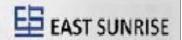
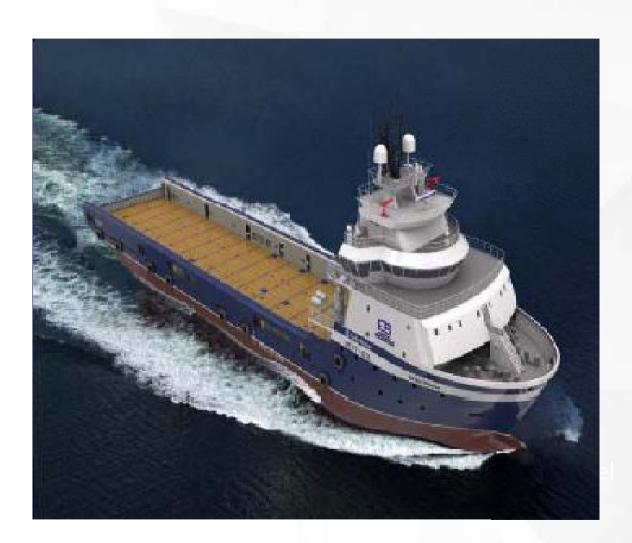


EAST SUNRISE (GROUP) CO.,LTD





Under the thorough supervision of our inhouse Site Team, EAST SUNRISE currently have 4 of these vessels under construction.

MAIN FEATURES

Multipurpose Offshore Supply Vessel, designed for the general offshore field supply duties for a safe and economic worldwide service.

The Vessel have Diesel Electric Frequency Controlled propulsion system.

46 bed accommodation in existing configuration

FIFI I

DP II

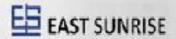
Clean Class

Comfort Class

Full underdeck PSV capacities, including Methanol tanks.

> 870 m2 free cargo deck area

Optional Oilrec Class



Description

General description

Name TBN

Type Multipurpose Offshore Support Vessel

Class ABS CLASS Notation \$\Pm\$A1, Offshore Support Vessel, Circle E, \$\Pm\$AMS, \$\Pm\$ACCU, \$\Pm\$DPS-2,

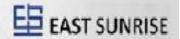
ENVIRO, HAB(WB), UWILD, Fire Fighting Vessel Class 1

Other Compliances: IMO Resolution MSC.236(82) Transport Limited Amounts of Hazardous and Noxious Liquids on Offshore Support Vessels

IMO resolution MSC.235(82) Guidelines for the Design and Construction of Offshore Supply Vessels

Design: Rolls Royce Marine AS, Norway, UT 771 CDL

Flag Built according to Hong Kong flag



Main Details

Main Particulars

Length overall: 83,75 m
Length between p.p: 76,35 m
Breath moulded: 18,00 m
Depth main deck: 7,00 m
Design draught mid-ship: 5,80 m

Cargo Deck

Deck length: 58 m

Deck breath: 15 m

Free cargo deck area: 870 m2

Deck load (c.o.g. 1m above deck) 100 t (approx.)

Deck strength 5 tonne per m2

Performance

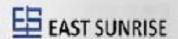
Trial speed approx. 14.5 kn
Economic speeds approx. 10 – 12 kn

Capacities

Deadweight (T = 5.8 m) approx. 3800 tonne Gross tonnage approx. 3190 tonne

Tanks

Ballast/Drilling water (incl. combination tanks)	approx.	1750 m³
Fuel Oil (dedicated tanks)	approx.	440 m³
Fuel Oil (incl. combination tanks)	approx.	1100 m³
Fresh Water (dedicated tanks)	approx.	380 m³
Fresh Water (incl. combination tanks)	approx.	800 m³
Liquid Mud (10 combination tanks)	approx.	1010 m³
Brine (10 combination tanks)	approx.	1010 m³
Base Oil (2 combination tanks)	approx.	210 m³
Dry Bulk (6 tanks)	approx.	315 m³
Methanol & other LFL * products (2 x stainless tanks)prox.		150 m³



Cargo Systems & Deck Machinery

Cargo DischargeSystems:

Fresh Water: $1 \times 0 - 200 \text{m} 3/\text{h} - 9 \text{ bar}$

Allweiler

Ballast/ Drill water : $1 \times 0 - 200 \text{m} 3/\text{h} - 9 \text{ bar}$

Allweiler

Fuel Oil: 1 x 0 –200 m3/h - 9 bar,

Allweiler

Mud Pumps*: $2 \times 0 - 75 \text{ m3/h} - 18 \text{ bar}$

Allweiler

Brine Pump *: $2 \times 0 - 75 \text{ m3/h} - 18 \text{ bar,}$

Allweiler Base Oil:

Mud & Brine pumps are eccentric screw pump. el. driven, freq. contr.

Mud Agitator System

Allweiler Mud agitators installed in all Mud tanks

Tank washingsystem

Alfa Laval tank washing system installed for all Mud tanks

Dry bulk system

One off Rolls-Royce bulk handling system consisting of dry bulk tanks, compressors etc.. The system is capable of discharging two types of cargo simultaneously.

Deck Machinery

Comb. windlass / Mooring winch: 1 x SWL 15 T, Rolls Royce

Capstans: 2 x SWL 10 T, Rolls Royce

Tugger Winch: 2 x SWL 10 T pull, Rolls Royce

Deck Crane: 1 x 3 T – 1,8 m - 16 m

Deck Fastening

Steel eye plates on

deck & Cargo rails: 40 nos. 10t SWL

Guide rollers: 14 nos, total in cargo rails

D Rings: 10 nos. 11t SWL

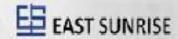
FiFi I Systems

The vessel is equipped with FiFi I equipment and will carry the ABS notation Fire Fighting Vessel Class 1. The FiFi system consists of: 2 off remote controlled monitors installed on platform on top of the wheelhouse.

Throw length: 120 m

Throw height (from sea level): 50 m

Capacity each: 1200 m3/h



Machinery & Propulsion

Power Plant

4 x MTU 12V4000M23S 4 x 1310 ekW @ 1800 rpm Total 5240 ekW

MTU engines are IMO Tier II compliant

Harbour/Emergencygenerator

1 x Caterpillar C18 1 x 400 ekW

Propulsion

Main Azimuth Thrusters: 2 x RRM AZP 85 FP azimuth thrusters 2 x 1600 kW

Electric Motor:

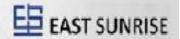
2 x RRM supplied electric motors 2 x 1600 kW @ 1800 rpm

Forward Azimuth Thruster: 1 x Rolls Royce Marine UL 911 FP 725 kW

Bow Thruster: 1 x Rolls Royce Marine TT 2000 DPN FP 790 kW

All Above motors are frequency controlled by Rolls-Royce AFE's.

Details believed to be correct, but not guaranteed



Electro/ Automation systems

Electrical Systems

690 V AC / 60 Hz 440 V AC / 60 Hz 230 V AC / 60 Hz 24 V DC

Common Control Platform

Rolls-Royce's Common Control Platform (CCP) technology uses standard hardware and software modules that are common across all control products developed by Rolls-Royce giving a seamless integration of all different Rolls-Royce systems.

On board of the UT 771 CDL the following systems are based on CCP:

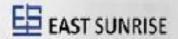
- Helicon X3 for propeller and thruster control
- PosCon joystick
- Icon DP

Automationsystems

Rolls-Royce ACON automation system including consoles and the following functions

- o Alarm and monitoring
- o Power Management
- o Pump and valve control
- o Tank sounding
- o Loading and stability
- o Roll reduction tank

Rolls-Royce Poscon joystick system Rolls-Royce Icon DP2 system



DP System

Dynamic Positioning System according to ABS class DPS-2, (Compliant with IMO DP II Class)

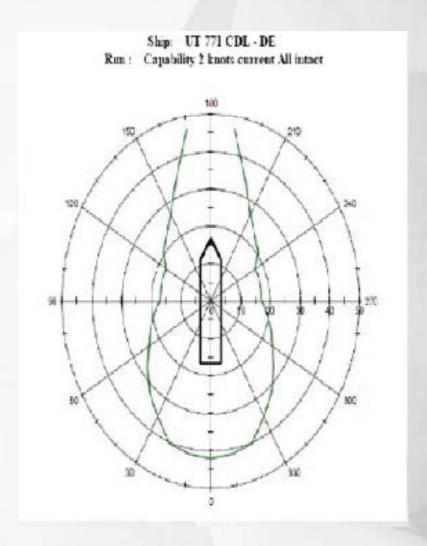
EquipmentSystem & Configuration:

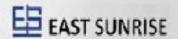
DP System:

- 1 x RRM PosCon Joystick system
- 1 x RRM Icon DP2 DP system with:
 - Enhanced safety and reliability (triple redundant solution)
 - Eco positioning modes

Reference Systems

- 1 x GNSS receiver type Kongsberg DPS 232 (DGPS)
- 1 x GNSS receiver type Kongsberg DPS 132 (DGPS)
- 1 x Laser based reference system (CyScan)
- 1 x Radar based reference system (RADius 1000 D, with 700 series transponder)
- 3 x Wind sensor
- 2 x Motion Reference Sensors





Accommodation, Lifesaving & other

Accommodation

The vessel to have accommodation and equipment for 46 persons (34 crew and 12 passengers).

Crew 34 persons Passengers 12 persons

Total 46 persons

Cabins:

3 x 1-person cabins with separate sleeping cabin

7 x 1-person cabins

14 x2-person cabins (2 of which for passengers)

2 x 4-person (passenger) cabins

Additional Work Rooms : Workshop, Gymnasium

Freezer & Refrigerator: Suitable for crew compliment

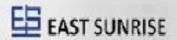
Lifesaving Appliances

The vessel to have safety equipment according to SOLAS for 46 persons.

HAB (WB)

The vessel will be classed according to ABS HAB requirements (Habitability on Work Boats), with special attention to:

- Vibration requirements
- Noise requirements
- Requirements for indoor climate
- Accommodation area criteria (partly related to MLC 2006)



Power & Speed curves

