

# MV QMS CARDINAL

## 65M DP2 Anchor Handling Tug / Oil Recovery / Supply Vessel

### GENERAL

Year of Build / Place	: 2014/Malaysia
Class	: ABS
Notation	: A1, Towing Vessel, FFV Class 1, OSV AH, Oil Recovery Capability Class 1, SPS, AMS, DPS-2
Port of Registry	: Kingstown
Flag	: St. Vincent & the Grenadines
GRT/NRT	: 2604/781

### DIMENSIONS

Length O.A.	: 65.00 m
Length BP	: 57.30 m
Beam moulded	: 16.80 m
Depth moulded	: 7.00 m
Draft Designed	: 5.00 m
Draft Maximum	: 5.75 m
Deadweight (at maximum draft)	: 2503.41T

### MACHINERY

Main Engine	: 2 x Niigata 6L28AHX, 3000 BHP (2206 kW) @ 800 rpm
Horse Power	: Total 6000 BHP
Generators	: 4 x 450 kW CAT C18, 415V/50Hz, 3Phase Tier II : 1 x CAT C6.6 emergency generator, 136 kw (415V/3/50HZ)
Propellers	: 2 x Niigata ZP-41 with slip clutch
Bow Thrusters	: 1 x 750 kW electric driven @ 11 tons : 1 x 870 kW diesel driven @ 11 tons

### FIRE FIGHTING & SAFETY EQUIPMENT

Life Rafts	: 6 x 25 persons
Rescue Boat and Davit	: 1 x diesel inboard engine, capacity 6
Life Buoys	: total 8
Life Jackets	: 50 nos. approved plus additional 10
FiFi	: Class 1
FiFi Pump	: 2 x 1500 m3/hr @ 120 MLC
Fire Monitor Water	: 2 x 1200 m3/hr @ 120m throw
Fire Monitor Foam	: 1 x 300 m3/hr @ 70m throw
Emergency Fire Pump	: 45 m3/hr @ 60m head electric drive

### CAPACITIES & PERFORMANCE

Potable Water	: 510.6 m3 @ 100 m3/hr, 70m head
Fuel Oil	: 585.3 m3 @ 150 m3/ hr 70m head
Cargo Fuel Oil	: 337 m3 @ 150m3/hr 70m head
Drill Water / Ballast	: 865.2 m3 @ 100 m3/hr 70m head
Dry Bulk Cargo Tanks	: 230 m3 (4 tanks), 40T/hr, 60m head
Mud Tank / Brine / Recovery Oil	: 225.7 m3 (1 tank) @ 70 m3/hr 70m head
Lube Oil	: 2 x 11.2 m3
Dirty Oil	: 13.5 m3
Foam	: 20.6 m3
Dispersant	: 20.6 m3
Deck Cargo Capacity	: 750T
Deck Cargo Space	: 480 m2
Cargo deck design load	: 7 Ton / m2
Performance Speed	: 12.5 knots
Bollard Pull	: 80.9 T
Sewage Treatment Plant	: 1 x 50 men, biological sewage plant
Fresh Water Maker	: 1 x set of R.O. water maker, capacity 10T per day with UV sterilizer
Fuel Purifier	: 1 x 1,800 liter/hr
Oil Recovery Equip.	: Oil Skimmer of self-mobile, hydraulic

### DECK MACHINERY EQUIPMENT

Anchor	: 2 x AC-14 HHP stockless, stowed in anchor-pockets, each of 1980 kg
Chain Cables	: Total length of 660 m x 40 mm / Grade U3 stud link chain cables, divided to port and starboard side with swivel and shackle, with 2 chain stoppers
Mooring Lines	: 2 x 4 x 180 m long mooring ropes of min. 33.5T breaking strength
Anchor Windlass / Mooring Winch	: 2 sets, hydraulic at 10T at 9m/min for chain cables, 6T at 15m/min at light loads 30m/min. for mooring lines
Drum Capacity	: 180 m x 56 mm dia (P.P. Rope with 23.6 MBL)
Capstans	: 2 x hydraulic @ 10T x 15m/min
Towing and Anchor Handling Winch	: Double Drum waterfall 150T Pull @ 1st layer, 250T brake capacity
Towing Pins	: 2 x 250T hydraulic pins, retractable
Shark Jaws	: 1 x 250T set of hydraulically operated anchor handling fork (retractable shark jaws)
Tugger Winches	: 2 x electro hydraulic tugger winches of 10T at 15m/min, with 1 wire drum each and 1 warping head c/w 250m x 22mm dia wire.
Stern Roller	: 1 x 250T SWL, about 4.4m long x 1.7 m dia with SUS316 stainless steel shaft
Deck Crane	: 1 x electro-hydraulic telescopic crane, SWL 3T at outreach 15m, with independent hydraulic power pack

### NAVIGATION & COMMUNICATION

- Standard Magneic Reflector compass
- Autopilot
- 3 x gyrocompass in (DP Package)
- 2 x Radars
- Echosounder (200 KHz c/w transducer etc.)
- Speed log, doppler type range -10 to +45 knts
- GMDSS Communication (sea Area 'A3')
- 1 x Inmarsat C System
- EPIRB, GMDSS Satellite 408 MHz EPIRB
- 2 x SART, GMDSS 9GHz

### DYNAMIC POSISTIONING SYSTEM (DPS 2)

- Kongsberg K-Pos-21 Kongsberg C-Joy Independent Joystick System
- 2 DP operator station
  - One dual redundant controller unit
  - 3 Gyro Compass
  - 3 ultrasonic wind sensors
  - 2 x Seatex MRU-D motion reference unit
  - 2 x Seatex DPS 110 Differential DGSPS Positioning System
  - 1 Cyscan laser reference system
  - 3 UPS of min 3kVA
  - 1 Rada Scan

### ACCOMMODATION

8 x 1-berth cabins	: 8 men
3 x 2-berth cabins	: 6 men
9 x 4-berth cabins	: 36 men
Total	: 50 men