

Liebherr unveils new LTC 1050-3.1 compact mobile crane at the Intermat 2015

- Improved performance compared to predecessor LTC 1045-3.1
- Greater safety and performance with VarioBase®
- ECOmode for more efficient crane use
- Engine: Stage IV / Tier 4f emissions

Paris (France), 20 April 2015 – Liebherr unveils its new LTC 1050-3.1 compact mobile crane, the successor to the LTC 1045-3.1, at the Intermat 2015 in Paris. The partial use of an even stronger fine-grain structural steel and improvements in the boom telescopes mean that the load capacity has been increased yet again whilst the dimensions have stayed almost identical. The Liebherr innovations VarioBase® and ECOmode mean that crane operators can use the new LTC 1050-3.1 with even more safety and efficiency. The 6-cylinder diesel engine meets the latest emissions regulations for Stage IV / Tier 4f.

Variable, highly compact single-cab crane

Liebherr unveiled its LTC 1045-3.1 compact crane with a completely new cab concept at the Bauma 2010 and this has now been continued with the new LTC 1050-3.1: For driving on the road the cab is moved to the front of the vehicle using a telescopic arm. In this position the crane driver has better visibility and a good driving position, particularly at high speed. The optional lift cab which can take the crane driver to an eye level of 7.8 m opens up new areas of use and advantages over conventional machines. The drastically improved line of sight to the assembly situation enhances safety for many crane jobs. This is why the majority of operators of the LTC 1045-3.1 have decided to purchase the lift cab.

Thanks to its active, speed-dependent rear axle steering, the new LTC 1050-3.1 has good lane stability at high speed and is very manoeuvrable at low speed. The vehicle dimensions and turning circle radius have not changed compared to its predecessor. This means that the turning circle radius over the telescopic boom with 385/95 R25 (14.00) tyres is just 7.5 m. In particularly constricted areas on the site the boom can be

luffed upwards to bring the turning circle of the chassis into play. The chassis length is 8.9 m and can be reduced to 7.7 m by removing the front storage box. Even with 16.00 size tyres the vehicle width stays within 2.55 m.

Ready for use straight away as a taxi crane

The new LTC 1050-3.1 is designed to be an "all-in crane" so that its gross weight of 36 t and axle weight of 12 t includes the entire counterweight of 6.5 t, the double folding jib, 445/95 R25 (16.00) tyres, Telma eddy current brakes, 6x6 drive and a hook block. This means that the 50-tonner is immediately ready for use when it arrives on site.

The new LTC 1050-3.1 is powered by an in-line six-cylinder diesel engine which complies with the latest emission regulations under Directive 97/68/EC - Stage IV and EPA/CARB - Tier 4 final. The engine produces 260 kW / 354 bhp and develops torque of 1,400 Nm. The drivetrain features a ZF automatic gearbox with six forwards and two reverse speeds. A torque converter allows for sensitive manoeuvring and minimal creep speeds.

High load capacities with practical boom system

The new LTC 1050-3.1 has high load capacities over its entire working range. It is considerably more powerful than comparable city cranes on the market. The strong telescopic cylinder and the correspondingly enhanced crane controller on the LTC 1050-3.1 allow heavy loads to be telescoped which is particularly beneficial for installation work in factory buildings.

The 6-piece 8.2 m - 36 m telescopic boom is extended and bolted fully automatically using the telematic controller, some 10,000 of which have now been fitted. The 7.5 m - 13 m double folding jib includes a 1.5 m assembly jib which can be set to an angle of up to 60°. The assembly jib and an optional second winch make the LTC 1050-3.1 ideal for assembly work in very constricted areas and in low industrial buildings. A 3-roller compact hook block with a double hook is available to use the perfect hoist heights for these applications. The maximum hoist height is achieved with a hook traverse which is installed instead of the roller insert in the assembly jib.

The new LTC 1050-3.1 features a wide range of storage boxes for extensive accessories, handling equipment and support timbers as standard.

Constructive cooperation with operators of the LTC 1045-3.1 meant that a wide range of detailed improvements have been made on its successor, the LTC 1050-3.1. For example additional storage space has been created for crane accessories and the storage area for support timbers has been enlarged. Erection aids make the crane driver's job easier whilst an additional fixed rope anchorage increases the hoist height and some crane functions are now easier to use.

Easy control with load sensing and LICCON2

In the hydraulic system, the electric "Load-Sensing" control ensures accurate work operations. Up to four movements can be actuated simultaneously. Depending on the requirements for the lifting task and of the crane driver, the slewing gear can be easily switched from "open" to "hydraulically locked".

The Liebherr LICCON2 crane control is used in the LTC 1050-3.1. Thanks to its modern and future-oriented control architecture, it facilitates adaptation to the continually growing needs of the market. It features a mobile, multifunctional BTT Bluetooth terminal for setup functions. This means that the crane can be supported easily and safely. The crane driver also has the option of attaching and removing the hook block with visual contact via remote control of the hoist winch and the luffing cylinder of the telescopic boom.

The Liebherr LICCON2 mobile crane controller also offers the option of simple and thus cost-effective conversion into a complete remote control system for the crane. Other than the relevant software on the crane, all that is required is a console with two master switches, which the existing BTT plugs into. A significant advantage for the crane operator is that the console can also be used for other cranes with LICCON2 controls programmed for remote control operation.

ECOMode for more efficient mobile crane use

Liebherr has developed a special ECOMode for mobile cranes in the load-sensing range to reduce the cost of crane use whilst also reducing noise emissions. Crane drivers do not know the perfect engine speed for the required working speed. This results in them mostly operating with too high an engine speed. This particularly applies to movements in which a speed well above idling speed does not produce any major additional increase in working speed. Examples of this include luffing down the boom or lowering the hoist unit.

In ECOMode the crane driver sets the required working speed using the control lever. The LICCON2 controller then calculates the perfect engine speed for it. This value is set on the crane engine using the engine control unit. The result of this adjustment of the engine speed compared to using a constant and therefore mostly excessive engine speed is to reduce fuel consumption and minimise noise emissions.

Greater safety and performance with VarioBase®

Working on sites and in particular in buildings often means difficult, constricted conditions. It is often not possible to extend all the supports evenly in crane use locations.

Liebherr has developed a unique new systems with each every individual crane support can be extended to any length and the crane operation is then made safe by the load moment limiter within the LICCON controller - this is called the VarioBase® variable support base. The extension length and support force of every single support is measured and the maximum lifting capacities for this situation are calculated by the crane controller.

This means that it is possible to work safely with any support base and accidents caused by incorrect operation can be avoided both during the setup process and when handling loads.

The variable support base also ensures higher lifting capacities and a larger operating range, even with a maximum support base. The largest increases are made in the

operating ranges directly above the supports. VarioBase® also makes improvements over the 360° lifting capacity tables for hoisting to the front and rear.

Captions

liebherr-mobile-crane-ltc1050-01.jpg

Liebherr unveils new LTC 1050-3.1 compact mobile crane at the Intermat 2015 in Paris, France

liebherr-mobile-crane-ltc1050-02.jpg

The new Liebherr LTC 1050-3.1 compact mobile crane is ideal for use in constricted areas

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