

# Leonardo da Vinci



THE MOST ADVANCED  
CABLE LAYING VESSEL  
IN THE WORLD

## DP3 CABLE LAYING VESSEL

Technical specifications

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### DESCRIPTION

Leonardo da Vinci is a DP3 ship built for the most challenging worldwide cable installation works. With her two carousels of 10,000 tons and 7,000 tons load capacity and her capstan able to sustain a maximum tension of 100 tons, the vessel is equipped to conduct the deepest power cable lay up to 3,000 m water depth. Moreover, she can also be used on any kind of offshore projects - from shallow to deep waters - including cable burial with a wide range of ROV vehicles. The vessel is designed with an operation endurance of 90 days and max speed above 14 knots. The accommodation for 120 persons is designed to offer comfort, ample working spaces and recreational areas for all personnel, including fully equipped gym, auditorium, game room, dayroom and officers lounge.



### BURIAL TOOLS

Leonardo da Vinci can be equipped with Prysmian's Hydroplow, Heavy Duty Plough and Seamole, to carry out simultaneous lay and burial or post lay burial operations, dependent upon project requirements. The vessel can also be a platform for state-of-the-art jet trenching ROVs and Mass Flow Excavator tools.

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## VESSELS KEY FEATURES

### *Classification:*

C\*HULL \*MACH, Cable Laying Ship, Dynapos AM/AT RS, HELIDECK, COMF-NOISE CREW A, COMF-VIB CREW C, COMF-AIR, PMS, GREEN PLUS, AUT-UMS, FATIGUE LIFE (30), MANOVR, CARGO HANDLING, DANGEROUS GOODS, SPS, Battery Powered (2x750 kWh).

### *Cable Laying capabilities:*

- ◆ Bundled cable laying.
- ◆ Simultaneous laying and burial.
- ◆ Cable jointing facilities in a covered area of about 240 m<sup>2</sup> (30x8 m).
- ◆ Designed for laying power cables up to 3,000 m water depth.

### *DP capabilities:*

- ◆ DP3.
- ◆ ERN Star 99.99.99.98.

### *Hybrid power system:*

- ◆ 6 Diesel Generators + 2 Energy Storage Systems.

### *Propulsion system:*

- ◆ 3 x Aft Azipod®.
- ◆ 2 x Forward Retractable Azimuth Thrusters.
- ◆ 2 x Bow Tunnel Thrusters.

### *Carousels:*

- ◆ Aft 10,000 tons load capacity.
- ◆ Fwd 7,000 tons load capacity.
- ◆ Max combined load above 14700 tons.

### *Cranage:*

- ◆ 100 tons AHC offshore crane.
- ◆ 20 tons offshore crane.

### *A-frame assembly:*

- ◆ 80 t A-frame with 180 t AHC towing winch.
- ◆ Two enclosed hangars for work class ROV's.
- ◆ Helideck certified for take-off and landing of Sikorsky S92 type (18 pax) and AW 101.

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## PRINCIPLE DIMENSIONS

Length overall:	171.1 m
Breadth moulded:	34 m
Summer draught moulded:	8.5 m
Deadweight:	19865 tons
Max displacement:	36726 tons
Gross Tonnage:	27 989 tons (To be confirmed by Class)
Bollard Pull:	200 tons



## CABLE OPERATIONS KEY FEATURES

Capacity:	10,000 tons 7,000 tons
Core Diameter:	6 m
Outer Diameter:	Aft carousel 28 m Fwd carousel 24 m
Tank Height:	7 m

### CAROUSEL LOADING TOWER

3 m MBR Pick up Arm with motorised cable engine

### STATIC TANK

Static tank for Fibre Optic cables 350 tons capacity

### STARBOARD LAYING LINE

DOHB machine:	Caterpillar "pads" type 5 tons and 3 tons at 35 m/min (laying mode)
Capstan:	6 m diameter and 100 tons max pulling tension (at max speed of 35 m/min or 1,1 knots in laying mode)
Stern sheave:	6 m diameter fitted with dynamometer

### PORTSIDE LAYING LINE

Linear machine:	Caterpillar "pads" type 25 tons and 3 tons at 35 m/min (laying mode)
Stern sheave:	6 m diameter fitted with dynamometer