

### **Liebherr extends its crane product portfolio with rough-terrain cranes**

- Liebherr presents a new series of rough-terrain cranes
- Main development focus was to ensure a high level of safety during use

**Las Vegas, NV (USA), March 7, 2017 – Liebherr has extended its mobile crane product range with an additional series of rough-terrain cranes in the 90-tonne (100 US ton) and 100-tonne (110 US ton) classes. The Liebherr Rough-Terrain cranes LRT 1090-2.1 and LRT 1100-2.1 will be unveiled to the public at Conexpo 2017. They feature high performance, safety and comfort.**

From the 1980s to mid-90s the Liebherr portfolio included a range of rough-terrain cranes - then called LTL-cranes. These cranes had a lifting capacity of 25 to 80 tonnes. The main focus at that time, however, was to add to the crawler cranes portfolio to build on the company's global market leadership with various types of cranes. As the market leader in all-terrain cranes and crawler cranes, Liebherr has recently re-supplemented its product portfolio with a rough-terrain series.

The development of the new generation of Liebherr rough-terrain cranes was guided by extensive market surveys and analyses into the requirements for modern RT cranes, particularly in the market of North America. In addition to the capacity of the cranes, their safety from ease of operation was one of the main focal points for the development of the new crane models.

The two newly designed LRT cranes are based on the same basic technical concepts. The crane chassis and turntable are almost identical, while there are differences in the boom length, telescoping technology, ballast weight and lifting capacity.

#### **"Safety first" - safety equipment sets new standards**

High safety levels were the main priority for the design of the new Liebherr LRT cranes. The new crane models feature an outrigger monitoring system standardly. 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 is standard on the new LRT cranes, which makes an important contribution to enhancing safety. VarioBase® allows each individual outrigger beam to be extended to optional lengths. The crane work is controlled by the load moment limiter within the LICCON controller, which calculates the maximum load capacities precisely for the current situation. This prevents accidents by human error during the assembly process and when hoisting loads. VarioBase® also provides greater flexibility on site. As a result of the increased lifting capacities when hoisting over the supports, the crane can hoist loads normally reserved for the next higher crane class.

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. The user-friendly controls make the crane easy to handle. They allow the crane operator to concentrate on the main focus of his job, working with the crane and the load. A cooler and USB charging socket are standard features in the cabin.

There are ladders, a large number of handles and an electrically extending platform on the cabin to ensure safe access to the crane. The new LRT cranes feature a wide range of storage boxes for accessories, rigging equipment and support timber as standard features. They also have a storage facility for the crane hook.

The two newly developed LRT crane models will be launched by Liebherr as the first mobile cranes which meet global safety standards and comply with all global regulations, such as; the US standard ANSI B30.5, The European EN 13000, Australian Standards (AS) and the Russian GOST standard.

There is no distinction to countries with 75% tables or 85% tables. Bypassing of safety equipment is prevented. Liebherr is the pioneer in the industry in this respect.

## **Excellent off-road capacity and low cost global transport**

The new LRT cranes from Liebherr are powerful and robust, have good off-road capability and are also easily maneuverable. The crane models are both powered by a CUMMINS diesel engine which meets all current emissions regulations. The engine develops 194 kW (264 bhp) and supplies a maximum torque of 990 Nm (730 lb-ft.). A 6-speed power shift transmission from DANA and large 29.5 R25 tires guarantee the required off-road capability for the cranes. Their maximum speed is 25 km/h (15 mph). All-wheel and crab steering ensure easy handling and high maneuverability in constricted conditions.

The LRT cranes measure 3.87 m (12'8") in height and 3.3 m (10'10") wide and are transported on public roads with a low loader. Their curb weight is less than 55 tonnes (121,000 lbs) with complete equipment including ballast or under 40 tonnes (88,000 lbs) without ballast or equipment. That means that the new rough-terrain cranes from Liebherr can be transported worldwide at low cost. The LRT 1090-2.1 and the LRT 1100-2.1 can be quickly and easily assembled once they have reached the work site. The outrigger pads which remain inside the width of the vehicle contribute to this, since they do not have to be removed for transport.

## **High lifting capacities with long telescopic booms**

The 100-tonne (110 US ton) LRT 1100-2.1 has a 50 m (164 ft.) 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 telescoping system on the new rough-terrain crane is particularly simple and user-friendly as excellent lifting capacities over the entire radius range can be achieved with just two telescoping modes; Strong mode or Long mode. The counterweights, weighing 14 tonnes (30,800 lbs) ensure high stability. The lifting capacity of the LRT 1100-2.1 is around 15% higher than that of the 90-tonne (100 US ton) model which features 12 tonnes (26,500 lbs) of counterweights. The LRT 1090-2.1 features a 47 m (154 ft.) telescopic boom. Its telescoping system consists of a two-stage hydraulic cylinder with a rope extension mechanism. Similar to the 100-tonne (110 US ton) model the boom can be extended easily with either the Strong or Long

telescoping modes. The extension mechanism on both crane models has been designed for high telescoping lifting capacities.

A second winch and the rooster sheave are included as a standard feature on the basic machine for two-hook operation. As an option a 10.5 – 19 m (34.5 - 62 ft.) double folding jib can be installed on the telescopic boom. It can be attached at an angle of 0°, 20° or 40°.

### **Caption**

liebherr-rough-terrain-crane-ltr-1090-2.1.jpg

The new Liebherr rough-terrain cranes are designed for high capacity and safety.

### **Contact**

Wolfgang Beringer

Telephone: +49 7391 502-3663 757 928 2503

Email: [wolfgang.beringer@liebherr.com](mailto:wolfgang.beringer@liebherr.com)

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[www.liebherr.com](http://www.liebherr.com)