

The most powerful 5-axle mobile crane on the market – Liebherr unveils new LTM 1250-5.1 at its customer days

- Designed for maximum performance: the LTM 1250-5.1 is the most powerful 5-axle mobile crane in the world
- Enormous hoist heights and radii with optimized lattice jibs
- VarioBallast – ballast radius reduction for jobs in constricted areas
- Innovative single-engine concept with ECOmode
- Greater safety and performance with VarioBase®

Ehingen / Donau (Germany), 17 June 2015 – Liebherr unveils a new 250-tonne mobile crane to visitors from all over the world at its 2015 customer days at the manufacturing plant in Ehingen. The LTM 1250-5.1 is now the most powerful mobile crane on 5 axles on the market. It is the third crane model on which Liebherr uses its innovative single-engine concept. In addition to a multi-functional folding jib, a 50 m fixed jib is also available. The Liebherr innovations VarioBase® and ECOmode mean that crane operators can use the new LTM 1250-5.1 with even more safety and efficiency.

Powerful, variable boom system

The LTM 1250-5.1 is the successor to the global success model LTM 1220-5.2. In the development of the new crane Liebherr followed the concept of achieving maximum load capacity from the available weight of a 5-axle mobile crane. The result is that the LTM 1250-5.1 is now the most powerful crane in its class in the world. Its load capacity has been increased compared to its predecessor by around 15% - 20% whilst the telescopic boom has remained at the same length of 60 m. With lattice extensions the maximum hook height has been increased by a massive 9 m to 110 m.

Liebherr has a particularly wide and variable range of lattice jibs for the new LTM 1250-5.1. The 12.2 m to 22 m folding jib can be extended up to 36 m with 7-metre sections. The folding jib is attached with a 0°, 22.5° or 45° inclination. As an option the folding jib can be supplied with a hydraulic adjustment system, which allows it to luff with a full load between 0° and 45°. The adapter section for the folding jib is used as a 5.4 m

erection jib. The pivot point for the folding jib can be raised using up to two straight 7 m lattice sections acting as telescopic boom extensions. These sections and the folding jib extensions can also be used on the Liebherr LTM 1200-5.1 and LTM 1220-5.2 mobile cranes. This is a major benefit for crane operators that use these crane models in their fleet.

One feature that has been unusual in the 5-axle class to date is the possibility to mount a long fixed jib which, for example can achieve enormous radii over buildings. Liebherr has created a particularly smart solution for this. It is now possible to achieve a fixed jib of up to 50 m in length with just one additional TF adapter (connection between the telescopic boom and the fixed jib), a reducer section and a head. The existing telescopic boom extensions and folding jib extensions are used for this purpose. This jib is generally hydraulically adjustable between 0° and 45° and can therefore be used like a luffing jib.

The maximum ballast on the new LTM 1250-5.1 is 88 t with a maximum width of 6.3 m. The base plate weighing 1 t and a 10-t ballast plate are the same width as the vehicle. With up to 68 tonnes of ballast the ballast width is 4.1 m.

VarioBallast is a new feature for Liebherr. The LTM 1250-5.1 can be operated with two different ballast radii: 5.58 m or 4.78 m. Liebherr has designed a solution to adjust the ballast radius particularly quickly and easily. The ballast radius is reduced by 800 mm using standard mechanically swivelling ballasting cylinders. This solution is a major benefit of the new 250-tonne model for use in constricted conditions.

Time-tested chassis technology

A six-cylinder Liebherr diesel engine in the undercarriage which develops 400 kW / 544 bhp and torque of 2,516 Nm, provides the LTM 1250-5.1 with all the power it needs. The engine meets the Stage IV / Tier 4f emissions regulations.

The power is transferred to the crane's axles by the 12-speed ZF-AS-Tronic gearbox. A two-stage distributor gear permits minimal creeper speeds in manoeuvring mode. The interarder, a zero wear hydrodynamic brake integrated in the gearbox, acts as a retarder.

In addition a Telma eddy current brake is available as an option. Like almost all LTM mobile crane models, the LTM 1250-5.1 is fitted with pneumatic disc brakes. The rear axles on the new 250-tonner have active electro-hydraulic steering depending on the vehicles speed. This increases the manoeuvrability of the vehicle and drastically reduces tyre wear. Five steering programmes can be conveniently selected at the touch of a button.

Innovative single-engine concept

The new Liebherr single-engine concept is once again used on the LTM 1250-5.1, with the superstructure being powered by a mechanical shaft. Gear shafts are routed from the distributor gear in the substructure via two mitre gears through the centre of the slewing ring to the pump distributor gear in the superstructure.

A mechanical shaft ensures particularly high efficiency levels and low engine speeds in the chassis engine, providing sufficient power for crane work. This ensures the economy of the new concept in terms of fuel consumption. The benefits of not having a separate superstructure engine include reduced maintenance work and lower weight. The lower weight can be used for load-bearing components, thus increasing the crane's load capacity.

ECOMode for more efficient mobile crane use

An add-on program has been developed for the new crane drive concept with just one engine and a mechanical shaft, allowing the machine to be run with particularly low fuel consumption. This means that complete pump drive can be automatically disconnected when the engine is idling and reconnected through the intelligent controller in a matter of seconds when it is required.

Liebherr has also developed a special mode for mobile cranes in the load-sensing range to reduce the cost of crane use whilst also reducing noise emissions. ECOMode minimises both fuel consumption and noise emissions when operating the crane superstructure.

Crane drivers do not know the perfect engine speed for the required working speed. This results in them mostly running at a too high engine speed. 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. Compared to using a constant and therefore mostly excessive engine speed, the result of the adjustment of the engine speed reduces fuel consumption and minimises noise emissions.

Caption

liebherr-mobile-crane-ltm1250-5-1.jpg

Liebherr unveils the five-axle LTM 1250-5.1 at its customer days in Ehingen (Germany)

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