

# **SUBTRENCH ONE**

## **PIPELINE TRENCHING MACHINE**



**Very Shallow Water Operations**

### **Principal Data**

- Capability : Pipelines from 6 inch to 40 inch nominal size. Can be adjusted for larger diameter pipelines.
- Soils : Silts/ sands through stiff/ hard clays.
- Trench Depths : To 3.0m with multipass. Can be adjusted for deeper trenches.
- Dimensions : Carriage: 8.5m (L) x 7.8m (W) x 5.5m (H).
- Weights : 38 T (Air); 28 T (Submerged).
- Tractive Effort : Up to 8 tonnes depending upon seabed conditions.
- Ground Pressure : Between 16 to 29 kPa depending upon tracks used.
- Total Power : 2720 kW.
- Speed range : Travelling: generally between 0 to 1 km/hr.  
: Trenching: generally between 1 to 10 m/min (60 to 600 m/hr) and depending upon the soils & trench depth per pass.

**Subtrench**

**Pipelines, Cables, Umbilicals & Flexibles:**

**Delivering Ground Breaking Underwater Trenching  
Technology & Services Worldwide**

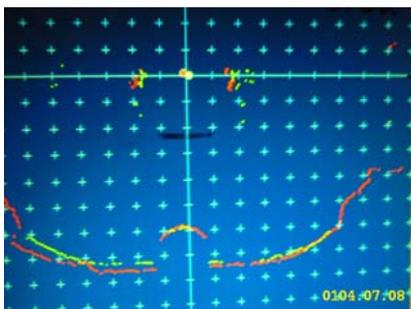
- Any Soil
- Any Depth
- Any Where



Side View



Control Cabin



Typical Sonar View of Trench & Pipeline

Specification subject to change without notice

#### Main Features

- Suitable for pipelines from 6 inch to 40 inch nominal size.
- Capable of progressively trenching up to 3.0 m trench depths using multiple passes. It has a varying trench depth cut per pass capability.
- Suitable for very wide range of soils: loose through to compact very dense sands (14 MPa), silts and soft through to hard clays. It has the ability to handle soil variations such as peat, shell banks, gravel banks, etc. The machine can be set up to provide different trench shapes to suit these various soils.
- Combination water/ hydraulic/ control supply umbilical.
- Operational from the beach above the water line to 50 meter water depths.
- It can be used in pre-trench or post trench, remedial trenching or high point correction mode.
- Hydraulically track driven to provide a greater operating range whilst being able to maintain a consistent trenching speed appropriate for the particular soil(s) being trenched. Accurate steering and alignment during operations.
- Hydraulically driven mechanical chain cutters as well as medium pressure (450 psi) capacity adjustable water jetting system and an increased capacity eductor system.
- Can be either fully supported on its tracks on the seabed clear of the pipeline or umbilical or it can be controlled from the deck to partially or fully ride on the pipeline.
- Operation can be diverless through the use of the onboard sonar and camera systems.
- It incorporates physical barriers to prevent contact between the cutter chains and the pipeline or umbilical during trenching.

- It can be used as an underwater bulldozer with the fitment of a suitable blade.
- Extensive monitoring, survey and control system.
- Suitable for use in harsh and/or sensitive marine and inland water environments.
- A comprehensive set of spares are carried in the dedicated workshop container.

#### Hydraulic Power Pack (HPP)

- Deck mounted, diesel driven, 320 kW, skid mounted with integrated control cabin.

#### Water Pumps

- 2 off, deck mounted, diesel driven, 1,300 kW centrifugal pumps. Each with 3,100 kPa (450 psi) at 900 cum/hr (4,000 usgpm).

#### Cutter Motors

- 2 off, 55 kW each, hydraulic driven motors.

#### Supply Umbilical

- Combined water/ hydraulic/ control supply umbilical.

#### Monitoring & Controls

- Extensive monitoring system with operations from a central control room
- Front Pan & Tilt Camera with light, rear fixed Camera with light and Sonars
- Octans
- USBL
- Others: Cutter, Tracks, HPP, Water Pumps, Solenoid Pod

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