


**PRINCIPAL PARTICULARS**

Year built	: 2003
Builder	: Ang Sin Liu Shipyard, Singapore
Class	: Lloyd's Register of Shipping
Flag	: Malaysia
Call sign	: 9MWQ7
IMO no.	: 9279288
Official no.	: 336741

**PERFORMANCE DATA**

Max speed	: 12.0 knots
Bollard pull	: 60.0 tonnes

**TANK CAPACITIES**

Fuel oil	: 175.0 m <sup>3</sup>
Freshwater	: 25.0 m <sup>3</sup>
Dispersant	: 13.0 m <sup>3</sup>
Foam	: 13.0 m <sup>3</sup>

**DIMENSIONS**

Length overall	: 29.95 m
Breadth moulded	: 9.80 m
Depth moulded	: 4.80 m
Draft	: 3.80 m
Gross tonnage	: 286
Net tonnage	: 85

**TOWING AND DECK EQUIPMENT**

Tow winch	: Plimsoll PR-HATW / GDG-19 c/w anchor windlass
Brake holding	: 150 tonnes
Line pull	: 2.5 MT at 10m/min, slack @ 20m/min
Deck crane	: Fassi F60A-21 (1.1 tonnes @ 5m)
Tow winch (aft)	: Plimsoll hydraulic tow winch
Drum capacity	: 700m x 44mm (OD) SWR (11 layers)
Line pull	: 25 MT at 8m/min & 12MT at 16m/min
Towing hook	: Knief (Disc Type) 60 tonnes SWL

**MACHINERY**

Main engines	: 2 x 1654kW Niigata 6L28HX @ 750rpm
Generators	: 2 x 91kW Cummins 6BT5.9-D(M) @ 1500rpm
Propellers	: Twin screw Fixed pitch – Niigata ZP-31 RC (GSO lever)

**RADIO AND NAVIGATIONAL EQUIPMENT**

Radar	: Furuno 1832 MARK 2
SSB receiver	: Furuno FS 2570C
GMDSS VHF	: Icom FM 1500
VHF	: Furuno FM 8500
Echo sounder	: Furuno FCV 668
GPS	: Koden KGP 920
Immarsat C	: None
Navtex	: Furuno NX 500
EPIRB	: McMurdo E3A
Talkback system	: Vingtor Marine VRC-M
Magnetic compass	: Saura MR-150A

**ACCOMMODATION (FULLY AIR-CONDITIONED)**

Officers	: 2 x 2 berths
Crew	: 1 x 6 berths
Total	: 10 berths

**FIRE-FIGHTING / ANTI-POLLUTION EQUIPMENT**

FiFi pump	: 1 x SKUM SFP 250x350 of cap 1430m <sup>3</sup> /hr @ 130m head c/w water curtain
FiFi monitor:	: 2 x SKUM 150EL(MV) dual purpose foam/water 600m <sup>3</sup> /hr

**OUTBOARD PROFILE**

**STERN VIEW**

**BOW VIEW**

**MAIN DECK PLAN**

**BELOW DECK PLAN**

**BRIDGE DECK PLAN**

**NW BRIDGE DECK**

**WHEELHOUSE TOP**

**GENERAL ARRANGEMENT**

NO	DESCRIPTION	QTY	UNIT
1	AS Fitted	1	NO
2	UNGRADED BY DESIGN INDICATORS	1	NO
3	APPROXIMATE	1	NO

**PSA Marine**  
ASL SHIPYARD PTE LTD

**VIVAK KENTON**  
Vivak Kenton Shipyard Pte Ltd  
100, Woodlands Industrial Estate  
Singapore 738853  
Tel: +65 6743 1111  
Fax: +65 6743 1112  
Email: sales@vivak.com.sg

**80 TONNES BOLLARD PULL ASD TUG**

**GENERAL ARRANGEMENT**  
NECON

**ENGINEER: M. N.**     **SCALE: 1:50**     **DATE: 1.1.2014**

**DESIGNER: M. N.**     **PROJECT NO: 2013**

**ISSUED**  
- 3 MAY 2014

**TECHNICAL PARTICULARS**

LENGTH OVERALL	20.95M
LENGTH B.P.	26.27M
BEAM MOULDED	3.85M
DEPTH MOULDED	4.85M
DRAFT DESIGNED	3.80M
RANGE OF KEEL	60MM IN 26.27M
DISPLACEMENT	187 TONS
BOLLARD PULL(AHEAD)	80 TONNES
SPEED	12 KNOTS
FLDG. OR. PRESS. WATER	APPROX. 1.75M3
FLDG. OR. PRESS. WATER	APPROX. 2M3
GRT	290 (AHEAD)

Note: The information and sketches in this document are given in good faith without any express, implied or statutory warranty or condition.