



EMAS BORNEO MANDIRI

Your Voyage, Our Commitment

Utility Vessel. EGM 209



PRINCIPAL PARTICULARS

Classification : **RINA Classification**
Class Notation : **CX** tug; supply vessel; fire-fighting
Unrestricted Navigation
Type : Utility Vessel
Flag : **ex Tanzania, reflagging**
Malaysia
Building : China
IMO : 9783057
Call Sign : **ex 51M452**
MMSI : **ex 677035200**
Marking : **ex GT.1977 No.62392 /PPm**
Keel-Laid Date : 4 Sep 2015
Delivery Date : 22 May 2017

DIMENSION

Length Overall : 53.80 M
Length B.P : 50.40 M
Bread Moulded : 13.80 M
Depth Moulded : 5.50 M
Draft Designed : 4.50 M
Gross Tonnage : 1488 T (Approx)
Dead Weight : 1488 ton (Approx)
Net Tonnage : 445.5 T (Approx)
Accommodation : 48 P

PERFORMANCE

Trial Speed : **12 Knots, 100% MCR**

MACHINERY / PROPULSION SYSTEM

Main Engine : **Cummins KTA 50 – M2**
Total Power : **2 x 1,193 Kw (3,199.6 Hp) @ 1800 Rpm**
Gearbox : **REINTJES WAF675L, Ratio: 5.91 : 1 (Reversible)**
Propeller : Nozzle FPP Propeller/ Kaplan
Bow thruster : 1 x 315 KW/415V/50 Hz / KT-43B1 (Electric Motor Drive)
Aux Generator : **Cummins N855- DM, 3 x 275 kW/ 415V/ 3/50Hz**
Emergency Gen : **Cummins 6BTAA5.9-GM 115 1 x 90 Kw / 415V/ 3/50Hz**

MANOUVERING SYSTEM

1 x control station of **Joystick**
Non dynamic positioning
Alarm Monitoring System (**AMS**)

EXTERNAL FIRE FIGHTING SYSTEM

External FiFi : FFV Class ½ With Fixed Water Spray
PTO M/E : Portside ME
Fire monitor : 2 x 600 M³/ hr Water @12 bar,
Inc. Foam/water
Fire Pump : 1 x 1200 M³/hari



Bollard Pull : **40 T (100% Load)**

DECK MACHINERY

➤ **Anchor/Mooring Windlas**

Anchor/Mooring Windlas : 2x 48.6 Kn x 10 m/min
Chain Cable : Dia 32 mm grade G3 440 m.
Drum Load : 17 kN
Rope Material : Steel Wire Rope
Drum Capacity : 70 m
Rope Diameter : 14 mm
Working Speed : 0-27 (m/min)

➤ **Towing Winch**

Towing Winch, type: single drum, down – coiled
Drum Capacity : 600m x 38mm dia. (SWR)
Drum Pull (1st layer) : 40 T x 0 – 10 m/min
Slack (1st layer) : 10 T x 0 – 30 m/min
Break Holding : 80 T (static, 1st layer)

➤ **Tugger Winch**

Towing Winch, type: single drum, up – coiled
Drum Capacity : 250m x 22mm dia. (SWR)
Rate Pull : 10 T x 0 – 15 m/min
Break Holding : 15 T (static, 1st layer)

➤ **Stern Roller**

Stern Roller
Diameter : 1000 mm
Length : 3800 mm
SWL : 100 MT

➤ **Towing Pin & Shark Jaw**

Towing Pin & Shark Jaw
SWL : 100 MT
➤ **Chain Cable** : D 32 Grade G3 @ 440 m
➤ **Anchor** : 2x1305 kg
➤ **Capstan** : 10t x 15 m/min
➤ **Block and Hook** : 20 KN SWL

Provision Crane

Manufacture : Wuxi Huahai Marine Eqpt
Type : HMCE/10
SWL : 3 tonnage
Hoisting speed : Not less 10 m/min
Hoisting height : 30 m
Slewing speed : Not less 0.5 r/min

DECK CARGO SPACE

Deck Loading : 5.0 t/M²
Max Deck Load : 250 t
High of cargo rail : 2.6 M
Deck cargo space : **285 m³**(Approx)

INTERNAL FIRE FIGHTING SYSTEM

Emergency fire pump CO₂ system in engine room,
Fire/smoke detection and alarm system
Portable fire extinguishers (as per class requirement).
CO₂ Cylinder (45kg)
High Pressure Cylinder Valve
Manifold Safety Outlet Valve
Master Control Cabinet – Pilot Cylinder with Valve
CO₂ Cylinder (6.8kg) for Galley Duct

NAVIGATIONAL & COMMUNICATION

Navigation

- Daylight signaling lamp, 24DC
- Standard magnetic reflector compass
- Autopilot operator unit.
- Radars: Two daylight display color radars. One of winch shall be gyro stabilized and fitted with an automatic electronic plotting facility (IMO type approved)
- Echo sounder : 200 Khz c/w transducer etc. and repeater at aft W/H console.
- Speed log: Doppler type, range -10 to 45 knts
- Ruder angel Indicator
- 2x DGPS And Appropriate display
- Engine telegraphs
- LRIT
- BNWAS
- Immarsat – C Satellite (Furuno)
- EPIRB
- BNWAS ALARM UNIT
- INMARSAT C TRANSCEIVER UNIT
- NAVTEX Receiver – NX-700B
- GYRO COMPASS BEARING REAPETER
- SART – Mc Murdo S4, Kannand Marine Rescuer 2 SART
- AIS, VHF, GPS
- GMDSS MF/ HF SSB radio radiophone

COMMUNICATION

Internal:
PA / talkback System: throughout the ship, main control station in wheelhouse. A 24volt internal

**TANK CAPACITIES**

Fuel Oil	: 574.6 M ³ (Approx)
FO Overflow	: 16 M ³ (Approx)
Fresh Water	: 385 M ³ (Approx)
Ballast/Drill water	: 335.2 M ³
Lube oil	: 8.9 M ³
Dirty oil	: 24.3 M ³
Bilge Tk	: 24.3 M ³
Sewage Tk	: 12.3 M ³
Sludge Tk	: 12.3 M ³
LO Drain Tk	: 12.3 M ³
Foam	: 14.5 M ³
Dispersant	: 14.5 M ³

automatic telephone system providing service to all command and control centres, offices, public rooms, main alleyways & accommodation.

LIFE SAVING APPLIANCE

Inflatable Liferrafts	: 6 x 25 men
Lifebuoys	: 4 set, 30 m life line
Lifebuoys	: 4 set, with self-igniting light
Lifebuoys	: 2 set, self-igniting light smoke signal
Life jackets	: 58 set
Immersion Suit	: 51 set
Fast Rescue boat	: 1 set 6 persons total load

DISCHARGE RATE PUMP & EQUIP

Aux. SW cooling pump	: 2x vertical, centrifugal, for cooling Refrig, plant, bearing, 6 m ³ /h x 30 m
Dirty oil pump	: 1 horizontal, gear 2m ³ /h @ 30m
A/C Compressor and condenser set unit	: 1 Two set and each 75% capacity
Air Compressor	: 2 x Air Cooled 25 M ³ /hr @ 30 bar
Fresh water cargo pump	: 1 x vertical, self – priming, centrifugal 75 M ³ /hr @60M head
Lub Oil transfer pump	: 2 x Horizontal, gear 2m ³ /hr @30M head
Fuel Oil tranfer pump	: 2 x Horizontal, gear 5 M ³ /hr @ 30 M head
Fuel Oil Cargo Pump	: 2x Vertical, srew – 75 m ³ /h @ 60 M
Fire/bilge/GS pump	: 1 x 75 M ³ /hr Centrifugal Pump @ 80 M head
Ballast/Fire/Dill water pump	: 2 x 75 M ³ /hr Centrifugal Pump @ 80M head
Fresh water	: 1 x 100 M ³ /hr @75M head
FO purifier	: 1x GEA OSD2-02-137 Cap : 800 l/h

SUPPLY & DRAINAGE PLANT/ MARPOL

Hydrophore stanby pump	: 3m ³ /h x 50 m
Fresh water hydrophore	: 1x1000L @5bar, pressure pump 3m ³ /h x50 m
Sea Water hydrophore	: 1x1000L @5bar, pressure pump 3m ³ /h x50 m
Service air reservoir	: 1 x 300 L @ 7 bar
Start air reservoir	: 2 x 300 L @ 30 bar
Fresh water maker	: 1 x RO Type 5T/day
Oily water separator	: 1 x 1.0 M ³ /hr (15 ppm bilge alarm)
Capacity	: 1.0 m ³ /h x 4.5 kgf/cm ³
Hydraulic Test	: 7.2 kgf/cm ³
Output Rev	: 0.4 kW x 1685 rpm
Seawage Water Treatment	: 1x CAP : 48P,
Sewage water transfer	: 1x Horizontal, gear pump 3m ³ /h @30 m

ACCOMODATIONS

6 x 1 berth cabin	: 6 men
3 x 2 berth cabin	: 6 men
9 x 4 berth cabin	: 36 men
Total	: 48 Men
1 Sick Bay Hospital	1 Chiller + Frezeer
1 Crew Mess	1 Galley
1 Officer room	2 Changing Room
1 Office/Meeting Room	2 Provision Store
1 Smoking room	1 Gym Room



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