

Orange Marine cable ship

Léon Thévenin

Specializing in the maintenance of submarine cables



The C/S Léon Thévenin is a multipurpose cable ship specialized in maintenance operations. She is acknowledged for the speed and efficiency of her interventions, even with extreme weather conditions.

- The cable ship who holds the world record of repairs in the Atlantic Ocean Agreement (ACMA) with 30 repairs over 29 years. She performs a quarter of the repairs in the Atlantic Ocean out of 30 vessels operating on this contract/ in this area
- Max depth repair: 5,500 m min depth repair: 7.5m
- From 2001 to 2012 she spent 40 % time at sea, the rest on the alert 24 hours a day
- The jetting ROV onboard performs Post Lay Inspection and Burial (PLIB) on large distances, in addition to cable detection, cutting and gripping operations.

Cutting-edge tools and expertise

The cable ship is equipped with traditional cable works tools grapnels, buoys, ropes, dead-weight but also with a modern device, the ROV.

This remotely operated vehicle is used for different operations on the fiber optic cables: detection, cutting, recovery, jointing and testing.

C/S Thévenin is capable of operating repairs in very shallow waters, as well as in deep waters (between 10 and 7 000 meters).

24/7 maintenance vessel main parameters are:

- Readiness of cable ship to leave port - mobilisation
- cable loading/off-loading speed
- Ship transit speed on passage
- Cable operation repair times - depth specific
- Jointing completion times
- Ship/ROV downtime
- Demobilisation

Work in extreme conditions

Cable ship Thévenin is able to operate in extreme conditions. With her high freeboard, she may sail in deep seas with poorweather conditions. The bows - located 8 meters above the sea level - allow working in sea state 6, with waves up to 6 meters.

The powerful propulsion and the Dynamic Positioning System are securing high levels of sea-keeping capabilities even with strong current and wind. The ROV follow device allows an optimum positioning between the ship and the submarine vehicle during the diving operations.



Orange
Marine



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Specifications

Entering service: 1983

Main particulars:

- Length overall: 107.8 m
- Breadth: 17.8 m
- Design draft: 6.2 m
- Full load speed: 15 knots
- Endurance: 12,000 NM
- Gross tonnage: 6,830 t
- Deadweight: 4,840 t

Cable tanks: 3

- Storage: 2 main cable tanks
- Tanks 1 and 2 - diameter 12,50 m
- Cable volume 700 m³ - 1,000 t
- Tank 3 - cable volume 70 m³

DP system:

- DP GE CONVERTEAM

Propulsion:

- 2 x 1420 kW each acting 2 shafts
- Transverse propellers : 1 bow + 1 stern (2 x 550 kW)

Cable machinery:

- Aft: 1 x 12 wp LCE - 12 t
- Fore: 2 x 3.40 m cable drum – 40 t with DO/HB

ROV facilities:

- Power 300 kW- weight 8 t
- Burial performance 1.5 m
- Depth 2,000 m

Onboard equipment

Hector 5 ROV

Hector are powerful and full customised work class ROVs dedicated for cable works. The Hector ROVs are specialised in burial by jetting after the laying of repaired cables. They can also operate surveys. Their HD video cameras allow finding cables down to 2,000 m depth.

Capacities:

- Operations: burial, inspection, survey, gripping and cutting
- Power: 300 kW
- Operating depth: 2,000 m
- Trenching depth: 1.5 m
- Speed trenching: 750 m/h
- Speed free swimming: forward 2.5 knots
- Speed on tracks: 2,500 m/h

Equipment:

- Shallow and deep water echo-sounder 6,000 m / 10,000 m
- Acoustic positioning: sonardyne 2,000 m
- Integrated cable and navigation management: Epadon
- Test room, installation room, transmission room, jointing room

Accommodation:

- 73 cabins:
 - 52 single cabins
 - 21 double cabins

Lifting capacity:

- Stern crane, 2 t – 15 m
- ROV crane 9,5 t – 10 m sea state 6
- Sheave gantry, SWL 5 t

