



INSPECTION CLASS ROV

SEAEYE COUGAR XTI 1449

The Seaeeye Cougar-XTi is a 2,000 m depth rated version of the compact, highly flexible and extremely powerful Cougar-XT ROV system, which is aimed to address the industry's need for a 2,000 m observation ROV, capable of providing a "self-help" capability and light work capability. The Cougar-XTi is a very stable platform and is able to perform well in strong currents and under the harshest conditions, providing excellent handling and manoeuvrability. With all the benefits of the proven Cougar-XT and the full range of optional quick-change tool skids, the Cougar-XTi also features ICON, SAAB Seaeeye's new modular control system a new concept in power distribution.



HIGHLIGHTS

- ▲ Operational depth of 2,000 m.
- ▲ System capable of conducting wide range of operations including Survey, Observation, Inspection, light work capabilities and Drill Support.
- ▲ Capable of working in currents up to 3 Knots.
- ▲ System includes LARS with caged Type 8 TMS (tether length of 200 m).
- ▲ Pay load capacity of 80 kg.
- ▲ ICON, SAAB's newly designed modular control system.
- ▲ Non-invasive and automated self-diagnostics.
- ▲ Full set of optional survey and tooling skids.
- ▲ System comes with a four channel digital video recording system (VisualDVR), with built in overlay capabilities.
- ▲ Small footprint, enabling operations to be conducted from small vessels of opportunity, fixed or floating platforms.

All specifications presented within this document are subject to change without notice.

VEHICLE SPECIFICATIONS

Depth Rating:	2,000 m
Length:	1.515 m
Width:	1.000 m
Height:	0.790 m
Weight:	344 kg
Forward Speed:	>2 knots
Forward Thrust:	170 kgf
Lateral Thrust:	120 kgf
Vertical Thrust:	110 kgf
Payload:	80 kg

Propulsion:

Four Horizontal SM7 and Two Vertical SM7 500V brushless DC thrusters provide full three dimensional control, including roll. All Seaeeye ROVs feature brushless DC thrusters which, in addition to having the greatest power density, have integrated drive electronics with velocity feedback for precise and rapid thrust control.

Auto-Pilot:

The Cougar XTi's standard auto pilots include:

- Heading
- Depth
- Roll
- Roll Stabilisation
- Auto altitude

Umbilical/Main Lift:

Umbilical Length:	1,000 m
Umbilical O/D:	31 mm

TMS (Seaeeye Type 8):

Length:	1.792 m
Width:	1.491 m
Height (to lift eye):	2.0 m
Weight (in air):	1.2 Tons
Depth Rating:	2,000 m
Tether Length:	200 m
Tether OD:	20.6 mm

Power Requirements: 380-440V, 3 , 50/60 Hz, 125 kVA

SYSTEM DIMENSIONS AND WEIGHTS

LARS with Winch:

Length:	7 m
Width:	2.75 m
Height: (to lift eye):	2.25 m
Weight:	19 Tons
A-Frame Outreach:	2.5 m

Control Cabin - DNV 2.7-1 offshore container, A60 rated:

Length:	6.1 m
Width:	2.6 m
Height:	2.6 m
Weight:	9 Tons

Stores/Workshop Cabin - DNV 2.7-1 offshore container:

Length:	6.1 m
Width:	2.6 m
Height:	2.6 m
Weight:	9 Tons

EQUIPMENT FITTED AS STANDARD

Control System:

The Cougar-XTi operates on Saab Seaeeye's latest distributed intelligence control system, ICON. This allows each node (thrusters, lights, camera actuators, etc) to be individually controlled, tested, isolated or updated.

Man Machine Interface (MMI):

The Cougar-XTi MMI comprises 6 main elements:

- Surface Power Supply Remote Control Interface
- TMS Control Interface (with TMS option)
- TMS Foot Switches (with TMS option)
- Flight Screens - Data displayed on VGA monitors
- Touchscreens
- Hand Controller - The physical control interface for controlling the ROV movement through the water and its primary systems.

Fibre Optic System:

The Cougar-XTi single mode fibre optic system is designed to offer the maximum data payload with the maximum level of redundancy.

Chasis:

The extremely rugged polypropylene, stainless steel and composite chassis has been designed to maximise free water flow through the ROV. A central and adjustable lift point ensures a level lift. Tool skids can be rapidly installed as required.

Pan & Tilt:

1 x High torque, oil filled, Pan & Tilt platform. The unit is manufactured from anodized aluminium with the pan and tilt positional information being displayed graphically on the video overlay and/or pilots dashboard.

Camera:

1 x Seaeeye Colour Camera
1 x Seaeeye Black and White Camera
1 x Kongsberg Colour Zoom Camera

Digital Video Recording System:

Digital Video Recording system (4 channel simultaneous recording), with video overlay for all channels.

Depth Sensor:

1 x Electronic sensor accurate to +/- 0.1% FSD
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Sonar

Manufacturer:	Tritech
Model:	Super Seaking DST
Frequency:	325 & 675 kHz

Lighting:

Two individually controlled lighting channels are provided as standard, each channel comprising two LED lamp units. Each channel has its own brilliance control on the pilot's Hand Control Unit. Each LED lamp produces the equivalent light output of a 150W tungsten halogen bulb. Additional lighting can be readily added to the system network.

Emergency Systems:

1 x strobe light

OPTIONAL EQUIPMENT

- Boom arms with Cameras
- Tritech Profilers
- 2D Real time sonar
- CP probe
- UT Probe
- Doppler Velocity Log
- Underwater Gyrocompass
- Soft Line Cutter
- Wire Rope Cutter
- Disk Cutter

Optional Skids:

- Survey Skid for Pipeline Inspection (c/w wheeled under carriage and twin boom arms with colour cameras and LED lights).
- Manipulator Skid containing dual 5-function Hydro-Lek manipulators.
- Water Jetting Skid
- Flooded Member Detection (FMD) Tool Orientation Skid
- Torque Tool Skid for BOP intervention
- AX Ring Tool Skid