

Liebherr brings the new 1,000 tonne (1,200 US-tons) LR 11000 Crawler Crane to Conexpo Con/Agg 2014

March 2014 – Conexpo Con/Agg 2014 in Las Vegas (USA) is the first occasion where Liebherr brings the new 1,000 tonnes (1,200 US-tons) crawler crane to the US. To supplement the crawler crane range between the LR 1750 and the LR 11350 Liebherr unveiled the new LR 11000 at the 2013 Bauma in Munich, Germany.

The LR 11000 is Liebherr's reaction to growing market demands for hoisting work in the 1,000 tonne (1,200 US-tons) segment, such as for handling offshore wind turbines and their foundation structures at ports. The LR 11000 is the embodiment of an economical crane concept for this work in terms of crane size and transport logistics.

Versatile boom systems, large lifting capacity range

Its large number of boom versions means that the new Liebherr crawler crane covers a wide range of applications. The standard components comprising the S main boom and W luffing jib enables the crane to achieve various boom systems, including a strong PowerBoom system with a heavy luffing jib. Only the P adapter is required as a supplement for this purpose. Main S boom operation is possible with a 1,000 tonne (2,205,000 lbs) head or a 650 tonne (1,433,000 lbs) head.

The LR 11000 is technically prepared as standard for the PowerBoom system, operation with a ballast trailer and all winches. This ensures that simple retrofitting is possible. In addition special equipment with a fixed jib for assembling wind turbines with high towers is planned for the new crawler crane.

Time-tested crawler crane innovations

Liebherr has set more and more new standards in crawler crane development over the last few years in the form of technical innovations and user-friendly designs. Many of these developments have been included in the new LR 11000. The design of the P boom has been taken from the 3,000 tonnes (3,300 US-tons) LR 13000 crane. The

new LR 11000 includes parts from the luffing jib for the PowerBoom which means that the main boom sections can be used to ensure a particularly strong luffing jib.

Several innovative concepts have been taken from the 1,350 tonne (1,500 US-tons) LR 11350 crawler crane for the LR 11000, including the fact that the radius of the derrick ballast is infinitely adjustable and can be extended to larger radii with fixed lattice guide. The central crawler section including the slewing ring and bottom section of the slewing platform forms a transport unit and can be connected to the slewing platform quickly using just four bolts. This means that there is no need for a quick-release connection. The undercarriage features a 360° platform with railings which can be accessed from two sides using access ladders. The platform provides safe, easy access to the slewing platform and crane cab.

The new large crane cab which was developed for the LR 1600/2 is also used on the LR 11000. A large number of details to make transport and erection easier have also been taken from the LR 1600/2. These include the removable A-frame including reeving system, fall protection equipment and stacking supports for lattice sections.

The LICCON2 controller provides extended setup facilities and monitored erection for the LR 11000.

Economical transport logistics

The new LR 11000 is designed for a transport width of 3.5 m (11'6") and a transport height of 3.2 m (10'6"). The crawler carrier and the central crawler section each weight 60 t (132,300 lbs) and are therefore the heaviest transport packages. The individual weights can be reduced to 45 t (99,200 lbs) for regions with critical transport infrastructures. As normal on Liebherr crawler cranes, the lightweight lattice sections can be retracted into large heavy sections to reduce transport volume.

The ballasts take the form of 10 t (22,050 lbs) Liebherr standard cast plates. This means that they can be used universally on all Liebherr crawler crane models. The LR 11000 operates with a maximum of 250 t (551,250 lbs) slewing platform ballast, 90 t (198,450 lbs) central ballast and up to 450 t (992,000 lbs) derrick ballast. The derrick

ballast is infinitely adjustable up to 20 m (66 ft) and with a fixed lattice guide it can be operated at radii of 20 m (66 ft), 25 m (82 ft) or 30 m (98 ft).

Compact basic crane, powerful drive unit

The LR 11000 has been designed so that it can be used in constricted areas, for example in refineries. The basic crane is extremely compact and has a track width of just 9.2 m (30'2"). The suspended ballast can be moved to a minimum of 12 m (39'4") to the basic machine – an excellent value for a machine in this performance class.

The crawler chains are 2 m (6'7") wide and there are plans to produce an optional 2.4 m (7'10") version. The crawler chassis features a four-way drive unit as standard.

A Liebherr V8 diesel engine which develops 500 kW / 680 h.p. is used to power the LR 11000. The hoist ropes are 32 mm (1.2") in diameter and the hoist winches perform a line pull of 23 t (51,750 lbs).

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