



## PLAN HISTORY

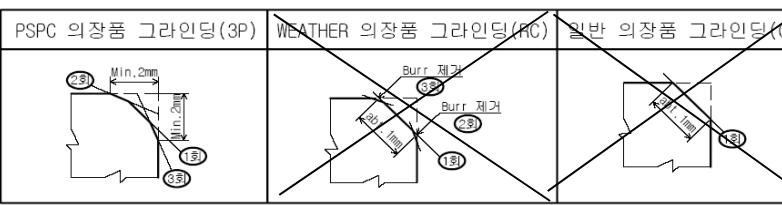
DATE	REV. NO.	DESCRIPTION	DRAWN	CHECKED	APPROVED
2023. 01. 09	O	8140, 8189/8199 호선 LADDER & PLATFORM FOR NO.1 COFFERDAM 제작 도면으로 작성함.	이 승 안	김 광 백	정 호 진

HYUNDAI  
SAMHO HEAVY INDUSTRIES  
(주)한진기공

## NOTE

1. 본도는 LADDER & PLATFORM FOR NO.1 COFFERDAM 제작 도면임.

2. 모서리 부분은 하기와 같이 GRINDING 할 것.



3. 용접은 특기외 하기 표 참조하고 연속 용접 할 것.

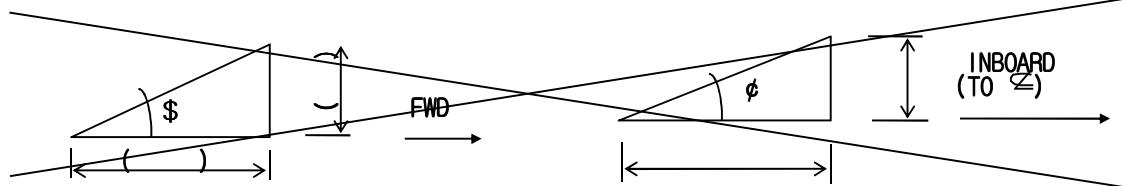
\* THE LEG LENGTH OF FILLET WELD TO BE AS FOLLOWS.

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, 야드에서 정방향 설치시 나사판의 위치가 불일치 되지 않도록 구멍의 간격을 잘 유지하여 입고 할 것.

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

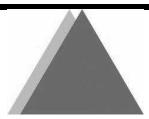
9. 그리스 니쁠 : JIS B 1571 A-PT 1/8" BALL TYPE 러버캡을 씌울것( MAT'L : BRASS )

10. P.O.R NO. : JT4

11. TOTAL WEIGHT : 2700.1 KG/SHIP

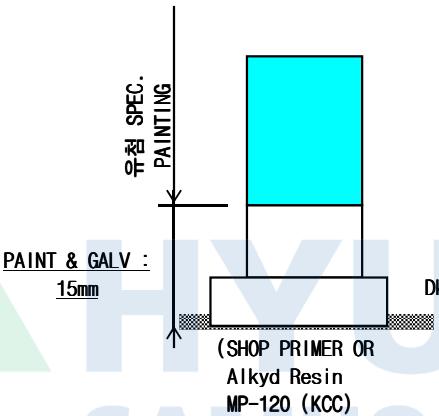
(표지 포함 18 매)

DEPT.	SHIP NO.	SHIP TYPE
B126	8140, 8198/8199	174,000 CBM CLASS LNGC [MEGA-TWIN SCREW]
TEL.	부서명 2907 선 장 설 계 부	도 면 명
승 인 검 도 작 성	정 호 진 김 광 백 이 승 안	LADDER & PLATFORM FOR NO.1 COFFERDAM 제 작 도
		도 면 번 호 T15T0-C30-56BB - 0
		날 짜 2023. 01. 09



## 製作仕様書(외주구매용)

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



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 끓음 WIRE(철사)는 필히 부식 방지용 COATING WIRE를 사용하여 입고시킬 것.
  11. 의장품 자재 입고시 상.하.좌.우로 움직일수 있는 항목들은 상기 10)번 항에 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 익폐 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.

## 제작품별 납기 LIST

SHIP

8140, 8198/8199

01

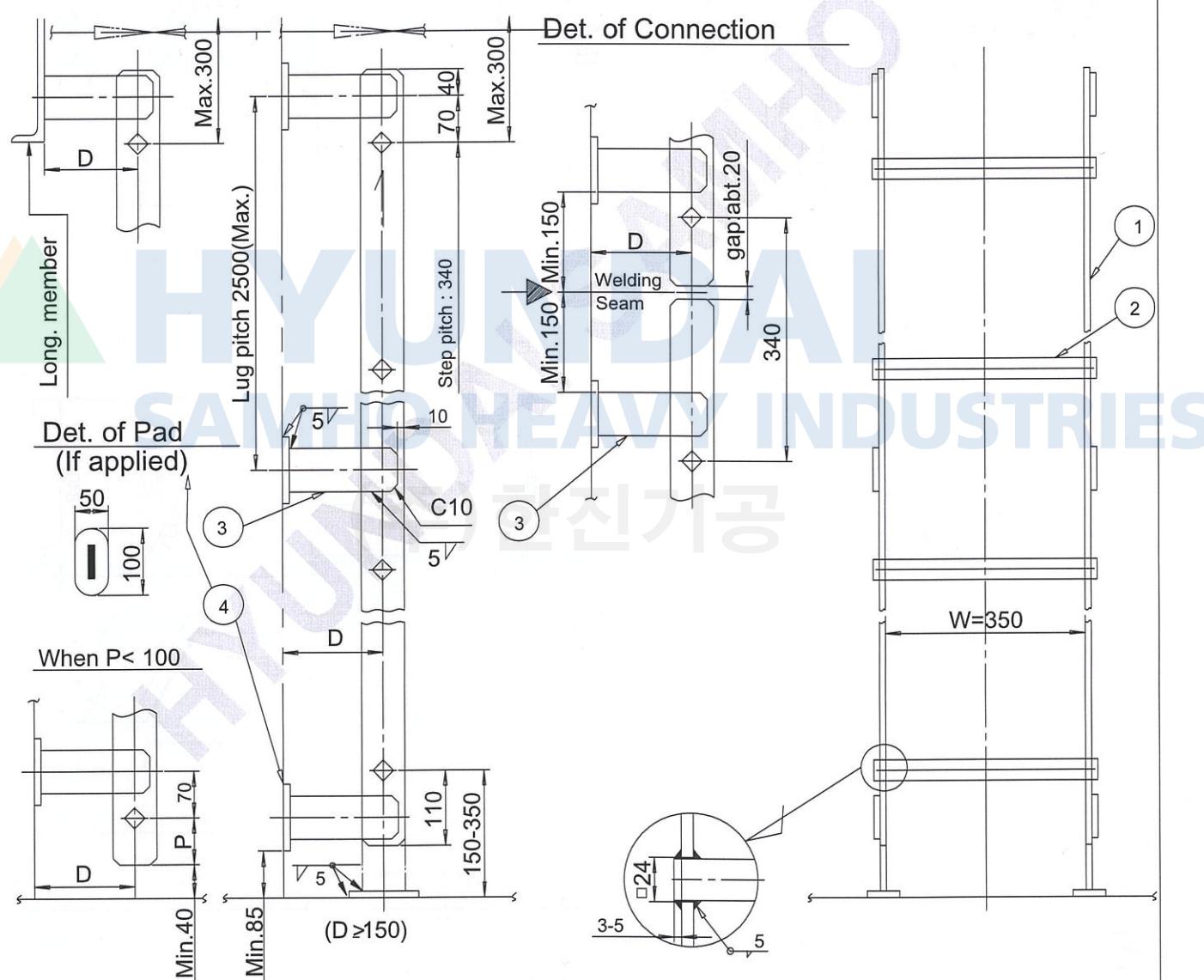


## Vertical Ladder (VL-A)

(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	

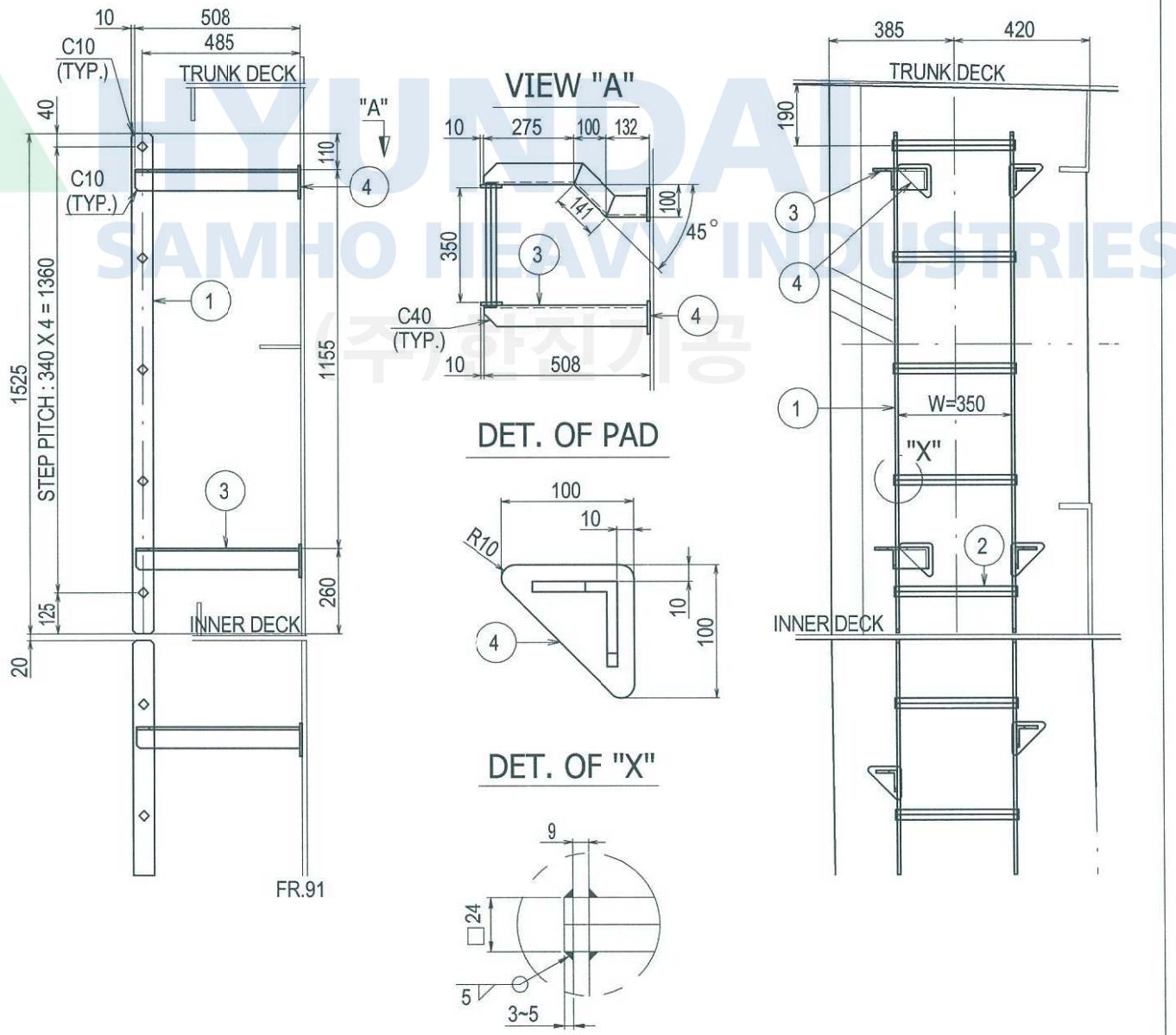
&lt; FOR REFERENCE &gt;



DET. OF VERTICAL LADDER			SHIP NO.	8140,8198/8199	/	
			DWG NO.	T15T0-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	17.0	
4	PAD	10t PLATE	SS400 OR SS275	4	2.0	

## NOTE

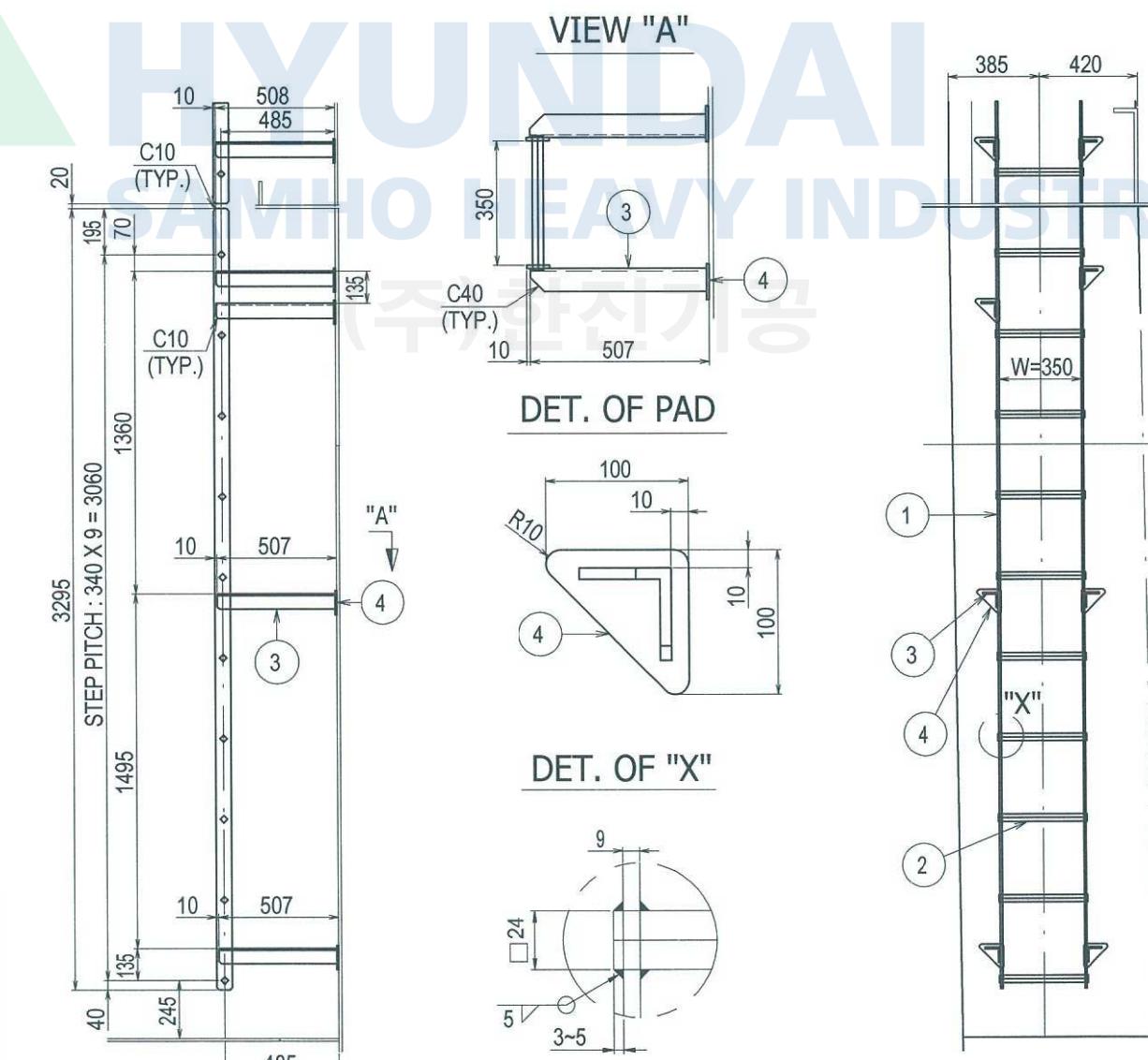
1. MARK NO. : VL-101
2. 제작수량 : 1 SET/SHIP
3. BLOCK NO.: D21C0



DET. OF VERTICAL LADDER			SHIP NO.	8140,8198/8199	03	
			DWG NO.	T15T0-C30-56BB		
NO.	DESCRIPTION	SIZE	MAT'L	Q'TY/SET	W.T (kg)	REMARK
1	SIDE FRAME	65x9t F.B	SS400 OR SS275	2	30.3	
2	STEP	22 SQ.B	SS400 OR SS275	10	14.0	
3	LUG	65x65x8t E.A	SS400 OR SS275	6	24.2	
4	PAD	10t PLATE	SS400 OR SS275	6	3.0	

## NOTE

1. MARK NO. : VL-102
2. 제작수량 : 1 SET/SHIP
3. BLOCK NO.: T25S0





# DETAIL OF VERTICAL LADDER

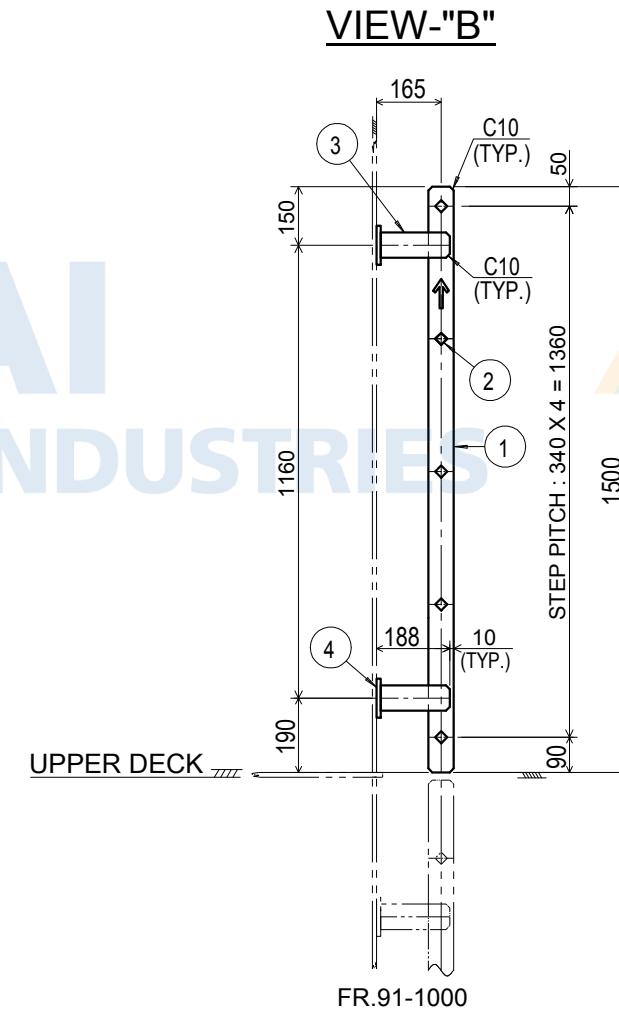
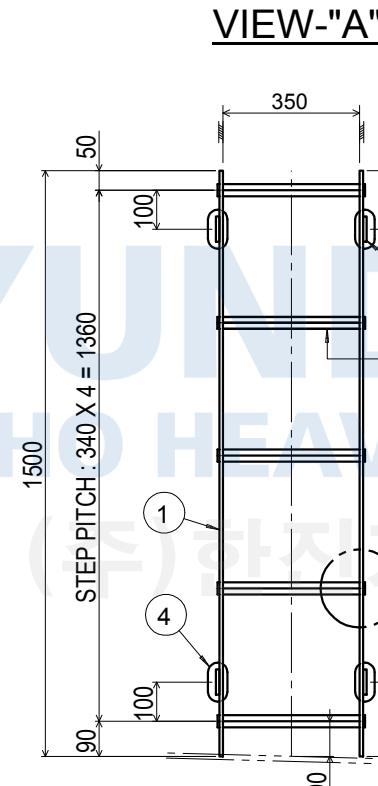
\* STEP PITCH : 340 임에 유의할 것.

SHIP NO.	8140,8198/8199	04
DWG NO.	T15T0-C30-56BB	

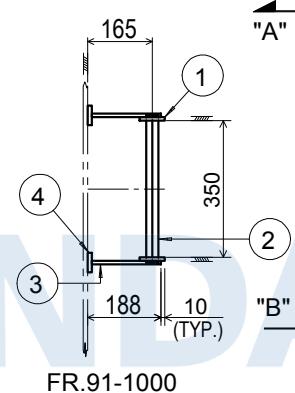
BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
T25AL(S)	VL-C101	1	26.5	본도 제작

설치 BLOCK

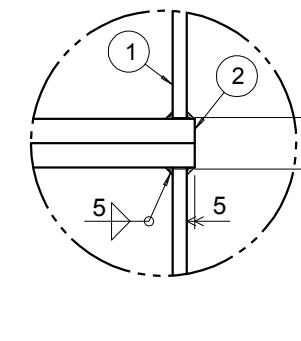
T25AL(S)  
(T25S)



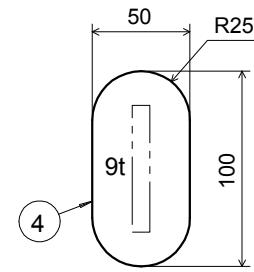
PLAN



DETAIL OF "X"



DETAIL OF "PAD"



4	PAD	9t PLATE	SS400 or SS275	4	1.4	
3	LUG	65 X 9t F.B	SS400 or SS275	4	3.9	
2	STEP	22 SQ.BAR	SS400 or SS275	5	7.2	
1	SIDE FRAME	65 X 9t F.B	SS400 or SS275	2	14.0	
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK



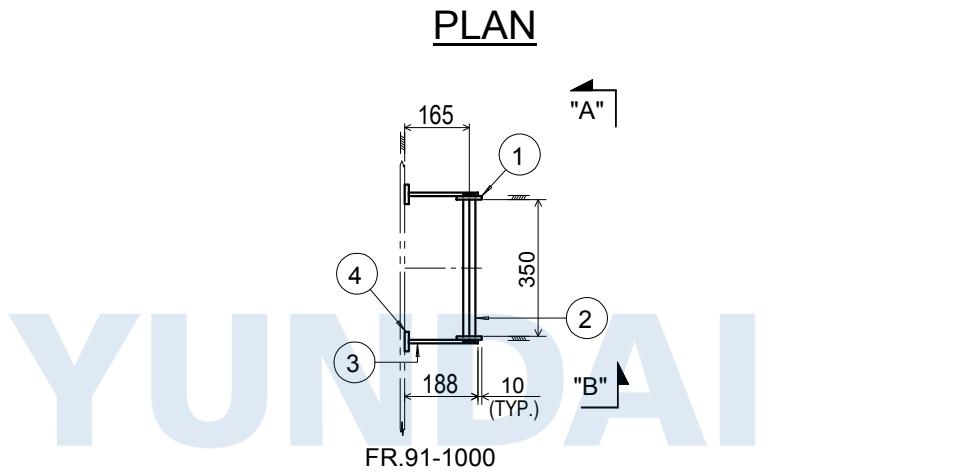
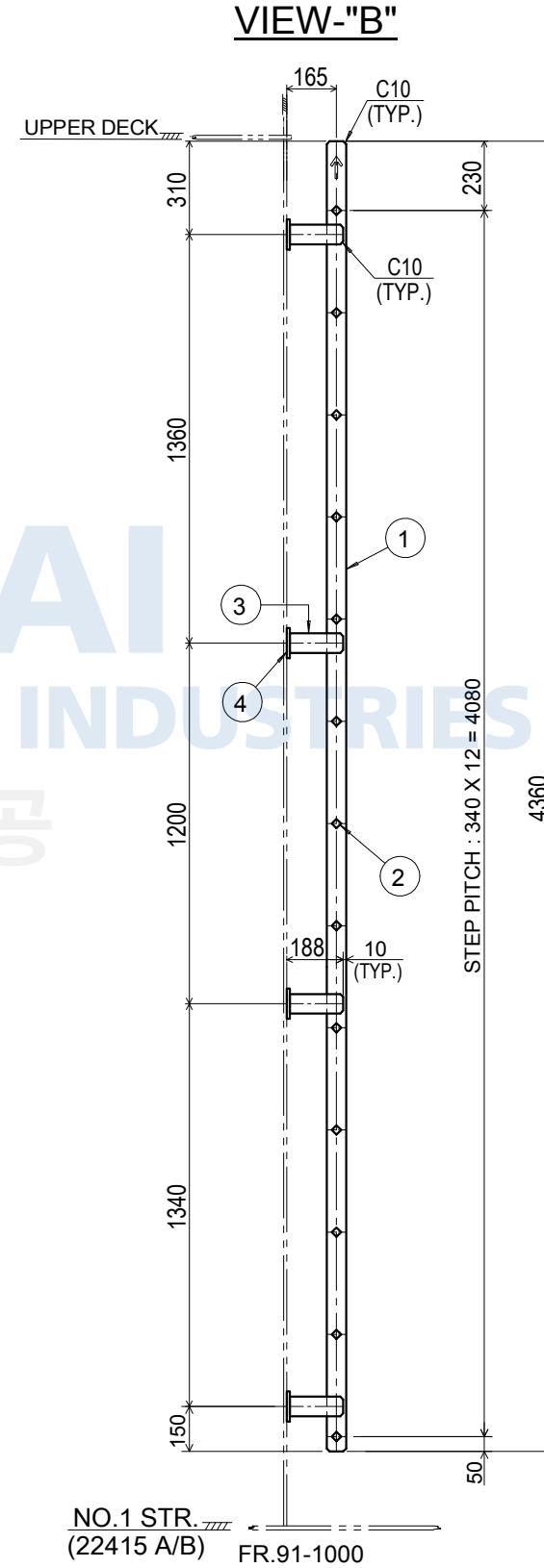
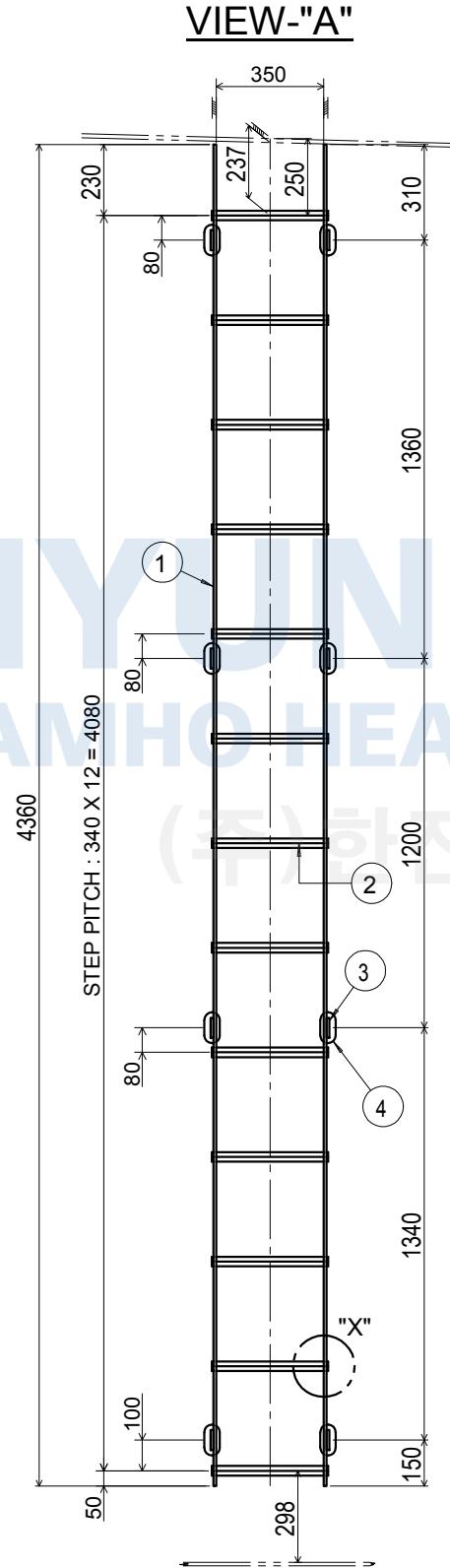
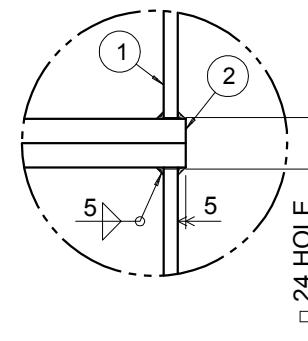
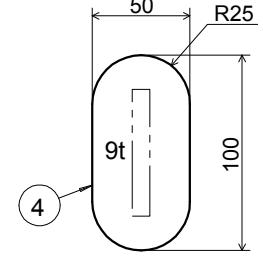
## DETAIL OF VERTICAL LADDER

※ STEP PITCH : 340 임에 유의할 것.

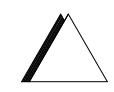
SHIP NO.	8140,8198/8199	05
DWG NO.	T15T0-C30-56BB	

BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
T25AL(S)	VL-C102	1	68.8	본도 제작

설치 BLOCK

T25AL(S)  
(T25S)**DETAIL OF "X"****DETAIL OF "PAD"**

NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
4	PAD	9t PLATE	SS400 or SS275	8	2.8	
3	LUG	65 X 9t F.B.	SS400 or SS275	8	7.3	
2	STEP	22 SQ.BAR	SS400 or SS275	13	18.7	
1	SIDE FRAME	65 X 9t F.B.	SS400 or SS275	2	40.0	
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK



# DETAIL OF VERTICAL LADDER

\* STEP PITCH : 340 임에 유의할 것.

SHIP NO. 8140,8198/8199  
06

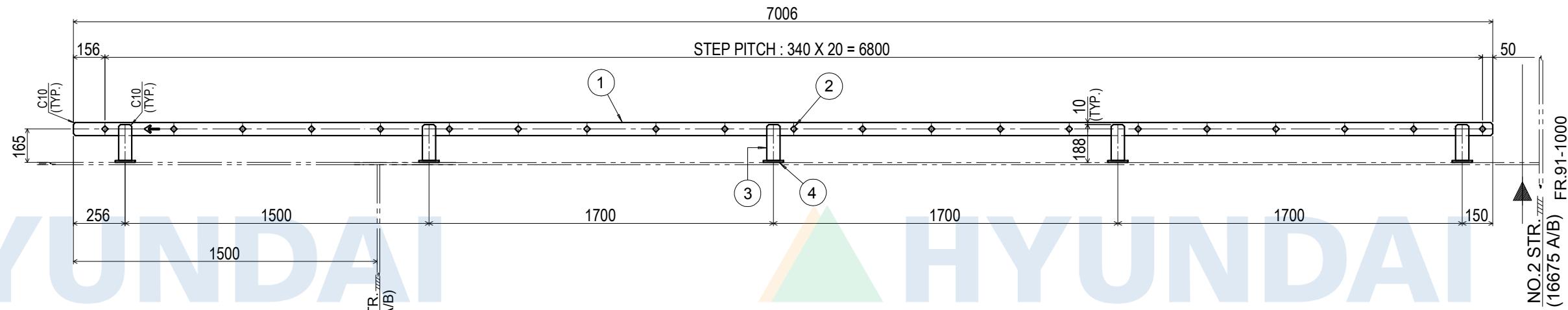
DWG NO. T15T0-C30-56BB

BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
T25AL(S)	VL-C103	1	108.1	본도 제작

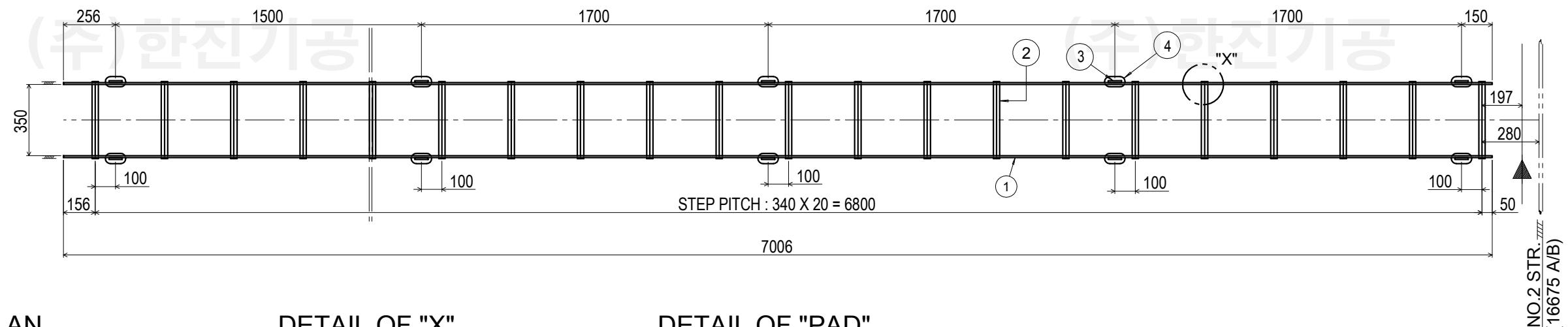
설치 BLOCK

T25AL(S)  
(T25S)

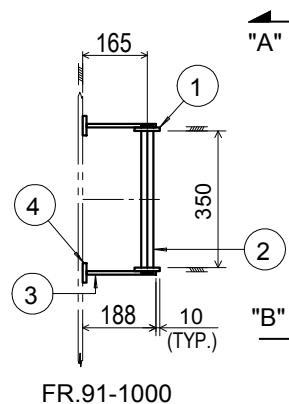
VIEW-B



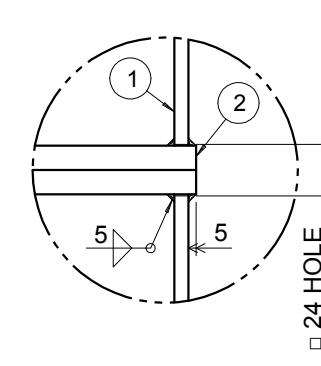
VIEW-A



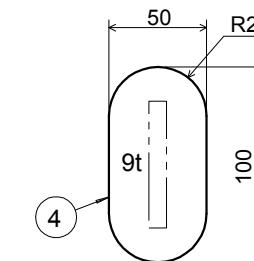
PLAN



DETAIL OF "X"



DETAIL OF "PAD"



NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
4	PAD	9t PLATE	SS400 or SS275	10	3.5	
3	LUG	65 X 9t F.B.	SS400 or SS275	10	9.0	
2	STEP	22 SQ.BAR	SS400 or SS275	21	31.2	
1	SIDE FRAME	65 X 9t F.B.	SS400 or SS275	2	64.4	
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK



# DETAIL OF VERTICAL LADDER

\* STEP PITCH : 340 임에 유의할 것.

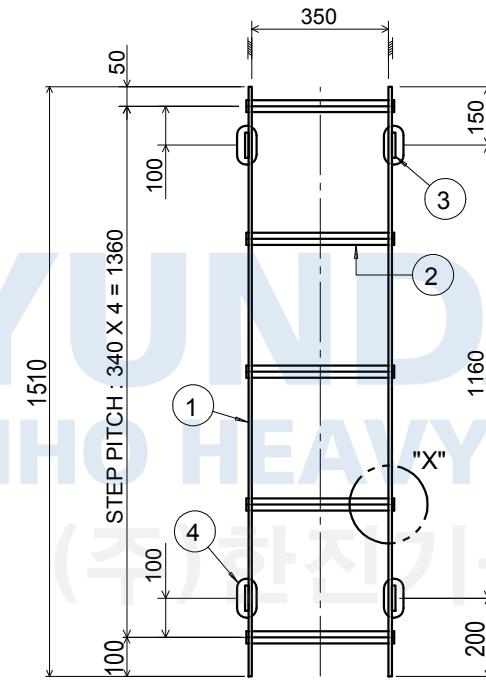
SHIP NO.	8140.8198/8199	07
DWG NO.	T15T0-C30-56BB	

BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
T25AL(S)	VL-C104	1	26.2	본도 제작

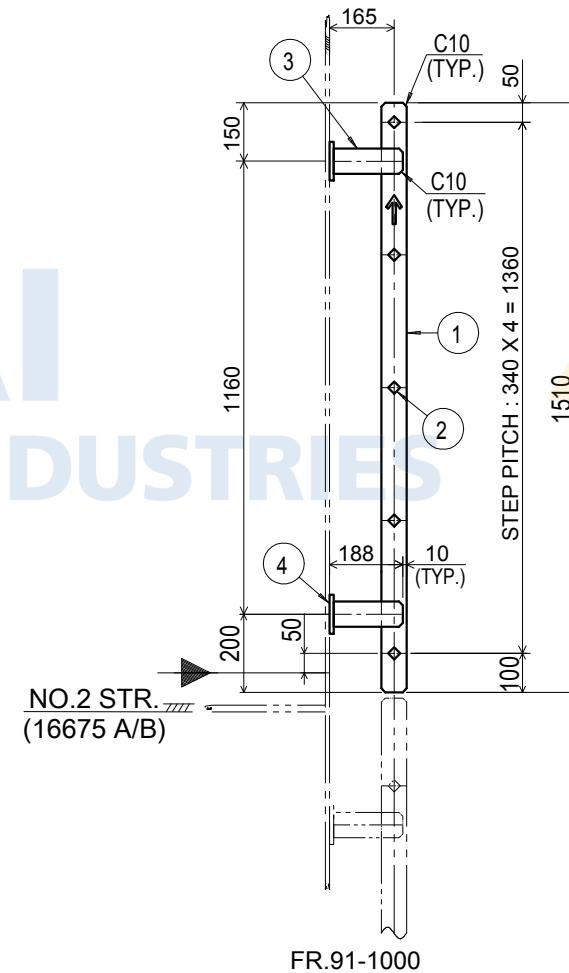
설치 BLOCK

T25AL(S)  
(T25S)

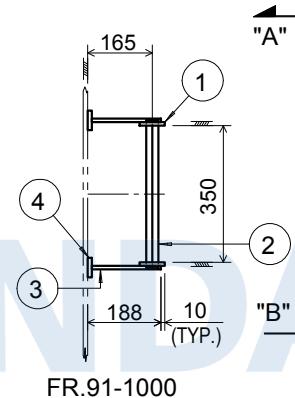
VIEW-A"



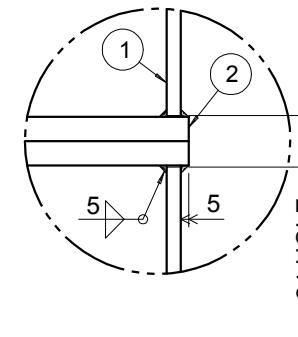
VIEW-B"



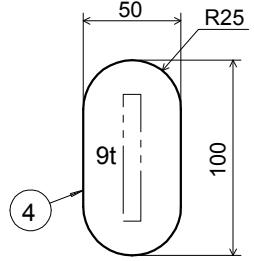
PLAN



DETAIL OF "X"



DETAIL OF "PAD"



NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
4	PAD	9t PLATE	SS400 or SS275	4	1.4	
3	LUG	65 X 9t F.B	SS400 or SS275	4	3.4	
2	STEP	22 SQ.BAR	SS400 or SS275	5	7.4	
1	SIDE FRAME	65 X 9t F.B	SS400 or SS275	2	14.0	
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK



# DETAIL OF VERTICAL LADDER

\* STEP PITCH : 340 임에 유의할 것.

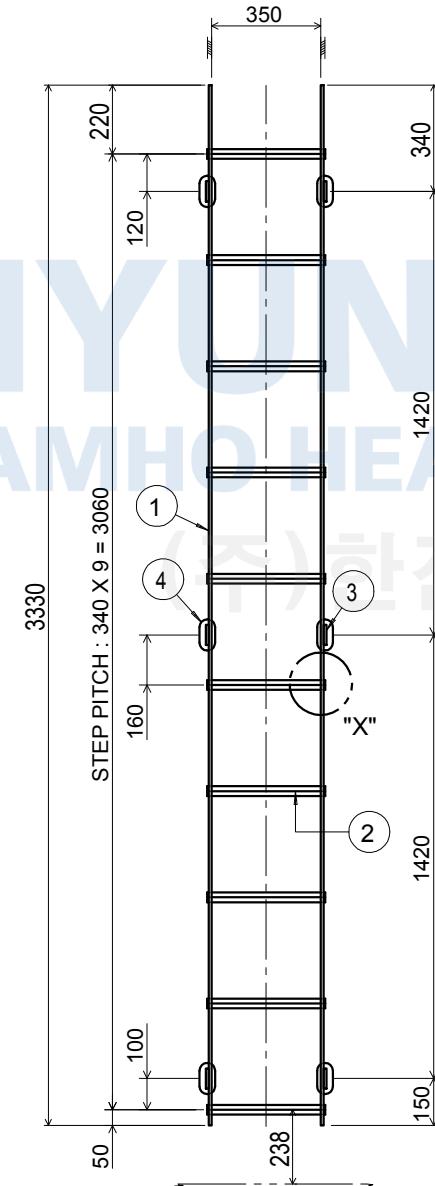
SHIP NO.	8140,8198/8199	08
DWG NO.	T15T0-C30-56BB	

BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
T15AL(S)	VL-C105	1	51.5	본도 제작

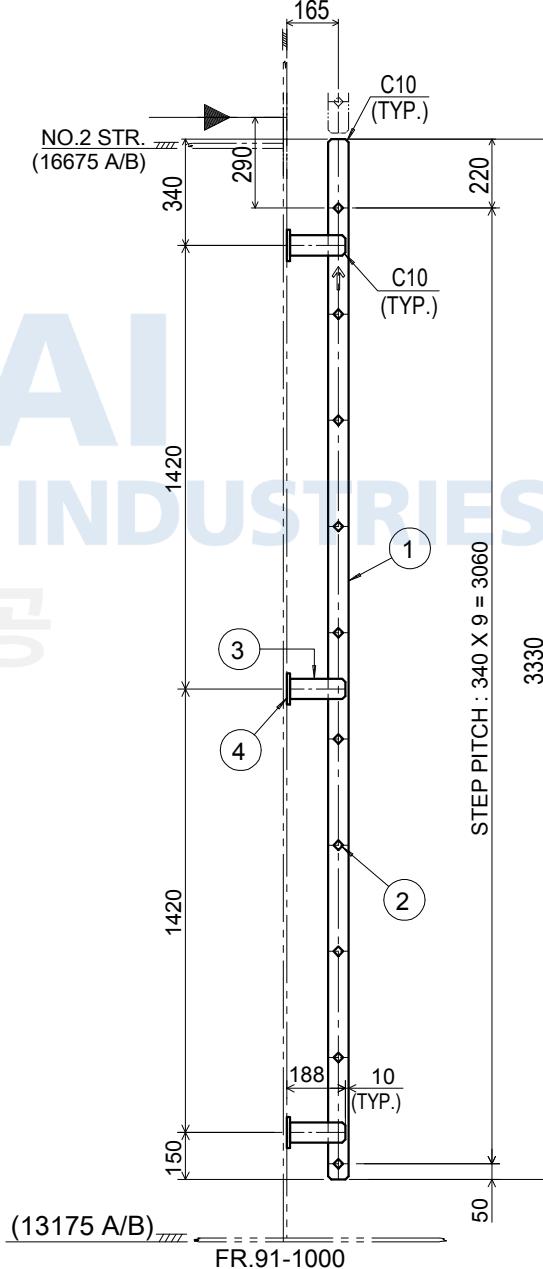
설치 BLOCK

T15AL(S)  
(T15S)

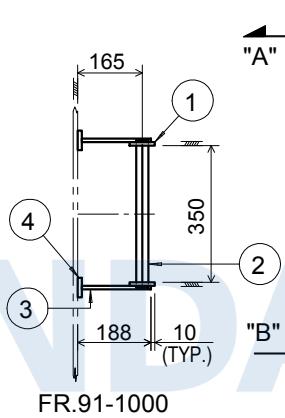
VIEW-A



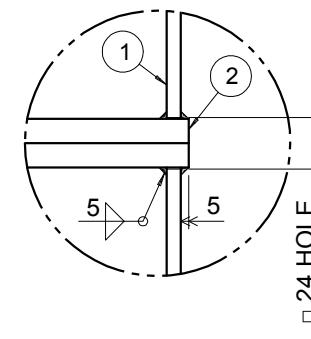
VIEW-B



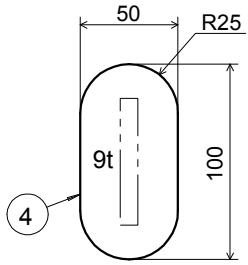
PLAN



DETAIL OF "X"



DETAIL OF "PAD"



NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
4	PAD	9t PLATE	SS400 or SS275	6	2.1	
3	LUG	65 X 9t F.B.	SS400 or SS275	6	5.1	
2	STEP	22 SQ.BAR	SS400 or SS275	10	13.6	
1	SIDE FRAME	65 X 9t F.B.	SS400 or SS275	2	30.7	



# DETAIL OF VERTICAL LADDER

\* STEP PITCH : 340 임에 유의할 것.

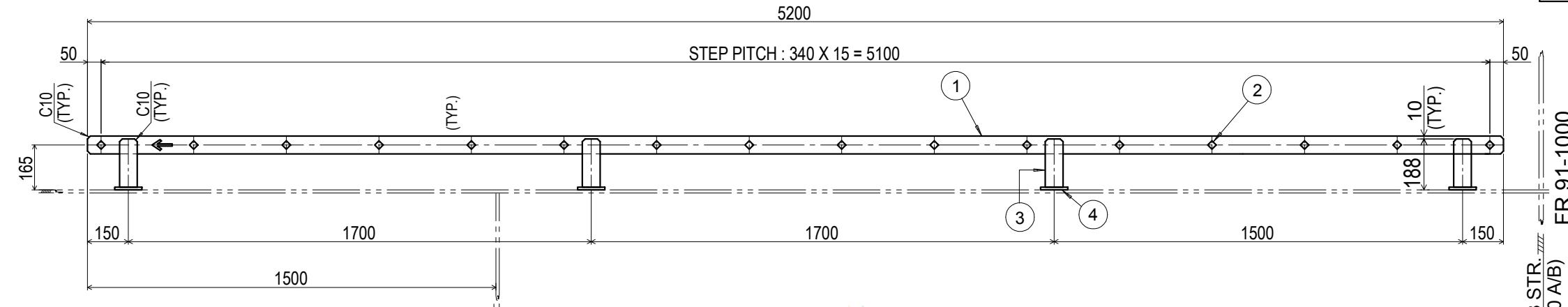
SHIP NO.	8140,8198/8199	09
DWG NO.	T15T0-C30-56BB	

BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
T15AL(S)	VL-C106	1	81.7	본도 제작

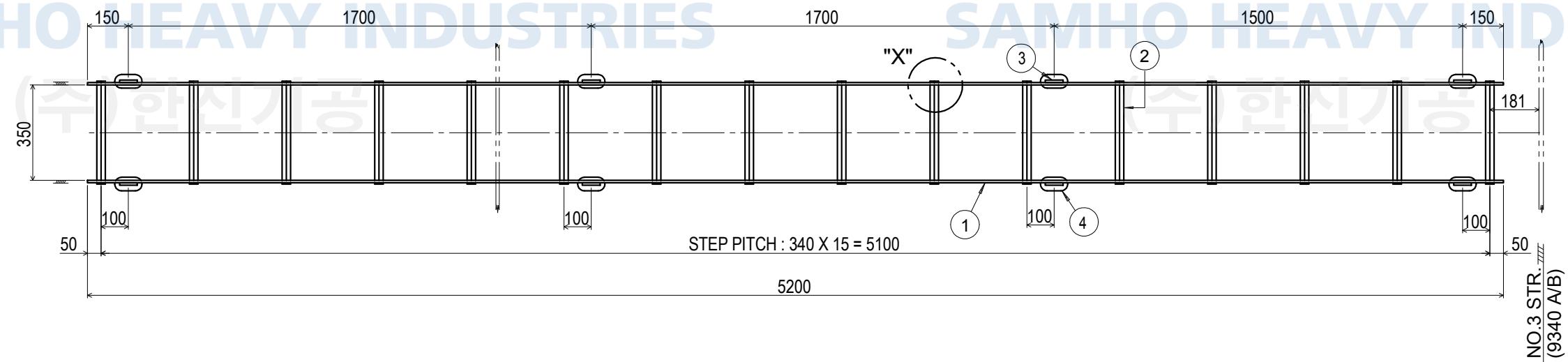
설치 BLOCK

**T15AL(S)  
(T15S)**

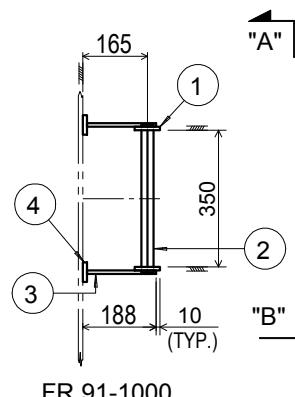
VIEW-"B"



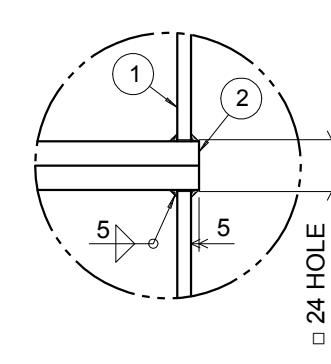
VIEW-A



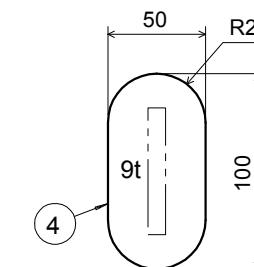
PLAN



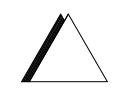
DETAIL OF "X"



DETAIL OF "PAD"



NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
4	PAD	9t PLATE	SS400 or SS275	8	2.8	
3	LUG	65 X 9t F.B.	SS400 or SS275	8	7.2	
2	STEP	22 SQ.BAR	SS400 or SS275	16	23.8	
1	SIDE FRAME	65 X 9t F.B.	SS400 or SS275	2	47.9	
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK



# DETAIL OF VERTICAL LADDER

\* STEP PITCH : 340 임에 유의할 것.

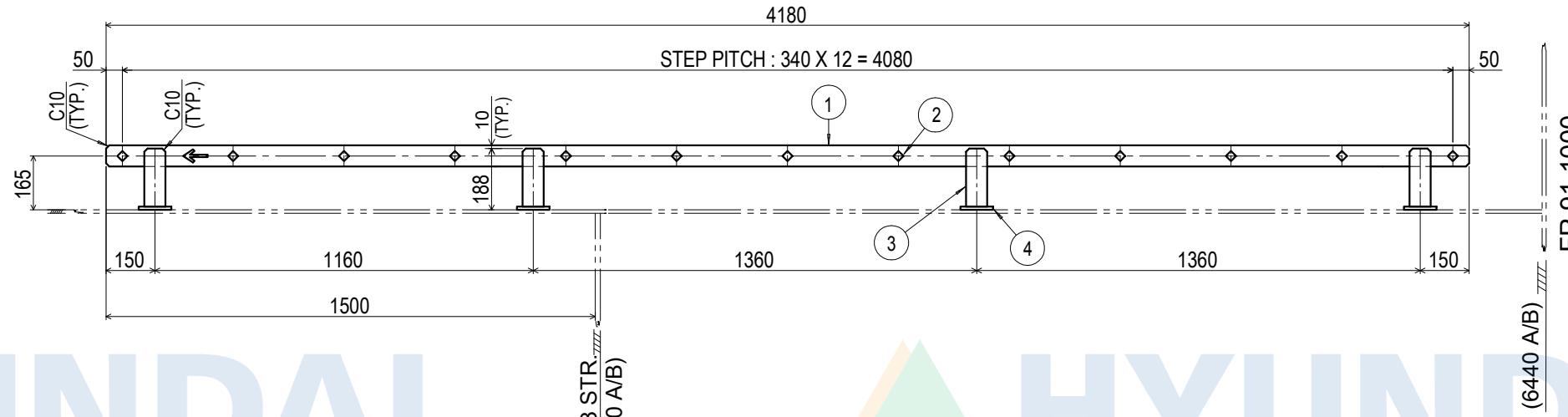
SHIP NO.	8140,8198/8199	10
DWG NO.	T15T0-C30-56BB	

BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
T15AL(S)	VL-C107	1	68.4	본도 제작

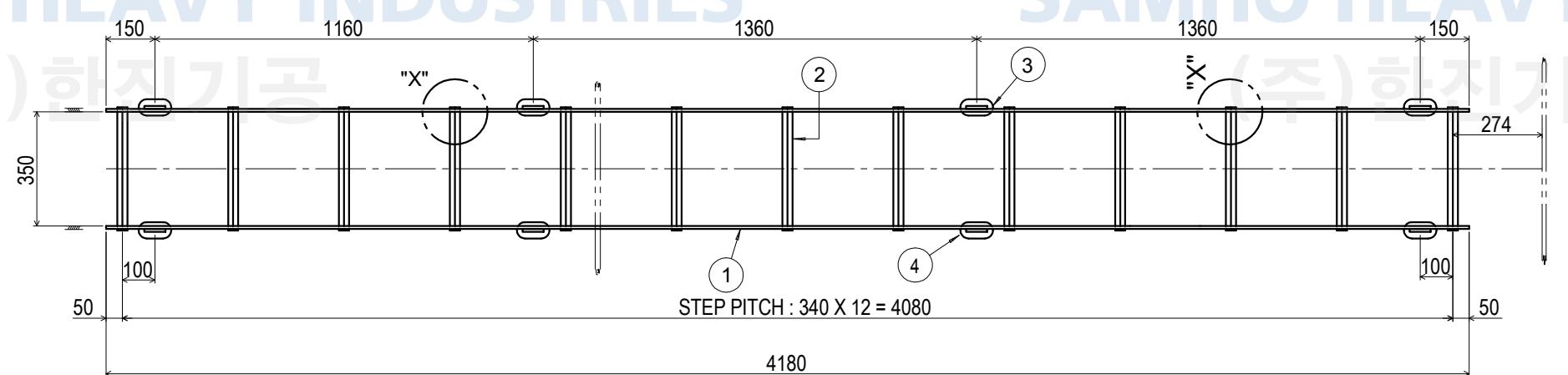
설치 BLOCK

T15AL(S)  
(T15S)

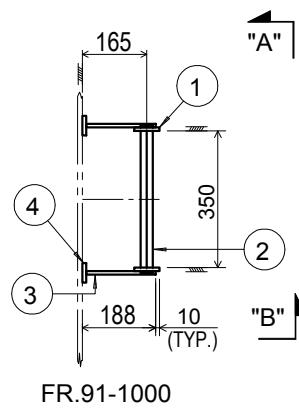
VIEW-"B"



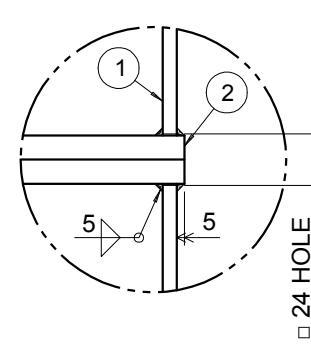
VIEW-"A"



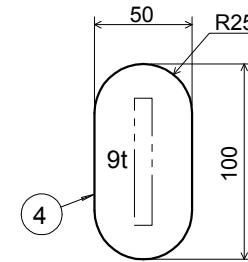
PLAN



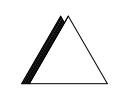
DETAIL OF "X"



DETAIL OF "PAD"



4	PAD	9t PLATE	SS400 or SS275	8	2.8	
3	LUG	65 X 9t F.B.	SS400 or SS275	8	7.8	
2	STEP	22 SQ.BAR	SS400 or SS275	13	19.3	
1	SIDE FRAME	65 X 9t F.B.	SS400 or SS275	2	38.5	
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK



# DETAIL OF VERTICAL LADDER

\* STEP PITCH : 340 임에 유의할 것.

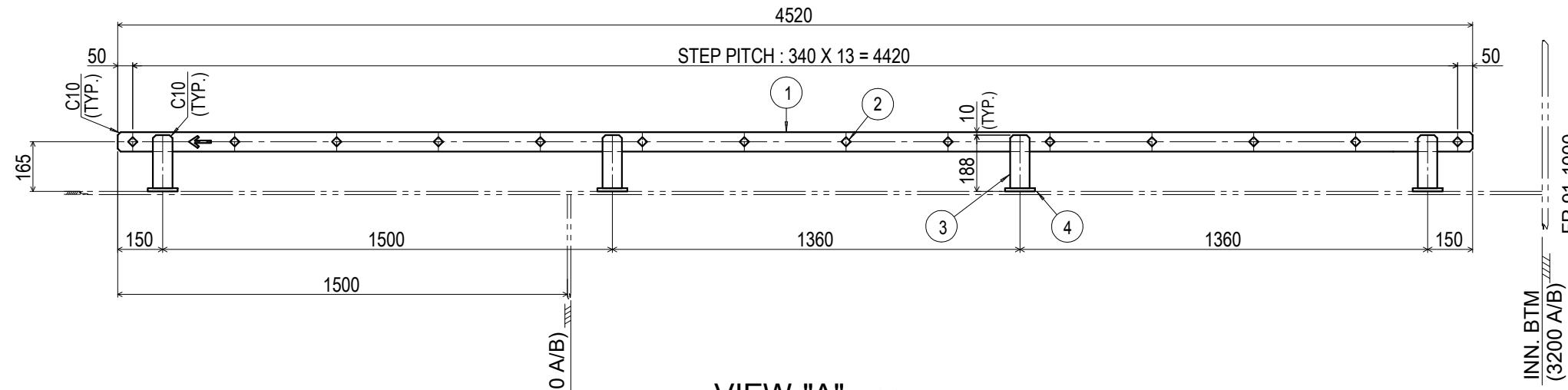
SHIP NO.	8140,8198/8199	11
DWG NO.	T15T0-C30-56BB	

BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
T15AL(S)	VL-C108	1	73.0	본도 제작

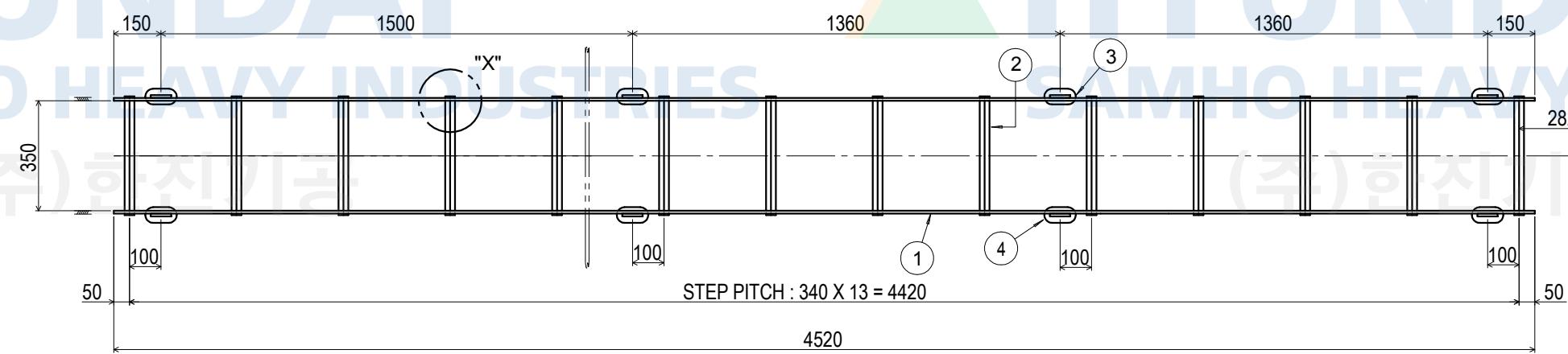
설치 BLOCK

**T15AL(S)  
(T15S)**

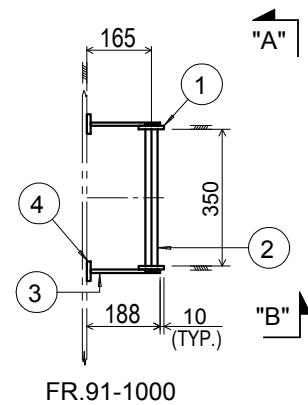
VIEW-B



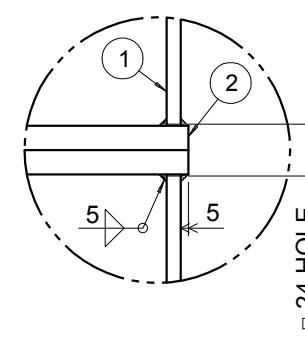
VIEW-A



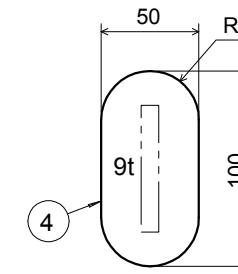
PLAN



DETAIL OF "X"



DETAIL OF "PAD"



NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK	
4	PAD	9t PLATE	SS400 or SS275	4	2.8		
3	LUG	65 X 9t F.B.	SS400 or SS275	8	7.8		
2	STEP	22 SQ.BAR	SS400 or SS275	14	20.8		
1	SIDE FRAME	65 X 9t F.B.	SS400 or SS275	2	41.6		
	NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK



# DETAIL OF VERTICAL LADDER

\* STEP PITCH : 340 임에 유의할 것.

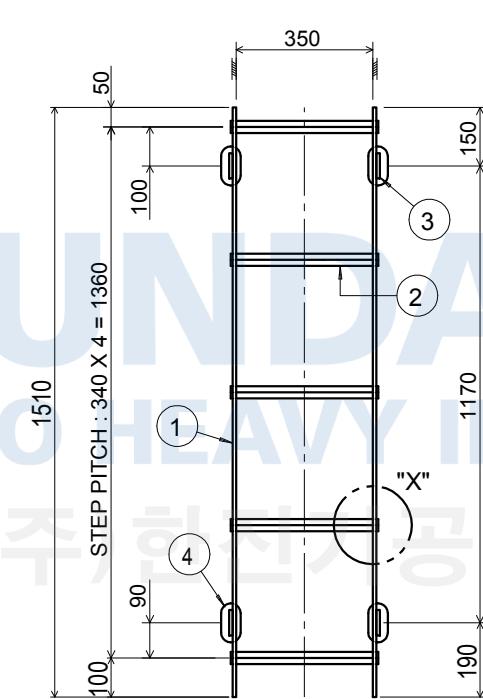
SHIP NO.	8140,8198/8199	12
DWG NO.	T15T0-C30-56BB	

BLOCK NO.	MARK NO.	Q'TY	WEIGHT(KG)	REMARK
T15AL(S)	VL-C109	1	27.2	본도 제작

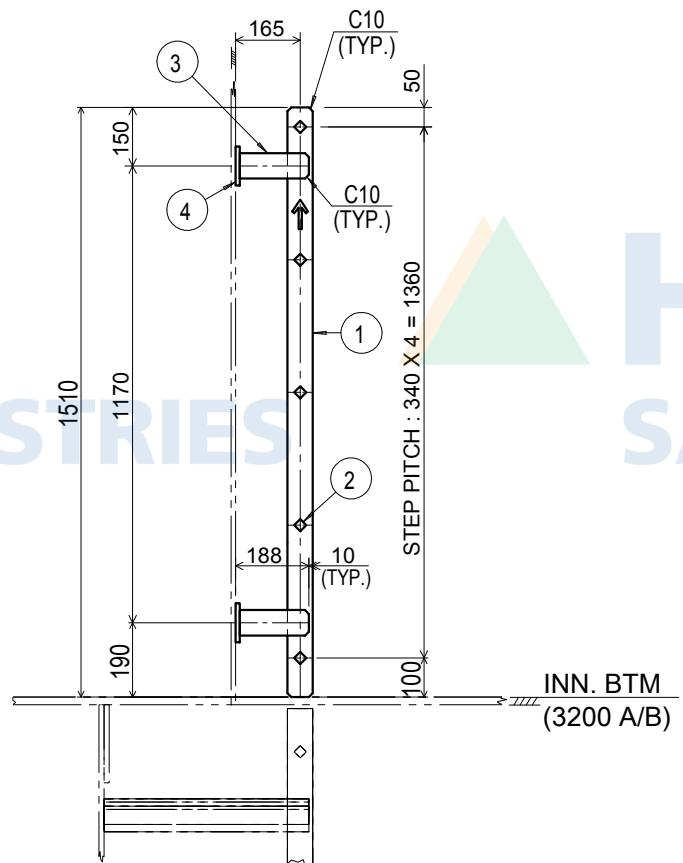
설치 BLOCK

T15AL(S)  
(T15S)

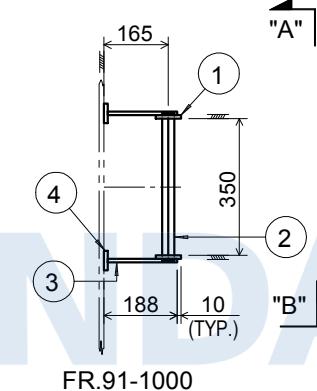
VIEW-A"



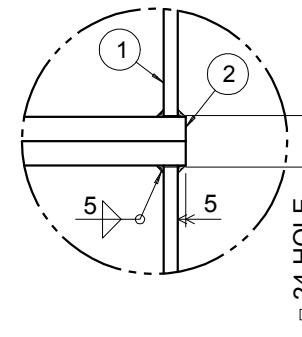
VIEW-B"



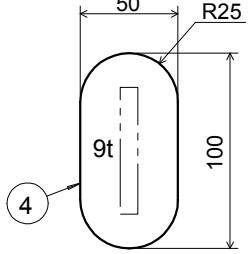
PLAN



DETAIL OF "X"

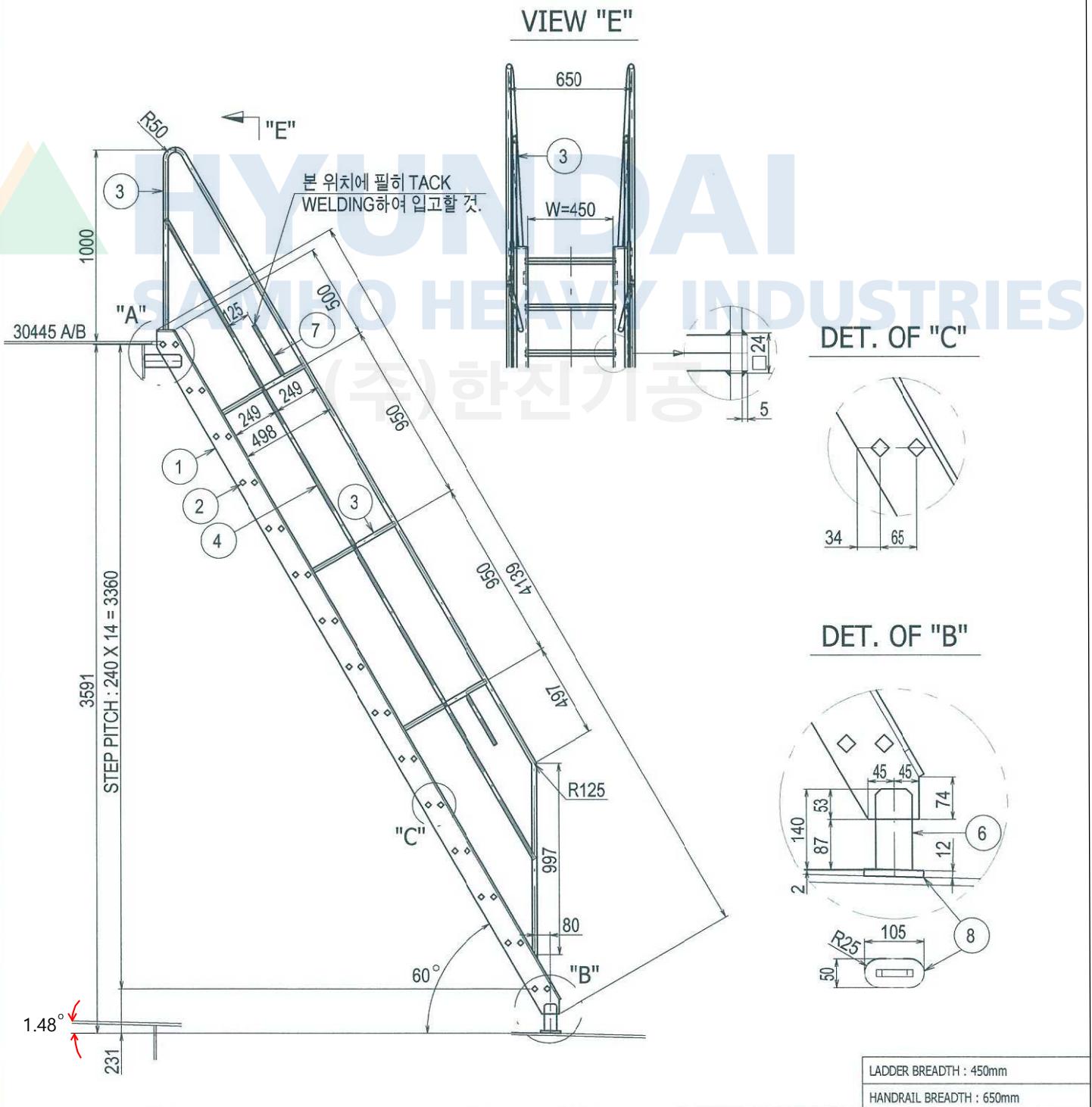


DETAIL OF "PAD"

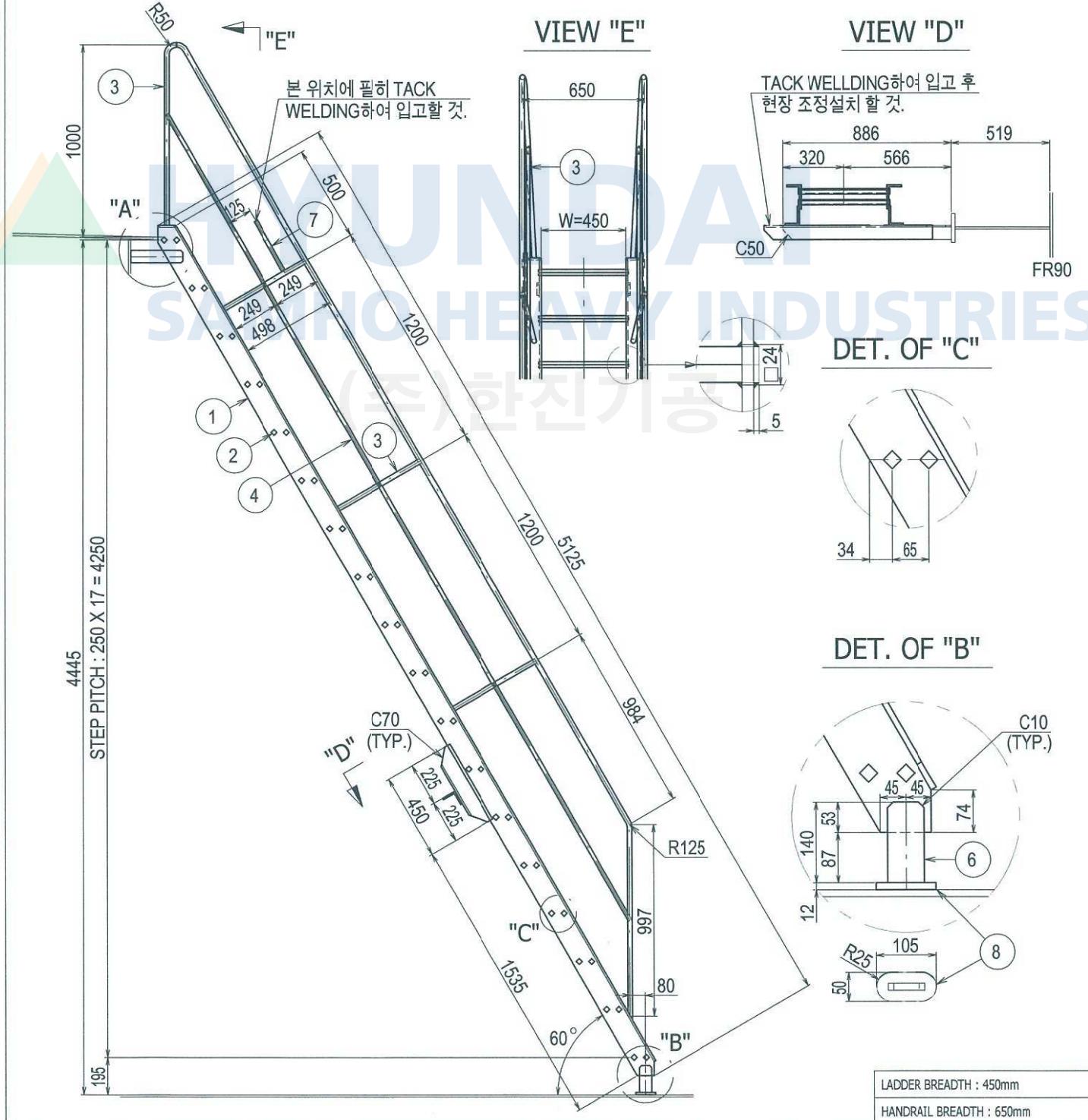


NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
4	PAD	9t PLATE	SS400 or SS275	4	1.4	
3	LUG	65 X 9t F.B	SS400 or SS275	4	3.5	
2	STEP	22 SQ.BAR	SS400 or SS275	5	7.4	
1	SIDE FRAME	65 X 9t F.B	SS400 or SS275	2	14.9	

DETAIL OF INCLINED LADDER			SHIP NO.	8140,8198/8199		
			DWG NO.	T15T0-C30-56BB		
NO.	DESCRIPTION	SPEC.	MATL	Q'ty/set	W.T (KG)	REMARK
1	SIDE FRAME	125x75x10t U.A	SS400 OR SS275	2	123.4	
2	STEP	□22 SQ. BAR	SS400 OR SS275	30	54.0	
3	HANDRAIL	Ø25 R.BAR	SS400 OR SS275	2	35.8	
4	MIDRAIL	Ø19 R.BAR	SS400 OR SS275	2	17.2	
5	UPPER LUG	65x12t F.B	SS400 OR SS275	2	2.4	
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 : 238.4 KG/SET						
BLOCK NO.			MARK NO.	Q'TY/SET	REMARK	
T25S0			IL-101	1	본도 제작	

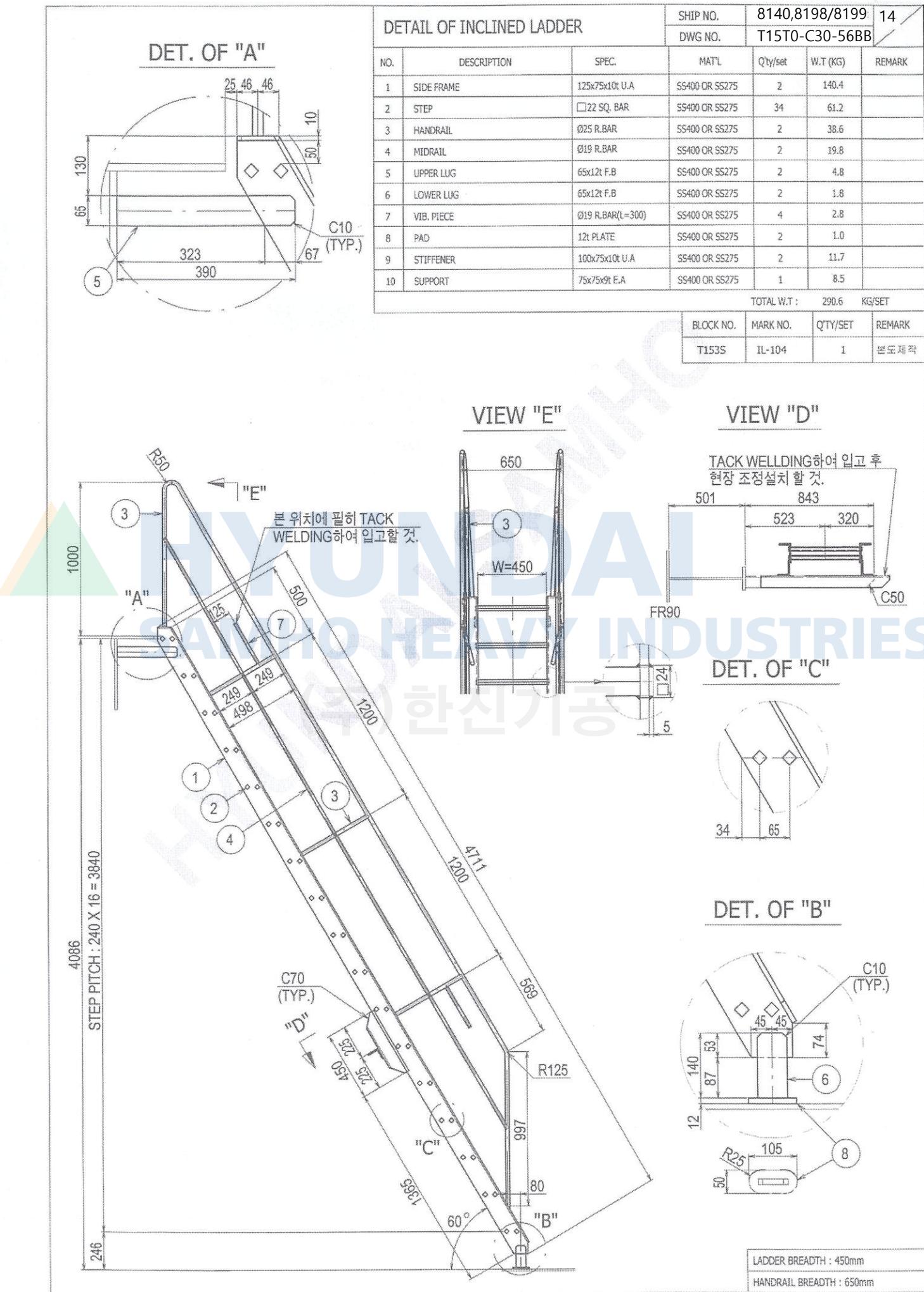
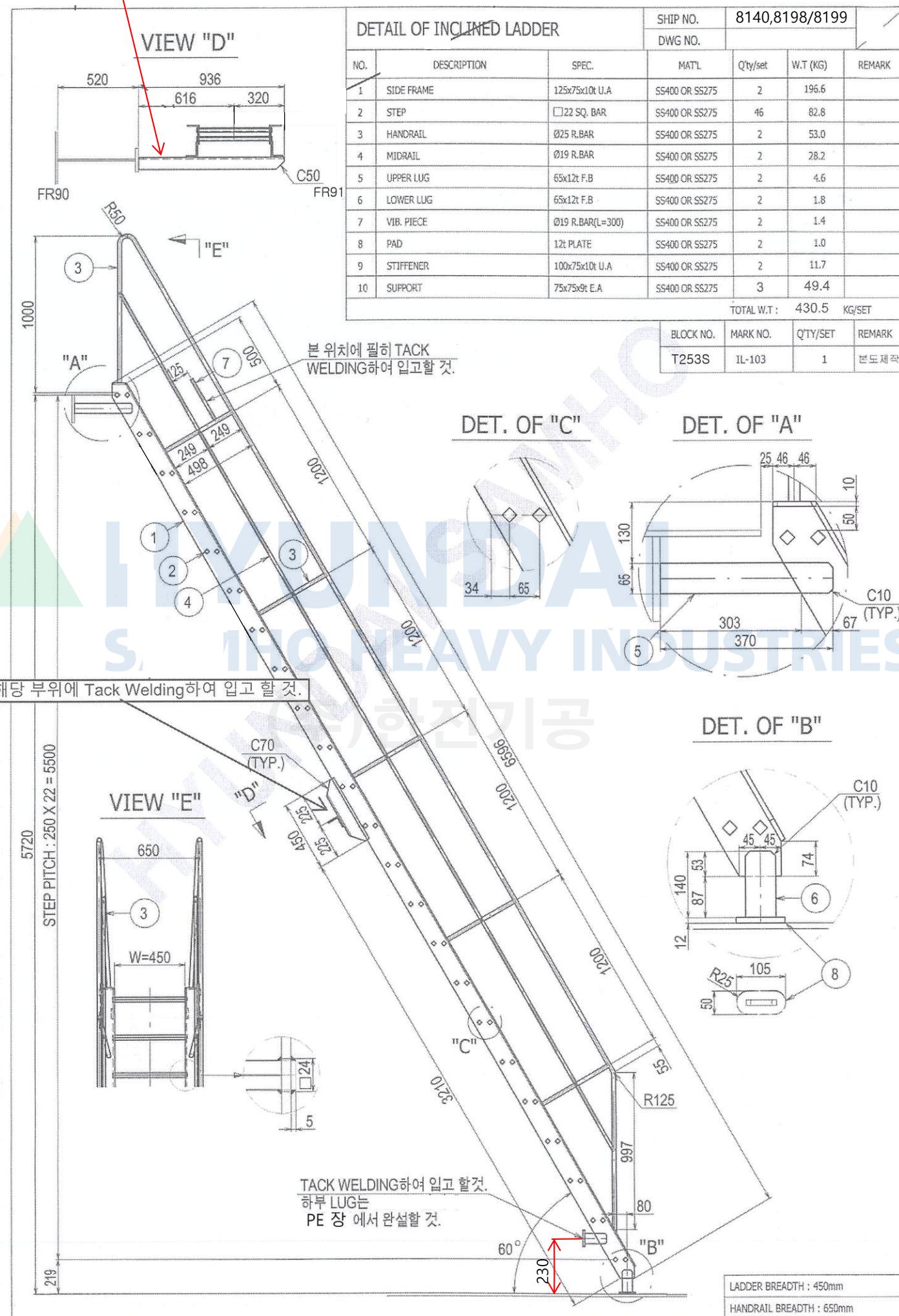


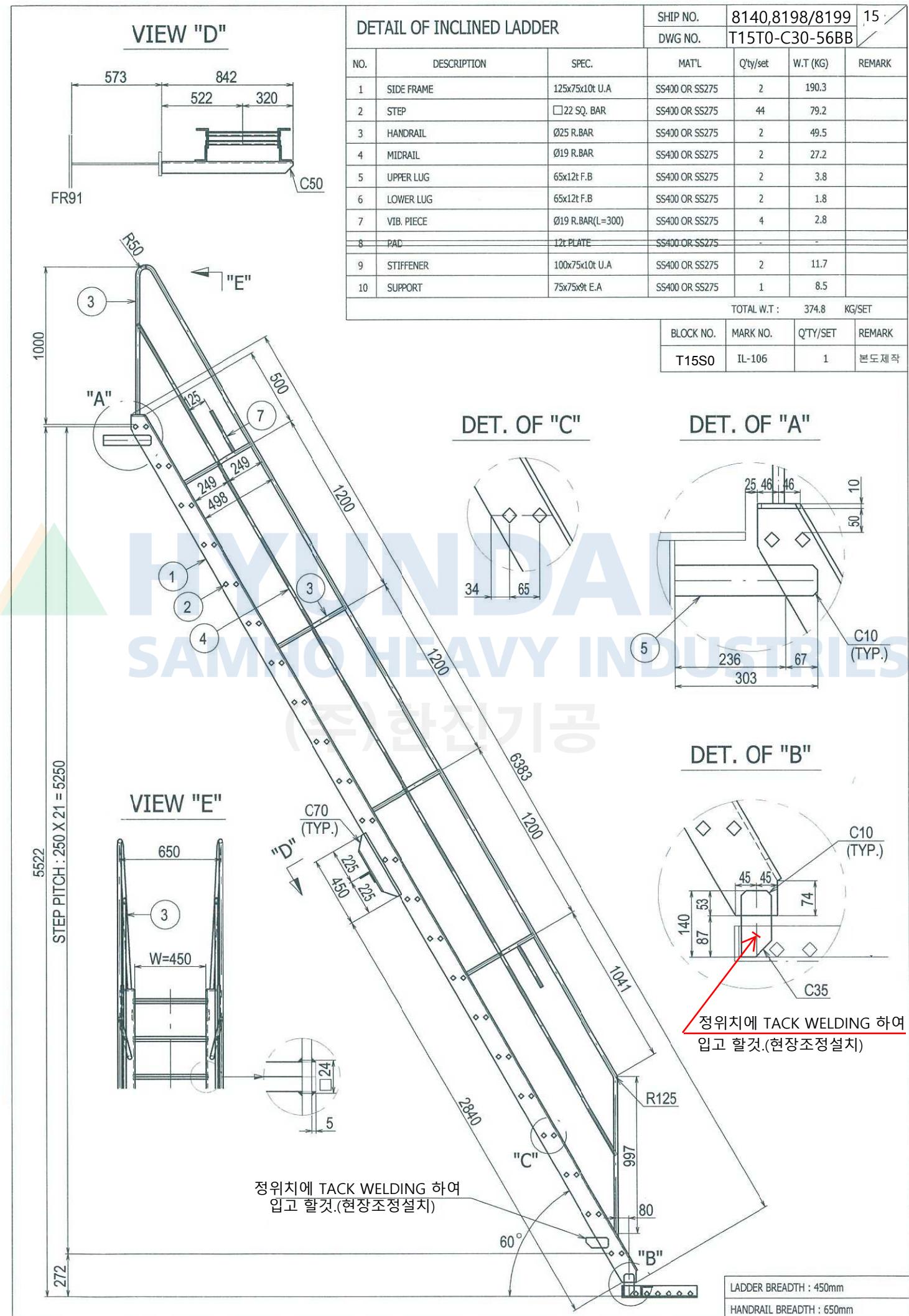
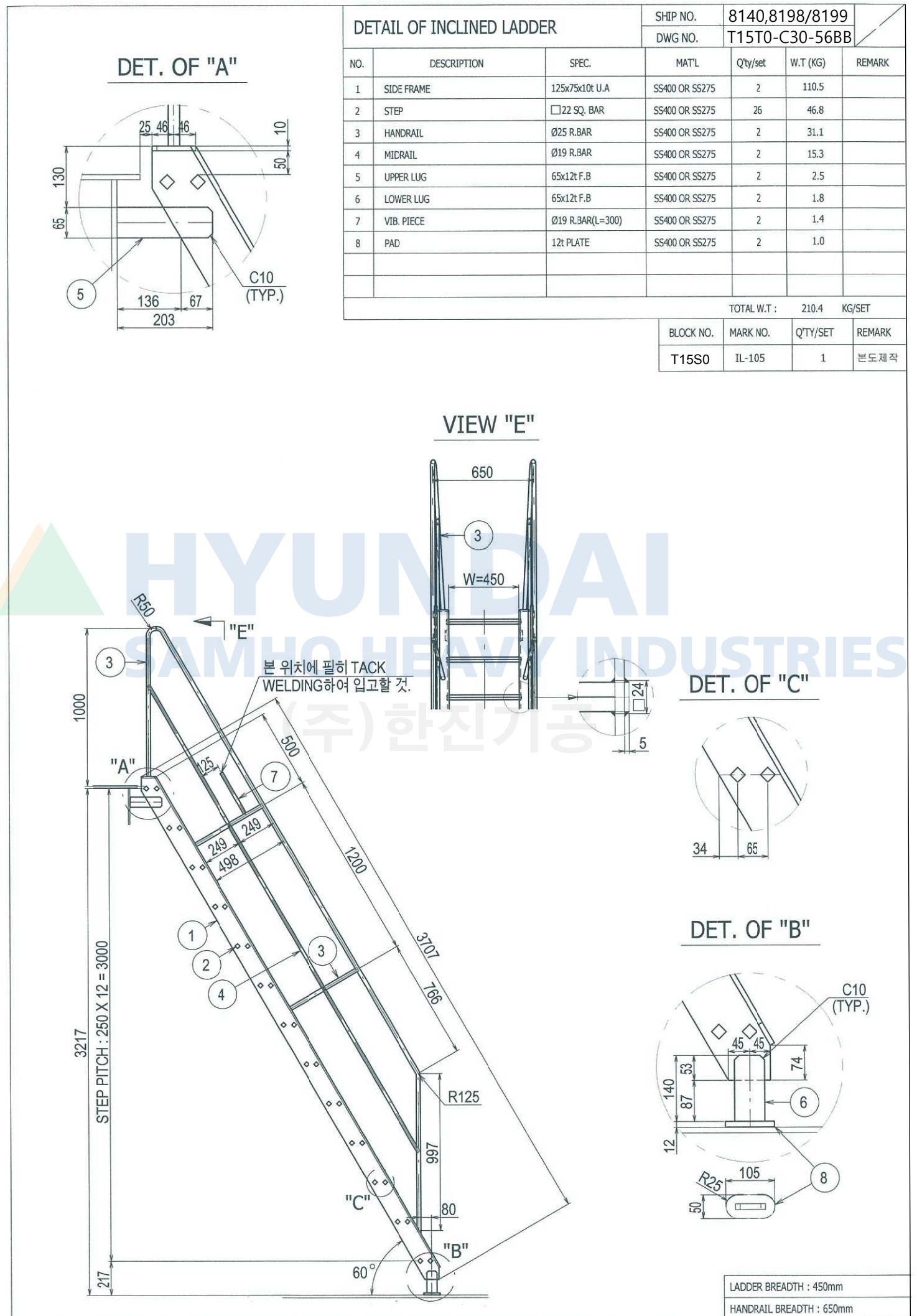
DETAIL OF INCLINED LADDER			SHIP NO.	8140,8198/8199	13	
			DWG NO.	T15T0-C30-56BB		
NO.	DESCRIPTION	SPEC.	MATL	Q'ty/set	W.T (KG)	REMARK
1	SIDE FRAME	125x75x10t U.A	SS400 OR SS275	2	152.8	
2	STEP	□22 SQ. BAR	SS400 OR SS275	36	64.8	
3	HANDRAIL	Ø25 R.BAR	SS400 OR SS275	2	40.7	
4	MIDRAIL	Ø19 R.BAR	SS400 OR SS275	2	21.6	
5	UPPER LUG	65x12t F.B	SS400 OR SS275	2	3.4	
6	LOWER LUG	65x12t F.B	SS400 OR SS275	2	1.8	
7	VIB. PIECE	Ø19 R.BAR(L=300)	SS400 OR SS275	2	1.4	
8	PAD	12t PLATE	SS400 OR SS275	2	1.0	
9	STIFFENER	100x75x10t U.A	SS400 OR SS275	2	11.7	
10	SUPPORT	75x75x9t E.A	SS400 OR SS275	1	8.9	
TOTAL W.T : 308.1 KG/SET						
BLOCK NO.			MARK NO.	Q'TY/SET	REMARK	
T25S0			IL-102	1	본도 제작	



TACK WELDING 하여 입고하고  
현장조정 설치할것.

172.25.41.108/2023-01-02 10:24:40'N126436



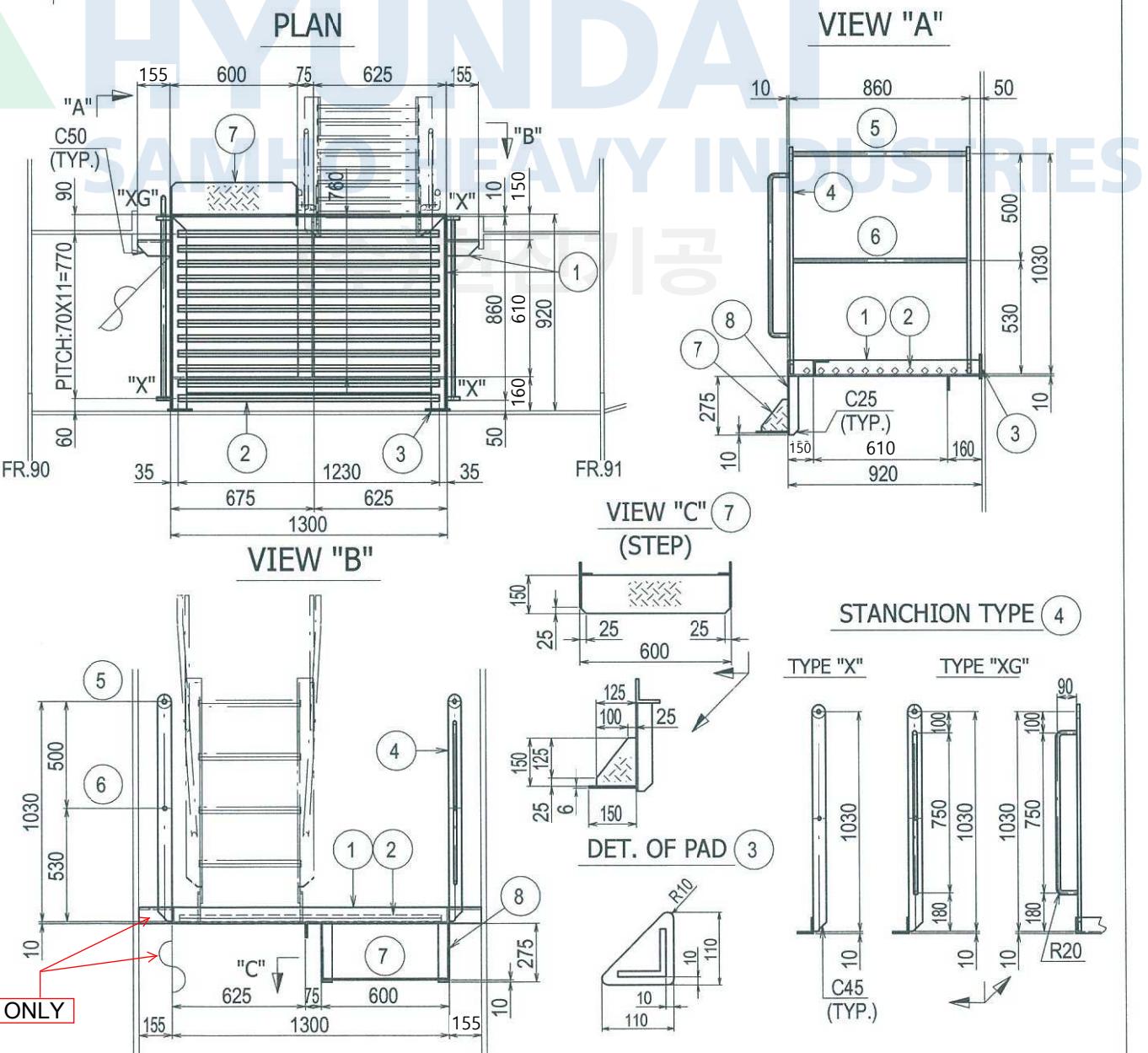


DET. OF PLATFORM			SHIP NO.	8140,8198/8199		
			DWG NO.	T15T0-C30-56BB		
NO.	DESCRIPTION	SIZE	MAT'L	Q'TY/SET	W.T (kg)	REMARK
1	FRAME & SUPPORT	75x75x9t E.A	SS400 OR SS275	1	42.1	
2	SQ.BAR	<input type="checkbox"/> 22 SQ.BAR	SS400 OR SS275	12	56.4	
3	PAD	10t PLATE	SS400 OR SS275	2	2.0	
4	STANCHION / HANDGRIP	65x16t F.B / Ø19 R.B	SS400 OR SS275	4	36.1	
5	TOP RAIL	Ø22 R.B	SS400 OR SS275	1	5.2	
6	MID RAIL	Ø19 R.B	SS400 OR SS275	1	3.9	
7	STEP / BRACKET	6t CHK. PLATE	SS400 OR SS275	1/2	4.4 / 1.4	
8	SUPPORT(FOR STEP)	50x50x6t E.A	SS400 OR SS275	2	2.5	

## NOTE

1. MARK NO. : PF-101
  2. 제작수량 : 1 SET/SHIP
  3. BLOCK NO.: T15S0
  4. "  " MARK는 TACK WELDING하여 입고 후 현장완설 할 것

TOTAL W.T : 154.0 KG/SHIP



DET. OF HINGED GRATING			SHIP NO.	8140,8198/8199	16	
			DWG NO.	T15T0-C30-56BB		
NO.	DESCRIPTION	SIZE	MAT'L	Q'TY/SET	W.T (kg)	REMARK
1	SQUARE BAR	<input type="checkbox"/> 22 SQ. BAR	SS400 OR SS275	10	22.2	
2	STIFFENER	50x9t F.B	SS400 OR SS275	5	6.6	
3	STOPPER	10t PLATE	SS400 OR SS275	2	1.9	
4	HINGE	10t PLATE	SS400 OR SS275	2	1.2	
5	PAD	10t PLATE	SS400 OR SS275	2	0.6	
6	BOLT & NUT WITH S/PIN	M16x50L	SUS304	2	-	
7	TOGGLE PIN WITH JACK CHAIN	Ø16x55L	SUS304	1	-	
			TOTAL W.T.:	32.5	KG/SHIP	

## NOTE

1. MARK NO. : HG-101
  2. 제작수량 : 1 SET/SHIP
  3. BLOCK NO.: T25S0

TOTAL W.T : 32.5 KG/SHIP

