

**SMS**

*Siraj Marine Services*

**M.V. Craic**

**Special Services**

**150ton Crane Ship**

**(Rigged for 120ton)**



**2015**

## **Headquarters**

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**Vessel Management  
Administration  
Diving  
Marine**

## **MV Craic**

Radio Call Sign HO-3093  
I.M.O. # 8622452

Thuraya  
Tel. +88 216 234 20611 – Bridge

-  
Last Dry Dock  
December 2013

## **TECHNICAL DATA**

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### **GENERAL SPECIFICATIONS**

Date Built	1985
LOA	47.6M
LPP	45.0M
Beam	17.0M
Draft – Operational	2.8 M
Draft (Max)	3.0 M
Light Ship Draft	0.75 M
Port of Registry	PANAMA
Flag	Panamanian
Class:	PMDS
Call Sign	HO-3093
I.M.O. Number	8622452
Gross Tonnage	658 Mt
Net Tonnage	197 Mt
Deadweight	1060 Mt
Max Speed	9 Knots
Service Speed	7-8 knots
Deck Cargo Space	400 m <sup>2</sup>
Deck Loading	10 MT/m <sup>2</sup>
Accommodation	50
Last drydock:	December 2013

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## **PROPULSION AND MACHINERY**

### ***Main Engines***

Make	2 x NIIGATA IRONWORKS CO. (DIESEL)
Model	6MG /L/ 18CX
STBD engine	S/N 17452
PORT engine	S/N 17453
Cylinders	6
Rated Power	1300PS
HP	650
Rated Speed	950 rpm
Propellers	2 x fixed pitch with 4 wings (diameter 1.7m)

### ***Engine Clutches***

Licensed by TWIN DISC. INCORPORATED USA	
Model	MGN 486
Clutch operating	17-20 kg/cm <sup>2</sup>
Lube oil	2-4 kg/cm <sup>2</sup>
Main pump	20 l/min
Standby pump	50 l/min
Pressure	20 kg/cm <sup>2</sup>
PORT clutch	No. 4861079, S03549000
STBD clutch	No. 4861078, S03548000

### ***Auxiliary Engines***

Engines CATERPILLAR – D348 CAT	
Engine 1	S/N 36J2022
Engine 2	S/N 36J2015
HP	480
RPM	1500
Max altitude	1400

### ***Main Generators***

Model	2 X Perkins 1300 series (1306C-E87TAG6), synchronised (installed in 2013)
Capacity	2 x 250 KVA, 220V/400V, 50Hz (Optimum power output 350KVA)

### ***Emergency Generator***

Make:	Perkins
Rated Power:	125 KVA

Poop deck providing alternative (or emergency) power for general purpose use and when in port.

***1 X Atlas Copco LP Compressor delivering 311cfm at 12Bar***

***2 x Lincoln Welding Generators (Optional)***

### ***Cooling Sea Water Pumps:***

#### ***Bilge Pump – No 83251***

GS Pump, bore 80mm, type SM, capacity 25m<sup>3</sup>/h, total head 26m  
RPM 1800, power 5.5kw, manufacturer: Ishikura Pump Meg Co Ltd

#### ***Fire pump – No 83252***

GS pump, bore 80mm, type SM, capacity 25m<sup>3</sup>/h, total head 25m  
RPM 1800, power 5.5kw, manufacturer: Ishikura Pump Meg Co Ltd

#### ***Crane cooling pump – No 83253***

GS pump, bore 80mm, type SM, capacity 25m<sup>3</sup>/h, total head 25m  
RPM 1800, power 5.5kw, manufacturer: Ishikura Pump Meg Co Ltd

#### ***Cooling SW pump for A/E 1***

Ajax – Elite; size E65-20-A20C; serial no. 33987 – 2C imp. Dia 214/F  
manufacturer: KSB Aja Pumps PTY Ltd, Australia

#### ***Cooling SW pump for A/E 2***

Ajax – Elite; size E65-20-A20C; serial no. 2002/004 Imp. Dia  
manufacturer: KSB Aja Pumps PTY Ltd, Australia

***Pre lube oil pump for main engines***

BORE 50m/m, type HMG, capacity 10m<sup>3</sup>/h, RPM 1200, head 20M, power 2.2kw, no. 83242, manufacturer: Ishikura Pump MFG Ltd

***F.O. transfer pump***

BORE 25 m/m, type HMG, capacity 3m<sup>3</sup>/h, RPM 1200, head 20M, power 0.75kw, no. 83257, manufacturer: Ishikura Pump MFG Ltd

***Motor compressor***

No 58-30252, SKH-2ME, RPM 1550, capacity 10.5 m<sup>3</sup>/h, max P – 30kg/cm<sup>2</sup>

***Deck motor compressor***

Atlas Copco XA146 with 320cfm/12ltr/sec @8bar, weight 1.8t

***Governors***

*A/E no.1 governor*

Type WOODWARD UG8; designation A8520-314; governor RPM 1100-1550; serial no. 1345211  
Speed motor: type V-10R V115 Hz60/DC; No Z0427488; RPM 3 INSA; Toro OZ IN 24

*A/E no. 2 governor*

Type WOODWARD UG8; designation A8520-314; governor RPM 1100-1550; serial no. 1390456  
Speed motor: type V-10R V115 Hz60/DC; No Z0427374; RPM 3 INSA; Toro OZ IN

*M/E governors*

DIESEL KIKI – PHD6-PC 105856-2350

STBD Eng. Ser. No. 34612222

PORT Eng. Ser. No. 34812438

Oil SAE 20-40

Gov. speed 400-2000 RPM

Change oil – every 3000 h

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## **MOORING SYSTEM**

The vessel has a 6-point mooring system with 3.7 ton Delta Flipper anchors.

Winch:	Single Drum
Make	APOA 7R Hydraulic
Manufacturer	Daido Heavy Machinery Co
Rated Capacity	12000 Kg f.
Rated Speed	10/12 mtrs/min
Wire	each 3000ft of 32mm dia.
Hydraulic pump for winches	Daido Heavy Machinery Co, type A-7-0010 approx. 0012A
Video Monitoring System	
Bridge monitored remote payout & load meters	
Camford communications linked throughout	

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## **SAFETY EQUIPMENT**

The vessel is outfitted with safety equipment to comply with the safety requirements as set out in the vessel safety plan in accordance with SOLAS.

The vessel is equipped with one rescue boat capable of accommodating 8 people and 8 liferafts (self-righting/with self-contained air support system/fire protected) with the capacity to accommodate 200 people as well as 12 life buoys and 112 life jackets.

Rescue boat launching and recovery arrangements: Davit, radial type, 2 Tons / Winch, electric motor, 2Tons

Line throwing appliances with 4 rockets and lines – COMET (loc. wheel house)

12 rockets parachute flares – KORYO (loc. wheel house)

***Fire fighting:***

8 smoke detectors (TYCO), located on bridge, capt. deck, poop deck, mess room, engine room & other

Fire alarm (C-TECH alarm bell), located on bridge, capt. deck, poop deck, mess room, engine room & other

Control panel on bridge, alarm is automatically activated if fire signal not acknowledged in 2 minutes

Fixed CO<sub>2</sub> fire fighting systems complete with T100 Marine Controller Fire Monitoring Systems.

Fire hydrants and extinguishers according to specifications.

A comprehensive H<sub>2</sub>S and LEL detection is installed, comprising of 4 deck-mounted sensors, with remote monitors on the bridge.

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## BRIDGE NAVIGATION AND COMMUNICATION SYSTEMS

VHF Sailor	2 sets
SSB ICOM	3 sets
GMDSS	Area A1, A2 and A3 (International)
9 GHz Radar	Furuno FAR2817
9 GHz Radar Transponder	TAIYU MUSEN TBR600A (3 sets)
Second radar	ICOM MR1200
ATA	Furuno FAR2817
Magnetic Compass	Daiko Keiki
Gyro Compass	Anschutz Kiel Standard ST-06
GPS Chart Plotter	GARMIN (MAP 4008)
GPS Chart Plotter	SAMYUNG (NAVIS 3000)
BNWAS	Samyung BNW50
Echo Sounder	dual digital and paper
Satellite E.P.I.R.B.	COSPAS-SARSAT
A.I.S. as required for ISPS	COMNAV X3 Class A
LRIT	SATAMATICS SAT201i
Speed and distance measuring device through the water	
Echo Sounding device	HONDEX HE-770
Rudder angle indicator	TOYO KEIL
Propeller revolution indicator	
Telephone to emergency steering position – PANASONIC	
General Emergency Alarm System	Bridge, accommodation, alleyways, stores & engine room
Public address systems	Speakers in accommodation, alleyways, mess room, galley, main deck & engine room
Navigation lights	Fore masthead/Main masthead/Port side/Stb side/Stern/Anchors # 1 & 2/NUC
<i>Signalling apparatus:</i>	
Day light signalling lamp	ALDIS LAMP (loc. bridge)
Forecastle bell	bronze (loc. f <sup>o</sup> ctle)
Ship's whistle	electric (loc. bridge top)
Weather fax / Navtex	
INMARSAT 'C' Satellite System	
Camford Hard wire communication systems to Bridge, Crane, Dive Control, ROV/Survey Control, Project Office and Engine Room.	
100 Mb Ethernet LAN connecting offices, bridge and owner / client cabins.	
Internet access via SAT DSL (3Mbps)	
WLAN up to 20km radius from the vessel can be provided.	
Satellite Data/Communications System	

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## TANK CAPACITIES

Marine Gas Oil:	65 T
Potable Water:	120 T
Water Ballast:	374 T
Lube Oil:	1000 Ltrs

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## FUEL CONSUMPTION

Cruising Mode	2.5 T/Day
On Anchor Pattern	0.6 T/Day
Lube Oil	16 ltrs/day (avg)

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## **WATER MAKER**

Water Maker:	Selmar-Atlantic-SW700, serial no. 3051
El. Supply	400V, 50Hz 3-phase
Consumption	15A
Working pressure	850psi-60bar
Water temperature	1-46C
Automatic shutdown	1000psi-70bar
Filtration	3x5x20" spun polypropylene
Max silt density index	5
NTU max	1
PH value	2-11
Chlorine tolerance	0.1 ppm
Typical salt reject	99.1%
Fresh water production	Up to 16 Tons/Day
Max feed water input rate	2600 ltr/h
Minimum required input pressure	1bar
Membrane containers	Fibre glass
Flushing system	Manual

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## **SEWAGE TREATMENT PLANT**

*Certified Hamworthy Super Trident-8*

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## **MODULAR ACCOMMODATION UNITS**

*Modular accommodation units can be added subject to Client requirements.*

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## **150ton MAIN CRANE (Rigged for 120ton)**

Model:	SKK-1700DT-AS Total Rotating System SHIKOKU KENKI CO LTD, KOCHI, JAPAN		
Main Engine:	YANMAR DIESEL ENGINE 1 x 6LAAL-DTN-1		
Rated Power:	470PS		
Cylinders:	6		
RPM	1800		
Engine Clutch	NIIGATA CONVERTER CO LTD Model TDCIN 11-26045, ser. No. TY1126056		
Air Compressor	Small sized reciprocating, type GN J5-3 39kg/cm <sup>2</sup> , 58mmx2x98mm, 3.7kw, 875 RPM MEJI AIR COMPRESSOR MFG CO LTD, OSAKA JAPAN		
Air Bottle	SKK – 900 DTA, No x 42884		
Crane wires diam	Main SWR D/A 38,35mm Aux SWR D/A 37,79 mm Boom D/A 28,75 mm		
Boom Length:	No. 1: 33.5 meters	Whipline:	34.5 meters
Hook Capacity:	No. 1: 120 Tons @ 8.3 m	Whipline:	30 Tons
Working Radius:	No. 1: 8.3 to 23.1 m	Whipline:	9.2 to 25.9 m
Hoist Speed:	No. 1: 0-6m/min	Whipline:	0-25m/min
Lowering Speed	No. 1: 6m/min	Whipline:	0-25m/min
Wire Rope:	No. 1: 36mm dia, 8 Falls	Whipline:	28mm dia, 2 Falls
Tugger Winches:	3 x 2.0T each (Optional 2 x 5.0T additional if required)		

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## **ON BOARD SURFACE SUPPLIED AIR DIVE SYSTEM**

SMS Air/Mixed Gas Dive system can be made available according to Client / Project requirements. The system comprises of three units all housed in 20ft ISO containers, dimensions being L x W x H = 5900 x 2330 x 2380 mm.

### **DDC-DIVE CONTROL CONTAINER**

#### **60" Air Dive Chamber ADC 2011/101**

Built:	2011
Built by:	Shreeji Engineering
Inspected by:	M/S Bureau Veritas
Rules Code:	ASME SEC. VIII DIV. 1-1ED 2008
P.P. No.:	SWE-SE-001
Capacity:	6762 ltrs
MFG. Sr. No.:	SE-757
Content fluid:	Air
Material of construction:	SS316
Design pressure:	135/1.055 kg/cm <sup>2</sup> (g)
Radiography	100%
Corrosion allowance:	1.0 mm
Heat treatment:	NIL
Test pressure:	212 kg/cm <sup>2</sup> (g)
Weight empty:	2860 kg
Full of water:	9622 kg

#### ***Dive Control:***

Dive Panel:	Three Diver Air/Mixed Gas
Video Systems:	Hat mounted – 2 systems All remotable Hand Held System (option) Remote from ROV/survey desk Chamber Monitoring System
Communications Systems:	Three Diver Camford Comms remotable VHF base station & hand held units Thuraya phone system
Gas analysis	Divers & Chamber
Burning/Welding	Remote control
IMCA medical kit	2xBA sets Chamber Drench and fire suppressant system
Computer systems	Project laptop, net-workable

### **MACHINERY CONTAINER**

#### **Diving Compressor No: 1 – Diesel**

#### **Bauer HP Compressor**

Manufacture: Norfolk Virginia USA  
Date of manufacture: 05/2002  
Model No: K10-D/A  
Block no: B/5610/01  
S/N: 024532  
Max Pressure: ~5000 PSIG  
Capacity: 8.5 CFM  
Charge rate: 10.2 CFM  
Motor: 10 HP

**Diving Compressor No. 2 – Electric/3 phase  
L&W (Lenhardt & Wagner) HP Compressor**

Manufacture: Germany  
Date of manufacture: 2012  
Model No: LW 570E  
S/N: 61281110  
Max Pressure: 225 bar  
Charging Capacity: 20.1 cfm  
Power: 15 kW  
Speed: 1060 rpm

**Machinery**

Hydraulic Power Pack x 2  
Welding/Cutting machine x 1  
Fire fighting sprinkler system  
All spares and ancillary equipment

**Non-Containerised Units**

**Diving Compressor No. 3 - Diesel  
L&W (Lenhardt & Wagner) HP Compressor**

Manufacture: Germany  
Date of manufacture: 2005  
Model No: LW 450D  
S/N: 2716/8/03  
Max Pressure: 225  
Charging Capacity: 15.9 cfm  
Power: 11 kW  
Speed: 980 rpm

**WORKSHOP/RIGGING/TOOLS CONTAINER**

Workshop unit containing all ancillary equipment, spare parts, equipment specific tools, project tools & rigging.

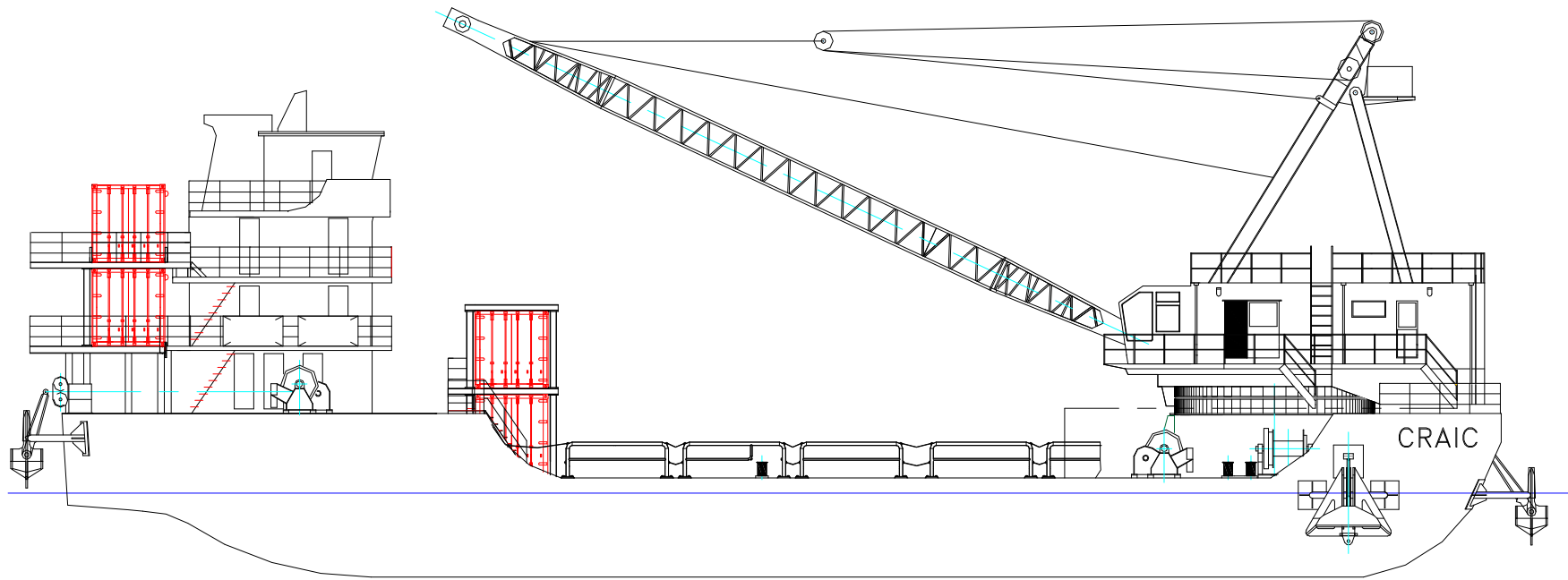
Additional equipment includes scuba replacement packs, digital hand held camera systems and a full range of underwater tools depending on Client/Project requirements.

**DIVING ANCILLARY EQUIPMENT**

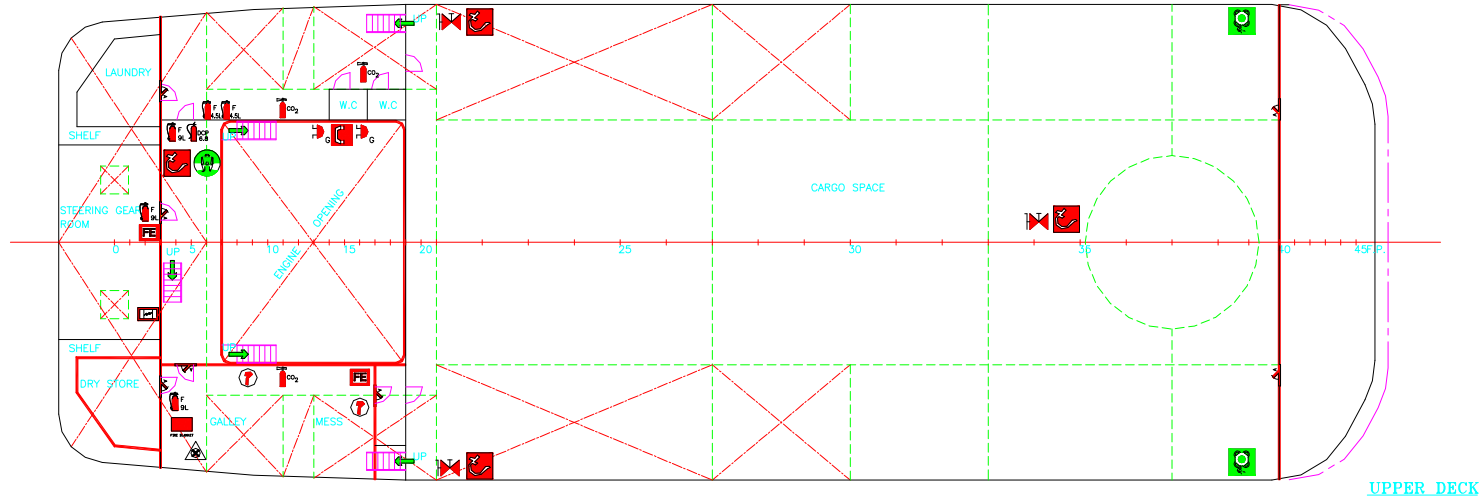
5 X KMB 27 Helmets  
6 X KMB 18 Band Masks  
3 X 300 Mtr Jacques Diving Hoses  
2 X 150 Mtr Jacques Diving Hoses



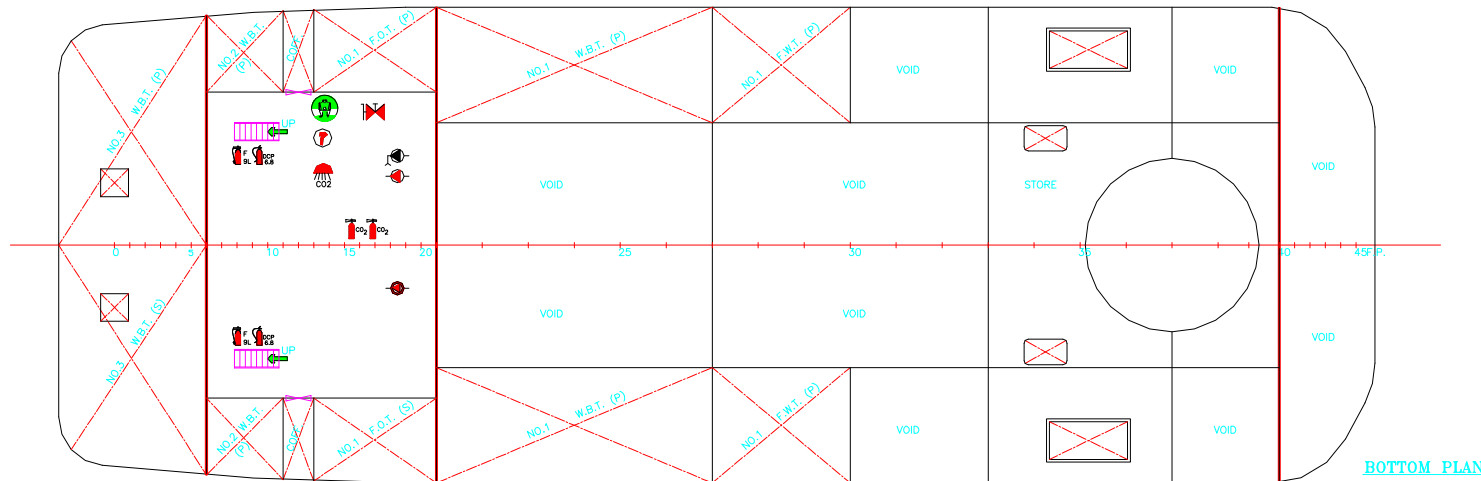
# PROFILE



# DECK PLAN

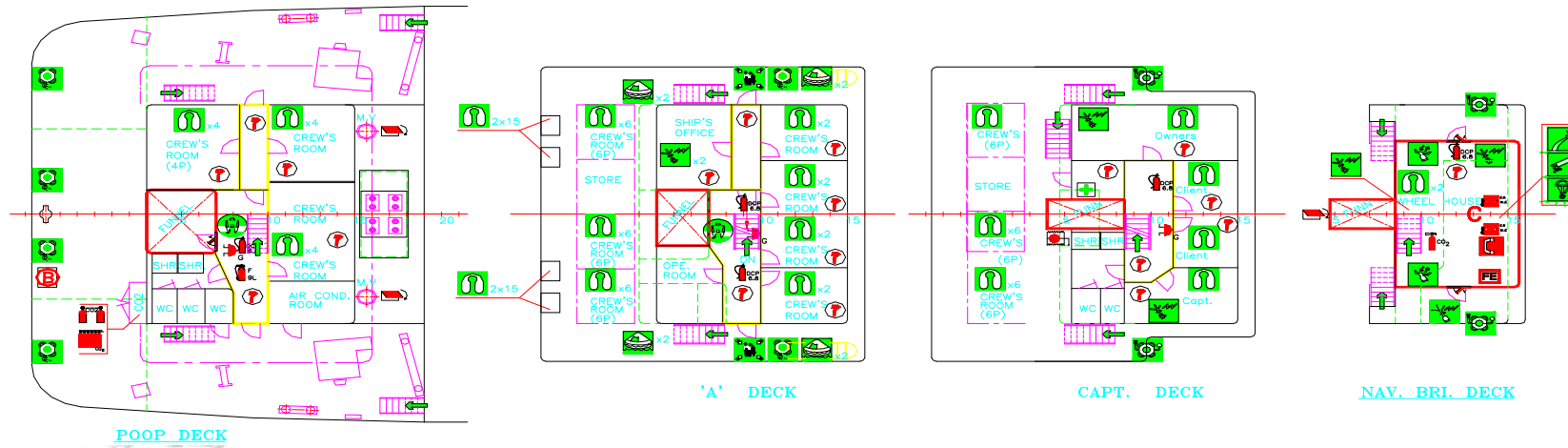


UPPER DECK



BOTTOM PLAN

# ACCOMMODATION PLAN



# SKK-1700DT-AS onboard MV Craic

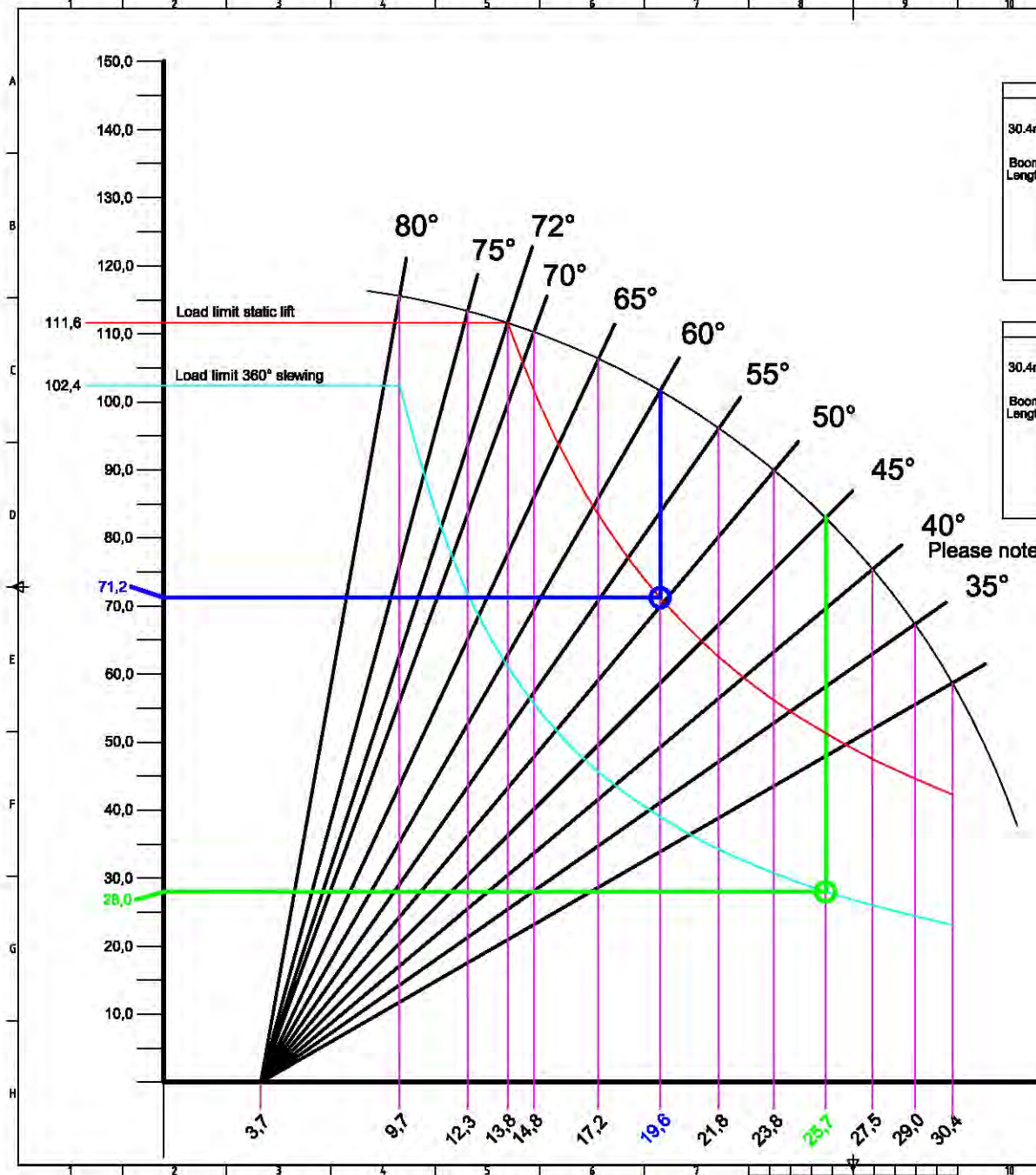
## 360° Slewing

Angle degrees		30	35	40	45	50	55	60	65	70	75	80	
30.4m Boom Length	Main	Load (mT)	23.1	24.4	26.0	28.0	30.7	34.2	38.0	45.8	55.8	71.8	102.4
	Holst	Radius (meter)	30.4	29.0	27.5	26.1	23.8	21.8	19.8	17.2	14.8	12.3	9.7
	Aux	Load (mT)	20										
	Holst	Radius (meter)	33.2	31.6	30.0	28.1	26.0	23.7	21.3	18.8	16.1	13.4	10.8

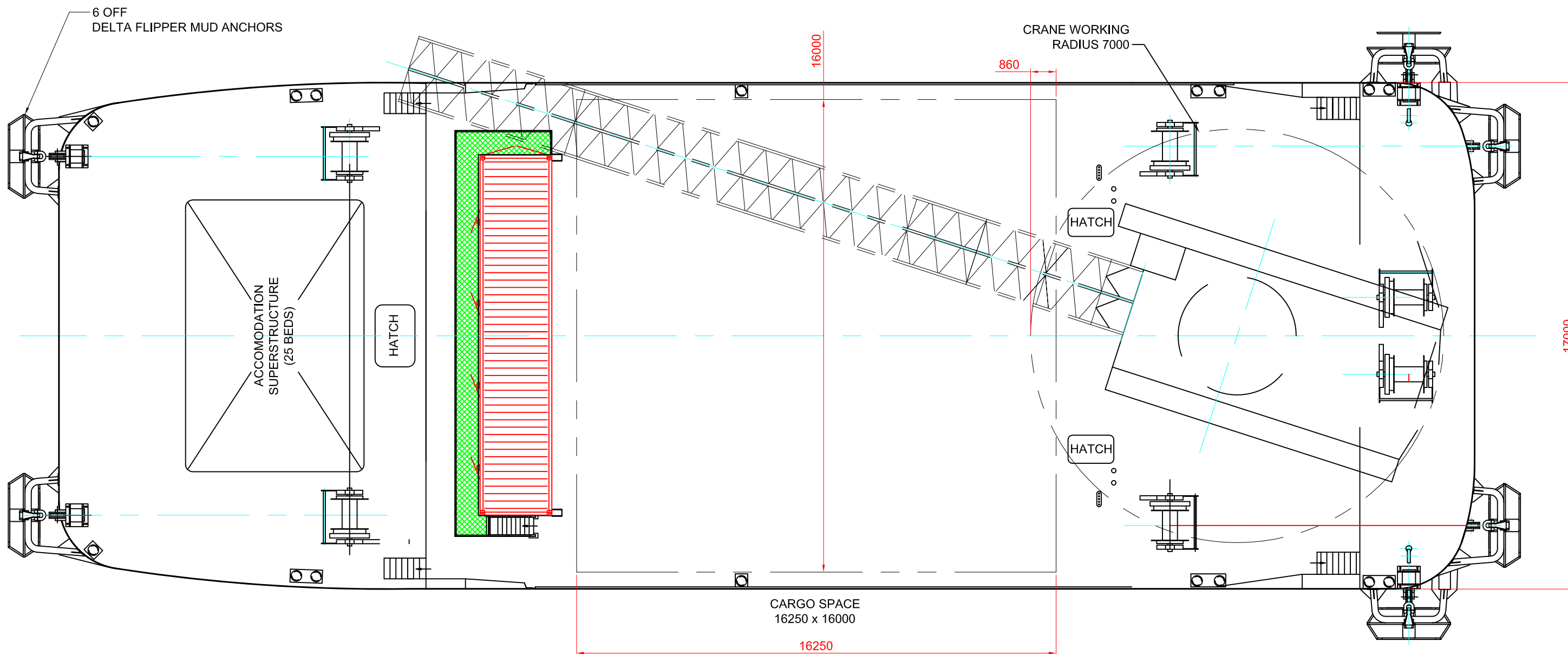
## Static Lift

Angle degrees		30	35	40	45	50	55	60	65	70	72	75	80
30.4m Boom Length	Main	Load (mT)	42.3	44.8	47.5	51.3	56.1	62.5	71.2	83.4	101.8	111.8	
	Holst	Radius (meter)	30.4	29.0	27.5	25.7	23.8	21.8	19.8	17.2	14.8	13.8	12.3
	Aux	Load (mT)	30										
	Holst	Radius (meter)	33.2	31.6	30.0	28.1	26.0	23.7	21.3	18.8	16.1	13.4	10.6

Please note that for clarity, values for auxiliary hoist are NOT shown in the graph

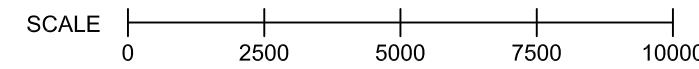


SKK 1700DT-AS		Revision 01/2018	
TITLE: Crane Load Chart MV Craic JOB No.: ARBA DISC. DOC. SCOPE REG. REV. SCALE MTR CONTRACT No.: XXXX XXXX X XXX XXXX X SHEET 1			



HULL	
LENGTH (TOTAL)	47M 600
BREADTH	17M 000
DEPTH	3M 300
DRAFT	2M 800
DEADWEIGHT CAPACITY	600t
GROSS WEIGHT	675t
SPEED	9 KNT

CRANE		
	MAIN HOOK	AUX. HOOK
JIB LENGTH	30.4M (STANDARD)	30.4M + (3)M
MAIN HOIST CAPACITY	150TON x 8.3M	20TON x 25.9M
WORKING RADIUS	8.3 - 23.1M	9.2 - 25.9M
LOWERING ROPE SPEED	0 - 6M/MIN	0 - 6M/MIN
HOISTING ROPE SPEED	0 - 6M/MIN	0 - 25M/MIN
MAX LIFTING HEIGHT	16M (AT SEA LEVEL)	20M (AT SEA LEVEL)



1	19/03/03	Issued for approval	Paul Feben
REV	DATE	REVISION MEMO	APPROVED

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CLIENT  
**CLIENT'S NAME & LOGO**

**SMS**  
Siraj Marine Services  
**Siraj Marine Services**  
P.O.Box 17677, Ajman  
admin@sirajmarine.ae

UNLESS OTHERWISE STATED	TOLERANCES (PLUS OR MINUS)			
	RANGE	MACH.	FAB.	CAST.
	0-500	0.25	2	2
	501-1000	0.5	3	4
1001-2000	1.0	4	6	
ABOVE 2000	2.0	6	10	

DO NOT SCALE THE DRAWING  
FOR CLARIFICATION CONTACT DESIGN OFFICE

PROJECTION	DRAWN
	Kevin West
ISO - METRIC DIMENSION IN MM	CHECKED
	Ray Castaldi
DWG SIZE	APPROVED
A2	Paul Feben

TITLE			
<b>M/V CRAIC DECK ARRANGEMENT</b>			
DWG No	SCALE	SHEET	
CRAIC-DRWG-009	1:100	1 of 2	

AFT CREW ACCOMODATION  
(24 BEDS)

25 MAN LIFERAFTS  
2 PER SIDE

BOOM IN STOWED  
POS'N

LIFE  
RAFT

LIFE  
RAFT

FWD CREW ACCOMODATION  
(12 BEDS) OPTIONAL

CREW MESS HALL

MIN CLEARANCE  
FOR STOWED  
BOOM

CRANE WORKING  
CLEARANCE

CRAIC

5780 REF

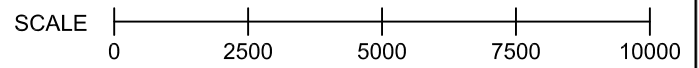
4200

2320

2800

3300

47500



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CLIENT  
**CLIENT'S NAME & LOGO**



Siraj Marine Services  
P.O.Box 17677, Ajman  
admin@sirajmarine.ae

UNLESS OTHERWISE STATED	TOLERANCES (PLUS OR MINUS)			
	RANGE	MACH.	FAB.	CAST.
	0-500	0.25	2	2
	501-1000	0.5	3	4
	1001-2000	1.0	4	6
ABOVE 2000	2.0	6	10	
DO NOT SCALE THE DRAWING				
FOR CLARIFICATION CONTACT DESIGN OFFICE				

PROJECTION	DRAWN
ISO - METRIC DIMENSION IN MM	Kevin West
DWG SIZE	CHECKED
A2	Ray Castaldi
	APPROVED
	Paul Feben

TITLE	DWG No	SCALE	SHEET
<b>M/V CRAIC DECK ARRANGEMENT</b>	CRAIC-DRWG-009	1:100	2 of 2