

Liebherr unveils new 500-tonne LR 1500 crawler crane at customer days

- LR 1500 delivers load capacity of a 500-tonne model with the dimensions and weights of a 400-tonne crane
- Can be transported around the world without restrictions with 45 tonnes transport weight
- Simple overall concept and great economy

Ehingen / Donau (Germany), 17 June 2015 – Liebherr unveils the LR 1500 with maximum load capacity of 500 tonnes at 2015 customer days. The completely newly developed crawler crane delivers the load capacities of the 500-tonne crawler crane class throughout its complete operating range, whilst upholding the dimensions and component weights, which have previously been standard in the 400-tonne class. With a transport weight of just 45 tonnes, it can be transported around the world without restrictions. The overall concept of the new crane is designed for simplicity in all areas and great economy.

Liebherr unveils new crane models and innovations from its mobile and crawler crane division on 17 and 18 June 2015 at its customer days. One special highlight is the presentation of its completely newly developed LR 1500 500-tonne crawler crane.

Compact crawler crane with high capacity

Compact dimensions and low cost worldwide transport were the main criteria for the design of the new Liebherr LR 1500. Ultimately the company managed to develop a crawler crane which delivers the load capacities of a 500-tonne model over its entire working range whilst retaining the benefits of the compactness and transportability of 400-tonne class crawler cranes.

With a maximum transport weight of 45 tonnes the new crane can be transported on all markets without any restrictions. The central crawler section with turntable weighs 55 tonnes. The removable A frame allows this weight to be reduced to 45 tonnes. A quick connection is not required. The transport dimensions of 3 metres in width correspond to the global transport standard.

The track width of the LR 1500 also confirms the new crane's compact dimensions since it is in the range of 400-tonne models at just 7.6 metres. The standard base plates on the LR 1500 measure 1.5 metres in width. They are wider than the base plates on 400-tonne class crawler cranes. This is a great benefit as this reduces ground pressure drastically.

The travel drives on the new LR 1500 have plenty of power. They have been taken from the LR 1600/2. The engine develops 350 kW, which is around the same level as engines on 600-tonne class cranes. The 6-cylinder inline engine used on the LR 1500 meets the emissions regulations of Stage IV / Tier 4f.

The new 500-tonne crawler crane from Liebherr delivers enormous hoist heights since the 84 m luffing jib can be installed on a main boom up to 84 m in length. The 250-tonne jib head on the luffing jib is also used for SL main boom operation. A 400-tonne head is available as standard for the S main boom for heavyweight jobs. This has the advantage of being more lightweight than the optional 500-tonne head.

The derrick system on the LR 1500 is also designed for maximum performance with compact dimensions. The derrick boom is 30 metres in length and the derrick ballast is up to 260 tonnes. The derrick radius can be adjusted in a very large range from 9 to 16 metres. A minimum derrick radius of just 9 m is an excellent value for a 500-tonne class crawler crane.

Simple, economical overall concept

The criteria of simplicity and economy also had the highest priority in the development of the LR 1500. The new Liebherr crawler crane cannot just be transported easily and at low cost, but is also simple to set up and operate.

The powerful main hoist gear with its line pull of 180 kN can handle all hoists up to the maximum load capacity. This makes crane operation easier since it means that there is no need for a second winch for dual operation for heavyweight hoists. Another winch with a line pull of 125 kN is only needed if the crane is operated with a runner.

The designers also developed the whole lattice boom system to be simple. They reduced the number of parts and component diversity on the new LR 1500 by deliberately neglecting the otherwise standard divisions of lattice sections. That makes the transport and erection of the lattice boom simpler and therefore more economical. The lengths of the boom sections are 6 and 12 metres. The guide frame for the derrick ballast has been completely omitted from the design. The ballast radius is adjusted simply using the derrick boom.

The ballast for the new LR 1500 consists of the 10-tonne plates which are also used on the LR 1400/2 and LR 1600/2 machines. This is a low cost solution for crane operators which have several cranes of these types in their fleet.

To increase the economy, the designers have created a particularly smart solution in terms of the central ballast.. It consists of just a few concrete sections which can be set up quickly and easily and whose top section forms a safe catwalk for the undercarriage.

Caption

liebherr-crawler-crane-lr1500.jpg

The new Liebherr LR 1500 crawler crane delivers the load capacity of a 500-tonne model with the dimensions and weights of a 400-tonne crane

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