



**Anchor Handling Tug Supply Vessels - Pacific Warden**

Ideal for all round semi-submersible rig support, the W Class vessels have substantial horsepower and winch capability to heave anchors and tow rigs while also offering a sizeable cargo capacity. These vessels are equipped with Dynamic Positioning (DP) and a 300-tonne Brattvaag winch. These Rolls-Royce UT710 designs are also renowned for their excellent station keeping in rough weather, proving to be reliable and adaptable to serve various roles, including but not limited to anchor handling, ROV support and salvage work.

The W Class vessels are:

- Pacific Warden                      Pacific Wyvern
- Pacific Warlock
- Pacific Wizard
- Pacific Wrangler

Top Features	Key Specifications
<ol style="list-style-type: none"> <li>1. Ideal for ROV operations.</li> <li>2. Large &amp; comfortable accommodation.</li> <li>3. Good bollard pull for semi-sub anchor handling.</li> <li>4. Good station keeping during operations.</li> </ol>	<ul style="list-style-type: none"> <li>• Bollard Pull - 139 t</li> <li>• Free Deck Area - 471 m<sup>2</sup></li> <li>• Brake Horsepower - 10657 bHP</li> <li>• Winch Line Pull - 300 t</li> </ul>

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Rev 5.0 27/11/2019



General Information	
Vessel Name	Pacific Warden
Built	Brevik Construction A/S Norway, December 2002
Flag	Singapore
Call Sign	9VKQ5
IMO No.	9250036
Classification	
Class Notation	DNV-GL +1A1 Fire fighter(I) Tug DK(+) DYNPOS(AUTR) EO HL(2.5) SF
Dimensions	
Length (LOA)	68.95 m
Beam	15.5 m
Summer Draft	6.0 m
Deadweight @ SummerDraft	2355 t
GT	2327
Deck Capacities	
Deck Load Capacity	800 t
Deck Strength	5 t/m <sup>2</sup> - General deck 10 t/m <sup>2</sup> - Aft AH deck
Free Deck Area	471 m <sup>2</sup>
Length x Width	36.8 x 12.8 m
Tank Capacities	
NLS	See brine/mud
Brine / Mud	459 m <sup>3</sup> Brine (Multi usage tanks) 439 m <sup>3</sup> Mud (Multi usage tanks, dedicated 293 m <sup>3</sup> )
Drill / Ballast Water	101 m <sup>3</sup> (dedicated) 1060 m <sup>3</sup> (Multi usage tanks)
Dry Bulk	224 m <sup>3</sup> (in 4 tanks)
Fresh Water	448 m <sup>3</sup> (dedicated) 947 m <sup>3</sup> (Multi usage tanks)
Fuel Dedicated	797 m <sup>3</sup>

Fuel Total	797 m <sup>3</sup> (dedicated)
Tank Capacities Details	Refer to Tank Capacities Table
Drilling Brine	See brine/mud
Ballast Water	101 m <sup>3</sup> (dedicated) 1060 m <sup>3</sup> (Multi usage tanks)
Drill Water	101 m <sup>3</sup> (dedicated) 1060 m <sup>3</sup> (Multi usage tanks)
Propulsion / Bollard Pull	
Main Engines	2 x Bergen BRM9 each 3975 kW = 7950 kW (10657 bHP) 2 x CPP propellers in KORT nozzles, with Hi-lift flap rudders
Thrusters	2 x RRM bow thruster each 590 kW / 791 bHP 2 x RRM stern thruster each 590 kW / 791 bHP
Bollard Pull	139 t at 100% MCR
Deck Equipment	
Towing / Working Winch	1 x Tow winch 300 t 1st layer @ 0-7.0 m/min Wire capacity 1500 m of 76 mm dia.
Anchor Handling Winch	2 x AH winch each 300 t 1st layer @ 0-7.0 m/min Wire capacity 1200 m of 76 mm dia.
Chain Lockers	1 x 195 m <sup>3</sup> Chain capacity of: 2400 m 76 mm chain or 2000 m 84 mm chain
Towing Pins	4 x for ships with BP up to 240 t
Shark Jaws	2 x for wire/chain with MBL up to 500 t
Stern Roller	RRM single drum with diameter 2.4 m x length 5.0 m @ 450 t SWL
Capstans	2 x RRM 8.5 t @ 0-20 m/min

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Tugger Winches	2 x RRM 10 t @ 0-38 m/min Storage capacity 100 m of 19 mm dia. Wire
Provision Crane	1 x electric hydraulic knuckle boom Capacity 5 t @ 10 m, 3 t @ 15 m
Chain Gypsies	2 x 76 mm + 2 x 84 mm
<b>Performance &amp; Economy</b>	
Economical Speed	Approx. 10 m <sup>3</sup> /day @ 7 kts (1 ME) Approx. 15 m <sup>3</sup> /day @ 10 kts (2 MEs)
DP<20%	Approx. 11 m <sup>3</sup> /day
DP>35%	Approx. 15 m <sup>3</sup> /day
Standby in Field	Approx. 5.1 m <sup>3</sup> /day @ 1-4kts 1 ME Approx. 9.1 m <sup>3</sup> /day @ 1-4kts 2 Mes
Standby in Port	Approx. 1.5 m <sup>3</sup> /day
Note	Performance & Economy figures given at mean vessel draft of 5.5 m (1900 t deadweight) & Beaufort Scale 2
<b>Dynamic Positioning System</b>	
Type	GE Energy C-Series DPS-21 Duplex DP System with RRM Poscon Independent Joystick System
Reference Systems	2 x Sonardyne HPR prepared 2 x Veripos DGPS 1 x Fanbeam
Motion Reference Units	3 x Tokyo Keiki TG8000 2 x Gill Wind Observer II UltraSonic Type 1 x RM Young Mechanical Type 3 x VRU TTS DMS
<b>Rescue Boat</b>	
1. 1 x Maritime Partner MP660 Springer, 10 person, SOLAS approved FRB with inboard diesel waterjet.  2. 1 x Maritime Partner MP111 TWJ, 10 persons, SOLAS approved FRDC with 2 x	
<b>Accommodation</b>	
Person Capacity	Total 30 10 x 1man cabin 4 x 2man cabins (Including hospital) 3 x 4man cabins

**Tank Capacities Table**

W Class Tank Capacities @ 100%							
Tank	Volume	WB/DW	FW	FO	Brine	Mud	Glycol
1 Forepeak	101.7	101.7					
4 DB/Wing Tk 1P	123.8		123.8				
5 DB/Wing Tk 1S	126.1		126.1				
6 DB/Wing Tk 2P	47.6			47.6			
7 DB/Wing Tk 2S	59.8			59.8			
19 DB/Wing Tk 3P	61.6			61.6			
20 DB Tk 3S	34.2			34.2			
26 FO Settling Tk	34.2			34.2			
27 FO Service Tk	37			37			
28 FO Service Tk	37			37			
29 DB Tk 4P	88.2			88.2			
30 DB Tk 4S	88.2			88.2			
31 Wing Tk 4P	58.9	58.9			58.9		
32 Wing Tk 4S	58.9	58.9			58.9		
33 Rig Chain Locker	194.7	194.7			194.7		
35 Glycol/Bri/Mud/WB/DW Tk 1P	73.3	73.3			73.3	73.3	73.3
36 Glycol/Bri/Mud/WB/DW Tk 1S	73.3	73.3			73.3	73.3	73.3
38 Mud Tk 2P	73.3					73.3	
39 Mud Tk 2S	73.3					73.3	
40 DB/Wing Tk 5P	143.8			143.8			
41 DB/Wing Tk 5S	134.9			134.9			
43 Mud Tk 3P	73.3					73.3	
44 Mud Tk 3S	73.3					73.3	
46 DB/Centre Tk 6	34.9			31.4			
47 Wing Tk 6P	50.5		50.5				
49 Wing Tk 6S	50.5		50.5				
50 Wing Tk 7P	43.9	43.9	43.9				
51 Wing Tk 7S	43.9	43.9	43.9				
52 Stab Tk 1	256	256	256				
53 Stab Tk 2	155.5	155.5	155.5				
54 Aft Peak P	48.6		48.6				
55 Aft Peak S	48.6		48.6				
<b>Dedicated Tanks:</b>	@ 100%	101.7	448.1	797.9		293.2	
<b>With Multiuse Tanks:</b>	@ 100%	1060.1	947.4		459.1	439.8	146.6
		WB/DW	FW	FO	Brine	Mud	Glycol
<b>Bulk Capacity of 224 m<sup>3</sup> in four dedicated tanks</b>							
<b>33 Rig Chain Locker cannot be used for chain &amp; product at the same time</b>							

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