

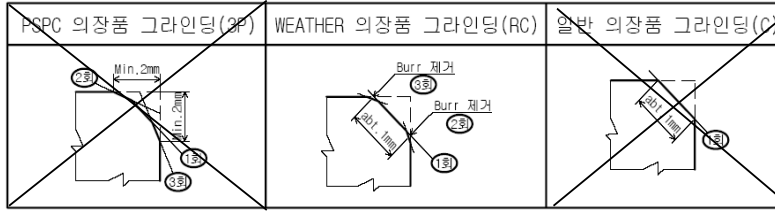
NOTE

PSPC 의장품

WEATHER 의장품

일반 의장품

1. 본도는 VERTICAL LADDER 제작도임.
2. 모서리 부분은 하기와 같이 GRINDING 할 것. (RC)

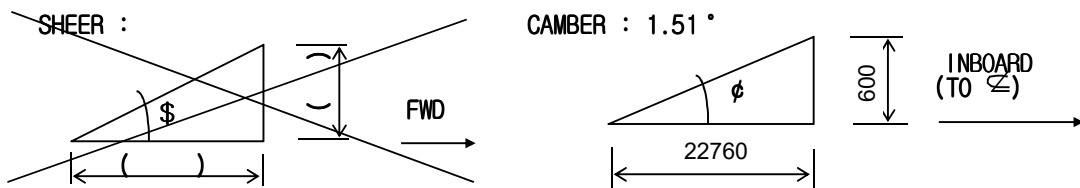


3. 용접은 특기외 하기 표 참조하고 연속 용접할 것.

* 필렛의 용접 각장은 아래를 따를 것.


재료의 두께	4.5	6	7~8	9~10	11~12	13	14~15	16~18	19~20
용접 각장	3	4	4.5	5	5.5	6	7	7.5	9

4. 제작시 DECK 상의 SHEER (\$: /)와 CAMBER (φ : 600/22760)를 필히 적용할 것.




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. 사용 자재의 MILL SHEET를 제출할 것.
8. 제작 시 정도관리를 철저히 하고, 제작 후 당사 자재 검사를 필할 것.
9. BOLT 길이는 NUT 체결후 ABT. 2~3 산이 남도록 할 것.
10. 모든 NAME PLATE는 상면에 GREASE COATING VINYL 3회 이상 감아서 청 TAP 부착하여 SET SCREW를 이용하여 정방향 부착 입고 할 것.
11. 도면 상 언급된 지시 사항 필히 준수하고 제작 TOLERANCE 준수할 것.
12. 소요부서 : 자재구매부, 판넬조립부, 대조립부
13. P.O.R NO. : J63
14. TOTAL WEIGHT : 1861.4 Kg/SHIP (PAD 강재 사급 중량 102.4Kg/SHIP 포함)


(표지 포함 13 매)

DEPT. B011000	SHIP NO. 8150/8151	SHIP TYPE 15,600 TEU CLASS CONTAINER CARRIER
TEL. 3326	부서명 구조설계부	도면명
승인 이완순	검도	작성
 HYUNDAI SAMHO HEAVY INDUSTRIES CO., LTD. SAMHO SHIPYARD, KOREA		도면번호 1511-H13B-004 날짜 2022년 07월 19일

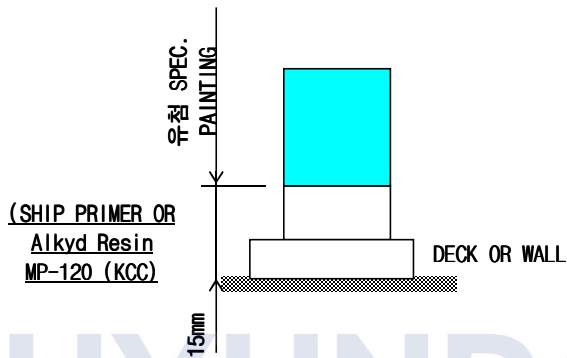
VERTICAL LADDER
제작도

	PLAN HISTORY		SHIP NO.	8150/8151		1
			DWG. NO.	1511-H13B		
DATE	REV. NO.	DESCRIPTION	DRAWN	CHECKED	APPROVED	
2022.07.19	O	8150/8151 호선 VERTICAL LADDER 제작도임.	문지혁		이완순	
2022.08.11	001	HINGED COVER SIZE 수정.(PAGE 11 참조)	문지혁		이완순	
2022.08.22	002	VERTICAL LADDER(VLD-S12P/S) 수정.(PAGE 12 참조)	문지혁		이완순	
2022.10.04	003	VLD-S12P/S Vertical ladder 수정.(PAGE 12)	문지혁		이완순	
2023.01.18	004	VLD-S12P/S Vertical ladder support 수정.(PAGE 12)	문지혁	신충길	이완순	

PAINTING SPEC.						PAINT SUPPLIER	JOTUN	
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
UD	ALL ITEM	STEEL	NS	T3		HYUNDAI HEAVY INDUSTRIES		
* HINGED COVER 상부는 NON-SLIP PAINT 적용할 것. (YELLOW : 25Y 7.5/13)								
	ITEM	IN SIDE & OUT SIDE			IN SIDE	OUT SIDE		
	ALL	FINAL	SHOP PRIMER	PRIMER				
		0						

	製作仕様書(외주구매용)	SHIP NO.	8150/8151	2
		DWG NO.	1511-H13B	

1. GALV. 두께 : HOT DIP GALV. 55~80 μ (단, BOLT/NUT류는 45~65 μ 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. 손상 부위 수정 후 입고할 것.
7. 납품시 P.O.R SHEET와 유첨도를 첨부할 것.
8. MAKER CERTIFICATE (특수 재료는 MILL SHEET)를 첨부할 것.
9. 무도장으로 입고되는 품목으로서 그 품목의 일부분이 도금이 되어있는 경우는
SHOT BLASTING으로부터 도금 부분이 훼손되지 않도록 보호 MASKING을 하여 입고할 것.
(단 도금 표면에 다시 PAINTING하는 경우는 제외됨)
10. 의장품 자재 PALLET 고박용 번선 및 고박 ITEM에 대한 묶음 WIRE (철사)는 필히
부식 방지용 COATING WIRE를 사용하여 입고 시킬 것.
11. 의장품 자재 입고시 상,하,좌,우로 움직일 수 있는 항목들은 상기 10)번항에 의거하여
반드시 고박하여 입고할 것. (안전사고 사전방지)
12. 납품시 하기 참고하여 입고할 것.
 - 1) 용접선 있는 자재는 용접선 부근 50mm 이내 PAINT MARKER 마킹 적용
(설치 후 은폐 도장 작업 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.

					SHIP NO.	8150/8151	3 3
제작품별 납기 LIST					DWG. NO.	1511-H13B	
P.O.R NO	SEQ NO.	BLOCK	STAGE	MARK NO.	DESCRIPTION	Q'TY /SHIP	WEIGHT (KG/SET)
J63	01	E54DL(P)	BS	VLD-S01P	VERTICAL LADDER	1	29.1
	02	E53DL(P)	BS	VLD-S02P	VERTICAL LADDER	1	29.2
	03	C21AL(P)	BS	VLD-S03P	VERTICAL LADDER	1	27.0
	04	E51DL(P)	BS	VLD-S03P	VERTICAL LADDER	1	27.0
	05	E51DL(P)	BS	HG-01	HANDGRIP	9	1.6
	06	S11DL(P)	BS	VLD-S03P	VERTICAL LADDER	1	27.0
	07	S11DL(P)	BS	HG-01	HANDGRIP	10	1.6
	08	S11P0	NS	HG-02	HANDGRIP	1	1.6
	09	S12DL(P)	BS	VLD-S04P	VERTICAL LADDER	1	25.7
	10	S12DL(P)	BS	HG-01	HANDGRIP	9	1.6
	11	S12P0	MS	HG-02	HANDGRIP	1	1.6
	12	S13DL(P)	BS	VLD-S04P	VERTICAL LADDER	1	25.7
	13	S13DL(P)	BS	HG-01	HANDGRIP	9	1.6
	14	S13P0	NS	HG-02	HANDGRIP	1	1.6
	15	S14DL(P)	BS	VLD-S04P	VERTICAL LADDER	1	25.7
	16	S14DL(P)	BS	HG-01	HANDGRIP	10	1.6
	17	S15DL(P)	BS	VLD-S04P	VERTICAL LADDER	2	25.7
	18	S15DL(P)	BS	HG-01	HANDGRIP	9	1.6
	19	S16DL(P)	BS	VLD-S04P	VERTICAL LADDER	1	25.7
	20	S16DL(P)	BS	HG-01	HANDGRIP	11	1.6
	21	S17DL(P)	BS	HG-01	HANDGRIP	12	1.6
	22	S18DL(P)	BS	HG-01	HANDGRIP	6	1.6
	23	S39DL(P)	BS	HG-01	HANDGRIP	2	1.6
	24	S40DL(P)	BS	VLD-S03P	VERTICAL LADDER	1	27.0
	25	S61DL(P)	BS	VLD-S06P	VERTICAL LADDER	1	33.3
	26	S61DL(P)	BS	HG-01	HANDGRIP	11	1.6
	27	S61P0	NS	HG-02	HANDGRIP	1	1.6
	28	S62DL(P)	BS	VLD-S07P	VERTICAL LADDER	1	33.4
	29	S62DL(P)	BS	HG-01	HANDGRIP	4	1.6
	30	S63DL(P)	BS	VLD-S08P	VERTICAL LADDER	1	33.5

					SHIP NO.	8150/8151	3 4
제작품별 납기 LIST					DWG. NO.	1511-H13B	
P.O.R NO	SEQ NO.	BLOCK	STAGE	MARK NO.	DESCRIPTION	Q'TY /SHIP	WEIGHT (KG/SET)
J63	31	C14AL(P)	BS	VLD-S09P	VERTICAL LADDER	1	33.5
	32	C13AL(P)	BS	VLD-S10P	VERTICAL LADDER	1	34.0
	33	C23AL(P)	BS	VLD-S11P	VERTICAL LADDER	1	45.0
	34	D15P0	FS	VLD-S12P	VERTICAL LADDER	1	211.0
	35	D15P0	FS	HC-S01P	HINGED COVER	1	18.5
	36	E54DL(S)	BS	VLD-S01S	VERTICAL LADDER	1	29.1
	37	E53DL(S)	BS	VLD-S02S	VERTICAL LADDER	1	29.2
	38	C21AL(S)	BS	VLD-S03S	VERTICAL LADDER	1	27.0
	39	E51DL(S)	BS	VLD-S03S	VERTICAL LADDER	1	27.0
	40	E51DL(S)	BS	HG-01	HANDGRIP	8	1.6
	41	S11DL(S)	BS	VLD-S03S	VERTICAL LADDER	1	27.0
	42	S11DL(S)	BS	HG-01	HANDGRIP	10	1.6
	43	S11S0	NS	HG-02	HANDGRIP	1	1.6
	44	S12DL(S)	BS	VLD-S04S	VERTICAL LADDER	1	25.7
	45	S12DL(S)	BS	HG-01	HANDGRIP	9	1.6
	46	S12S0	MS	HG-02	HANDGRIP	1	1.6
	47	S13DL(S)	BS	VLD-S04S	VERTICAL LADDER	1	25.7
	48	S13DL(S)	BS	HG-01	HANDGRIP	9	1.6
	49	S13S0	NS	HG-02	HANDGRIP	1	1.6
	50	S14DL(S)	BS	VLD-S04S	VERTICAL LADDER	1	25.7
	51	S14DL(S)	BS	HG-01	HANDGRIP	10	1.6
	52	S15DL(S)	BS	VLD-S04S	VERTICAL LADDER	2	25.7
	53	S15DL(S)	BS	HG-01	HANDGRIP	9	1.6
	54	S16DL(S)	BS	VLD-S04S	VERTICAL LADDER	1	25.7
	55	S16DL(S)	BS	HG-01	HANDGRIP	11	1.6
	56	S17DL(S)	BS	HG-01	HANDGRIP	12	1.6
	57	S18DL(S)	BS	HG-01	HANDGRIP	6	1.6
	58	S39DL(S)	BS	HG-01	HANDGRIP	2	1.6
	59	S40DL(S)	BS	VLD-S03S	VERTICAL LADDER	1	27.0
	60	S61DL(S)	BS	VLD-S06S	VERTICAL LADDER	1	33.3

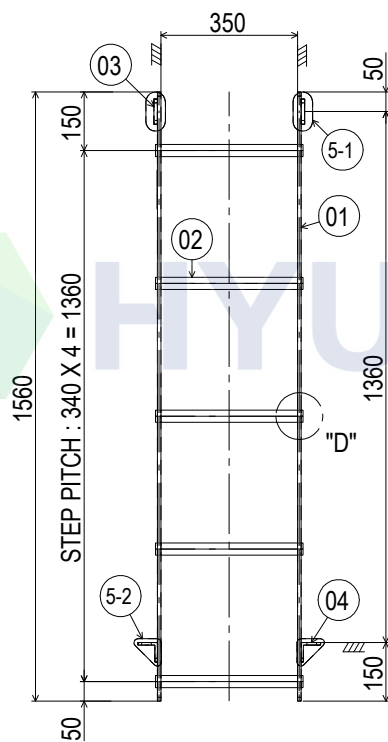


			합 계 (Q'TY, KG/SHIP)	250	1861.4

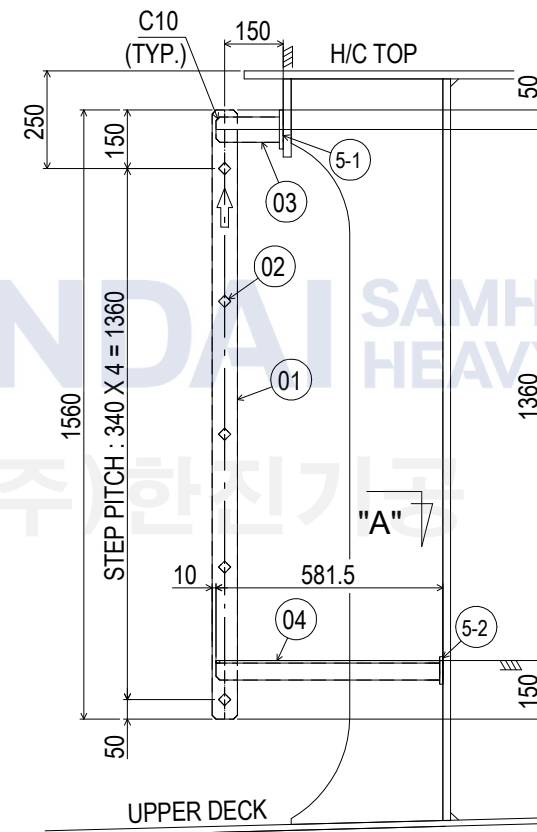
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK	NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
1	SIDE FRAME	65 X 9t F.B	SS400 OR SS275	2	-	PAINT ONLY	1	SIDE FRAME	65 X 9t F.B	SS400 OR SS275	2	-	PAINT ONLY
2	STEP	22 SQ.BAR	SS400 OR SS275	5	-	PAINT ONLY	2	STEP	22 SQ.BAR	SS400 OR SS275	5	-	PAINT ONLY
3	UPPER LUG	65 X 9t F.B	SS400 OR SS275	2	-	PAINT ONLY	3	UPPER LUG	65 X 9t F.B	SS400 OR SS275	2	-	PAINT ONLY
4	LOWER LUG	50 X 50 X 6t E.A	SS400 OR SS275	2	-	PAINT ONLY	4	LOWER LUG	50 X 50 X 6t E.A	SS400 OR SS275	2	-	PAINT ONLY
5-1 5-2	PAD	10t PLATE	AH32	4	-	PAINT ONLY	5-1 5-2	PAD	10t PLATE	AH32	4	-	PAINT ONLY

NOTE

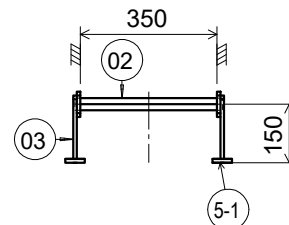
1. 본도는 PORT SIDE를 나타냄. STB'D SIDE는 대칭 제작할 것.

ELEVATION

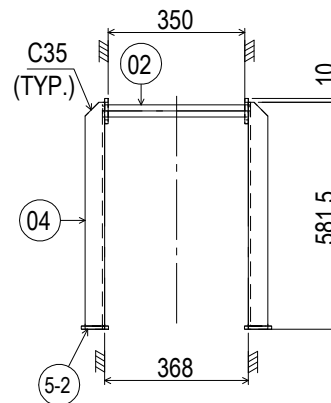
SECTION



PLAN



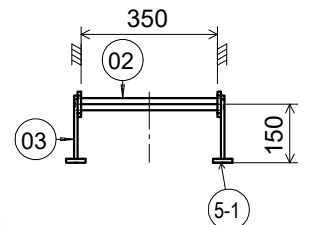
VIEW - "A"



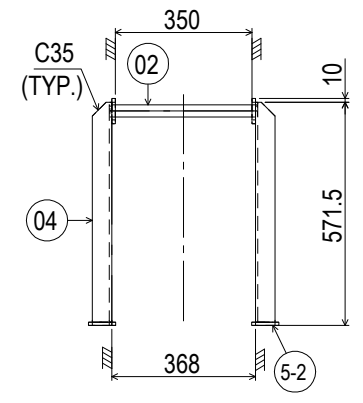
NOTE

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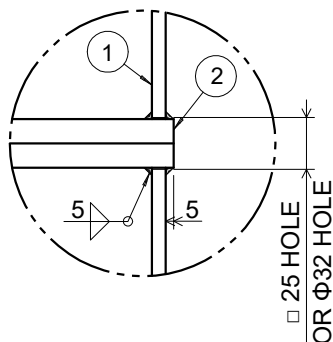
PLAN



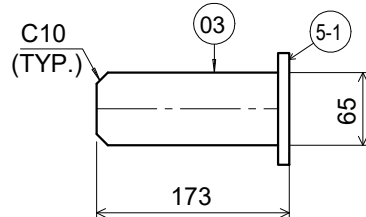
VIEW - "A"



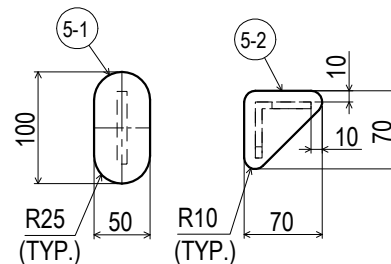
DETAIL OF "D"



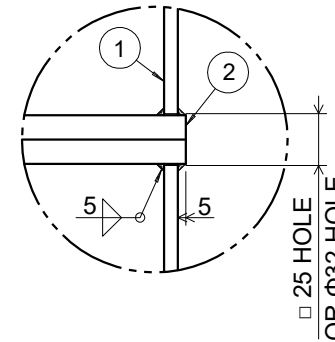
DET.OF UPPER LUG



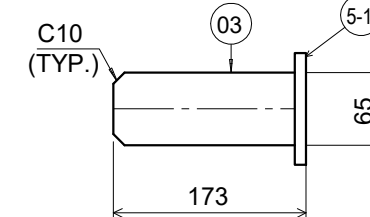
DET.OF PAD



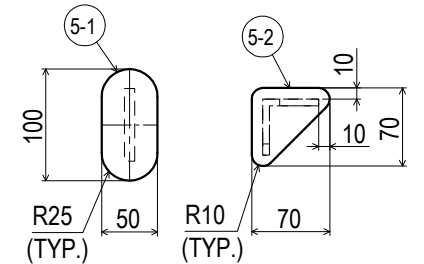
DETAIL OF "D"



DET.OF UPPER LUG



DET.OF PAD





DETAIL OF VERTICAL LADDER (MARK NO.: VLD-S**)

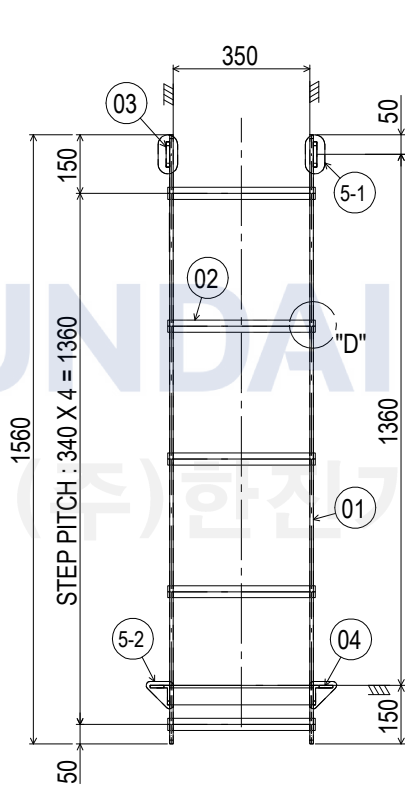
SHIP NO.	8150 / 8151	08
DWG NO.	1511-H13B	

NOTE

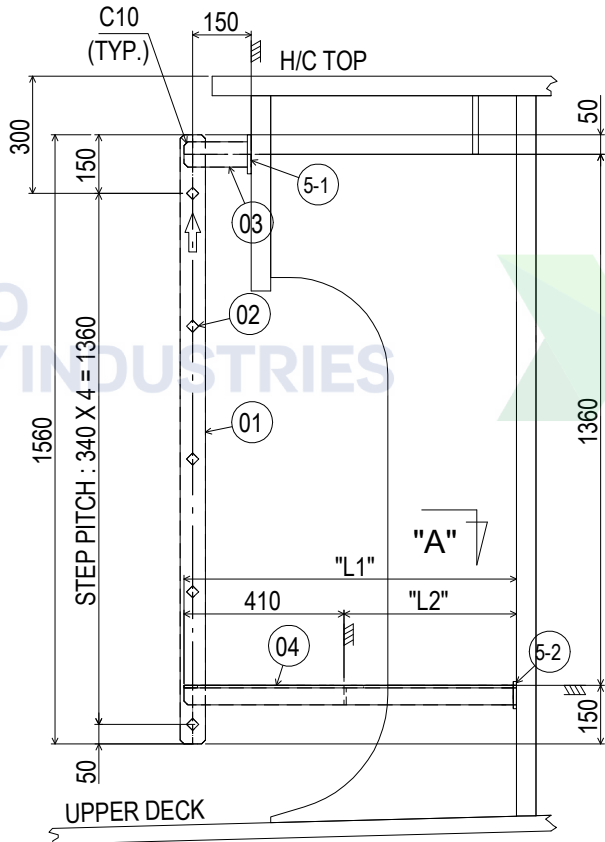
1. 본도는 PORT SIDE를 나타냄. STB'D SIDE는 대칭 제작할 것.

BLOCK NO.	MARK NO.	L1	L2	Q'TY	WEIGHT Kg/SET
S61P/S	VLD-S06	851.5	441.5	1 / 1	33.3
S62P/S	VLD-S07	861.5	451.5	1 / 1	33.4
S63P/S	VLD-S08	871.5	461.5	1 / 1	33.5
C14P/S	VLD-S09	875.5	465.5	1 / 1	33.5

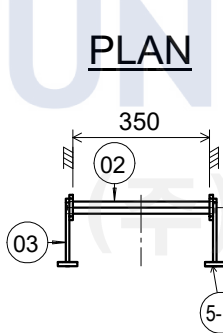
ELEVATION



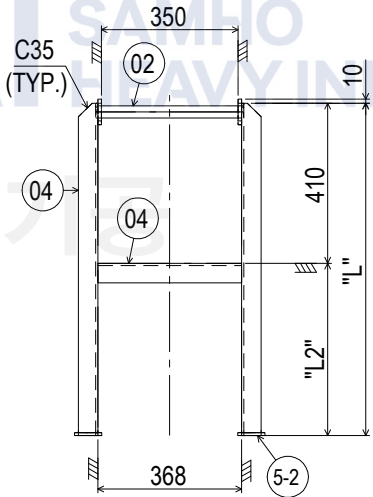
SECTION



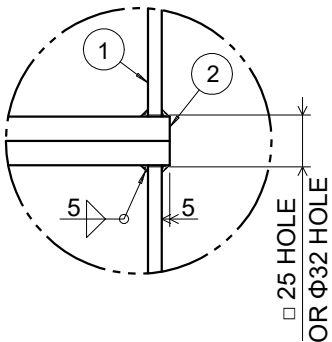
PLAN



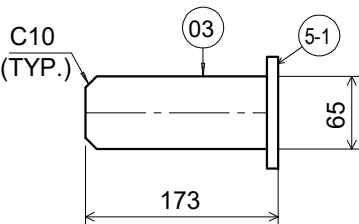
VIEW - "A"



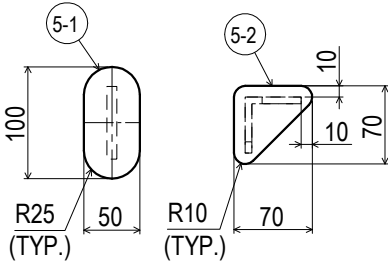
DETAIL OF "D"



DET.OF UPPER LUG



DET.OF PAD



5-2	PAD	10t PLATE	AH32	4	-	PAINT ONLY
5-1	LOWER LUG	50 X 50 X 6t E.A	SS400 OR SS275	3	-	PAINT ONLY
4	UPPER LUG	65 X 9t F.B	SS400 OR SS275	2	-	PAINT ONLY
3	STEP	22 SQ.BAR	SS400 OR SS275	5	-	PAINT ONLY
2	SIDE FRAME	65 X 9t F.B	SS400 OR SS275	2	-	PAINT ONLY
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK

H8150-1511H13B-08



DETAIL OF VERTICAL LADDER (MARK NO.: VLD-S10)

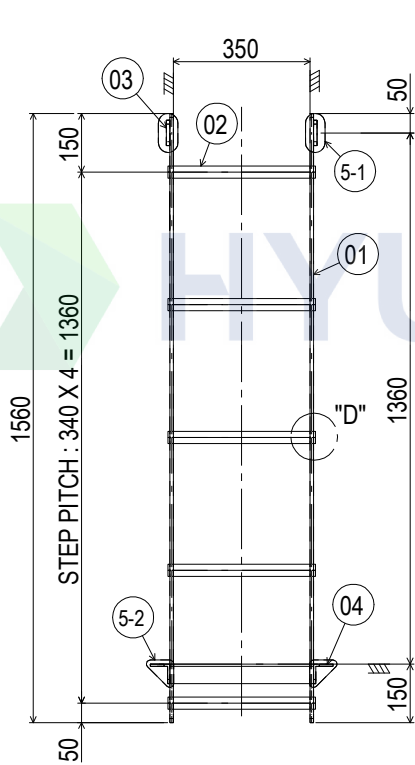
SHIP NO.	8150/8151	09
DWG NO.	1511-H13B	

NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
1	SIDE FRAME	65 X 9t F.B	SS400 OR SS275	2	-	PAINT ONLY
2	STEP	22 SQ.BAR	SS400 OR SS275	5	-	PAINT ONLY
3	UPPER LUG	65 X 9t F.B	SS400 OR SS275	2	-	PAINT ONLY
4	LOWER LUG	50 X 50 X 6t E.A	SS400 OR SS275	3	-	PAINT ONLY
5-1 5-1	PAD	10t PLATE	AH32	4	-	PAINT ONLY

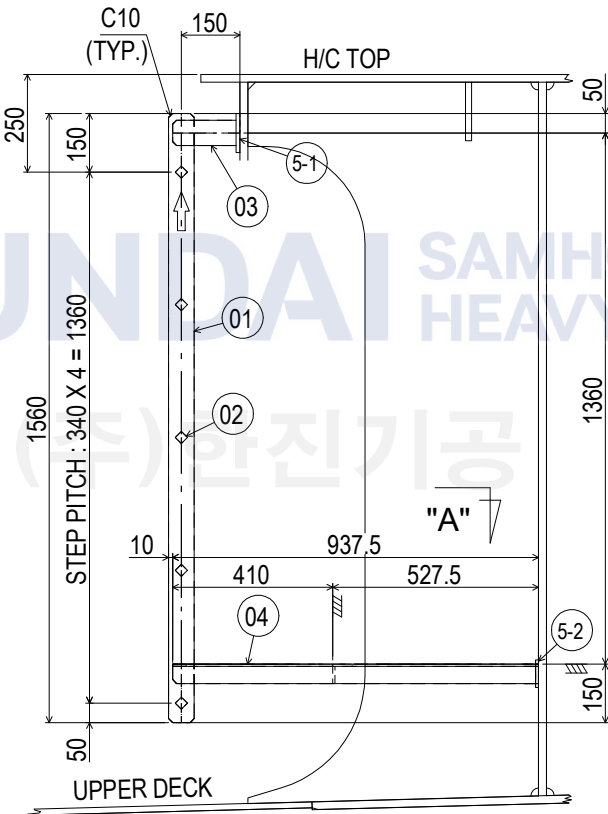
NOTE
1. 본도는 PORT SIDE를 나타냄. STB'D SIDE는 대칭 제작할 것.

MARK NO.	BLOCK NO.	Q'TY	WEIGHT kg/SET
VLD-S10	C13P/S	1 / 1	34.0

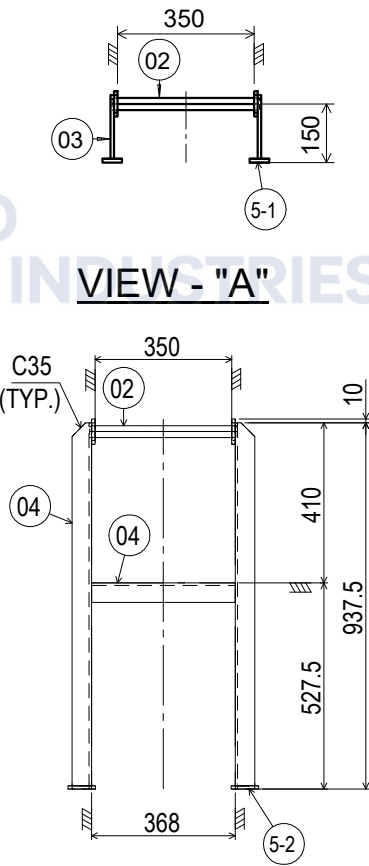
ELEVATION



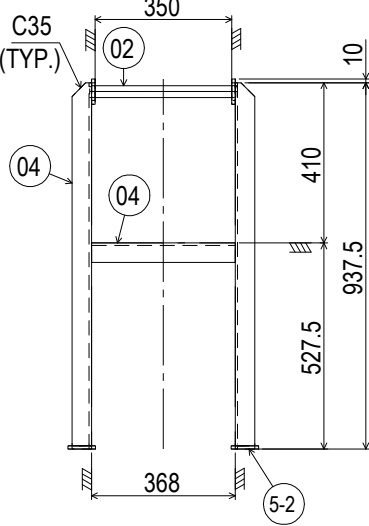
SECTION



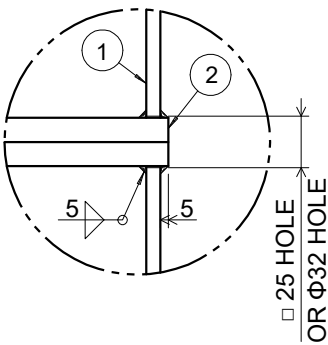
PLAN



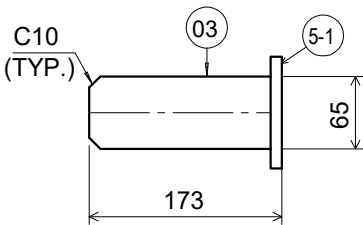
VIEW - "A"



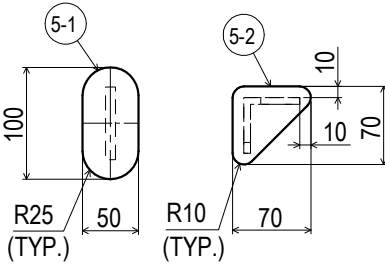
DETAIL OF "D"



DET.OF UPPER LUG



DET.OF PAD



H8150-1511H13B-09



DETAIL OF HANDGRIP (MARK NO.: HG-01,02)

SHIP NO.	8150 / 8151	10
DWG NO.	1511-H13B	

NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
1	SIDE FRAME	65 X 9t F.B	SS400 OR SS275	2	-	PAINT ONLY
2	STEP	22 SQ.BAR	SS400 OR SS275	7	-	PAINT ONLY
3	UPPER LUG	65 X 9t F.B	SS400 OR SS275	2	-	PAINT ONLY
4	LOWER LUG	50 X 50 X 6t E.A	SS400 OR SS275	3	-	PAINT ONLY
5-1 5-2	PAD	10t PLATE	AH32	4	-	PAINT ONLY

NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(KG)	REMARK
1	HAND GRIP	Ø19 R.BAR	SS400 OR SS275	1	-	PAINT ONLY
2	PAD	10t PLATE	AH32	1	-	PAINT ONLY

MARK NO.	BLOCK NO.	Q'TY	WEIGHT Kg/SET
HG-01	E51P/S	8 / 8	1.6
HG-01	S11P/S	10 / 10	1.6
HG-02	S11P/S	1 / 1	1.6
HG-01	S12P/S	9 / 9	1.6
HG-02	S12P/S	1 / 1	1.6
HG-01	S13P/S	9 / 9	1.6
HG-02	S13P/S	1 / 1	1.6
HG-01	S14P/S	10 / 10	1.6
HG-01	S15P/S	9 / 9	1.6
HG-01	S16P/S	11 / 11	1.6
HG-01	S17P/S	12 / 12	1.6
HG-01	S18P/S	6 / 6	1.6
HG-01	S39P/S	2 / 2	1.6
HG-01	S61P/S	11 / 11	1.6
HG-02	S61P/S	1 / 1	1.6
HG-01	S62P/S	4 / 4	1.6

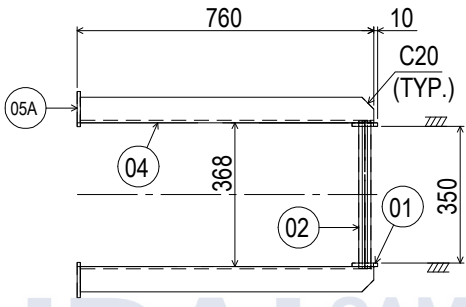
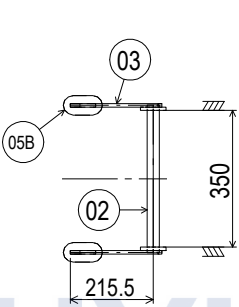
NOTE

1. 본도는 PORT SIDE를 나타냄. STB'D SIDE는 대칭 제작할 것.

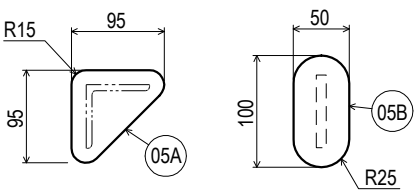
MARK NO.	BLOCK NO.	Q'TY	WEIGHT Kg/SET
VLD-S11P	C23P	1	45.0
VLD-S11S	C23S	1	45.0

VIEW - "A"

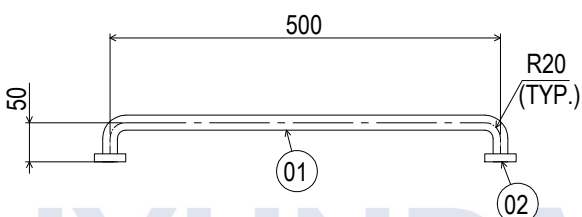
VIEW - "B"



DET. OF PAD



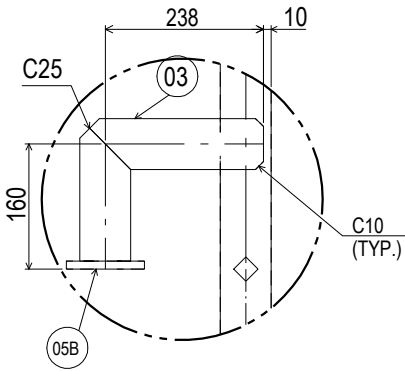
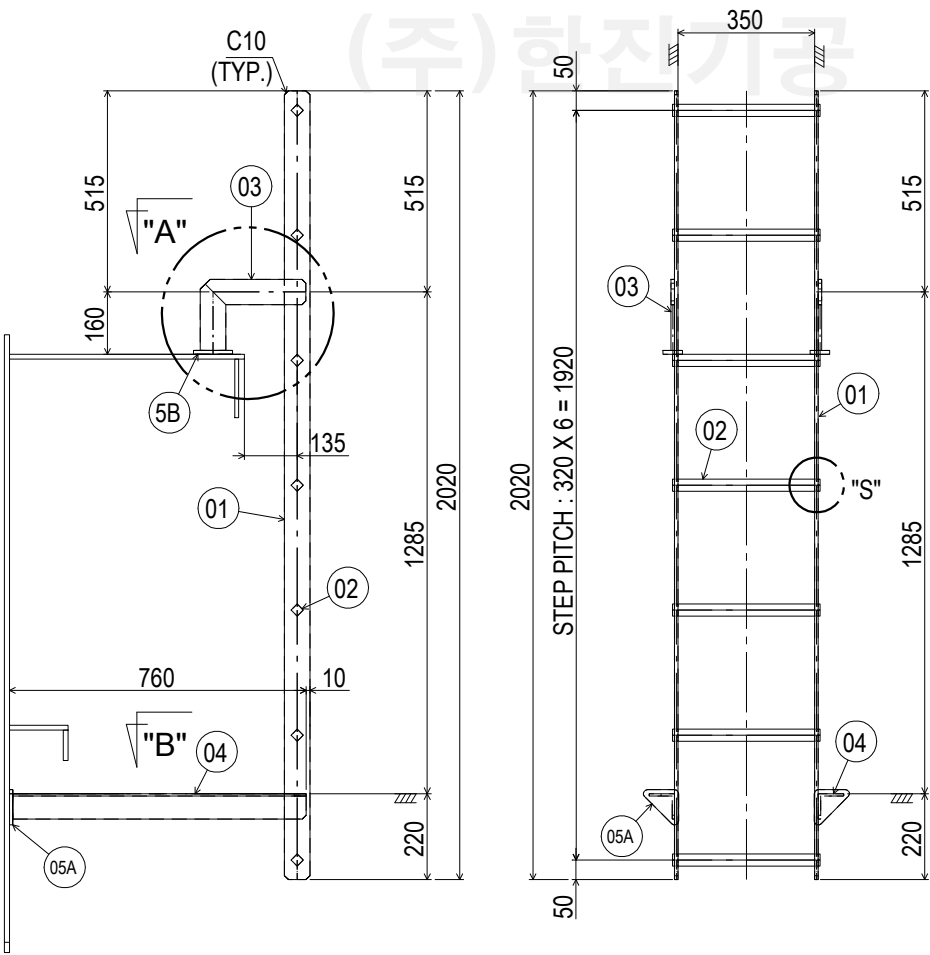
DET OF HANDGRIP



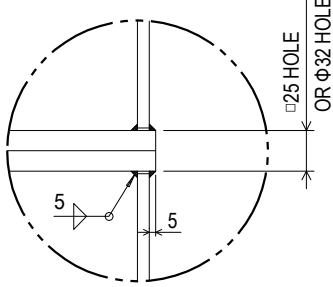
ELEVATION

SECTION

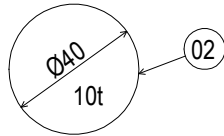
DET. OF UPPER LUG



DET. OF "S"



DET OF PAD



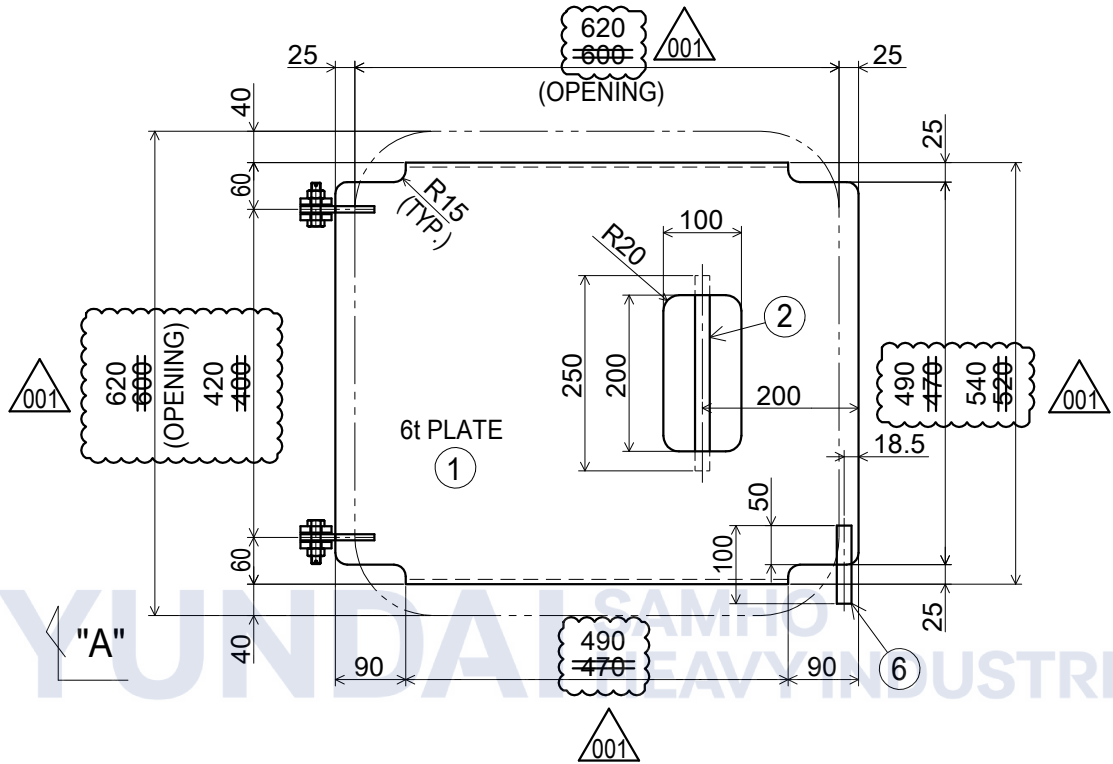


DETAIL OF HINGED COVER (MARK NO.: HC-S01P/S)

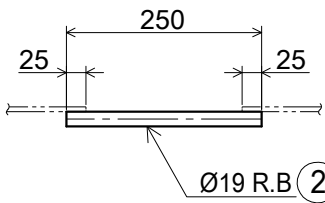
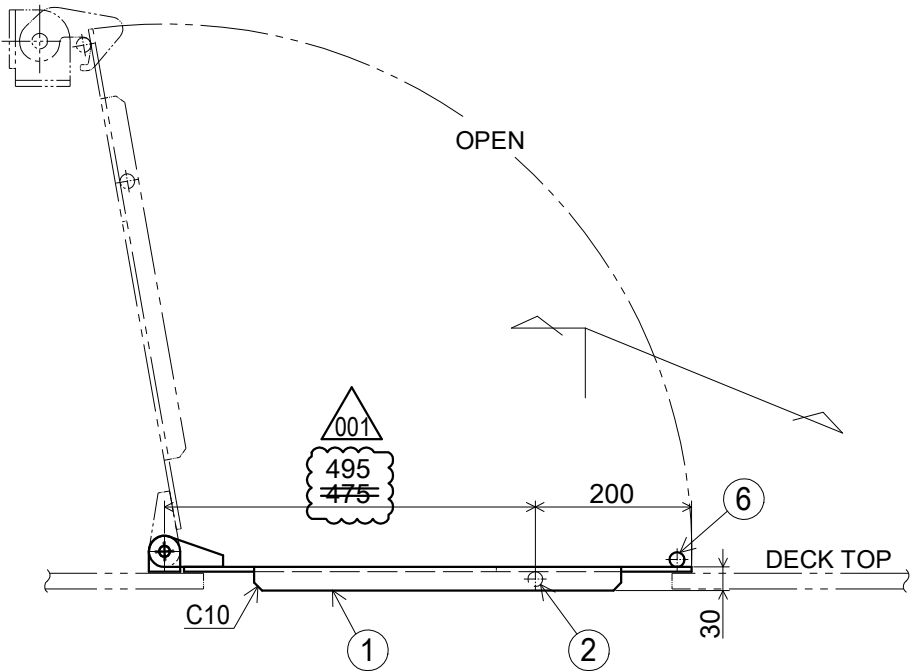
SHIP NO.	8150 / 8151	11
DWG NO.	1511-H13B	

MARK NO.	BLOCK NO.	Q'TY	WEIGHT Kg/SET
HC-S01P	D15P0	1	18.5
HC-S01S	D15S0	1	18.5

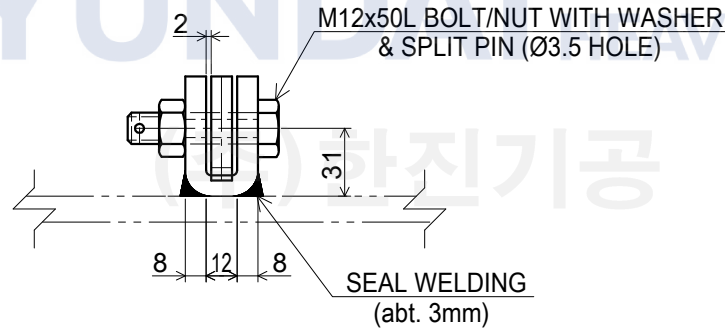
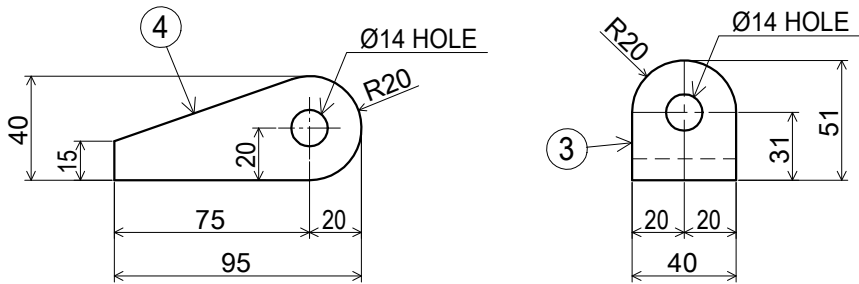
PLAN



VIEW - "A"



DET. OF LUG



* 본도는 PORT SIDE를 나타냄, STB'D SIDE는 대칭 제작할 것.
* HINGED COVER 상부 필히 NON-SLIP PAINT 시공요.(YELLOW)

6	STOPPER	Ø19 R.B	SS400 or SS275	1	-	PAINT ONLY
5	BOLT & NUT WITH WASHER/SPLIT PIN	M12 X 50L	SUS316	2	-	NO PAINT
4	LUG	8t PLATE	SS400 or SS275	2	-	PAINT ONLY
3	LUG	8t PLATE	SS400 or SS275	2	-	PAINT ONLY
2	HANDGRIP	Ø19 R.B	SS400 or SS275	1	-	PAINT ONLY
1	COVER	6t PLATE	SS400 or SS275	1	-	NON SLIP PAINT
NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	W.T (Kg)	REMARK



DETAIL OF VERTICAL LADDER (MARK NO. VLD-S12P/S)

SHIP NO.	8150 / 8151	12	
DWG NO.	1511-H13B		
MARK NO.	BLOCK NO.	Q'TY	WEIGHT Kg/SET
/LD-S12P	D15P0	1	211.0
/LD-S12S	D15S0	1	211.0

ELEVATION

SECTION

VIEW - "A"

DET. OF BACK BAND

VIEW - "B"

DET. OF PAD

DET. OF "S"

NOTE

1. 본 도는 PORT SIDE를 나타냄. STB'D SIDE는 대칭 제작 할 것.

NO.	DESCRIPTION	SPEC.	MAT'L	Q'TY/SET	WEIGHT(Kg)	REMARK
01	SIDE FRAME	65 x 9t F.B	SS400 OR SS275	2	-	PAINT
02	STEP	□22 SQ.BAR	SS400 OR SS275	17	-	PAINT
03	SUPPORT	75 x 75 x 6t E.A	SS400 OR SS275	13 9	-	PAINT
04	SUPPORT	100 x 100 x 10t E.A	SS400 OR SS275	4 2	-	PAINT
05	BACK BAND	Φ19 R.BAR	SS400 OR SS275	5	-	PAINT
06	SAFETY CAGE	50 x 6t F.B	SS400 OR SS275	3	-	
07A 07B	PAD	10t PLATE	SS400 OR SS275	10 8	-	