

4 Pair Cable Engine

The 4-wheel pair cable engine can be used both to haul cable for loading onto a vessel and cable recovery from the seabed. The unit can also act as a hydraulic brake to maintain the correct amount of speed and residual tension for laying cable onto the seabed.

The unit comprises eight pneumatic rubber tyred wheels, which are driven directly off hydraulic motors. The wheels are vertically opposed and moved towards one another using hydraulic cylinders to maintain the required amount of grip pressure onto the cable running between them. Adjustable vertical guide rollers are used to maintain the cable on the centre line of the wheel treads. The hydraulic circuit incorporates flow dividers which split the flow equally to each wheel motor, thereby maintaining the same rotational speed on each wheel and reducing uneven wear. The unit is equipped with an operator's panel with electronic controls and hydraulic pilot operated control valves. The unit incorporates speed, distance and tension measurement readouts.

The unit is driven using a separate electro / hydraulic power pack.



General Information

Length: 4400 mm

Width: 1500 mm

Height: 2300 mm

Weight: 5000 kg

Wheel Diameter: 630 mm

Maximum Tyre Pressure: 30psi

Maximum Hauling Speed: 1425m/hr

Maximum Laying Speed: 2000m/hr

Maximum Hydraulic Working Pressure: 210Bar

Maximum Hauling / Laying Tension: 3T

Grip Pressure: 1T



HPU

The unit comprises an electric motor which drives a variable displacement hydraulic pump, linked to gear type pumps, to power the motors and hydraulic cylinders of the 4-wheel pair cable engine. Water coolers are provided in the hydraulic circuit to stop the system overheating. The unit and the 4-wheel pair cable engine are controlled from the hydraulic pilot operated console mounted on the cable engine.

The unit provides hydraulic power to drive the cable engine wheels when hauling and powers the hydraulic cylinders, which exert the required grip pressure between the wheels onto the cable. The unit also includes the necessary valves and controls to operate the cable engine as a hydraulic brake, for use when laying cable, maintaining the required speed and back tension to the cable during this operation.

A separate electrical and water supply is required to operate this unit.

The specification of the Electro / Hydraulic Power Pack is as follows:

| General Information |
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| Length: 2800 mm |
| Width: 1100 mm |
| Height: 1600 mm |
| Weight: 1820 kg |
| Maximum Hydraulic Flow: 145 L/min |
| Maximum Hydraulic Pressure: 210 bar |
| Electrical Power Requirement: 100 kVa, 415 V, 3 Phase, 50 Hz |
| Control Valve Pilot Pressure: 16 Bar |
| Cooling: Water |