

40442-101-002

## **MAKERS' LIST**

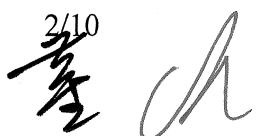
**67M DP-2 ANCHOR HANDLING / OFFSHORE  
SUPPORT VESSEL**

# MAKERS' LIST

(Hull part)

Item	Type	Proposed maker
<b>Deck machinery</b>		
Windlass, tugger winch, mooring winch, capstan	Electro Hydraulic	Rolls Royce * Karmoy Brattvaag Pusnes, to be confirmed by Buyer (hereafter as "tbc") by Buyer
Towing/anchor handling winch		Rolls Royce * Karmoy Brattvaag
Stern Roller		Ulstein Plimsoll Rolls Royce * Builder can provide, tbc by Buyer
Deck crane	Electro Hydraulic	Macgregor TTS Karmoy South China Marine, tbc by Buyer
Steering gear	Electro Hydraulic	Rolls Royce * Porsgrunn Hatlapa, tbc by Buyer
Rudders		Becker Marine System Wärtsilä Rolls Royce
Rubber fenders		Chinese maker tbc by Buyer
Refrigeration plant		Carrier * Hi-Air Sabre / York

A/C, Heating & Ventilation System including Compressors	Hi-Air Carrier * Sabre / York
W/C shower unit - modules	Norac Or Chinese maker to be confirmed by Buyer
Remote Tank Level Measurement	Rolls Royce Autronica * <b>kongsberg</b> Hoppe
CO2 Fire Extinguishing	Unitor (Wilhelmsen) * <b>NK</b> Autronica
Fixed Local Water mist based system	Unitor (Wilhelmsen) * <b>Autronica</b> Marioff,Finland
Fire Detection System	<b>Autronica *</b> Unitor Marioff,Finland
FIFI equipment	<b>FFS (AS) *</b> Jason Engineering (Norway) Aker Kvaerner
Loose fire fighting equipment	Unitor NK Protection <b>香港凌智</b>
Fast Rescue boat/ Rescue boats & davits	<b>Norsafe, Norway</b> Viking Maritime Partner Or Chinese maker tbc by Buyer
Life raft	Fasmer Viking <b>香港凌智</b> Or Chinese maker tbc by Buyer
Galley/laundry equipment	Wascator/Electrolux * Maritime Partner Metos <b>samjoo</b>

2/10  


Paint	Jotun Hempel International
Bulk handling system	Macgregor Rolls Royce * Randaberg Industries
Cargo Handling and cargo control system	Macgregor Rolls Royce * Randaberg Industries
Water spray system	Hamworthy Or Chinese maker tbc by Buyer
Searchlights	Chinese maker tbc by Buyer
Navigation Lights	Chinese maker tbc by Buyer
General lighting	Chinese maker tbc by Buyer
Window wipers, clear view screen	Wynstrument Seematz MRC Jung-A marine
FMEA analysis	Global Maritime One more maker to agreed between Buyer and Builder
Karm lock, shark jaws	Karmoy Rolls Royce* Brattvaag



## MAKERS' LIST (Machinery part)

Item	Type	Proposed maker
Main engine		MAN B&W MAK * (Buyer to push MAK to provide maker's drawings within 3 weeks after contract signing.) Wärtsilä Rolls Royce
Propeller & shafting		Wärtsilä Alpha (MAN B&W) Rolls Royce Berg
Gear box		Wärtsilä Renk, Germany Rolls Royce*
Thrusters		Wärtsilä Brunvoll Rolls Royce *
DIESEL /EMERGENCY GEN.		Cummins Caterpillar * MAN B&W
Calorifier		Jowa Pyro Heat Master tbc by Buyer
Cargo Pumps		PG Marine * Allweiler Hamworthy
All screw pumps/gear pumps		PG Marine * Allweiler Hamworthy
MUD pump/brine pump		PG Marine * Allweiler MISSION MAGNUM



Mud agitators		Allweiler PG Marine * NOV Brandt
Engine room pumps		PG Marine * Allweiler Hamworthy
External Fire Fighting Pump		Jason Engineering AS FFS* Hamworthy
Engine room fan		Heinen & Hopmen Hi Air Aeron Hengyuan tbc by Buyer
Oil Purifiers		Westfalia, Germany Alfa Laval, Sweden *
Main Air Compressor Starting air compressor Working air compressor		Sauer & Sohn Hamworthy-Hatlappa Sperre Compressors * Atlas Copco
Control Air Compressor		Sauer & Sohn Hamworthy Hatalpa Sperre Compressors * Atlas Copco
Bulk Air Compressor		Hamworthy-Hatlappa (Germany) Atlas Copco Rolls Royce *
Breathing air compressor		Unitor NK Co Ltd., Korea Mare Safety
Plate type coolers		APV Denmark Alfa Laval Sondex
Exhaust pipe suspension		Chinese Maker tbc by Buyer
<b>MISCELLANEOUS</b>		



Bilge separator		RWO Water Technology Hamworthy Blom & Voss (Germany)
Sewage Treatment system		RWO Water Technology Jets, Norway * Hamworthy UK
Remote control system for valves		Rolls Royce Autronica * Hoppe, Germany meson
Valves		Chinese maker to be approved by Buyer Westad*
Cargo couplings		Weco type only for reference Chinese maker tbc by Buyer
Accomodation – bulkhead, wall and ceiling panels		Chinese maker with first class standard tbc by Buyer
Internal doors		Chinese maker with first class standard tbc by Buyer
Watertight and weathertight doors		Chinese maker with first class standard tbc by Buyer
Window and side cutters		Wuxi Hailan or similar Chinese maker tbc by Buyer



## MAKERS' LIST (Electrical part)

tem	Type	Proposed Maker
<b>A. Generator</b>		
Main/shaft generator and Alternators	A.C	AVK Leroy-Somer ABB *
<b>SWITCHBOARD</b>		
Main & emergency Switchboard & group starter panels	Dead front	ABB. * Siemens Schneider, French
<b>CONTROL CONSOLE</b>		
(including Engine Monitor and two consoles for bridge)		Rolls Royce Kongsberg ABB * Schneider
Variable frequency converters		Siemens ABB * Vacon Ingeteam
<b>B. TRANSFORMERS</b>		
Main and emergency transformers to be Marine type	Dry type (three phase)	ABB * Siemens
<b>C. BATTERIES</b>		
For GS & Lead Acid Batteries		Exide The Furukuwa Battery Sönnac
<b>D. ELECTRIC INTERIOR COMMUNICATION EQUIPMENT</b>		
Common Battery Telephone		Phonetechnology, Norway MRC Zenitel
Internal communication Telephone / public address		Phonetechnology, Norway MRC Zenitel
Electric Clock/ Electronic	Crystal Controlled	Seiko Co. Ltd.Japan TIC Citizen Co.Ltd., Japan MRC





E. ELECTRONIC NAUTICAL EQUIPMENT		
Gyro Compass & Germany Auto-Pilot		Raythen (Anschuts) Tokimek, Furuno * JRC
Radar S-band and X-band		Raythen (Anschuts) Furuno * JRC
Radio communication equipment including GMDSS, INMARSAT, VHF, voyage data recorder, etc		Raythen (Anschuts) Furuno * JRC
Echo sounder, Doppler, Speedlog, VDR, weather receiver telefax, Navtex receiver		Raythen (Anschuts) Furuno * JRC
DGPS		Kongsberg Raythen Furuno
Computer system		HP Dell Lenovo
Loading computer		Software from Coast Design, Auto Load
ECDIS		Raythen (Anschuts) Furuno * JRC
Magnetic Compass		Tokimek Yokogawi Raythen
AIS		JRC Furuno * Raythen
Integrated Automation System IAS		Kongsberg Eekels, Nederlands Autronica* Siemens
D.P. System		Rolls Royce Kongsberg

kongsberg



UPS System		Siemens ABB *
Anemometer		Raythen (Anschuts) Furuno * JRC
Catolic protection system		ACG Jotun Cathelco UK
Cables		Draka Nexans Helkama Guang Ming tbc by Buyer Yuan Yang tbc by Buyer
General lighting		
Joystick		Rolls Royce Kongsberg
Navigation chairs, NOR SAP 1000 comfort type		NOR SAP Rolls Royce



## NOTES

1. The Builder may select any of the makers named in the "Makers' List" and shall notify the Buyer of the Builder's proposed maker who the Builder warrants shall be able to supply the relevant item in accordance with the Specifications.
2. The Buyer may request the Builder to use a maker from the "Makers' List" other than that proposed by the Builder provided that the Buyer shall bear the difference in cost.  
In the event that the Buyer requests an alternative maker, the Buyer shall notify the Builder within ten (10) calendar days from the date of receipt of the Builder's notice for the proposed maker and the Builder shall inform the Buyer of any cost change and any other changes involved.  
The Buyer shall then notify the Builder of the choice within ten (10) calendar days from the date of receipt of such Builder's information.  
In the event of failure of such action by the Buyer, the maker proposed by the Builder shall be regarded as accepted by the Buyer.
3. Selection of the makers for the items not specified and regarded as not critical in the "Makers List" shall be left to the Builder's discretion, however the Buyers always to be notified of the selection and equipment as a finished full document before delivery.
4. Licensee in cooperation and agreement with the original maker in this List shall be accepted subject to confirmation from the original makers about interchange ability of spares and confirmation that the licensee shall follow the maker's design/drawings. Buyers only have right to reject Licensee if this Licensee can't comply with following 4 requirements:
  1. Certificate by Class (Production + Product)
  2. World wide service network
  3. References ( for world wide users)
  4. Track records of Licensee
5. If the Builder intends to procure any item in this List as a completed set from China, then specific approval from the Buyer to be made.
6. \*Buyers preferred maker is marked by (\*)
7. Only to replace existing makers not supplying the above listed item, the Builder may add additional Maker(s) not listed in the Makers' List including licensee of the Maker's by giving the Name(s) of such Maker(s) for the Buyer's acceptance prior to the Builder's selection. Buyers only have right to reject this additional Maker (s) if this Maker(s) can't comply with following 4 requirements:
  1. Certificate by Class (Production + Product)
  2. World wide service network
  3. References ( for world wide users)
  4. Track records of additional Maker (s)

The Builder is entitled to treat such additional Maker(s) equal to those Maker(s) listed in the Makers' List.

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