

method

HIAB LOAD HANDLING MAGAZINE 3.2006 English



Take risks
to grow

and evolve



HIAB

IN FOCUS: Loader cranes • Painting • Concept Vehicles • Electronics

Pursuing safety and efficiency improvements



In previous issues of our magazine we have featured technology advancements in load handling – how new innovations have made it possible to produce increasingly better equipment. After reviewing the prospects for steel and hydraulics development, we are now taking a close look at electronics.

It is vital that the load handling sector is able to comply with changes in legislation and with the new market-driven safety and productivity requirements. As we take advantage of the opportunities brought on by technological innovations, at the same time we are also in pursuit of completely new technologies.

Rising energy prices is a chapter in itself and brings added pressures to develop new solutions. This is particularly reflected in the development efforts to improve the ratio between equipment performance capacity and weight.

In 2006 alone Hiab has brought the market launch of several new products to meet the changing demands. A few examples of our new products include the MULTILIFT XR 21S hooklift and the Optiload weighing system (showcased in this issue), the JONSERED J1080 and LOGLIFT 281 forestry cranes, the HIAB XS 477 loader crane and the CombiDrive² remote control, the ZEPRO Z 75 and WALTCO WDL tail lifts, and the MOFFETT M8/M55 truck-mounted forklift.

We will continue investing strongly in our own development work and, consequently, the entire load handling sector to further improve safety and efficiency.

Mikael Anthoni

Senior Vice President, Marketing
Hiab Oy



Photos: Tomi Parkkinen

Behind the cover

Harri Nylund's company is the contractor building an interchange near Naantali in south-western Finland. Helping in the construction is Multilift's first low-built hooklift for four-axle vehicles, the LHS 321, installed on a Scania 164 truck-trailer combo. It is also among the first surface painted equipment coming off the line at the factory less than ten kilometres away.

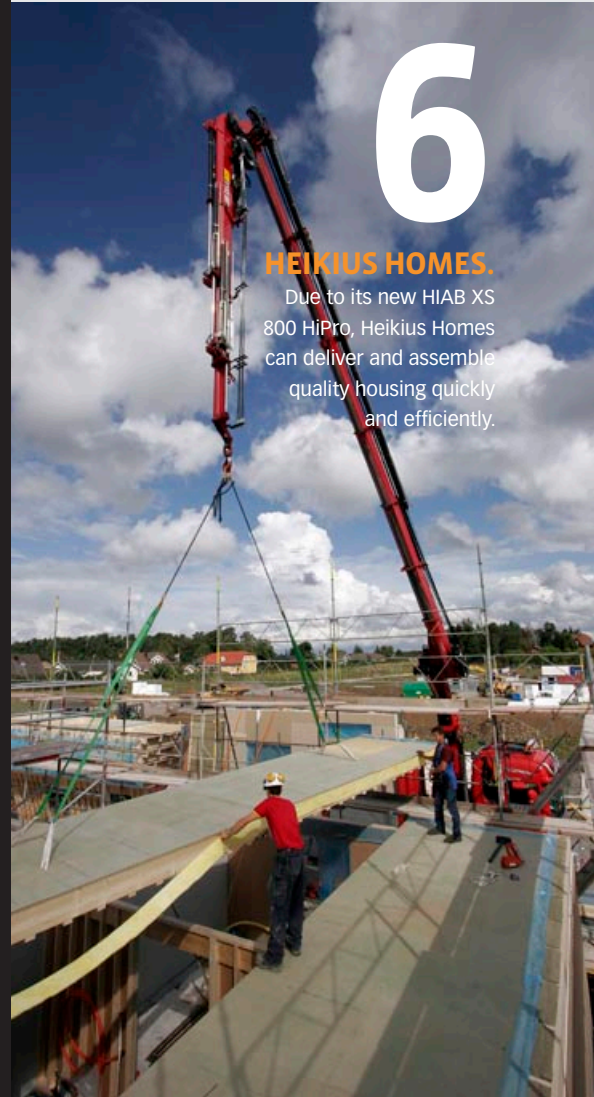
Trade shows

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6

HEIKIUS HOMES.

Due to its new HIAB XS 800 HIPro, Heikius Homes can deliver and assemble quality housing quickly and efficiently.



METHOD – LOAD HANDLING MAGAZINE

is Hiab's customer magazine with a circulation of approx. 70,000.

The Hiab company's product brands are HIAB loader cranes, MULTILIFT demountables, LOGLIFT and JONSERED forestry cranes, ZEPRO, AMA, WALTCO and FOCOLIFT tail lifts, and MOFFETT and PRINCETON PIGGY BACK[®] truck-mounted forklifts.

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Contents

13

PAINTING.

Painting of load handling equipment and the way it is done affects not only resistance to corrosion but delivery times and the environment.

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4 LOADER CRANE FUTURE.

Harri Ahola, new head of Hiab's Loader Cranes product line, has a clear idea of how customers choose Hiab as their load handling partner in the future as well.

10 ATLAS POLAR.

Hiab's Canadian exporter is owned by Bob Parr, a man who seems to master just about everything.

12 CONCEPT VEHICLES.

Collaboration between truck manufacturers and Hiab is bringing well-proven and moderately priced concept vehicles to the market.

15 GIANT HOOKLIFT.

You can't help but notice Harri Nylund's new truck. The bright yellow combination is equipped with Multilift's new big, low-built hooklift.

17 OPTILOAD.

No more guessing: A new weighing system is now available for MULTILIFT demountables.

18 CONTROL SYSTEMS TECHNOLOGY.

Electronics is to hydraulics what the central nervous system is to muscles, making it possible to lift several tonnes with a flick of the finger.



20 NEW AND SMART XR21.

Logic control is what makes Multilift's XR21 hooklift quick to install, reliable to operate, easy to service, and nice to use.

22 NORWAY.

Trond Sørsdal goes all the way with his MOFFETT truck-mounted forklift.

24 BACK COVER.

Al Manaratain Company delivers its blocks exactly where the customer wants them.

Customers choose Hiab as their loader crane partner, says **Harri Ahola**, because the company offers technically sound products and smoothly functioning maintenance and after-market services. Hiab's global sales network has long experience and expertise in load handling technology. Ahola is the new head of Hiab's Loader Cranes' product line.

According to him, the technical know-how is based on product development that reflects customer needs; products are constructed modularly, to suit each individual customer's specific need.

"You can always improve"

Ahola says that the strength of the modular crane concept has been fortified by the tight collaboration with customers and suppliers. The collaboration with many different customer segments has produced results: products that meet customer needs and wishes.

"But even as a market leader you can always improve", Ahola emphasizes and notes that Hiab's different load handling organizations have operated quite independ

Leading th

Hiab has a clear vision of how to give customers what they want in the future, too.

The collaboration with many different customer segments has produced results.

e way

ently so far. There could be more synergy between the different product lines. This has the biggest impact on the overall service the customer receives in the load handling sector. Even though Hiab is already a global player in the sector, operations are expanding and becoming more integrated. This ultimately leads to better comprehensive service and better technical solutions by combining and utilizing volume benefits.

In the future, product development and maintenance services will be developed further. This will result in more efficient cranes with improved safety as well as the best possible utilization of the equipment. Additionally, the local presence of operations will be strengthened and product development will be steered towards solving specific load handling applications. The use of Hiab's

global know-how can be easily transferred and utilized in growing areas.

"Markets and needs evolve and change. To keep up with the markets you have to stay on top of the trends, both in customer behaviour and technology development, and you have to be able to anticipate", emphasizes Ahola. In practice, he says, this means that internal operating models and personnel must be developed. You must also be able to transfer the knowledge to the new generations.

Superior technology, advanced ergonomics

Hiab will use its comprehensive global sales network to collaborate with customers in order to be able to offer them the equipment needed to be competitive in their own markets.

"We want to offer our customers the best possible product selection and service so that they can develop their own business with equipment that is technically superior. Our goal in collaborating is to find cost-effective and ergonomically sound solutions", says Ahola, noting that the new XSDrive and CombiDrive2 remote controls represent the most advanced development ergonomically in the markets today.

Ahola himself has a solid background in production and is a firm believer in mastering

the total package and the basics. Even though a HIAB loader crane of today is quite a technological masterpiece, the role of technology will increase in the future:

"The majority of loader cranes are delivered with a remote controller, operators and companies are able to get detailed information on crane performance, crane functions get more versatile and, thanks to advanced ergonomics, they are more convenient to operate...", Ahola lists the trends and expectations in the load handling business.

He says that Hiab is further strengthening its knowledge in control systems, data analysis functions and ergonomics, for example, in order to maintain the market leadership position and to remain in the vanguard of development. The aim is to help customers get the most from their equipment capacity without compromising safe operations.

What other challenges are in store for Hiab's loader cranes?

"We are putting more emphasis on increasing outreach to increase the flexibility and efficiency of the loader cranes, not just on lifting capacity. The application-specific requirements are taken into consideration already in the selection of the crane."

Ahola explains that production will be developed to be more flexible to adapt to market variations and even more resources will be invested into error-free operations. The offering of raw materials and components is expanding, and this continues to provide good product development opportunities. ■

Text: Compositor/Kirsi Paloheimo
Photo: Jyrki Vesa

Fluent in Spanish and Italian

Harri Ahola became head of Hiab's Loader Cranes product line at the beginning of March 2006 after working almost ten years of his career in Italy, Germany and Spain. His duties in Spain were related to the same product line. According to Ahola, all three countries were equally fascinating, but very different.

"The culture of southern Europe must be experienced to understand its appeal", says Ahola, a Finn, and adds how important it is in daily life to speak the local language. He learned both Italian and Spanish while living in those countries.

Ahola has had a long career in the crane business. He started at KONE in 1981 and transferred from there via KONE's elevator business to Hiab in 2003. At one time KONE was one of the world's biggest companies in the crane business. Today KONE is a leading supplier of elevators and escalators.

Due to its new HIAB XS 800 HiPro, Heikius Homes can deliver and assemble quality housing quickly and efficiently.

Houses springing up like **mushrooms**

Two houses a week are now growing in the Fornbyn project in Old Uppsala, Sweden. They arrive on a tractor-trailer from the family company Heikius Homes in Vörå, Finland. Heikius Homes was founded in 1966 and specializes in the production of modular and prefabricated homes.

With the truck in position at the prepared foundation, it takes approximately six hours to construct a two-story row house of five rooms and a kitchen under one roof. A total of 40 single-family homes and row houses will be built in the first stage – and possibly another 50 after that.

Today, more than half of house production is exported to such countries as Sweden, Norway, Germany, Spain, Russia and South Korea. Usually the trucks in the subsidiary AB Trans Montage Oy are used, but for the most distant location other transport methods are chosen.

The “flagship” of these trucks is a low-profile Scania R420 equipped with a powerful HIAB XS 800 HiPro with Jib 135. The truck has no less than six remote-controlled hydraulic support legs to stand steady in all load situations.

Many advantages with own crane

Before Heikius Homes obtained its own HIAB crane, the company leased mobile cranes for each assembly.

“Our work is more flexible now that we have our own crane. In addition, the truck and the crane arrive at the same time, so we do not need to plan and book a mobile crane in advance,” says President **Göran Heikius**.

Also, with its own crane, the company is not dependent on the availability of mobile cranes, which simplifies planning.

“Another advantage is radio control. The driver of the mobile crane





always sits in a cab and the crane has to be steered from outside, but our driver is part of the assembly team. He can stand in the house to be constructed and assist with the work at the same time as he operates the crane. In addition, we always have a crane available.”

Since building houses involves precise attention to the house component, the company makes full use of the high level of precision built into the HIAB XS 800 HiPro.

“This solution is actually cheaper in the long term compared with the leasing of a mobile crane for each assembly job,” summarizes Göran Heikius.

The crane has seven hydraulic extensions and the jib has another four.

“I have a range of 27 metres with the crane and at that range it can still carry a load of 1.3 tonnes, so it has all the strength I require,” explains driver **Thomas Eriksson**.

This range is necessary to be able to unload both trucks and trailers and to reach over the scaffolding enclosing the foundation on which the house is to be built. Using the radio control he can always exactly place the component. ▶

Our work is more flexible now that we have our own crane.

Thomas Eriksson is involved in the entire construction process. He not only lifts elements from the truck, he also coaxes each piece exactly into place. He is shown here positioned on the first floor section between the house's two storeys.



Another home by Heikius Homes is just about ready.



► **A complete house in two sections**

The Uppsala project involves prefabricated houses, but Heikius Homes also has modular houses on its program. These types of houses are delivered with the same truck, and are equipped and ready for use.

“But we usually still need help from a mobile crane on site. The element with the kitchen washroom and bathroom walls, tiled and complete, weighs around 17 tons,” explains Göran Heikius.

The largest separate construction modules that can be transported on the truck are 3.5 x 14 metres. Usually a complete house is transported in two sections – the kitchen, bathroom and clothing storage areas in one and the living room and two bedrooms

The advantage is that the house is built completely indoors under dry and ideal conditions.

in the other. With this solution, we can build a house in a day that is ready for occupation.

“The advantage is that the house is completely built indoors under dry and ideal conditions. This applies also to prefabricated houses but then we usually want good weather when we gather everything under one roof. Weather during transport is not a problem since everything is protected,” Göran Heikius explains.

Everything is packed in the correct order similar to a construction kit, so all Thomas Eriksson has to do is lift the pieces one at a time. The trailer bed is 7.3 metres long, but with an extendable beam at the rear, he can transport construction elements nine metres in length. They can also be up to 3.5 metres high since they are low-profile and the loading surface is only one meter above the ground.

Ready in a few hours

When we visit the future Fornbyn village, we see that one house

The Scania R420 equipped with a HIAB XS 800 loader crane sets out to take a new load of prefabricated housing elements to Uppsala. Heikius Homes Managing Director Göran Heikius and driver Thomas Eriksson check the dispatch list.

has already been constructed and Thomas Eriksson is arriving with construction kit number two. The first house was actually intended to have been a show house but it was sold even before it was built.

A total of 24 future houses have already been sold or reserved despite the fact that the area will not be ready for occupation until March next year. The row house that Thomas Eriksson has on the truck has also already been sold.

He opens out the support legs and removes the protective covering. Then it is full steam ahead. In a few hours the 115-square-metre house has been built and Thomas is on his way back from Sweden to Finland to collect the second row house. During assembly he had time to assist a colleague, who only had a small crane on his truck, with lifting a couple of large packages of plasterboard and other building material into the future row house before he laid the floor between the storeys. This was no problem for him with the HIAB XS 800.

He lifts the house elements elegantly and without great effort over the nearly two-story high scaffolding and fits them into place with millimetre precision.

“This part is easy. The house modules are a little more difficult,” he says.

Heikius Homes is one of the forerunners in the area of building large prefabricated elements for houses.

“We make individual building solutions for private houses, row

The future of building on Viking ground

Fornbyn will be a “garden city” on historical ground. Relics from the Viking Age can be found here, and Old Uppsala, one of Scandinavia’s most remarkable sites of prehistoric remains, is nearby.

A Viking place of worship was located here until the 1000s. Three large Kings’ mounds were built 1,500 years ago. In other words, this is a historically fascinating site and archeologists were also consulted by the building contractors when the foundations for the new houses were excavated. Building at this site is now progressing at such a pace that any Viking would be astonished.

houses, multi-storey buildings, agricultural and industrial halls, day-care centres and schools in prefabricated wooden elements. Many houses are directly manufactured according to architect’s plan,” explains Göran Heikius.

The company has approximately 25 employees and sales are around EUR 5 million per year.

“We deliver approximately 80 houses per year but with this large order for Fornbyn, this figure is likely to increase. We have high levels of demand now,” summarizes Göran Heikius. ■

Text: Ulf C. Nilsson

Photos: Ulf C. Nilsson, Linda Nysand, Heikius Homes archive

News

CombiDrive² – the next generation in control

Hiab’s HiPro control system has been upgraded with a new first-class control unit – CombiDrive². This control unit offers a new generation in remote control systems and gives operators

a safer, more accurate and user-friendly means of control than before.

CombiDrive² builds on the success of HIAB’s proven CombiDrive control unit, but introduces some important new developments such as three interactive display screens that give the operator an instant assessment of the crane’s operational information.

Ergonomic design has been given careful consideration, and all functions on CombiDrive² have also been bundled intuitively in a set of customizable menus, accessible at the click of a button. It also features Bluetooth™ wireless connection between the crane and the control unit.



HIAB XS 477 – the new class leader

XS 477 loader crane is the new class leader in the 40-44 tonne metre range. It’s one of the most powerful cranes for its size and offers greater range and 10% greater lifting capacity than the nearest competitor.

The new crane balances weight, power and precision to bring new productivity to different loading and handling tasks. It offers up to 8 hydraulic extensions providing more than 21 metres of hydraulic outreach. This latest addition to the Hiab XS family also offers the best stability figures for every model version because of the 6.5, 7.0 and 8.0 metre stabilizer span options.

Once you've spent any length of time talking with **Bob Parr**, it doesn't come as a surprise to discover that he speaks some Swedish, along with the English and French that most of his fellow Canadians speak. In fact, it seems that there's little that he hasn't mastered: playing the piano, racing Formula 2000 cars, flying radio-controlled float planes, writing computer programs, and playing racquetball. He gets great pleasure from working with Hiab products, a passion, he says, that runs in his veins.

Perhaps Mr Parr's biggest achievement, however, has been in building a successful nationwide dealership business that has grown steadily and weathered the worst bouts of nationwide recession.

Today Atlas Polar is Canada's Hiab importer, handling some 95% of Hiab sales in the country and a 65% or so market share for Hiab products in the load handling sector. The company and its related corporations

have a turnover of around C\$100 million (EUR 70 million) and some 130 employees.

Rental to Purchase Plan

Atlas Polar has a history of inventiveness and innovative thinking that dates long before Mr Parr's time. Originally established by a Swedish Trade Consul looking to sell Polar marine engines in Canada, the company was incorporated in 1938 as a wholly-owned subsidiary of Atlas Diesel AB of Stockholm (now Atlas Copco).

When the war came and parts for engines became scarce, the company began manufacturing its own spare parts for customers. The company signed a long-term distributorship agreement with Hiab, and began selling Hiab equipment in Canada in 1953. Atlas Polar Limited is Hiab's longest existing distributor.

Bob Parr, an engineer by education, joined the company in 1968 and started working with Ralph, the son of the original founder, **Joseph Ander**.

In 1988 the company also took on the distributorship of MOFFETT. At the same time, the late 1980s, coincided with a tough recession in Canada.

"We've always been a strong, service-minded and profitable company," Mr Parr says, "But that recession hit hard. We barely broke even during the period, and those new MOFFETTs just sat in stock and didn't move."

That's when he came up with the idea of renting out the machines at a very low monthly rental charge, with the company paying half the installation fee. That was the start of Atlas Polar's Rental to Purchase

Bob Parr has led the company since 1988. During his leisure time, he flies radio-controlled float planes among other things.

A photograph of Bob Parr, an older man with white hair and sunglasses, wearing a blue polo shirt and dark trousers. He is running across a green field, holding a remote control in his left hand and reaching out with his right hand towards a yellow and brown radio-controlled float plane that is in flight. The background shows a line of trees under a clear sky.

A pleasure working with Hiab

Hiab's main dealer in Canada is also its longest-serving. It has learnt some valuable lessons in 70 years: Sell good products. Employ loyal staff. Be extremely service-minded. And have a capable leader at the top.



“Most of Atlas Polar’s personnel are long-timers with a wealth of knowledge. A customer can call ten years after buying a product and talk to the same person that sold it to him. It’s the people that make the company what it is”, says Bob Parr (in the middle with the painting).

Plan – a popular scheme with all customers: They can get the equipment they need at a low cost and without the need for excessive paperwork or having to go cap-in-hand to the bank. The Plan has now been extended to every Hiab product that Atlas Polar sells.

Focus on the end customer

By the early 1990s Atlas Polar was selling almost exclusively through distributors across Canada with their own sales at their headquarters. With their margins coming under attack from an influx of cheap crane products, they decided to spread their presence. Today, they have main offices in Quebec, Ontario, a jointly-owned enterprise in Alberta, and distribution through Falcon Equipment in British Columbia. 70% of their business comes from HIAB loader cranes and other Hiab-related products.

“I can pinpoint our success to a number of key factors,” Mr Parr says, “and having good products to sell is really only part of the story. When I joined as a sales manager, I wanted our sales team to understand what

they were selling, the advantages of it, and the back-up that the company could provide.”

One of his first moves was to change the way that loader cranes were sold in his home market. Traditional thinking had the dealerships sell through truck dealers, but Mr Parr favoured direct sales.

“How do you talk to the end customer, if you’re dealing with someone else?” he reasoned. Besides, it made it much easier and more direct to teach the customer about the products rather than teaching truck dealers how to teach customers.

Hiab’s reputation as a “weapon”

In 1988, having already bought out **Ralph Ander**, Mr Parr became President of the company. Today, Atlas Polar sells the entire Hiab range of load handling products, Polar remote controls, the HydraRake, the Log Dam Lifter and the Mixveyor Conveyor for delivering concrete. He reckons that they have had 5-6 years of uninterrupted growth in the Canadian load handling market, and product sales reflect that.

“I’ve been here long enough to watch us go through downturns, and we always bounce back in a stronger position.”

But having some good sales tactics also helps: When threatened by cheap crane imports in the early 90s, one tactic was to use the quality reputation of the Hiab products against the intruders. Atlas Polar introduced the 50% Buy Back scheme, offering to buy a product back for 50% after five years. It was a guarantee that other product dealers couldn’t match. The quality of the product means that he can offer similarly generous warranties on machinery, such as 5 years on valves, 3 years on main components and two years on everything else.

“We’ve had a continuous history with the Hiab brand since 1953,” Mr Parr says. “The co-operation with Hiab is good, but because there are a lot of different products and models, there’s sometimes a time delay in what happens. I like to think our capabilities make up for that. Our job is to ensure that the marketplace sees only quick reactions to problems, and quick reactions to competitor situations.”

Atlas Polar dominates because of its people, he reckons. “We have people who just don’t leave the organization or its distribution network. Most of our personnel are long-timers with a wealth of knowledge. A customer can call ten years after buying a product and talk to the same person that sold it to them. It’s the people that make the company what it is.” *Personal är vår viktigaste resurs*, as they say in Sweden. And occasionally in Ontario. ■

Text: Graeme Forster
Photos: Jim Murray, Bill Tibbles, Steve Parr

**Atlas Polar
signed a
long-term
distributorship
agreement
with Hiab back
in 1953.**



Concept vehicle *is a smart choice*

Collaboration between truck manufacturers and Hiab is bringing new kinds of concept vehicles to the markets – vehicle/load handling equipment packages that are well-proven and moderately priced.

With just about any product made today, customers can choose from a functional basic version to a model more customized to meet their needs. Now the range of choices is also growing in load handling vehicles, thanks to the collaboration between Hiab and several truck manufacturers to develop new kinds of concept vehicles. The goal is for customers to get their vehicle/equipment package to work and making money as quickly as possible.

Traditionally, the truck manufacturer makes the chassis, the load handling equipment company supplies the equipment, and the bodybuilder combines the two.

“For a while now, Hiab and truck manufacturers have been teaming up to develop ways to get the vehicles to the customers more quickly, more conveniently and at a more reasonable cost,” says Hiab’s **Heikki Lehmus**, Vice President, Business Development.

During recent years, the work to develop the concept vehicles has progressed from the idea stage to concrete projects.

Why hasn’t this been done before?

When you need a computer you can buy all the parts separately and build the kind of computer you want – or you can buy a ready-made package, a well-proven basic solution.

This is the whole idea behind the concept vehicles, too: Truck manufacturers and Hiab

are developing solutions in which the truck’s degree of completion would better fulfil the requirements for a load handling equipment installation. Such requirements include the small but important details, like the holes for bolts, wiring and the placement of the truck’s equipment. When the equipment is being installed, the finished structures don’t have to be modified and all the different tweakings aren’t necessary.

Here’s an example: A customer needs a truck and he wants to equip it with a certain type of demountable system. So he places an order with the truck manufacturer for a standardized concept model designed specifically for the system he wants. This is reflected also in the price: the customer get a high-quality package for a reasonable price.

The concept vehicle, says Heikki Lehmus, is not a “Swiss army knife”, with a lot of features. The concept vehicles are built to operate well in the main load handling applications.

“We are investing in the capability to respond to the needs of our different customers groups both regarding performance, cost, quality and time to delivery. The concept vehicles don’t fulfil all the special needs of our customers, but they address a considerable portion of the market.”



A multi-faceted future

The development of concept vehicles doesn’t mean an end to the availability of customized combinations.

“There will always be a need for customized bodybuilding service. The nature of the sector will change in the upcoming years, and bodybuilding will shift to increasingly bigger units. The consolidation of the sector will accelerate and the supply chains will become less complex”, Heikki Lehmus envisions the future of the sector.

He believes that the concept vehicles and boosting the efficiency of installations are the clear trends in the sector.

“Hiab’s goal is to better fulfil the expectations of the different customer groups. The current mode of the installation phase takes a lot of man hours and money, so it is beneficial for all the parties to think about boosting efficiency”, Lehmus says.

“What’s more, the EU regulations for bodybuilding and final examination testing are becoming tougher and that will accelerate the issue.” ■

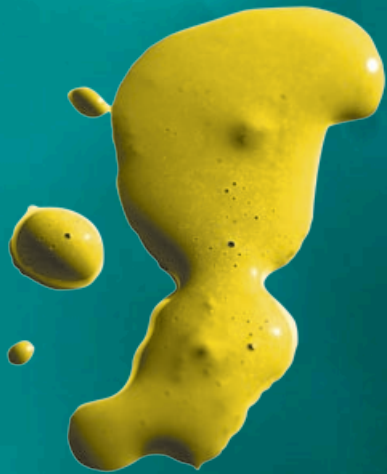
Text: Compositor/Maija Piironen

Photos: Hiab, Topi Saari



Looking **good!**

The demountables coming off the line at Multilift's brand new paintshop at its Raisio factory in south-western Finland have a paint job that not only looks good, but is more resistant to corrosion. These demountables are ready for installation by body builders – to the delight of customers and for the good of the environment.



The new paintshop has evolved hand-in-hand with the development of demountables.

Multilift supplies demountables to more than 30 countries and for conditions that number just as many, if not more. The arctic temperatures in the Nordic countries and the risk of rusting due to salt that is spread on the roads to prevent them from freezing are the biggest challenge to the load handling equipment's metal structures. By renewing its entire painting process, Multilift has invested in the ever-critical surface treatment of the equipment.

But painting and the way it is done affects many other things as well, including equipment delivery time and the environment.

"Looks, too, are important. The colour and the glossiness of the demountable must match the quality of the truck's chassis on which it will operate", says **Sauli Litsilä**, VP, Production for Hiab's Demountables product line.

The new paintshop, opened at the Raisio factory in August, responds to all these painting challenges.

The switch to bolt-installation behind the new paintshop

Traditionally, manufacturers of demountables have applied a primer coat to their equipment before delivery to body builders. The body builders first installed the equipment by partially welding it to the truck, and then painting it after the installation was completed. In practice, installing the equipment could sometimes take more time than manufacturing them.

"Ultimately, these kinds of bottlenecks in the delivery process increase the price that the customer pays for the equipment", **Sauli Litsilä** justifies the need for the new paintshop.

The new paintshop evolved hand-in-hand with the development of demountables. As long as the demountable had to be welded to the truck, it wasn't feasible to apply the top-coating prior to being installed on the truck.

"Welding burns the paint", **Litsilä** explains. "That's why our new demountables have bolt holes at every 50 millimetres: Since the equipment can be bolted to the truck chassis, i.e. without the welding which ▶

- ▶ would burn the paint job, the topcoating can be applied already before installation.”

In Multilift’s new models, also the mudguards, the oil tanks and other accessories can be bolted into place, so they are now easier to replace. And because the holes are frequent, the same demountable frame can be fitted to several different vehicles.

Along the ceiling to the assembly line

In a nut shell, the benefits of the new paintshop in Raisio stem from the fact that the steel frames of the demountable equipment are given their final coat of paint already before assembly. More about that later; first, let’s get an idea of how the paintshop, set up in a new 2,500-square-metre building next to the factory, operates.

One look at the ceiling of the paintshop reveals what makes the painting process so smooth.

”The steel frames are hung from the ceiling conveyor”, Sauli Litsilä says. ”First the conveyor takes them to the mechanized grit blaster. The steel grit gives the equipment a surface that is rough enough to allow the paint to adhere to it.”

After grit blasting, the steel frames are painted in the painting chambers, and then they move to assembly via an evaporator, an oven and a cooling phase. The entire painting process takes 4–6 hours.

The factory’s new building has enough space for the assembly line to expand and branch out.

“After the equipment is assembled, it ends up at the rear of the building at the testing stations. Once the new equipment has been tested, it is washed and may get finishing touch-ups”, Litsilä says.

Litsilä points out the importance of equipment packaging, too. Equipment that is packaged properly prevents the forklift forks from damaging it during transportation to the body builder.

The shipment includes a box containing e.g. a set of fitting plates for installing the equipment to the truck’s chassis, and frame paint so that the body builder can make any final touch ups.

End result: A better looking, more durable demountable...

The new painting method has a significant impact on the look of Multilift’s demountables.

The demountable steel frames are hung from the ceiling conveyor which takes them to the mechanized grit blaster. The steel grit gives the equipment a surface that is rough enough to allow the paint to adhere to it.

”The equipment is no longer painted over after assembly”, Litsilä reminds.

In other words, the colour of the frame is different than the installation parts. Multilift offers eight standard colours for the frame – the colours of all the biggest truck manufacturers. The installation parts, like the rear rollers are black to conform with Hiab’s brand colour; the hydraulic pipes, bolts and axles are zinc electroplated.

Demountables intended for special purposes, such as military use, are painted according to the customer’s special needs and the painting systems used are always agreed

**The
equipment
is no longer
painted
over after
installation.**



upon with the customer on an order-specific basis.

”The feedback on the new, more industrial look has been extremely positive”, Litsilä says with satisfaction and admits that he too thinks the new equipment looks more professional.

Thanks to the new painting system, the thickness of the equipment surface coating is one hundred microns (μ), which offers better prevention of weather and corrosion damage.

...And better for the environment

Along with Multilift’s customers, the environment also benefits from the new paintshop and the paint used there.

In the old paintshop, the demountables were dipped into 20-cubic-metre vats of alkyd paint, 60–70 per cent of which was volatile solvents. Additionally, the equipment was spray painted after assembly, and the body builder applied the finishing paint.

Now that the equipment is only subject to spray painting, and only one time, the VOC (Volatile Organic Compounds) emissions do not evaporate from a single vat and the body builders’ environmental impact decreases. ■

Text: Compositor/Tiia Teronen

Photos: Topi Saari, Mirva Lehtonen

LOOKS THAT LAST AT HUDIKSVALL

Multilift’s demountables may look better than ever, but Hiab’s loading cranes are also looking good.

The paintshop opened in Hudiksvall, Sweden, in 2003 represents the top in the finishing of cranes: steel grit blasting gives the cranes a smooth surface and rounded edges, the phosphate treatment minimizes the possibility of corrosion, and a powder paint coating protects the cranes from harmful UV rays. After spending 7–8 hours in the Hudiksvall paintshop, all components are ready to be assembled.

”The powder coated surface is so tough that, under normal circumstances, the paint on the loading cranes will basically last forever”, says Paint Shop Manager Pär Holmqvist from Hiab.

”However, we also prime the equipment using the dip method; it gives also the insides of the components excellent protection”, he adds.

The percentage of solvents used in the primers at Hudiksvall is only 3–5 percent. The environment was also a consideration in the recycling of the pre-treatment water: The water is cleaned in a closed system instead of a municipal wastewater treatment system.

You can't help but notice the truck. The full-length Scania 164 R articulated truck is painted bright yellow. The side of the vehicle bears the company's name: Maanrakennus ja Kuljetus Nylund Oy.

"I acquired my first excavator when I was 18", says **Harri Nylund**, Managing Director of the company operating out of Masku in south-western Finland.

Nylund started learning about tractors and agricultural equipment on his parent's farm when he was a child. His later training to be a

car mechanic supplemented the knowledge of machinery he had acquired in his early years.

Specializing in road and tunnel work

The one-man/one-excavator company started growing quickly, and in 1996 it made sense to establish a corporation for jobs in the earth excavation and transport sector. And the pace still hasn't slowed: Now the company has 35 employees, seven trucks and an impressive number of excavators and other equipment. The most important customers include the Finnish Road Enterprise and Lemcon, as well

as municipalities, counties and big construction firms, like Skanska.

Specialization in road and tunnel work is the driving force behind the company's growth. These jobs require promptness and reliability from the contractor: The soil must be removed efficiently and quickly before the next phase of the work can begin.

A Finnish earth excavation and transport company took delivery of Multilift's first low, big hooklift for four-axle trucks. It's unmatched in excavation jobs where speed is critical.

Action time

for the first giant hooklift

A truck with a demountable is rarely without work.



Harri Nylund has provided tips on improving the usability of the new MULTILIFT LHS 321 hooklift.



”The fast pace of the work means that the equipment has to be modern and efficient. We are moving large volumes over short periods of time. Having reliable equipment allows us to give the customer a guarantee of operational reliability”, Harri Nylund sheds light on the realities of the business.

Delivery reliability is particularly important in big projects where the work can go on around the clock.

A good example is the new wastewater treatment plant being built in Turku, a major city in Finland. The entire plant is being built in the bedrock. Nylund’s company handled the initial construction phase of removing the blasted rock: The job employed three shifts of drivers, six days a week, for a period spanning two years. A total of 500,000 cubic meters of rock was excavated and transported.

Development tips from a pro

In addition to competence, a robust and reliable fleet have contributed to the success of Nylund’s earth excavation company. Multilift came into the picture as a partner in 1998. Harri Nylund’s company is located near Multilift’s Raisio factory, so initiating the collaboration was natural.

The Nylund company’s Scania 164 truck-trailer combo was the first in the world to have Multilift’s new giant of low-built hooklifts: a big hooklift for four-axle trucks. The new LHS 321 demountable for 32-tonne

trucks operates with a slide-hook mechanism. The equipment’s lifting capacity is 24 tonnes.

Nylund collaborated closely with Hiab’s Sales Manager Jorma Väilä during the development of the LHS 321.

”I provided tips on improving the usability – little details that make it easier to control the hooklift. It’s great to see that the equipment has proved to be very functional in practice”, Harri Nylund says.

The new demountable is already in Multilift’s production program. The aim has been to combine lightness and robustness and enable a big payload. Thanks to the optimized structure, it has been possible to keep the weight of the new LHS 321 hooklift at a low level. In Harri Nylund’s vehicle, where the equipment has been tested in practice, the overall weight has been further reduced by using aluminium rims.

Insurance for the business

The new hooklift-equipped articulated truck is a necessity in Nylund’s company, because, in addition to road and tunnel work, the company also handles other transport jobs. Along with ordinary gravel transporting, the

demountables also transport scrap metal.

”In a way, the hooklift is insurance for the business. A truck with a demountable is rarely without work”, notes Harri Nylund.

Taking risks and living with uncertainty go hand-in-hand with a contractor’s life. Nonetheless, Harri Nylund thinks he made the right choice when deciding to become a contractor; he encounters plenty of challenges and he gets to make his own decisions. The success of Nylund’s company hasn’t been overlooked by others. In 2002, Harri Nylund received the Young Entrepreneur of the Year award in Finland. The rationale behind the award was that his company has fared in the competitive sectors by believing in its own know-how and by investing in good customer service.

”So far, I’ve managed to make good investments. You have to be somewhat of a visionary in order to know what to do. If you don’t grow and evolve, you’ll be stuck in the same rut forever”, Harri Nylund says. ■

Text: Compositor/Riikka Haikarainen

Photos: Tomi Parkkonen

No more guessing

The 'feel' that an experienced driver has about a load isn't always enough; there should be something more tangible, accurate information about the weight of the load; that's what Multilift's customers have communicated. The Optiload weighing system is now available for demountables.

What is the optimal weight of the load when the goal is to operate as profitably as possible? Is the load within the allowable limit or not?

No more need to guess – the facts are now at hand. Multilift's new Optiload weighing system tells exactly how heavy the load is and at the same time helps to maximize the payload – and maximize profitability. Optiload also functions as 'overload protection' since the driver knows if the total weight of the truck is within the allowable limit.

Optiload is the first integrated weighing system for demountables. It consists of four weighing units integrated with the demountable and a central unit and display located in the cab. The Optiload system is factory fitted, so it doesn't affect the installation height nor does it take up valuable load space.

Easing the perpetual paper storm

The Optiload system is available in two versions: the so-called indicative system is very suitable when the approximate weight of the load must be known in order to avoid overloading and to optimize the payload. Today's overload penalties in most countries are so high that it would take just a couple of avoided penalties for the weighing system investment to pay for itself.

When the readout obtained with the weighing system is used as the basis for billing, such as in the recycling and waste man-



agement business, a trade legal system is a must. Equipment accreditation is obtained from an independent body: the weight matches the actual weight of the load and there is no need for the trucks to drive through the truck scales.

An additional option is also available for the Optiload system: the Automatic Vehicle Location (AVL) system transfers the weight data to the dispatch centre. The data allows the dispatchers to monitor the vehicle location, speed and direction using a web-based browser. All this can be done without the installation of any additional software.

Also the practical administrative routines are easier since the load pick-up and delivery to the customer can be verified electronically; there's no need to wait for the driver to return from the job with a big pile of paperwork. Moreover, invoices can be submitted more quickly.

The indicative systems are already available for new hooklifts; the trade legal system will be available at the beginning of 2007. And something else worth noting is that retrofitting previously acquired Multilift equipment with a weighing system is almost as effortless. The weighing electronics have been developed in close collaboration with the Finnish-English M-Motion Oy. M-Motion is also providing the AVL telemetry services.

It only takes a couple of overload penalties for the Optiload system investment to pay for itself.

Text: Compositor/Auli Paakkalén
Photos: Jyrki Vesa

A box full of tale

Electronics is to hydraulics what
nerves are to muscles.

It has not been many years since electronics made their debut in the world of loader cranes. Today, the technology is standard in all equipment for load handling. Development has been particularly rapid in recent years, not least since the EU's EN 12999 standard for truck cranes in 2002 established a base line for requirements.

Hiab was an early leader in introducing electronics to control hydraulic functions. While others were struggling with their first attempts, Hiab was already introducing its second-generation electronics. Since then, development has proceeded at a furious pace.

Electronics facilitates use because many parameters can be programmed. This applies not least to alarms and to stopping movement if something goes wrong or if the operator is about to make a dangerous mistake. When risks are eliminated, it is possible to operate near the limits of what materials and design

can support, thus providing scope for greater strength or increased speed.

By using electronics, it is also possible to aggregate several movements in smoothly flowing sequences and to handle monitoring. This in turn gives the operator more freedom to focus on the work at hand.

All functions, one device

Electronics is to hydraulics what the nerve system is to muscles and makes it possible to lift a load of several tonnes and place it exactly where desired with a flick of the finger.

Radio waves are the mediating link here as well, but in the latest product generation, Hiab has introduced 2.4 MHz Bluetooth tech-

nology. The advantage is that more customers can utilize the benefits of remote-controlled cranes, also in countries that previously were restrictive in awarding permits.

Put simply, the technology works by sending a signal from the remote control unit that is received by the crane, where it is converted to a current that continuously activates the electromagnet in the valve proportionately to the magnitude of the lever movement. There are six levers on the handheld unit, each of which controls a separate hydraulic function. Each lever can be moved in two directions.



nt

On larger cranes with several hydraulic functions, different menus can be displayed to obtain different functions with each menu. Hydraulic support legs are shown on a separate menu, for example, since they must not be moved when the crane is being operated. Electronics can also be linked to various functions in the vehicle to provide hydraulic supports for boat transports, for example. In this way, everything can be controlled from the same device.

Valuable log files

Another advantage to electronics is that the system is able to save information on how the crane is used.

“These log files provide valuable information that can be collected as part of servicing the crane and provide an excellent statistics base for our development work in the areas of durability, mechanics, hydraulics and electronics,” says **Lennart Andersson**, research and development manager at Hiab Loader Cranes.

“Another example is that the log file can be used as a selling point for a customer that is about to replace a crane. As an example it could prove that the added cost for installation of a variable pump can be saved in fuel costs over a period of 12 to 18 months.”

Not everyone needs the advanced functionality that HIAB’s most sophisticated control system – HiPro – offers. Previously, these customers’ only option was to go for a basic control system, with standard hydraulics and limited electronic functions.

“We realized relatively quickly that we also needed something in between the most sophisticated and the basic control systems. We made some changes to the hydraulics and developed a new control system, the SPACE 4000,” says Lennart Andersson.

This new control system – HiDuo – became a true success. The HIAB XS HiDuo crane has become the preferred all-around crane above all others in many parts of the world, since it offers very good performance at a reasonable price. “And the new XSDrive remote control is the crowning achievement for the HiDuo crane,” Andersson reveals.

“Hiab’s patented Automatic Duty Control (ADC), which previously provided extra power when fewer hydraulic functions were active, thus making it two cranes in one, has now been taken a step further. Here the EN 12999 specification has been taken to the limit”.

“With the new ADC, more applications that use the fifth and sixth hydraulic functions can take advantage of the extra power that the new ADC delivers”, Andersson notes. The new ADC function continuously monitors pressure on the crane’s boom tip. The only time you are not given the extra capacity is when there is upward pressure on the tip, such as when digging or augering. The new ADC is thereby totally independent of whether the 5th or 6th functions are being used or not. This makes the crane more powerful – and the long life span of the crane is maintained.

Fast and robust

The same basic technology is used for the LOGLIFT and JONSERED forestry and recycling cranes, but other characteristics have been prioritized.

“These cranes are mainly specialized for the job of loading and unloading timber. The control system is therefore somewhat simpler with a focus on speed and ergonomics,” says Technical Director **Kalevi Sjöholm** at Loglift Jonsered.

Radio control is also used here in certain cases, but the norm is to transmit impulses via a cable. LOGLIFT cranes with electro-hydraulic remote controls are primarily mounted on forest machines and timber trucks. These cranes are operated from the cab. There are also trucks with JONSERED cranes for scrap handling and as stationary installations.

“The same precision as truck-mounted loader cranes is generally not needed, since the range is shorter. The forestry and recycling cranes also operate more intensively with faster pump flows than ordinary truck cranes, meaning that they are subject to greater loads and strain, not least through

Electronics make it possible to aggregate several movements in smoothly flowing sequences and to handle monitoring.

vibrations, which places special demands on the equipment,” says Kalevi Sjöholm.

At the same time, safety requirements are different, since there is seldom anyone else but the driver in the operating area. Work must be performed quickly and reliably.

The JONSERED cranes with radio control used for scrap handling, on the other hand, have the same system as Hiab. The prerequisites somewhat different, Sjöholm notes.

Yet another variant is the stationary cranes used in locations where scrap or paper is recycled. These can even be completely pre-programmed manipulators that lift according to pre-defined patterns. ■

Text: Ulf C Nilsson

Illustration: Topi Saari

A few years ago, Multilift launched a line of small hooklifts, the XR Light Range. This year, the big hooklifts take the spotlight. **Hans Ekman**, the Product Manager for the line of big hooklifts, answers the question that has surely crossed the minds of many customers:

"The big LHD hooklifts have been popular, so why replace this line of products that in less than ten years has evolved into an outstanding line?"

He explains: "Because the XR product family improves and expands the good characteristics of the LHD equipment."

"For example, there are more steel castings in the highest stress areas. Additionally, equipment delivery times will be shorter since the demountable subframe can be bolt-installed to the truck chassis rather than welded; this means that the topcoating can be applied prior to equipment assembly."

One of the biggest advantages of the new XR product family is something rarely seen in the world of demountables: Programmable Logic Controls (PLC).

Standardization for faster delivery and more freedom of choice

The first prototypes of the first member of the XR Power Range, the XR21S (replacing the LHS 260), were produced at Multilift's Raisio factory in south-western Finland in spring.

The factory seldom turns out two identical demountables during any given week.

Managing the different variations has traditionally been a time-consuming task, but the XR21 is expected to shorten manufacturing times. In order to get the products to the customers more quickly, the XR21 has been designed so that market- and customer-specific customizations can be done at the end phase of the production process, just before equipment delivery. This is possible in part as a result of the bolt-installed solutions and the logic controls.

"Our logic control system has one basic program; the variations are controlled with

The future of demountable control systems is direct electronic controls, specifically logic controls.

parameters. This way we have built-in readiness for all of the most important basic and additional functions – the control of these functions can be taken into use when needed by using parameters", Hans Ekman explains.

A similar kind of standardization applies also with the cable harnesses, which until now have been equipment-specific. With dozens – if not hundreds – of different cable harnesses with sensors, replacing a defective harness, for instance, has been a big and time-consuming process. In a logic-controlled system, the package the customer wants is largely made up of standardized parts. This way, also the delivery times for spare parts are shortened significantly.

For customers, logic control and the standardization of its components bring the added element of freedom to choose and customization. Customers can order precisely the added functions they want for their equipment.

Modern reliability

Direct electric controls, pneumatic controls and the combination of these are the traditional options for demountable control systems.

"The future of demountable control systems is direct electronic controls, specifically logic controls", Ekman believes.

The traditional electronic control system is based on relay technology, in which a number of relays control the safe operation of the equipment. In logic controls, the relay box and relays can be replaced with an overmoulded electronic smart module. Unlike the relay box, the smart module is watertight, so it can be installed outside the cab of the truck.

Similar technology has long been used in other sectors, including in trucks, forest

machines and mining loaders.

"Not all customers need all the additional functions of the XR21, of course, but reliability is valued by everyone. The fact that the components have already been tested in real working conditions is important to us", Ekman notes. "The cab control unit was the only ready-made component that wasn't up to par, so we tailored one."

A good fit for the cab and the hand

An industrial design company assisted Multilift in tailoring the control unit. It started with a pencil sketch of the control unit, then a wooden model, and finally an electronic CAD model.

According to Ekman, the goal was to make a control unit that was ergonomic as possible and narrow enough to fit between the cab door and the operator's seat. The field tests conducted in Finland, Germany and England have resulted in only positive feedback.

"The operating speed of a hooklift is something that is easily measured monetarily. The new control unit makes it easy to control the equipment", Ekman says.

Rather than two basic speeds, the XR21 boasts an added option of the new proportional fast speed: The equipment moves just as much or little and just as quickly or slow as the operator moves the lever in the control unit.

"This new added option brings speed to all of the equipment functions while maintaining controllability."

An optional automatic control alongside the manual control is also available for the XR21: When the operator moves the lever to the maximum position, the equipment first

World's smartest hooklift

Logic control is what makes the newest member of the Multilift family of demountables, the XR21, a smart and complete package: quick to install, reliable to operate, easy to service – and especially nice and easy to use.

XR21S



- unlocks the hydraulic body locking, moves the hook horizontally, and takes the hook behind the truck to lift the body from the ground. When the lever is in the opposite maximum position, the equipment picks up the body from the ground, lifts it onto the truck, and finally locks the body locking.

"The new proportional fast speed makes for smoother operation of the entire equipment. Another optional accessory for the XR21 automatically lifts the front of the body a few millimetres as it slides along the subframe, resulting in better comfort and less noise. This significantly reduces the friction, the vibration and the noise", Ekman lists the benefits of the innovation.

Yet another nice feature is that in case the equipment were to malfunction, emergency control can be done from inside the cab – there's no need to step outside. And if there is a malfunction, the logic control's self-diagnostics help to pinpoint the problem: The control unit's malfunction display indicates where the problem is.

Visions of the future

With respect to the future, the XR21's logic control offers a lot of untapped possibilities.

"A stand-alone service display or a laptop computer connected to the smart module can show a precise analysis of the hooklift's operation history. Among other things, customers can use the operation history to calculate life-cycle costs or to help the service side with maintenance planning, for example", Hans Ekman envisions.

"Additionally, we have two CAN bus interfaces in the smart module. One of them is for communication between the smart module and the cab control unit; the other one is still unused. So the XR21 has potential in the future to make the smart module communicate with the truck's CAN bus interface, which would enable again the development of entirely new additional features."

In the future, says Ekman, control systems of the various accessories complementing demountables, such as the Optiload weighing system and the Easycover load-covering equipment, can be either fully or partially integrated into the logic control.

"It would be possible also to integrate the demountable as a part of the customer's more extensive fleet management system. This would help contractors manage their vehicle fleet even more efficiently." ■

Text: Compositor/Tiia Teronen
Photos: Juha-Pekka Palmulaakso

With between 25 to 30 deliveries per day, its imperative to get started as fast as possible at all stops, on each round.

"This is where the truck-mounted forklift is superior. I can remove two pallets from the truck in the same time it would take a truck with a crane to release its support legs," says **Trond Sørsdal** in Drammen, Norway.

Together with his father **Ole-Martin**, Trond Sørsdal operates the family business, Sørsdal Gartneri, which specializes in the cultivation of cucumbers. Five years ago, he decided to increase the truck fleet, which at the time only comprised delivery trucks for the vegetables. The choice was made to purchase a 3-axled MAN 26-430 with trailer. Then came the question – crane or forklift?

"Since both the truck and trailer are covered, the choice was quite simple. A forklift could also be multipurpose. Being able to drive a few kilometers closer to the loading site with the forklift is no problem when the truck can't get through."



The road may look daunting for a big vehicle, but fortunately any place is accessible with a truck-mounted forklift.

Generating new contacts

Due to the forklift, he was quickly able to gain a contract from the construction company, Brødrene Dahl. He uses his four-way MOFFETT M4 to load and unload.

"I load at their main warehouse at Langhus every morning at 3:00 a.m. and then deliver widely to the surrounding areas. The deliveries to the city centres are done before the morning rush in traffic begins. There aren't always people on location to help at this time of the day, but due to the forklift, I can manage on my own."

When the morning traffic begins to get heavy, Trond Sørsdal is already finished and continues with deliveries out in the countryside. Deliveries

consist mainly of building material such as pipes, paneling, stone tiles, plasterboards, bags of cement and guttering, but he sometimes deliver large septic tanks on his forklift.

"The advantage of being able to drive straight ahead and sideways is that I can handle all types of goods, even pipes that are six metres long."

Due to the forklift, he can even spare the truck. When making deliveries to, for example, road works, he uses the forklift on the worst stretches of road. The truck and trailer is also 18 metres long, so it is not always easy to drive up close to the delivery site.

"This is where the forklift is once again useful. For example, I can deliver plasterboard straight into the building where it will be erected. Customers appreciate this. Also, the boards are always dry when I deliver them, since both the truck and the trailer are covered. During vacation time, there are numerous deliveries of concrete slabs since the regular delivery drivers are on vacation. And, I carry out a great number of deliveries for Maxbo, which is in the same industry."

Extended arm

Wherever it is too narrow for the truck, the forklift becomes the extended arm with an extended reach. Normally, it is mounted at the back during deliveries. At the stop, it takes between 15 to 20 seconds

The fastest starter

Norwegian Trond Sørsdal goes all the way with his MOFFETT truck-mounted forklift.

wins...

from the time he starts the engine to when it begins to move.

“In the winter when it is slippery, I usually mount it at the back of the truck, in front of the trailer. That gives me an extra 2.5 tonnes of extra pressure on the truck’s drive wheels and that is needed on the slopes here. I also use snow chains on the forklift so that it can be driven all the way in to the site.”

In addition, Trond Sørsdal has acquired special equipment for the forklift: “Transfer arms with magnets to handle white goods. This makes it easy, for example, to collect old refrigerators for recycling.”

Compared with a crane, one disadvantage is that he cannot make

deliveries to the roof. The forklift only reaches up to 3.5 metres.

“But most building materials are nevertheless supposed to be delivered on the ground.”

He is surprised that there are not more competitors using the truck-mounted forklift in Drammen.

“I know how efficient it is and it has generated many new contracts. In certain instances, the forklift has been mentioned in customers’ description of how deliveries could be implemented.”

The cover on the truck can also be removed and replaced by a container, which the family uses when transporting salads and vegetables. It can be loaded while Trond is out making deliveries using the covered bed. ■

Text and photos: Ulf C Nilsson



Through doors and windows

Bahrain with its deserts is a good place for producing aggregates as well as other construction materials. The blocks and precast elements made by the Al Manaratain Company are delivered with HIAB loader cranes exactly where the customer wants them – even if it means through a window or a door into the building!



Bahrain (pop. 750,000), has 25 companies manufacturing concrete products. The leading position in the sector's tough competition is held by Al Manaratain Company & Ali Al Shaab Group W.L.L.

The company was founded in 1959 by **Ali Yousef Hassan**. The small factory that manually produced blocks and aggregates used in construction has grown into a company employing 400 people with fully automated production processes. Ali Yousef Hassan's son, **Misan Ali Al Khamiri**, today the Managing Director of the company, helped in the modernization process.

62,000 blocks per day

Al Manaratain – the company name means two minarets – believes that excellent quality ensures customer satisfaction. The company's factories around Bahrain produce 62,000 blocks per day, but that volume doesn't compromise the quality.

Al Manaratain uses cranes to safely transport the blocks from the factory to the customer. The company's 25 HIAB loader cranes have a capacity that varies from 10 to 30 tonne metres. The cranes load and unload the blocks and other building elements to and from the truck's platform.

The newest members to the fleet are the four remote-controlled HIAB 225-E-3 cranes equipped with the 65X-2 jib. With these, full pallets can be placed precisely where the customer wants them at the destination: whether on the roof of an apartment building or inside the building through a window or door.

New factory, more cranes

Al Manaratain's customers include construction companies as well as private house-builders. In addition to precast elements, the company produces various aggregates used e.g. in road construction. There is an abundance of sand in the desert terrain of Bahrain, but cement and aggregate gravel are imported from the United Arab Emirates and Saudi Arabia.

At least one new factory is in the company's future plans. At the moment, demand seems to be growing with no end in sight.

One thing is for sure: A new factory means that Al Manaratain will need more cranes to be able to deliver the increased demand. ■

Text: Compositor/Tiia Teronen

Photos: Håkan Svahn and Stockxpert

