



BAUTINO 1

SWTB - SHALLOW WATER TRENCHING BARGE



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CAPABILITY

SHALLOW WATER TRENCHING AND POST TRENCHING OPERATIONS

TECHNICAL SPECIFICATIONS

MAIN FEATURES

- Length: 105 m
- Breadth: 16 m
- Summer DWT: 3,300 t
- Gross tonnage: 2,449 t
- Positioning: 4 Double Drum mooring winches remotely operated and monitored from Bridge Control Anchored barge – 8 points mooring with 28 mm HMPE - K12 soft lines
- Trenching water depth range: min 1.6 m – max 20 m
- Operative draft: 1.5m

POWER GENERATION

- 2 x Perin Iveco diesel driven 360 kW

FACILITIES

- Bridge control room
- Trenching pilot control room
- Project offices
- Client office
- Meeting room
- Storerooms
- Galley and mess room
- Videoconference

DECK CRAWLER CRANE

- Capacity:
 - 51 t @ 12 m main hook
 - 15 t @ 12 m aux. hook

POST-TRENCHING SYSTEM

- Pipeline range: from 6" to 36"
- Type of soil: very stiff clay soil up to Cu 300 kPa

RELIABILITY

PIPE DEPTH MONITORING BOX (PDMB)

- Max achievable burial: 3.8 m bottom of trench
- Trenching system: 6 hydraulic power units (3 x 450 kW, 2 x 480 kW and 1 x 363 kW)
- Trenching equipment:
 - TRM - Trencher Mudline
 - REM - Remedial Machine
 - PDMB - Pipe Depth Monitoring Box
 - Backfilling pipe
 - Sliding buoys system

TRENCHER MUDLINE (TRM)

- Dimension (LxBxH): 11,1 m x 10 m x 5,3 m
- In air estimated weight: 37 t
- In water estimated weight: 15 t*
- Dredging pump capacity: 1,800 m³/h
- Installed power: 1,000 kW

MAIN COMPONENTS

- 2-off cutting tools helical blade type with pipe protection assured by guards and load cells to monitor contact
- 1-off mud hose
- Electro-hydraulic umbilical
- On board instrumentation, cabling and electronics
- Variable buoyancy configuration

REMEDIAL MACHINE (REM)

- Dimension (LxBxH): 7,8 m x 6,6 m x 4,7 m
- In air estimated weight: 20 t
- In water estimated weight: 1 t*
- Dredging pump capacity: 1,800 m³/h
- Max cut depth: 0,5 m
- Installed power: 400 kW

VERSATILITY

BARGE TYPE DECK ALLOWS VARIABLE FIELD TYPE SHALLOW WATER OPERATIONS

MAIN COMPONENTS

- 2-off cutting tool systems
- 2-off suction pumps
- Upper rollers to lay the vehicle onto the pipe
- Variable buoyancy configuration

PIPE DEPTH MONITORING BOX (PDMB)

- Dimension (LxBxH): 3,4 m x 1,1 m x 2,2 m
- In air estimated weight: 0,8 t

The PDMB system measures the TOP. It slides on top of the pipeline (behind of the REM) and it is towed by the towing boom #2 of the barge.

BACK FILLING PIPE (BFP)

The convoy (TRM and REM) sucks the seabed soil material through the dredging flexible hoses to the Backfilling Pipe (BFP) which discharges the material again onto the trenched pipeline. If required, the material can be redirected out of the trench in order to maintain the pipeline exposed.

* Submerged weight can be adjusted by modifying the buoyancy system

DID YOU KNOW?

THE BAUTINO 1 HAS A MOBILE TRENCHING EQUIPMENT WHICH CAN BE EASILY REMOVED FROM THE DECK, CREATING FREE SPACE THAT CAN BE USED FOR MANY SHALLOW OFFSHORE OR INSHORE OPERATIONS.

Bautino 1 is a shallow water post trenching and backfilling barge with 8-point mooring system of winches remotely controlled and monitored from the Control Bridge. Its main use of post trenching and back filling simultaneously using a TRM (Trenching machine), REM (Remedial machine), PDMB (Pipe Depth Monitoring Box) in conjunction with a simultaneous back-fill system, as well as several sliding buoys if needed, allows the barge to come within meters of pipeline due to its shallow draft and through the use of its HMPE soft mooring lines which float above the pipeline itself.