

## **Liebherr's participation at Conexpo Con/Agg 2017**

**Biberach / Riss (Germany), 22 December 2016 - During Conexpo Con/Agg 2017, Liebherr will present an extensive selection of its Earthmoving, Material Handling and Construction Equipment product range. The Liebherr outdoor booth will be located at the Las Vegas Convention Center, Gold lot G4637.**

From March 7-11 2017, more than 25 pieces of Liebherr equipment will be presented at Conexpo Con/Agg. Liebherr's outdoor booth covers 50,000 ft<sup>2</sup> and will provide room for hydraulic excavators, wheel loaders, crawler loaders and dozers, deep foundation equipment, material handlers, tower cranes, mobile and crawler cranes as well as a concrete pump. Liebherr's product range of components for the mechanical, hydraulic and electric drive systems will also be on display in the south hall of the Las Vegas Convention Center, Booth# S84230.

### **Liebherr rolls out XPower® wheel loaders with an innovative power-split driveline concept**

XPower® is an integrated, innovative machine concept for the large series of wheel loaders with operating weight from 39,020 lbs. – 71,870 lbs. (L550-L586). The new concept sets new standards in terms of fuel efficiency, performance, robust design and comfort. The core of the XPower® is the Tier 4 Final/Euro Stage IV power-split driveline installed as standard. It combines hydrostatic drive, which is ideal for short loading cycles and mechanical drive for long distances and when driving on slopes. The combination of these two drive types in a single wheel loader ensures maximum efficiency and outstanding fuel savings in multiple applications. Liebherr XPower® wheel loaders deliver standard power-split transmission and 30 percent fuel savings.

### **Liebherr presents the LH40M and LH22 handlers – Top performers in the material handling industry**

The LH 40 M features an Energy Recovery Cylinder (ERC) that reduces fuel consumption by up to 30%. It promotes faster cycles and greater handling capacity. The LH40 is powered by a Tier 4 Final/Stage IV engine developed and manufactured by Liebherr with an output of 208 HP (155 kW) at 1,800 rpm (SAE J1349). Multiple

options and configurations are available to provide the best solution for every application; from undercarriages to cab options to attachments. Also on display will be the LH 22 M Handler. This machine is powered by a 4-cylinder Liebherr engine with 134 HP (100kW) at 1800 rpm and has an operating weight of 50,500 lbs. Both handlers come equipped with LiDAT; Liebherr's own comprehensive machine management system for the secure, reliable transmission and analysis of machine data. Based on an ultra-modern communication technology, LiDAT supplies the information needed for machine location and operation, and thus permits efficient remote control of management, task planning and fleet monitoring.

### **Higher performance, less fuel consumption: Liebherr presents its new A 918 Litronic**

Remarkable high lift capacities, top digging performance and excellent travel of the A 918 excavator are truly impressive, while at the same time fuel consumption is substantially reduced. With an operating weight between 38,800 and 43,600 lbs and an engine output of 161 HP (120 kW) the A 918 is the ideal machine for classic earthmoving, road construction or water infrastructure and pipeline works. The new Liebherr cab with a standard air-suspension heated driver's seat and automatic air-conditioning ensures a pleasant atmosphere, offering machine operators with the best working conditions to fully focus on the actual task and be productive all day. The A918 excavator design promotes short servicing times, thus minimizing maintenance costs due to the time it saves. All maintenance points are easily accessible from the ground and easy to reach due to the large, wide-opening service doors.

### **Liebherr introduces its new R 920 Compact Litronic crawler excavator to the North American Market**

The new Liebherr R 920 Compact crawler excavator has an operating weight between 42,000 and 47,000 lbs. It is powered by a Tier 4 Final/Stage IV engine with 136 HP (100 kW) and has a SCR system with urea injection and oxidation catalyst. The particulate filters are optionally available. The R 920 Compact combines the properties of a standard crawler excavator, such as high performance and versatility of a compact machine. With a short tail swing of only 6' radius, the machine can be operated effectively on construction sites where space is limited. The dimensions of the R 920

Compact ensure unrestricted movement around the jobsite and easy transportation from one site to another.

### **Liebherr R 960 high-reach demolition excavator**

Built and designed with all Liebherr components from the high-reach attachments to the demolition control software and electronics, the R 960 high reach demolition excavator is custom-designed to work together. The R 960 features the Liebherr Demolition Control (LDC). This unique safety system won an innovation award at Intermat. The LDC provides operators with precise information on positioning of the demolition tool while safeguarding the stability of the excavator. The position of the tool is displayed in real-time on a touchscreen display along with the tilt angle of the machine. The new system minimizes the probability of human errors that could impair the stability of the machine.

### **The Liebherr PR 756 Dozer - Outstanding pushing and ripping performance**

During Conexpo Liebherr will also showcase the new PR756 dozer which belongs to the new product range of Generation 6 Liebherr Dozers. The PR 756 has an operating weight between 84,430 lbs - 90,720 lbs and offers a 336 horsepower (250 kW) (SAE J1349). It uses a Liebherr six-cylinder Tier 4 Final-compliant diesel engine and its blade capacity ranges from 11.67 - 15.30 yd<sup>3</sup>. The high efficiency of its hydrostatic drive extends over almost the entire speed range maintaining adequate engine power at all times while fuel consumption is kept to a minimum. The PR 756 features an electronically controlled drive management with integrated ECO-mode setting. The cab design on the generation 6 dozers has been redesigned for improved visibility; the exhaust stack and blade cylinders have been repositioned to provide a clear line of sight to the blade. It comes standard with adjustable drive controls and a touch-sensitive system display. All routine service points on the PR 756 are readily accessible to one side of the engine making service more convenient, and like the rest of Liebherr equipment, it comes standard with LiDAT fleet management system.

## **Liebherr unveils the generation 6 of pipelayers at Conexpo Con/Agg**

Conexpo attendees will also have the opportunity to get up close to the new RL 56 pipelayer. Designed and engineered with Liebherr main components according to customer's specific needs, the RL 56 is ideal for performance in the toughest operating conditions. The RL 56 has a maximum lifting capacity of 158,733 lbs and offers improvements in comfort and reliability. It features a Tier 4 Final/Stage IV Liebherr diesel engine, 281 HP/210kW (SAE J1349). The new cab features a multifunction touchscreen, fully integrated wide-angle side and rear view camera and a new joystick design. All service points are easily accessible for routine maintenance. The operator cab can be tilted to provide fast and easy access to all important components of the travel drive and hydraulics.

## **World premiere: Liebherr extends product portfolio with rough-terrain cranes**

Liebherr has extended its mobile crane product range with an additional series of rough-terrain cranes in the 100 USt (90-metric ton) and 110 USt (100-metric ton) classes. They feature high performance, safety and comfort. High safety levels in every respect were the main priority for the design of the new Liebherr LRT cranes. Both new crane models feature an outrigger monitoring system as standard. The support status, on tires or outriggers, is detected automatically and saved to the crane controller. The attachment of the ballast to the turntable and the installation of the optional double folding jib, including its angle adjustment, are also recorded and monitored.

The VarioBase® variable support base developed by Liebherr as standard on the new LRT cranes makes an important contribution to enhancing safety. VarioBase® also provides greater performance and flexibility on site. Safety is also enhanced by providing greater comfort for the crane operator. For example, the crane cabin is 220 mm (8.5") wider than other standard cabins on the market. It can be tilted backwards to provide greater comfort when hoisting loads to great heights. Clear, self-explanatory controls make the crane easy to handle.

The 110 USt (100-metric ton) LRT 1100-2.1 has a 164 ft (50 m) telescopic boom with a "Telematik" telescoping system on which the various telescoping sections can be

extended independently with a single cylinder and then pinned to the telescopic section above. The 30,800 lbs. (14-metric ton) of counterweights ensure high stability. The lifting capacity of the LRT 1100-2.1 is around 15% higher than that of the 100 USt (90-metric ton) model which features 26,500 lbs. (12-metric ton) of counterweights. The LRT 1090-2.1 features a 154 ft (47 m) telescopic boom. Its telescoping system consists of a two-stage hydraulic cylinder with a rope extension mechanism.

### **Experience the Liebherr 710 HC-L tower crane in the virtual world**

Liebherr Tower Cranes will offer its visitors a unique experience at Conexpo – with a virtual reality application they can experience a crane in real time – for example, the 710 HC-L, which is currently in action on the MoMA Tower in New York.

This "flight" can hardly be put into words – you just have to experience it. Simply take a look through the virtual reality goggles and you will find a whole new world – from the trade show stand direct to the city, to a site about 1,000 ft. (300 m) in the air, immediately in front of the Liebherr 710 HC-L luffing jib crane. Using the game pad you can explore this 3-D world for yourself – take a look at the man-size hook up close, fly into the crane's jib or through gigantic urban canyons and watch the traffic below – anything is possible. Using this virtual reality application, visitors can experience the crane in a whole new dimension, including different weather conditions and different times of the day and night.

### **Liebherr 81 K.1 tower crane**

Liebherr will be exhibiting its new 81 K.1 fast-erecting crane, an upgrade of the 81 K, at the Conexpo Con/Agg in Las Vegas. The new crane is even more powerful and flexible. The lifting capacity of the upgraded Liebherr 81 K.1 fast-erecting crane can be temporarily increased by up to 20%. Using the so-called Load-Plus function, there is no need to use an additional larger crane for heavyweight hoists. By bolting on an extension, the jib can be extended by 9.84 ft. (3 m) without much effort. Compared to its predecessor, this increases the maximum radius to 157 ft. (48 m). This almost places the crane in the next higher crane class.

Liebherr is also unveiling the new optional exterior cabin for its K series cranes. Depending on requirements, this cabin can be installed quickly and easily on any new K crane using its own load hook. The safe access ladder on the side is easy to reach. Due to its external position, the crane driver has a perfect view of the site. The new cabin with its ergonomic controls provides the crane driver with plenty of space and enables him to work efficiently without fatigue. This results in greater capacity and safety in operation. Another positive side-effect is that costs will be reduced for fleet operators since the same cabin can be used on different Liebherr fast-erecting cranes where necessary.

### **THS 110 D4f-K crawler concrete pump**

Smooth running and outstanding suction performance are the hallmarks of a powerful pump unit in the crawler concrete pump THS 110 D4f-K, which will be on display at the 2017 Conexpo. Furthermore, an open hydraulic circuit guarantees reduced system maintenance requirements.

The Liebherr crawler concrete pump is particularly suited for applications in which pumping of the concrete is constantly being relocated around the building site. Maneuvering and operation of the crawler track-mounted concrete pump is effected via remote control. The series of Liebherr crawler concrete pumps encompasses three different models - the THS 80 D-K, the THS 110 D-K and the THS 140 D-K providing max concrete outputs of 93 yd<sup>3</sup>/h to 177 yd<sup>3</sup>/h. The engine has emission standard tier 4 final.

### **Liebherr: full service provider for deep foundation applications**

At Conexpo 2017 Liebherr emphasizes its function as full-service provider for deep foundation application with the North American trade fair premiere of its piling and drilling rig LRB 355, its piling rig LRH 600 as well as its duty cycle crawler crane HS 8130 HD. As attachment the new hydraulic free-fall hammer H 15 L is on display.

The robust undercarriage of the piling and drilling rig LRB 355 guarantees a high level of stability. Thanks to the parallel kinematics the machine has a large operating area. Further major advantages are its fast mobilization and easy transportation. The rig can

be used for all common drilling applications, soil mixing as well as piling jobs with vibrator and hydraulic hammer.

For the LRH 600 the successful and tried-and-tested crawler crane model LR 1300 with attached leader system functions as a basic machine. It is particularly suitable for tough piling operations with high outreach. It is displayed at Conexpo with the Liebherr rotary drive BAT 320. A further possible working tool is the hammer H 15 L. Thanks to the short and lightweight design, the hammer is extremely efficient as well as user-friendly in terms of transportation and maintenance. At the same time, the pile helmet is soundproof in the standard version.

The Liebherr duty cycle crawler crane, type HS 8130 HD, can be used for various deep foundation applications as well as for the typical material handling tasks of a duty cycle crawler crane. These include working with slurry wall grab up to 35 t and casing oscillator up to 3 m, material loading with grab or dragline bucket, dynamic soil compaction as well as various dredging applications.

In the field of deep foundation work Liebherr offers its customers a large number of services, including technical consultation in the planning stage, application consulting on the jobsite, training, recording, evaluation and transfer of machine data via LiDAT as well as the documentation and analysis of the processes on the jobsite via PDE/PDR. At Conexpo Liebherr shows LiPOS, the new positioning system for Liebherr machines and working tools, and its simulators allowing for training in a virtual but realistic environment.

### **Liebherr components on display**

Liebherr's Components division presents various innovative components from the mechanical, hydraulic and electric drive systems areas in the South Hall 4, Booth #S84230. One of the main highlights is the hydraulic cylinder series-production range for pressures of up to 350 bar, which will be presented for the first time to the American market. Specifically designed for dynamic loads, this series of double-acting differential cylinders is suitable for mobile as well as in industrial environments in the pressure range of up to 350 bar, optionally up to 380 bar. In general, 20 different piston

diameters between 3.94 to 8.66 inches (100 to 220 mm) can be combined with two piston rod diameters and strokes of up to 90.55 inches (2,300 mm) can be achieved.

On the Components' exhibition stand, visitors will also find the newly developed LH30VO axial piston pump of swash plate design. The medium pressure pump complements the existing product portfolio in the range of 280 bar nominal pressure and is suited for use in mobile machinery. The pump for all mobile applications with open circulation has a specific delivery rate of 45 cm<sup>3</sup> per rotation and is already available with two of the most common controls.

Further new developments at the exhibition are the electric travel drives FAT 400 and FAT 550 with permanent magnet technology, which follow the FAT 325 launched in 2015. With this product range Liebherr adds electric versions to its previously hydraulically operated travel drives and responds, on the one hand, to the increasing demand for electrically powered crawler-tracked vehicles and, on the other, meets the demand for environmentally friendly technologies. The solution ensures high power density from an extremely compact design. The latter enables tailor-made placement of the drivetrain in the confined space conditions of the machine. A reduced number of spare parts, in turn, provide for a long service life. With the IP67 protection and durable sealing systems, the entire Liebherr drive is not only protected from environmental influences, such as dust and water in normal operation, but is optimally adapted to specific environmental conditions.

Liebherr will also be presenting the newest developments in the diesel engines segment. The exhibited D956 A7 in-line engine represents one member of the new engine family by Liebherr and sets forth the development strategy based on modularity, i.e. exhaust after treatment and standardized parts and options. This state-of-the-art in-line engine has been developed to fulfil the current and future requirements set by customers and emission regulations.

In the area of remanufacturing of components Liebherr will show a V-12 diesel engine executed as a cut-away model.



The display also includes the new product catalogue for large diameter bearings, which does not only enable customers to select bearings for the required application both simply and quickly, but also provides information on the slewing drives tailored specifically to the bearings and includes Liebherr's latest research and development methods.

### **Captions**

liebherr-conexpo-2014.jpg

Liebherr at the 2014 Conexpo Con/Agg in Las Vegas.

liebherr-rough-terrain-crane-lrt1090-2.1.jpg

World premiere in Las Vegas: The new Liebherr rough-terrain cranes are designed for high capacity and safety.

### **Contact person**

Ana Cabiedes-Uranga

General Manager, Marketing

Phone: + 757 928 2503

E-mail: [ana.cabiedes@liebherr.com](mailto:ana.cabiedes@liebherr.com)

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