



SeaTrepid SeaRover



The SeaTrepid SeaRover Mid Class ROV offers a professional ROV system designed for maximum performance, maximum payload, and adaptability in the field. Its size provides a stable platform for high quality video and sonar surveys, while its high performance and rugged construction allows it to excel in the offshore environment.

SeaTrepid owns and operates the SeaRover ROV systems with the confidence that only comes with years of experience which allows our technicians the ability to safely and confidently place these systems into the harshest working environments.

With four horizontal brushless DC thrusters and two more thrusters providing lift, this ROV is capable of lifting almost a quarter of its own weight and then transporting that load to the job site with ease.

Equipped with High Intensity (HID) lighting and capable of accommodating a range of state of the art sensors, this ROV system is at home in a wide range of job tasks. From subsea inspections (well head, umbilical, SUTA, etc), MMS Platform inspections, or diver assistance, the SeaTrepid SeaRover ROV system can complete the job in a timely and cost effective manner.

SeaTrepid SeaRover

PERFORMANCE / DIMENSIONS:

Depth Rating:	1500 fsw (460 msw) standard
Payload:	100 lb (45 kg) lead ballast
Height:	32.0 in (810 mm)
Length:	53.0 in (1350 mm)
Width:	33.0 in (840 mm)
Mass in air:	440 lb (200 kg)
Turning Rate:	180 degrees per second

Thrust@ 0 Knots (bollard pull)

Forward:	120 lbf (54.5 kgf)
Reverse:	120 lbf (54.5 kgf)
Lateral:	50 lbf (22.6 kgf)
Vertical:	50 lbf (22.6 kgf)

CONTROL SYSTEM:

This system incorporates a Surface Control Unit (SCU) which communicates with the vehicle's electronics housed in a one-atmosphere enclosure located on the vehicle.

The SCU incorporates:

- Pilot's control console and joystick
- Lighting controls
- Video overlay system
- Earth leakage protection system

SCU power requirements:	440 VAC 3 phase and earth, 50 / 60 Hz, 2 kVA
-------------------------	---

The SeaRover vehicle electronics are housed in an aluminum one-atmosphere enclosure, incorporating the thruster drive systems, telemetry system, compass, depth transducer, and camera controls. The housing also has spare electrical connectors to provide power and control for user interfaced equipment.

ROV power requirements:	440 VAC 3 phase and earth, 50 / 60 Hz, 7 kVA
-------------------------	---

PROPULSION SYSTEM:

The vehicle is propelled by 6 Benthos 1/2 horsepower, four phase, rare earth, oil-filled, brushless DC motors, arranged for maximum efficiency:

- 4 x Horizontal thrusters
- 2 x "Vertran" thrusters vectored to clear the vehicle's lower deck. These thrusters provide both vertical and lateral thrust efficiently to the system.

LIGHTING:

- 2 x 150 Watt High Intensity Discharge (HID) gas arc lamps
- 2 x 150 Watt quartz halogen lamps

CAMERAS AND SONAR:

- 1 x Compact color high resolution camera with 3 axis control
- 1 x General Purpose color CCD camera
- 1 x Imagenex 881a mechanically scanning sonar

CONTAINER:

The containers have 2 segmented compartments with separated workshop and control areas. Comprehensive spares kits are included as part of SeaTrepid's standard package.

Length:	20.0 ft (6.1 m)	Weight:	12,000 lb (5,443 kg)
Width:	8.0 ft (2.4 m)		

LAUNCH AND RECOVERY SYSTEM (LARS):

Winch:	500 ft (152 m)
Weight:	4,500 lb (2,040 kg)
Length:	14.0 ft (4.3 m)
Width:	6.5 ft (2.0 m)
Safe Working Load:	1,950 lb (885 kg)
LARS power requirements:	110 VAC, 50 / 60 Hz, 19 Amp

OPTIONAL EQUIPMENT:

The SeaRover ROV system will support equipment, available as options to the standard specification, including industry compact tooling skids, umbilical tracking packages (Innovatum Smartrak), gradiometers (TSS-440), side scan sonar, bathymetric, and oceanographic sensors, CP and wall thickness probes, High pressure water jet, electro hydraulic manipulators, and nFMD (flooded member detection).



SeaRover during a visual and sonar inspection of Loch Ness, Scotland.