

# Caspian Challenger

78.3 M - 17200 BHP - DP 2 - AHTSV

Vessel Specifications

**TOPAZ**  
MARINE



# Vessel Specifications

## Registration

Type	UT712L Anchor Handling Tug Supply Vessel
Year built / builder	December 2008 / Kleven Verft AS Norway
Class	DNV 1A1 Tug Supply Vessel, ICE-C,OIL REC,CONF-V(3), SF,EO DYNPOS-AUTR, DK(+) HL (2.5)
Flag	Azerbaijan
Port of registry	Baku
Call sign	4JPA
IMO number	9396593

## Dimensions

Length overall	78.3 m
Length between perpendicular	68.2 m
Breadth moulded	17.2 m
Depth moulded	8.3 m
Darft summer / scantling	6.9 m
Deadweight	2989 t @ 7 m
Registered tonnage	GRT 3107 t / NRT 1051 t

## Machinery

Main engines	2 x Bergen Diesel B32, 6000 kW each / 17200 BHP with BT
Main generators - shaft driven	2 x Leroy Somer 3000 kva / 380-450 V / 50-60 Hz
Main generators - diesel driven	Cummins KTA50D 1384 kW / 440 V / 60 Hz
Emergency generator	Cummins KTA 19D 408KW
Bow thruster	1 x tunnel Ulstein CP TT2200 883 kW 1 x Azimuth Ulstein Aquamaster 883 kW 1 x Ulstein CP TT2200 883 kW
Stern thruster	2 x Kamewa Ulstein TT2200 each 883 kW
Propulsion	2 x Kamewa Ulstein CCP3000 AGHC
Rudders	2 x Ulstein Hinze Rudders FB2330
Steering gear	2 x Tenfjord Rolls Royce

## Ancillary equipment

Sewage treatment plant	Jets vacuum sanitation DV-2-SKA-30-Biomaster
Incinerator	Saniturn SH-20-SM/SR
Oily water separator	RWO SKIT/S-DEB 1.0
Liquid mud agitator	Electric / yes
Tank washing System	Yes 1 head each tank

## Mooring equipment

Anchor windlass	Rolls Royce 13T
Bow anchors	2 x SPEK M
Chains	44 mm grade CC3
Capstan	2 x Brattvaag 12 t

## Capacities

Fuel oil	1064.5 m <sup>3</sup>
Potable water	1134.7 m <sup>3</sup>
Ballast / drill water	1227.6 m <sup>3</sup>
Liquid mud / base oil	549.6 m <sup>3</sup> / 531.6 m <sup>3</sup>
Glycol	531.9 m <sup>3</sup>
Brine	407.4 m <sup>3</sup>
Dry Bulk tanks	235.2 m <sup>3</sup>
Deck cargo capacity	900 t
Deck strength	5 / 10 tonnes per m <sup>2</sup>
Clear deck area m <sup>2</sup>	530 m <sup>2</sup>
Clear deck area max L x B	37 m x 14.3 m

# Vessel Specifications

## Deck Crane

Manufacturer	2 x rail mounted Rolls Royce
SWL & radius	3 t / 5 t at 12.8 m / 9.0 m
Location	On crashrail

## Performance

Maximum speed / consumption	16 knots / 52.6 t
Economical speed / consumption	13 knots / 25 t
Consumption at 100%MCR	52.6 t
Bollard pull	188 t

## Transfer rates

Fuel	200 m <sup>3</sup> per hr @ 9 bar
Freshwater	2 x 200 m <sup>3</sup> per hr @ 9 bar
Drill water / ballast water	2 x 200 m <sup>3</sup> per hr @ 9 bar
Liquid mud / brine	2 x 75m <sup>3</sup> per hr @ 24bar
Base oil	107 m <sup>3</sup> per hr @ 9 bar
Glycol	107 m <sup>3</sup> per hr @ 9 bar
Bulk cement	2x 30 m <sup>3</sup> per hr @ 5.6 bar
Bilge/ballast	58-60 m <sup>3</sup> / 200-110 m <sup>3</sup>
GS/fire pump	80 m <sup>3</sup>

## Towing and anchor handling equipment

Towing /AH winch	Brattvaag 400T double drum; secondary winch 138T
Towing drum	4065 m x 76 mm
AH drum	4065 m x 76 mm
Storage drum	4552 m x 76 mm
Practical chain locker capacity	4 x 1000 m 3-inch chain
Wire capacity	4552 m x 76 mm / 4065 m x 76 mm
Rated pull (1 <sup>st</sup> layer)	400 t / 138 t
Brake holding	550 t / 170 t
Wire rope storage reel	In ER 1600 m x 76 mm
Rig chain locker no. x capacity	2 x 98.4 m <sup>3</sup> , 2 x 100 m <sup>3</sup>
Stern roller	SWL 550T 6.0 m x 3.5 m
Shark jaws	2 sets Rolls Royce
Tow pins	2 sets Rolls Royce
Tugger winch	Rolls Royce 2 x 24 t
Bow fendering	No

## Navigation and communication

GMDSS station [A1+A1+A3]	A3 2 x Furuno Felcom 15
Satcom and type	M Fleet 77 + VSAT
SSB	Furuno
AIS	Furuno FA 150
EPIRB	1 x Tron 45 SX, 1 x Tron 40S MK II
Radar transponder	Tron SART 20
Two-way portable VHF / UHF	3 x Jotron GMDSS
Navtex receiver	Furuno NX-700
DP system	Rolls Royce ICON DP2
DP reference systems	2 x DGPS Rolls Royce Veripos LD 2, 1 x Cyscan
Radar 1	Furuno FAR -2117BB S band ARPA
Radar 2	Furuno FAR-2137S/2137s-BB S band
Gyro compass	3 x Anschutz standard 22 GGG/GM
Auto pilot	Anschutz Digital Polestar D
GPS receiver	Furuno GP150
Echo sounder	Furuno FE-700
Doppler speed log	Furuno DS 80
Anemometer	Yes

# Vessel Specifications

## Firefighting equipment and anti-pollution equipment

### External

Foam storage tank	11.3 m <sup>3</sup>
Oil dispersant storage tank	11.3 m <sup>3</sup>

### Internal

Emergency fire pump	31 m <sup>3</sup> x 60 m
Locker with fireman's outfit	1
Portable FIFI appliances	30 fire extinguishers, 19 fire hoses
CO <sub>2</sub> system for engine room	Yes

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## Safety equipment

Life rafts	6 x 16 man Viking RFD
Fast rescue boat	WEEDO 600FRB 200HP waterjet 10man
Rescue boat davit	1 x TTS davit HLD6 MOB320
Life buoy	9
Life jacket	43 Seamaster
Immersion suit	33 Helly Hansen
Embarkation ladder	1

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## Accommodation

Max per LSA	28
1 berth cabin	12
2 berth cabins	4
4 berth cabins	2
Sick bay / hospital	Yes

All cabins are equipped with WC and shower. Air condition installed for the entire vessel.

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# Tank Capacities

Tanks	Volume Capacity m <sup>3</sup>	Ballast water 1.025	Fresh water 1.000	Fuel oil 0.900	Drill water 1.000	Brine 2.500	Mud 2.500	Glycol 0.830	Base oil 1.120	Cem / Bar 2.400	ORO 1.000
FOREPEAK TANK	119.9	122.9			119.9						
WATER MIST	37.8		37.8								
DB / WING TK 1 PS	91.2		91.2								
DB / WING TK 1 SB	94.5		94.5								
DB / WING TK 2 PS	86.2			77.6							
DB / WING TK 1 SB	81.5			73.4							
SEWAGE TK	17.0										
FW DROP TK	6.9										
FO OVERFLOW TK	65.3										
DB TK 3 PS	56.2			50.5							
DB TK 3 SB	56.2			50.5							
HO DROP TK	12.9										
FO SETTLLING TK	24.7			22.3							
TECH FW	11.1		11.1								
FO SERVICE TK	27.9			25.1							
FO SERVICE TK	27.9			25.1							
DB TK 4 CENTRE	69.9			62.9							
WING TK 4 PS	119.9			107.9				134.3	99.5		
WING TK 4 SB	119.9			107.9				134.3	99.5		
CIRC. TK 1 PS	98.4	100.8			98.4						
CIRC. TK 1 SB	98.4	100.8			98.4						
BRINE TK 1 PS	60.3					150.8					
BRINE TK 1 SB	58.1					145.4					
CIRC. TK 1 CENTRE	116.3						290.8				116.3
CIRC. TK 2 PS	100.0	102.5			100.0						100.0
CIRC. TK 2 SB	100.0	102.5			100.0						100.0
BILGE WATER SETTLLING TK	10.2										
DB / WING TK 5 PS	78.6			70.7				88.0	65.2		
DB TK 5	102.3			92.1							
DB / WING TK 5 SB	78.6			70.7				88.0	65.2		
CIRC. TK 2 CENTRE	116.3						290.8				116.3
CIRC. TK 3 PS	100.0						250.8				100.0
CIRC. TK 3 SB	100.0						250.8				100.0
CIRC. TK 3 CENTRE	116.3						290.8				116.3
BRINE TK 2 PS	46.5					116.2					46.5
BRINE TK 2 SB	46.5					116.2					46.5
DB / WING TK 6 PS	67.5			60.7				75.6	56.0		
DB / WING TK 6 SB	67.5			60.7				75.6	56.0		
CIRC. TK 4 PS	98.0	100.5			98.0	245.0					98.0
CIRC. TK 4 SB	98.0	100.5			98.0	245.0					98.0
DB / WING TK 7 PS	64.6		64.6								
DB / WING TK 7 PS	64.6		64.6								
CEMENT TK 1	63.3									151.8	
CEMENT TK 2	63.3									151.8	
DB / WING TK 8 PS	81.4		81.4								
DB / WING TK 8 SB	81.4		81.4								
CEMENT TK 3	54.3									130.4	
CEMENT TK 4	54.3									130.4	
WING TK 9 PS	47.1		47.1								
WING TK 9 SB	47.1		47.1								
STAB TK 1	219.8	225.3	219.8		219.8						
STAB TK 2	181.5	186.1	181.5		181.5						
AFT PEAK PS	56.8	58.3	56.8		56.8						
AFT PEAK SB	56.8	58.3	56.8		56.8						
LO DROP TK	85										
DIRTY OIL TK	85										
SLUDGE TK	11.5										
BILGE WATER TK	12.0										
DISP TK	11.3										
FOAM TK	11.3										
SAVE ALL TK	17.5										
<b>Total weight</b>		<b>871.4</b>	<b>801.3</b>	<b>479.5</b>	<b>850.1</b>	<b>1,018.6</b>	<b>1,374.0</b>	<b>595.8</b>	<b>441.4</b>	<b>564.4</b>	<b>1,037.9</b>
<b>Total volume</b>		<b>850.1</b>	<b>801.3</b>	<b>532.8</b>	<b>850.1</b>	<b>407.4</b>	<b>549.6</b>	<b>531.9</b>	<b>531.8</b>	<b>235.2</b>	<b>1,037.9</b>
<b>Total weight inc additional tks</b>		<b>1,258.5</b>	<b>1,134.7</b>	<b>958.1</b>	<b>1,227.6</b>						
<b>Total volume inc additional tks</b>		<b>1,227.8</b>	<b>1,134.7</b>	<b>1064.5</b>	<b>1,227.6</b>						

All figures shown are based on tank volume at 100% filling

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