

PRIMA NUSANTARA X

Cable Laying Vessel

Prima Nusantara X (PNX) is an Indonesian-flagged DP-2 Cable Laying Vessel equipped with multi-service subsea equipment, including cutting-edge and meticulously maintained cable handling equipment, a working-class trencher ROV.

The vessel is designed to accommodate 60 persons, operate in sea state 6 conditions, and is powered by diesel-electric engines that optimize fuel consumption during transit at economic speed.



Main Particulars

Registration

Classification	: RINA
IMO number	: 9669990
Call sign	: YDVF2
Flag	: Indonesia
Vessel built	: Mawei Shipyard China (2013)
Vessel Conversion	: Multi Ocean Shipyard (2023)

Dimension

Length overall	: 91.57 m
Length between perpendiculars	: 83.00 m
Breadth moulded	: 18.80 m
Depth moulded	: 7.40 m
Design draught	: 5.90 m
Gross tonnage	: 5339 ton
Deck load capacity	: 5 ton/m2
deadweight	: 5145 MT

Accomodation

Max. person on board	: 60
Hospital	: 1

Capacities

Main cable tank	: 1 x 2900 ton
Spare cable tank	: 2 x 120 ton
Repeater storage	: 22
Branching unit storage	: 8

Performance & Machinery

Propulsion

Main generator	: 4x Cummins QSK60-D(M) 1825 kW @480V/3Ph/60 Hz
Main engine	: 4x 2550 BHP @1800 rpm D-Electric

Emergency generator	: 1x Cummins KTA19-D(M) 350 kW
Propulsion electric motor	: 2x 2000 kW E.Motor VFD
Bow thruster	: 1x 1.85 m Dia. CPP (910 kW E. Motor)
Retractable thruster	: 1x 1.80 m Dia. CPP (800 kW E. Motor)
Propeller	: 2x FPP, 2.6 m Dia. @4-bladed, 360° azimuth with Kort Nozzle

Speed, Consumption and Performance

Economic speed	: ~9.5 kn
Maximum speed	: 10 kn
Fuel on DP	: 10 - 14 KL
Fuel on standby	: 3.2 KL
Endurance	: 45 Days

Survey Software

MakaiLay

Subsea Equipments

Deck Properties Equipments

Tugger winch	: 2 x10t @electro-hydraulic system
Capstan	: 2 x 7.5t @electro-hydraulic system
Deck crane	: SWL 5t @15 m fix boom crane
Plough A-frame	: 1 x 30t SWL A-frame
ROV A-frame	: 1 x 13t SWL A-frame

Cable Handling Equipment

Cable drum engine	: Royal IHC 1 x 30t dia. 4 m
Draw Off/Hold Back (DOHB)	: Royal IHC 1 x 4t with 4 wheel pairs
Linear cable engine	: Royal IHC 1 x 18t with 21 wheel pairs
Cable transporter	: Royal IHC 1 x 1.5t with 2 wheel pairs

Control and Navigation Equipment

Gyro's	: 1x Simrad GC80/GC85 MK2 + 2x Navigat X MK1
HiPAP system	: Kongsberg HiPAP 501
DP system	: Kongsberg K-POS DP-22
DGPS	: 2x Fugro R750
Radars	: 2x X-Band Furuno FAR-21x7 + 1 S-Band Furuno FAR-28x7
ECDIS	: 1x Furuno FA150 + 1x Furuno MU190
Echo sounder	: 1x Furuno FE700 + 1x Furuno RD-20
Motion reference unit	: 2x Kongsberg Seatex MRU-D + 1x Kongsberg Seatex MRU 2

Communication System

1x Starlink Maritime Flat High-performance
1x Radio Console Radio Holland 1800T
1x Furuno Inmarsat-C

1x MF/HF Furuno FS-2575C
1x Furuno PP-510
1x Furuno IB-585 NBDP
2x Radio telephone VHF Furuno FM-8900S
2x VHF Radio Standard Horizon
3x VHF Emergency Portable Radio NSR NTW-1000

ROV Simec Alpha 8.2

Power	: 400 kW
Length x Width x Height	: 5.6 m x 4 m x 3 m
Operating depth	: 5 - 3000 m
Weight	: 12.5t
Burial capacity	: 2.4 m - 3 m (with extension)
Cable Tracking	: 350 & 440 TSS cable tracker
Umbilical	: 3000 m

Jointing and Testing

Power feeding equipment (PFE)	: Spellman output 15kV/2.4A
UJ/UQJ jointing tools	: Global Marine Complete (1+1) sets
OTDR	: Anritsu MT9085C
IR tester	: Tinsley Type 5910
X- ray	: 2x Digital X-ray Camera DXr1
Splicer	: Sumitomo UJS-S200
PGU	: ISRS ETA Subsea Cable Specialists

LSA Equipment

Rescue boat	: 1
Life saving total capacities	: 60
Liferafts	: 8 x 25 persons + 4 x 20 persons

