

## Investment in Finning adds drum production capacity and paint services

**Lebus has invested €4m in new factory machinery to speed up delivery times for customers.**

The addition of a new programmable CNC (computer numerical controlled) turning lathe and an automated CNC milling machine has increased production capacity at the workshops in Finning by 50 per cent.

Previously Lebus had just one CNC lathe and 11 conventional turning lathes. The investment is the first step in a medium-term plan to convert all conventional lathes in the workshops to CNC production technology.

The new turning lathe required the construction of massive foundations under Hall Two at the Lebus plant, measuring four metres deep and 10m x 20m wide. The foundations alone cost €500,000. The CNC lathe is capable of machining the grooves on a large winch drum in just 1.5 days, compared to five days previously. This means that while large drums still take a week to produce on the conventional lathes, the new machine is averaging three drums a week.



The key advantage of the new automated CNC milling machine is that it can take six drums at a time loaded onto a pallet. Being automatic, it opens up the opportunity for unmanned night-time production.

Lebus has also added a new 470 m<sup>2</sup> painting and sand blasting shop with two state-of-the-art cabins.

"Previously we could only supply primed drums and sleeves to customers," says Matthias Kunkel, Lebus purchasing and logistics director. "Now customers can order them fully painted."



## Golden anniversary for Cris Seidenather

**Workplace golden anniversaries are rare these days. Not many people manage to fit in a 50-year career between full-time education and retirement, let alone 50 years with the same company.**

However, Cristof Seidenather, 71, managing director of Lebus International Engineers GmbH, is an exception. He joined the firm as a young mechanical engineer on 1 April 1966, just three years after his father Karl set it up as a subsidiary of the American company, Lebus International Inc. of Longview, Texas.

In the mid 1980s, Cris took over the management of Lebus in Germany from his father. Under his leadership, the company expanded continuously and opened up new markets, especially in

Asia. As expansion continued, by 2002 the company had outgrown its premises in Gilching near Munich and so relocated to Finning, 30 km to the west across Lake Ammersee, and built new facilities.

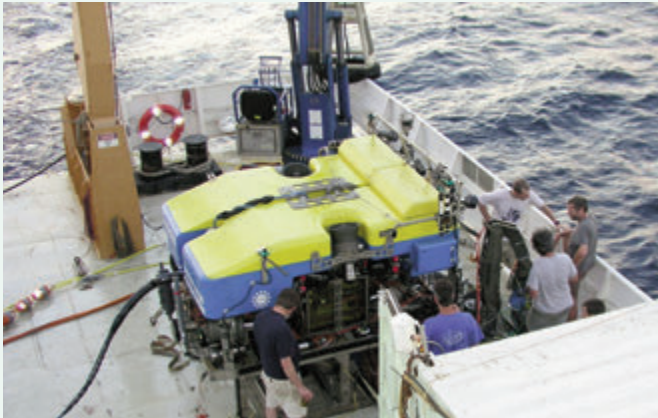
Securing the family succession is Dipl.-Ing. Tim Seidenather, Cris's son, who himself has already worked for the company for 20 years and is responsible for production and quality control. Completing the three-man management team is Dipl.-Wirtschafts-Ing. Matthias Kunkel, who is in charge of logistics and purchasing.



## Market applications

# Sub-sea ROVs

Pictures courtesy of NAOO photo library



**One of the biggest growth markets both for Lebus International and for winch manufacturers in recent years has been remotely operated vehicles (ROVs) for working on the seabed.**

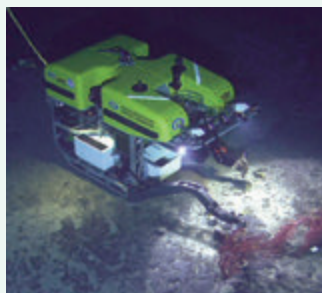
An ROV is a tethered underwater robot. They are unmanned and linked by an umbilical cable to the mother ship, from where they are controlled by the operator sitting in front of a screen, where video footage and other gathered data is displayed.

ROVs have various applications in the oil & gas industry for deep-sea surveying and pipeline inspection and for oceanographic research to study marine life.

They have become an essential tool in the exploitation and development of deepwater oil and gas reserves as well as for general scientific research.

No human can go as deep as these robots. Many ROVs in the oil and gas industry are designed to dive to depths of 3,000 metres, while specialised oceanographic ROVs can operate in the deepest of oceans of 6,500 metres or more.

Clearly, with that much cable on the winch, the Lebus® system is universally used for ROVs, even though the drum is only used for storage because a traction winch takes all the pressure to protect from shock loads induced by wave motion.



## Returning to Singapore fair

**Lebus International Engineers GmbH will be among the exhibitors at OSEA 2016 in Singapore.**

The OSEA exhibition and conference is the largest event of its kind for the oil and gas industry in Asia. More than 20,000 international industry visitors are expected, with 1,300 exhibitors from 49 countries.

OSEA 2016 is at the Marina Bay Sands in Singapore, from Tuesday 29th November to Friday 2nd December 2016.

Lebus is exhibiting within a pavilion organised by the German chamber of commerce at Booth 1T5-06, promoting its rope spooling technologies and consultancy services.

OSEA is held every two years and this will be the 21st time the event has been held. Lebus also exhibited at the 20th OSEA in 2014. The oil and gas industry was still thriving at that time and there were 28,000 visitors and 1,500 exhibitors. One of the themes of OSEA 2016 is expected to be the development of new strategies for more challenging market conditions.

For the first time, SUBSEA Asia 2016 will be held alongside OSEA2016 to highlight the latest trends related to subsea equipment and services.

All visitors are invited to visit the Lebus booth to discuss how smooth spooling technology can benefit deep-water projects.

Lebus will be represented at the event by managing director Cris Seidenather and project engineer Christoph Thalmayer.



**Cris Seidenather (centre) and Christoph Thalmayer (right) of Lebus International Engineers GmbH meet with Daniel Schäfer from steelwork firm HSD Schäfer at OSEA 2014**

## Phil Dixon

**Phil Dixon, long-serving managing director of Lebus International Engineers Ltd in the UK, died on 13th September 2016. He was 77 years old.**

Philip Sidney Dixon was born on 7th December 1938 and joined Lebus on 7th January 1963, a month after his 24th birthday.

Charles F. LeBus, chief executive officer of Lebus International Inc., described Phil Dixon as a key figure in the development of the business in Europe and said he would be greatly missed.

Cris Seidenather, managing director of Lebus International Engineers GmbH in Germany, expressed his condolences to Phil's family and loved ones. "Phil was a friend whom I held in very high esteem," Cris Seidenather said. "We knew each other for more than 50 years, going through the ups and downs of the years with our companies. Although we did not find the time often enough to meet up, we developed a firm friendship. We all from the Lebus Family companies thank him so much for his good advice, years of experience and deep personal commitment to the company, which certainly now has an empty space left behind."





# Lebus and Bornemann form level winder alliance

**Lebus International Engineers GmbH has struck a marketing co-operation agreement with Bornemann Gewindetechnik, a leading German manufacturer of screw thread technology.**

In certain applications the Lebus® spooling system requires the use of a level winder to maintain optimum fleet angle. The level winder runs across a diamond or trapezoidal screw spindle that is designed and fabricated to very fine tolerances. Spooling systems work best when the level winder and its thread are designed to be compatible with the parallel grooving on the drum.

Bornemann Gewindetechnik has been making diamond screws for Lebus® spooling systems for 25 years. Bornemann has a long-standing reputation for precision design and manufacturing of threaded components for all kinds of specialist industrial winding applications.

The two companies have teamed up to make life simpler for winch manufacturers and optimise the performance of multi-layer spooling systems.

Bornemann head of sales Moritz von Soden said: “Lebus is universally recognized as the leading expert in multi-layer spooling systems and it is to the benefit of our clients that we work closely with Lebus on the design and production of level wind gear.”

Lebus managing director Cris Seidenather added: “We recognise Bornemann Gewindetechnik as the foremost specialist in precision manufacturing of screw thread technology. They are a perfect partner for us.”

**Bornemann Gewindetechnik produces the special threaded spindles used on Lebus® level winding devices that maintain optimum fleet angle for rope spooling**



## Opening up Europe's railway network

**Austria is currently a bottleneck in the European rail network's Baltic-Adriatic Corridor. But this is now being addressed, and Lebus International is playing a part.**

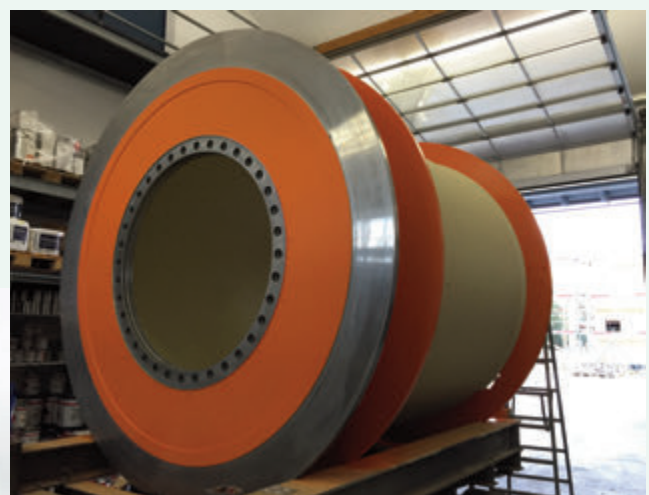
Lebus has supplied winch drums and sleeves for the construction of the Semmering Base Tunnel project in Austria.

The 27km-long tunnel runs between Mürzzuschlag and Gloggnitz and is expected to reduce journey times for trains between Vienna and Graz from two-and-a-half hours to approximately two hours.

Construction began in January 2015 and trains are expected to start running through it in 2024.

The new tunnel will comprise twin parallel bores, each with a 10-metre diameter, separated by up to 70 metres, connected by cross-passages every 500 metres or so.

A joint venture of Swietelsky Tunnelbau and Implenia has a €623m contract for the 13km central section, while Amberg Engineering has the contract for tunnel excavation and Strabag is doing the drilling works.



**The drums are 2.5 metres wide and 2.2 metres diameter**

Eight winches are being used to remove spoil during tunnel excavation. The winches were supplied by Austrian machinery company Albatros, which procured the gearboxes from Zollern and complete drums with Lebus® grooved sleeves. This was a major contract for Lebus, worth more than €1m.



# Engineers' Corner

## Maintenance manual

*The Lebus® system is inherently low maintenance but if you have the bolt-on type of sleeves it is necessary to inspect the bolts periodically to check the torque. Here is a brief guide to what is needed.*

### Periodic maintenance

Before or during every use, run a visual check on rough impurities on the drum, sleeve and rope.

After 5, 10 and 15 running cycles during the break-in period, unspool the rope until only safety wraps on the first layer remain. Check the sleeves for any damage and check torque on any accessible screws.

Whenever the winch is planned to run at high speed, check all bolts, nuts and screws are tight. Fasteners shall be inspected visually for wear, protruding heads and completeness. Missing/damaged screws must be replaced immediately before running the winch. Inspection must be recorded and approved by a person in charge before running the winch.

### Weekly maintenance

Check sleeve, end fillers and risers for wear, cracks, protrusions and completeness. If screws are missing or damaged, a report (including position of screw and pictures) must be sent to Lebus for investigation. Missing screws must be replaced. If more than 10% of all screws in one sleeve part are broken, then replace all screws. Inspection/replacement must be recorded accordingly.

*For a copy of our full maintenance manual, please email [info@lebus-germany.com](mailto:info@lebus-germany.com)*



### Quarterly maintenance

Every three months, or after 250 operating hours (whichever occurs first), and whenever the rope is checked or replaced, unspool the rope down to the safety wraps on the first layer and check the safety wraps on loose windings. If loose, tighten them.

Carry out full visual inspections, taking care to check: accessible sleeve surface

- joint gap and matching of the grooves
- hawse hole.
- torque of accessible bolts, nuts and screws
- fasteners (check for wear, protruding heads and completeness)
- kickers (and replace is worn down to half of original thickness).
- flanges, grooves and wear plates.

Measure length between the flanges and grooving depth, and check with original drawing. Check for wear on the drum flanges and wear plates. In both cases, maximum permissible depth of wear is 10% of the rope diameter.

As always, inspection and test results must be systematically logged.

### Three yearly maintenance

Lebus recommends a full dimensional and visual check by a Lebus service engineer to be carried out every three years during regular winch inspection.

### About Lebus® rope drums

In 1937 Frank LeBus, a supplier of equipment to oilfields, patented the use of a groove bar on hoisting drums to guide the spooling of rope. In the 1950s he refined the grooving geometry and came up with the LeBus Counterbalanced Spooling System®, which is still the most effective way to ensure that wire rope wrapped around a hoist drum in multiple layers continues to spool totally smoothly, and in a way that maximises the life of the rope. Tests have shown that a Lebus drum, with grooves designed specifically to match rope size, can extend rope life by more than 500%.

Today, the term 'Lebus' is often used incorrectly to refer to any drum with parallel grooves. In fact, only a drum or sleeve produced by Lebus can truly claim to be a Lebus drum.

### About Lebus International

Lebus International Engineers GmbH was established by Karl Seidenather in 1963. It is a sister company of Lebus International Inc. of the USA and also has sister companies in the UK and Japan.

Lebus International manufactures drums and rope spooling systems for a wide range of onshore and offshore winching applications. Products include:

- Rope drums with grooves cut directly into them (with or without bolted or welded flanges, as required)
- Grooved split sleeves that can be placed over smooth, ungrooved drums – good for retrofitting and for applications where drums may require replacing in future.
- Spooling accessories such as spooling angle compensator and cross thread spindles.

### Contact us:

For any queries concerning wire rope spooling, Lebus products or details of how Lebus can help you, please contact:

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