



# FSES 5150 ANCHOR HANDLING TOWING SUPPLY VESSEL

#### **Vessel Characteristics**

Length, Overall:	194.6 ft 5					
Beam:	49.2 ft	15 m				
Depth:	20 ft	6.1 m				
Maximum Draft:	16.4 ft	5 m				
Minimum Height:	77.8 ft	23.7 m				
Freeboard:	3.6 ft	1.1 m				
Displacement:	2,840 lt	2,880 mt				
Deadweight:	1,320 lt	1,340 mt				
Clear Deck Space:	90 x 41 ft	27 x 12 m				
Clear Deck Area:	3,660 ft <sup>2</sup>	340 m <sup>2</sup>				
Deck Strength AFT:	1,540 lb/ft²					
Class Notations:	ABS: +A1, (E), Towing Vessel, OSV, FFV-1, +AMS, CRC					

#### **Capacities**

Deck Cargo:	490 lt	500 t
Fuel Oil:	131,000 gal	500 m <sup>3</sup>
Potable Water:	22,600 gal	85.6 m <sup>3</sup>
Fresh Water:	72,600 gal	270 m <sup>3</sup>
Drill/Ballast Water:	106,000 gal	400 m <sup>3</sup>
Bulk Tanks (4 tanks):	6,600 ft³	190 m³
Liquid Mud (2.5 SG*): *Max Structural Specific Gravity	2,380 bbl	380 m <sup>3</sup>
Oil Dispersant:	3,520 gal	13.3 m <sup>3</sup>
Fire Fighting Foam:	3,520 gal	13.3 m <sup>3</sup>

# **TIDEWATER**

#### Find out more

#### Б. Г.

Pg.2 Further Specifications Pg.4 General Arrangement Pg.5 Capacity Table Pg.6 DP Capability Plot

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# Further specifications



#### **Machinery**

Main Engines (2):	CAT 3516B-HI					
Total HP:	5,150					
Propellers (2):		KH680	) 4-blade CPP			
Gears (2):		Reintjes LA	AF 873L 7.526:1			
Kort Nozzles:			2			
Rudders (2):	High Performance Streamline					
Primary Generators (2):	350 kw	410 v	50 hz			
Driven by:	CAT C1					
Secondary Generators (2):	800 kw 410 v 50					
Driven by:	Main Engin					
Emergency Generators (1):	65 kw 410 v 50					
Driven by:		C.	AT 2438/1500			
Bow Thruster (2):	Kawasaki KT-72B3 CPP					
Driven by:	515kW Electric Motor					
Total Thrust:	17.3 st 15.7 m					

#### **Performance\***

Fuel Consumption Vs Speed						
Maximum:	18 m³/day (200 gph) @ 13.5 knots					
Cruising:	12.7 m	<sup>3</sup> /day (140 gph) @ 10 knots				
Economical:	10.4	m³/day (110 gph) @ 8 knots				
Standby:	2.2 m	<sup>3</sup> /day (24.2 gph) @ 0 knots				
Range @ 10 Knots:	9,600 nm					
Bollard Pull	74.1 st 67.2 mt					
Transfer Rates						
Fuel Oil:	660 gpm @ 250 ft 150 m³/h @ 75					
Fresh Water:	550 gpm @ 250 ft 120 m³/h @ 75					
Drill/Ballast Water:	440 gpm @ 250 ft 100 m³/h @ 75 r					
Bulk:	28 cfm @ 190 ft 47.5 m³/h @ 57 m					
Liquid Mud:	310 gpm @ 280 ft	70 m³/h @ 85 m				

#### **Tow/Anchor Handling**

Winch:	Plimsoll (6m/min)
Model:	Electro-Hydraulic w/200tBrake
Line Pull:	150 mt
Tow/AH Wire:	1000 m / 1000 m of 56 mm
Pennant Reels (1):	1000 m of 56 mm
Shark Jaw:	PLIMSOLL 200 MT KARM FORK
Tow Pins:	PLIMSOLL 200 MT (1 SET)
Stern Roller:	4.4M X 1.6M; 200 mt SWL

#### **Nav/Comms Equipment**

Radar(s):	2
Depth Sounder:	1
Gyro Compass:	2
Wind Seeed Indicators:	2
Doppler Log:	1
Radio:	2 x VHF; 1 x SSB
Sat Com:	1 X INMARSAT-C

#### **Accommodations**

No. of Berths:	42
Cabins:	4x1-man, 3x2-man & 8x4-man
Certified to Carry:	42
Galley seating:	30
Hospital:	Yes

#### **Deck Equipment**

Anchors (2):	2877 lbs HPP Stockless
Anchor Chain:	220 m of 36 mm chain per side
Windlass:	Plimsoll (6.1T@10M/MIN)
Crane (1):	3 t @ 9.1 m
Capstans (2):	5 t Plimsoll (15m/min)
Tugger (2):	10 t PLIMSOLL (15M/MIN)

\*Approximate values assuming Ideal Conditions

# Further specifications



### Registration

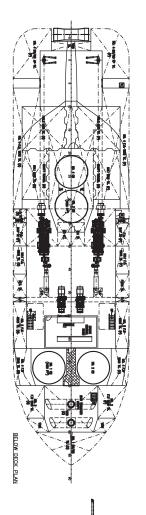
Flag: VANUATU	Home Port: PORT VILA
Hull Number: 62	IMO Nº: 9586954
Year Built: 2011	Call Sign: YJQV2
Builder:	FUJIAN SOUTHEAST SHIPYARD
Tonnage (ITC):	1674 GT 502 NT

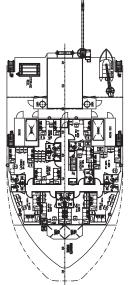
### **Special Equipment**

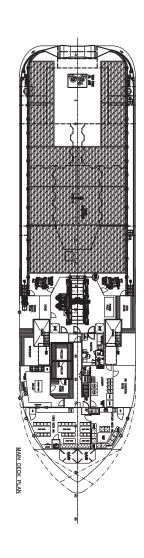
Fire Fighting:	FiFi-1
Dynamic Positioning:	DP-1
Ref. Systems:	1 x MRU; 2 x DGPS
Water Maker:	5T/DAY
Mud Circulation System:	Yes
Rescue Zone:	Yes
Rescue Boat:	6 Man SOLAS Approved
Reefer Sockets:	2x 415V 63A, 2x 220V 32A
Misc:	MSD - 50 Persons

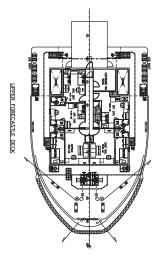
# General Arrangement (Current configuration may vary.)

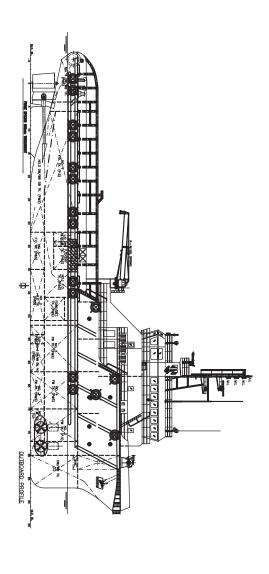


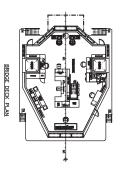












# Capacity Table



Tank Table														
Tank	Contonto	Volume	Base	Fuel	Dry	DW/WB	Potable	Fresh	Duine	Liquid	Methanol	Lube	Foam	Oil
тапк	Contents	m <sup>3</sup>	Oil	Oil	Bulk	DW/WB	Water	Water	Brine	Mud	wethanoi	Oil	roam	Disp.
No 1 Tank (C)	DW/WB	137.5				137.5								
No 2 Tank DB (P)	DW/WB	58.8				58.8								
No 2 Tank DB (S)	DW/WB	56.6				56.6								
No 3 Tank DB (P)	DW/WB	40.4				40.4								
No 3 Tank DB (S)	DW/WB	40.4				40.4								
No 4 Tank (P)	DW/WB	31.4				31.4								
No 4 Tank (S)	DW/WB	31.4				31.4								
No 1 Tank (C)	FW	55.3						55.3						
No 2 Wing (P)	Ships FW	42.8					42.8							
No 2 Wing (S)	Ships FW	42.8					42.8							
No 3 Tank DB (P)	FW	18.7						18.7						
No 3 Tank DB (S)	FW	18.7						18.7						
No 4 Wing (P)	FW	40.8						40.8						
No 4 Wing (S)	FW	40.8						40.8						
No 5 Wing (P)	FW	47.8						47.8						
No 5 Wing (S)	FW	49.7						49.7						
Day Tank (P)	FO	15.9		15.9										
Day Tank (S)	FO	15.9		15.9										
No 1 Wing (P)	FO	33.8		33.8										
No 1 Wing (S)	FO	36.3		36.3										
No 2 DB Tk (P)	FO	66.5		66.5										
No 2 DB Tk (S)	FO	66.5		66.5										
No 3 DB Tk (P)	FO	33.0		33.0										
No 3 DB Tk (S)	FO	33.0		33.0										
No 4 Wing (P)	FO	119.6		119.6										
No 4 Wing (S)	FO	119.6		119.6										
Cem Tk 1	Dry Bulk	46.7			46.7									
Cem Tk 2	Dry Bulk	46.7			46.7									
Cem Tk 3	Dry Bulk	46.7			46.7									
Cem Tk 4	Dry Bulk	46.7			46.7									
No 1 Tank (P)	LM	81.4								81.4				
No 1 Tank (S)	LM	81.4								81.4				
No 2 Tank (P)	LM	108.7								108.7				
No 2 Tank (S)	LM	108.7								108.7				
Foam Tank (P)	Foam	13.3											13.3	4.0
Detergent Tk (S)	Dispersant	13.3										0.1		13.3
Lube Oil (S)	LO	6.4										6.4		
		_ 3												
		lume [m³]		539.9	186.9	396.4	85.7	271.6	0.0	380.2	0.0	6.4	13.3	13.3
Spec SI	neet Total Vo	lume [m³]	0.0	508.2	186.9	396.4	85.7	271.6	0.0	380.2	0.0	6.4	13.3	13.3

<sup>\*</sup>Capacities shown are for lead vessel. Actual capacities may vary slightly.

 $<sup>^{\</sup>star}$ Capacities shown in RED are excluded from the total volume.

<sup>\*</sup>Capacities shown in **BLUE** are included in another Tank's Capacity.

 $<sup>{}^{\</sup>star}$ Capacities shown in GREEN are counted for multiple Tank Capacities.

## DP Capability Plot





# **DP** Capability Plot

FUJIAN DN59M-83

: All Thrusters Case description Thrusters active : T1-T3 Rudders active : R1-R2

Case number

Input file reference	:	59372_B.scp
Last modified	:	2011-05-30 12.43 (v. 2.8.0)
Length overall	:	59.3 m
Length between perpendiculars	:	52.2 m
Breadth	:	14.9 m
Draught	:	4.9 m
Displacement	:	2755.0 t (Cb = 0.70)
Longitudinal radius of inertia	:	13.1 m (= 0.25 * Lpp)
Pos. of origin ahead of Lpp/2 (Xo)	:	0.0 m
Wind load coefficients	:	Calculated (Blendermann)
Current load coefficients	:	Calculated (Strip-theory)
Wave-drift load coefficients	:	Database (Scaled by Breadth/Length)
Tidal current direction offset	:	0.0 deg
Wave direction offset	:	0.0 deg
Wave spectrum type	:	JONSWAP (gamma = 3.30)
Wind spectrum type	:	NPD
Current - wave-drift interaction	:	OFF
Load dynamics allowance	:	1.0 * STD of thrust demand
Additional surge force	:	0.0 tf
Additional sway force	:	0.0 tf
Additional yawing moment	:	0.0 tf.m
Additional force direction	:	Fixed
Density of salt water	:	1026.0 kg/m <sup>3</sup>
Density of air	:	1.226 kg/m³ (15 °C)
Power limitations	:	OFF
Thrust loss calculation	:	ON

X [m] Y [m] F+ [tf] F- [tf] Max [%] Pe [kW] Rudder

100

100

100

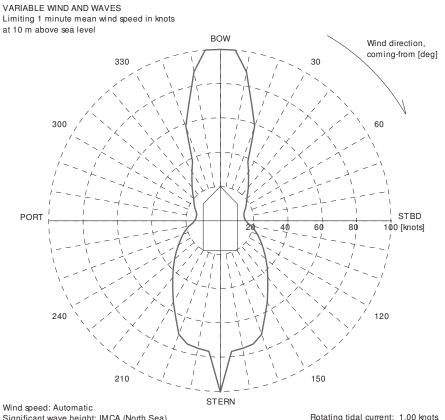
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1920 BECKER

1920 BECKER

20.7 0.0 6.0 -6.0

2 PROP\_AS -26.0 -3.3 33.9 -23.8 3 PROP\_AS -26.0 3.3 33.9 -23.8



Significant wave height: IMCA (North Sea) Mean zero up-crossing period: IMCA (North Sea)

Rotating tidal current: 1.00 knots Rotating wind induced current: 0.000\*Uwi knots

# Thruster 1 TUNNEL