

THE HIGH POWER COMPACT ELECTRIC WORK ROV

The Seaeye Cougar-XTi is a development of the successful Seaeye Cougar-XT, proven worldwide in demanding applications and recognised for its capability to operate effectively as a compact inspection, or light work ROV.

The system is now based on the Saab Seaeye's iCON™ ecosystem which is an advanced distributed control and power distribution system that provides features such as advanced pilot aids and diagnostics to increase reliability and maintainability. The iCON™ ecosystem also provides a roadmap for further developments in automation and digitalisation including features such as remote telepresence control from shore via satellite or 4G communications, making the system future ready for current and further software advances.

The Cougar-XTi is a highly flexible and extremely powerful electric ROV, depth rated to 2000 m. The ROV is fitted with six 500 Volt DC thrusters that provide exceptional thrust for stable vehicle operations in high current environments.

The vehicle has a large payload and is designed to accommodate a wide range of quick-change tooling skids making it ideal for survey work, IRM, drill support, light construction projects and salvage support operations. Without a tooling skid, it remains a very compact inspection vehicle for access inside complex structures.

The surface equipment for the Cougar-XTi can be provided as free-standing units or integrated into a control cabin.

The Seaeye Cougar-XTi leads a new generation of compact, highly flexible and extremely powerful electric ROVs that offer users the ability to undertake a wider range of demanding tasks at lower operating costs.



Smart

Using Saab Seaeye's iCON™ intelligent control system featuring self diagnostics and control via touch screens.

Powerful

Highly manoeuvrable vehicle designed for work in strong currents and up to 2000 m depth.

Flexible

Designed as an inspection vehicle or light work vehicle with a range of tooling skids for additional tooling options.

world leader in electric underwater robotics

website: www.saabseaeye.com

Technical Specifications

Specification	Cougar XTi
System Power Requirements	3-phase, 380-480 VAC at 50/60 Hz
Depth Rating	2000 m
Length	1515 mm
Height	790 mm
Width	1000 mm
Launch Weight	435 kg
Forward Speed	3.0 knots
Thrust Forward	170 kgf
Thrust Lateral	120 kgf
Thrust Vertical	110 kgf
Payload	80 kg



System Overview

- The Cougar XT*i* is an intelligent iCON™ based Electric Vehicle. It is equipped with electric propulsion and compatible with industry standard sensors and hydraulic tooling as well as SAAB Seaeye's current and future range of electric tooling solutions. It is highly powerful and versatile, making it capable of meeting extremely demanding applications.
- Pilot Control Units include touch screens running the graphical user interface (GUI) for vehicle power and control; system diagnostics including remote access for technical support; flight screen monitors that display data and video transmitted via Fibre Optic multiplexers and a CWDM, and a hand control unit for ROV.
- Additional surface equipment includes Tooling PSU, TMS foot pedals for the optional TMS, hand control units for tooling options, and various video display and recording options.
- Available as a free swimming ROV or in conjunction with a Type 8 Tether Management System (TMS).
- ROV rated to 2000 m fitted with four horizontal thrusters and two vertical thrusters supplied with 500 Volts DC, electronics pod, four LED lights, up to four high resolution cameras, a depth sensor, and a compass pod with integrated Magneto-resistive compass, accelerometers and gyros with pitch and roll outputs for vehicle auto heading and auto depth. Auto altitude is available as an option when an altimeter is fitted. Station Keeping is available as an option with a DVL fitted.
- The standard vehicle data interfaces are:
 - 4 Video (2 HD-SDI + 2 SD, or 4 SD)
 - 1Gb Ethernet Switch (3 x 24VDC Aux Ethernet bulkhead with serial)
 - 7 serial data channels (2 sensor bulkheads + 5 x 24VDC Aux serial bulkheads),
 - Responder Trigger interface (1 x Aux serial bulkhead)
 - CP Probe bulkhead with copper signal core for CP reference.



Options, Tools and Accessories



High resolution colour or monochrome cameras.



High Definition (HD) cameras available for the ROV.



Altimeter used to measure the altitude of the ROV above the sea floor. Auto Altitude option available.



Bathymetric system with depth sensor and altimeter fitted.



Scanning Sonar options with an integration kit and surface equipment.



Multibeam Sonar options with an integration kit and surface equipment.



Additional three phase power supply unit used to power tooling options.



Additional 4kW DC HPU and control valve used for some hydraulic tooling options.



Dual five-function heavy duty manipulator system. Manipulator camera options available.



Compact Cutter capable of cutting 38 mm diameter steel wire rope. Requires a 4 kW HPU.



Rotary Cutter used for cutting through hoses and cables up to 100 mm thick. Requires a 4 kW HPU.



DVL unit for the Station Keeping option.



Cleaning brush incorporating a heavy duty brush plus an SM7 motor.



Water Jet System for cleaning operations.



Cathode Potential Probe with either contact or proximity probe options available.



Cygnus ultrasonic thickness system available to determine the level of corrosion present in a structure.



Holmatro Cutter with jaws opening to 144 mm. Requires a tooling PSU and a 4 kW HPU.



Flooded Member Detector (FMD) skid for mounting an FMD tool. The skid is fixed below the vehicle and is used for subsea inspections.



Complete acoustic tracking system used to calculate the position of the ROV with a fitted acoustic beacon.



Control cabin options include video recording unit, video matrix switcher, communications system, and pilot seating.



Battery-operated Xenon emergency strobe used to locate the ROV.



Pipeline inspection wheeled skid with camera boom arm options.

Other options are available on request.

Deployment Systems and Control Cabins



Tether Management System (TMS) Type 8 with 200 m of fibre optic tether allowing for the deployment of the ROV at working depth and also providing protection.



A-Frame Safe Area Launch and Recovery System (LARS) with Lock Latch or Snubber option. A Zone II upgrade option is available.



Safe Area Control Cabin (16 ft) fitted with electric power distribution panels and air conditioning. A Zone II upgrade option is available.



Safe Area 20ft split Control Cabin with a Pilot Control section and a separate high voltage PSU section. Fitted with electric power distribution panels, lighting, air conditioning, heating and 19 inch racks. An optional installed escape hatch is available as is a Zone II upgrade.



Additional cabin options include: 10 ft standalone workshop.

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