

SYNERGY TIDE



STX PSV 09 L CD PLATFORM SUPPLY VESSEL

Vessel Characteristics

Length, Overall:	288.4 ft	87.9 m
Beam:	62.3 ft	19 m
Depth:	26.3 ft	8 m
Maximum Draft:	21.7 ft	6.6 m
Light Draft:	11.8 ft	3.6 m
Minimum Height:	89.9 ft	27.4 m
Freeboard:	4.6 ft	1.4 m
Displacement:	7,450 lt	7,570 mt
Deadweight:	4,450 lt	4,520 mt
Clear Deck Space:	203 x 52 ft	62 x 16 m
Clear Deck Area:	10,800 ft ²	1000 m ²
Deck Strength FWD:	1,020 lb/ft ²	5 t/m ²
Deck Strength AFT:	2,050 lb/ft ²	10 t/m ²
Class Notations:	ABS: Offshore Support Vessel (OSR-C1), FFV 1, A1, AMS, ACCU, DPS-2, ENVIRO, HAB(WB), HDC (10t/m ² MD AFT Fr. 30 & 5t/m ² MD Fr. 30 to 87), HLC (2.8, TANKS 28 - 35), IHM, NBLES	

Capacities

Deck Cargo:	2,560 lt	2,600 t
Fuel Oil:	292,000 gal	1,110 m ³
Potable Water:	41,300 gal	160 m ³
Fresh Water:	172,000 gal	650 m ³
Drill/Ballast Water:	677,000 gal	2,560 m ³
Bulk Tanks (6 tanks):	11,300 ft ³	320 m ³
Liquid Mud (2.8 SG*):	6,080 bbl	970 m ³
<small>*Max Structural Specific Gravity</small>		
Methanol:	1,020 bbl	160 m ³
Base Oil:	2,540 bbl	400 m ³
Fire Fighting Foam:	4,120 gal	15.6 m ³

TIDEWATER

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Pg.2 Further Specifications

Pg.4 Capacity Table

Pg.3 General Arrangement

Pg.5 DP Capability Plot



Machinery

Diesel Electric Vessel			
<i>Propulsive/Total HP:</i>	6,700 / 8,310		
Z-Drives:	Yes		
Propellers (2):	2500KW SCHOTTEL TWIN PROPELLERS		
Primary Generators (4):	1,550 kw	690 v	60 hz
<i>Driven by:</i>	CAT 3512TA (C)		
Emergency Generators (1):	98 kw	690 v	60 hz
<i>Driven by:</i>	PERKINS 6TG2AM		
Bow Thruster (2):	BRUNVOLL FU74LT		
<i>Driven by:</i>	880KW ELECTRIC MOTORS		
Total Thrust:	29.5 st	26.8 mt	

Deck Equipment

Anchors (2):	SPEK TYPE
Anchor Chain:	280 m of 46 mm chain per side
Windlass:	2x ADRIA 10T PULL
Crane (1):	5 t @ 10 m
Aux. Crane (1):	1 t @ 10 m
Capstans (2):	8 t ADRIA
Tugger (2):	10 t ADRIA

Accommodations

No. of Berths:	26
Cabins:	10x1-man, 4x2-man & 2x4-man
Certified to Carry:	26
Galley seating:	20
Hospital:	Yes

Registration

Flag: VANUATU	Home Port: PORT VILA
Hull Number: 1067	IMO N°: 9685994
Year Built: 2015	Call Sign: YJXP9
Builder:	P.T. ASL SHIPYARD INDONESIA
Tonnage (ITC):	3921 GT / 1666 NT

Performance*

Fuel Consumption Vs Speed		
<i>Maximum:</i>	22.8 m ³ /day (250 gph) @ 14.5 knots	
<i>Cruising:</i>	13 m ³ /day (140 gph) @ 12 knots	
<i>Economical:</i>	10.4 m ³ /day (110 gph) @ 10.5 knots	
<i>Standby:</i>	2.2 m ³ /day (24.2 gph) @ 0 knots	
Range @ 12 Knots:	26,600 nm	
Transfer Rates		
<i>Fuel Oil:</i>	1,100 gpm @ 300 ft	250 m ³ /h @ 90 m
<i>Fresh Water:</i>	1,100 gpm @ 300 ft	250 m ³ /h @ 90 m
<i>Drill/Ballast Water:</i>	1,100 gpm @ 300 ft	250 m ³ /h @ 90 m
<i>Bulk:</i>	31.3 cfm @ 190 ft	53.1 m ³ /h @ 57 m
<i>Liquid Mud:</i>	440 gpm @ 300 ft	100 m ³ /h @ 90 m
<i>Base Oil:</i>	440 gpm @ 300 ft	100 m ³ /h @ 90 m
<i>Brine:</i>	330 gpm @ 300 ft	75 m ³ /h @ 90 m
<i>Methanol:</i>	330 gpm @ 300 ft	75 m ³ /h @ 90 m

Nav/Comms Equipment

Radar(s):	2
Depth Sounder:	1
Gyro Compass:	3
Wind Speed Indicators:	3
Doppler Log:	1
Radio:	2 x VHF; 1 x SSB
Sat Com:	INMARSAT-C

Special Equipment

Firefighting:	FiFi-1
Dynamic Positioning:	DP-2
Ref. Systems:	3 x MRU; 2 x DGPS; 1 x Laser-based
Mud Circulation System/ Mud Mixers:	Yes/Yes
Tank Cleaning:	Yes
Rescue Boat:	15M NOREQ FRB-650
Gas Detection:	FIXED GAS DETECTION SYSTEM
Misc:	MSD - 30 PERSONS, ORO Capacity - 707.4m ³

*Approximate values assuming Ideal Conditions



Tank	Contents	Volume m ³	Base Oil	Fuel Oil	Dry Bulk	DW/WB	Potable Water	Fresh Water	Brine	Liquid Mud	Methanol	Lube Oil	Foam	Oil Disp.
01 WB/DW	DW/WB	110.4				110.4								
06 WB/DW	DW/WB	81.4				81.4								
07 WB/DW	DW/WB	77.6				77.6								
08 WB/DW	DW/WB	48.2				48.2								
10 WB/Dw	DW/WB	71.2				71.2								
11 WB/DW	DW/WB	71.2				71.2								
12 WB/DW	DW/WB	78.7				78.7								
13 WB/DW	DW/WB	78.7				78.7								
22 WB/DW	DW/WB	148.5				148.5								
23 WB/DW	DW/WB	127.1				127.1								
24 WB/DW	DW/WB	250.7				250.7								
25 WB/DW	DW/WB	232.9				232.9								
26 WB/DW	DW/WB	229.9				229.9								
79 WB/DW	DW/WB	208.5				208.5								
81 WB/DW	DW/WB	48.2				48.2								
82 WB/DW	DW/WB	128.2				128.2								
83 WB/DW	DW/WB	128.2				128.2								
84 WB/DW	DW/WB	122.2				122.2								
87 WB/DW	DW/WB	115.1				115.1								
88 WB/DW	DW/WB	81.7				81.7								
89 WB/DW	DW/WB	82.1				82.1								
97 WB/DW	DW/WB	42.7				42.7								
02 FW TK	Ship's FW	78.1					78.1							
03 FW TK	Ship's FW	78.1					78.1							
04 FW TK	FW	74.8						74.8						
14 FW TK	FW	18.5						18.5						
15 FW TK	FW	18.5						18.5						
18 FW TK	FW	70.5						70.5						
19 FW TK	FW	70.5						70.5						
20 FW TK	FW	148.1						148.1						
21 FW TK	FW	148.1						148.1						
85 FW TK	FW	51.5						51.5						
86 FW TK	FW	51.5						51.5						
42 FO TK	FO	273.2		273.2										
43 FO TK	FO	273.2		273.2										
44 FO TK	FO	169.1		169.1										
45 FO TK	FO	61.6		61.6										
46 FO/BO TK	FO/BO	120.8	120.8	120.8										
47 FO/BO TK	FO/BO	120.8	120.8	120.8										
48 FO OVERFLOW	FO	42.9		42.9										
49 FO TK	FO	87.6		87.6										
50 FO SERV 1 TK	FO	18.4		18.4										
51 FO SERV 2 TK	FO	17.1		17.1										
71 FO SETTLING	FO	16.2		16.2										
99 FO EMERG	FO	2.6		2.6										
52 MET/BO	METH/BO	81.0	81.0								81.0			
53 MET/BO	METH/BO	80.9	80.9								80.9			
28 MUD TK	LM	130.0								130.0				
29 MUD TK	LM	130.0								130.0				
30 MUD/ORO TK	LM/ORO	130.0								130.0				
31 MUD/ORO TK	LM/ORO	130.0								130.0				
32 MUD/ORO TK	LM/ORO	129.9								129.9				
33 MUD/ORO TK	LM/ORO	129.9								129.9				
34 MUD/ORO TK	LM/ORO	93.8								93.8				
35 MUD/ORO TK	LM/ORO	93.8								93.8				
36 CEM TANK	DRY BULK	53.1			53.1									
37 CEM TANK	DRY BULK	53.1			53.1									
38 CEM TANK	DRY BULK	53.1			53.1									
39 CEM TANK	DRY BULK	53.1			53.1									
40 CEM TANK	DRY BULK	53.1			53.1									
41 CEM TANK	DRY BULK	53.1			53.1									
76 FOAM	FOAM	6.6											6.6	
95 FOAM	FOAM	9.0											9.0	
63 LUBE OIL 2	LO	5.3										5.3		
64 LUBE OIL 1	LO	5.3										5.3		
77 LUBE OIL AFT	LO	5.1										5.1		
Total Volume [m ³]			403.5	1,203.5	318.6	2,563.4	156.2	652.0	0.0	967.4	161.9	15.7	15.6	0.0
Spec Sheet Total Volume [m ³]			403.5	1,106.3	318.6	2,563.4	156.2	652.0	0.0	967.4	161.9	15.7	15.6	0.0

*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 STX ASL 1048/1049

Case number : 1
Case description : Optimum use of all thrusters
Thrusters active : T1-T4
Rudders active :

Input file reference : Foot_4368.scp
Last modified : 2012-04-27 11.16 (v. 2.8.0)

Length overall : 87.9 m
Length between perpendiculars : 79.7 m
Breadth : 19.0 m
Draught : 6.6 m
Displacement : 8000.0 t (Cb = 0.78)
Longitudinal radius of inertia : 19.9 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)

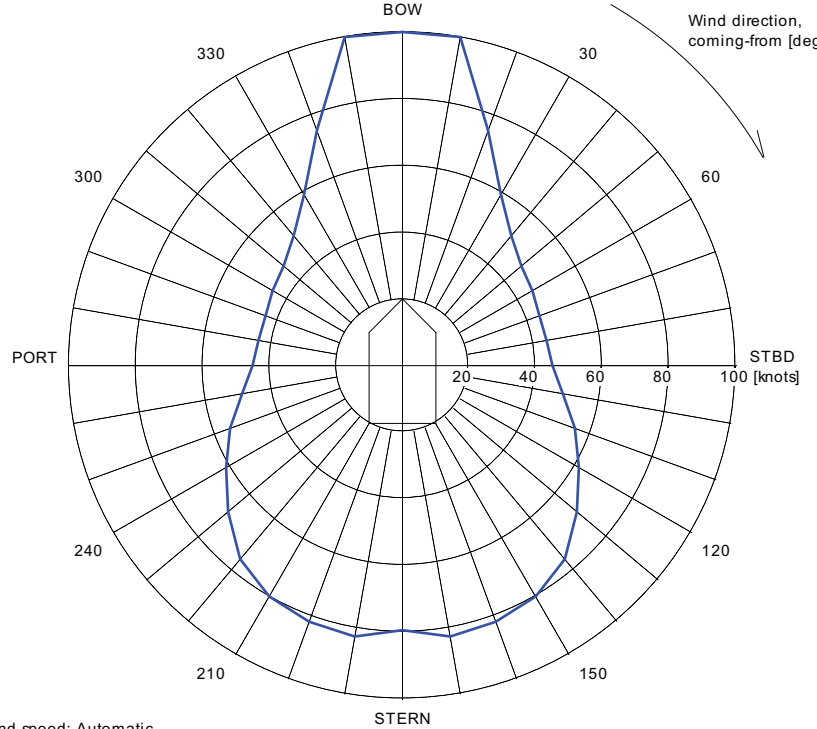
Tidal current direction offset : 0.0 deg
Wave direction offset : 0.0 deg
Wave spectrum type : JONSWAP (gamma = 3.30)
Wind spectrum type : NPD
Current - wave-drift interaction : OFF
Load dynamics allowance : 1.0 * STD of thrust demand
Additional surge force : 0.0 tf
Additional sway force : 0.0 tf
Additional 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 : ON
Thrust loss calculation : ON

#	Thruster	X [m]	Y [m]	F+ [tf]	F- [tf]	Max [%]	Pe [kW]	Rudder
1	TUNNEL	35.1	0.0	13.2	-13.2	100	880	
2	TUNNEL	31.5	0.0	13.2	-13.2	100	880	
3	AZIMUTH	-37.8	-5.1	27.0	-20.0	100	2500	
4	AZIMUTH	-37.8	5.1	27.0	-20.0	100	2500	

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

ERN = 99.
ERN are subject to DNV approval



Wind speed: Automatic
Significant wave height: DNV (ERN)
Mean zero up-crossing period: DNV (ERN)

Rotating tidal current: 1.46 knots
Rotating wind induced current: 0.000*Uwi knots