



D'SOUZA TIDE as shown, BERGERON TIDE similar

## FSES 5150 ANCHOR HANDLING TOWING SUPPLY VESSEL

### Vessel Characteristics

Length, Overall:	194.6 ft	59.3 m
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/ft <sup>2</sup>	7.5 t/m <sup>2</sup>
Class Notations:	ABS: +A1, (E), Towing Vessel, OSV, FFV-1, +AMS, +DPS-1	

### Capacities

Deck Cargo:	490 lt	500 t
Fuel Oil:	134,000 gal	510 m <sup>3</sup>
Potable Water:	22,600 gal	85.7 m <sup>3</sup>
Fresh Water:	71,800 gal	270 m <sup>3</sup>
Drill/Ballast Water:	105,000 gal	400 m <sup>3</sup>
Bulk Tanks (4 tanks):	6,600 ft <sup>3</sup>	190 m <sup>3</sup>
Liquid Mud (2.5 SG*):	2,390 bbl	380 m <sup>3</sup>
*Max Structural Specific Gravity		
Oil Dispersant:	3,520 gal	13.3 m <sup>3</sup>
Fire Fighting Foam:	3,520 gal	13.3 m <sup>3</sup>

## TIDEWATER

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# BERGERON TIDE

## Further specifications



### Machinery

<b>Main Engines (2):</b>	CAT 3516B-HD		
<i>Total HP:</i>	5,150		
<b>Propellers (2):</b>	KH680 4 Blade CPP		
<b>Gears (2):</b>	Reintjes LAF 873L 7.526:1		
<b>Kort Nozzles:</b>	2		
<b>Rudders (2):</b>	High Performance Streamline		
<b>Primary Generators (2):</b>	350 kw	410 v	50 hz
<i>Driven by:</i>	CAT C18		
<b>Secondary Generators (2):</b>	800 kw	410 v	50 hz
<i>Driven by:</i>	Main Engines		
<b>Emergency Generators (1):</b>	65 kw	410 v	50 hz
<i>Driven by:</i>	CAT 2438/1500		
<b>Bow Thruster (2):</b>	Kawasaki KT-72B3 CPP		
<i>Driven by:</i>	515 kW Electric Motor		
<b>Total Thrust:</b>	17.3 st	15.7 mt	

### Performance\*

Fuel Consumption Vs Speed		
<i>Maximum:</i>	18 m³/day (200 gph) @ 13.5 knots	
<i>Cruising:</i>	12.7 m³/day (140 gph) @ 10 knots	
<i>Economical:</i>	10.4 m³/day (110 gph) @ 8 knots	
<i>Standby:</i>	2.2 m³/day (24.2 gph) @ 0 knots	
<b>Range @ 10 Knots:</b>	9,600 nm	
<b>Bollard Pull</b>	67.8 st	61.5 mt
Transfer Rates		
<i>Fuel Oil:</i>	660 gpm @ 250 ft	150 m³/h @ 75 m
<i>Fresh Water:</i>	550 gpm @ 250 ft	120 m³/h @ 75 m
<i>Drill/Ballast Water:</i>	440 gpm @ 250 ft	100 m³/h @ 75 m
<i>Bulk:</i>	28 cfm @ 190 ft	47.5 m³/h @ 57 m
<i>Liquid Mud:</i>	310 gpm @ 280 ft	70 m³/h @ 85 m

### Tow/Anchor Handling

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

### Nav/Comms Equipment

<b>Radar(s):</b>	2
<b>Depth Sounder:</b>	1
<b>Cyro Compass:</b>	2
<b>Wind Seed Indicators:</b>	2
<b>Doppler Log:</b>	1
<b>Radio:</b>	2 x VHF; 1 x SSB
<b>Sat Com:</b>	1 X INMARSAT-C

### Accommodations

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

### Deck Equipment

<b>Anchors (2):</b>	2877 lbs HHP Stockless
<b>Anchor Chain:</b>	220 m of 36 mm chain per side
<b>Windlass:</b>	Plimsoll (6.1T@10M/MIN)
<b>Crane (1):</b>	3 t @ 91 m
<b>Capstans (2):</b>	5 t Plimsoll (15m/min)
<b>Tugger (2):</b>	10 t PLIMSOLL (15M/MIN)

\*Approximate values assuming Ideal Conditions



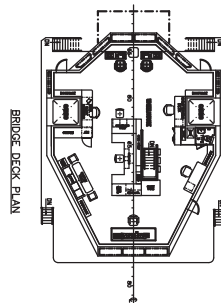
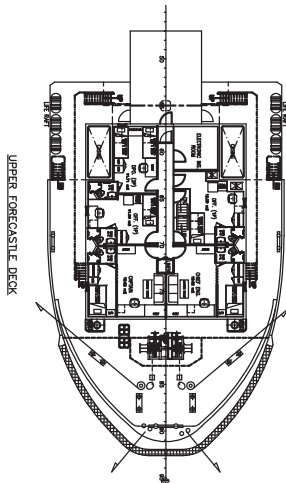
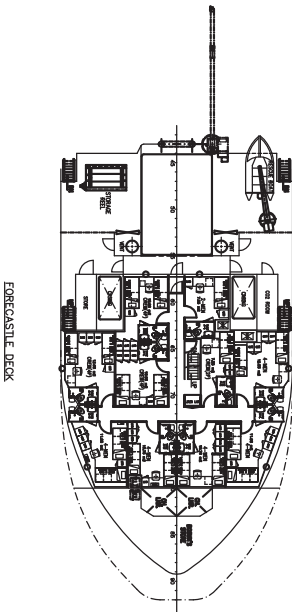
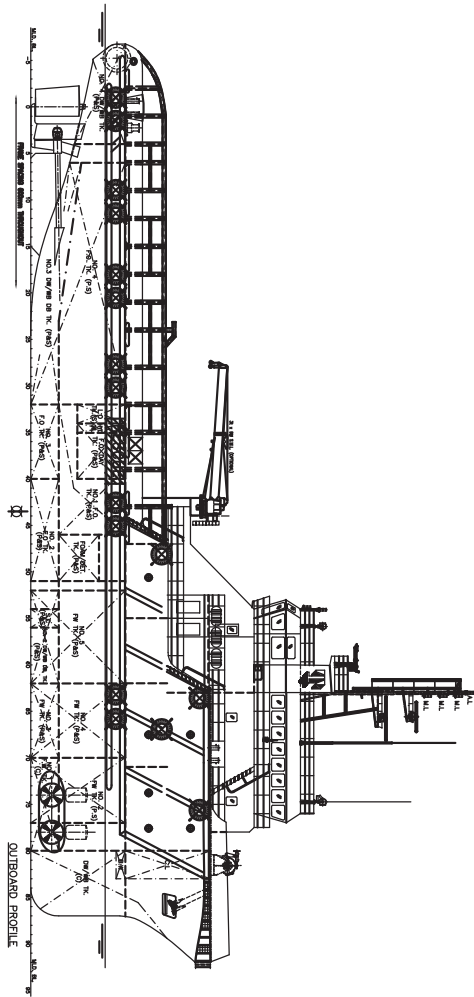
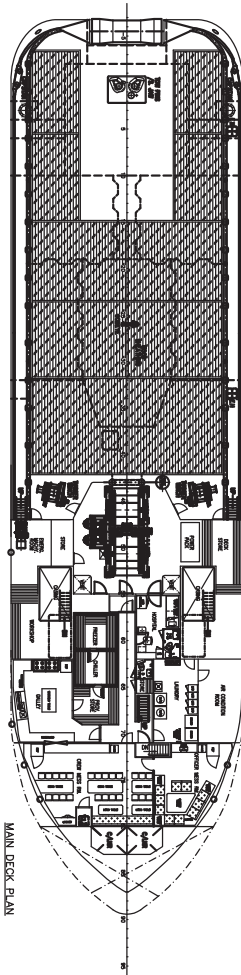
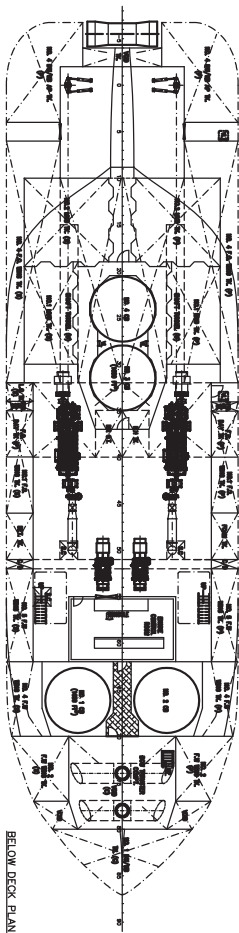
Registration

Flag: VANUATU	Home Port: PORT VILA	
Hull Number: 50	IMO N <sup>o</sup> : 9555840	
Year Built: 2009	Call Sign: YJVV4	
Builder:	FUJIAN SOUTHEAST SHIPYARD	
Tonnage (ITC):	1678 GT	503 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:	2 x 415V 63A; 2 x 220V 32A
Misc:	MSD - 50 PERSONS

\*Approximate values assuming Ideal Conditions





Tank Table														
Tank	Contents	Volume m <sup>3</sup>	Base Oil	Fuel Oil	Dry Bulk	DW/WB	Potable Water	Fresh Water	Brine	Liquid Mud	Methanol	Lube Oil	Foam	Oil 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	
Detergent Tk (S)	Dispersant	13.3												13.3
Lube Oil (S)	LO	6.4										6.4		
Total Volume [m <sup>3</sup> ]			0.0	539.9	186.9	396.4	85.7	271.6	0.0	380.2	0.0	6.4	13.3	13.3
Spec Sheet Total Volume [m <sup>3</sup> ]			0.0	508.2	186.9	396.4	85.7	271.6	0.0	380.2	0.0	6.4	13.3	13.3

\*Capacities shown are for lead vessel. Actual capacities may vary slightly.

\*Capacities shown in **RED** are excluded from the total volume.

\*Capacities shown in **BLUE** are included in another Tank's Capacity.

\*Capacities shown in **GREEN** are counted for multiple Tank Capacities.



KONGSBERG

# DP Capability Plot

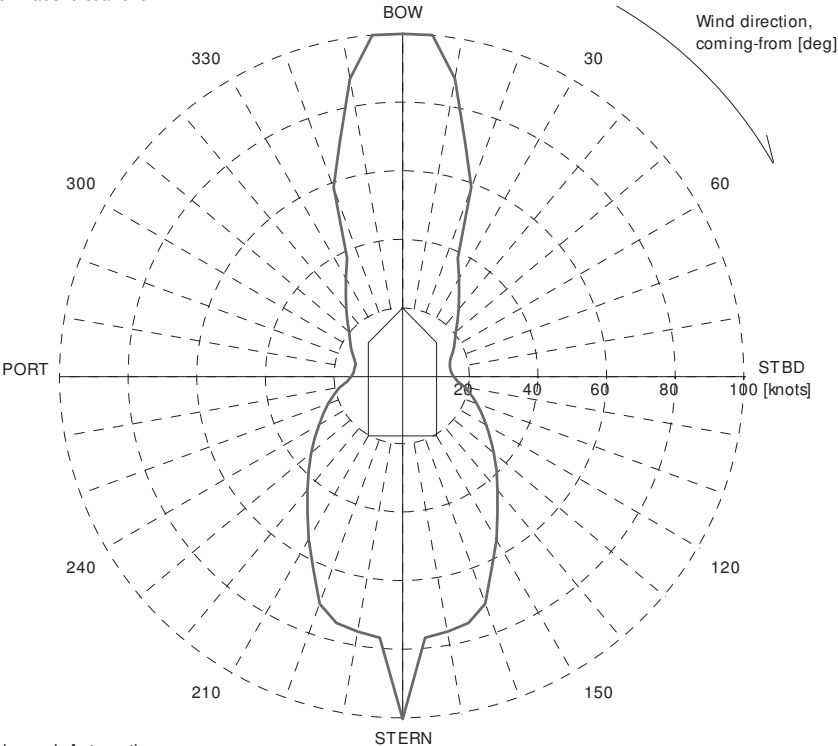
## FUJIAN DN59M-83

Case number : 1  
Case description : All Thrusters  
Thrusters active : T1-T3  
Rudders active : R1-R2

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/m³
Density of air	: 1.226 kg/m³ (15 °C)
Power limitations	: OFF
Thrust loss calculation	: ON

#	Thruster	X [m]	Y [m]	F+ [tf]	F- [tf]	Max [%]	Pe [kW]	Rudder
1	TUNNEL	20.7	0.0	6.0	-6.0	100	390	
2	PROP_AS	-26.0	-3.3	33.9	-23.8	100	1920	BECKER
3	PROP_AS	-26.0	3.3	33.9	-23.8	100	1920	BECKER

VARIABLE WIND AND WAVES  
Limiting 1 minute mean wind speed in knots  
at 10 m above sea level



Wind speed: Automatic  
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