		PLAN HISTORY			
DATE	REV. NO.	DESCRIPTION	DRAWN	CHECKED	APPROVED
2023. 01. 13	0	8140, 8189/8199 호선 LADDER & PLATFORM FOR NO.4 COFFERDAM 제작 도면으로 작성함.	이 승 안	김 광 백	정 호 진

HYUNDAI

SAMHO

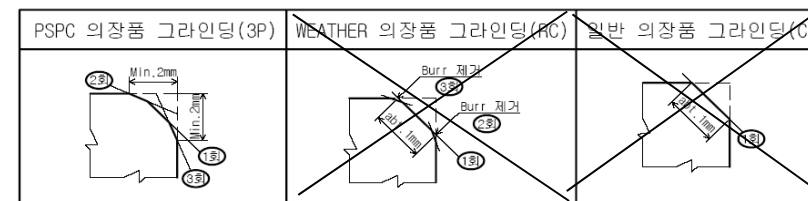
HEAVY INDUSTRIES

(주)한진기공

PAINTING SPEC.							PAINT SUPPLIER		
PAINT'G SYMBOL	PAINT ITEM OR AREA	MAT'L	SHOP PRIMER	표면 처리	BRAND NAME OF PAINT AND ITS COLOR SHADE		D.F.T (μ)	REMARK	
	ITEM	IN SIDE & OUT SIDE			IN SIDE	OUT SIDE			
	ALL	FINAL	SHOP PRIMER	PRIMER					

## NOTE

1. 본도는 LADDER & PLATFORM FOR NO.4 COFFERDAM 제작 도면임.
2. 모서리 부분은 하기와 같이 GRINDING 할 것.



3. 용접은 특기외 하기 표 참조하고 연속 용접 할 것.

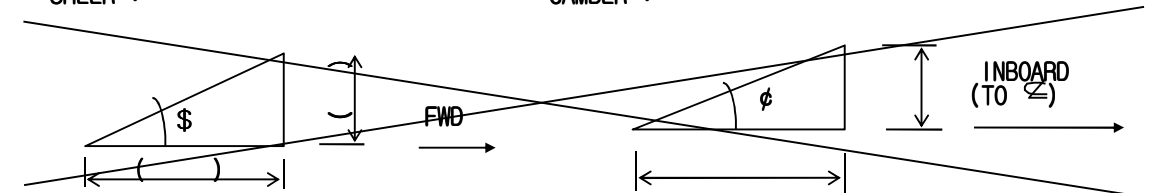
\* THE LEG LENGTH OF FILLET WELD TO BE AS FOLLOWS.

MAL'T 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 :

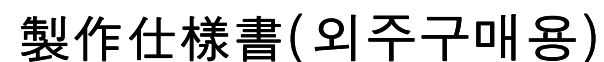
**CAMBER :**



5. 한 도면에서 서로 상이부분이 있거나 제작상 문제점 발생시 필히 당부와 협의/확정 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℃) 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 녹지않는 비닐테이프를 부착한 상태로 뒤집어 조립하고, 그 후면에 도어 또는 밴트(VENT) 이름을 매직펜으로 기록하여 입력하고, 야드에서 정방향 설치시 나사산의 위치가 불일치 되지 않도록 구멍의 간격을 잘 유지하여 입고 할 것.  
(이름, 경고판 재질: SUS316 & SUS316 SCREW BOLT)
9. 그리스 니플 : JIS B 1571 A-PT 1/8" BALL TYPE 러버캡을 씌울것( MAT'L : BRASS )
10. P.O.R NO. : JTB

11. TOTAL WEIGHT : 1993.6 KG/SHIP (표지 포함 10 매)

DEP'T. B126	SHIP NO. 8140, 8198/8199	SHIP TYPE 174,000 CBM CLASS LNGC [MEGA-TWIN SCREW]
TEL. 2907	부서명 선 장 설 계 부	도 면 명
승 인     정 호 진 검 도     김 광 백 작 성     이 승 안		LADDER & PLATFORM FOR NO.4 COFFERDAM 제 작 도
 HYUNDAI SAMHO HEAVY INDUSTRIES CO., LTD. SAMHO SHIPYARD, KOREA		도 면 번 호 T12T0-C30-56BB - 0
		날 짜 2023. 01. 13



- 
- 우원 SPEC.
- PAINTING
- PAINT & GALV. : 15mm
- Dk
- (SHOP PRIMER OR Alkyd Resin MP-120 (KCC))

6. GALV.용 HOLE 시공할 경우는 GALV.후 메공하고 GALV. 손상부위 수정 후  
입고할 것.
7. 납품 시 P.O.R SHEET와 유첨도를 첨부할 것.
8. MAKER CERTIFICATE (특수재료는 MILL SHEET) 를 첨부할 것.
9. 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)
10. 의장품 자재 PALLET 고박용 번선 및 고박 ITEM에 대한 묶음 WIRE(철사)는 필히  
부식 방지용 COATING WIRE를 사용하여 입고시킬 것.
11. 의장품 자재 입고시 상.하.좌.우로 움직일수 있는 항목들은 상기 10)번항에 의거하여  
반드시 고박하여 입고할 것.(안전사고 사전방지)
12. 납품 시 하기와 같은 TAG를 식별하기 쉬운 위치에 적의 부착하여 입고할 것.
  - 1) 용접선 있는 자재는 용접선 부근 50mm 이내 PAINT MARKER 마킹 적용  
(설치 후 은폐 도장작업 쉽게 하기 위함)
  - 2) 용접선 없는 자재는 자재 인식표(TAG) 또는 안티 울트라테이프에 마킹 후 부착  
(자재 TAG 및 안티 울트라테이프 제거는 의장 1,2부에서 실시함)
  - 3) 적용대상 : 강재로 제작되는 모든 철의장품
  - 4) MARKING 방법 : SHIP NO., BLOCK NO., POR NO., MARKING(PC'S) NO.

[illegible]



Ship No: 8140, 8198/8199

HDS NO: 3452-11/11

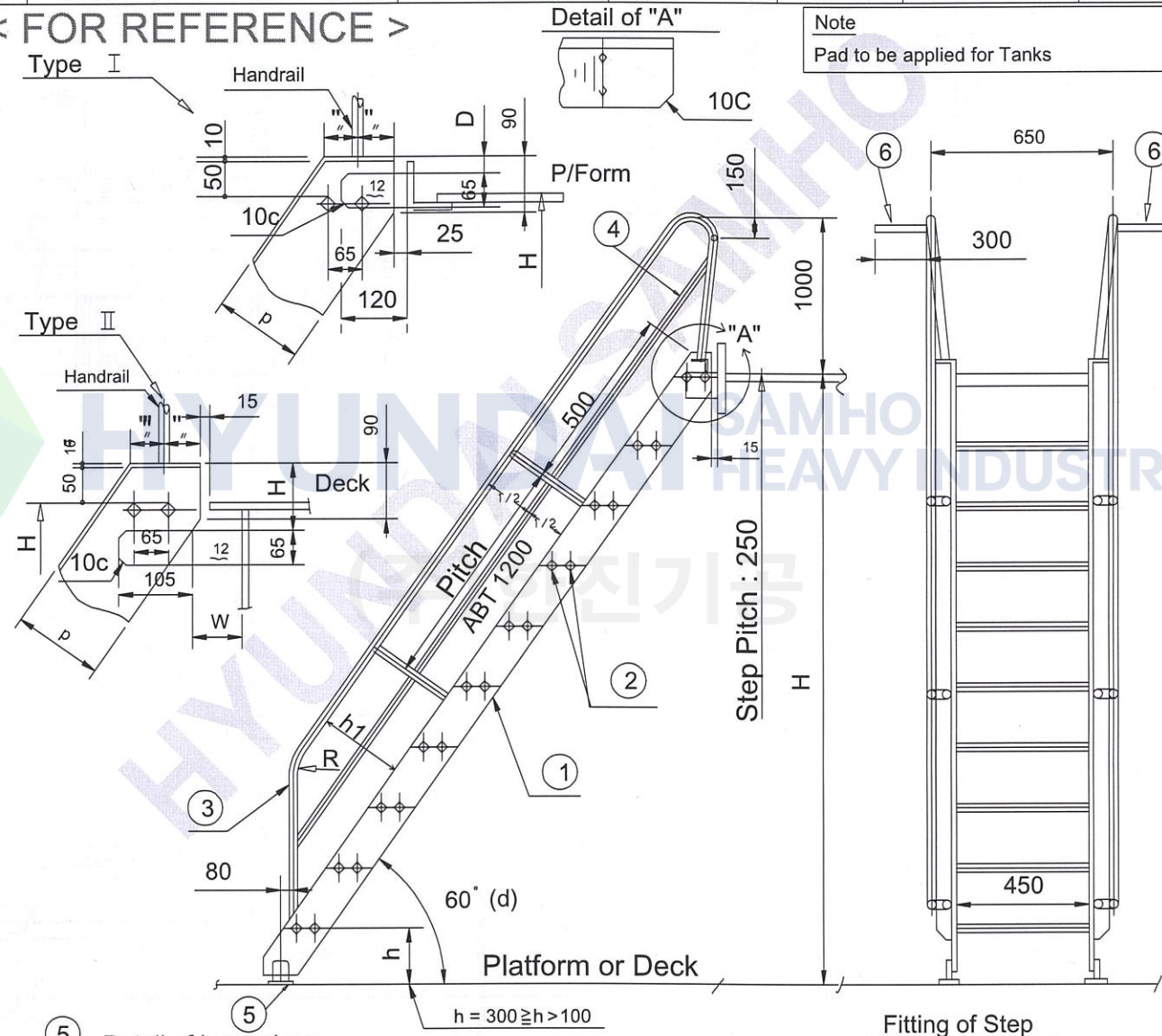


## Inclined Ladder (Type-D2) Standard

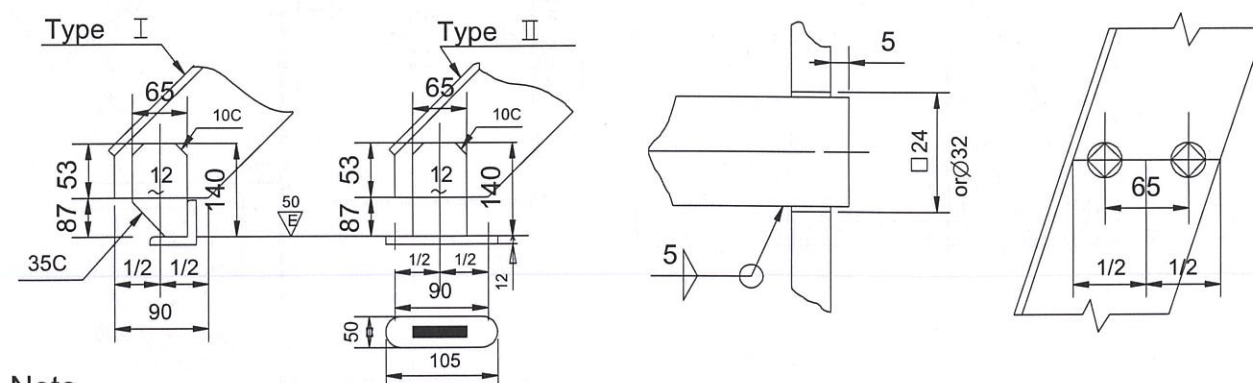
DATE	99	99	02	10
9	10	1	3	
28	28	11	2	

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		

### < FOR REFERENCE >



⑤ Detail of Lower Lug



#### Note

1. Surface treatment shall be done in accordance with paint specification.

Ship No: 8140, 8198/8199

HDS NO: 3450-5/9

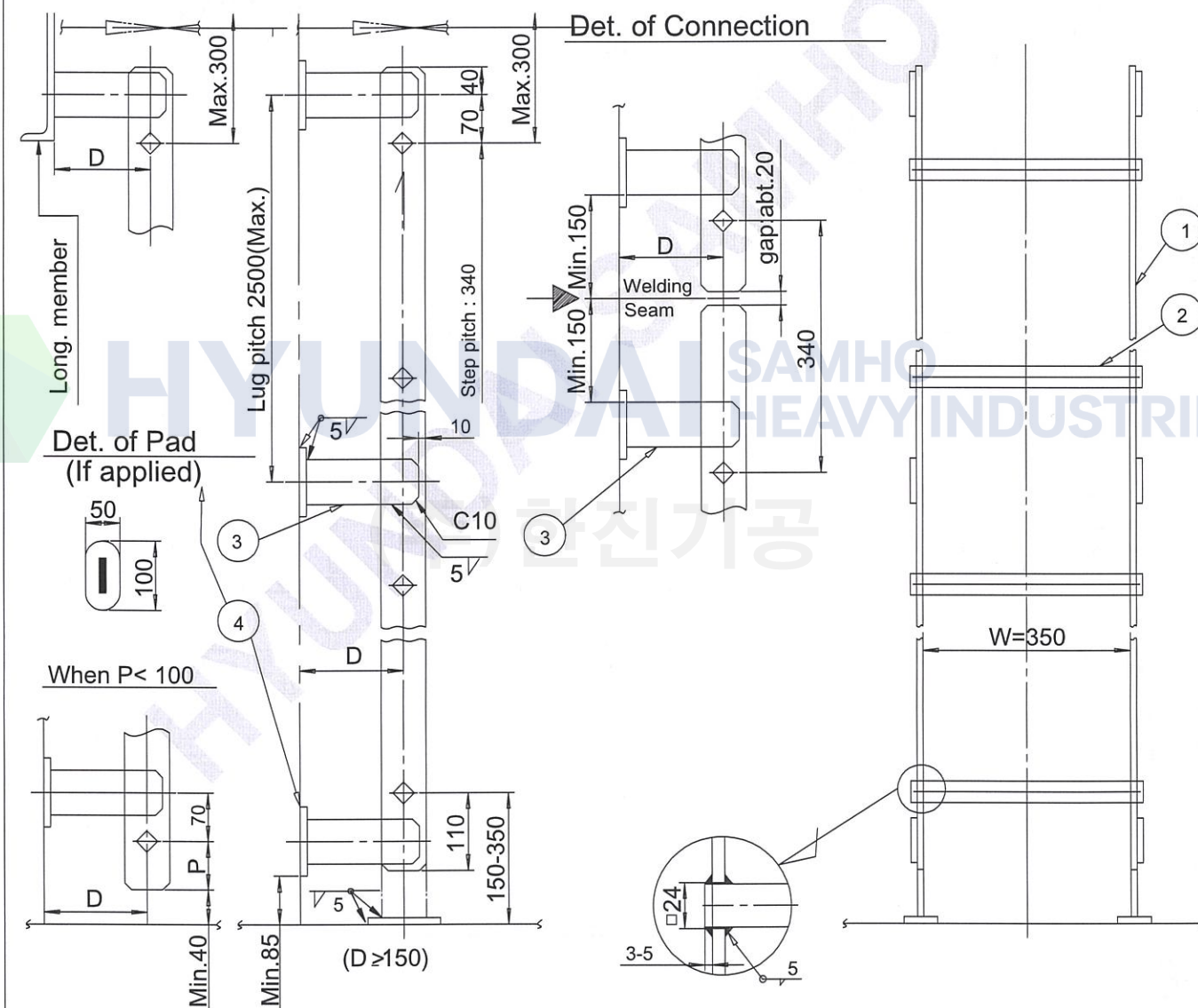


## Vertical Ladder (VL-A) (Fixed type) Standard

DATE	95	98	98	00	10
6	10	12	1	3	
13	12	8	11	4	

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

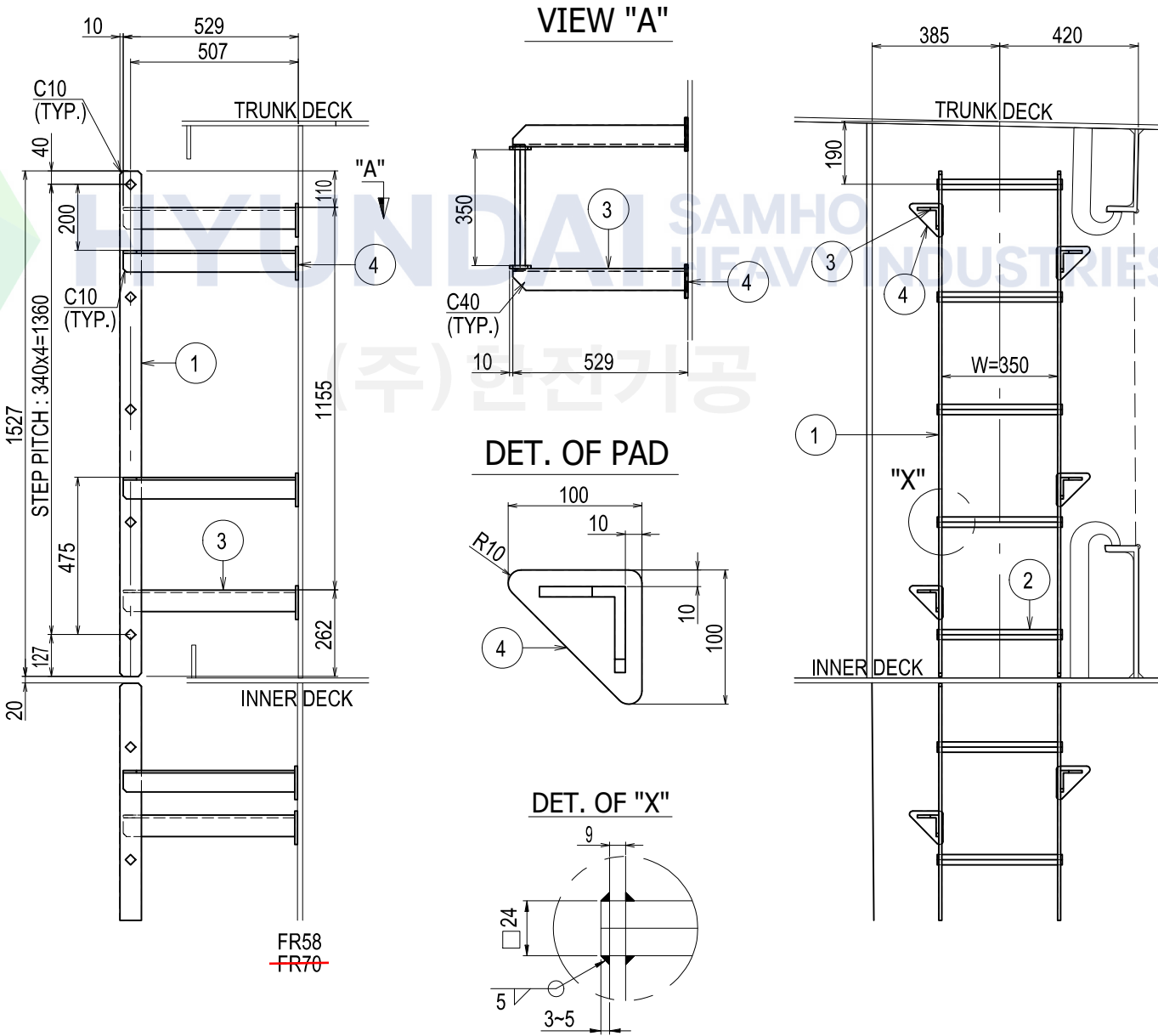
1. Application : All space except vent mast
2. Surface treatment shall be done in accordance with painting specification.
3. Connection : Shall be applied between ladders when ladders are installed in way of block welding seam or fabrication welding seam of mast/post body.

DET. OF VERTICAL LADDER					SHIP NO.	
					DWG NO.	
					8140, 8198/8199	
					T12T0-C30-56BB	
NO.	DESCRIPTION	SIZE	MAT'L	Q'TY/SET	W.T (kg)	REMARK
1	SIDE FRAME	65x9t F.B	SS400 OR SS275	2	14.0	
2	STEP	22 SQ.B	SS400 OR SS275	5	7.0	
3	LUG	65x65x8t E.A	SS400 OR SS275	4	16.4	
4	PAD	10t PLATE	SS400 OR SS275	4	2.0	

NOTE

- MARK NO. : VL-401, ~~VL-301~~
- 제작수량 : 1 SETS/SHIP
- BLOCK NO.: D14C0 (VL-401), ~~D17C0(VL-301)~~

TOTAL W.T : 39.4 KG/SET

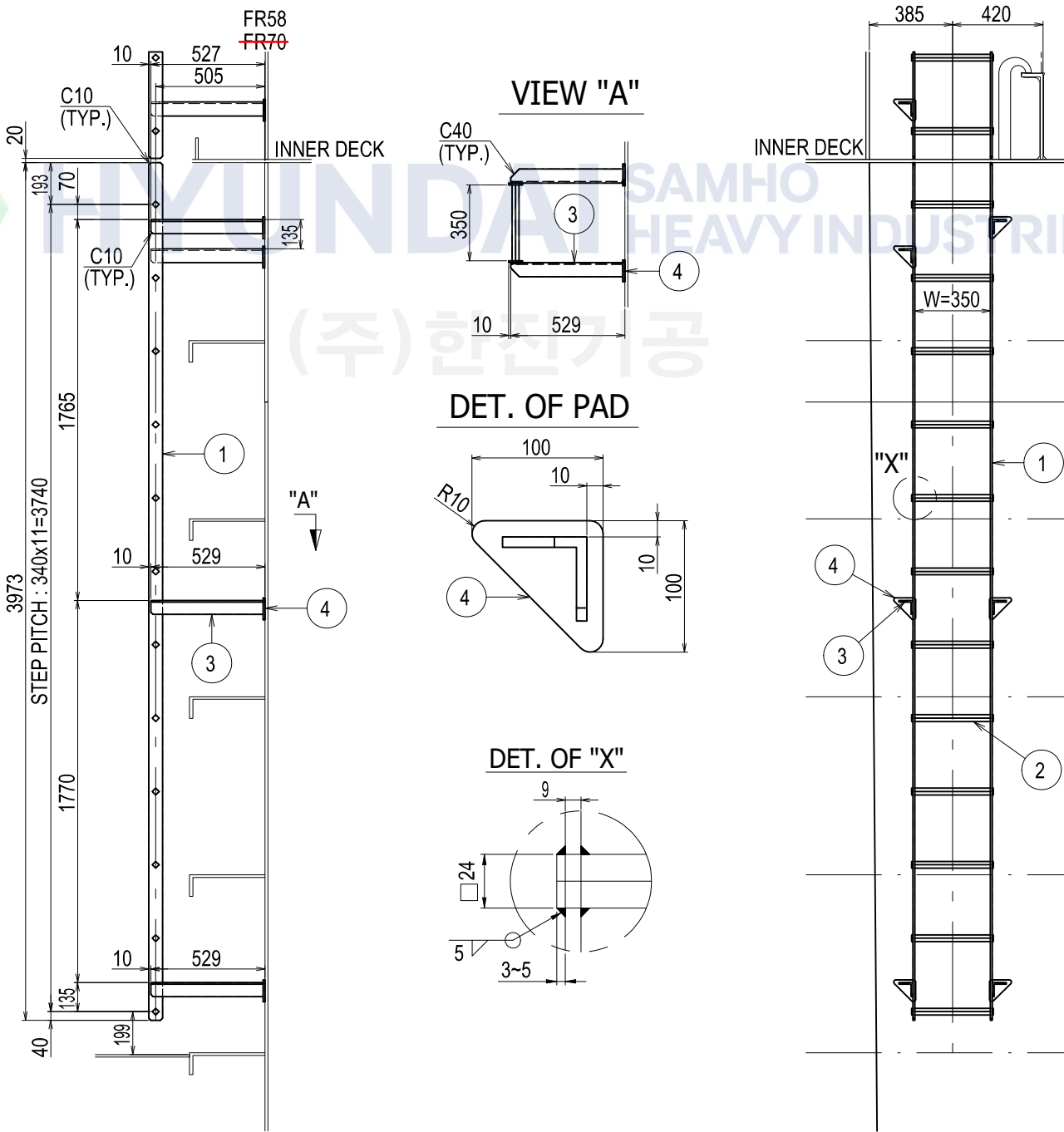


DET. OF VERTICAL LADDER					SHIP NO.	03
					DWG NO.	
					8140, 8198/8199	
					T12T0-C30-56BB	
NO.	DESCRIPTION	SIZE	MAT'L	Q'TY/SET	W.T (kg)	REMARK
1	SIDE FRAME	65x9t F.B	SS400 OR SS275	2	36.4	
2	STEP	22 SQ.B	SS400 OR SS275	12	16.8	
3	LUG	65x65x8t E.A	SS400 OR SS275	6	24.2	
4	PAD	10t PLATE	SS400 OR SS275	6	3.0	

NOTE

- MARK NO. : VL-402, ~~VL-302~~
- 제작수량 : 1 SETS/SHIP
- BLOCK NO.: T22S0(VL-402), ~~T23S0(VL-302)~~

TOTAL W.T : 80.4 KG/SET







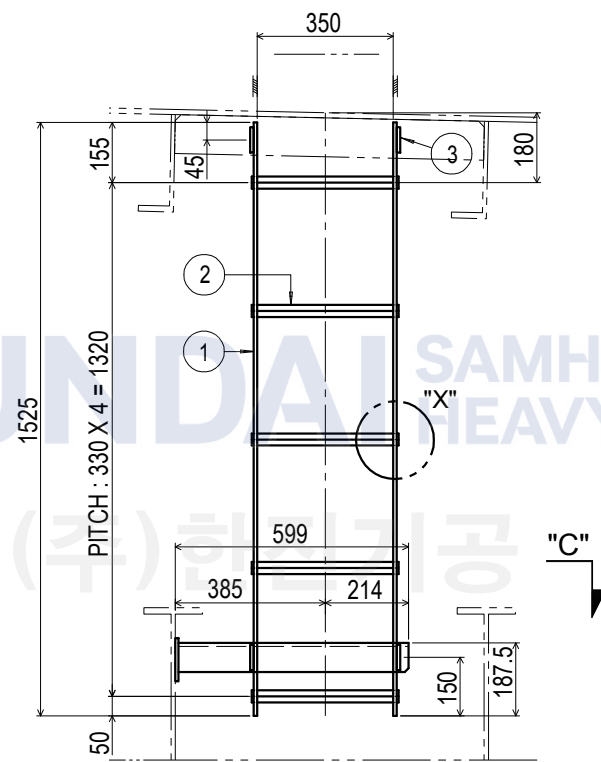
※ STEP PITCH : 330 임에 유의할 것.

SHIP NO.	8140,8198/8199	C
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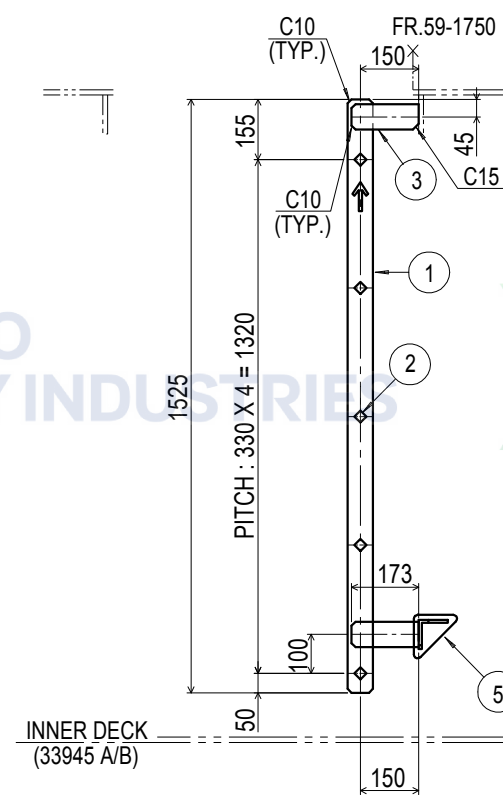
DWG NO.	T12T0-C30-56BB
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D14C0

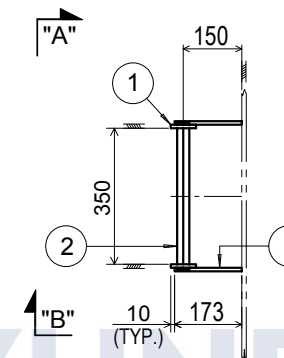
VIEW-"A"



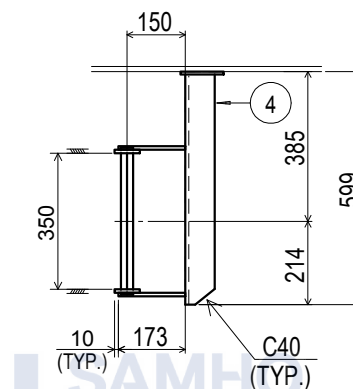
VIEW-"B"



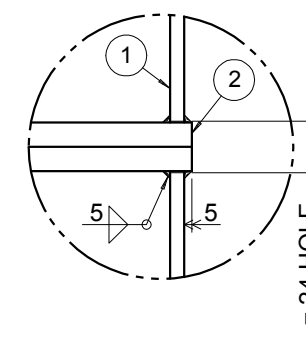
## PLAN



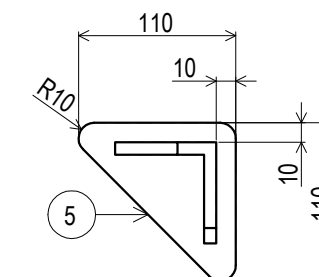
VIEW "C"



### DETAIL OF "X"

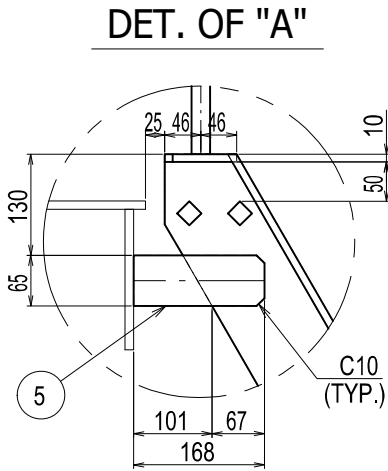


### DETAIL OF PAD



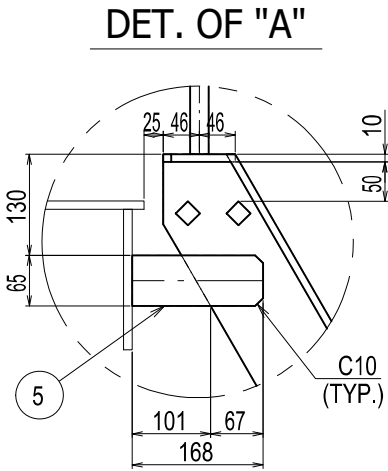
5	PAD	10t PLATE	SS400 or SS275	1	1.0	
4	LUG	75 X 75 X 9 EA	SS400 or SS275	1	6.2	
3	LUG	65 X 9t F.B	SS400 or SS275	4	3.4	
2	STEP	22 SQ.BAR	SS400 or SS275	5	7.2	
1	SIDE FRAME	65 X 9t F.B	SS400 or SS275	2	14.1	
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK

DETAIL OF INCLINED LADDER			SHIP NO.	8140, 8198/8199				
			DWG NO.	T12T0-C30-56BB				
NO.	DESCRIPTION	SPEC.	MAT'L	Q'ty/set	W.T (KG)	REMARK		
1	SIDE FRAME	125x75x10t U.A	SS400 OR SS275	2	84.4			
2	STEP	□ 22 SQ. BAR	SS400 OR SS275	20	36.0			
3	HANDRAIL	Ø25 R.BAR	SS400 OR SS275	2	26.8			
4	MIDRAIL	Ø19 R.BAR	SS400 OR SS275	2	11.4			
5	UPPER LUG	65x12t F.B	SS400 OR SS275	2	2.0			
6	LOWER LUG	65x12t F.B	SS400 OR SS275	2	1.8			
7	VIB. PIECE	Ø19 R.BAR(L=300)	SS400 OR SS275	4	2.8			
8	PAD	12t PLATE	SS400 OR SS275	2	1.0			
				TOTAL W.T : 166.2 KG/SET				
BLOCK NO.		MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
T22S0		IL-401	1	본도제작	<del>T23S0</del>	<del>IL-301</del>	<del>1</del>	<del>본도제작</del>

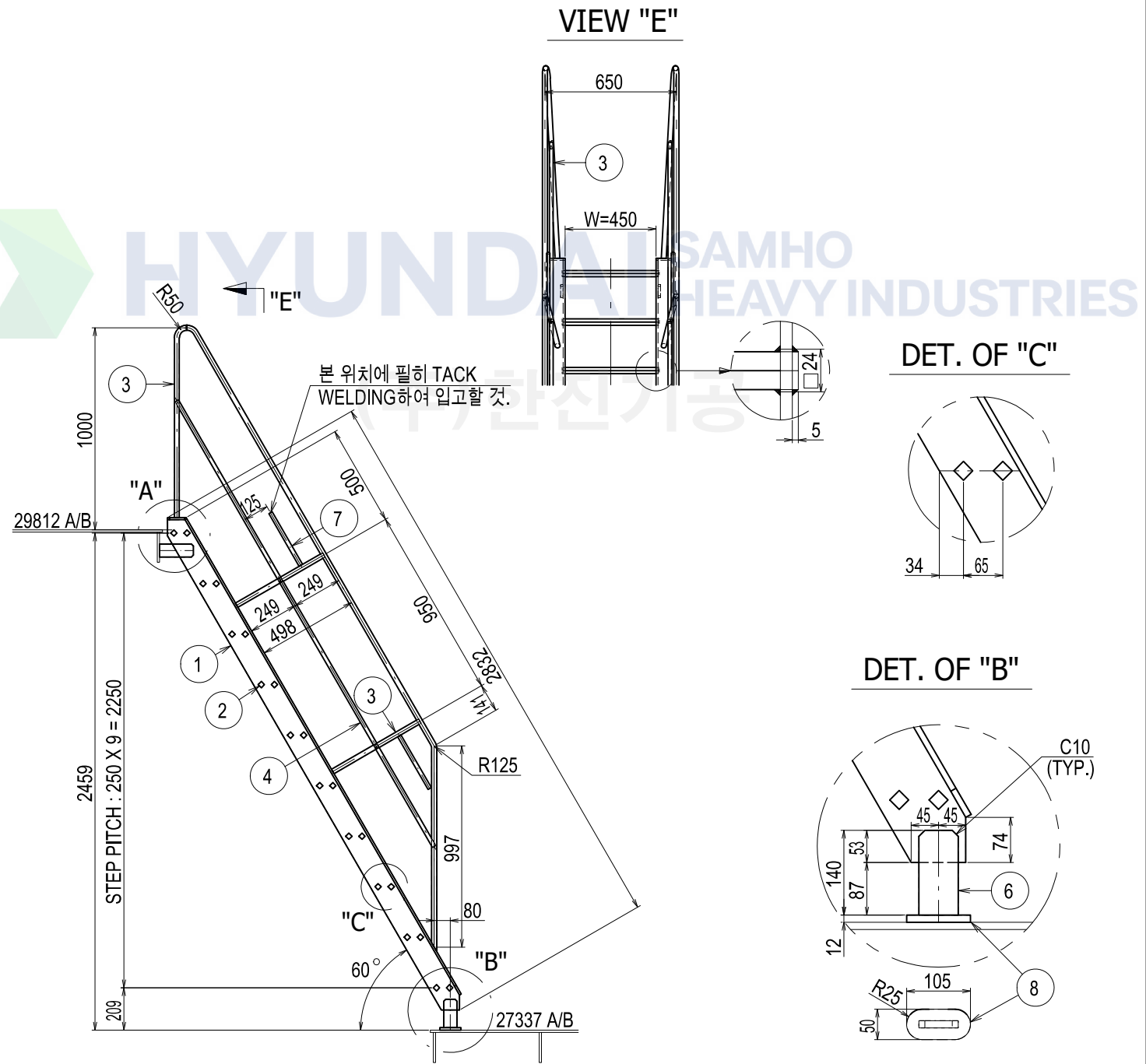


BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
T22S0	IL-401	1	본도제작	<del>T23S0</del>	<del>IL-301</del>	<del>1</del>	<del>본도제작</del>

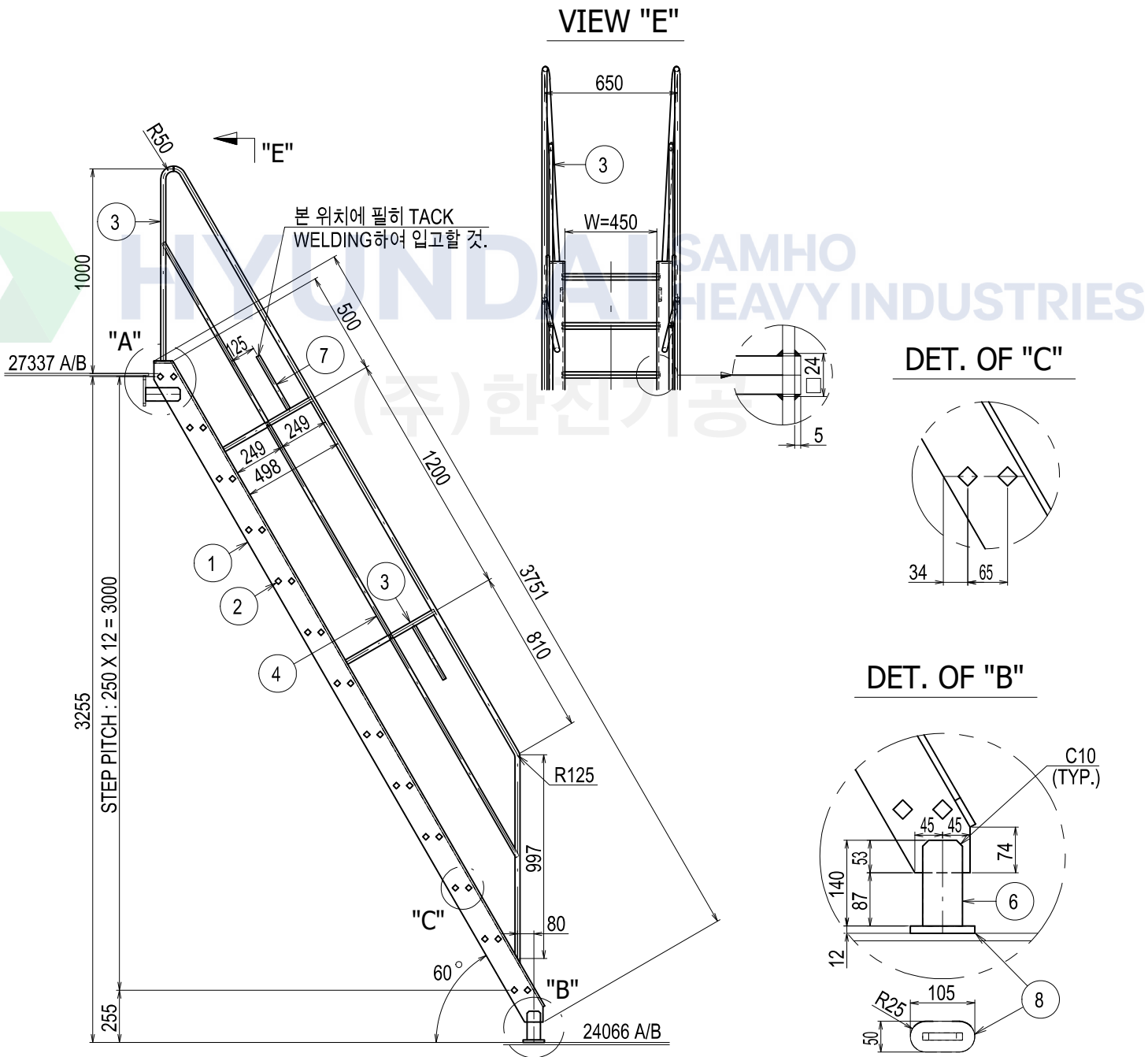
DETAIL OF INCLINED LADDER			SHIP NO.	8140, 8198/8199		05	
			DWG NO.	T12T0-C30-56BB			
NO.	DESCRIPTION	SPEC.	MAT'L	Q'ty/set	W.T (KG)	REMARK	
1	SIDE FRAME	125x75x10t U.A	SS400 OR SS275	2	111.8		
2	STEP	□22 SQ. BAR	SS400 OR SS275	26	46.8		
3	HANDRAIL	Ø25 R.BAR	SS400 OR SS275	2	31.4		
4	MIDRAIL	Ø19 R.BAR	SS400 OR SS275	2	15.5		
5	UPPER LUG	65x12t F.B	SS400 OR SS275	2	2.0		
6	LOWER LUG	65x12t F.B	SS400 OR SS275	2	1.8		
7	VIB. PIECE	Ø19 R.BAR(L=300)	SS400 OR SS275	4	2.8		
8	PAD	12t PLATE	SS400 OR SS275	2	1.0		
TOTAL W.T :						213.1 KG/SET	
BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
T22S0	IL-402	1	본도제작	<del>T23S0</del>	<del>IL-302</del>	<del>1</del>	<del>본도제작</del>



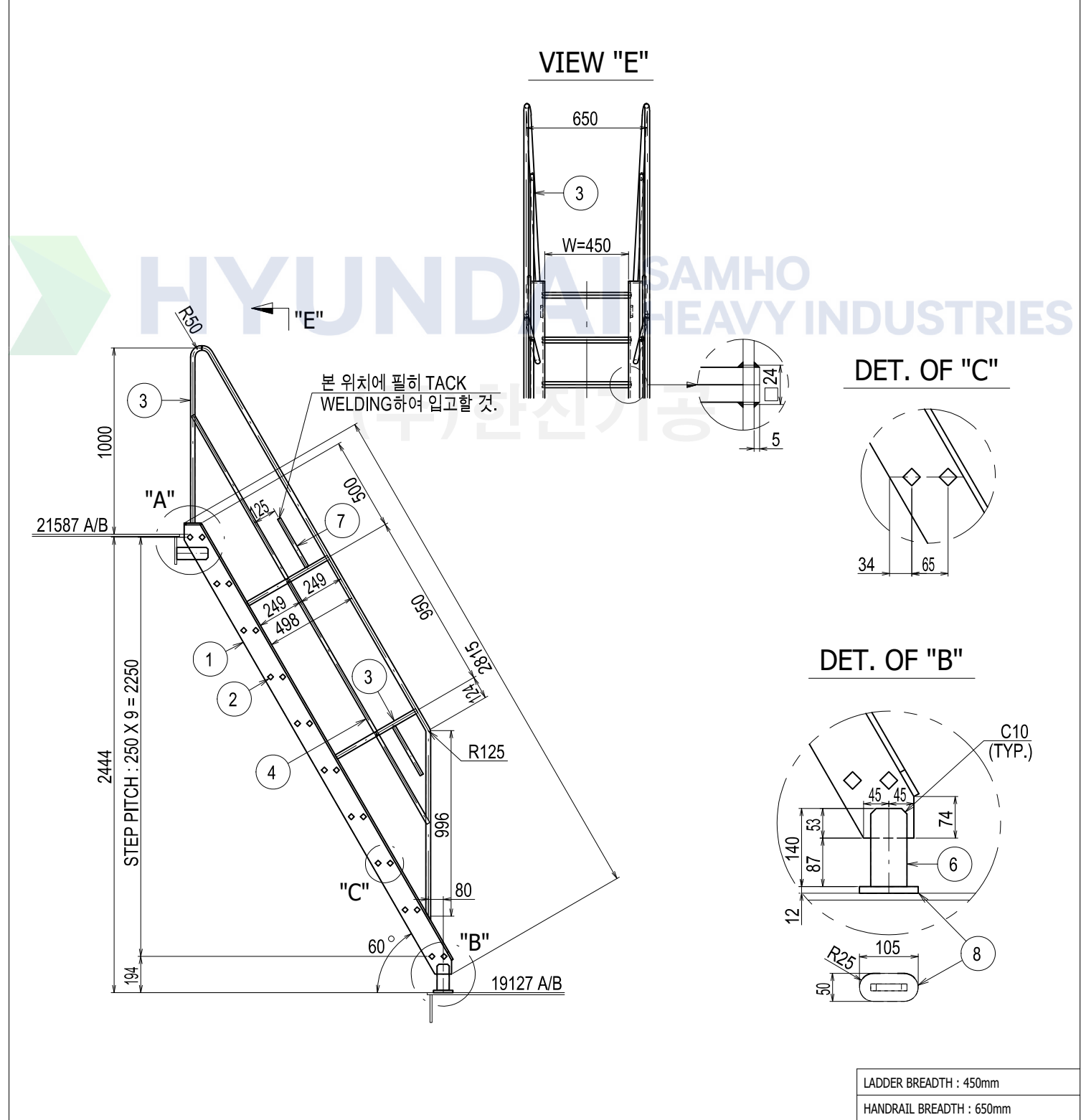
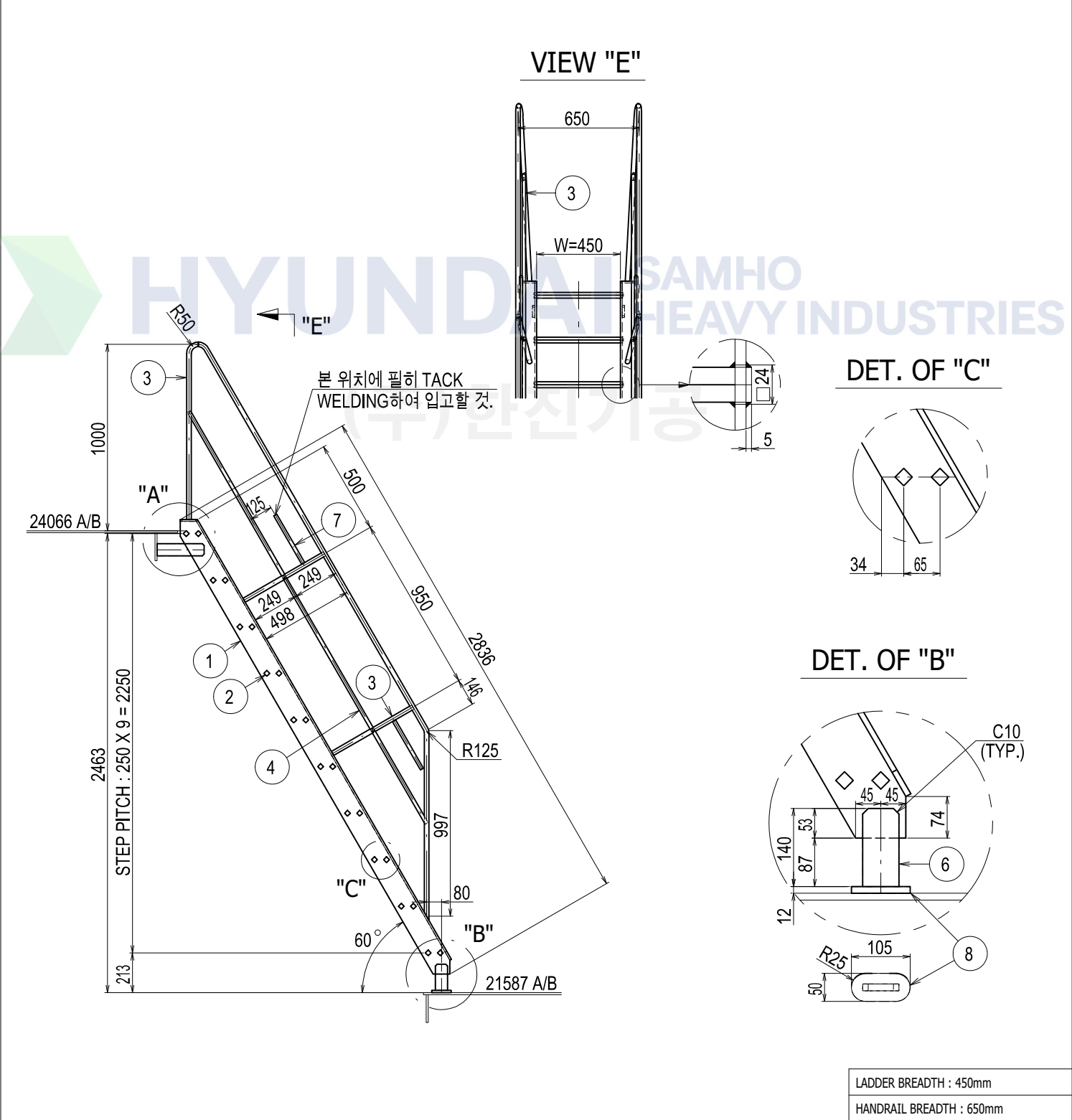
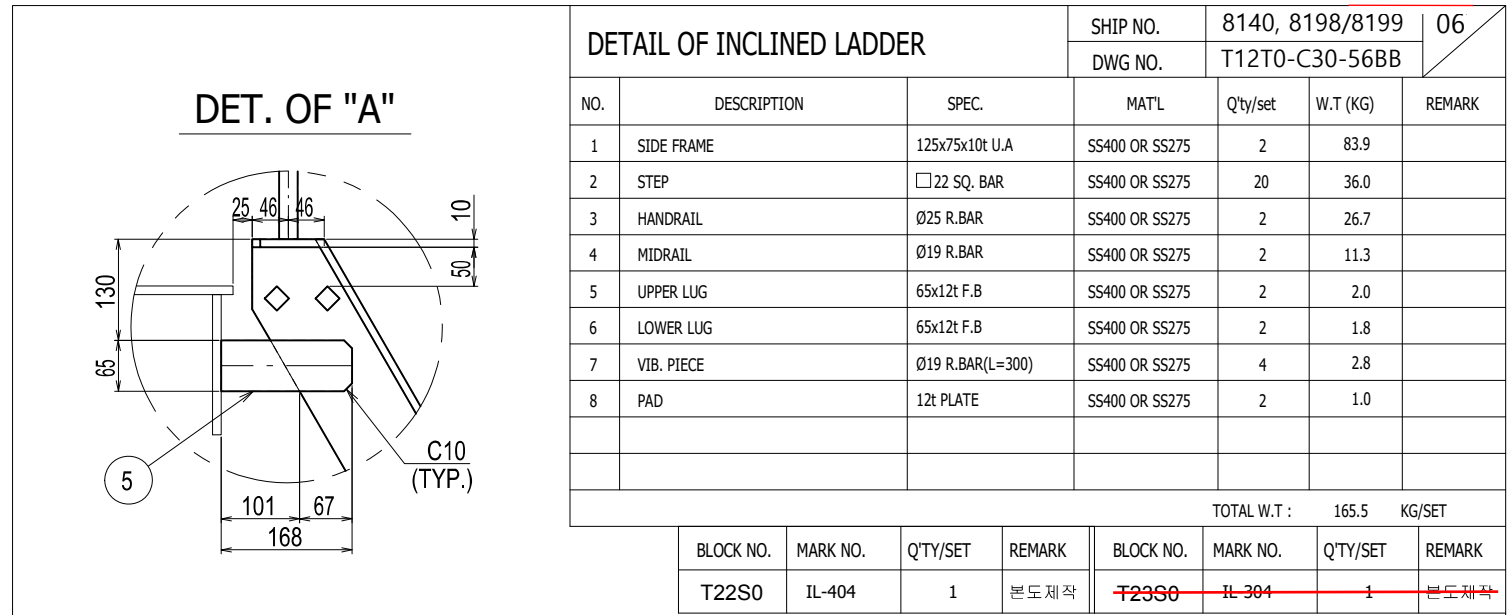
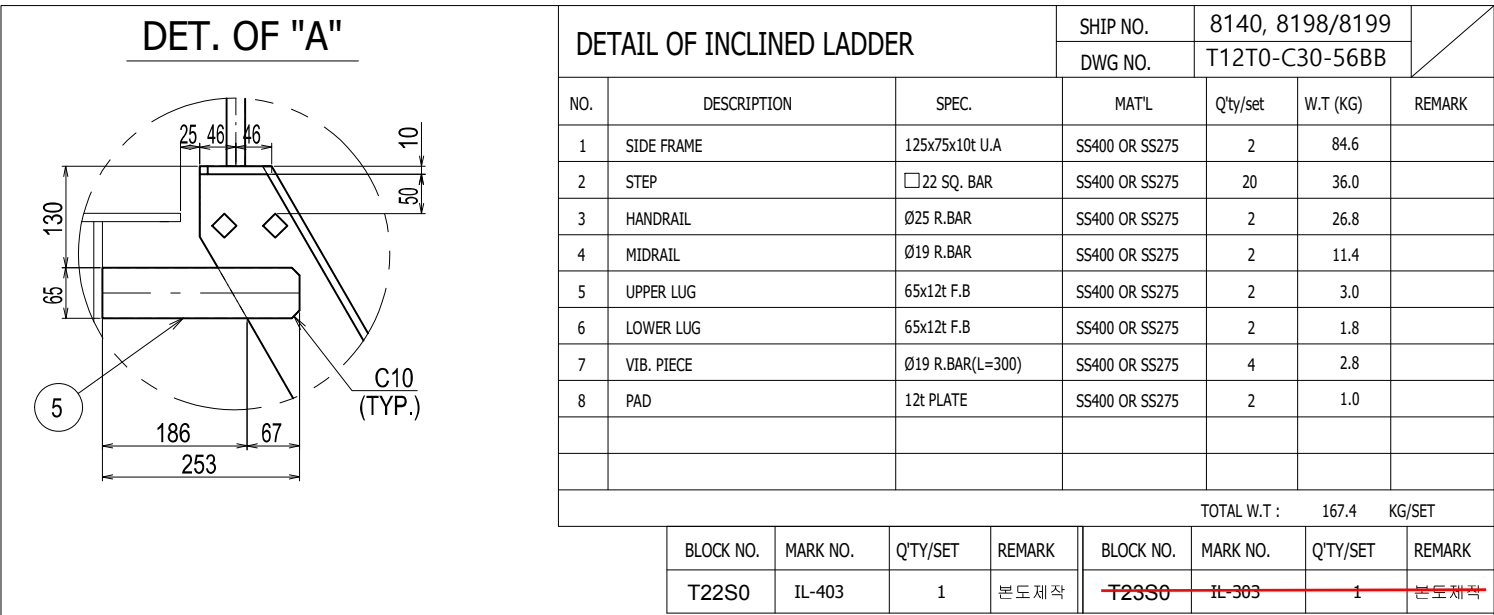
BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
T22S0	IL-402	1	본도제작	<del>T23S0</del>	<del>IL-302</del>	<del>1</del>	<del>본도제작</del>



LADDER BREADTH : 450mm  
HANDRAIL BREADTH : 650mm



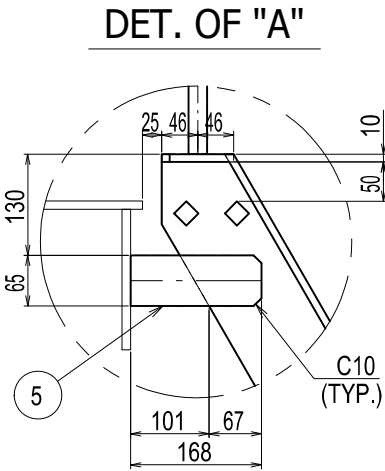
LADDER BREADTH : 450mm  
HANDRAIL BREADTH : 650mm







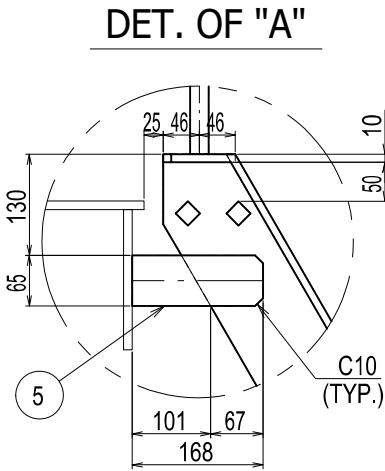
DETAIL OF INCLINED LADDER			SHIP NO.	8140, 8198/8199			
			DWG NO.	T12T0-C30-56BB			
NO.	DESCRIPTION	SPEC.	MAT'L	Q'ty/set	W.T (KG)	REMARK	
1	SIDE FRAME	125x75x10t U.A	SS400 OR SS275	2	83.4		
2	STEP	□ 22 SQ. BAR	SS400 OR SS275	20	36.0		
3	HANDRAIL	Ø25 R.BAR	SS400 OR SS275	2	26.6		
4	MIDRAIL	Ø19 R.BAR	SS400 OR SS275	2	11.2		
5	UPPER LUG	65x12t F.B	SS400 OR SS275	2	2.0		
6	LOWER LUG	65x12t F.B	SS400 OR SS275	2	1.8		
7	VIB. PIECE	Ø19 R.BAR(L=300)	SS400 OR SS275	4	2.8		
8	PAD	12t PLATE	SS400 OR SS275	2	1.0		
				TOTAL W.T : 164.8		KG/SET	
BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
T12S0	IL-407	1	본도 제작	<del>T13S0</del>	<del>IL-307</del>	<del>1</del>	<del>본도 제작</del>



BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
T12S0	IL-407	1	본도 제작	<del>T13S0</del>	<del>IL-307</del>	<del>1</del>	<del>본도 제작</del>

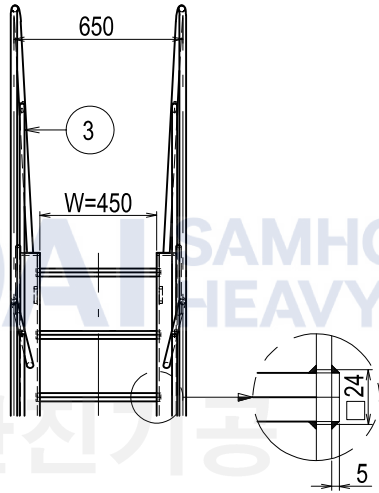
DETAIL OF INCLINED LADDER			SHIP NO.		8140, 8198/8199		08
			DWG NO.		T12T0-C30-56BB		
NO.	DESCRIPTION	SPEC.	MAT'L	Q'ty/set	W.T (KG)	REMARK	
1	SIDE FRAME	125x75x10t U.A	SS400 OR SS275	2	82.7		
2	STEP	□ 22 SQ. BAR	SS400 OR SS275	20	36.0		
3	HANDRAIL	Ø25 R.BAR	SS400 OR SS275	2	26.5		
4	MIDRAIL	Ø19 R.BAR	SS400 OR SS275	2	11.2		
5	UPPER LUG	65x12t F.B	SS400 OR SS275	2	2.0		
6	LOWER LUG	65x12t F.B	SS400 OR SS275	2	1.8		
7	VIB. PIECE	Ø19 R.BAR(L=300)	SS400 OR SS275	4	2.8		
8	PAD	12t PLATE	SS400 OR SS275	2	1.0		
TOTAL W.T :					164.0	KG/SET	

BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
T12S0	IL-408	1	본도 제작	<del>T13S0</del>	<del>IL-308</del>	<del>1</del>	<del>본도 제작</del>

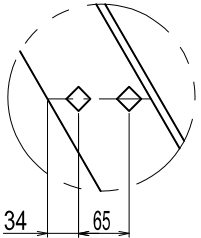


BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
T12S0	IL-408	1	본도 제작	<del>T13S0</del>	<del>IL-308</del>	<del>1</del>	<del>본도 제작</del>

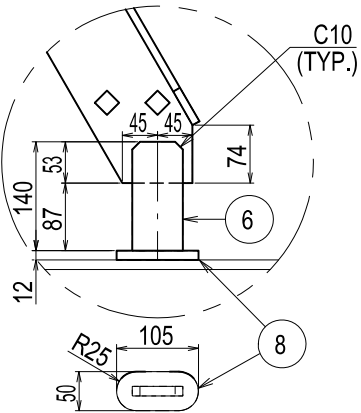
VIEW "E"



DET. OF "C"

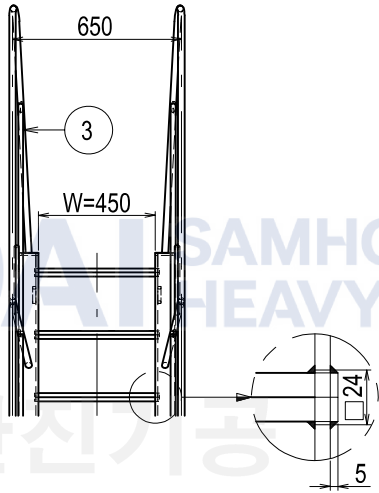


DET. OF "B"

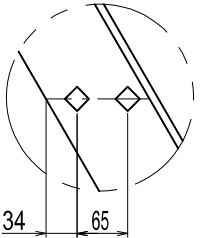


LADDER BREADTH : 450mm  
HANDRAIL BREADTH : 650mm

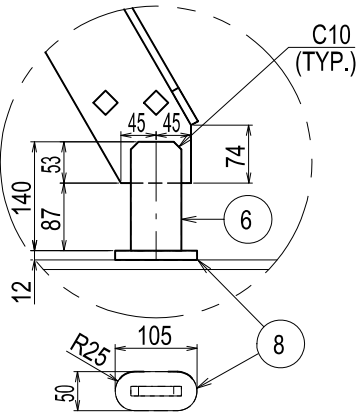
VIEW "E"



DET. OF "C"



DET. OF "B"



LADDER BREADTH : 450mm  
HANDRAIL BREADTH : 650mm

Technical drawing of a C10 (TYP.) component. The drawing shows a cross-section of a mechanical part with various dimensions and callouts. The main dimensions are: 130 (total height), 65 (height of the lower section), 186 (width of the lower section), 253 (total width), 67 (width of the upper section), 25 (width of the top flange), 46 (width of the top flange), 46 (width of the top flange), 10 (width of the top flange), 50 (width of the top flange), and 65 (height of the lower section). The component is labeled C10 (TYP.) and has a callout 5 pointing to a specific feature.

BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
T12S0	IL-409	1	본도 제작	<del>T13S0</del>	<del>IL-309</del>	<del>1</del>	<del>본도 제작</del>

Technical drawing of a heavy-duty ladder. The side view shows a total height of 650 and a width of W=450. A circular callout with the number 3 points to the side rail. The top view shows a circular base with a diameter of 24 and a central mounting hole with a diameter of 5.

[illegible]

BLOCK NO.	MARK NO.	Q'TY/SET	REMARK	BLOCK NO.	MARK NO.	Q'TY/SET	REMARK
T12S0	IL-410	1	본도제작	<del>T13S0</del>	<del>IL 310</del>	<del>1</del>	<del>본도제작</del>

Technical drawing of a staircase railing system. The drawing includes the following dimensions and labels:

- Horizontal dimensions at the top: 34 and 65.
- Vertical dimensions on the left: 1000 (total height), 6260 A/B (height to the top rail), 3044 (height to the bottom rail), and 294 (height to the base).
- Horizontal dimension on the left: STEP PITCH : 250 X 11 = 2750.
- Radius label: R50.
- Callout numbers: 1, 2, and 3.
- Text at the bottom right: TACK WELDING 하부 LUG는 BL PE 장 에서

Technical drawing of a ladder with the following specifications:

- Overall width: 650
- Inner width: W=450
- Part 3 is indicated by a circle and an arrow pointing to the side rail.
- Assembly instruction: 본 위치에 필히 TACK WELDING하여 입고할 (Must tack weld at this position and then install).

Technical drawing of a window frame cross-section. The drawing shows a C50 profile with a total width of 884. The inner opening width is 564, and the outer width is 399. The height of the frame is 15. The drawing is labeled with 'C50' and 'FR58' (with 'FR70' crossed out). Callouts 9 and 10 point to specific parts of the frame.

LADDER BREADTH : 450mm

HANDRAIL BREADTH : 650mm