

**SHIP PARTICULAR'S BOOKLET**

**45 T BOLLARD PULL VSP TUG**

**COCHIN PORT TRUST – “VALLARPADAM”**

**DOCUMENT NO: 0125-700-02**

**BUILT IN 2008**

**BY**



**M/S TEBMA SHIPYARDS LIMITED,  
INDIA**

**SHIP PARTICULAR'S BOOKLET  
OF  
(VALLARPADAM - V.S.P.TUG )**

<b>OWNERS NAME AND ADDRESS</b>	<b>:</b>	<b>COCHIN PORT TRUST</b>
<b>PORT OF REGISTRY</b>	<b>:</b>	<b>COCHIN</b>
<b>OFFICIAL NUMBER</b>	<b>:</b>	<b>3304</b>
<b>SIGNAL LETTERS</b>	<b>:</b>	<b>AUPT</b>
<b>DATE OF KEEL LAID</b>	<b>:</b>	<b>23-11-2006</b>
<b>CLASSIFICATION</b>	<b>:</b>	<b>IRS AND X11</b>
<b>YARD NUMBER</b>	<b>:</b>	<b>0125</b>

CONTENTS		
Sl.No	Description	Page Nos
	<b>A. Ship Particular Data</b>	2
	<b>B. Principal Dimension</b>	5
	<b>C. Machinery Particulars</b>	6
	1. Main Engine	6
	2. Propulsion Unit	7
	3. Diesel Generator	8
	4. Diesel Generator (Harbour Gen)	9
	5. Air Compressor	10
	6. Fuel Oil Transfer Pump	11
	7. Dirty Oil Pump	12
	8. Bilge Ballast Pump	13
	9. G.S/ Fire / Detergent Pump	14
	10. Emergency Fire Pump	15
	11. F.W. Hydrophore Pump / Tank	16
	12. S.W. Hydrophore Pump / Tank	17
	13. Voith Cooling Pump	18
	14. Sewage Disposal Pump	19
	15. Semy Rotart Hand pump	20
	16. Fule Oil Centrifugal pump With Purifier	20
	17. Diesel Oil Purifier	21
	18. Oily Bilge Separator	22
	19. Air Dryer	23
	<b>D. Outfit Particulars</b>	24
	1. Windlass	24
	2. Capstan	25
	3. Anchor	26
	4. Anchor Chain	26
	5. Towing Hook	26
	6. Tow Line	27
	7. Mooring Lines	27
	8. Blowers	27
	9. Inclinator	27
	10. Anemometer	28
	11. Air Conditioner	28
	12. Chain Pulley Block	28
	13. Window	28
	14. Window Wiper	29
	15. Oil dispersant Pump	30
	16. Gauge Glass	30
	17. Hot Plate	30
	18. Fender	31
	19. Crane	32
	<b>E. Electrical Equipment</b>	33

	1. Main Switch Board	33
	2. Emergency Switch Board	33
	3. Transformer Rectifier- 2.5 KW	34
	4. Battery Charger for DG – 0.5 KW	34
	5. Battery Charger for Radio Equipment -0.5 KW	35
	6. Emergency Lighting DB – LP1	35
	7. 24 V DC Navigation DB – LP2	35
	8. 24 V DC Radio Panel	36
	9. A/C & DC Navigational Panel (230V & 24 V)	36
	10. Lead Acid Batteries (Emergency Gen.Starting)	36
	11. Shore Connection Cable	37
	12. Starters (D.O.L. & Star Delta)	37
	13. Lighting DB's	38
	14. Lighting Transformer – 15 KVA	38
	15. A/C Transformer – 6KVA	39
	16. Electrical Light & Fittings	39
	17. Aldis Signal Lamp	39
	<b>F. Navigation Equipments</b>	40
	1. Navigation Lights	40
	2. Echosounder Equipment	40
	3. EPIRB	41
	4. SART	41
	5. MF/HF Radio Equip. with DSC	41
	6. Walkie – Talkie	42
	7. X Band Radar	42
	8. GPS Navigator	42
	9. Magnetic Compass	43
	<b>G. Communication Equipments</b>	44
	1. Vingt P.A. & Talk Back System	44
	2. Vingt S.P.T. System	44
	3. Intercom System	44
	<b>H. Life Saving Equipments</b>	45
	1. Inflatable Life Raft with Hydrostatic Release Unit	45
	2. Self – Contain Breathing Appratus	45
	3. Air Whistle	45
	4. Electric Horn	46
	5. Fog Horn	46
	6. Rescue Boat	47
	7. Rescue Boat Divit	47
	<b>I. Other Equipment</b>	48
	1. External Fi-Fi-Equipments	48

**PRINCIPAL DIMENSIONS**

LENGTH OVER ALL	:	32.0 Mtrs
BREADTH MOULDED	:	10.65 Mtrs
DEPTH MOULDED	:	4.74 Mtrs
DRAUGHT EXTREME	:	5.3 Mtrs
DEAD WEIGHT	:	126 Ton

**TONNAGE**

GROSS TONNAGE	:	439
NET TONNAGE	:	132

**SPEED** : 12 Knots

**COMPLIMENT**

CREW	:	17
MASTER	:	1
ENGINEER	:	1
TOTAL	:	19

**FUEL OIL CAPACITY** : 58.78 T

**MACHINERY PARTICULARS**

<b>1. <u>MAIN ENGINES</u></b>	:	2 Nos
TYPE	:	9L20
MODEL	:	Wartsila 9L20
OUTPUT	:	Two(2) x 1800 Kw @ 1000 rpm
NO OF CYLINDERS	:	9
CYLINDER BORE	:	200 mm
STROKE	:	280 mm
DIRECTION OF ROTATION	:	Clockwise – Stbd Side Anti Clockwise – Port Side
MAKER	:	Wartsila Finland Oy Vaasa Factory Tarhaajantie 2, Fin –65101 Vaasa Finland Tel. +358 10 709 0000 Fax(Service) : + 358 6 356 7355 Fax(Spare Parts) : +358 10 709 1380 <a href="mailto:Service.solutions@wartsila.com">Service.solutions@wartsila.com</a>
SUPPLIER	:	Wartsila Finland Oy Vaasa Factory Tarhaajantie 2, Fin –65101 Vaasa Finland Tel. +358 10 709 0000 Fax(Service) : + 358 6 356 7355 Fax(Spare Parts) : +358 10 709 138 <a href="mailto:Service.solutions@wartsila.com">Service.solutions@wartsila.com</a> <a href="http://www.wartsila.com">www.wartsila.com</a>

<b>2.    <u>PROPULSION UNITS</u></b>	:	2 Nos
MODEL or TYPE	:	<b>28R5/210-2</b>
PROPELLER DIA	:	2800 mm
PITCH CONSTANT	:	Zero
NO OF BLADES	:	5 Blades
BLADE LENGTH	:	2100 mm
BLADE MATERIAL	:	Stainless steel drop forged
MAKER	:	Voith Turbo Marine GmbH&Co. KG Alexanderstrabe 18 89522 Heidenheim, Germany Tel. +49 7321 37-0 Fax +49 7321 37 -7000 <a href="http://www.voithrurbo.com">www.voithrurbo.com</a>
SUPPLIERS	:	Voith Turbo Marine GmbH&Co. KG Alexanderstrabe 18 89522 Heidenheim, Germany Tel. +49 7321 37-0 Fax +49 7321 37 -7000 <a href="http://www.voithrurbo.com">www.voithrurbo.com</a>

<b>3. <u>DIESEL GENERATOR</u></b>	:	2 Nos
MODEL	:	6R1080 TA
TYPE	:	4Stroke, Single Acting, Turbocharged and afer cooled, water cooled
ENGINE OUTPUT	:	156 BHP@ 1500 rpm
RATING	:	125 KVA (AIR STARTING)
MAKER	:	Kirloskar
SUPPLIER	:	PARIKH POWER PVT LTD., TAP FLOOR, SHREYAS COMPLEX, opp. JAIN TEMPLE, NAVARANGAPURA, AHEMDABAD – 380 009 TEL: 079 26448277 FAX:079 26420524 E-MAIL:parikhs_ppl@yahoo.com
<b><u>ALTERNATORS</u></b>	:	2 Nos
TYPE	:	Brushless Type, self-excited and self-regulate
CLASS OF INSULATION	:	“H”
MAKER	:	Crompton Greaves
SUPPLIER	:	PARIKH POWER PVT LTD., TAP FLOOR, SHREYAS COMPLEX, opp. JAIN TEMPLE, NAVARANGAPURA, AHEMDABAD – 380 009 TEL: 079 26448277 FAX:079 26420524 E-MAIL:parikhs_ppl@yahoo.com



<b>4.</b>	<b><u>DIESEL GENERATOR</u></b>	:	1nos
	<b>MODEL</b>	:	4R1040T
	<b>ENGINE SR.No</b>	:	<b>4H.3410/0600007</b>
	<b>ENGINE OUTPUT</b>	:	83 BHP@ 1500 rpm
	<b>RATING</b>	:	62.5 KVA (AIR STARTING)
	<b>MAKER</b>	:	<b>Kirloskar Oil Engines Ltd</b>
	<b>SUPPLIER</b>	:	PARIKH POWER PVT LTD., TAP FLOOR, SHREYAS COMPLEX, opp. JAIN TEMPLE, NAVARANGAPURA, AHEMDABAD – 380 009 TEL: 079 26448277 FAX: 079 26420524 E-MAIL:parikhs_ppl@yahoo.com
	<b><u>ALTERNATOR</u></b>	:	2 No
	<b>TYPE</b>	:	Brushless Type, self-excited and self-regulate
	<b>CLASS OF INSULATION</b>	:	“H”
	<b>MAKE</b>	:	Crompton Creaves ltd
	<b>SUPPLIER</b>	:	PARIKH POWER PVT LTD., TAP FLOOR, SHREYAS COMPLEX, opp. JAIN TEMPLE, NAVARANGAPURA, AHEMDABAD – 380 009 TEL: 079 26448277 FAX: 079 26420524 E-MAIL:parikhs_ppl@yahoo.com

**5. AIR COMPRESSORS  
(ELECTRIC MOTOR DRIVEN) : 2 Nos**

MAKE : Sperre  
 MODEL : HL2/90  
 TYPE : 2 Stage, 2 Cylinder Compressor  
 CAPACITY : 24 M<sup>3</sup>/Hr FAD t+ ol 5%  
 WORKING PRESSURE : 30 Bar  
 SPEED APPROX. : 975 rpm  
 POWER REQUIREMENT : 4.6 KW  
 LUBRICATION TYPE : Splash Lubricated  
 COOLING : Air – Cooling

**MOTOR DETAILSGHG**

MAKE : ABB M3AA 132 MB6  
 SHAFT DIAMETER : ø 38  
 DUTY : 415V, 3Ph, 50 Hz Squirel Cage  
 electric motor, continuously rating  
 induction type  
 MOUNTING : Foot Mounted  
 SPEED : 960 rpm  
 COUPLING FLANGE : 77-90 ø 38  
 POWER : Min. 5.5 KW  
 INSULATION : Class 'F'  
 VENTILATION : Totally enclosed fan cooled type  
 ENCLOSURE : I.P. 55  
 BEARINGS : Ball Bearing type (pre lubricated  
 sealed type)

MAKER : Spree Industrial AS  
 6057 Ellings O Y  
 NORWAY  
 Tel: 70 16 11 00  
 FAX: 70 16 11 10  
 E-MAIL: [industri@sperre.com](mailto:industri@sperre.com)  
 WEB: [www.sperre.com](http://www.sperre.com)

SUPPLIER : Spree Industrial AS  
 6057 Ellings O Y  
 NORWAY  
 Tel: 70 16 11 00  
 FAX: 70 16 11 10  
 E-MAIL: [industri@sperre.com](mailto:industri@sperre.com)

<b><u>6.FUEL OIL TRANSFER PUMP</u></b>	:	<b>1 No</b>
MODEL	:	SFGP-32 MT
PUMP SIZE	:	1 ¼ x 1 ¼
PUMP RPM	:	1440 rpm
MOTOR KW/HP	:	3HP
MOTOR PRM	:	1440 rpm
TYPE	:	Electric Driven, horizontal, self priming, Gear type (Inlet and outlet diameter of the pump is 1 ¼")
CAPACITY	:	4 cu.m / hr at 2 bar
SUCTION HEAD	:	5 meters
DELEVERY HEAD	:	15 meters
RPM	:	1440
SHAFT	:	Stainless Steel – AISI 304
DUTY	:	415V,3 Phase, 50 Hz,Squirrel cage electric motor, continuously rated and suitable for marine use.
HP	:	3 HPz
INSULATION	:	Class 'F'
PROTECTION	:	IP 55
BEARINGS	:	Ball Bearing Type Pre-Lubricated
MAKER	:	Roysons Engineers Pvt.Ltd., 3A, Surendra Mohan Ghosh Sarani (Formerly Mangoe Lane) (Ground Floor) Calcutta 700 001 Ph:033-22482353/54 Fax: 033-22486354/2231 6901
SUPPLIER	:	Roysons Engineers Pvt.Ltd., 3A, Surendra Mohan Ghosh Sarani (Formerly Mangoe Lane) (Ground Floor) Calcutta 700 001 Ph:033-22482353/54 Fax: 033-22486354/2231 6901

<b>6. <u>DIRTY OIL PUMP</u></b>	:	<b>1 No</b>
MODEL	:	RGP – 3 PT
TYPE	:	Electric Driven, Self- Priming, Horizontal, Gear Type (Inlet and outlet diameter of the pump is 25 NB)
CAPACITY	:	3 Cu M/ Hr @ 3 Bar
SUCTION HEAD	:	5 meters
DELEVERY HEAD	:	23 meters
RPM	:	1440
SHAFT	:	Stainless Steel – AISI 304 (or) Equivalent
DUTY	:	415V, 3 Phase, 50 Hz,Squirrel cage electric motor, continuously rated and suitable for marine use.
HP	:	2 HP
INSULATION	:	Class ‘F’
PROTECTION	:	IP 55
BEARINGS	:	Ball Bearing Type Pre-Lubricated
MAKER	:	Roysons Engineers Pvt.Ltd., 3A, Surendra Mohan Ghosh Sarani (Formerly Mangoe Lane) (Ground Floor) Calcutta 700 001 Ph:033-22482353/54 Fax: 033-22486354/2231 6901
SUPPLIER	:	Roysons Engineers Pvt.Ltd., 3A, Surendra Mohan Ghosh Sarani (Formerly Mangoe Lane) (Ground Floor) Calcutta 700 001 Ph:033-22482353/54 Fax: 033-22486354/2231 6901

<b>7. <u>BILGE BALLAST PUMP</u></b>	<b>1 NO</b>
SERVICE	: Bilge & Ballast Pump
ARRANGEMENT	: Centrifugal horizontal, Self Priming
TYPE	: MU 32-160A
FLUID	: Sea Water / Bilge Water
SPECIFIC GRAVITY	: 1.025 kg / dm <sup>3</sup>
VISCOSITY	: 1 CST
TEMPERATURE	: 32 <sup>0</sup> C
N.P.S.H REQUIRED	: 3 mwc
DIFFERENTIAL HEAD	: 30 MWC
CAPACITY	: 25 m <sup>3</sup> /h
ABSORBED POWER	: 6.74 kW
MOTOR POWER <sub>r</sub>	: 9.2 kW
SPEED	: 2900 rpm
ROTATION	: C.W.
BEARING TYPE	: Ball
SHAFT	: S.S. Aisi316
SPEED/POWER	: 2900rpm / 9.2 kW
MAKER	: Pompe Carbarino S.p.A Via Marengo 44 15011 ACQUI TERME (AL) ITALY
SUPPLIER	: Pompe Carbarino S.p.A Via Marengo 44 15011 ACQUI TERME (AL) ITALY

**9. GS/FIRE/DETERGENT PUMP****1 NO**

SERVICE	:	Fire / Detergent & GS Pump
ARRANGEMENT	:	Centrifugal horizontal, Self Priming
TYPE	:	MU 50-160A
FLUID	:	Sea Water
SPECIFIC GRAVITY	:	1.025 kg / dm <sup>3</sup>
DIFFERENTIAL HEAD	:	30 MWC
CAPACITY	:	50 m <sup>3</sup> /h
MOTOR POWER	:	15 kW
SPEED	:	2900 rpm
ROTATION	:	C.W.
BEARING TYPE	:	Ball
SHAFT	:	S.S. Aisi316
SPEED/POWER	:	2900rpm / 15 kW
MAKER	:	Pompe Carbarino S.p.A Via Marengo 44 15011 ACQUI TERME (AL) ITALY
SUPPLIER	:	Pompe Carbarino S.p.A Via Marengo 44 15011 ACQUI TERME (AL) ITALY

**10.EMERGENCY FIRE PUMP**

: 1 no

TYPE	:	Portable Diesel Engine Driven, self priming, horizontal, centrifugal pump
MODEL	:	R7102-06, SURE-FLO
CAPACITY	:	25 cum/hr at 3 Bar
SUCTION HEAD	:	4 meters
DELIVERY HEAD	:	26 meters
RPM	:	1500
<b>MEDIUM</b>	:	<b>Sea Water</b>
<b><u>PRIME MOVER</u></b>		
DIESEL ENGINE	:	Suitable for marine use
MAKE	:	Kirloskar TV2
POWER	:	14BHP
RPM	:	1500
STARTING	:	Hand start
COOLING	:	Sea water cooled

The material of construction of the pump should be as follows:

SHAFTS	:	AISI304 Stainless Steel
IMPELLER	:	AB1 to BS1400 – Bronze
MAKER	:	Roysons Engineers Pvt.Ltd., 3A, Surendra Mohan Ghosh Sarani (Formerly Mangoe Lane) (Ground Floor) Calcutta 700 001 Ph:033-22482353/54 Fax: 033-22486354/2231 6901
SUPPLIER	:	Roysons Engineers Pvt.Ltd., 3A, Surendra Mohan Ghosh Sarani (Formerly Mangoe Lane) (Ground Floor) Calcutta 700 001 Ph:033-22482353/54 Fax: 033-22486354/2231 6901

**11.F.W HYDROPHORE PUMP / TANK**

2nos

SERVICE : Hydrophore Pump for FW System  
ARRANGEMENT : Side channel, horizontal, Self PRIMING  
TYPE : BT202  
FLUID : Fresh Water  
SPECIFIC GRAVITY : 1 Kg / dm<sup>3</sup>  
TEMPERATURE : 25<sup>0</sup>C  
CAPACITY : 4.5 m<sup>3</sup>/h  
MOTOR POWER : 1.1 kW  
SPEED : 1450 rpm  
ROTATION : C.W.  
BEARING TYPE : Ball  
LUBRICATION TYPE : Self lubricated  
SHAFT : S.S. Aisi420  
SPEED/POWER : 1450 rpm\ 1.1 KW

SUPPLIER : Pompe Carbarino S.p.A  
Via Marengo 44  
15011 ACQUI TERME (AL)  
ITALY

**TANK DETAILS**

HYDROPHORE TANK : Capacity 200 Ltrs  
MATERIAL : MS IS 2062 Grade 'B' Galvanised  
MAKER : Roysons Engineers Pvt.Ltd.,  
3A, Surendra Mohan Ghosh Sarani  
(Formerly Mangoe Lane)  
(Ground Floor)  
Calcutta 700 001  
Ph:033-22482353/54  
Fax: 033-22486354/2231 6901  
SUPPLIER : Roysons Engineers Pvt.Ltd.,  
3A, Surendra Mohan Ghosh Sarani  
(Formerly Mangoe Lane)  
(Ground Floor)  
Calcutta 700 001  
Ph:033-22482353/54  
Fax: 033-22486354/2231 6901



<b><u>12. S.W HYDROPHORE PUMP / TANK</u></b>	2 nos
SERVICE	: Hydrophore Pump for SW System
ARRANGEMENT	: Side channel, horizontal, Self Priming
TYPE	: BT202
FLUID	: Sea Water
SPECIFIC GRAVITY	: 1.025 Kg / dm <sup>3</sup>
TEMPERATURE	: 32 <sup>0</sup> C
CAPACITY	: 1.5 m <sup>3</sup> /h
MOTOR POWER	: 1.1 kW
SPEED	: 1450 rpm
ROTATION	: C.W.
BEARING TYPE	: Ball
LUBRICATION TYPE	: Self lubricated
SHAFT	: S.S. Aisi316
SPEED/POWER	: 1450 rpm/ 1.1 KW
SUPPLIER	: Pompe Carbarino S.p.A Via Marengo 44 15011 ACQUI TERME (AL) ITALY
<b>TANK DETAILS</b>	
HYDROPHORE TANK	: Capacity 200 Ltrs
MATERIAL	: MS IS 2062 Grade 'B' Galvanised
MAKER	: Roysons Engineers Pvt.Ltd., 3A, Surendra Mohan Ghosh Sarani (Formerly Mangoe Lane) (Ground Floor) Calcutta 700 001 Ph:033-22482353/54 Fax: 033-22486354/2231 6901
SUPPLIER	: Roysons Engineers Pvt.Ltd., 3A, Surendra Mohan Ghosh Sarani (Formerly Mangoe Lane) (Ground Floor) Calcutta 700 001 Ph:033-22482353/54 Fax: 033-22486354/2231 6901

<b>13. <u>VOITH COOLING PUMP</u></b>	:	1nos
APPLICATION	:	SEA WATER
TYPE	:	Electrical driven, horizontal, self priming, single stage, centrifugal Pump with inlet and outlet diameter 80mm x 65mm
MODEL	:	CH 65-250 B3M2TL
CAPACITY	:	36.cu.m/hr @ 2 bar
RPM	:	1450 RPM
SHAFT	:	Stainless Steel
KW	:	5.5 KW / 7.5 HP
R.P.M	:	1500
Insulation	:	Class 'F'
Bearings	:	Ball bearing type pre lubricated sealed type
MAKER	:	Johnson Pump India Ltd, Survey No275 ODHAV Ahamedabad Fax : 079 2571 0415
SUPPLIER	:	Johnson Pump India Ltd, Survey No275 ODHAV Ahamedabad Fax : 079 2571 0415

<b>14. <u>SEWAGE DISPOSAL PUMP</u></b>	:	1 No
APPLICATION	:	<b>Sewage Water</b>
TYPE	:	Electrical driven, horizontal, self priming, single stage centrifugal Pump with inlet and outlet diameter 30mmx 30 mm
MODEL	:	KGEN 16 –3 G2
CAPACITY	:	3 Cu.M/Hr @ 2.5Bar
RPM	:	2900 RPM
KW	:	1.5 K.W./2 HP
RPM	:	3000
INSULATION	:	Class ' F '
BEARINGS	:	Ball Bearing Type (pre lubricated sealed type)
MAKER	:	Johnson Pump India Ltd, Survey No275 ODHAV Ahamedabad Fax : 079 2571 0415 Tel: 044 – 28131634
SUPPLIER	:	Johnson Pump India Ltd, Survey No275 ODHAV Ahamedabad Fax : 079 2571 0415 Tel: 044 – 28131634

**15. SEMI ROTARY HAND PUMP**

1 nos

MAKER : Bhargarb Engineering Works  
P-262, Benaros Road,  
Howrah – 711 108  
033 – 2651 2143

SUPPLIER : Bhargarb Engineering Works  
P-262, Benaros Road,  
Howrah – 711 108  
033 – 2651 2143

**16. F O CENTRIFUGAL PUMP WITH PURIFIER**

1 nos

MAKER : Alfa Level

SUPPLIER : Bharat Bjjjee Pvt Lmt.  
P B. 100 Thane1 , India

<b><u>17.DIESEL (FUEL OIL PURIFIER )</u></b>	:	<b>1 no</b>
MODEL	:	MAB- 103 of throughout
TYPE oil	:	Purification of high speed diesel
CAPACITY	:	900-1000 LPH of High Speed Diesel Oil
THROUHOUT CAPACITY	:	1000 LPH (Max)
MODE OF OPERATION	:	Purifier
<b>MOTOR DETAILS:</b>		
MOTOR	:	415V, 3 Ph, Squirrel Cage induction motor, continuously rated and suitable for marine use.
POWER	:	1 HP
RPM	:	as Applicable
INSULATION	:	Class F
MAKE	:	Crompton Greaves
BEARING	:	Type
MAKER	:	ALFA LAVAL (INDIA) LTD., MUMBAI – PUNE ROAD, DAPODI , PUNE- 411 012 TEL:044 - 28218371 FAX: 044 – 2821 8372
SUPPLIER	:	ALFA LAVAL (INDIA) LTD., MUMBAI – PUNE ROAD, DAPODI , PUNE- 411 012 TEL:044 - 28218371 FAX: 044 – 2821 8372

<b><u>18.OILY BILGE SEPARATOR</u></b>	:	<b>1 no</b>
MAKE	:	Turbulo MP B – 0.5
CAPACITY	:	500 Ltrs / hr
WORKINGPRESSURE	:	2.5 bar
OPERATION	:	Automatic and manual mode
PNEUMATIC PRESSURE AVL.	:	3 to 5 Kg/cm <sup>2</sup> - filtered dry air
INPUT SUPPLY VOLTAGE	:	415V AC, 50 Hz, 3 Ph
INDICATIONS	:	0-15 ppm oil content monitor with bilge alarm
PUMP DETAILS		
TYPE	:	T.S.P. 0.5
SUCTION HEAD	:	3 meters
DISCHARGE HEAD	:	22 meters
PRIME MOVER DETAILS		
POWER	:	0.55 KW
RPM	:	1400
INSULATION	:	Class 'F'
SUPPLIER& MAKER	:	Simplex Marine Service Pvt.Ltd. 13,Jookoon Creaseant 4 <sup>th</sup> Storey Singapore – 629 021

**19. AIR DRYER**: **1 no**

MODEL	:	SRD 20 - HP
CAPACITY	:	34M <sup>3</sup> /hr
WORKING PRESSURE	:	30 Bar
POWER SOURCES	:	230 V AC 50 Hz
POWER CONSUMPTION	:	130 watts
Model	:	SDVM40 Electronic Type
Capacity	:	34CFM
Max. Oil Carry Over	:	5 mg/m <sup>3</sup>
Working Pressure	:	30 Bar
MAKER	:	SUMMITS HYGRONICS PRIVATE LIMITED., S.F. 739,AVANASHI ROAD, GOLD WINS, COIMBATORE – 641 014 FAX: 0422 – 2628 118
SUPPLIER	:	SUMMITS HYGRONICS PRIVATE LIMITED., S.F. 739,AVANASHI ROAD, GOLD WINS, COIMBATORE – 641 014 FAX: 0422 – 2628 118

### OUT FIT PARTICULARS

<b>1.</b>	<b><u>WINDLASS</u></b>	<b>:</b>	<b>1 No</b>
	PRIME MOVER (ELECTRIC MOTOR)		
	DUTY	:	415V,3 Ph, Squirrel cage ,Electric motor, continuously rating induction type suitable for marine use.
	MOUNTING	:	Flange Mounted
	FRAME	:	I.E.C Frame Size
	KW	:	7.5 KW
	INSULATION	:	Class 'F'
	VENTILATION	:	Totally enclosed fan cooled type
	ENCLOSURE	:	I.P56
	TERMINAL BLOCK	:	Accessible from top
	BEARINGS	:	Ball Bearing type (pre lubricated sealed type)
	RATED PULL	;	.....
	CHAIN SIZE	:	.....
	SPEED OF WINDLASS	:	10M/ min
	CENTER DISTANCE BETWEEN GYPSY WHEELS .....		
	CENTER DISTANCE BETWEEN WARPING HEADS .....		
	PITCH CIRCLE DIA. OF GYPSY WHEEL .....		
	GRADE OF OIL .....		
	QUANTITY OF OIL .....		
	SUPPLIER /MAKER	:	RIDDERINKHOF B.V. Industrieweg 7 8061 RB Hasselt Netherlands Ph: 31 (0) 38 477 20 21 Fax: 31 (0) 38 477 3392



<b>2.</b>	<b><u>ELECTRIC CAPSTAN</u></b>	<b>:</b>	<b>Two Speed</b>
	MAKE	:	Ridderinkhof
	Capacity	:	8T & Should hold at least 4 turns of 80mm Polypropylene rope in its drum
	Type	:	Electrically Operated vertical type capstan
			& Provided with starter for local control from deck and remote control from Wheel house
	PRIME MOVER DETAILS		
	DUTY	:	415V, 3 Ph,50Hz, Squirrel cage, electric motor, continuously rating suitable for marine use.
	MOUNTING	:	Flange Mounted
	FRAME	:	I.E.C. Frame Size
	POWRE	:	7.5 KW
	INSULATION	:	Class 'F'
	VENTILATION	:	Totally enclosed fan cooled type
	ENCLOSURE	:	IP 54
	TERMINAL BOX	:	Accessible from top
	BEARINGS	:	Ball Bearing type (pre lubricated sealed type)
	BEARING TYPE	:	ZZ type
	Grade of Oil	:	SHELL OMELA 68
	Quantity of Oil	:	60 Ltrs
	Nominal Pull	:	8 Ton
	Design Speed	:	5 Meter/ Minute
	Light Line Speed	:	10 Meter/Minute
	SUPPLIER /MAKER	:	RIDDERINKHOF B.V. Industrieweg 7 8061 RB Hasselt Netherlands Ph: 31 (0) 38 477 20 21 Fax: 31 (0) 38 477 3392

- 3. ANCHORS** : **2 Nos**
- TYPE : High Holding Power Type AC - 14
- WEIGHT/ ANCHOR : 500 Kgs HHP
- MATERIAL : Cast Steel
- MAKER : G.J.Wortelboer Jr.B.V  
Quarantaineweg 5  
3809 KP RotterDam  
Postbus 5003,3008 RotterDam  
Nethar Land
- SUPPLIERS : G.J.Wortelboer Jr.B.V  
Quarantaineweg 5  
3809 KP RotterDam  
Postbus 5003,3008 RotterDam  
Nethar Land
- 4. ANCHOR CHAINS**
- DIMENSION : 22 mm diameter
- GRADE : 2
- EACH CHAIN LENGTHS : 27.5 meter
- NO.OF LENGTHS PER ASSEMBLY : .5 length/set
- ANCHOR SHACKLE : .1 no. /set
- KENTER JOINING SHACKLE : 6nos. / set
- SWIVEL ASSEMBLY : 01no. /set
- D TYPE END SHACKLE : 01no. / set
- MAKER : G.J.Wortelboer Jr.B.V  
Quarantaineweg 5  
3809 KP RotterDam  
Postbus 5003,3008 RotterDam  
Nethar Land
- 5. TOWING HOOK**
- MAKE : MAMPAEY
- CAPACITY : 50 Tonnes SWL
- TEST LOAD : 100 Tonnes
- RELEASE LOAD : 50 Tonnes
- MAKERS : Mampaey Offshore Industries B.V.  
38, Jacobus lipsweg  
3316,BP Dordrecht  
Holland
- Telephone (International) : +31-78-6133 22
- Telefax (International) : +31-78-61752 11
- Email : [info@mampaey.com](mailto:info@mampaey.com)
- Internet : [www.mampaey.com](http://www.mampaey.com)
- SUPPLIER : Mampaey Offshore Industries B.V.  
38, Jacobus lipsweg  
3316,BP Dordrecht

Holland

6. **TOW LINE** : 1 No x 220 Meters of 88 mm dia  
**polypropylene rope** with Breaking  
 Strength ..... M.T.

7. **MOORING LINES** : 4 Nos x 120 Meters of 32 mm dia  
**polypropylenes rope** with  
 Breaking Strength ..... M.T.

8, **BLOWERS**

MAKE

:Nadi Airtechnicians Pvt.Ltd

Suppliers

: NADI AIRTECHNICS Pvt. Ltd  
 # 34, G.N.T Road,  
 Ponnaiammanmedu,  
 Madhavaram,  
 Chennai.600 110.

Phone:

: 044-25532206

Fax:

: 044-25532205

Email:

bindhu @nadiindia.com

Web

www.nadiindia.com

9. **INCLINO METER**

SUPPLIER

:

S.S. MARINE SERVICE  
 NEW NO: 27, OLD NO:100  
 LIGHI CHETTY ST,  
 CHENNAI-600 001

**10. ANEMO METER**

TYPE : CD 50+CE360+DU2A with wind vane type

SUPPLIER : LAWRENCE & MAYO (INDIA) PVT. LTD., 68, ANNA SALAI, CHENNAI – 600 002

**11. AIR CONDITIONER**

MAKE/CAPACITY : GOODREJ/ 1Ton & 1.5 Ton

**12. PUSH PULLY TROLLY & CHAIN PULLY BLOCK**

CAPACITY : 1 Ton

SUPPLIER : MADRAS HARD TOOL AGENCIES , Perianna Maistry St, P.Box: 1740, Chennai -600 001  
Ph: 044 5225258  
Fax: 044 524 5609

**13. WINDOW**

SUPPLIER : HIRAL ENTERPRISES

## 14. WINDOW WIPER

MAKER : SPEICH s.r.l,  
VIA G. ADAMOLI, 443 16141,  
GENOVA, ITALY,  
Ph: +39.010.8380676  
FAX: +39.010.8468449  
E- Mail: [info@speich.com](mailto:info@speich.com)  
Web: <http://www.spiech.com>

SUPPLIER : E-KRISHNA RAO,# 32, L.B.M  
COMPOUND (EAST EXTEN),  
VIP ROAD,  
VISA KHAPATNAM – 600 116  
TEL: 0891- 2566 739  
FAX: 0891 – 2563 777  
E-MAIL: [e\\_krishana@sify.com](mailto:e_krishana@sify.com)

**15. OIL DISPERSANT SYSTEM**

MAKER /SUPPLIERS : AYLES FERINE  
INTERNATIONAL LTD,  
UNIT – D5,  
CHAUCER BUTINESS  
PARK,KEMSING, SEVENOKS,  
KENT TN15 OYO ENGLAND  
E-MAIL: [sales@aylesternic.co.uk](mailto:sales@aylesternic.co.uk).

**16. GAUGE GLASS**

SUPPLIERS : SCIENTIFIC DEVICES  
Office No 53,  
Shree Manoshi Complex  
Plot No 5 & 6 Sector 3  
Opp.Ghansoli Railway Station  
Ghansoli ( East) Navi  
Mumbai 400 701  
Ph: 91 22 25491407  
Fax: : 91 22 25491408

**17. HOT PLATE WITH COOKING RANGE**

CAPACITY : 2 KW (Each)

SUPPLIER : SUSHMA & CO., ELECTRICALS  
17-B,GHATKOPAR INDUSTRIAL  
ESTATE,  
OFF. L.B.S. MARG,  
GHATKOPAR (WEST)  
MUMBAI – 400 086,  
PH: 022 –25170044,25173212  
FAX:022-24449559

**18.FENDER**

SUPPLIER : TRELLEBORG ENGINEERED  
SYSTEM INDAIA PTE Ltd ,  
909 Akik, Opp.Rajpath Club,  
S.G. Highway,Ahemedabad,  
Gujarat – 380 054  
Ph: 079 40038700

**19. CRANE**

**Electro –Hydraulically operated knuckle Telescopic Deck crane of 3 tone x 5mtr capacity with hoisting speed, luffing.**

HOISTING LOAD (SWL)	:	3 TON @ 5 M
HOOK HOISTING HEIGHT	:	10 M/Min @ 2 <sup>nd</sup> Layer
HOOK HOISTING HEIGHT	:	15 M
WORKING RADIUS	:	Min. 1.6 M – Max. 5M
<b>SLEWING</b>		
SPEED	:	0-0.5 RPM
ANGLE	:	360° Limited
<b>BOOM LUFFING</b>		
SPEED	:	Approx. 60 SEC
JIB-ANGLE	:	Approx 0° - 82°
<b>HYDRAULIC POWER UNIT</b>		
PRESSURE	:	Max 210Kg/Cm <sup>2</sup>
FLOW	:	45 L/Min
ELEC. MOTOR	:	15 KW,IP55,'F' Class, Star Delta
ELEC. SOURCE	:	Power AC 415V,50Hz, 3P Control AC 230V,50Hz,1 P
HOISTING WIRE ROPE	:	Dia 16 (Anti Twist Type) G.S.W.R
CONTROL	:	Local Control on of the crane with operator open platform
OPERATION	:	One by One Motion under full load, or each two motion at the same time with reduced speed.
<b>SAFETY DEVICE</b>		
HOISTING	:	Relief V/V for Over Load Hook Highest Position Limit Automatic power fail brake Emergency lowering device
LUFFING	:	Power fail automatic load holding valve Min.& Max. Cylinder's Stroke end
SLEWING	:	360° free, automatic power fail brake Emergency Stop
DESIGN CONDITION	:	Heel 5°, TRIM 2°
MAKER	:	Dongnam Marine Care Ltd., 1172-4, Naesamri Juchon Myun Kimhae City Kyungnam Korea Ph: 82-55-337-0196/7 Fax: 82-55-337-0199
SUPPLIER	:	Dongnam Marine Care Ltd., 1172-4, Naesamri Juchon Myun Kimhae City Kyungnam Korea Ph: 82-55-337-0196/7 Fax: 82-55-337-0199



**ELCTRICAL EQUIPMENT****1. MAIN SWITCH BOARD**

MAKER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400093.  
TEL: 022 28349132  
FAX: 022 28364045

SUPPLIER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

**2. EMERGENCY SWITCH BOARD**

MAKER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

SUPPLIER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

**3. TRANSFORMER RECTIFIER – 2.5 KW**

MAKER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

SUPPLIER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

**4. BATTERY CHARGER FOR DG – 0.5 KW**

MAKER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

SUPPLIER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

**5. BATTERY CHARGER FOR RADIO EQUIPMENT – 0.5 KW**

MAKER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

SUPPLIER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

**6. EMERGENCY LIGHTING DB-LP1**

MAKER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

SUPPLIER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

**7. 24V DC NAVIGATION D B – LP2**

MAKER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

SUPPLIER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

**8. 24V DC RADIO PANEL – LP3**

MAKER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

SUPPLIER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

**9. A/C & DC NAVIGATIONAL PANEL (230 V & 24 V)**

MAKER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

SUPPLIER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

**10. LED ACID BATTERIS (EMERGENCY GENERATORS STARTING)**

TYPE & CAPACITY .....

MAKER EXIDE INDUSTRIES LTD., 59 E  
CHOWRIGHEE ROAD,  
KOLKATTA – 700 020  
TEL: 033 22478326

SUPPLIER ” ”

**11. SHORE CONNECTION SUPPLY**

MAKER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

SUPPLIER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

**12. STARTERS  
(D.O.L. & STAR DELTA)**

MAKER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

SUPPLIER : MARINE ELECTRICALS, B-1  
UDYOG SADAN-3,MIDC,  
MAROL INDUSTRIAL AREA,  
ANDHERI(E),MUMBAI – 400 093.  
TEL: 022 28349132  
FAX: 022 28364045

**13. LIGHTING DB's**

MAKER : POWER LINK  
A-221-OSHIWARA INDS. CENTRE  
OPP.OSHIWARA BUS. DEPT.  
NEW LINK ROAD,GOREGAON(W)  
MUMBAI 400 104  
Ph: 022 28763637  
Fax: 022 28763458

SUPPLIER : POWER LINK  
A-221-OSHIWARA INDS. CENTRE  
OPP.OSHIWARA BUS. DEPT.  
NEW LINK ROAD,GOREGAON(W)  
MUMBAI 400 104  
Ph: 022 28763637  
Fax: 022 28763458

**14. LIGHTING TRANSFORMER – 15 KVA**

MAKER : POWER LINK  
A-221-OSHIWARA INDS. CENTRE  
OPP.OSHIWARA BUS. DEPT.  
NEW LINK ROAD,GOREGAON(W)  
MUMBAI 400 104  
Ph: 022 28763637  
Fax: 022 28763458

SUPPLIER : POWER LINK  
A-221-OSHIWARA INDS. CENTRE  
OPP.OSHIWARA BUS. DEPT.  
NEW LINK ROAD,GOREGAON(W)  
MUMBAI 400 104  
Ph: 022 28763637  
Fax: 022 28763458

**15. A/C TRANSFORMER – 6 KVA**

MAKER : POWER LINK  
A-221-OSHIWARA INDS. CENTRE  
OPP.OSHIWARA BUS. DEPT.  
NEW LINK ROAD,GOREGAON(W)  
MUMBAI 400 104  
Ph: 022 28763637  
Fax: 022 28763458

SUPPLIER : POWER LINK  
A-221-OSHIWARA INDS. CENTRE  
OPP.OSHIWARA BUS. DEPT.  
NEW LINK ROAD,GOREGAON(W)  
MUMBAI 400 104  
Ph: 022 28763637  
Fax: 022 28763458

**16. ELECTRICAL LIGHTS AND FITTINGS**

SUPPLIER : PERFECT INDUSTRIAL &  
MARINE PRODUCTS,  
9/2, JAI MAHAL ESTATE,  
20/48 LOHAR CHAWL,  
MUMBAI – 400 002.

**17. ALDIS SIGNALING LAMP**  
(with wodden stowage box and 24 V  
Battery Charger)

SUPPLIER S.S.Marine Services  
207/100,Lingi Chetty St  
Chennai -1  
Ph: 044 – 524 0754  
Fax: 044 - 521 3905

### NAVIGATION EQUIPMENT

#### 1. NAVIGATIONAL LIGHTS

TYPE	:	Double lens Navigation Lights suitable for 3M Vessels meeting IRPC – 1972 with following specifications.
INPUT SUPPLY	:	(i) 230V AC for Main Supply (Upper Unit) (ii) 24V DC for spare lighting (Lower Unit)
MIN.VISIBILITY	:	3 NM to 6 NM
ENCLOSURE	:	IP56
HOUSING	:	Aluminium body with Polycarbonate lens navigational lights
LAMP TYPE	:	Incandescent, 65w for main lighting and 40w for spare lighting
INPUT CABLE	:	2x1.5 sq.mm for main lighting – 230V AC 2x2.5 Sq.mm for spare lighting – 24V DC
APPROVAL	:	MMD Type Approval

#### 2. ECHO SOUNDER EQUIPMENT

**1 No**

MODEL	:	SES 2000 N
MAKER	:	Samyung Enc.co Ltd 1123-17,Dongsam-Dong Youngdo-GU Busan – Korea Pin: 606 083
SUPPLIER	:	ELCOMER MARINE SERVICE LTD., 17/B DEMONTE ST, SANTHOME, MYLAPORE CHENNAI- 600 004 TEL: 044 246717350 FAX: 044 246714247



**3. EPIRB : 1 No**

MODEL : SEP 406

MAKER : Samyung Enc.co Ltd  
1123-17,Dongsam-Dong  
Youngdo-GU  
Busan – Korea  
Pin: 606 083

SUPPLIER : ELCOME MARINE SERVICE  
LTD., 17/B DEMONTE ST,  
SANTHOME, MYLAPORE  
CHENNAI- 600 004  
TEL: 044 246717350  
FAX: 044 246714247

**4. SART : 1 No**

MODEL : SAR 09

MAKER : Samyung Enc.co Ltd  
1123-17,Dongsam-Dong  
Youngdo-GU  
Busan – Korea  
Pin: 606 083

SUPPLIER : ELCOME MARINE SERVICE  
LTD., 17/B DEMONTE ST,  
SANTHOME, MYLAPORE  
CHENNAI- 600 004  
TEL: 044 246717350  
FAX: 044 246714247

**5. MF/HF RADIO EQUIP.WITH DSC 1 No**

MODEL : SRG 1150

MAKER : Samyung Enc.co Ltd  
1123-17,Dongsam-Dong  
Youngdo-GU  
Busan – Korea  
Pin: 606 083

SUPPLIER : ELCOME MARINE SERVICE  
LTD., 17/B DEMONTE ST,  
SANTHOME, MYLAPORE  
CHENNAI- 600 004  
TEL: 044 246717350  
FAX: 044 246714247

- 6. WALKIE TALKIE** : 2 No
- MODEL : STV 160
- MAKER : Samsung Enc.co Ltd  
1123-17,Dongsam-Dong  
Youngdo-GU  
Busan – Korea  
Pin: 606 083
- SUPPLIER : ELCOME MARINE SERVICE  
LTD., 17/B DEMONTE ST,  
SANTHOME, MYLAPORE  
CHENNAI- 600 004  
TEL: 044 246717350  
FAX: 044 246714247
- 7. X – BAND RADAR** : 1 No
- MODEL : MDC – 1810 P
- MAKER : KODEN ELECTRONICS CO.LTD.  
5278 UNENOHARA,  
UNENOHARA – MACHI,  
KITATSURU – GUN,  
YAMANASHI – KEN.  
JAPAN – 409 – 0112.
- SUPPLIER : ELCOME MARINE SERVICE  
LTD., 17/B DEMONTE ST,  
SANTHOME, MYLAPORE  
CHENNAI- 600 004  
TEL: 044 246717350  
FAX: 044 246714247
- 8. GPS NAVIGATOR** 1 No
- MODEL : KGP 920
- MAKER ; KODEN ELECTRONICS CO.LTD.  
5278 UNENOHARA,  
UNENOHARA – MACHI,  
KITATSURU – GUN,  
YAMANASHI – KEN.  
JAPAN – 409 – 0112.
- SUPPLIER : ELCOME MARINE SERVICE  
LTD., 17/B DEMONTE ST,  
SANTHOME, MYLAPORE  
CHENNAI- 600 004  
TEL: 044 246717350  
FAX: 044 246714247

**9. MAGNETIC COMPASS**

TYPE	:	REFLECTOR TYPE
COMPASS DISC	:	180 MM
ILLUMINATION	:	24V DC
HEIGHT OF COMPASS	:	150 (min)as per the sketch attached
CERTIFICATOIN	:	IMO
MAKER	:	CASSENS & PLATH GmbH, P.O.BOX 290 126, D -27531,BREMERHAVEN GERMANY FAX: 0049 471 71013 /740 11
SUPPLIER	:	IMO CASSENS & PLATH GmbH, P.O.BOX 290 126, D -27531,BREMERHAVEN GERMANY FAX: 0049 471 71013 /740 11

**COMMUNICATION EQUIPMENT****1. VINGTOR P.A & TALK BACK SYSTEM**

MAKER : ZENTIEL MARINE (ASIA) PTE.  
LTD.,76, PLAY FAIR ROAD,  
# 07-06 LHK2 BUILDING  
SINGAPORE 367 996

SUPPLIER : ARKAY ELECTRONICS &  
MARINE SYS. PTE. LTD  
316-SAI COMMERCIAL  
BUILDING , BSD MARG,  
DEONAR, MUMBAI –400 088  
Ph: 022-2558588,25585882  
FAX: 022 – 25585883  
E-Mail : [aenms@vsnl.net](mailto:aenms@vsnl.net)

**2. VINGTOR – S.P.T. SYSTEM**

MAKER ; ZENTIEL MARINE (ASIA) PTE.  
LTD.,76, PLAY FAIR ROAD,  
# 07-06 LHK2 BUILDING  
SINGAPORE 367 996

SUPPLIER ; ARKAY ELECTRONICS &  
MARINE SYS. PTE. LTD  
316-SAI COMMERCIAL  
BUILDING , BSD MARG,  
DEONAR, MUMBAI –400 088  
Ph: 022-2558588,25585882  
FAX: 022 – 25585883  
E-Mail : [aenms@vsnl.net](mailto:aenms@vsnl.net)

**3. INTERCOM SYSTEM**

MAKER : PANASONIC INTERCOM  
SYSTEM

SUPPLIER : COMTECH SYSTEM,  
NEW NO 16, MOTHILAL ST,  
T- NAGAR, CHENNAI –600 017  
FAX: 044 – 590 2477

**LIFE SAVING EQUIPMENT****1. INFLATABLE LIFE RAFT  
WITH HYDROSTATIC RELEASE  
UNIT**

MAKER & SUPPLIER : SHM SHIP CARE,  
NEW NO:145(OLD NO: 74)  
EAST MADA CHURCH ST,  
RAYAPURAM,  
CHENNAI – 600 013.  
FAX: 044 - 590 24

**2. SELF CONTAINED BREATHING APPRATUS**

MAKER & SUPPLIER : SOPOSITIVI PROTEZIONE  
INDIVIDUALE s.r.l,  
VIA DI CERVARA,  
42-00 155 ROMA

**3. AIR WHISTLE**

MAKER & SUPPLIER : ZOLNER GMBH  
Zur Fahre 1 – 24143  
Kiel  
Germany

#### 4. **ELECTRIC HORN**

MAKER& SUPPLIER : POWER STONES TRADING PVT  
 Ltd. 82,4<sup>th</sup> Main Road,  
 MICO Arekere Layout,  
 Banneergahtta Road  
 Banglore – 580 076  
 Ph: 080 2658 2379  
 Fax: 080 2658 5228

#### 5. **PORTABLE - FOG HORN**

##### Technical Specification

Availability Range : 0.6 to 1.0 NM  
 Frequency : 200 to 700 Hz  
 Db Level : 120 to 130 db at 1  
 : mtr. Distance  
 Operation : Manual  
 Type : Portable  
 Model : FH90 A00  
 MAKER& : KRIST ENGINEERING &  
 MANUFACTURING  
 CORPORATION,  
 E – 210, SECTOR – 17,  
 KAVI NAGAR INDUSTRIAL  
 AREA, GHAIZABAD 201 002  
 (O.P) INDIA  
 FAX: 0120 270 259  
 E Mail: kristengg@indiatimes.com

**6.RESCUE BOAT****: 1 no**

OVER ALL LENGTH : 3.825 m  
BREADTH : 1.60 m  
DEPTH : 0.75 m  
OBM : 15 HP  
PERSONS : 6  
SUPPLIER/MAKER ; .....

**7.RESCUE BOAT DAVIT**

**: 1 no**  
1 Ton Safe Working Load.  
Manually Operated type for handling  
rescue boat working radius 3.4 M 1  
No, Electric Motor 7.5 HP

SUPPLIER/MAKER : Bhawani Engineering Works  
Rajshree Industrial Complex  
Unit No 2, Block 1, Chitalsar,  
Manpada, Mumbai – 400 607

**EXTERNAL FI, FI****1. EXTERNAL FIRE FIGHTING SYSTEM****A. FIRE FIGHT PUMP**

MAKE	:	Fischcon/Nijhuis
TYPE	:	NCDI-125,420
SPEED	:	2450 rpm
N.P.S.H. REQ.	:	5.7 MWC
IMPELLER INSTALLED	:	Dia 385 x 16.5 mm
GLAND SEALING	:	Packing
BEARINGS	:	Roller Bearings
ABSORBED POWER	:	± 147 KW (Salt Water 1.025 Kg/m <sup>3</sup> )
TYPE	:	Centrifugal end suction, non-self priming, Single stage Pump

**B. MATERIALS**

PUMP CASI NG	:	Ductile Cast Iron –GGG50
PUMP SHAFT	:	Stainless Steel – 1.4122
SHAFT BUSHING	:	Nitrated AISI 304 – 1.430 IN
GLAND SEALING	:	Burgmann packing
PACKING & SEALING	:	'O'RING

**C. FIRE WATER MONITOR (350m<sup>3</sup>/h)**

MAKE /MODEL	:	SKUM FJM - 100 EL
CAPCITY	:	up to 6000 l/min fir water and AFFF foam mixture
CONTROL FEATURE	:	Electrical remote controlled Emergency Control Hand wheel override
ROTATION	:	±165 °
NOZZLE	:	Adjustable from jet to fog in bronze material
MOTORS	:	Electric motors, 400v / 50 Hz – 3 Ph – IP 66
MAKE	:	Allied Centrifugal Pumps Pvt Ltd., 9B, Abdul Rasul Avenue,2 <sup>nd</sup> Floor, Kolkatta – 700 026
SUPPLIER	:	Allied Centrifugal Pumps Pvt Ltd., 9B, Abdul Rasul Avenue,2 <sup>nd</sup> Floor, Kolkatta – 700 026



