



**HYDRO-LEK**  
REMOTE HANDLING SPECIALISTS  
A SAAB SEAEYE COMPANY

February 2015

## Hydro-Lek - One Year On....

It is now just over a year since Hydro-Lek was acquired by Saab Seaeye and there have been a lot of changes and developments during this time.

A successful track record of performance and reliability is vital to compete in today's tooling marketplace. In order to maintain our position as a leading provider of remote handling systems worldwide we have invested in new systems and business processes to offer greater operational efficiencies across the board. Among these are:

- Investment in stock holding and a new stock control system to ensure our products are readily available when required
- Re-organisation of Stores and Workshop
- Quality Control System to ensure all products in and out meet with the highest standards
- Further investment in Health & Safety
- Updating all product documentation and converting to 3D CAD models

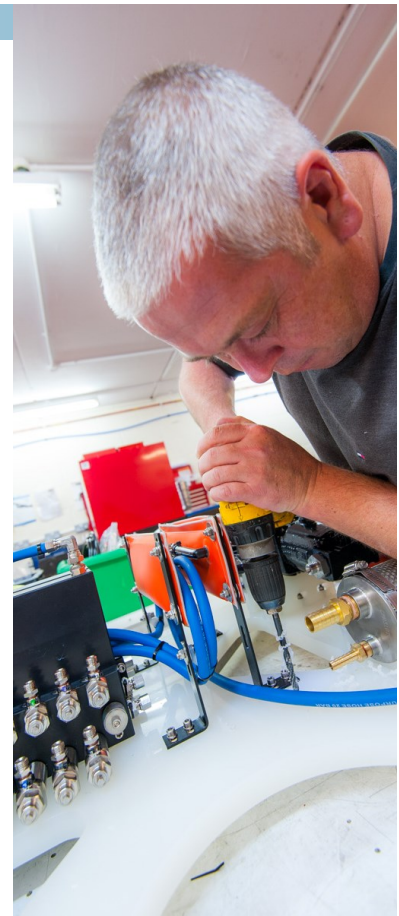
## New Capability Brochure



Our new capability brochure is now available.

This new 8-page brochure highlights our main product and service areas: Manipulators, ROV Tooling, Hydraulic System Components and Special Projects. It supports our new website where datasheets on individual products can be downloaded.

[Click Here](#) to see , download or receive your hard copy.



### Inside this issue

Versatility of our manipulators....2

Manipulators fitted on manned submarines .....2

Delivery of 2 workclass 7f Manipulator systems.....3

Hydro-Lek chosen by Ageotec for Italian Navy.....3

Inside Hydro-Lek .....4

New 7-way Valve Pack.....5

Update on cylinders .....5

Dates for your diary 2015.....6

Your Customer Service Team.....6



## Versatility of our manipulators shown by JIFMAR

The versatility of Hydro-Lek manipulators has been demonstrated by French offshore services company JIFMAR on various deep sea maintenance and recovery projects over the past 4 years.

JIFMAR have deployed Hydro-Lek's EH5 and HD5 five function arms on both Seaeye Cougar and Sub Atlantic Mohican ROVs to perform a wide range of operations including: hooking and unhooking snap links holding seismic tripods; hooking J-tubes that reach from seafloor to the top of wind turbine platforms; securing an ROV to a 24 ton plough while it was digging a trench to embed underwater cables; providing extra tooling (shovel/spade, push-core, plier) for seafloor research applications; and hooking acoustic releases and bringing materials to the surface for the

French Defence Ministry.

More recently Hydro-Lek's HD5 arm was deployed on a Cougar XT33 to help recover a trenching ROV where the track had become stuck during operation.

Last year JIFMAR adapted the jaw to create a plastic claw mechanism on Hydro-Lek's HD5 manipulator to enable sea-life samples such as crabs and plants to be gently lifted from seafloor without causing any damage.

Based in France, JIFMAR is a French-based company specializing in offshore project engineering and management and providing services for the O&G, marine renewable, and defence industries.

*"We have built up enormous trust in Hydro-Lek ....We are particularly impressed with the ease, adaptability and robustness of their products as well as the efficiency and response of the service we have received from their Sales and Technical team"*

*Jean-Baptiste Loiselet, Technical Manager, JIFMAR*



## Manipulators fitted on Nuytco manned submersibles

Hydro-Lek have delivered four HLK-RHD 4 (4-function) manipulators and four HLK-CRA6 (6-function) manipulators to Canada-based submersible manufacturer, Nuytco Research Ltd, as part of their multiple contracts to deliver eight DeepWorker class manned submersibles to oil and gas contractors and naval groups.

The deliverables include Single DeepWorkers, each of which is fitted with 1 HLK-CRA6 and 1 HLK-RHD4 manipulator system and Dual DeepWorkers, each of which is fitted with 2 HLK-CRA6.

Hydro-Lek have been supplying Nuytco with highly dexterous robust manipulators for a number of years for use on their range of Deep-Worker series of 600 metre and 1,000 metre depth-rated microsubmersibles, in both single pilot and pilot + Passenger configurations. DeepWorkers have been used all over the world for scientific, survey, construction, oilfield, and tourism work.

With a lift capacity of 30kg, the Hydro-Lek HLK-CRA6 is a long reach, lightweight 6-function arm and incorporates a continuous jaw rotate assembly and four 30mm bore hydraulic cylinders. Weighing just 14 kg in water, it is compact and designed to fit into smaller submersibles for collecting sea bed samples but can also be used for a variety of other applications including as an extended camera or lighting platform. Each manipulator was supplied as a complete system including a bespoke Hydro-Lek valve pack, power pack and hoses and fittings.

Nuytco Research is a world leader in undersea technology. From their premises in North Vancouver, Canada they design, build, and operate atmospheric diving suits, submersibles, remotely operated vehicles, lights, thrusters and other specialty equipment for underwater applications.

## HLK-40500R 7 function Arm

The HLK 40500 R 7 Function Manipulator has been developed to meet the requirements of the new medium range of work class ROVs.

The simplicity of the design and ease of use make it a cost effective choice for heavy duty manipulator operations.

- 7 degrees of freedom manipulator
- Strong and rugged design
- Low power consumption
- Ease of operation and maintenance

[Click here](#) for a datasheet

*"This Pegaso system was tailored to our customer's specification and we are delighted with its successful operation. We have fitted Hydro-Lek manipulators on many of our Pegaso ROVs on the basis of their performance and reliability."*

**Giuseppe Di Stefano, MD for Ageotec Srl.**

## Hydro-Lek delivers two work-class 7-function arms

Hydro-Lek have recently delivered 2 HLK-40500R 7 function manipulators: one to Taiwan-based Dragon & Elephant who provide user-friendly hydrographic processing

software; and another system has been bought by J2 Engineering, Aberdeen-based suppliers of underwater survey and ROV tooling equipment.



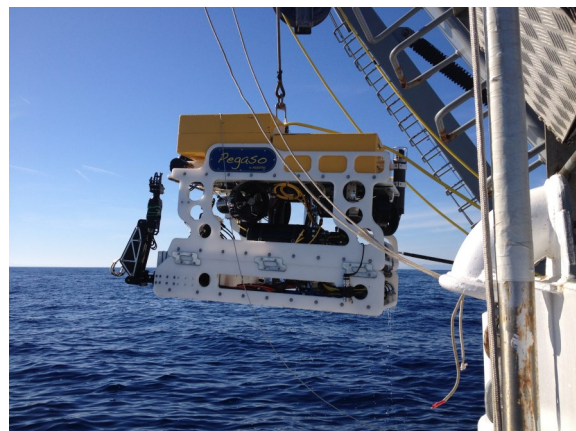
*The HLK-40500R 7-function manipulator*

## Hydro-Lek chosen by Ageotec for Italian Navy

Hydro-Lek has delivered two 5-function manipulators to Italian ROV manufacturer, Ageotec, for the Italian Navy for submarine research and rescue. The manipulators are fitted onto a Pegaso ROV system which also includes a motorized winch, silenced diesel power generator as well as a USBL and sonar system.

Ageotec were selected by COMSUBIN (the Italian Navy's diver unit) to provide an open frame ROV system for visual and instrumentation research, objects recovery and underwater rescue. The system accomplished its first mission in April and is now fully operational.

Ageotec is an Italian Company which designs and manufactures ROVs and underwater systems for the oil and gas-offshore, environmental engineering, underwater and marine building, science research and security industries.



# Hydro-Lek — the inside story



*Hydro-Lek's freshly painted workshop*

As our business grows it is essential that we structure our business processes to meet new requirements and stay ahead.

During the past year we have invested in major internal improvements in quality control, stock levels, workshop and documentation to ensure products are delivered quickly and to the highest standards.



**Creating subsea tooling solutions from trusted hydraulic components**



# New Product Development

## New 7-way Valve Pack

Hydro-Lek are developing a new 7-way valve pack which incorporates advanced new features to the manifold, assembly and fittings, making the valve pack even more water tight, lighter, reliable and easier to maintain:

- All connections have been changed to BSPP Dowty washer seals ports
- Port cross drillings repositioned to eliminate need for additional ports for internal interconnection
- General modifications to manifold block to further reduce mass
- Valve pack banjos redesigned to use Dowty sealing washers in place of 'O' rings and all banjo adaptor fittings changed from NPT to BSPP

The new HLK-73300 valve pack will be available in Spring 2015.. Please contact Stef Sparkes at Hydro-Lek for further details.



## Update on Hydraulic Cylinders

In a drive to standardize our products, we have updated our range of standard hydraulic cylinders.

New features include replacing NPT thread ports to BSPP parallel threads for ease of assembly and seal improvement.

In addition we have rationalized variants of each series of cylinders into functional part numbers to simplify specification and ordering.

HLK-11090 double acting actuator 190mm stroke



HLK-11110 actuator 148mm stroke



HLK-11070 actuator 100mm stroke



HLK-11060 actuator 65mm stroke



## Exhibitions for 2015

See Hydro-Lek with Saab Seaeye at the following exhibitions this year:

Subsea Expo	11-13 Feb	Aberdeen
Ocean Business	12-15 Apr	Southampton
Offshore Europe	8-11 Sep	Aberdeen
Offshore Energy	13-14 Oct	Holland

## Your Contacts at Hydro-Lek



**Stef Sparkes**—Technical Sales

**Colin Ross-Barton**—Operations Manager

**Alan Green** — Technical Director

**Jo Garrard** — Design Engineer

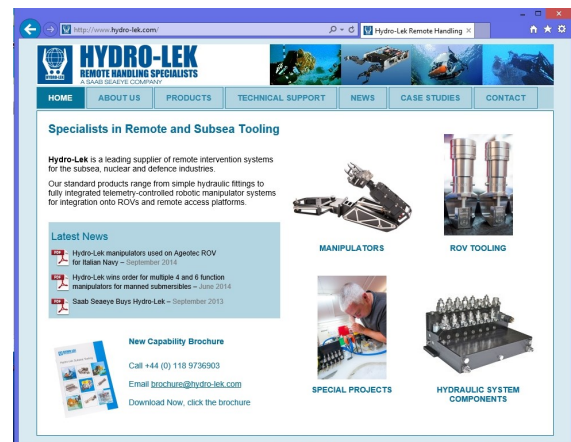
**Adele Oscar** — Sales Administrator

## New Look Website

Take a look at our new website!

We have made some changes to reflect the new phase in our continued development.

Your feedback would be much appreciated - Please [Click Here](#) to send in your comments.



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