

# EQUIPMENT SHEET

## SEA STALLION 4 DB PLOUGH



### FEATURES

The Sea Stallion 4 cable plough (SS4 DB) system is designed specifically for the aggressive burial of power cables in shallow water. It features a unique share design and a robust chassis that can withstand tow forces up to 150 ton to permit cable burial in the hardest seabed conditions.

The SS4 DB concept has a proven track record of installing the power cables associated with large scale offshore wind farm developments. Combined with our installation equipment, experience and expertise we can offer an industry leading complete power cable installation service.

To meet future demands concerning operations in environmental sensitive coastal areas, the hydraulic functions of the plough are based on the use of bio-gradable hydraulic oils.

### MAIN DATA

Trench depth	Hydraulic adjustable plough share from 0-3 m depth range
Optional	adjustable plough share from 0-3 m depth range jetting assist mode for 3 m depth range
Cable size	Cable passage: 280 mm wide
Joint size	Joint diameters: up to 220 mm (subject to joint design)
Cable bending radius	3.6 m minimum in bellmouth and plough share

Design strength	Sustained pull force: 120 t Peak load: 150 t
Operating waterdepth	Minimum: Beach operations Maximum: 100 m
Length	Approx. 13.9 m (with skids down)
Width	5.2 m
Height	4.3 m
Weight in air	32 t
Hydraulic functions	Hydraulic cylinders for trench control up/down Hydraulic cylinder for cable depressor raise/lower
Hydraulic power unit	Subsea 7.5 kW electro-hydraulic power pack connections to allow operation from deck and/or beach Bio-gradable oil system

### BEACH OPERATIONS EQUIPMENT

Share support	1 skid for attachment plough share for pulling plough backwards
Portable equipment	Portable case with 20 m connecting cable, to include transformer and insulation monitor for single phase pod supply, control PC components, wireless telemetry components

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**MONITORING AND SURVEILLANCE**

Roll & pitch	Inclinometer inside pod
Waterdepth	Pressure transducer
Tow load	SB and Port load-cells at tow points
Cable tension	Load cell
Cable horizontal entry angle	Rotary potentiometer to indicate position
Skid arm position	In-cylinder displacement transducer
Trench depth	Rotary potentiometer fitted to trailing arm
Distance travelled	Encoder in cable travel wheel
Surveillance	Obstacle avoidance sonar

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**UMBILICAL WINCH**

Umbilical winch	Hydraulic powered umbilical winch for subsea plough, complete with HPU and manual operated local controls
Drum storage capacity	1,200 m
Umbilical connection	Slip-rings and junction boxes
Control equipment	Local manual control only winch proportional pay in/out

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**UMBILICAL**

Type	Aramid armoured umbilical Super Scorpio 2
Lengths	From plough to umbilical winch 1,200 m