SPEAR TIDE

SPARK TIDE as shown, SPEAR TIDE similar

PX 105 PSV

Vessel Characteristics

Length, Overall:	291.7 ft	88.9 m
Beam:	62.3 ft	19 m
Depth:	26.3 ft	8 m
Maximum Draft:	21.8 ft	6.7 m
Light Draft:	11 ft	3.4 m
Minimum Height:	93.5 ft	28.5 m
Freeboard:	4.6 ft	1.4 m
Displacement:	7,530 lt	7,650 mt
Deadweight:	4,500 lt	4,570 mt
Clear Deck Space:	209 x 53 ft	64 x 16 m
Clear Deck Area:	11,000 ft^2	1,020 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:	DNV: +1A1, Fire fighter(I), Offshore service vessel, Clean, COMF(V-3), DK(+), DYNPOS(AUTR), E0, HL(2.8), Ice(C), SF	

Capacities

Deck Cargo:	2,850 lt	2,900 t
Fuel Oil:	252,000 gal	950 m^3
Potable Water:	34,500 gal	130 m^3
Fresh Water:	119,000 gal	450 m^3
Drill/Ballast Water:	579,000 gal	2,190 m^3
Bulk Tanks (5 tanks):	11,300 ft^3	320 m^3
Liquid Mud (2.8 SG*): *Max Structural Specific Gravity	5,480 bbl	870 m^3
Methanol:	920 bbl	150 m^3
Base Oil:	1,420 bbl	230 m^3
Brine:	2,300 bbl	360 m^3

TIDEWATER

Find out more

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SPEAR TIDE

Further specifications

Machinery

Diesel Electric Vessel			
Propulsive/Total HP:			6,700 / 8,730
Z-Drives:			Yes
Propellers (2):			AZP 100RRM AZIPULL, 2500KW
Primary Generators (4):	1,550 kw	690 v	60 hz
Driven by:			CAT 3512-C
Emergency Generators (1):	230 kw	440 v	60 hz
Driven by:			CAT C9
Bow Thruster (2):			TT2200 DPN TT CP
Driven by:			880KW ELECTRIC MOTORS
Total Thrust:		29.5 st	26.8 mt

Deck Equipment

Anchors (2):	3540 KG SPEK
Anchor Chain:	260 m of 46 mm chain per side
Windlass:	10T MG-HAM/GDDG-46U3
Crane (1):	2 t @ 13 m
Capstans (2):	10 t MG-HVC-1040D
Tugger (2):	10 t MG-HUW-10UR/UL

Accommodations

No. of Berths:	26
Cabins:	14x1-man, 4x2-man & 1x4-man
Certified to Carry:	26
Galley seating:	20
Hospital:	Yes

Registration

Flag: VANUATU		**Home Port:** PORT VILA
Hull Number: 2020		**IMO N^{O}:** 9656632
Year Built: 2014		**Call Sign:** YJQH5
Builder:		Zhejiang Shipbuilding Co., Ltd.
Tonnage (ITC):	4007 GT	1533 NT

Performance*

Fuel Consumption Vs Speed		
Maximum:		31 m³/day (340 gph) @ 15 knots
Cruising:		15.6 m³/day (170 gph) @ 12 knots
Economical:		10.4 m³/day (110 gph) @ 10 knots
Standby:		2.4 m³/day (26.4 gph) @ 0 knots
Range @ 12 Knots:		17,500 nm
Transfer Rates		
Fuel Oil:	1100 gpm @ 300 ft	250 m³/h @ 92 m
Fresh Water:	1,100 gpm @ 300 ft	250 m³/h @ 92 m
Drill/Ballast Water:	1,100 gpm @ 300 ft	250 m³/h @ 92 m
Bulk:	37.7 cfm @ 190 ft	64.1 m³/h @ 57 m
Liquid Mud:	440 gpm @ 800 ft	100 m³/h @ 240 m
Base Oil:	660 gpm @ 300 ft	150 m³/h @ 92 m
Brine:	440 gpm @ 800 ft	100 m³/h @ 240 m
Methanol:	440 gpm @ 230 ft	100 m³/h @ 71 m

Nav/Comms Equipment

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

Special Equipment

Firefighting:	FiFi-1
Dynamic Positioning:	DP-2
Ref. Systems:	3 x MRU; 2 x DGPS 1 x Microwave-based; 1 x Laser-based
Mud Circulation System/ Mud Mixers:	Yes/Yes
Tank Cleaning:	Yes
Rescue Boat:	15-Man Merlin 615 FRC
Reefer Sockets:	4x 440V
Misc:	ORO Capacity - 1382.4 m3; MSD - 26 PERSONS; Eye Wash Station; Dacon Scoop

*Approximate values assuming Ideal Conditions

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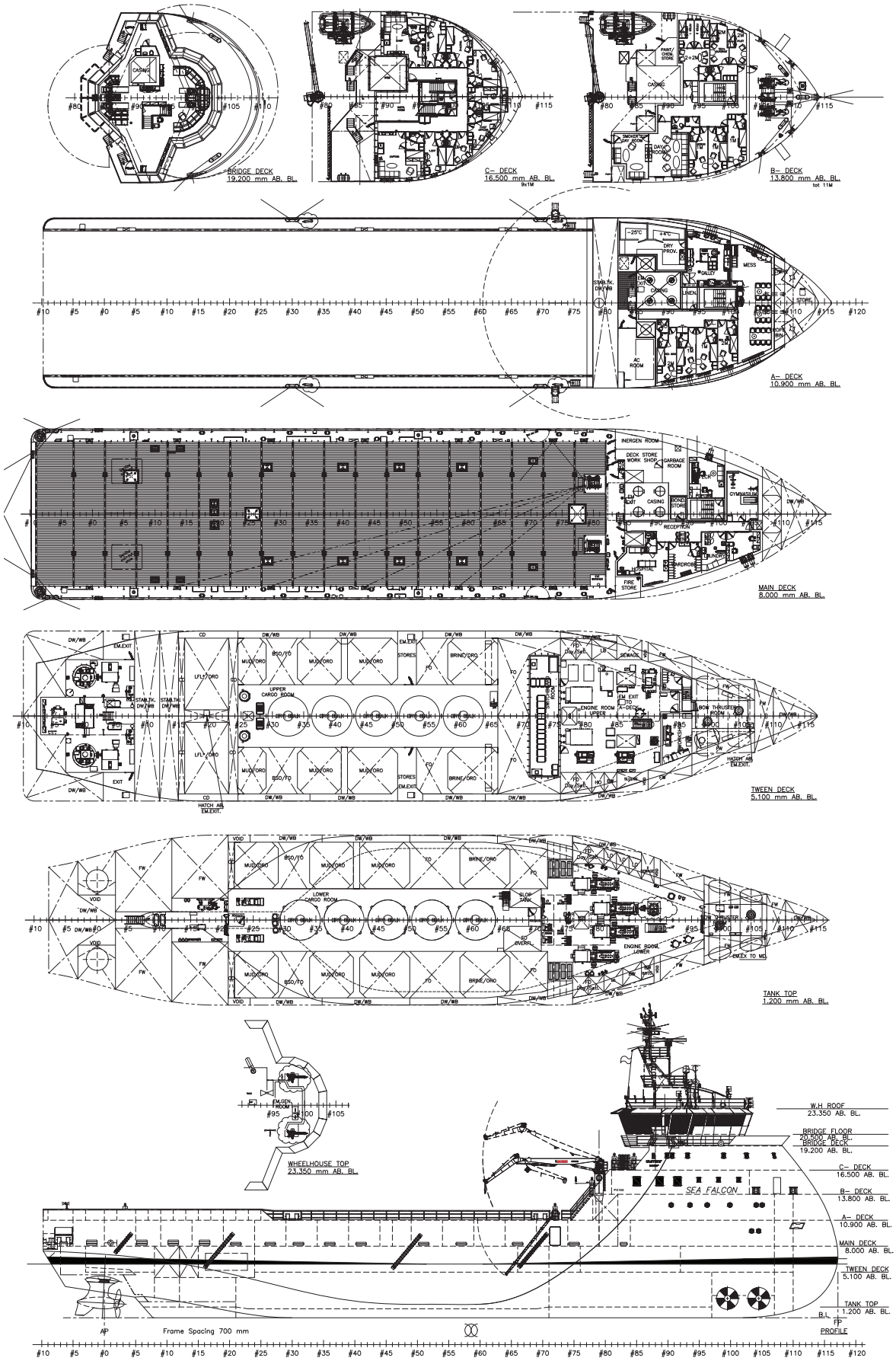
SPEAR TIDE

General Arrangement (Current configuration may vary.)



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SPEAR TIDE

Capacity Table

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.
FOREPEAK TK	DW/WB	117.2				117.2								
WB CENTER TK DB	DW/WB	41.5				41.5								
WB TK 2 DB PS	DW/WB	46.1				46.1								
WB TK 2 DB SB	DW/WB	47.3				47.3								
WB TK 3 DB PS	DW/WB	58.2				58.2								
WB TK 3 DB SB	DW/WB	58.2				58.2								
WB TK 4 DB PS	DW/WB	100.8				100.8								
WB TK 4 DB SB	DW/WB	100.8				100.8								
WB TK 5 DB PS	DW/WB	106.5				106.5								
WB TK 5 DB SB	DW/WB	106.5				106.5								
WB TK 6 DB PS	DW/WB	101.5				101.5								
WB TK 6 DB SB	DW/WB	101.5				101.5								
WB WING TK 3 PS	DW/WB	46.5				46.5								
WB WING TK 3 SB	DW/WB	59.0				59.0								
WB WING TK 4 PS	DW/WB	43.6				43.6								
WB WING TK 4 SB	DW/WB	43.6				43.6								
WB WING TK 5 PS	DW/WB	43.2				43.2								
WB WING TK 5 SB	DW/WB	43.2				43.2								
WB WING TK 6 PS	DW/WB	48.4				48.4								
WB WING TK 6 SB	DW/WB	48.4				48.4								
WB WING TK 7 PS	DW/WB	30.7				30.7								
WB WING TK 7 SB	DW/WB	30.7				30.7								
WB WING TK 10 PS	DW/WB	152.8				152.8								
WB WING TK 10 SB	DW/WB	152.8				152.8								
ROLL RED TK 1	DW/WB	134.5				134.5								
ROLL RED TK 2	DW/WB	177.4				177.4								
ROLL RED TK 3	DW/WB	149.7				149.7								
FW TK 1 C	FW	78.8						78.8						
FW WING TK 1 PS	Ship's FW	65.3					65.3							
FW WING TK 1 SB	Ship's FW	65.3					65.3							
FW WING TK 2 PS	FW	67.4						67.4						
FW WING TK 2 SB	FW	67.4						67.4						
FW WING TK 8 PS	FW	68.1						68.1						
FW WING TK 8 SB	FW	68.1						68.1						
FW WING TK 9 PS	FW	50.6						50.6						
FW WING TK 9 SB	FW	50.6						50.6						
FO TK 1 PS	FO	199.3		199.3										
FO TK 1 SB	FO	199.3		199.3										
FO TK 2 PS	FO	164.7		164.7										
FO TK 2 SB	FO	164.7		164.7										
FO SETTLING 1	FO	16.2		16.2										
FO SETTLING 2	FO	16.2		16.2										
FO SERVICE TK 1	FO	19.1		19.1										
FO SERVICE TK 2	FO	19.1		19.1										
FO DRAIN TK	FO	6.8		6.8										
FO OVERFLOW	FO	45.4		45.4										
BASE OIL TK PS	FO/BO	112.8	112.8	112.8										
BASE OIL TK SB	FO/BO	112.8	112.8	112.8										
BRINE TK 1 PS	BRI/ORO	182.5							182.5					
BRINE TK 1 SB	BRI/ORO	182.5							182.5					
LFL TK PS	LFL/ORO	73.0									73.0			
LFL TK SB	LFL/ORO	73.0									73.0			
MUD TK 1 PS	LM/ORO	186.8								186.8				
MUD TK 1 SB	LM/ORO	186.8								186.8				
MUD TK 2 PS	LM/ORO	153.6								153.6				
MUD TK 2 SB	LM/ORO	153.6								153.6				
MUD TK 3 PS	LM/ORO	95.3								95.3				
MUD TK 3 SB	LM/ORO	95.3								95.3				
CEM TK 201	DRY BULK	64.1			64.1									
CEM TK 202	DRY BULK	64.1			64.1									
CEM TK 203	DRY BULK	64.1			64.1									
CEM TK 204	DRY BULK	64.1			64.1									
CEM TK 205	DRY BULK	64.1			64.1									
LO STORE ME	LO	13.8										13.8		
LO STORE AZI	LO	4.5										4.5		
LO STORE THR	LO	4.9										4.9		
LO STORE SPARE	LO	5.4										5.4		
		Total Volume [m^3]	225.6	1,076.5	320.4	2,190.5	130.6	451.1	365.0	871.4	146.0	28.6	0.0	0.0
		Spec Sheet Total Volume [m^3]	225.6	953.6	320.4	2,190.5	130.6	451.1	365.0	871.4	146.0	28.6	0.0	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.

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KONGSBERG

DP Capability Plot

DESS - ZJ 2019-2026

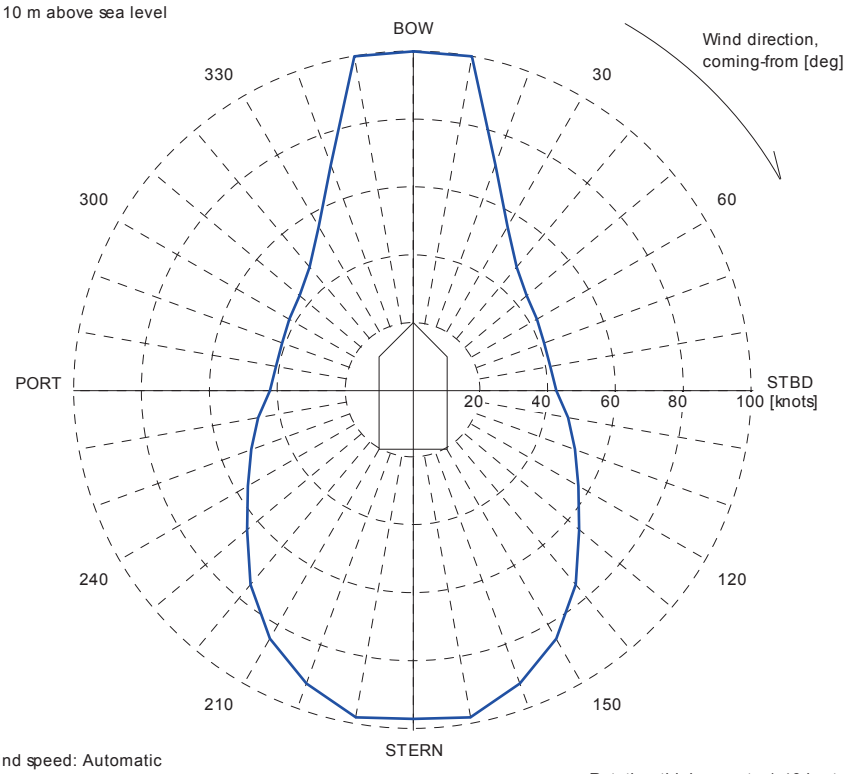
Case number	:	1
Case description	:	Optimum use of all thrusters
Thrusters active	:	T1-T4
Rudders active	:	

Version	:	StatCap v. 2.9.0
Input file reference	:	Foot_4263.scp
Last modified	:	2012-02-14 13.41
Length overall	:	88.8 m
Length between perpendiculars	:	82.0 m
Breadth	:	19.0 m
Draught	:	6.0 m
Displacement	:	7500.0 t (Cb = 0.78)
Longitudinal radius of inertia	:	20.5 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	32.2	0.0	13.2	-13.2	100	880	
2	TUNNEL	28.7	0.0	13.2	-13.2	100	880	
3	AZIMUTH	-41.0	-4.3	44.2	-27.2	100	2500	
4	AZIMUTH	-41.0	4.3	44.2	-27.2	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