

INNOVATIVE CABLE INSTALLATION SOLUTION LAY AND BURIAL TRACTOR (LBT1)

The LBT1 draws on SMD's experience of track driven vehicles, trenching and cable handling subsea to provide lay and burial solution in one neat package. LBT1 is a fully amphibious vehicle and comes equipped with a powerful chain cutter and jet legs. LBT1 has a driven cable reel mounted on the vehicle itself and this means it can operate independently of the vessel with only the umbilical attached. This has benefits in sectors such as offshore wind farm installation significantly reducing installation time.

FEATURES

- 900kW of installed power
- 3.0m depth jetting capability
- 1.6m chain cutter
- 110mm max. cable diameter
- 1.5m min. bend radius
- 3te/m crane manipulator with jet/dredge tools
- 50m max. water depth
- Comprehensive instrumentation and surveillance
- SMD DVECS™ Control system
- Containerised control and power system



SMD CUSTOMISATION SERVICE

SMD understand that every customer is different and therefore have individual needs from their systems. In order to meet your specific requirements SMD can customise our vehicles using our range of standard components to suit your preference and performance requirements.

SYSTEM SPECIFICATIONS

GENERAL

Depth rating	50msw
Dimensions	
Length (with tools).....	11.5m
Width	7.5m
Height	7.75m
Weight in air (no cable)	42te

PERFORMANCE

Trench Depth(jetting).....	3.0m max
Max. Cable Dia.	110mm dia.
Speed	0-700m/hr
Soil types	all sands
.....	Clays from 10-500kPa
Soft ground capability	25-30kPa
Installed Power	900kW total
.....	1 x 300kW HPU
.....	2 x 300kW water pumps

MECHANICAL

Construction	High strength steel chassis
Wear Parts	Replaceable wear-resistant steel
Other	Stainless steel fittings and housings

TRENCHING SYSTEM

Configuration – single vertical hyd. drive chain cutter with separate rear jet tool.	
Trench Profile	1.6m or 3m vert.
.....	(3m with jet tool)
Chain Power	150kW
Chain Width	400mm
Chain depth	1.6m
Chain Speed	0 to 4m/s
Chain Type	heavy duty chain
.....	with point attack picks

Jetting Configuration – Water pumps supply hyd. deployable twin-legged device either side of cable with in-built depressor.	
Jetting Power	2 x 300kW direct drive
.....	Supply 1550m ³ /hr @ 5bar
Jet leg depth	1.6m or 3m
Trench width	300mm
Cable path width	150mm
Cable bend radius	1.7m min.

Dredge Configuration – 4” flexible hose directed by the crane manipulator with zip jet pump.	
Input Power	22kW
Water suction	110m ³ /hr

CRANE MANIPULATOR AND TOOLS

Configuration – four function crane fitted with three function grab and single water jet and dredge system.	
Crane Lift Capacity	3te/m
Grab Lift Capacity	2te
Crane Max. reach	7m
Crane Jet Power	1500lpm @ 4bar

CABLE REEL

Core dia.	3m
Drum width	1.7m
Cable capacity	1000m (110mm dia. max.)
Weight	3te empty
.....	25te loaded
Hyd. Drive	1.5te @ 30m/min.
Emergency Brake	3te on bottom wrap

HYDRAULIC SYSTEM

Cylinders	Smart heavy duty marine type
Valves.....	Directional and Counterbalance
Valve Packs	Stainless Steel, Oil Compensated
Manifolds, Pipes & Fittings	Stainless Steel
Hoses	Multi-spiral flexible hoses

SUBSEA SURVEILLANCE

Cameras	up to 8 cameras (HDTV optional)
Lamps	up to 12 x 250W
.....	dimnable LED subsea lamps
Pan and Tilt	up to 6 x robust 24V P&T units
OA Sonar	Tritech/ Kongsberg
Gyro	North seeking fibre optic
Acoustic Positioning	to suit vessel
HID Lamps (Optional)	up to 2 x 400W
Profiling Sonar (Optional) ...	Tritech/ Kongsberg/ Multibeam
Echosounder (Optional)	Kongsberg

OTHER EQUIPMENT

Control System	in 20ft ISO container
Power System	in 20ft ISO containers
Umbilical System	1500m Umbilical
.....	and 3.0te Winch
Winch HPU.....	22kW deck mounted
GPS system	fitted to surface buoy

OPTIONS

Wheel cutter	120kW
.....	1.2m trench depth
.....	0.3m trench width
.....	up to 10MPa soil strength