

offshore support vessel / cable layer

# Pierre de Fermat

pioneering vessel optimized for the clients' new needs



Orange Marine latest acquisition, the offshore support vessel / cable ship Pierre de Fermat, will be delivered in August 2014. The contract for construction was signed in August 2012 with VARD. The design - CLV O1 - is the result of close co-operation between VARD design in Aalesund in Norway and Orange Marine. The hull is built at the VARD Braila yard in Romania and the vessel will be completed at the builder's Brattvaag shipyard in Norway.

## high technology design

Intended for subsea operation and cable installations, the new unit has numerous special features, including low resistance hull lines designed for speed and low fuel consumption. The bow and hull designs help to reduce power consumption by 18 to 32%.

## eco friendly

The vessel is environmentally friendly, enabling high reduction of harmful emissions, waste storage solutions, water ballast treatment, eco-subsea coating and shore power supply.

## performance and precision

The DP2 powerful propulsion is securing high levels of sea keeping capabilities, making it possible to turn the ship over 180 degrees with 2 knots of current and 40 knots of wind without losing position. Passive stabilization tanks help preventing the ship from rolling.

## optimized power

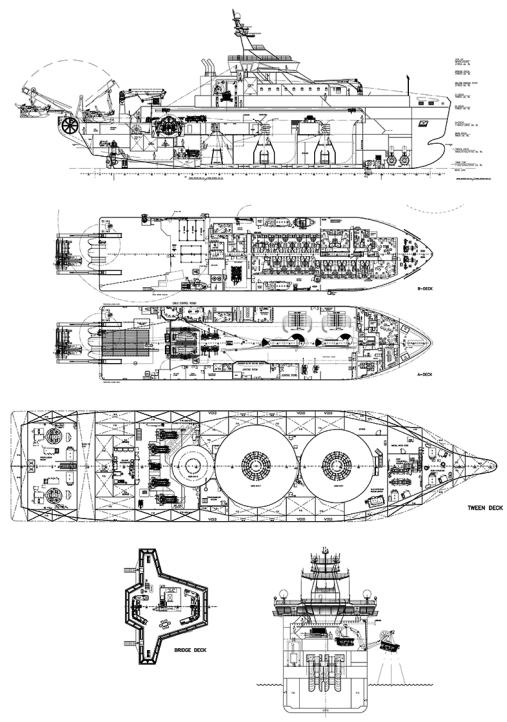
Power is provided by four generator sets, developing 2,250 kW each. Three generators out of the four available are sufficient to cope with the highest propulsion power demands, ensuring high reliability. Transit at economic speed with two engines efficiently running will optimize fuel consumption.

## multiservice equipment

The ship is equipped with a 40 T A-frame located at the aft station, fitted with a leave compensation winching system operating a 65 T SWL to 4,000 m.

A 300 kW work class ROV Hector, is stored in a hangar. The ROV operates down to 2,000 m to survey, trench the seafloor up to 1.5 m. With its two manipulators, Hector can carry the full set of intervention tasks.

The ship is also designed with two main cable tanks and one spare tank offering 2,300 t of storage capacity. Accommodation for 80 people, meets high standard comfort requirements. 360 degree panoramic windows at wheelhouse offer excellent visibility.



# main particulars

## dimensions

length overall: 100.1 m  
length between PP: 86.8 m  
breadth moulded: 21.5 m  
depth from main deck: 8.8 m  
maximum draught: 7.1 m  
deadweight at max draught: 4000 t

## registration

classification: Bureau Veritas  
flag: French  
entering service: mid 2014  
notations: AUT - IMS, ICE CLASS IC,  
COMF-NOISE 2, CONF-VIB 3, DPS-2/FMEA



## capacities

deck area: A-Deck 380 m<sup>2</sup> @ 10 t/m<sup>2</sup>  
B-Deck 150 m<sup>2</sup> @ 10 t/m<sup>2</sup> 50 m<sup>2</sup> @ 5 t/m<sup>2</sup>  
tank # 1: dia 14,25 m x h 7,7m  
tank # 2: dia 16 m x h 7,7m  
tank # 3: dia 8,2 m x H 7,3m  
overall cable load capacity: 2,300 t

## accommodations

accommodations for: 80 Persons  
cabins: 70 single + 5 double  
each cabin has direct access to private toilet  
(shower, WC, wash basin) and daylight.

# performance & machinery

## propulsion

diesel electric: CAT 4 x 2,250 kW + CAT Harbour 1 x 715 kW  
main propulsion: 2 x 2,500 kW FP azimuth thrusters  
bow thrusters: 2 x 880 kW FP tunnel + 1 x 880 kW FP azimuth

## speed and consumption

maximum Speed: 15.0 knots @ 31 t  
service Speed: 12.0 knots @ 14 t  
endurance: 45 days  
bollard pull: 80 t  
intact max wind sustainable: 36 knots at heading 100  
DP Control: DP Class-II, Converteam DPS21  
reference system: 3 x DGPS, 1 x HPR Sonardyne



# equipment

## ROV Hector 7

size: L 5 x l 3.3 x h 2.1 m weight in air: 9 t  
max depth: 2,000 m  
power installed: 300 kW  
manipulators: 2 x Schilling CONAN  
tools: cutter Webtool and grippers 6T SWL  
cable tracking: TSS 440  
sonar / profiler: SIMRAD MESOTECH  
tool with jetting nozzles: 1.5 m burial capability  
LARS: SWL 13 T @ 5.5m SS6

## deck equipment

A-frame: SWL 40 T @ 12 m SS5  
winch: 65 T SWL tension compensated Tow 4,000m  
knuckle-boom crane: 5 t @ 24 m  
provision crane: 2 t @ 15 m  
work Boat: Svendborg 7.5 m - B. Pull 2 t  
fast rescue craft: Maritime Partner Weedo 600  
echo-sounder 6,000 m / 10,000 m

## communication

fleet Broadband: 2 x FBB500  
VSAT: KU-Band interfaced with PABX and FBB  
video Network: 32 cameras and 50 monitors  
Inmarsat: 2 x SAT C

