

PRESS RELEASE

For Immediate Release

**Swire Pacific Offshore celebrates the naming of its second L Class vessel,
Pacific Legacy in Japan**

The L Class vessels with their fuel-efficient, modern design and high specifications are the latest addition to SPO's diverse fleet of vessels

Singapore, 21 July 2014 – Shipowner and operator, Swire Pacific Offshore Operations (Pte) Ltd (SPO) celebrated the naming of its second L Class vessel, *Pacific Legacy* in Japan on 17 July 2014.

The naming ceremony was held at Maizuru Shipyard of Japan Marine United Corporation (JMU). Over 30 people attended the naming ceremony. Ms Jeanne Sumantri, the wife of Mr Michael P. Ellsworth, Chief Executive Officer of Altus Logistics, graced the occasion as the Lady Sponsor.

“The delivery of *Pacific Legacy* in Japan continues our successful collaboration with JMU. The L Class series are very high quality vessels, designed for fuel efficiency and with a specification aligned to the exacting requirements of our clients around the world,” says Managing Director of SPO, Mr Neil Glenn.

This is the second of a series of four L Class vessels that SPO has commissioned JMU to build. The first vessel *Pacific Leader* is currently operating in Africa. The remaining two vessels, *Pacific Legend*, *Pacific Liberty* will be delivered over the next six months.

“JMU is proud to work with SPO, a trusted leader in the oil and gas industry. Both SPO and JMU pride ourselves on achieving the highest levels of safety, reliability and quality for our products. We are confident that this new platform supply vessel, *Pacific Legacy*, will be well sought after by industry players and join its sister vessel *Pacific Leader* in delivering reliable service to its clients once it enters into service,” says Managing Officer of JMU, Mr Masaaki Kenko.

The L Class vessels (5,258 DWT), with the fuel-saving design, consisting of newly developed fuel efficient propulsion pods, a four-engine diesel electric power plant, large cargo carrying capacity and bulk cargo system, makes them well suited for supply duties in deep water environments.

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The bulbous bow design takes into consideration varying operating speed, draughts and sea states that Offshore Support Vessels (OSV) typically operate in and is designed to maximise its effectiveness over a wide range rather than a tuned design point. The hull is designed for a 7.5-year window between Class required mandatory dockings and propulsion and tunnel thrusters have been selected for their ability to be changed out when the vessel is afloat. The main deck has a clear deck space of 912 square metres.

There are three unique features for high capacity and flexible cargo systems. The Cargomaxx bulk system allows for the carriage of dry and wet bulk cargoes in five separate tanks, using a pressure vacuum system to load and unload the cargo and has a product weighing system to accurately measure a product delivered as an individual parcel or as an aggregated amount over a period of time. Being IBC Compliant, the vessel can carry up to 1800 cubic metres of Noxious Liquid Substance 912 square metres and can accommodate four lengths of drill pipe or casing with safe access for the deck crew. The cargo discharge manifold is ergonomically designed for ease of connection and to ensure safe hose deployment overboard. (NLS) in 10 dedicated tanks arranged in pairs with full re-circulation systems. The vessel tank layout has been arranged to make provisions for future upgrade to carry low flash point liquids to DNV LFL* class notation to the capacity of approximately 180 cubic metres.

The propulsion system features a computerised power management system that is programmable to ensure optimisation of diesel engine load and fuel consumption. The FiFi 1, DPII vessels are also SPS Compliant and Clean Class. The fire-fighting pump is independently driven using a variable speed electric motor to improve operating efficiency through a quick start-up time and reliability through a direct drive system. The vessel is equipped with 3 X 999 Kw variable speed, controllable pitch tunnel thrusters and fitted with SOLAS Lifeboats. Please refer to Appendix A for the Specification Sheet of *Pacific Legacy*.

Today, SPO owns and operates a diverse fleet of 87 offshore support vessels, including anchor handling tug supply vessels, platform supply vessels, ice-breaking supply vessels, anchor handling tugs, seismic survey vessels, wind-farm installation vessels,

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accommodation work barges and multi-purpose offshore vessels. As part of its fleet expansion plan, SPO aims to have 100 vessels by the end of 2015.

For pictures of the naming ceremony of *Pacific Legacy*, please visit <http://swire.com.sg/Media/Gallerypage/Naming-Ceremony-Pacific-Legacy.aspx>

Photographs courtesy of Japan Marine United Corporation (JMU)

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About Swire Pacific Offshore (SPO)

Swire Pacific Offshore Operations (Pte) Ltd is a leading service provider to the offshore oil and gas industry with a network that spans the globe. Operating for more than 35 years, SPO has become a trusted name in the oil and gas industry. SPO has operated in Singapore since 1975 and moved its headquarters there in 1992. SPO is a fully owned subsidiary of Swire Pacific Limited. In line with its vision, "Excellence in Marine Services", strong emphasis is placed on health and safety, the environment and sustainable development. SPO and its subsidiaries operate vessels in every major oil exploration region outside of USA and have offices in Angola, Australia, Azerbaijan, Brazil, Brunei, Cameroon, Canada, Denmark, Equatorial Guinea, Ghana, India, Indonesia, Kenya, Malaysia, Newfoundland, New Zealand, Norway, Qatar, The Philippines, Russia, Scotland and the United Arab Emirates.

For more details, visit <http://www.swire.com.sg/>

About Japan Marine United Corporation (JMU)

The Japan Marine United Corporation (JMU) was formed through the merger of Universal Shipbuilding Corporation and IHI Marine United Inc. both leading companies in the shipbuilding industry in Japan in January 2013. By synergising the strengths of both companies in terms of design, development and technological capabilities in shipbuilding, JMU aims to establish itself as a world-class shipbuilding company that is anchored with a strong Japanese shipbuilding alliance. The company constantly seeks to strengthen their competitiveness and further implement their growth strategy in the four key business fields namely, Naval Ship, Ship Life Cycle and Merchant Ship & Offshore Work.

For more details, visit <http://www.jmuc.co.jp/en/>



M/V Pacific Legacy

- ▶ **Brake Horsepower** 10,620 BHP
- ▶ **Clear Deck Space** 930 m²
- ▶ **Deadweight** 5,258 tonnes
- ▶ **Deck Cargo Capacity** 2,500 tonnes

M/V Pacific Legacy

Brake Horsepower	10,620 BHP	Clear Deck Space	930 m ²
Deadweight	5,258 tonnes	Deck Cargo Capacity	2,500 tonnes

General Information

Built	Japan, 2014
Flag	Norwegian
Call Sign	LASP7
IMO No.	9648362
Classification	DNV +1A1, Offshore Service Vessel, Supply, SPS, DYNPOS-AUTR, Fire Fighter I, Clean, SF, E0

Dimensions

Length, overall	97.29 metres
Length, BP	86.55 metres
Breadth, moulded	20.00 metres
Depth, main deck	9.00 metres
Design draft	6.40 metres @ 4500 DWT
Maximum draft midship	6.80 metres @ 5258 DWT
GRT	5179 tonnes
NRT	1554 tonnes

Capacities

Deadweight (maximum)	5258 tonnes
Clear Deck Area	912 m ² (57m x 16m)
Deck Strength	10 t/m ² Aft of frame 30, 5 t/m ² Fwd of frame 30
Deck Cargo	2500 tonnes
Ship Fuel	494 m ³
Cargo Fuel	855 m ³
Potable Water	732 m ³
Ballast Water	1143 m ³
Drill Water	401 m ³
Brine / DMA / Glycol / Liquid Mud	1799 m ³ , Sg 2.5 t/m ³ flash point above 60°C.
Drilling Brine	NLS(Noxious Liquid Substances)
Dry Bulk	1062 m ³
Ship's Stores	372 m ³ , Sg 2.6 t/m ³ - 5 tanks
	Freezer (-25°C.) - approximately 31 m ³
	Cold Room (+4°C.) - approximately 26 m ³
	Provisions store - approximately 52 m ³ ~ 12°C

Machinery

Main Engines	4 x 1980 kW (4 x 2655 bhp = 10620 bhp) @ 720 rpm, MAN Diesel & Turbo 6L27/38 TIER II compliant
Propulsion	2 x 2500 kW Inovelis POD GE, Azimuth
Bow Thrusters	3 x 965 kW (3 x 1294 bhp) electric motor driven tunnel type, CPP, frequency controlled
Emergency Generators	1 x 340 kW @ 1800 rpm / 450V / 3ph / 60Hz (also harbour generator), TIER II compliant

M/V Pacific Legacy

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Deck Machinery

Tuggers	Rolls Royce Brattvaag 2 x 10 t @ 0 - 20 m/min, capacity 240 m of 20 mm dia. wire each electric drive
Capstans	Rolls Royce Brattvaag 2 x 10 t @ 0 - 15 m/min, vertical type warping head, electric drive
Windlass	Rolls Royce Brattvaag 2 x combined mooring winch/anchor windlasses Cable lifter, mooring drum and warping end electric drive Duty on cable lifter nominal 11.9 t @ 0 - 12 m/min, max pull 17.8 t Mooring drum, declutchable rope drum with band brake, dia. 530 mm, flange dia. 1360 mm, drum length 600 mm, stowing capacity 270 m of 52mm dia polypropylene 8 strand rope, duty on 1st layer 12 t @ 0 - 12 m/min, light line @ 0 - 40 m/min Fixed warping end on drum shaft, dia. 560 mm, length 500 mm, approximately 11 t pull
Bow Mooring	See windlass. Roller type chain stopper with lashing arrangement for dia. 50 mm K3 chain cable.
Smit Towing Bracket	1 x 200 t
Crane Capacity	Heila 1 x 5t @ 15 metres radius, knuckle boom crane

Electronics

Main Radar	Furuno FAR-2837S-D ARPA Radar, S Band, 23.1"
Auxiliary Radar	Furuno FAR-2817-D ARPA Radar, X Band, 23.1"
Auto Pilot	Tokyo Keiki PR6344A-22
Gyro Compass	3 x Tokyo Keiki TG-8000/8500 Type S
Magnetic Compass	Tokyo Keiki SH - 165 A1 Reflector Type
Echo Sounder	Furuno FE-700, dual frequency 50Hz and 200Hz
DGPS	Furuno GP-150
Anemometer	2 x Gill WindObserver 2
Speed Log	Furuno Doppler Speed Log DS-80
Communications	Furuno MF-HF (SSB) Transceiver integrated with DSC/Watch Receiver. Furuno Inmarsat-C (no.1) - Felcom 18 (Integrated with EGC) Furuno Inmarsat-C (no.2) - Felcom 18
Watch System	Furuno BRR-500
Navtex Receiver	Furuno NX-700A
Weather Fax	Furuno FAX-410
Satcom	Thrane & Thrane Sailor 500 Fleet Broadband
AIS	Furuno FA-150
Satellite Navigation	Furuno GP150
Voyage Data Recorder (VDR)	Furuno VDR VR-3000
VHF	Furuno FM-8900S Semiduplex VHF
Electronic Chart Display	1 set - Furuno FMD-3300 VRU
VRU	SMC IMU-007
BNWAS	Furuno BR-500

M/V Pacific Legacy

Discharge Pumps

Brake Horsepower	10,620 BHP	Clear Deck Space	930 m ²
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Fuel Oil	1 x 150 m ³ /hr - 9 bar (90 metres head)
Potable Water	1 x 150 m ³ /hr - 9 bar (90 metres head)
Ballast Water	1 x 250 m ³ /hr - 2.5 bar (25 metres head)
Drill Water	1 x 150 m ³ /hr - 9 bar (90 metres head)
NLS (Brine / Liquid Mud / Base Oil)	5 x 100 m ³ /hr - 18 bar each serving one pair of NLS Tanks
Drilling Brine	1 x 150 m ³ /hr - 9 bar (90 metres head)
Dry Bulk	2 x Sets Cargomaxx/Van Aalst Systems, 75 t/hr, with weighing facility
Cargo Flow Metres	Fuel oil and fresh water
Special liquid (Methanol)	Prepared for future installation of an HPU to serve the LFL* cargo discharge pumps
Hose Connections	Fuel – 4 inch Mann quick release self-sealing female connection. 12 bar pressure Potable Water - 4 inch Anson hammer lug female connection 12 bar pressure Drill Water – 4 inch Anson hammer lug female connection 12 bar pressure NLS including Brine – 4 inch Mann quick release self-sealing male coupling 24 bar pressure Dry Cement – 5 inch Anson Hammer lug male coupling 12 bar pressure

Dynamic Positioning

Types	GE Energy DPS21 - Duplex DP+IJS
Reference Systems	1 off Veripos DGPS LID6-GG2 1 off Veripos DGPS LHD6-GG2 1 off Cyscan Mk 4 (Prepared for HPT transceiver deployment)
Control Modes	Manoeuvre / FU Position and Transit / Autopilot Position Aft bridge, Manual Thruster Control levers, Independent Joystick System and 2 DP workstations
Joystick	Independent IJS fixed joystick

External Fire Fighting

Capacity	3700 m ³ /hr pump driven by electric motor
Monitors	2 x 1200 m ³ /hr
Throw Length	120 metres from bow
Throw Height	50 metres at 70 metres distance
Drenching System	1300 m ³ /hr combined with main pump

Standby Rescue Equipment

- 1 x Mob boat MP-660 Springer with 230hp inboard engine and water jet propulsion
Maximum speed 3 persons 32 knots
Maximum capacity – 10 persons
- Rescue zone on both port and starboard side Main Deck
- Stb Lifeboat certified as additional Rescue Boat

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Anti-Pollution

Dispersant Tank	15.2 m3
Spray Nozzles	Fixed installed spray nozzles for neat and dilute, port and starboard side

Accommodation

Berths	15 x 1 man (single) cabins 3 x 2 man (double) cabins 4 x 4 man (quadruple) cabins 37 berths total 1 x Messroom (with TV Lounge) 1 x Hospital (2 beds) 1 x Gymnasium
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Environmental Features

1. All NLS cargo tanks built with free flowing design with external stiffening 2 metres from the bottom and sloped bottoms.
2. Oily Water Separator. Certified in accordance with IMO MEPC.107(49)
3. Sewage Treatment Plant certified to the latest IMO MEPC.159(55)
4. Prepared for future installation of a Ballast Water Treatment Plant
5. Cargo loading and discharge stations provided with save alls to an inboard Saveall Drains Tank
6. Incinerator capable of burning plastics

Miscellaneous

1. Zöllner Sound Reception System SRD 414/2
2. NLS Cargo re-circulating pumps, 5 x 90m3/hr - 5 bar
3. 5 x Cargomaxx design tanks, square shape, pyramid bottom shape + 4 x Cargomaxx re-loader tanks with respective weight measurement system
4. Prepared for future installation of an N2 generator
5. Space for the fitting of a nonstructural Foam Tank (2.7 m3) to be used on a future installation of a fixed foam fire extinguishing system for protection of the cargo deck area
6. NLS cargo tanks are arranged in 5 pairs, each pair of tanks fitted with a recirculating dedicated single pump and internal spray nozzles inside each tank
7. Dry Bulk CargoMaxx tanks prepared with flange penetrations for the future connection to the cargo fresh water system
8. 2 x totally enclosed lifeboats (38 persons capacity) fitted together with respective davits, one port and one starboard side
9. 2 x 12 man life rafts, davit launched one P & S
10. Wood sheathed main deck
11. 3 x Xenon 2000W search lights on top of bridge, remotely controlled

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FUEL EFFICIENCY

FUEL OIL CONSUMPTION ON PASSAGE

Fuel Oil Consumption (t/24 hours)-Seastate 4Φ				
Draft(m)	10.00 knot	12.00 knot	14.00 knot	15.00 knot
4.5	7.80	9.00	15.60	20.92
5.0	8.43	9.83	17.00	22.79
5.5	9.12	10.64	18.41	24.63
6.0	9.81	11.38	19.88	26.45
6.44	10.31	12.00	21.00	27.71
6.80	10.82	12.56	22.00	29.09

φ: Seastate 4 is Moderate breeze, 11–16 knot wind, 3.5–6 ft wave height