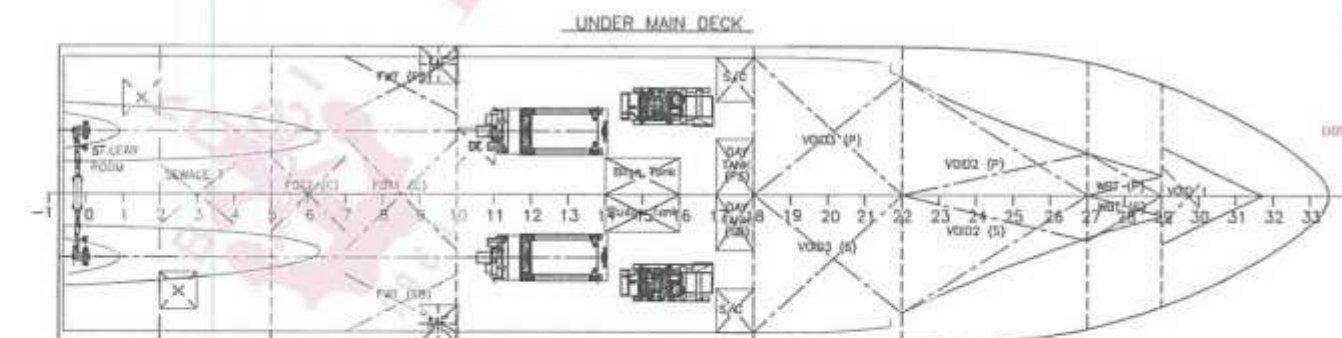
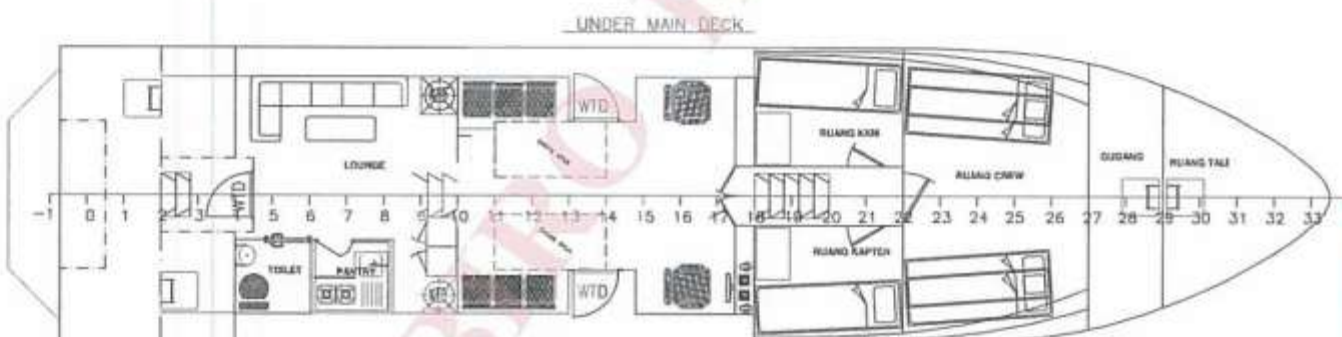
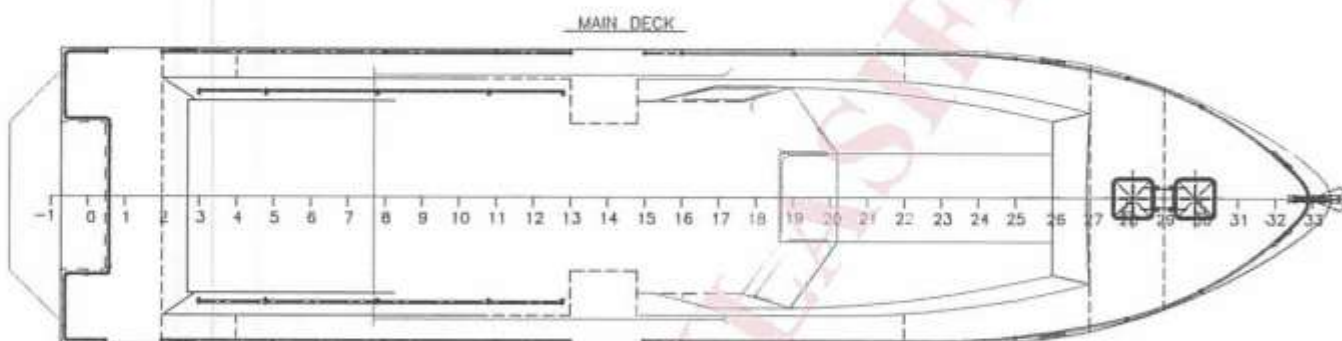
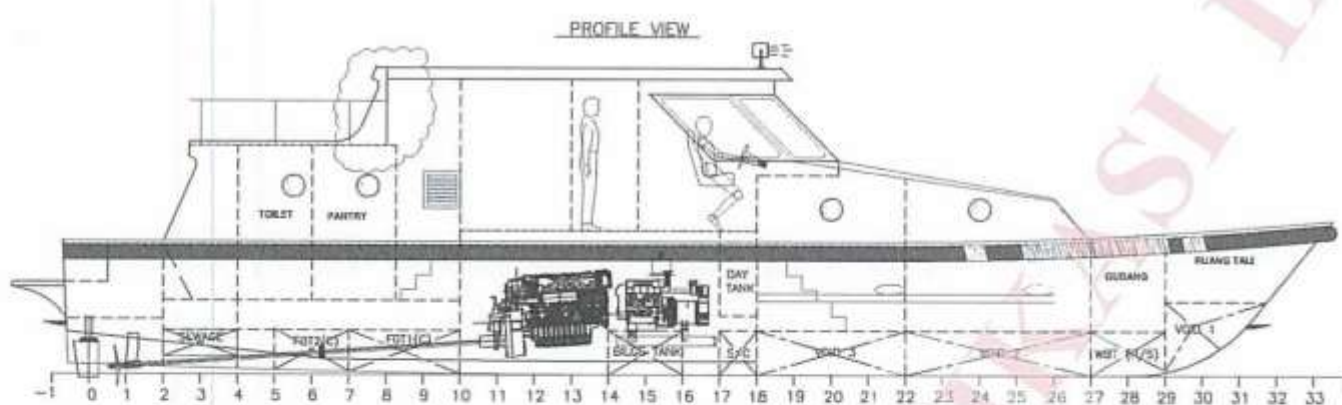
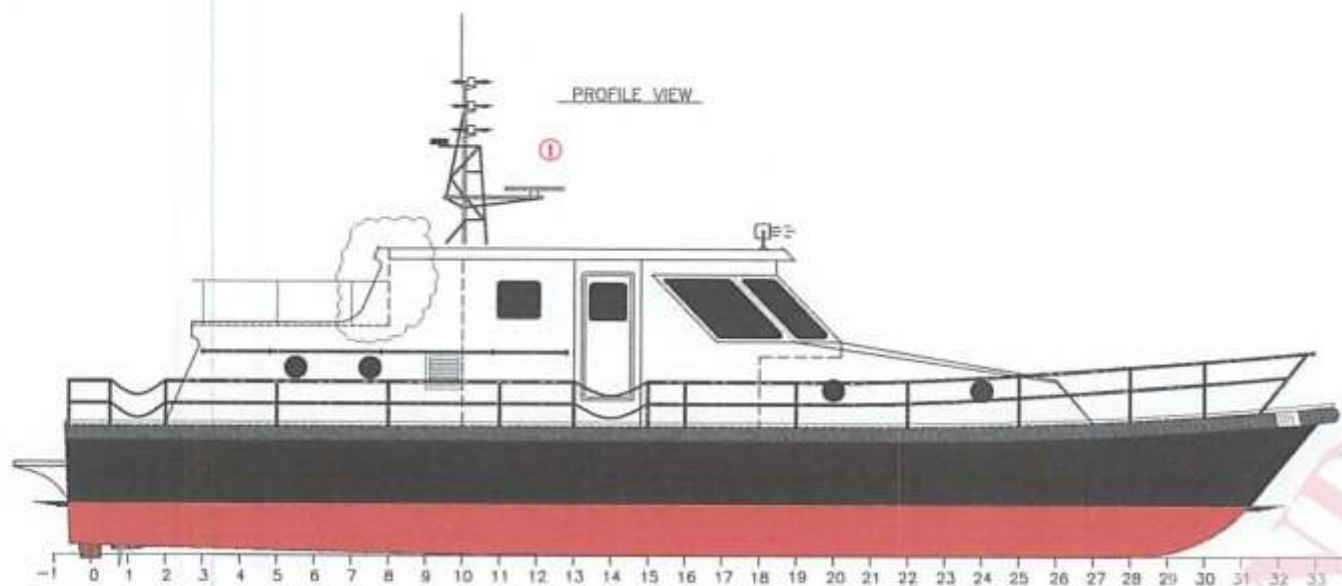




BIRO KLASIFIKASI INDONESIA
SEEN
DIKETAHUI
Nomor: 1705190088
Jakarta, 22 NOV 2017

REMARKS SEE LETTER NO.
A. 1373 SV. 1014/LK-17
AND ENTRIES IN THE DRAWING TO BE OBSERVED
DAN CATATAN MASY PADA GAMBAR AGAR DIPERHATIKAN

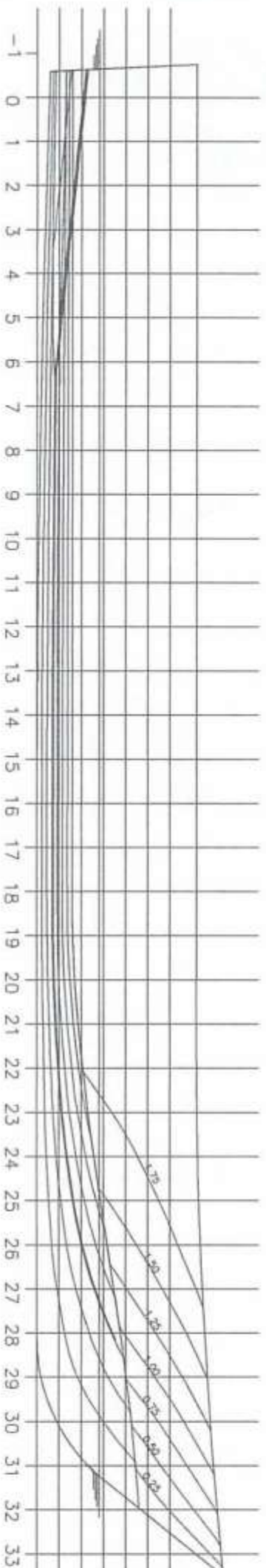
DIPERIKSA UNTUK TANDA KELAS: A100 P "PATROL", AL

PRINCIPAL PARTICULARS	
LENGTH O.A.	17.11 M
LENGTH W.L.	15.82 M
B (M.L.D.)	4.00 M
H (M.L.D.)	1.80 M
DRAUGHT (HULL)	0.70 M
SPEED MAX.	24 KNOTS
MAIN ENGINE	2 X 500 HP
CREWS	7 PERSON

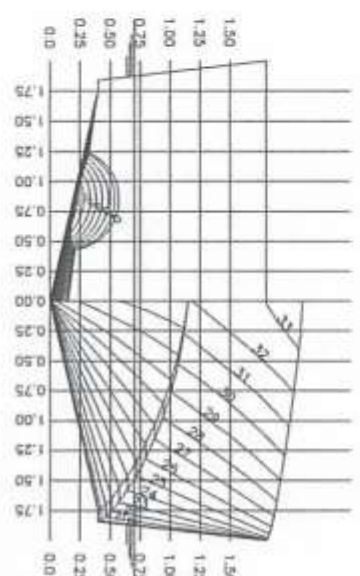


PT. DHARMA KREASI NUSANTARA	
PROJECT NAME: RAPAL PATROL KELAS IV	PROJECT NO.:
DESIGNED BY:	DESIGNED DATE:
CHECKED BY:	CHECKED DATE:
APPROVED BY:	APPROVED DATE:
RENCANA UMUM	
DIREKTORAT KESATUAN PENJAGAAN LAUT DAN PANTAI	
A109-01	

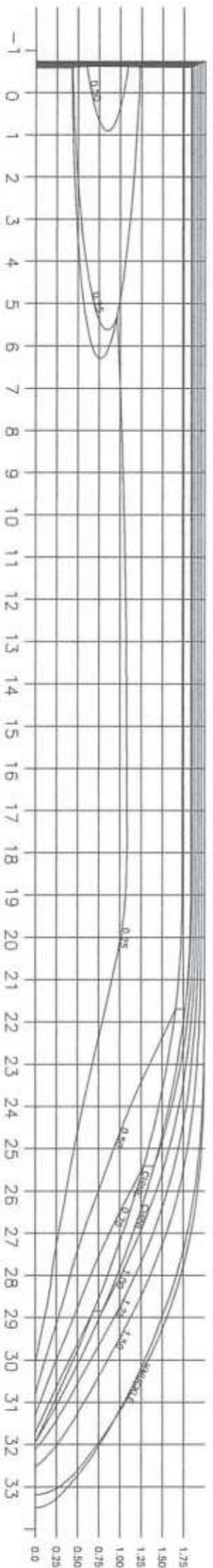
PROFILE VIEW



BODY PLAN



HALFBREADTH PLAN



PRINCIPAL PARTICULARS

LENGTH, O.A.	=	17.11	M
LENGTH, W.L.	=	15.92	M
B (MID)	=	4.00	M
H (MID)	=	1.80	M
DRAUGHT (HULL)	=	0.70	M
SPEED MAX.	=	24	KNOTS
MAIN ENGINE	=	2 X 500 HP	
CREWS	=	7 PERSON	

PT. DHARMA KREASI NUSANTARA

YEAR : 2017	PROJECT NAME : KAPAL PATROL KELAS IV	PROJECT/HULL NO :
DRAWN BY :	DRAWING / DOCUMENT NAME :	OWNER : KEMENHUB-DJPL
DESIGNED BY :		CLASS : BK1
CHECKED BY :		DESIGNER : D.K.-CAD
APPROVED BY :		SCALE : 1:30
		SIZE : A1
		SHEET : 1
		DRW / DOCUMENT NO : A100-02

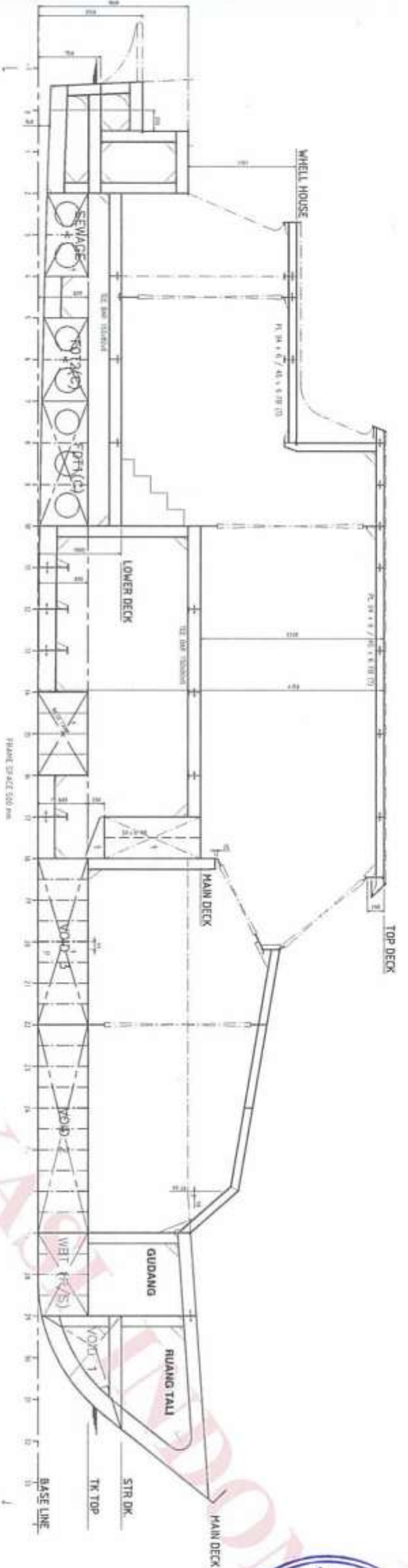
DIREKTORAT KESATUAN
PENJAGAAN LAUT DAN
PANTAI



REV.	1	2	3	4	5
------	---	---	---	---	---



CR. LINE SECTION



STR. DECK

1000 ABV RL.
DE. RL. 5. STR. SHED 10.
CR. DECK

TURN DECK

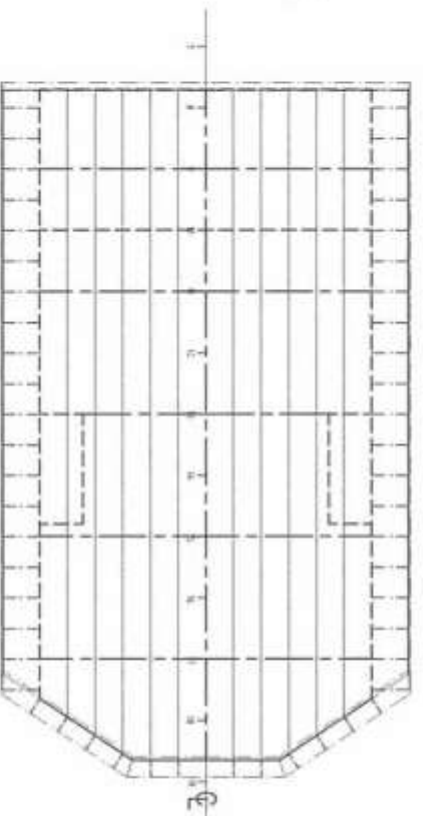
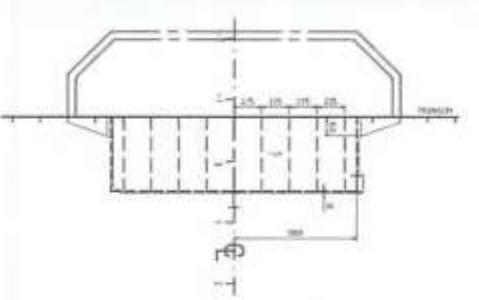
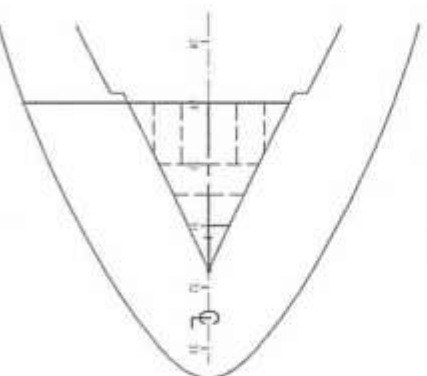
1000 ABV RL.
DE. RL. 5. STR. SHED 10.

LOWER DECK

1000 ABV RL.

TOP DECK

1000 ABV RL.



RE. SPACE	500 mm
DECK PL.	1000 ABV RL.
CR. DECK	DE. SH. 1000mm
WID. SHED	RL. 104 x 8 / 10 x 8 (10)
CONCRETE RING TRAIL	SHED 10

RE. SPACE	500 mm
DECK PL.	1000 ABV RL.
CR. DECK	DE. SH. 1000mm
WID. SHED	RL. 104 x 8 / 10 x 8 (10)
CONCRETE RING TRAIL	SHED 10

PT. DHARMA KREASI NUSANTARA

YEAR 2017	DATE APPROVAL	PROJECT NAME	PROJECT FILE NO.
		KAPAL PATROL KELAS IV	
DESIGNED BY		DRAWING / DOCUMENT NAME	
CHECKED BY		CONSTRUCTION	
APPROVED BY		PROFILE	

**DIREKTORAT KESATUAN
PENJAGAAN LAUT DAN
PANTAI**



**DIREKTORAT KESATUAN
PENJAGAAN LAUT DAN PANTAI**
DIREKTUR JENDERAL
PERHUBUNGAN LAUT
Pembina Utama Madaya (IV/d)
NIP. 19570317 199403 1 001

Mengetahui :
PT. DHARMA KREASI NUSANTARA
Muhammad Huseifah
Direktur

BIRO KLASIFIKASI INDONESIA
APPROVED
DISetujui
Number : 1705190888
JAKARTA, 22 NOV 2017

REMARKS SEE LETTER NO
AND EXISTING IN THE DRAWING TO BE CONSIDERED
CONSTRUCTION WORK FROM EXISTING ASSET OVERSEA RIVER

REV.	0	1	2	3	4	5

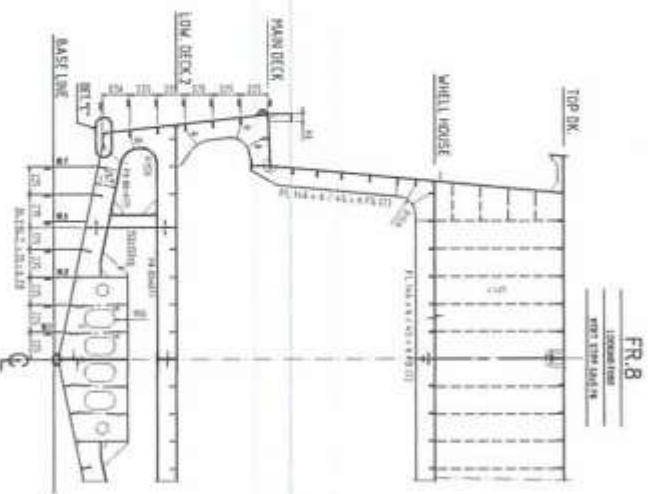
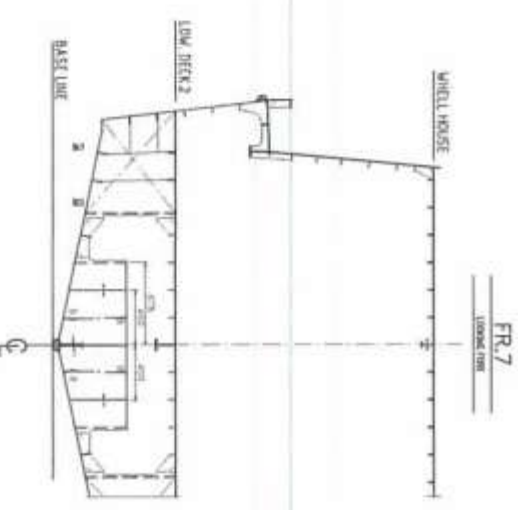
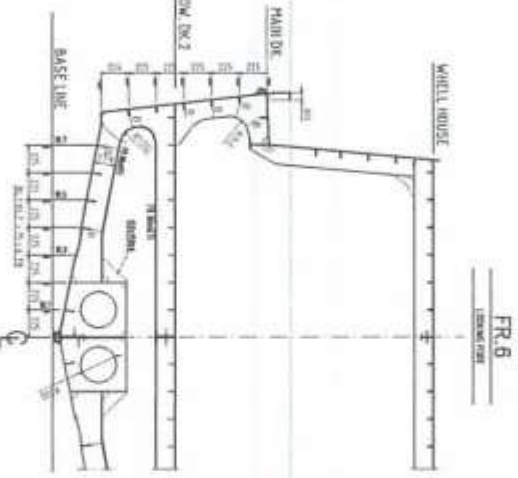
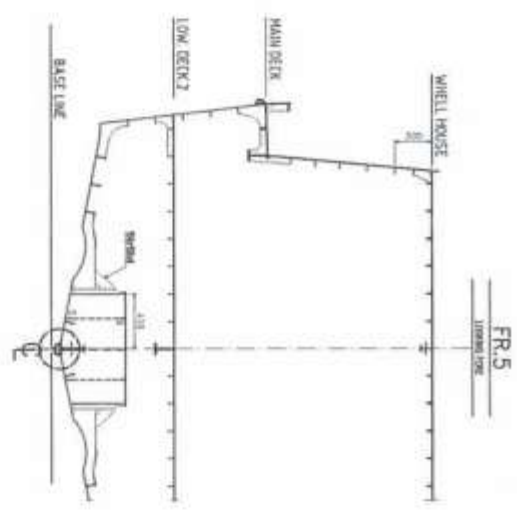
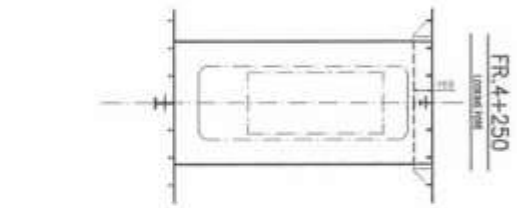
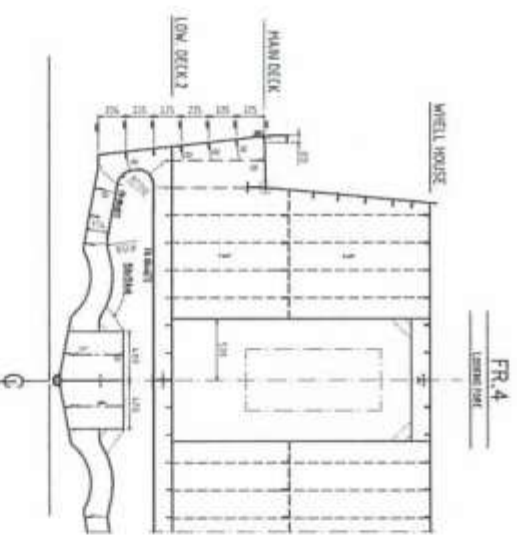
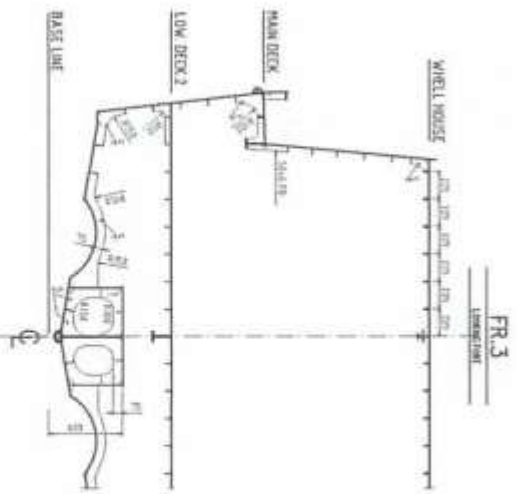
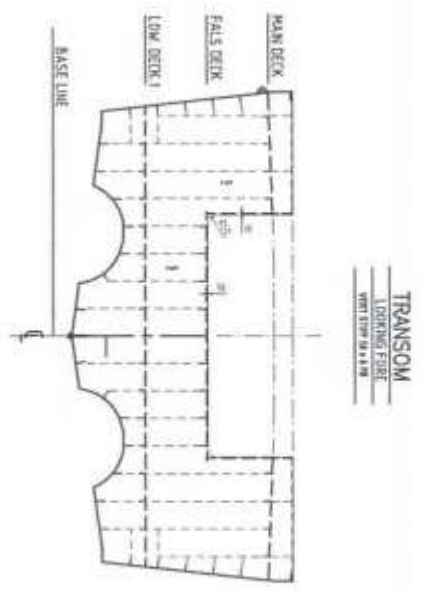
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Mengetahui :

Muhammad Husaefah
Direktur



		TAHUN 2017	
DESAIN BY DESIGNED BY CHECKED BY APPROVED BY	DATE APPROVAL	PROJECT NAME : KAPAL PATROLI KELAS IV	
DIM. WINDU / DOCUMENT NAME : CONSTRUCTION PROFILE		PROJECT SHEET NO.	
DIREKTORAT KESATUAN PENJAGAAN LAUT DAN PANTAI		GUYVER : KEMENDIRU-BATE CLARK : BHE DISSEMINER : BHE-CAD SCALE : 1 : 10 SIZE : A3 SHEET : 01-01 DIM. DOCUMENT NO. : C200-02	
RAY : 0 ① 2 3 4 5			

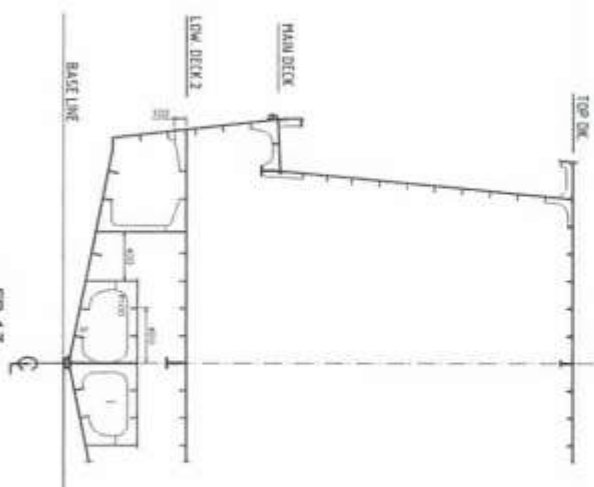


Mengetahui :
PT. Dharma Kreasi Nusantara
Muhammad Huseifah
 Direktur

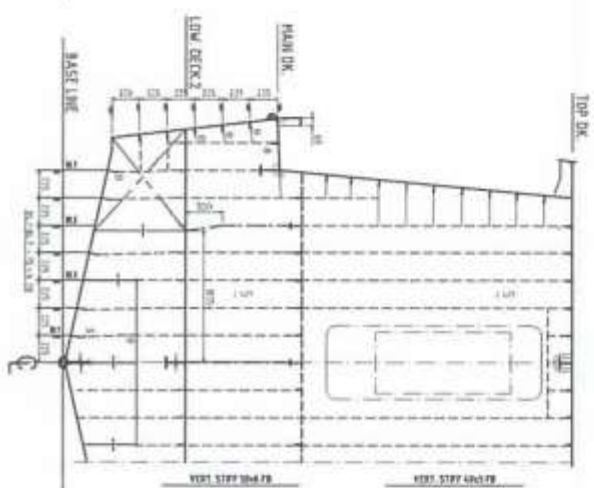
BIRO KLASIFIKASI INDONESIA
APPROVED
 DISETUI
 Nomor : 1703190008
 LANSRIA, 22 NOV 2017

PT. DHARMA KREASI NUSANTARA PTIRINGYANA		PROJECT TITLE KAPAL PATROLI KELAS IV		PROJECT BUILD NO.	
YEAR 2017	DATE APPROVAL	DRAWING/DOCUMENT NAME	OWNER : KEMENTERIAN KELAUTAN DAN PERIKANAN	CLASS : I-BHD	DRAWING/DOCUMENT NAME
DESIGNED BY	CHECKED BY	APPROVED BY	TRANSVERSAL SECTION & BULKHEAD	SCALE : 1:10	SIZE : A1
DIREKTORAT KESATUAN PENJAGAN LAUT DAN PANTAI	DIREKTORAT KESATUAN PENJAGAN LAUT DAN PANTAI	C200-03	SHEET : 01-01	BAW DOCUMENT NO.	BAW DOCUMENT NO.

FR.9



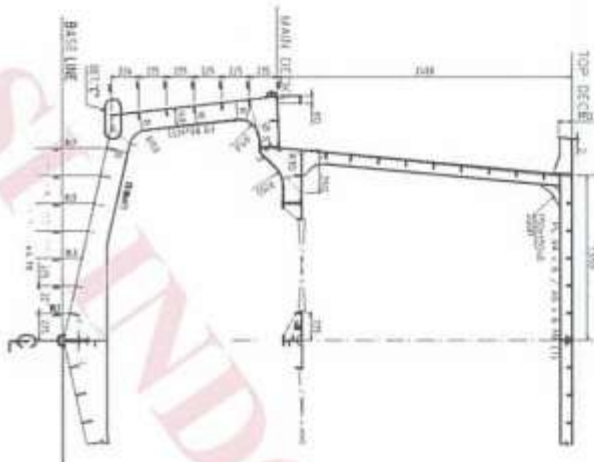
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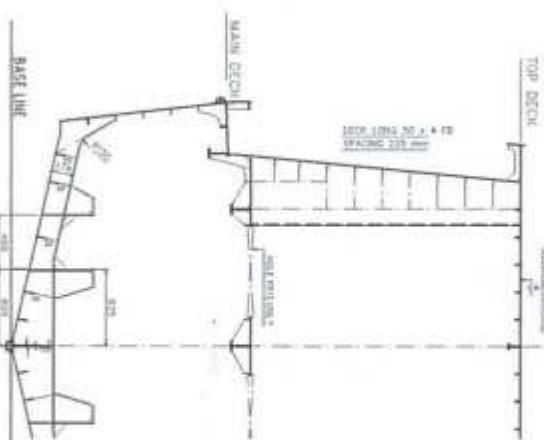
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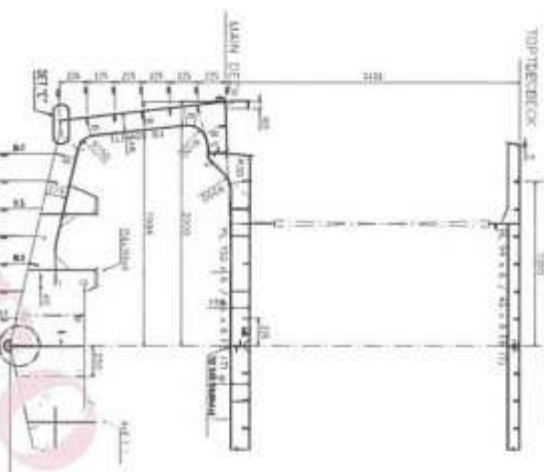
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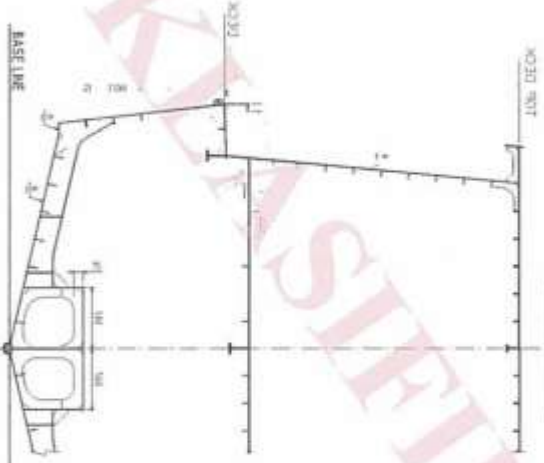
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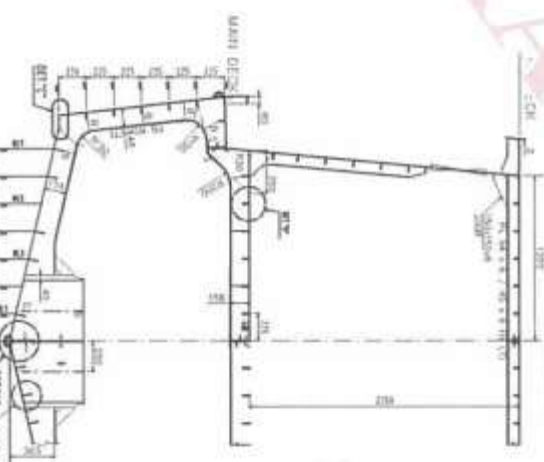
FR.14



FR.15



FR.16



FR.17



FR.18



FR.19



FR.20



PT. DHARMA KREASI NUSANTARA

PROJEKSI
KAPAL PATROLI KELAS IV
TRANSVERSAL SECTION
& BULKHEAD

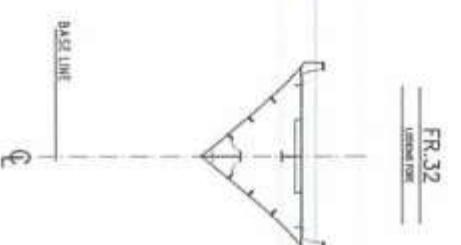
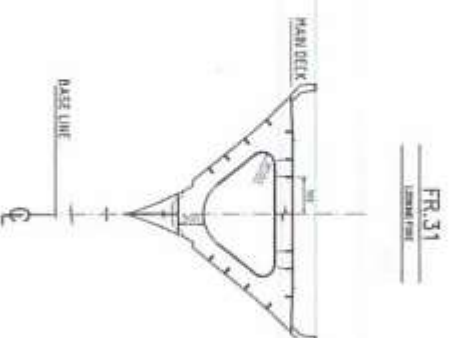
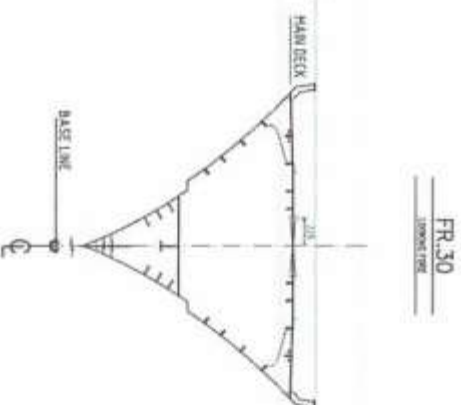
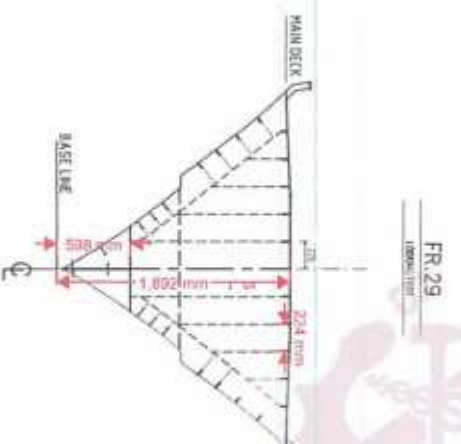
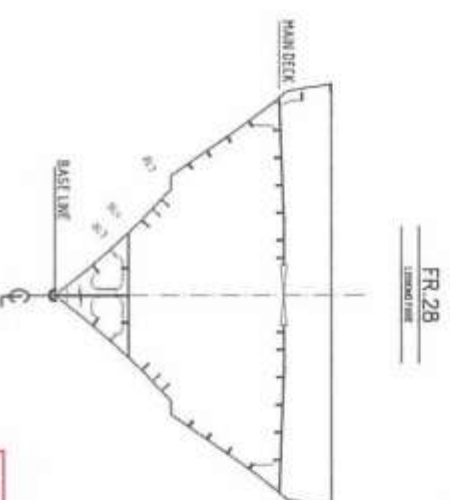
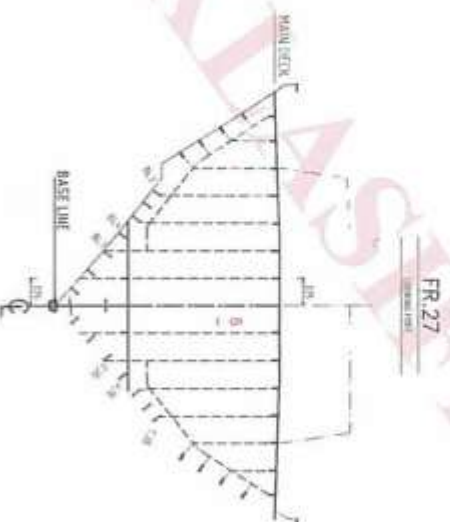
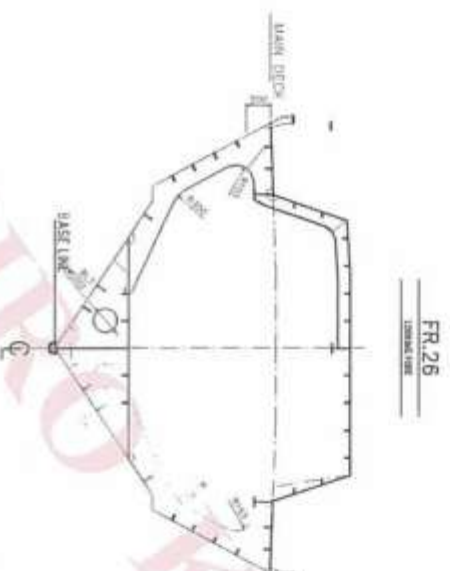
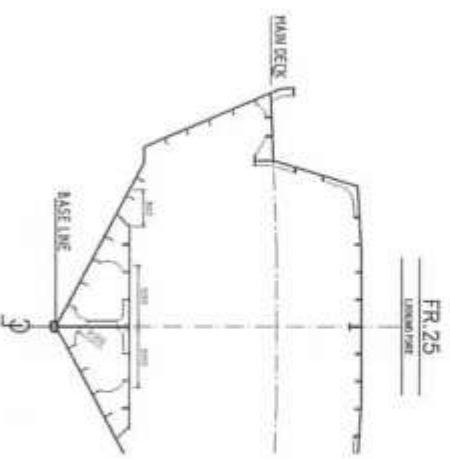
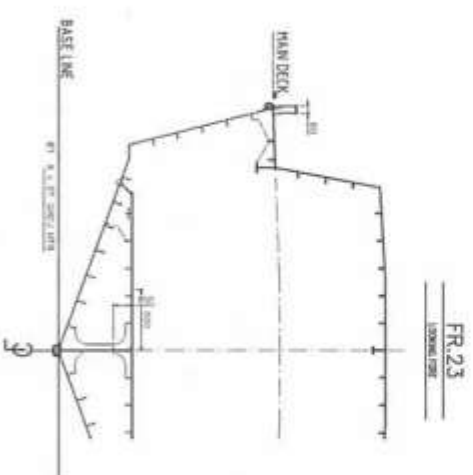
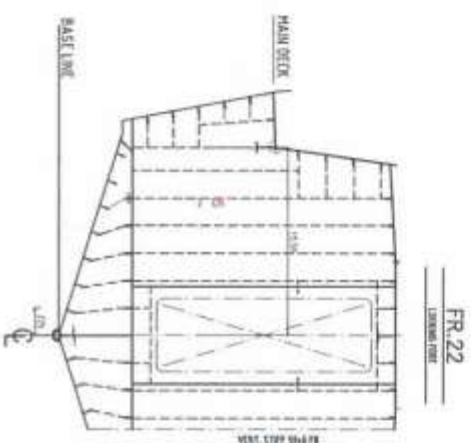
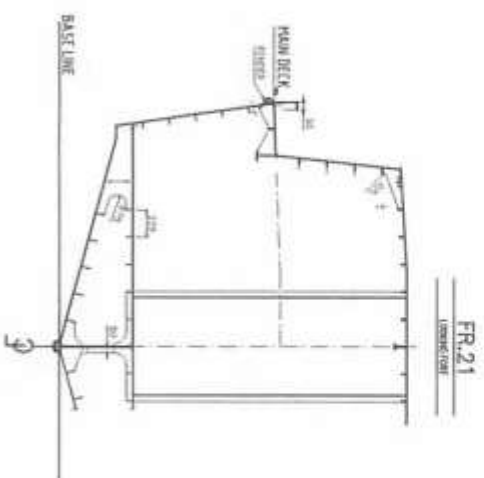
DIREKTORAT KESATUAN
PENAGALAN LAUT DAN
PANTAI

Mengetahui :
Mutamad Husafah
Direktur

BIRO KLASIFIKASI INDONESIA
APPROVED
DISETUJUI
NOMOR : 170519008
ANGKARA, 22 NOV 2017

REVISI SHEET LETTER NO.
REVISI SHEET LETTER NO.
A. 0273 SY. 101/LR-17
AND DETAILS IN THE DRAWING TO BE CHECKED
AND CANCELLED BY THE DESIGNER AND APPROVED

REVISI SHEET LETTER NO.
REVISI SHEET LETTER NO.
A. 0273 SY. 101/LR-17
AND DETAILS IN THE DRAWING TO BE CHECKED
AND CANCELLED BY THE DESIGNER AND APPROVED

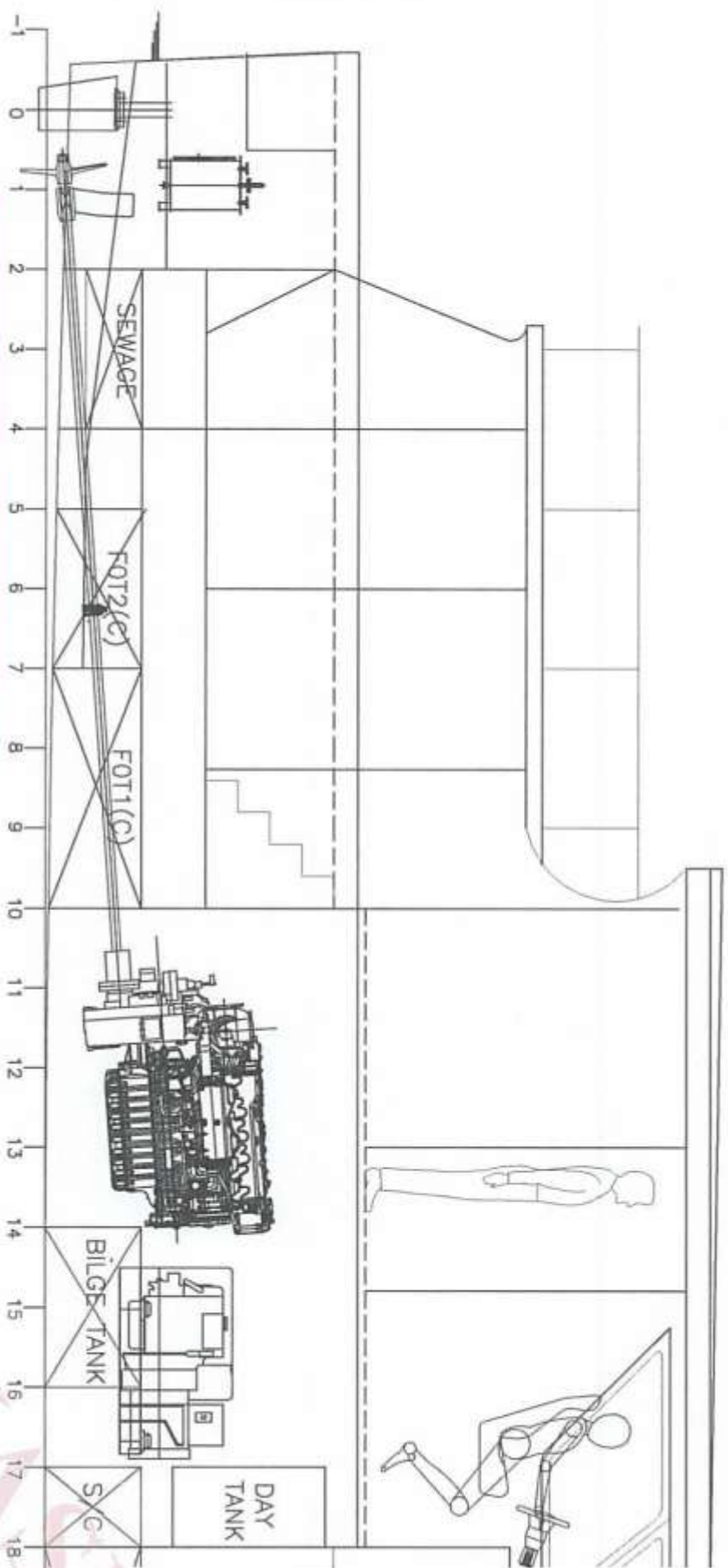


Mengetahui :
PT. DHARMA KREASI NUSANTARA
Multimad Huseifah
Direktur

BIRO KLASIFIKASI INDONESIA
APPROVED
DISETUIHI
Number : 1708190088
Date : 22 NOV 2012

REMARKS SEE LETTER NO.
A.1273, SY. 101 (A.1273)
AND ENTERIES ON THE DRAWING TO BE CORRECTED
ON CATION (REMARKS) CONSIDER AS NOT CORRECTIVE

PT. DHARMA KREASI NUSANTARA		PROJECT NAME		KAPAL PATROLI KELAS IV	
YEAR 2017	DATE APPROVAL	DESIGNED BY	DRAWING / DOCUMENT NAME	OWNER : KEMENTERIAN PERTANIAN	PROJECT NO.
		CHECKED BY			
		APPROVED BY			
DIREKTORAT KESATUAN PENJAGAAN LAUT DAN PANTAI			TRANSVERSAL SECTION & BULKHEAD		
SCALE : 1:100			SHEET : 01-01		
DRAWING NO. : C200-03			DATE : 01-01		



No.	Deskripsi	Q'ty.	T y p e	Maker
1	MESIN INDUK DAN GEARBOX	2	± 500 HP	
2	GENSET	2	± 15 KW	
3	POMPA BILGE / G.S PUMP	1	10 M ³ /AM x 20 M	
4	POMPA BAHAN BAKAR	1	17 LITER/MENIT X 9 M	
5	POMPA AIR TAWAR	1	17 LITER/MENIT X 9 M	
6	OILY WATER SEPARATOR	1	0.25 M ³ /HR x15 PPM	
7	OILY BILGE / SLUDGE PUMP	1	17 LITER/MENIT X 9 M	
8	POMPA TANGKAP AIR TAWAR	1	25 LITER/MENIT	
9	POMPA KOTORAN	1	17 LITER/MENIT X 9 M	
10	HYDRAULIC POWER PACK	1	MAKER STD.	
11	POMPA TANGKAP BAHAN BAKAR	1	25 LITER/MENIT	

BIRO KLASIFIKASI INDONESIA

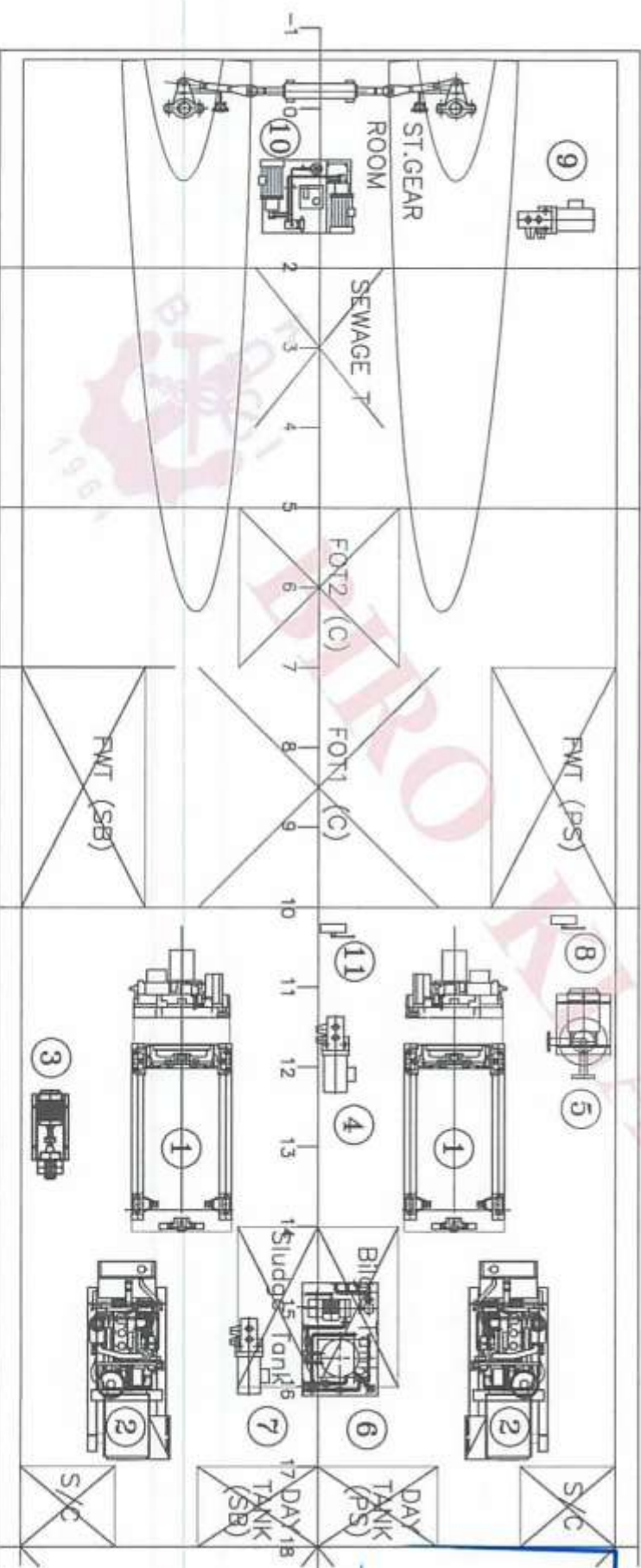
SEEN
DIKETAHUI

Number: 1705190988
Jakarta, 04 DES. 2017

REMARKS SEE LETTER NO.
REKOMENDASI LIHAT SURAT NO.
A. 1785 / SV.101 / MM / KI-17
AND ENTRIES IN THE DRAWING TO BE OBSERVED
DAN CATATAN MERAH PADA GAMBAR AGAR DIPERHATIKAN

UNDER MAIN DECK

- Catatan:
1. Mesin Induk dan Mesin Bantu serta Perlengkapan Bantu lainnya harus dari jenis Marine Use serta dilengkapi sertifikat komponen dari kelas BKI.
 2. OWS harus dari jenis yang disetujui Pemerintah.
 3. Gambar ini diperiksa untuk kapal dengan notasi kelas mesin "SM".
 4. Kapal dilengkapi minimum 2 (dua) buah Bilge Pump, Fire Pump maupun GS Pump dapat digunakan sebagai Stand By Bilge Pump jika kapasitas pompa memenuhi.



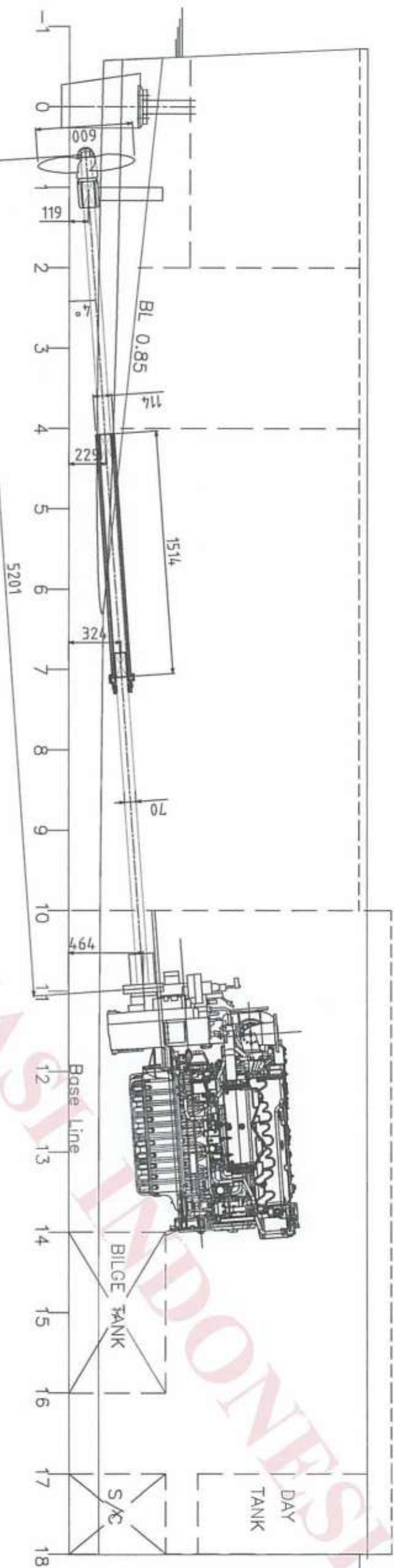
PRINCIPAL PARTICULARS

LENGTH	O.A.	= 17.00	M
LENGTH	W.L.	= 15.804	M
B (MLD)		= 4.00	M
H (MLD)		= 1.80	M
DRAUGHT (HULL)		= 0.70	M
SPEED MAX.		= 24	KNOTS
MAIN ENGINE		= 2 X 500 HP	
CREWS		= 7 PERSON	

PT. DHARMA KREASI NUSANTARA

DIREKTORAT KESATUAN
PENJAGAAN LAUT DAN
PANTAI

D400-01

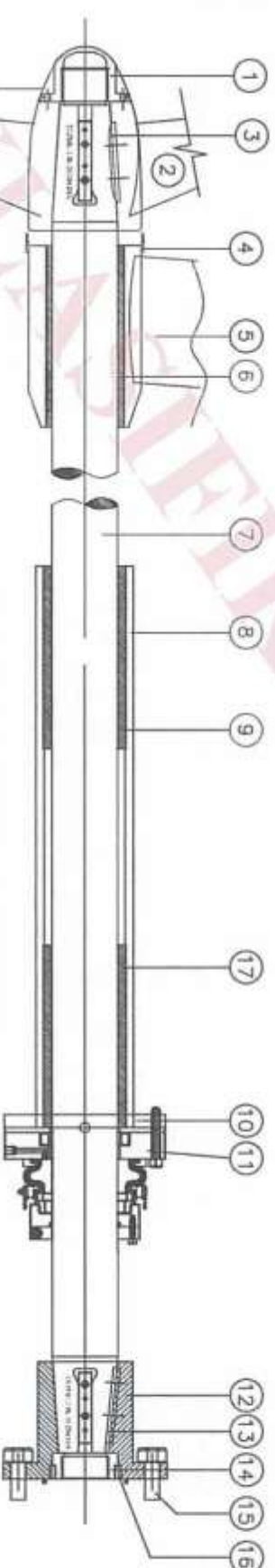


BIRO KLASIFIKASI INDONESIA

SEEN
DIKETAHUI

Number 1705190088

JAKARTA, 04 DES. 2017

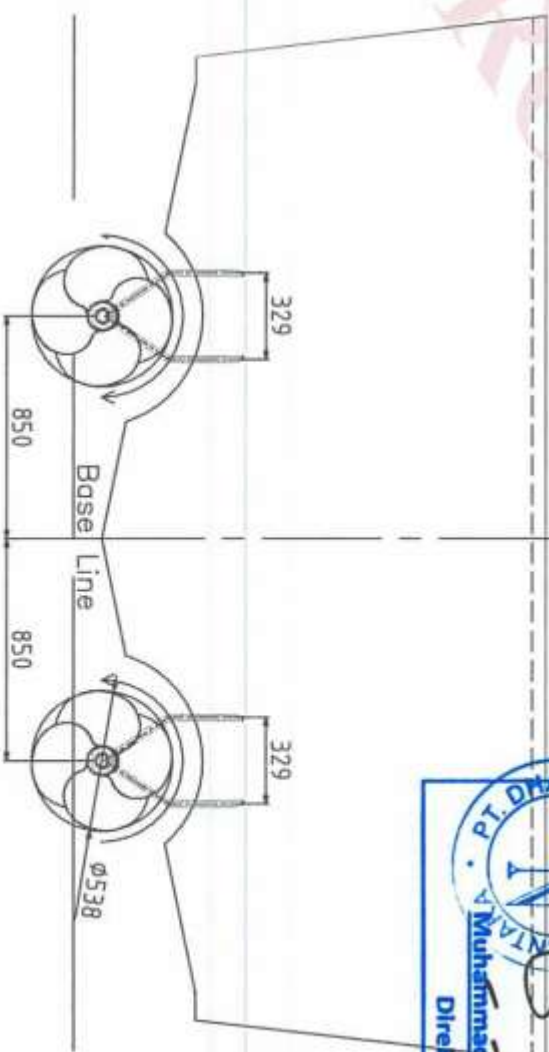


FS 1

Mengetahui:
PT. DHARMA KREASI NUSANTARA
Muhammad Husefah
Direktur

PRINCIPAL PARTICULARS:
LENGTH, W.L. = 15.92 M
B (M.L.D) = 4.00 M
H (M.L.D) = 1.80 M
DRAUGHT (HULL) = 0.70 M
SPEED MAX. = 24 KNOTS
MAIN ENGINE = 2 X 500 HP
ROTATION M/E = 2700 RPM

NO.	DESCRIPTION	QTY.	MATERIAL	REMARKS
1	CONE NUT	2	MANGANEZE-BRONZE	
2	PP-PROPELLER	2	MANGANEZE-BRONZE	
3	PROP. KEY	2	STAINLESS STEEL 304	
4	ROPE GUARD - CUTTER	8	STAINLESS STEEL 304	
5	BOSS BEARING V-BRACKET	2	FORGED STEEL	
6	PROP. SHAFT BEARING	2	RUBBER BEARING	
7	PROP. SHAFT	2	STAINLESS STEEL 304	
8	STERN TUBE	2	STEEL PIPE SCH-X	
9	AFT. ST. TUBE SHAFT BEARING	2	RUBBER BEARING	
10	STERN TUBE COUPLING	2	FORGED STEEL	
11	DEEP SEA SEAL PACKAGES	2	WATER STD	
12	SHAFT COUPLING FLANGE	2	FORGED STEEL	
13	SHAFT COUPLING FLANGE KEY	2	STAINLESS STEEL 304	
14	ANTI ROTATING SCREW	2	STAINLESS STEEL 304	
15	COUPLING BOLTS	16	FORGED STEEL	
16	BOLT STOPPER	4	FORGED STEEL	
17	PRO ST. TUBE SHAFT BEARING	1	RUBBER BEARING	



PT. DHARMA KREASI NUSANTARA

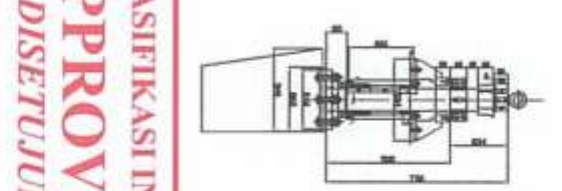
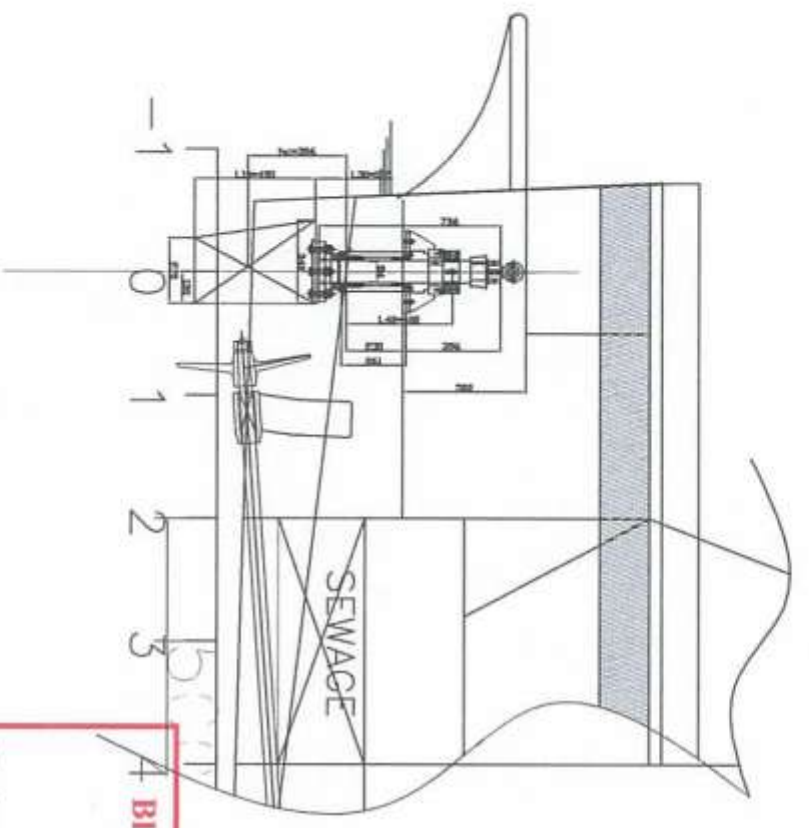
YEAR	DATE	APPROVAL	PROJECT NAME	PROJECT/RIIL NO.
2017			KAPAL PATROL KELAS IV	
DRAWN BY			DRAWING/ DOCUMENT NAME	
DESIGNED BY			SHAFTING	
CHECKED BY			ARRANGEMENT	
APPROVED BY				



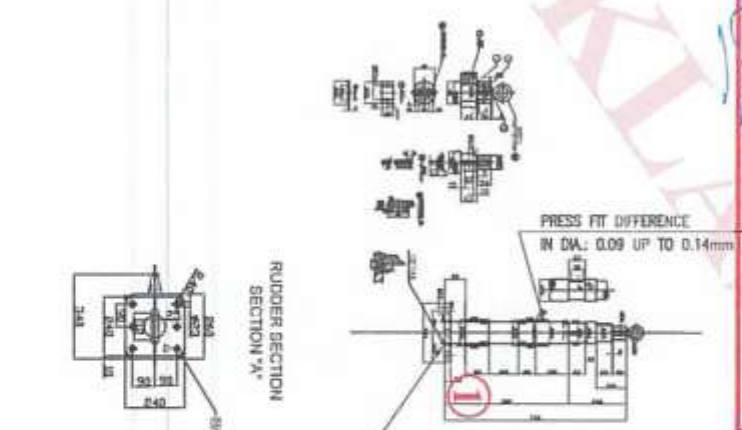
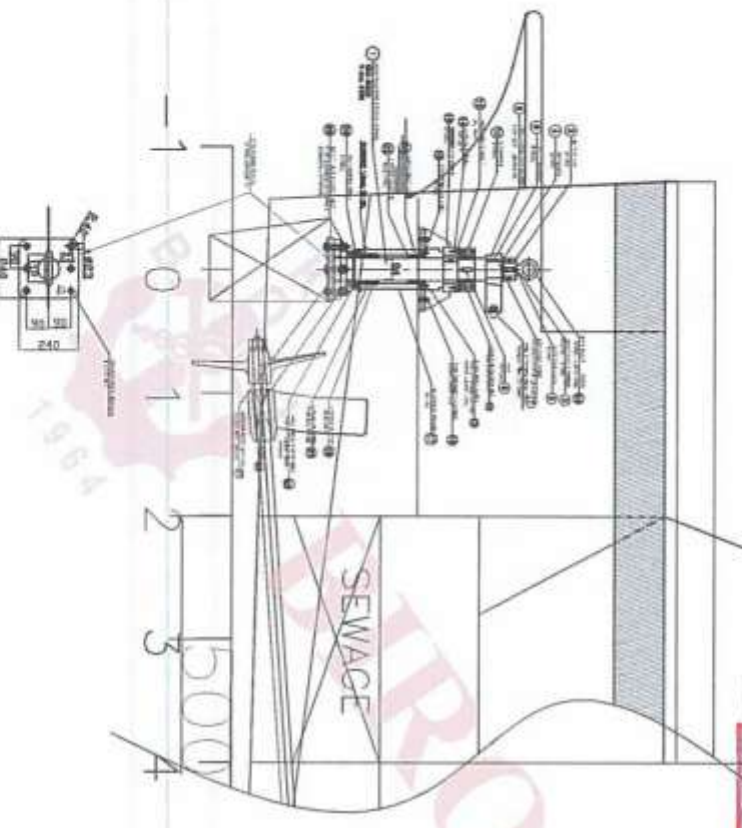
DIREKTORAT KESATUAN
PENJAGAAN LAUT DAN
PANTAI

O400-02

REV.	0	1	2	3	4	5



BIRO KLASIFIKASI INDONESIA
APPROVED
DISETUJUI
 Number : 1705190088
 Nomor
 JAKARTA, 22 NOV 2017

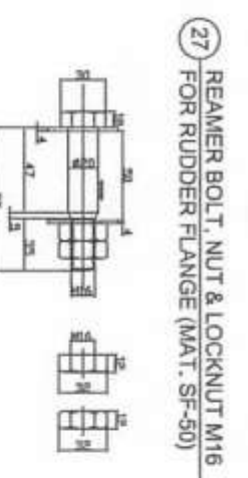


- 10 STOPPER STEEL
- 14 UPPER BEARING BRONZE
- 17 RUDDER TRUNK
- 14 LOWER BEARING BRONZE
- 10 STOPPER STEEL
- 14 UPPER BEARING BRONZE
- 17 RUDDER TRUNK
- 14 LOWER BEARING BRONZE

REMARKS SEE LETTER NO. A.1273 /SV.101/LL/KI-17
 REKOMENDASI LIHAT SURAT NO. A.1273 /SV.101/LL/KI-17
 DAN CATATAN MERAH PADA GAMBAR AGAR DIPERHATIKAN

NOTE: - THIS MATERIAL ONLY FOR 1 (ONE) RUDDER
 FOR 2 (TWO) RUDDER SHOULD BE TIMES 2

NO.	N A M E	MATERIAL	QTY	WORK SHOP	ONE TOTAL WEIGHT/Kg	REMARK
1.	RUDDER STOCK (1100)	ST-60	1			
2.	NUT	ST-60	1			
3.	WASHER	ST-41	1			
4.	STOPPER PLATE	ST-41	1			
5.	STOPPER	ST-41	1			
6.	JACK SCREW	ST-41	1			
7.	STOPPER PLATE	ST-41	1			
8.	WASHER	ST-41	1			
9.	STOPPER	ST-41	1			
10.	STOPPER	ST-41	1			
11.	STOPPER	ST-41	1			
12.	STOPPER	ST-41	1			
13.	STOPPER	ST-41	1			
14.	STOPPER	ST-41	1			
15.	STOPPER	ST-41	1			
16.	STOPPER	ST-41	1			
17.	STOPPER	ST-41	1			
18.	STOPPER	ST-41	1			
19.	STOPPER	ST-41	1			
20.	STOPPER	ST-41	1			
21.	STOPPER	ST-41	1			
22.	STOPPER	ST-41	1			
23.	STOPPER	ST-41	1			
24.	STOPPER	ST-41	1			
25.	STOPPER	ST-41	1			
26.	STOPPER	ST-41	1			
27.	STOPPER	ST-41	1			
28.	STOPPER	ST-41	1			
29.	STOPPER	ST-41	1			
30.	STOPPER	ST-41	1			



PRINCIPAL DIMENSION
 L_{OD} : 29.00 m
 L_{PP} : 26.18 m
 L_{WI} : 27.98 m
 B : 7 m
 T : 2.4 m
 H : 3.1 m

Mengetahui :
PT. DHARMA KREASI NUSANTARA
Mukhammad Huseaefah
Direktur

PT. DHARMA KREASI NUSANTARA
 PROJECT NAME :
 PROJECT NO. :
 PROJECT DATE :
 PROJECT LOCATION :
 PROJECT DESCRIPTION :
 PROJECT STATUS :
 PROJECT CONTACT :
 PROJECT ADDRESS :
 PROJECT PHONE :
 PROJECT FAX :
 PROJECT E-MAIL :
 PROJECT WEBSITE :
 PROJECT LOGO :
 PROJECT SIGNATURE :
 PROJECT DATE :
 PROJECT LOCATION :
 PROJECT DESCRIPTION :
 PROJECT STATUS :
 PROJECT CONTACT :
 PROJECT ADDRESS :
 PROJECT PHONE :
 PROJECT FAX :
 PROJECT E-MAIL :
 PROJECT WEBSITE :

BIRO KLASIFIKASI INDONESIA

TO BE REDRAWN, SUBJECT TO REMARKS IN RED
HUBUNG LILAR DENGAN MEMPERHATIKAN CATATAN MERAH

[Signature]

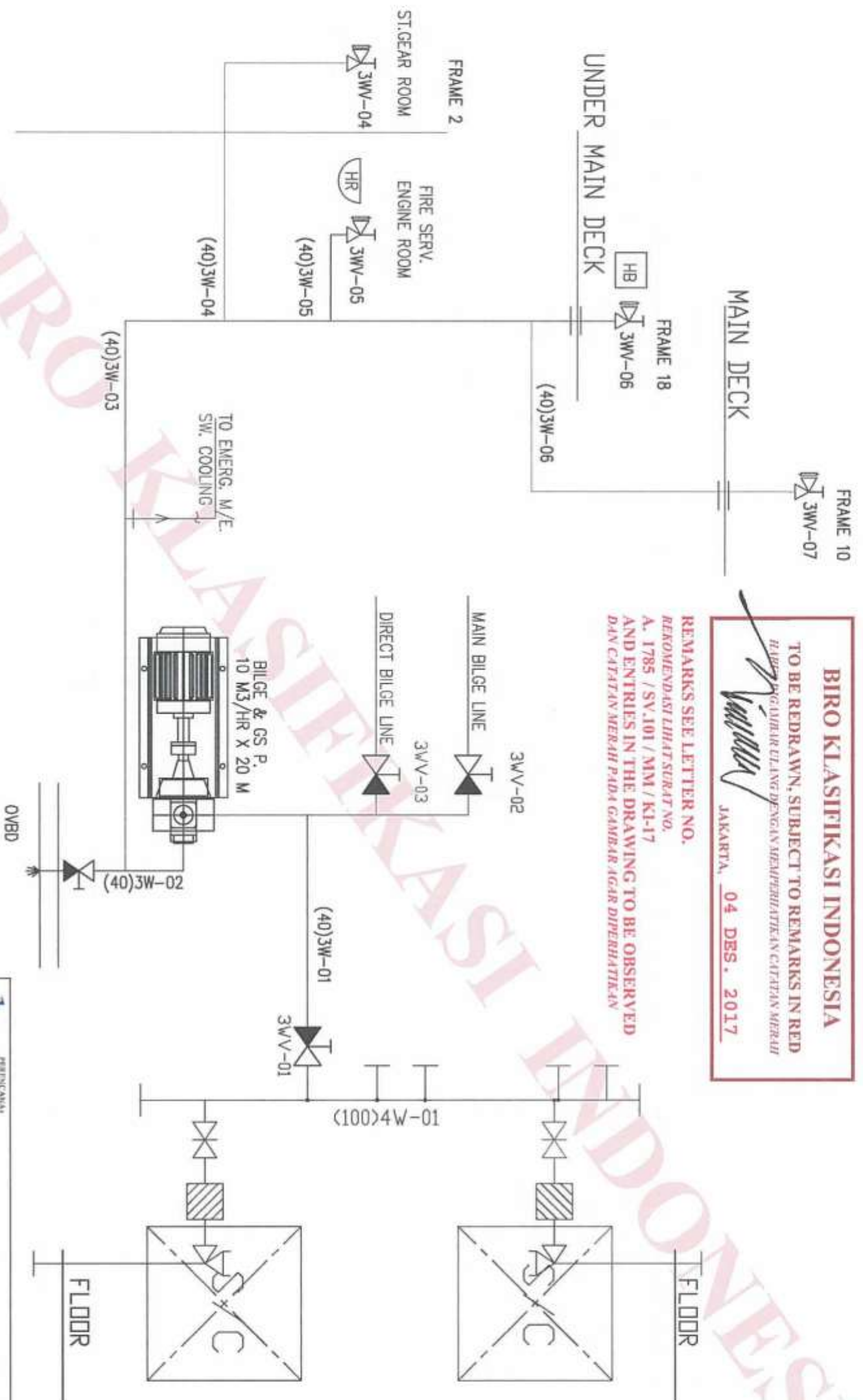
JAKARTA, 04 DES. 2017

REMARKS SEE LETTER NO.

REKOMENDASI LILAT SURAT NO.

A. 1785 / SV.101 / MM / KI-17

AND ENTRIES IN THE DRAWING TO BE OBSERVED
DAN CATATAN MERAH PADA GAMBAR AGAR DIPERHATIKAN



Catatan:
1. Lihat catatan pada gambar 'Bilge & Ballast System'.

Mengetahui:
[Signature]
PT. DHARMA KREASI NUSANTARA
Direktur

PT. DHARMA KREASI NUSANTARA		PROJECT/MILL NO.	
YEAR : 2017	DATE : APPROVAL	PROJECT NAME : KAPAL PATROL KELAS IV	
DRAWN BY :	DESIGNED BY :	DRAWING / DOCUMENT NAME : FIRE & WASH DECK SYSTEM	
CHECKED BY :	APPROVED BY :	OWNER : KEMENHUB-RI/PL	
		DESIGNER IN-CAD	
		SCALE : 1:1.25	
		SHEET : A3	
		DWG / DOCUMENT NO. : D400-08	
DIREKTORAT KESATUAN PENJAGAAN LAUT DAN PANTAI			
REV. 1		REV. 2	
REV. 3		REV. 4	
REV. 5			

NOTE :

1. IN GENERAL THE MATERIAL OF PENETRATION PIECE IS TO BE STEEL PIPE SCH.80

2. HYDRAULIC TEST PRESSURE

DESIGN PRESSURE	WORKING PRESSURE	HYDRAULIC TEST PRESSURE		REMARK
		BEFORE INSTALLATION	AFTER INSTALLATION	
PN.5	2.0 BAR	1,5 x DESIGN PRESS	WORKING PRESS.	FIRE LINE

3. PIPE LIST

SYSTEM	NOMINAL SIZE MM	MATERIAL	JOINT		LIST NO	REMARK
			PRESS STD	MATERIAL		
FIRE LINE	40	WELDED STEEL PIPE SCH.40 (GALVANIZED)	PN.5	STEEL FLANGE & SLEEVE	3W-01,02,03,04,05,06	REF. MAKER STD.
SHELL PIECE BILGE LINE	40	SEAMLESS STEEL PIPE SCH.160 (GALVANIZED)	PN.5	STEEL FLANGE & SLEEVE	3W-02	REF. MAKER STD. CLASS CERTIFICATE

4. FITTING LIST

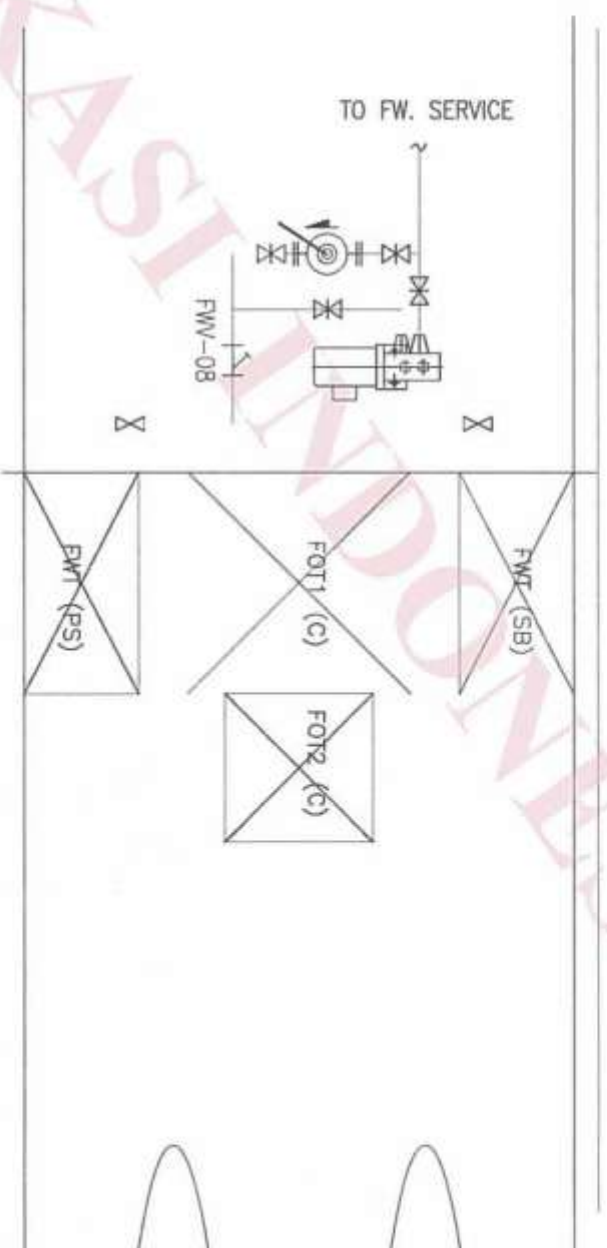
SYMBOL	NAME	NOMINAL SIZE MM	PRESS STD	MATERIAL OF BODY	Q'TY	LIST NO	REMARK
	SCREW DOWN NON RETURN GLOBE VALVE	40	PN.10	CAST IRON	3	3WV-01,02,03	REF. MAKER STD.
		40	PN.10	CAST STEEL			REF. MAKER STD. CLASS CERTIFICATE
	ANGLE HOSE VALVE	40	PN.5	CAST BRONZE	3	3WV-04,05,06,07	REF. MAKER STD.

Mengetahui :

Pharma Krea Nusantara

 Muhammad Husaefah
 Direktur

BIRO KLASIFIKASI INDONESIA
 Stamped drawing refer to 1" page
 Cap gambar, mengacu pada halaman pertama



JAKARTA, 04 DES. 2017

REV.	0	1	2	3	4	5
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NOTE :

1. IN GENERAL THE MATERIAL OF PENETRATION PIECE IS TO BE STEEL PIPE SCH.80

2. HYDRAULIC TEST PRESSURE FOR PIPING DIAGRAM OF FRESH WATER SYSTEM

DESIGN PRESSURE	WORKING PRESSURE	HYDRAULIC TEST PRESSURE		REMARK
		BEFORE INSTALLATION	AFTER INSTALLATION	
PN.5	PN.2	1,5 x DESIGN PRESS	WORKING PRESS.	

3. PIPE LIST

SYSTEM	NOMINAL SIZE MM	MATERIAL	JOINT		LIST NO	REMARK
			PRESS STD	MATERIAL		
FW. SERVICE	15	WELDED STEEL PIPE SCH.40 (GALVANIZED)	PN.5	STEEL FLANGE & SLEEVE	FW-01,02,03,04,05,07	REF. MAKER STD.
	25				FW-08,09	
	32				FW-06	
	40				FW-11	

4. FITTING LIST

SYMBOL	NAME	NOMINAL SIZE MM	PRESS STD	MATERIAL OF BODY	Q'TY	LIST NO	REMARK
	GATE VALVE	15	PN.5	CAST BRONZE	1	FWV-03	REF. MAKER STD.
		25			4	FWV-04,05,06,07,09,10	
	FAUCET VALVE	15	PN.5	BRASS	2	LWV-01,02	MAKER STD.
	GLASS GAUGE	40	-	CAST BRONZE	1	SDV-02	REF. MAKER STD.
	Y-TYPE WATER STRAINER	25	PN.5	CAST BRONZE	1	FWV-08	REF. MAKER STD.

Mengetahui :

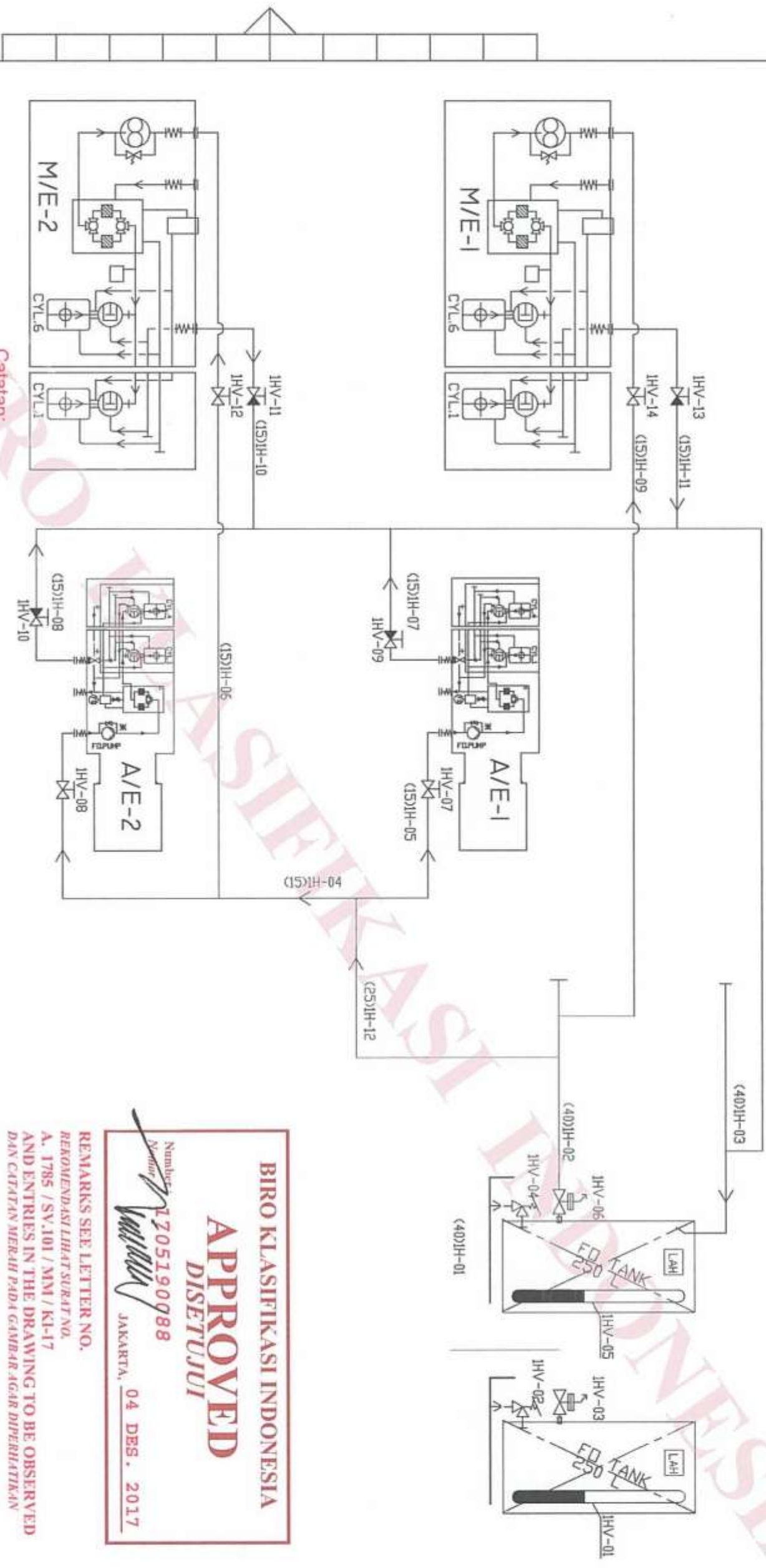
Dharma Kreasi Nusantara



Muhammad Husaefah

Direktur

BIRO KLASIFIKASI INDONESIA
Stamped drawing refer to 1st page
Cap gambar, mengacu pada halaman pertama



Catatan:
1. FODT Sounding Glass harus dari jenis Flat Glass dengan Self Closing Valve pada hubungannya dengan FODT.

Mengetahui :
PT. DHARMA KREASI NUSANTARA
Muhammad Huseifah
Direktur

BIRO KLASIFIKASI INDONESIA
APPROVED
DISETUJUI
Number: 1705190988
Jakarta, 04 DES. 2017

REMARKS SEE LETTER NO.
REKOMENDASI LIHAT SURAT NO.
A. 1785 / SV.101 / MM / KI-17
AND ENTRIES IN THE DRAWING TO BE OBSERVED
DAN CATATAN MERAH PADA GAMBAR AGAR DIPERHATIKAN

PT. DHARMA KREASI NUSANTARA	
TEMA : 2017	PROJECT NAME : KAPAL PATROL KELAS IV
DATE APPROVAL	DRAWING / DOCUMENT NAME : FUEL SERVICE SYSTEM
DRAWN BY	DESIGNED BY
CHECKED BY	APPROVED BY
DIREKTORAT KESATUAN PENJAGAAN LAUT DAN PANTAI	
REV. 1	2
3	4
5	

NOTE :

1. IN GENERAL THE MATERIAL OF PENETRATION PIECE IS TO BE STEEL PIPE SCH.80

2. HYDRAULIC TEST PRESSURE

DESIGN PRESSURE	WORKING PRESSURE	HYDRAULIC TEST PRESSURE		REMARK
		BEFORE INSTALLATION	AFTER INSTALLATION	
PN.5	PN.2.5	1,5 x WORKING PRESS.	WORKING PRESS.	FUEL OIL LINE

3. PIPE LIST

SYSTEM	NOMINAL SIZE MM	MATERIAL	JOINT		LIST NO	REMARK
			PRESS STD	MATERIAL		
FO. SERVICE LINE	15	WELDED STEEL PIPE SCH.40	PN.5	STEEL FLANGE & SLEEVE	1H-04,05,06,07,08,09,10,11	REF. MAKER STD.
	25				1H-12	
	40				1H-01,02,03	

4. FITTING LIST

SYMBOL	NAME	NOMINAL SIZE MM	PRESS STD	MATERIAL OF BODY	Q'TY	LIST NO	REMARK
	SDNR GLOBE VALVE	15	PN.5	BRONZE	4	1HV-09,10,11,13	REF. MAKER STD.
	GLOBE VALVE	15	PN.5	BRONZE	4	1HV-07,08,12,14	REF. MAKER STD.
	QUICK CLOSING VALVE	40	PN.5	CAST IRON	2	1HV-03,06	REF. MAKER STD.
	SELF CLOSING VALVE	25	PN.5	BRONZE	2	1HV-02,04	REF. MAKER STD.
	LEVEL ALARM HIGH	-	-	MAKER STD.	2	(2) FOR FO. DAY TK	REF. MAKER STD. CLASS APPV. TYPE
	MAGNETIC TYPE LEVEL GAUGE	25	PN.16	ST. STEEL	2	1HV-01,05	REF. MAKER STD.

Mengetahui :

PT. Dharma Kreasi Nusantara

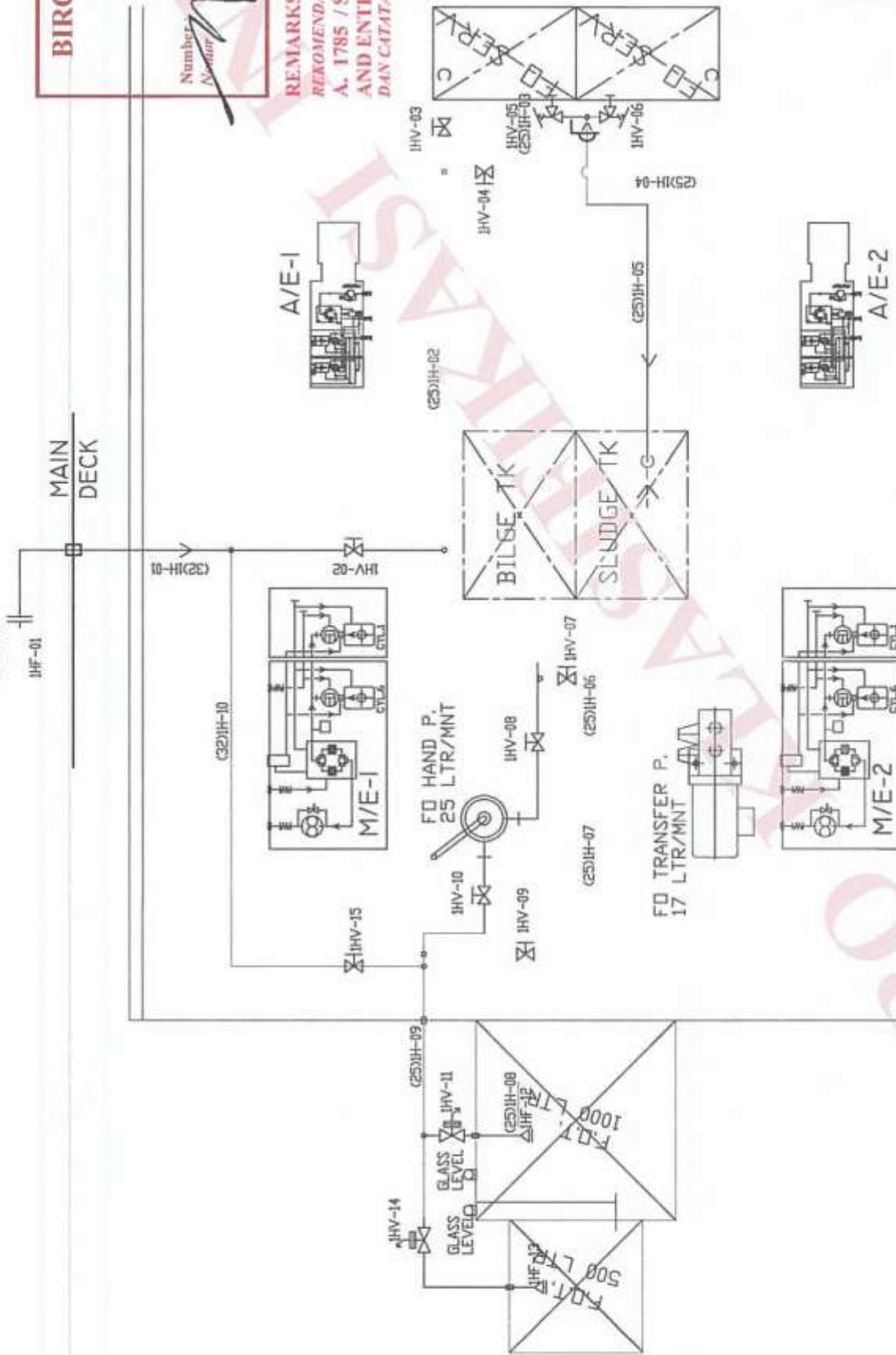


Muhammad Husaefah

Direktur

BIRO KLASIFIKASI INDONESIA
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Cap gambar, mengacu pada halaman pertama

OIL SPILL
TANK



BIRO KLASIFIKASI INDONESIA

APPROVED
DISETUJUI

Number
1705190988

JAKARTA, 04 DES. 2017

REMARKS SEE LETTER NO.

REKOMENDASI LIHAT SURAT NO.

A. 1785 / SV.101 / MM / KI-17

AND ENTRIES IN THE DRAWING TO BE OBSERVED
DAN CATATAN MERAH PADA GAMBAR AGAR DIPERHATIKAN

Mengetahui :

PT. Dharma Krea Nusantara

Muhammad Husaefah
Direktur

Catatan:

1. Fuel Oil Sounding Glass harus mudah dijangkau.
2. Fuel Oil Tank didalam Engine Room harus terbuat dari baja.

PT. DHARMA KREASI NUSANTARA	
PROJECT NAME : KAPAL PATRULI KELAS IV	PROJECT NO. :
DESIGN / REVISION NAME : FUEL TRANSFER SYSTEM	DATE : 11/11/2017
DESIGNED BY : M. HUSAEFAH	CHECKED BY : M. HUSAEFAH
APPROVED BY :	DATE :
DIREKTORAT KESATUAN PENJAGAAN LAUT DAN PANTAI	
NOV / REVISI NO. : 0405-05	
REV : 1	

NOTE :

1. IN GENERAL THE MATERIAL OF PENETRATION PIECE IS STEEL PIPE SCH.80

2. HYDRAULIC TEST PRESSURE

DESIGN PRESSURE	WORKING PRESSURE	HYDRAULIC TEST PRESSURE		REMARK
		BEFORE INSTALLATION	AFTER INSTALLATION	
PN.5	PN.2.5	1,5 x WORKING PRESS.	WORKING PRESS.	FUEL OIL LINE

3. PIPE LIST

SYSTEM	NOMINAL SIZE MM	MATERIAL	JOINT		LIST NO	REMARK
			PRESS STD	MATERIAL		
FO. TRANSFER LINE	25	WELDED STEEL PIPE SCH.40	PN.5	STEEL FLANGE & SLEEVE	1H-02,03,04,05,06,07,08,09	REF. MAKER STD.
	32				1H-01,10	

4. FITTING LIST

SYMBOL	NAME	NOMINAL SIZE MM	PRESS STD	MATERIAL OF BODY	Q'TY	LIST NO	REMARK
	GLOBE VALVE	32	PN.5	BRONZE	2	1HV-02,15	REF. MAKER STD.
		25			5	1HV-03,04,07,08,09,10	
	BELMOUTH	25	-	STEEL	2	1HF-12,13	REF. -
	SHORE CONNECTION C/W. BLIND FLG.	32	-	STEEL	1	1HF-01	REF. -
	QUICK CLOSING VALVE	25	PN.5	CAST IRON	3	1HV-05,06,11,14	REF. MAKER STD.

Mengetahui :

PT. Dharma Kreasi Nusantara

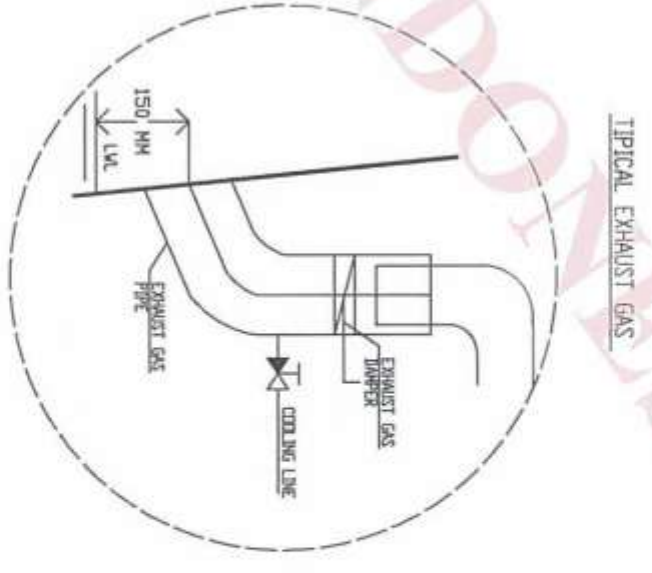
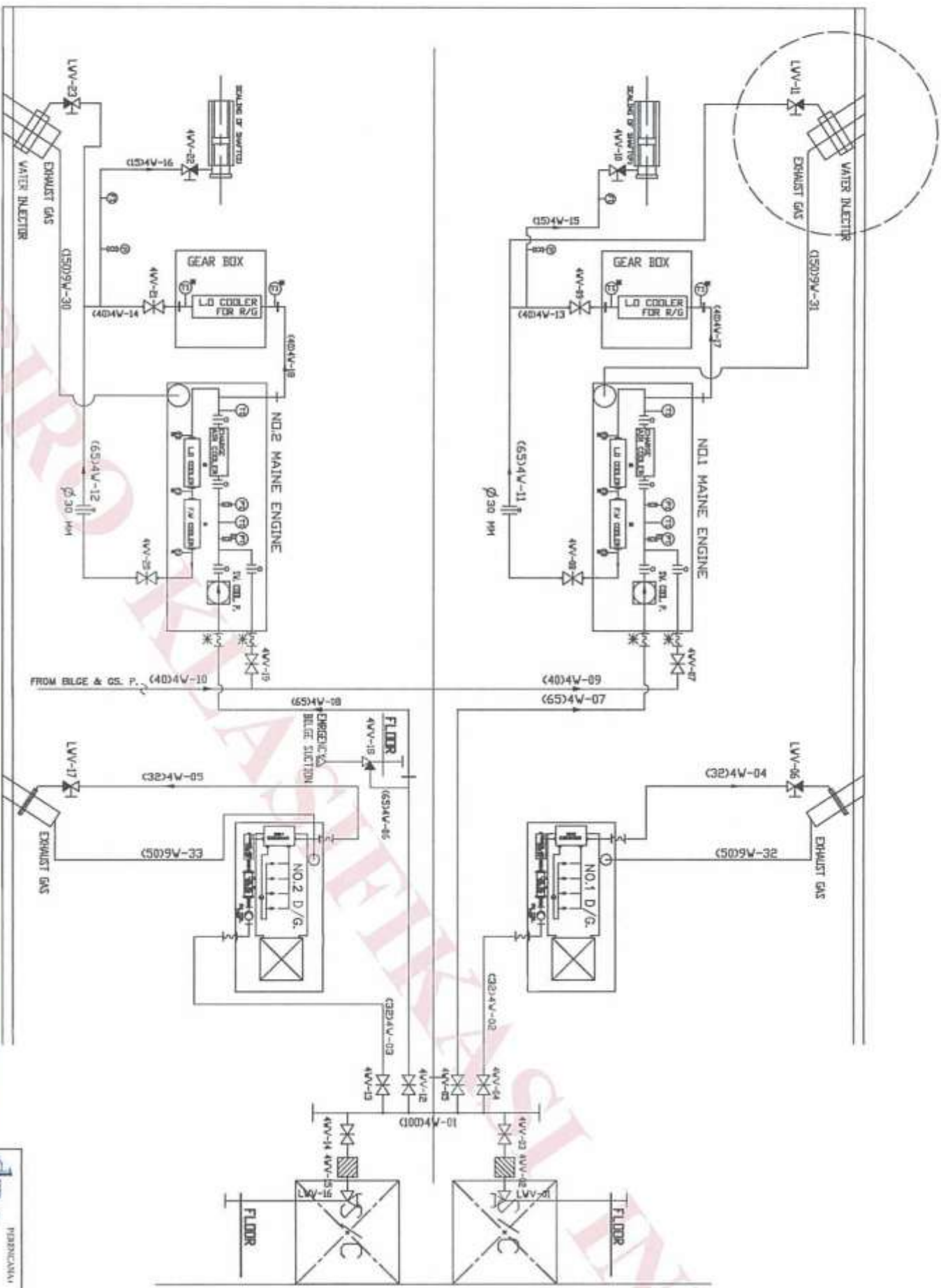


Muhammad Husaefah
Direktur

BIRO KLASIFIKASI INDONESIA

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Cap gambar, mengacu pada halaman pertama



BIRO KLASIFIKASI INDONESIA

APPROVED

DISETUJUI

Number: 1205190988

JAKARTA, 04 DES. 2017

PERENCANAAN

dkv

PT. DHARMA KREASI NUSANTARA

YEAR : 2017

PROJECT NAME :

KAPAL PATROLI KELAS IV

PROJECT/HULL NO :

DRAWN BY

DATE

APPROVAL

DESIGNED BY

CHECKED BY

APPROVED BY

DRAWING / DOCUMENT NAME :

COOLING &
EXHAUST GAS
SYSTEM

OWNER : KEMENHUB-RI

CLASS : BK1

DESIGNER JIC-CAD

SCALE : 1:20

SIZE : A3

SHEET :

REV / DOCUMENT NO :

D400-04

DIREKTORAT KESATUAN
PENJAGAAN LAUT DAN
PANTAI

REV.

0

1

2

3

4

5

Mengetahui :

Dharma Kresi Nusantara

Muhammad Huseifah

Direktur



DIREKTORAT KESATUAN
PENJAGAAN LAUT DAN
PANTAI

NOTE :

1. IN GENERAL THE MATERIAL OF PENETRATION PIECE IS TO BE STEEL PIPE SCH.80

2. HYDRAULIC TEST PRESSURE

DESIGN PRESSURE	WORKING PRESSURE	HYDRAULIC TEST PRESSURE		REMARK
		BEFORE INSTALLATION	AFTER INSTALLATION	
PN.5	PN.2.5	1,5 x DESIGN PRESS	WORKING PRESS.	MACH. LINE

3. PIPE LIST

SYSTEM	NOMINAL SIZE MM	MATERIAL	JOINT		LIST NO	REMARK
			PRESS STD	MATERIAL		
MAIN COOLING SEA WATER LINE	100	STEEL PIPE SCH. 40	PN.5	SCREWED, FLANGE & SLEEVE	4W-01	REF. MAKER STD.
	65				4W-06	
	65	FIRE RESISTANCE FLEXIBLE HOSE			4W-06,07,08,11,12	REF. MAKER STD. CLASS APPROVED
	40				4W-09,10,13,14,17,18	
	32				4W-02,03,04,05	
	15				4W-15,16	
EXHAUST GAS LINE	150	STEEL PIPE SCH. 40	PN.5	SCREWED, FLANGE & SLEEVE	9W-30,31	REF. MAKER STD. CLASS APPROVED
50	9W-32,33					
SHELL PIECE SEA WATER LINE	100	STEEL PIPE SCH.160 (GALVANIZED)	PN.10	SCREWED FLANGE & SLEEVE	4W-01,11,12	REF. MAKER STD. CLASS CERTIFICATE

4. INTERNAL FW. COOLING SYSTEM FOR M/E. & D/G. SHALL BE SUPPLIED BY MAKER



BIRO KLASIFIKASI INDONESIA
Stamped drawing refer to 1st page
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5. FITTING LIST

PAGE 03/03

SYMBOL	NAME	NOMINAL SIZE MM	PRESS STD	MATERIAL OF BODY	Q'TY	LIST NO	REMARK
	GATE VALVE	32	PN.5	CAST IRON	2	4WV-04,13	REF. MAKER STD
		40			4	4WV-07,09,19,21	
		65			4	4WV-05,08,12,20	
		100			2	4WV-03,14	
	ANGLE VALVE	100	PN.5	CAST STEEL	2	LWV-01,16	REF. MAKER STD CLASS CERTIF.
	SDNR GLOBE VALVE	65	PN.5	CAST BRONZE	2	LWV-11,23	REF. MAKER STD CLASS CERTIF.
		32			2	LWV-04,17	
		15			2	4WV-10,22	
	SDNR. ANGLE VALVE	65	PN.5	CAST IRON	1	4WV-18	REF. MAKER STD
	WATER STRAINER	100	PN.5	CAST IRON	2	4WV-02,15	REF. MAKER STD
	PRESS. GAUGE C/W. COCK	φ 15	PN.10	BRASS PRESS. RANGE 1-10 BAR	2	FOR SHAFT SEAL COOLING	REF. MAKER STD.
	FLOW INDICATOR	φ 15	PN.10	BRASS PRESS. RANGE 1-10 BAR	2	FOR SHAFT SEAL COOLING	REF. MAKER STD.
	PRESS. ORIFICE	φ 30	-	ST. STEEL	2	FOR SHAFT SEAL COOLING	REF. MAKER STD.
	EXHAUST GAS DAMPER >650 DEG C	150	-	ST. STEEL	2	FOR EXHAUST GAS M/E	REF. MAKER STD.
		50			2	FOR EXHAUST GAS D/G.	

Mengetahui :



Muhammad Husaefah
Direktur

NOTE :

1. IN GENERAL THE MATERIAL OF PENETRATION PIECE IS TO BE STEEL PIPE SCH.80

2. HYDRAULIC TEST PRESSURE

DESIGN PRESSURE	WORKING PRESSURE	HYDRAULIC TEST PRESSURE		REMARK
		BEFORE INSTALLATION	AFTER INSTALLATION	
PN.5	2 BAR	1,5 x DESIGN PRESS.	WORKING PRESS.	BILGE & BALLAST LINE

3. PIPE LIST

SYSTEM	NOMINAL SIZE MM	MATERIAL	JOINT		LIST NO	REMARK
			PRESS STD	MATERIAL		
BILGE LINE	15	WELDED STEEL PIPE SCH.40 (GALVANIZED)	PN.5	STEEL FLANGE & SLEEVE	1W-07,08,09,10,11,13,26,29	REF. MAKER STD.
	40				1W-01,02,03,05,06,12,14	
	50				1W-04	
BALLAST LINE	40	SEAMLESS STEEL PIPE SCH.160 (GALVANIZED)	PN.5	STEEL FLANGE & SLEEVE	2W-01,02,03,04	REF. MAKER STD.
SHELL PIECE BILGE LINE	40	SEAMLESS STEEL PIPE SCH.160 (GALVANIZED)	PN.5	STEEL FLANGE & SLEEVE	1W-05,09	REF. MAKER STD.

4. INTERNAL OILY BILGE SYSTEM AND INSTALLATIONS FOR OILY WATER SEPARATOR TO BE SUPPLIED BY MAKER ACCORDING TO MEPC 107/49

Mengetahui :

Muhammad Huseifah
 Direktur

BIRO KLASIFIKASI INDONESIA
 Stamped drawing refer to 1st page
 Cap gambar, mengacu pada halaman pertama

5. FITTING LIST

PAGE 03/04

SYMBOL	NAME	NOMINAL SIZE MM	PRESS STD	MATERIAL OF BODY	Q'TY	LIST NO	REMARK
	SCREW DOWN NON RETURN GLOBE VALVE	40	PN.5	CAST IRON	12	1WV-09,10,11,12,13,14,15,17	REF. MAKER STD. MARINE APP.
						1WV-18,19, 2WV-01,02	
		50			1	1WV-19	
		40			2	LWV-21,35	
	GLOBE VALVE	15	ON.5	CAST IRON	4	1WV-23,29, 2WV-03,04	REF. MAKER STD. MARINE APP.
	GATE VALVE	15	PN.5	CAST IRON	1	1WV-24	REF. MAKER STD. MARINE APP.
	SDNR ANGLE VALVE	15	PN.5	CAST STEEL	1	1WV-27	REF. MAKER STD. MARINE APP.
	THREE WAY VALVE	15	PN.5	BRONZE	1	1WV-32	REF. MAKER STD. CLASS CERTIFICATE
	LEVEL ALARM HIGH	-	-	MAKER STD.	3	(1) ONE FOR SLUDGE TK.	REF. MAKER STD.
						(2) TWO FOR BILGE	
	ROSE BOX	40	PN.5	STEEL PLATE (GALVANIZED)	6	1WV-01,03,04,07,08,36	REF. MAKER STD.
	MUD BOX	40	PN.5	CAST IRON	2	1WV-16,20	REF. MAKER STD.
	SWING CHECK VALVE	40	PN.10	CAST STEEL	4	1WV-02,05,06,34	REF. MAKER STD.
	FOOT VALVE	15	PN.5	BRONZE	3	1WV-26,22,30	REF. MAKER STD.

Mengetahui :

Muhammad Huseaefah
 Direktur

BIRO KLASIFIKASI INDONESIA
 Stamped drawing refer to 1st page
 Cap gambar, mengacu pada halaman pertama

6).CALCULATION OF PIPE DIAMETER :

6.1).SIZE OF MAIN BILGE LINE

$$d = 25 + 1,68 \sqrt{L \times (B + H)} \dots\dots\dots(\text{mm})$$

WHERE

d : CALCULATED INSIDE DIAMETER OF MAIN BILGE LINE.....(mm)

d1 : CALCULATED INSIDE DIAMETER OF BRANCH BILGE PIPE....(mm)

L : LENGTH OF SHIP BETWEEN PERPENDICULAR /LPP.....(m)

B : MOULDED BREADTH OF SHIP.....(m)

H : DEPTH OF SHIP TO THE BULKHEAD DECK(m)

I : LENGTH OF THE COMPARTMENT.....(m)

$$d = 25 + 1,68 \sqrt{(17,0 \times (4,0 + 1,75))}$$

$$= 41,60 \text{ mm}$$

6.2).MINIMUM CAPACITY OF BILGE PUMP

$$Q = 0,00575 \times d^2$$

$$= 0,00575 \times (41,60)^2$$

$$= 10,00 \text{ m}^3/\text{h}$$

6.3).SIZE OF BRANCH BILGE SUCTION PIPE

$$d1 = 25 + 2,15 \sqrt{(I \times (B + H))}$$

$$= 25 + 2,15 \sqrt{(1 \times (4,0 + 1,75))}$$

NO.	COMPARTMENT	LENGTH (I) (m)	d1 (mm)	DIAMETER OF ACTUAL PIPE			
				N.D. (mm)	O.D. (mm)	THICK. (mm)	I.DIA. (mm)
1	VOID 1	2.2	32.2	40	48.6	5.1	38.4
2	VOID 2	2.0	32.2	40	48.6	5.1	38.4
3	VOID 3	2.0	32.3	40	48.6	5.1	38.4
4	ENGINE ROOM	4.0	35,3	40	48.6	5.1	38.4
5	VOID	4.0	35,3	40	48.6	5.1	38.4
6	ST. GEAR ROOM	1.4	31.0	40	48.6	5.1	38.4

Mengetahui :



PT. DHARMA KREASI NUSANTARA

Muhammad Husaefah
Direktur

BIRO KLASIFIKASI INDONESIA
Stamped drawing refer to 1" page
Cap gambar, mengacu pada halaman pertama

[illegible]

1. Gambar ini tidak disetujui.
2. Semua Void Tank dan Ballast Tank harus dilengkapi Sounding Pipe.
3. Tinggi bukaan Air Pipe pada geladak terbuka harus memenuhi ketentuan Loadline.
4. Tebal Air Pipe pada geladak terbuka agar diverifikasi

TO BE REDRAWN, SUBJECT TO REMARKS IN RED
 ILIRI, DKG. JABAR. ELANG DENGAN MEMPERHATIKAN CATATAN MERATA
 JAKARTA, 04 DES. 2017

A. 1785 / SV.101 / MM / KI-17

AND ENTRIES IN THE DRAWING TO BE OBSERVED
DAY CATATAN MERAH PADA GAMBAR AGAR DIPERHATIKAN

YEAR : 2027	PROJECT NAME : KAPAL PATIBOL KETAPU	PROJECT/CELL NO :
DRAWN BY : CHECKED BY : APPROVED BY :	DATE : APPROVAL : DRAWING / SECTION NAME : AIR PIPE AND SOUNDING	DWG NO : CLASS : DEPARTMENT : SCALE : DATE :


DIREKTORAT KESATUAN
PENJAGAAN LAUT DAN
PANTAI

PENJAGAAN LAUT DAN

□400-05

REV	1	2	3	4	5
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NOTE :

PAGE 02/02

1. IN GENERAL THE MATERIAL OF PENETRATION PIECE IS TO BE STEEL PIPE SCH.80

2. HYDRAULIC TEST PRESSURE FOR PIPING DIAGRAM OF AIR PIPE & SOUNDING SYSTEM

DESIGN PRESSURE	WORKING PRESSURE	HYDRAULIC TEST PRESSURE		REMARK
		BEFORE INSTALLATION	AFTER INSTALLATION	
PN.5	3 BAR	1,5XDESIGN PRESS.	WORKING PRESS.	FILLING LILE

3. PIPE LIST

SYSTEM	NOMINAL SIZE MM	MATERIAL	JOINT		LIST NO	REMARK
			PRESS STD	MATERIAL		
SOUNDING LINE	40	STEEL PIPE SCH.40 (GALVANIZED)	PN.5	STEEL FLANGE & SLEEVE	SD-02,14	REF. MAKER STD.
AIR PIPE LINE	50	STEEL PIPE SCH.80 (GALVANIZED)	PN.5	STEEL FLANGE & SLEEVE	AP-01,03,04,05,06,07,08 AP-09,10,11,12	REF. MAKER STD.
FILLING LINE	40	STEEL PIPE SCH.40 (GALVANIZED)	PN.5	STEEL FLANGE & SLEEVE	FL-13,15	REF. MAKER STD.
SHELL PIECE	50	STEEL PIPE SCH.160 (GALVANIZED)	PN.5	STEEL FLANGE & SLEEVE	AP-03,04	REF. MAKER STD. CLASS CERTIFICATE

4. FITTING LIST

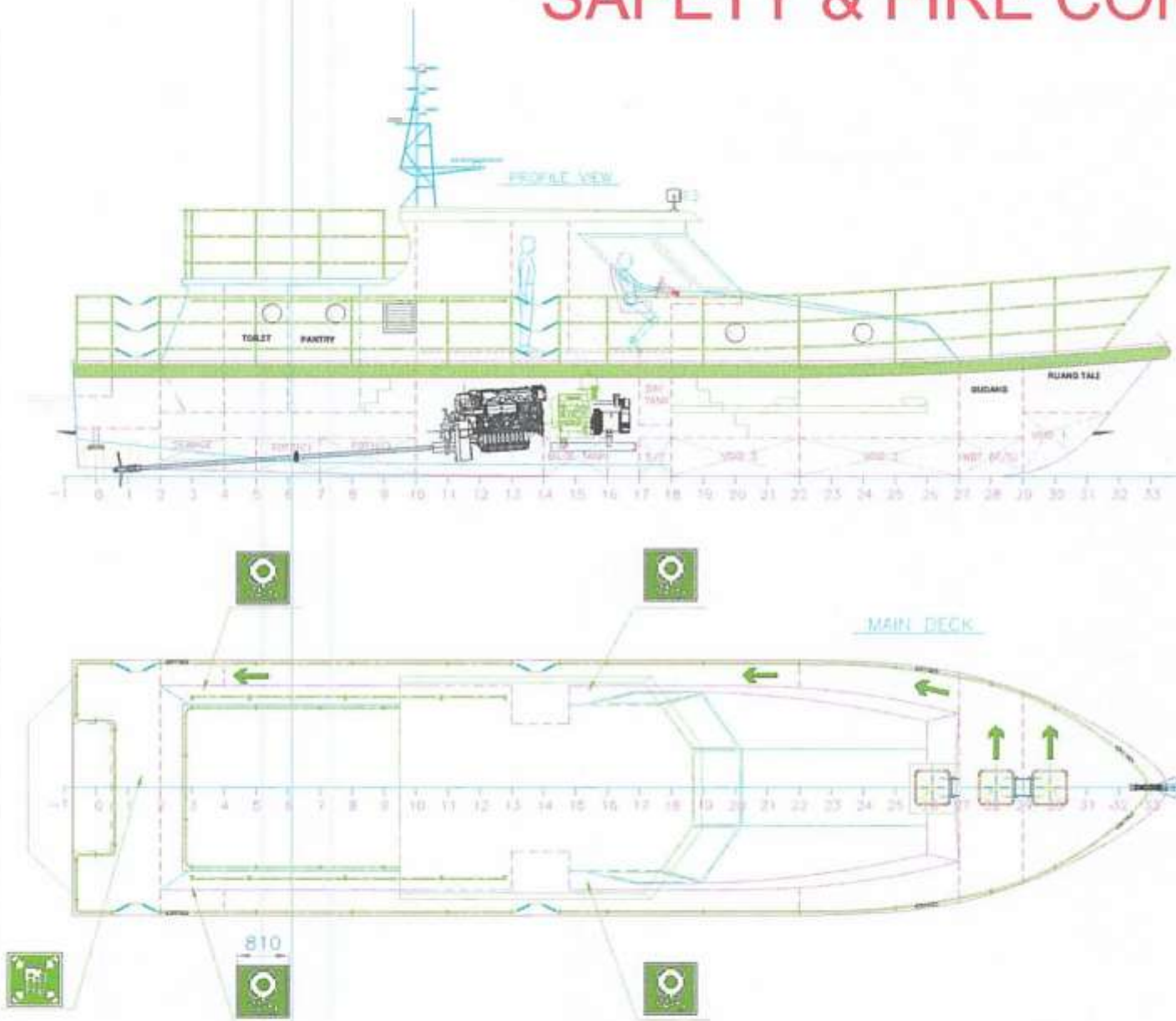
SYMBOL	NAME	NOMINAL SIZE MM	PRESS STD	MATERIAL OF BODY	Q'TY	LIST NO	REMARK
	GATE VALVE FLG. TYPE	50	PN.10	CAST STEEL	2	APV-06,07	REF. MAKER STD. CLASS CERTIFICATES
	AIR PIPE HEAD WITH FLOAT & SCREEN	50	PN.10	CAST STEEL	5	APV-01,02,03,04	REF. MAKER STD. MARINE APP.
	SOUNDING TUBE DECK PLATE FOR WELDING	40	PN.10	STEEL, SCREW PLUG	-	-	REF. DIN.86111
	SELF CLOSING SOUNDING TYPE WITH TEST COCK	40	-	CAST BRONZE	2	SDV-01,02,03	REF. MAKER STD. MARINE APP.

Mengetahui :

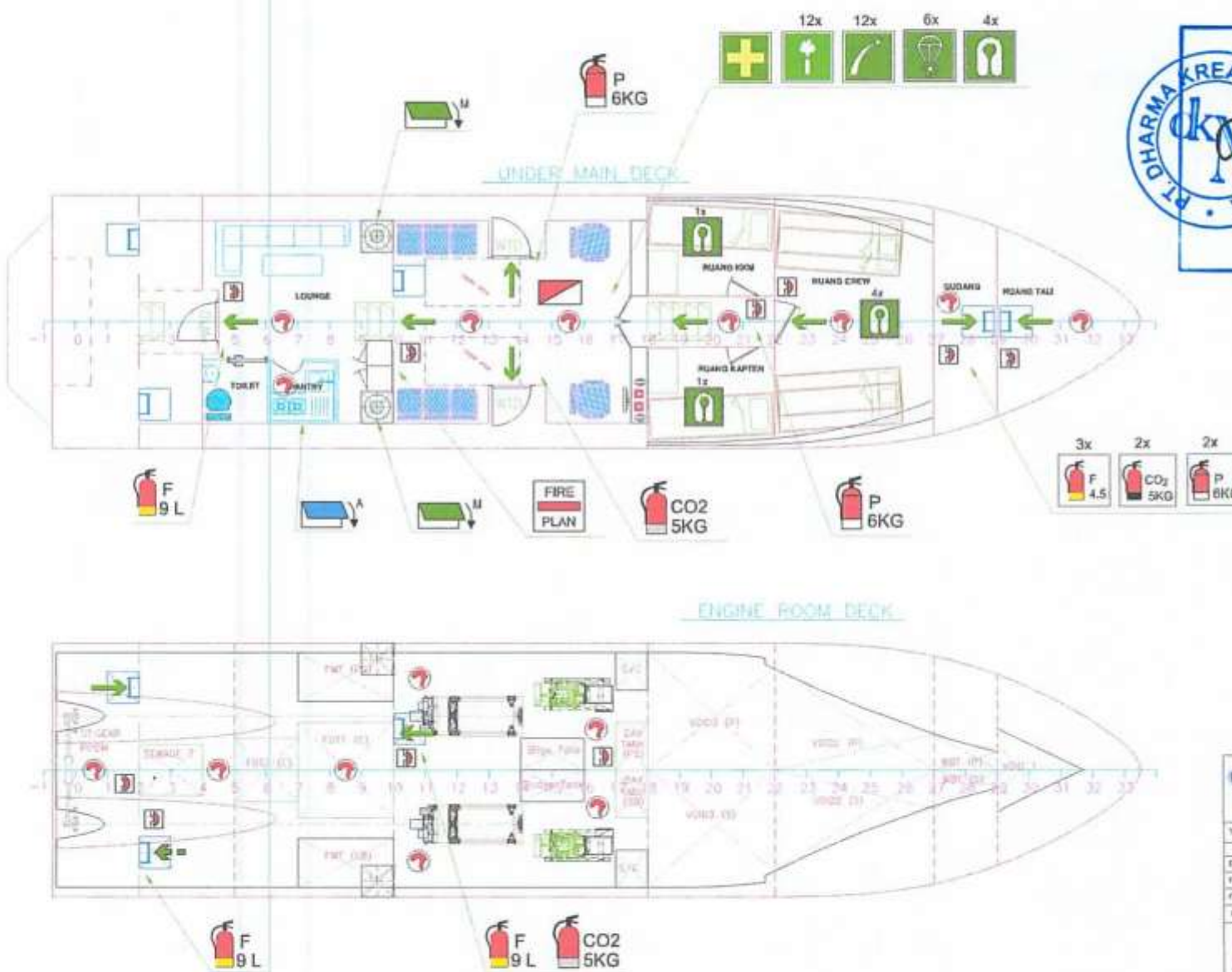
PT. Dharma Kresni Nusantara

Muhammad Husaefah
DirekturBIRO KLASIFIKASI INDONESIA
Stamped drawing refer to 1st page
Cap gambar, mengacu pada halaman pertama

SAFETY & FIRE CONTROL PLAN



SYMBOL	DESIGNATION	HIGH SEAS DECK	UNDER MAIN DECK	MAIN DECK	TOTAL
LIFE SAVING APPLIANCES	LIFEBUOY WITH LINE 30 M AND SELF ILLUMINATING LIGHT			4	4
	LIFERAFT WITH LIGHT AND WHISTLE			10	10
	SMOKE SIGNAL			10	10
	RED HAZARD FLARE			10	10
	ROCKET PARACHUTE FLARES			8	8
	MASTER STATION			1	1
	FIRST AID KIT			1	1
	SAFETY AND FIRE CONTROL PLAN			1	1
	MAIN ESCAPE ROUTE				
	EMERGENCY ESCAPE ROUTE				
FIRE EXTINGUISHER	PORTABLE FIRE EXTINGUISHER CO2 TYPE 5 KG			1	1
	PORTABLE FIRE EXTINGUISHER FOAM TYPE 4.5 L			1	1
	PORTABLE FIRE EXTINGUISHER POWDER TYPE 8 KG			2	2
	SPARE CHARGES FOR FIRE EXTINGUISHER CO2 TYPE 5 KG			2	2
	SPARE CHARGES FOR FIRE EXTINGUISHER FOAM TYPE 4.5 L			2	2
	SPARE CHARGES FOR FIRE EXTINGUISHER POWDER TYPE 8 KG			2	2
FIRE DETECTING	FIRE DETECTING AND ALARM PANEL			1	1
	SMOKE DETECTOR			7	7
	FIRE ALARM BELL & GENERAL ALARM			4	4
FIRE DAMPER	CLOSING DEVICES FOR MACHINERY SPACE VENT IN OR OUTLET			1	1
	CLOSING DEVICES FOR ACCOMMODATION & SERVICE SPACES VENT IN OR OUTLET			2	2



Mengetahui :
PT. Dharma Kreasi Nusantara

Muhammad Husaefah
 Direktur

PRINCIPAL PARTICULARS		
LENGTH, O.A.	= 17.11	M
LENGTH, W.L.	= 15.92	M
B (MLO)	= 4.00	M
H (MLO)	= 1.50	M
DRAUGHT (HULL)	= 0.70	M
SPEED MAX.	= 24	KNOTS
MAIN ENGINE	= 2 x 500 HP	
CREWS	= 7 PERSON	

PT. DHARMA KREASI NUSANTARA	
YEAR : 2017	PROJECT NAME : KAPAL PATROL KELAS IV
DATE : 10/10/2017	PROJECT NO. : 101
DESIGNER : [Signature]	REVISION : 01
CHECKED BY : [Signature]	DATE : 10/10/2017
APPROVED BY : [Signature]	DATE : 10/10/2017
DIREKTORAT KESATUAN PENJAGAAN LAUT DAN PANTAI	
A100-01	

TABEL HIDROSTATIK_page1

Draft (m)	Vol.(mld) (m ³)	Displ't (t)	LCB (m)	VCB (m)	WPA (m ²)	LCF (m)	KML (m)	KMT (m)
0.10	0.24	0.30	7.925	0.063	6.13	7.449	157.138	0.752
0.20	1.34	1.50	6.929	0.133	16.30	6.316	125.084	1.812
0.30	3.41	3.68	6.563	0.201	25.38	6.297	77.840	2.867
0.40	6.49	6.94	6.350	0.269	37.06	5.926	66.503	4.503
0.50	10.60	11.20	6.166	0.336	42.84	5.910	51.727	4.022
0.60	14.96	15.70	6.106	0.396	44.49	6.025	40.523	3.172
0.70	19.45	20.33	6.101	0.452	45.59	6.136	33.292	2.679
0.80	24.04	25.06	6.116	0.508	46.52	6.224	28.454	2.373
0.90	28.72	29.88	6.140	0.562	47.36	6.298	24.997	2.172
1.00	33.48	34.79	6.167	0.616	48.15	6.364	22.419	2.037
1.10	38.31	39.77	6.196	0.670	48.91	6.427	20.439	1.947
1.20	43.22	44.83	6.226	0.723	49.66	6.485	18.859	1.887
1.30	48.21	49.97	6.256	0.777	50.41	6.542	17.581	1.850
1.40	53.27	55.19	6.286	0.830	51.18	6.600	16.547	1.830
1.50	58.41	60.48	6.316	0.884	51.97	6.661	15.706	1.823
1.60	63.63	65.86	6.347	0.938	52.79	6.723	15.007	1.826
1.70	68.94	71.32	6.378	0.992	53.62	6.786	14.420	1.837
1.80	72.51	75.34	6.432	1.028	6.82	13.448	1.086	1.081

Mengetahui :


Muhammad Husaefah
 Direktur

TABEL HIDROSTATIK_page2

Draft (m)	WSA (m ²)	TPC (t/cm)	MTC (t-m/cm)	CB	CM	CP	CW
0.10	6.39	0.06	0.03	0.048	0.095	0.508	0.111
0.20	17.00	0.17	0.13	0.127	0.204	0.623	0.295
0.30	26.78	0.26	0.20	0.212	0.313	0.675	0.459
0.40	39.21	0.38	0.32	0.300	0.423	0.710	0.670
0.50	47.27	0.44	0.40	0.390	0.523	0.745	0.774
0.60	51.53	0.46	0.43	0.457	0.592	0.773	0.804
0.70	55.36	0.47	0.46	0.509	0.642	0.793	0.824
0.80	59.09	0.48	0.48	0.549	0.679	0.808	0.841
0.90	62.77	0.49	0.50	0.583	0.709	0.821	0.856
1.00	66.44	0.49	0.52	0.611	0.734	0.832	0.870
1.10	70.10	0.50	0.54	0.635	0.754	0.842	0.884
1.20	73.74	0.51	0.56	0.656	0.772	0.850	0.898
1.30	77.38	0.52	0.58	0.675	0.787	0.858	0.911
1.40	81.06	0.52	0.60	0.692	0.800	0.865	0.925
1.50	84.76	0.53	0.62	0.708	0.812	0.872	0.939
1.60	88.50	0.54	0.64	0.723	0.823	0.878	0.954
1.70	92.27	0.55	0.66	0.737	0.833	0.884	0.969
1.80	142.32	0.07	0.00	0.732	0.820	0.893	0.123