Derrick 200 DR 5/10 Litronic

Job-Report

First Derrick Crane in India

LIEBHERR

First Derrick Crane in India

India's first Liebherr Derrick Crane dismantles a tower crane on one of the country's tallest commercial building

The first Liebherr Derrick Crane, ordered by Indian contractor Larsen & Toubro (L&T), has successfully dismantled and lowered to ground level the tower crane used one of the country's tallest commercial building, the 50-storey Kohinoor Tower with a height of 203 m.

L&T ordered the Liebherr 200 DR 5/10 Litronic Derrick Crane recognizing that towers are increasingly being specified above 200 m heights across India; with no safe and economic system for dismantling tower cranes on completion of construction.

The procurement of the Derrick from Liebherr was a careful and detailed decision conducted between the L&T headquarters in Chennai and Liebherr executives. Detailed discussion between site and Liebherr's Tower Crane Solutions department were integrated in the process.

David Griffin, sales director at Liebherr-Werk Biberach GmbH, mentioned the exceptional focus on safety and professionalism of the L&T team: "We see huge potential for the execution of several dismantling projects using the Liebherr Derrick Crane on L&T sites. In fact, there would appear to be enough work for additional Derrick units in India."

203 m Kohinoor Tower
The iconic, diamond-shaped tower is the centrepiece of a 5-acre development, on the site of the former Kohinoor textile mill, in Dadar West, South Mumbai.

Derrick Crane
The 200 DR 5/10 Litronic was designed as a dismantling crane for the stripping down of cranes on tall buildings, bridge pylons and telecommunication towers. This why the dimensions and weights of all the individual parts of the crane are designed to enable them to be dismantled solely with the aid of a very small hoist and removed via lift shafts in buildings.

The Liebherr 200 DR 5/10 Litronic Derrick Crane has no trouble dismantling tower cranes in the 300-mt-plus payload category.

The maximum radius of the 200 DR 5/10 Litronic can be set to 20 m or 25 m as required. Using a jib for a maximum radius of 20 m, loads of 10 t can be hoisted in double-reeved operation across the whole radial area. The jib used for a 25 m radius can hoist 7.5 t at the tip, and at the point of inflexion of its load curve

can hoist 10 t at a radius of 19 m. This ensures that the crane can also lower heavy parts from great heights whilst preserving a safe gap between them and the building.
The 200 DR 5/10 Litronic Derrick Crane is equipped with frequency-controlled stepless drives for all types of movement. The luffing gear has an output of 37 kW, while the hoist gear produces 45 kW.

Safety is a factor of great importance in crane operation on buildings hundreds of metres tall. The safety-orientated SPS controls in the Liebherr 200 DR 5/10 Litronic Derrick Crane monitor all movements with the tried and tested functionality found in all Liebherr luffing jib cranes.

Rapid auto-dismantling
Once the projects tower crane had been completely dismantled and lowered to ground level, the Derrick Crane was stripped down in to its individual parts lowered in to the buildings lift shafts. The maximum dimensions of the individual components are only 2.20 m x 1.10 m x 1.10 m and the maximum weight component is 1000 kg.

Work experience
The 200 DR 5/10 Litronic has had its first work experience dismantling cranes in Middle East, Russia, North America and Turkey.

Technical Data

Maximum radius	25.0 m
Lifting capacity at maximum radius	7,500 kg
Maximum lifting capacity	10,000 kg
Luffing gear	37.0 kW FC
Hoist gear	45.0 kW FC
Maximum hoisting height	317.0 m

Printed in Germany LBC LBC-756-06.14_e