



NO.	EQUIPMENT	MAKER / MODEL	Q'TY	SPECIFICATION	COUNTR Y	REMARK
A. PROPULSION推进系统						
1.	Main engine	Niigata	2	3500BHP, Tier 2 standard		
2.	Clutch& Shaft	Niigata	2			
3.	Gear box	Niigata	2			
4.	Z-peller	Niigata	2	3500BHP, FPP with nozzle, min. 90t bollard pull		
5.	Bow Thruster	Kawasaki	2	~600 kW, motor driven CPP, 9t pull		
6.	Main generator set	Caterpillar	3	~350kW, 440V, 60Hz		
7.	Emergency generator set	Cummins	1	99kW, 440V, 60Hz		
8.	Shaft generator	LEROY SOMER Stamford	2	~1000kW, 440V, 60Hz		
B. MACHINERY轮机设备						
1.	main engine sea water cooling spare pump	Attached by engine maker	1	maker standard		
2.	Deck machinery HPU sea water cooling pump	Desmi	2	Abt. 30 m ³ /h x 30 m (finally as per vendor recommend)		
3.	HAVC sea water cooling pump	Desmi	2	Abt. 60 m ³ /h x 30 m, (finally as per vendor recommend)		
4.	Ballast/bilge/fire water pump	Desmi	2	Abt. 100m ³ /h x 90 m		
5.	Fire/bilge/GS pump	Desmi	2	~50m ³ /h x 60 m		
6.	Eductor for fore bilge	Desmi	1	~5m ³ /hx0.12MPa Suction lift: 7m		
7.	Sea water pressure pump	Desmi	1	10m ³ /h x 50m		
8.	Spare pump for SW & FW hydrophore with by-pass pipe	Desmi	1	10m ³ /h x 50m		
9.	main engine fresh water coolingsparepump	Attached by engine maker	1	maker standard		
10.	Fresh water pressure pump	Desmi	1	10 m ³ /h x 50 m		
11.	FO feedspare pump for main engine	Desmi	1	maker standard		
12.	LO priming& standby pump for main engine	Desmi	2	30 m ³ /h x 50m, (finally as per vendor recommend)		
13.	FO transfer pump	Desmi	2	10 m ³ /h x 30 m		
14.	LO transfer pump	Desmi	1	5 m ³ /h x 30 m		
15.	Dirty oil pump	Desmi	1	5 m ³ /h x 30 m		
16.	Sewage transfer pump	Desmi	1	5 m ³ /h x 30 m with self priming & cutting device or open impeller		
17.	Starting air compressor	SPERRE Atlas Copco.	2	25 m ³ /h (Free air) x 30 bar		
18.	Control air dryer	Nanjing Air compressor	2	Refrigerated type, 50m ³ /h		
19.	Air receiver	Nantong Shentong	ship			
20.	F.O. purifier	Alfa Laval	1	~1000 l/h		
21.	L.O. purifier	Alfa Laval	2	~800 l/h		



MAKER'S LIST OF 65m ANCHOR HANDLING TUG / MULTI-PURPOSE SUPPLY VESSEL

2013-10-31

NOTE:

- 1. This list defines the subcontractors of major plants, machinery, equipment and materials.**

此文件定义了本船主要的装置、机器、设备和材料的生产厂家。

- 2. Where two or more makers are described for a single item, the Builder has the right to select the maker who offers the lowest price. If the Buyer prefers a maker who offers a higher price, the Buyer shall either push the maker to a lower price or bear the costs of the price difference. However, equipment must always meet the specification requirement.**

同一个项目有两个或多个生产厂商时，建造方有权选择报价最低的厂商。如果船东倾向于采用报价更高的厂商，那么船东需压低意向厂商价格到建造方收到的最低价格或者由船东补齐差价。无论如何，设备都必须满足规格书要求。

- 3. Upon receipt of the information from the Builder about the name of the maker, the type of the equipment and the price adjustment calculation, the Owner should reply within seven (7) days. If not, the Builder shall consider that the Owner agrees with the Builder's selection automatically.**

自收到从建造方发来的关于设备生产厂商及其设备型号、报价、价格调整计算等信息后7天内船东需进行回复。如果7天内没有回复，建造方将认为船东自动同意建造方的选择。

- 4. Other plants, machinery, equipment and material which are not mentioned in this list shall be supplied by the subcontractors selected by the Builder. However, equipment must meet specification's requirement.**

此厂商表中没有提及的装置、机器、设备和材料项目由建造方自行选择生产厂商。但无论如何，设备需满足规格书的要求

- 5. If Builder or Owner like after signing of contract add or delete some maker, that could be done under mutual agreement of both parties**

在签订合同后，如果建造方或船东希望增加或取消某些设备厂商，需征得双方的同意。

- 6. ** mark: license in China.**

**表示：特许中国生产。



NO.	EQUIPMENT	MAKER / MODEL	Q'TY	SPECIFICATION	COUNTR Y	REMARK
22.	Sewage treatment plant	Jiangsu NANJi	1	50P		
23.	Oily water separator	Taiko	1	1m ³ /h , ≤15ppm		
24.	Freshwater hydrophore	Desmi	1	1000L		
25.	Sea water hydrophore	Desmi	1	1000L		
26.	Hot water calorifier	China	1	1000L with one pump 2 m ³ /h x 20m		
27.	Fresh water maker w UV	Nanjing Lvzhou	1	10t/d		
28.	Drilling Machine, Grinding Machine	China Maker	ship			
29.	silencer	Package by Engine maker	ship			
30.	Fire detector system	Kexun Fucheng Nanjing Xiaofang Tyco	1			
31.	CO2 for Engine Room	Wuhan Xiandai	1			
32.	Fixed Local Water mist System	NanjingXiaofang	1			
33.	Loose Fire Fighting Equipment	Nanjing xiaofang	ship			
34.	External fire-fighting system	FFS	1	FIFI 1		
35.	Dispersant System	FFS	1			
36.	Fuel oil cargo pump	Desmi	2	100 m ³ /h x 90 m		
37.	Fresh water cargo pump	Desmi	1	100 m ³ /h x 90 m		
38.	MEG pump	Desmi	2	100 m ³ /h x 90 m		
39.	Liquid mud / Brine pump	Allweiller	2	100 m ³ /h x 150/75 m (sg 1.0/2.5)		
40.	Dry bulk system	Unislip RANDA BERG	1			
41.	Flow Meter	China maker	ship			
42.	Tank Gauging	DahuaYibiao JiangsuYuanwang	ship	Each fresh water tank, FO storage tank		
C. AIR COND. FREEZER & VENTILATION 空调,冷藏及通风						
1.	Air con system	Jiangsu Yongsheng	1	Compressor to be Bitzer or Carrier		
2.	Refrigeration System	JiangsuYongsheng	1			
3.	ECR package air conditioner	JiangsuYongsheng	1			
4.	Wheelhouse package air con	JiangsuYongsheng	2	ceiling mounted		
5.	Freezer & Chiller Room insulation & door	JiangsuYongsheng	1			√
6.	Ventilation fan	Qingdao Haishunfeng	ship			
D. DECK MACHINERY 甲板机械						
1.	Anchor	China	2	1710kg.AC-14		



NO.	EQUIPMENT	MAKER / MODEL	Q'TY	SPECIFICATION	COUNTR	REMARK
2.	Chain cable	China	1	660m x Ø36mm / Grade U3		
3.	Chainstopper	China	2	Ø36mm		
4.	Mooring line	China	4	170m long, Ø36~48 mm dia. Mooring ropes of min. 172kN breaking strength		
5.	Mooring fittings&Cargo Roller, lashing	China	ship			
6.	Anchor Windlass	Cargotec	2	62kN @ 9 m/min		
7.	Capstan	Cargotec	2	5tonnes @ 15m/min		
8.	Tugger winch	Cargotec	2	10 tonnes @ 15m/min		
9.	Towing and anchor handling winch	Cargotec	1	Double Drums, Rated Pull150t @ 5m/min, Brake Holding 250t		
10.	Storage Reel	Cargotec	1	10 tonnes @ 15m/min		
11.	Shark Jaw and towing pins	Karmoy	1	SWL 300t		
12.	Stern roller	Yard	1	5m lengths by 1.5m diameter, SWL 300t		
13.	GOB EYE	Yard	1	SWL 150t		
14.	Provision Crane	Jiangsu Haitai	1	single arm crane, 3t@14m		
15.	Hatches and manhole	China Maker	ship			
16.	Rubber Fender	China Maker	ship			
17.	Gangway	China Maker	1	5 m x 0.6 m portable aluminum type		
E. LIFE SAVING & SAFTY EQUIPMENT 救生及安全设备						
1.	Rescue boat with davit	China Maker	1	one 15P		
2.	Liferaft	China Maker	6	25P, to be confirmed by Owner before ordering.		
3.	LSA+FFS	China Maker	ship			
F. ACCOMMODATION 内装设备						
1.	Deck Coverings,Lining&Insulation	China Maker	ship			
2.	Windows & Scuttles	China Maker	ship			
3.	Steel Doors& fire doors	China Maker	ship			
4.	Hydraulic Watertight Sliding Door	Wuxi Hailian Wuxi Delin	3			
5.	Galley / Laundry Equipment	Anqing, China	ship			
6.	Private lavatoryModule	China Maker	ship			
G. MATERIAL PROTECTION 材料保护						
1.	Paint	JOTUN IP	ship	Five year life span		
2.	Anode	China	ship			
3.	MPGS	Cathelco K.T.Ltd	ship			
4.						
H. ELECTRICITY & ALARM 电气及报警设备						



NO.	EQUIPMENT	MAKER / MODEL	Q'TY	SPECIFICATION	COUNTRY	REMARK
1.	Main and emer. switchboard, distribution panel	China maker	ship	Breaker to be Schneider		√
2.	Forward & aft WH and ECR console	China	1			√
3.	Electrical cable	Guangming Yuanyang	ship			√
4.	Shore connection box	China	1	Package by MSB maker		√
5.	Transformer	TaixingHaichuan JiangsuZhongdian	ship			√
6.	Battery and charger	Victrons	ship			
7.	Lighting	Anhui Yanyang HaixingHaishi	ship			√
8.	Navigation lights	Aqual Signal	ship			√
9.	Search lights	Francis	ship			√
10.	Floodlight	Anhui Yanyang HaixingHaishi	ship			
11.	Fire & General Alarm	Kexun Fucheng	1			
12.	Engine Alarm	Kexun Fucheng	1			
I. NAVIGATION & COMMUNICATION EQUIPMENT 航行及通讯设备						
1.	DGPS	Furuno	ship			
2.	Radar	Furuno	2			
3.	Echo Sounder	Furuno	1			
4.	Magnetic Compass	Furuno	1			
5.	AIS	Furuno	1			
6.	Speed Log	Furuno	1			
7.	Wind Anemometer	Furuno	2			
8.	Gyro Compass c/w Auto-pilot	Furuno	3			
9.	Electric horn	China Maker	1			
10.	Wipers / CVS	China Maker	ship			
11.	Engine Telegraph	China Maker	1			
12.	BNWAS	Furuno	1			
13.	GMDSS A3	Furuno	1			
14.	Navtex Receiver	Furuno	1			
15.	SART	Furuno	2			
16.	EPIRB	Furuno	1			
17.	Walkie-Talkie	Furuno	3			
18.	SSAS	Furuno	1			
19.	PA / intercom System	Vingtor Phone Tech	1			
20.	Television Antenna (Terrestrial)	Vingtor Phone Tech	1			
21.	Sound Powered Phone	Vingtor Phone Tech	ship			
J. DP SYSTEM 动力定位系统						
1.	DP system	Kongsberg	1	DP-2, Three (3) reference system: 1 X DGPS 1 X DGPS 1 X Cyscan system		
2.	FMEA	C-Mar Ulstein	1			



CZ135092
65m 90t BP AHTS/MPSV

NO.	EQUIPMENT	MAKER / MODEL	Q'TY	SPECIFICATION	COUNTR Y	REMARK
K. OTHERS 其他						
1.						
2.						