



HIAB



HIAB CELEBRATES DESIGN EXCELLENCE WITH SUPERLOW TUB SUBFRAME FOR MV COMMERCIAL

HIAB X-HIPRO 858 EP-6 fitted to 6x4 Volvo FH540

Hiab has shaved off 34mm from a standard subframe in a design first for customer MV Commercial, creating what is believed to be the lowest subframe for an 80tm crane.

MV Commercial wanted a superlow subframe for a Hiab X-HIPRO 858 EP-6 crane to be fitted onto a Volvo FH540 tractor unit, but without any detrimental effect in performance or payload. In collaboration with MV Commercial, Hiab has not only designed a sleek superlow subframe, but one that has:

- Reduced overall height (due to lower fifth wheel height)
- Increased crane lift performance (compared to previous design)
- Reduced installation hours due to a prefabricated tub subframe
- Increased payload due to a lighter frame

TECHNICAL EXCELLENCE

Hiab is proud to have the technical and design capability to work with customers to design bespoke solutions for all their load handling needs.

Contact us today to view the MV Commercial Superlow Tub Subframe or speak to us about your load handling needs on 01691 626 467 or visit hiab.com

“The enthusiasm of the engineering team at Hiab has been fantastic to bring this product to life. There is a huge appetite from our customers for 80 tm cranes on 6x4 tractor units – and now, in collaboration with Hiab, we have created not only the lightest subframe on the market for a crane of this size, but also the lowest.”

Scott Bishop – Project Development Manager, MV Commercial



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Looking further East...

For many years the market leaders in the loader crane sector - Palfinger, Hiab and Fassi - have remained unchallenged although it has not all been plain sailing. Last year we highlighted Denmark's HMF - probably the fourth largest loader crane manufacturer - and looked at its recent expansion and developments. However, lurking in the background are a number of manufacturers from a country with a predilection for very large loader - or should we say knuckle boom - cranes. The country is Turkey and it appears to be making inroads in western Europe, possibly assisted by the recent depreciation of the currency.

Walking around Bauma you could hardly fail to notice the growing number of Turkish manufacturers. In the loader crane sector this included Hidrokon, World Power Erkin and MPG (Makine Prouduksiyon Grubu) which exhibited a 450 tonne metre knuckle boom crane on a seven axle chassis.

Hidrokon expands

Hidrokon was formed in 1993 when it began building large knuckle boom or, if you prefer, articulated cranes. Its current range is topped by a 345 tonne/metre mode, but also manufactures truck cranes from 10 to 60 tonnes, truck mounted platforms to 60 metres and has recently launched a new All Terrain

crane. On top of all this it builds vehicle recovery equipment, marine cranes and provides special project solutions.

At Bauma the company launched the new HK range of 'fully folding' loader cranes which includes the 20 tonne/metre HK20, the HK65 and the HK110. The HK20 can lift just over a tonne at its maximum 12.58 metres reach including manual extension or 1,285kg at 10.46 metres on the full power telescopic version. The unit has multiple options and is said to be 'very competitive'.

The 65 tonne/metre HK65 can lift almost 500kg at a maximum of 31.63 metres while the 110 tonne/metre HK110 has a maximum capacity of 21 tonnes and can

handle two tonnes on its main boom at up to 25.36 metres. With jib extensions, 510kg at 34.56 metres is possible.

"The new fully folding range was designed completely in house and manufactured using the latest technology, best in class components and high grade



World Power's largest crawler mounted knuckle boom crane is the ER-115.000



Hidrokon's Barry Chester with the new fully folding HK110 at Bauma



Hidrokon's new 110 tonne/metre HK110

tensile SSAB steel," says Barry Chester of Hidrokon. "All materials supplied are examined for quality and continuity using state of the art testing equipment, while the manufacturing process involves plasma laser cutting machines and robot welding. Each completed unit is then painted in a three part process to meet the higher standards of a marine crane finish before being passed for final test and approval."

Features of the HK range include 25 degree negative boom angle, a progressive stability control system with visuals of the crane's position available on screen and on the remote control unit, simultaneous multi-function feather control with variable speed hydraulics, a control system to govern sequential boom extension/retraction as well as a wide range of options to suit individual customer preferences such as restricted movement parameters, auto-levelling and one touch automatic folding.

"With more investment and a new determination to enter new markets, new products are being developed rapidly," he said. "The fully folding range will be expanded to cover the market's most popular sizes with the imminent addition of 15, 35 and 85 tonne/metre units as well

as something larger than the 110 tonne/metre HK110."

"Some of the larger knuckle boom cranes may breach maximum gross vehicle weights in some markets, in which case they would be limited to special use cases such as rail, off road vehicles, marine and site based trucks. For the UK, units up to 165 tonne/metres can be mounted on standard truck chassis."

As part of its expansion Hidrokon has opened a new distribution and parts centre in Denmark - Hidrokon Europe - and more recently a satellite operation in the UK. It is also looking to appoint distributors throughout Europe and says discussions are already under way in some key markets.

"To support the European markets, service personnel from Denmark and the factory in Turkey are available to provide hands-on support and training. spare parts can now be ordered from Denmark for overnight throughout Europe. In the UK we have already signed up key partners for installation and after-market support to cover most of England and Wales. Scotland and Ireland are yet to be determined but we anticipate this will be in place soon."



Hidrokon launched its HK range which includes the 20 tonne/metre HK20



The 450 tonne/metre MPG 450 on a seven axle carrier

More MPG

Another Turkish company MPG located in Konya - south of Ankara - produced its first loader crane in 1998 having manufactured truck cranes since 1990. It currently offers a range of 20 loader crane models ranging from the AC 20 TM to the monster 430 tonne/metre MPG 450 mounted on a seven axle carrier - the machine that was shown at Bauma. The Danish Crane Import Group based in Roskilde, has been the master distributor for mainland Europe for the past three years, while JHKran is the local dealer for Denmark, between them they have sold eight large machines.

The MPG 450 has a maximum capacity of 77 tonnes at 5.15 metres and 6.5 tonnes at 33.25 metres. If using the two manual extensions it can take 3.5 tonnes to its maximum horizontal reach of 40.48 metres. With jib the unit has a lift height of almost 70 metres and can lift 310kg at its maximum radius of 65.7 metres.

The crane has a touch screen control panel showing cylinder pressure, boom length and angle, truck stabilisation and automatic counterweight. Other features include radio remote control, electronic Crane Control System and Crane Diagnostic System, Active Stability Monitoring, remote technical support, automatic lubrication system and winch. It can also be fitted with a work platform.

Like the other larger MPG loader cranes from the AC 130 TM up, the MPG 450 features two stabilisers to the rear of the chassis adding to lift capacity and stability.

World Power Erkin

Probably the most recognised knuckle crane brand from Turkey is World Power Erkin which produces cranes from nine to 450 tonne/metres and claims to have been the first to produce such a large knuckle boom - the ER-450.000.

The company was formed from the 40 year old Erkin Hydraulic company and has become known for heavy-duty custom-built machines. It also claims to have designed and built the world's first 360 tonne/metre knuckle boom crane which can operate in restricted headroom situations making it particularly useful for moving and assembling machinery. In addition, it produces three crawler mounted knuckle boom cranes with lift capacities to 37 tonnes, marine cranes, boat movers, recovery tow trucks and scrap loader cranes.

450tm machines compared

It is interesting to compare the two 450 tonne/metre cranes - MPG's 450 and the ER-450.000-L - as there are several major differences.

All the larger World Power machines are mounted on five axle carriers with the boom and jib

combination stowed to the front over the chassis cab shortening the overall travel length. The MPG 450 however stows the crane to the rear, reducing the overall height but increasing overall length, which necessitates a further two axles. The ER-450.000 uses an eight section boom with six section jib, the MPG has a nine section boom and similar jib.

Maximum lift capacity favours the World Power machine - with 92 tonnes at 4.6 metres compared with the MPG's 77 tonnes at 5.15 metres. At 17.5 metres both machines lift about the same, however on the full hydraulic boom reach the ER-450.000 can lift 13.3 tonnes at 22.3 metres, whereas the MPG can reach 33.25 metre with 6.5 tonnes. Both have two manual extensions with the MPG winning this comparison by almost 13 metres - 40.48m/3.5 tonnes versus 27.8m/5.6 tonnes.

Big cranes from the leaders

The market for these mega loader cranes is very small, so it is not surprising that market leaders like Palfinger, Hiab and Fassi do not have

equivalents, but their ranges are growing.

Palfinger's largest crane is the 150.7 tonne/metres PK 200002 L SH High Performance with a maximum outreach of 47.9 metres (25.6 metre hydraulic) and a maximum capacity of 40 tonnes. Hiab's largest loader crane is the X-HiPro 1058 - a 90 tonne/metre crane with a horizontal outreach of 34.5 metres and 38 metres vertically. Fassi comes closest with its 160 tonne metre F2150RAL xhe-dynamic which has a maximum outreach with jib of 41.3 metres.

Hiab Effer

Hiab's lack of big capacity cranes to compete in this niche but growing market sector was certainly one of the reasons for acquiring Italian manufacturer Effer from the CTE group last year. At the time Hiab and its parent Cargotec said the acquisition would be a key factor in its aim to become the clear loader crane market leader. The Effer range significantly boosts Hiab's range over 100 tonne/metres where Effer is a leading player with models



Palfinger's largest crane is the 150.7 tonne/metres PK 200002 L SH High Performance



(L-R) Viggo and Dorte Burin-Rasmussen of the Danish Crane Import Group, Veysef Soylu of MPG and Jan Hansen of JHKran at Bauma



The World Power ER 450.000-L



The Effer 2255 can lift 3,720kg at 26.12 metres

up to 300 tonne/metres, including special application truck cranes and marine cranes.

With the acquisition now sorted Hiab affiliates have been looking at handling Effer cranes. The UK is a prime example of this, the marque has been handled by commercial vehicle bodybuilder Martin Williams for some time and will remain as a key service and installation provider for Effer products, but Hiab's nine locations will now also service and support Effer cranes.

Hiab managing director for the UK and Ireland Ian Mitchell said: "The Effer acquisition gives Hiab a great opportunity to expand and strengthen our offering in the UK, particularly in high-end cranes."

Product manager Alastair Evans added: "Hiab has never had cranes over 100 tonne/metres before so the addition of Effer opens up

our offering to customers that require these larger cranes. We are also focusing on models that complement and offer additional advantages to our current product range. For example, Hiab doesn't offer continuous slewing until 35 tonne/metre cranes, whereas Effer cranes have greater reach and continuous slewing with its smaller 20 tonne/metre cranes."

Hiab launches

Hiab continues to develop new products recently launching two new modular installation systems for truck bodies - Hiab BodyWorks for heavy cranes and Hiab T-Body for its T series light range cranes. The modules are pre-manufactured and reduce body installation times and costs. Both have a weld free bolted construction with parts that are said to be easy to remove and replace. They are also lighter

C&A loader cranes



Hiab BodyWorks - for heavy cranes - significantly reduces installation time.

adding to the vehicle payload, while lowering fuel consumption when not fully loaded.

"When customers buy a crane, they want it on the road as soon as possible, while bodybuilders want to serve as many customers as possible. Our new modular

installation system reduces installation time significantly and the weld free construction makes them easier to maintain," says Marcel Boxem, director heavy loader cranes and FrameWorks.

"With FrameWorks we reduced the installation times of frames for our heavy range cranes by 75 percent and have now reduced installation time for bodies by the same amount. Using the ready to go T-Body kits, a light range crane can be installed in just four hours reducing costs significantly."

New loader cranes

Hiab has also launched several new loader cranes. The 'building material' cranes range from 13 to 20 tonne/metres include the L-HiPro 145, L-HiPro 195 and L-HiPro 235. All new models are equipped with Hiab's top end control systems,



Hiab BodyWorks is only compatible with FrameWorks and installation is done at Hiab's factory installation centre in Meppel the Netherlands

FASSI

**DRIVING INNOVATION
SAFETY & CONTROL**

FX-Link
Integrated crane-truck connectivity

control

AWC
Automatic Winch Control

control

ACF
Automatic Crane Folding

control

CCD
Cabin Collision Detection

control

IMC
Integral Machine Control

control

GAS
Grabs Automatic Shake

control

FX901
Fassi Electronic Control

control

IoC
Internet of Cranes

service

Day by day, Fassi works towards the future. It does so by focusing on digital and mechatronic innovation, introducing applications and technology to support human operators.

These devices are developed entirely by Fassi and can be activated either remotely or via selector switches and can assist the operator both in terms

of control and safety. Predictive diagnostics, connectivity between machines, control of load handling and cabin safety are just some of the innovative functions available which make the work of the operator ever more important and central.

More about: fassi.com

facebook.com/fassigruspa



Hiab has launched three 'building material cranes from 13 to 20 tonne/metres

high speed boom extension and optional HiPro remote control system.

The cranes feature Crane Tip Control (CTC) - which the company claims allow even novice operators to perform complicated movements - and the Load Stability System which automatically compensates for unintentionally excessive lever operation, protecting the operator, the surrounding environment and the crane.

Fassi FX-Link

The loader crane sector is without doubt the most innovative of all the equipment segments in terms of technology and structural fabrications - driven by the constant demand to reduce weight, while increasing performance and improving productivity. As well as sophisticated electronics controlling all aspects of the loader crane there is an increasing move towards integrating control functions both on the crane and the truck.

At the end of last year Fassi launched a new system to optimise connectivity between the crane and truck with various functions controlled from the crane remote control and from the truck. Developed by Fassi and Volvo Trucks Italia it gives the driver better, quicker feedback on the crane when behind the wheel. This is done by fully integrating information into the vehicle's dashboard and enhancing



With FX-Link, information will be exchanged from the crane to the truck and vice versa.

the remote control's capabilities as an operating tool in crane handling. Using the CAN-BUS connection eliminates the need for connections of different devices on both the truck and crane.

With FX-Link, information will be exchanged from the crane to the truck and vice versa. Switching the truck off and on, setting the engine speed, limiting the air suspension, switching on the headlights and other warning lights, activating the horn and activating the parking brake are all controls that are also available on the crane's remote controller. Meanwhile, the extremely clear interface on the truck dashboard warns the driver when the crane outriggers fail to close and of any height-related obstructions. The FX-Link system can be installed on all Volvo FH, FM and FMX vehicles equipped with CAN-BUS technology.



Kurko Crane has mounted a Fassi F2150RAL.2.28L816L onto the back of a five axle Volvo FH13 540 10x4 chassis

World's biggest rear mounted Fassi

Several years ago, there was a 'phase' in some countries of replacing small truck mobile cranes with large loader cranes on dedicated trucks. Kurko Crane of Finland is one of the latest companies doing this and has mounted the largest Fassi loader crane - the Fassi F2150RAL.2.28L816L - onto the back of a five axle Volvo FH13 540 10x4 chassis. The unit has an overall weight of 39 tonnes without the jib or the five tonne counterweight. This gives a maximum capacity of 28.7 tonnes at 4.75 metres radius, a vertical reach of 45 metres and 50 metres with manual extensions. The crane has an overall length of 10.3 metres an overall width of 2.55 metres and is 3.8 metres high. Mounted at the rear of the chassis the unit can slew 360 degrees with its maximum capacity - even when the outriggers are down but not extended. Kurko claims this is the world's biggest rear mounted Fassi crane and it has full CE certification for the crane, truck and reinforced frame.

"It is basically a mobile crane and registered as such," says Kimmo Koponen of Kurko Crane. "Thanks to the five tonne counterweight, the central chassis stabilisers at the back of the truck need only to be lowered to the ground but not extended. This makes it possible to lift objects three metres away from the centre of the crane. The counterweight also means that outriggers only need to be extended 80 percent to get full lifting capacity. More of this type of crane trucks are coming to the market and it looks like they will be a big competitor to small capacity mobile cranes."

New Hyva range

Dutch loader crane manufacturer Hyva has launched its new Edge crane range featuring 40 models ranging from nine to 66 tonne/metres, offering 360 degree continuous slew, up to eight extensions depending on the model, and a choice of jibs, winches and accessories.

The first and largest model launched, the 66 tonne/metre HC661, features Hyva's new Auto Stabilising System (ASS),



The Kurko unit can lift 28.7 tonnes at 4.75 metres and has a vertical reach of 50 metres

ULTRA COMPACT



MERLO P27.6 A NEW BENCHMARK FOR COMPACT TELEHANDLERS

The Ultra Compact P27.6 has been developed as a high performance, compact telehandler designed primarily to get into small spaces, without losing the comfort or safety of a larger machine. The P27.6 boasts an impressive maximum lifting capacity of 2.7 tonnes with a 6.1 metre placement height. Having the same spacious cab as its larger counterparts offers easy access, impressive space and visibility making the P27.6 perfect for the construction sector. All models include hydrostatic transmission as standard for precision of drive at a max speed of 40km/h.



Excellent
Cab Comfort



Maximum visibility
in every direction



Maximum Capacity
at full forward
reach 1000kg



Hydrostatic
transmission
with two power
levels



Some of the Hyva Edge cranes at Bauma

Tadano's largest

Tadano has also launched its largest loader crane to date - the TM-ZX1505 - initially aimed at the Middle East and south east Asia markets. With a maximum capacity of 15 tonnes at a two metre radius the TM-ZX1505 has an 18.5 metre boom with a maximum radius is 18.07 metres. The TM-ZX1505 is equipped

allowing for the truck to be levelled automatically, and the Active Awareness Radio Remote (AARR), which alerts the operator through joystick vibrations of any potential hazards.

The new range features a new control station for high visibility and easier operation, as well as the Dynamic Load Diagram system, which confirms the available lifting capacity based on the truck's actual stability at the time, and the Magic Touch feature that allows automatic boom stowage and unfolding from travel to ready to work position.

IMTs largest

US-based loader and service crane manufacturer and distributor Iowa Mold Tooling (IMT) has launched the 42684, its largest loader crane to date, with a maximum load moment of 46.5 tonne/metres and a radius of 25.2 metres. The remote controlled crane also features IMTs Progressive Crane Control (PCC) for smoother crane movements and Priority Flow Control (PFC).

Other features include Electronic Vehicle Stability (EVS) system which monitors the tilt angle of the truck's chassis, chassis flex and outrigger pressures into the fully integrated Rated Capacity Limiter (RCL) to maximise lifting capacities. IMT is the North American distributor for HMF, which supplies the larger IMT cranes on an OEM basis.

The 46.5 tonne/metre 42684 is IMT's largest crane to date



with Tadano's Automatic Moment Limiter (AML), which includes a stability monitoring function in addition to being an overload indicator. The crane also features a digital operator display which shows actual and rated loads, and an optional remote control among other features. The system includes the newly developed load weight function which calculates and displays load weight during loading and unloading.

Fassi for Collett

UK heavy lift and haulage company Collett & Sons has taken delivery of a 115 tonne/metre Fassi F1150RA.2.26 loader crane. Mounted on a MAN TGS 41.480 8x8 tractor unit, the crane can handle 22 tonnes at a radius of 4.15 metres, or 5.6 tonnes at 15.45 metres. The four axle unit has a Gross Vehicle Weight of 90 tonnes and can be used as a ballast tractor to push or pull heavy loads as well as towing heavy trailers. Collett runs a fleet of loader cranes topped by a 205 tonne metre Effer 2055.

Tractor mounted Palfinger

Welsh landscaper M&D Services is using its Palfinger PK 19.001 SLD5 loader crane mounted on a farm tractor for utility work. Fitted to a Fendt 936 Vario chassis, the PK 19.001 SLD5 has a maximum capacity of 18.5 tonne metres and



Collett & Sons has taken delivery of a 115 tonne/metre Fassi F1150RA.2.26 mounted on a MAN TGS 41.480 8x8 tractor unit



Welsh landscaper M&D Services is using its Palfinger PK 19.001 SLD5 loader crane mounted on a farm tractor for utility work



AET Transport Services has added a new rear mounted 65 tonne/metre Palfinger PK65002D SH to its fleet

a maximum radius of 12.6 metres. The bespoke model was designed by Welsh equipment dealer David Evans Agri and allows for the crane to be easily detached from the tractor if required.

M&D Services owner Mark Davis said: "In the countryside around south Wales utilities companies need to install poles, pipes and cables in areas which truck mounted cranes can't reach, my tractor mounted crane solves the problem."

Big Palfinger for AET

UK heavy haulage and machinery removal company AET Transport Services has added a new rear mounted 65 tonne/metre Palfinger PK65002D SH loader crane on a Mercedes Arocs 48LK ENA32 32 tonne, four axle chassis. The new truck has been assigned to AET's factory relocation team operating throughout Europe for companies such as Airbus, Britax, Rolls-Royce and Sunseeker. The AET group - which includes AET Andover, Curvin Transport, Dorset Crane Hire, and Eaton Transport divisions - runs a combined fleet of 66 vehicles including three 32 tonne 8x2 trucks with cranes positioned behind the cab.



The Tadano TM-ZX1505 is initially aimed at the Middle East and south east Asia markets.

TEC-RANGE BUILT FROM OUR BEST IDEAS

One characteristic of the PALFINGER premium range is the innovative boom system with **P-Profile**. Thanks to the polygonal form, it is especially rigid and light weight. TEC Range – for maximum performance.

LIFETIME EXCELLENCE

