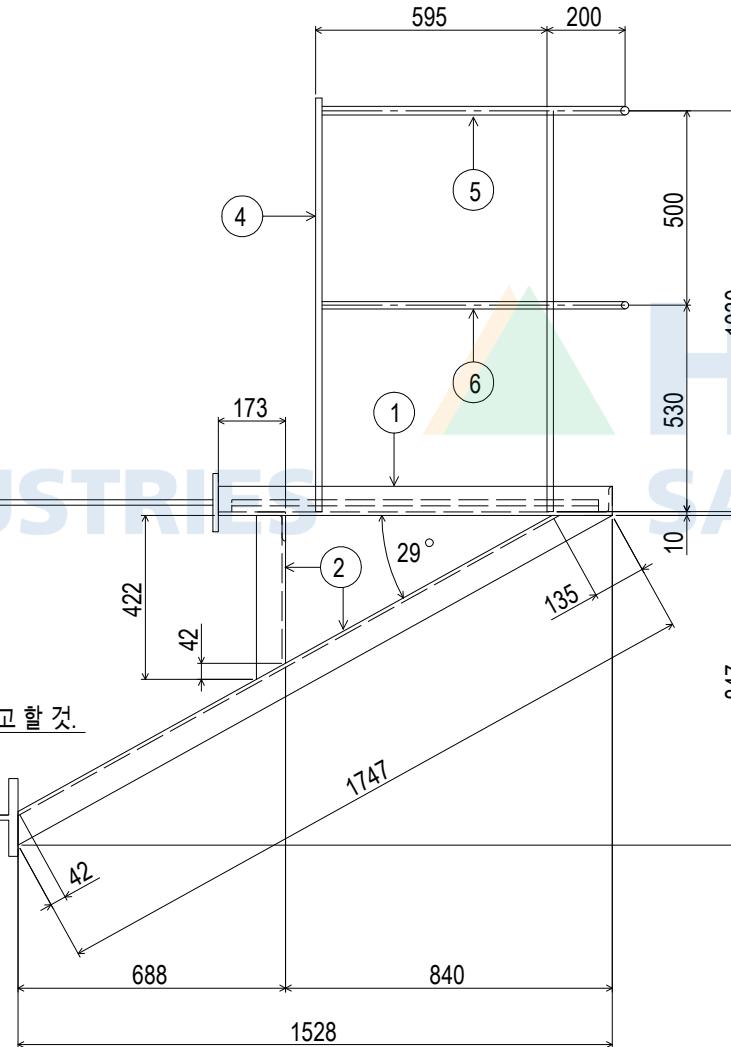
BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
S13P0	PF-B105P	1	182.3	본도제작
S13S0	PF-B105S	1	182.3	대칭제작

설치 BLOCK

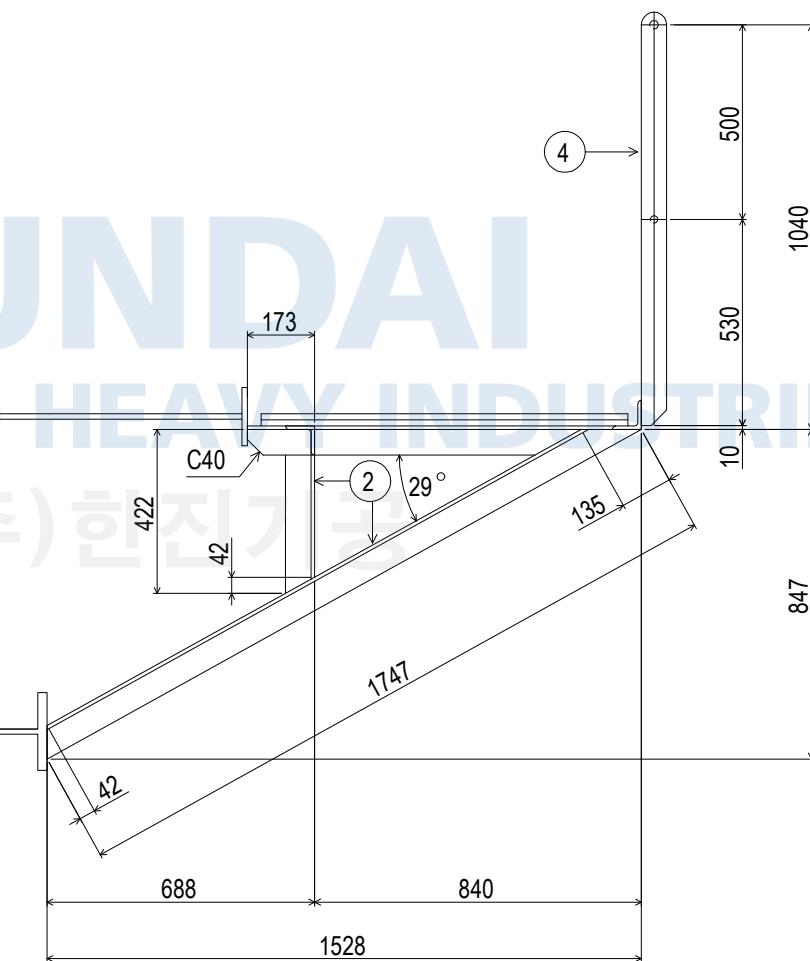
S13P0 S13S0



VIEW - "A"

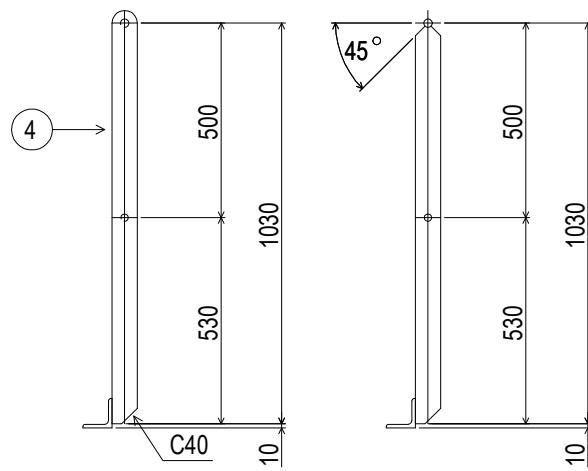


VIEW - "B"



HANDRAIL STANCHION

TYPE "A" **TYPE "B"**



NO	DESCRIPTION	SIZE	MAT'L	Q'TY/SET	WT(KG)/SET	REMARK
6	MID RAIL	Ø19 R.B	SS400 or SS275	2	4.3	
5	TOP RAIL	Ø22 R.B	SS400 or SS275	2	5.7	
4	STANCHION	65X16t F.Bar	SS400 or SS275	6	51.3	
3	SQ.BAR	22 SQ.BAR	SS400 or SS275	11	39.6	
2	SUPPORT	75X75X9t E.A	SS400 or SS275	4	43.6	
1	FRAME	75X75X9t E.A	SS400 or SS275	1	37.9	