

Liebherr 200 DR 5/10 Litronic derrick crane used for crane dismantling on the Federation Tower at a height of 250 m.

Job- Report



Derrick cranes are principally suitable for hoisting extremely heavy loads, and are used as stationary installations for the cantilevered construction of steel bridges, the construction of tall buildings with a steel skeleton frame or for special dismantling tasks.

Four kilometres as the crow flies from the Moscow Kremlin, „Moskwa City“ is being built on a 2.5 million

square-metre footprint. Landmark of this city will be the Federation Tower with an overall height of 354 m.

On completion, this structure will contain restaurants, a well-know hotel, luxury apartments and offices. The Russian conglomerate Mirax is the main investor and building contractor of the project.

LIEBHERR

Special crane for dismantling tower cranes at work on Europe's biggest construction site in Moscow.



160 HC-L 8/16 Litronic and Derrick DR 200 5/10 Litronic

Disassembly at great heights

The 200 DR 5/10 Litronic special crane will be used in Moscow for dismantling tower cranes on the Federation Tower at a height of more than 250 m. The derrick crane has no trouble dismantling tower cranes in the 300-mt-plus lifting capacity category. On the Federation Tower, the derrick crane will dismantle and lower luffing jib cranes of the 160 HC-L 8/12 Litronic and 355 HC-L 16/32 Litronic upon completion of the tower.

Adaptable all-purpose machinery

Depending on the requirements, the new derrick can be configured with load moments of 100 mt or 200 mt. The supports of the 200 DR 5/10 Litronic are articulated and will be adapted to the structural circumstances of the substructure on the Federation Tower in order to achieve optimum distribution of the support forces. Depending on the application, the special crane can be used with or without supports, known as stiff legs.

Variable working radius

Thanks to its variable working radius of up to 25 m, the derrick crane can lower the heavy parts of the dismantled luffing jib cranes at a sufficient distance from the building.

The derrick crane which is equipped as standard with a hoist gear for heights of more than 300 m lifts all loads in single- and double-reeved operation.

Safety-orientated controls

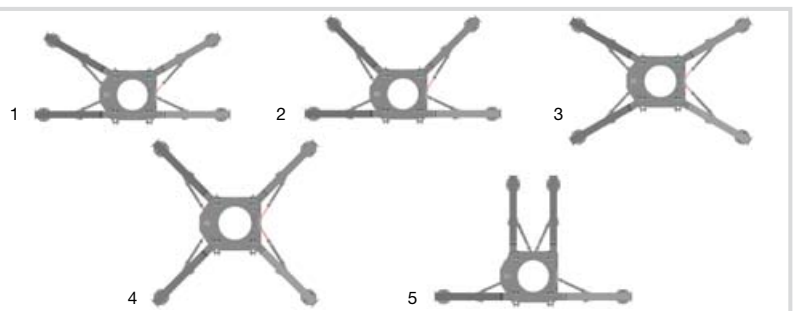
Safety is a factor of great importance in crane operation on buildings hundreds of metres tall. The safety-orientated PLC controls in the Liebherr 200 DR 5/10 derrick crane monitor all movements with the tried and tested functionality found in all Liebherr luffing jib cranes. Sensors monitor and safeguard the lifting height, load moment, jib inclination and slewing gear. Using remote controls, the crane operator can operate the crane from the most advantageous position.

Rapid auto-dismantling

Once the luffing jib cranes have been completely dismantled and lowered, the derrick can be stripped down into individual parts which can be lowered in the building's lift shafts. The maximum dimensions of the individual parts come to 2.20 m x 1.10 m x 1.10 m with a maximum weight per package of 1,000 kg.

Upon completion, around 100,000 people will live and work in Moskwa City.

Technical Data 200 DR 5/10		
Max. lifting capacity	kg	10.000
Lifting capacity at jib head	kg	7.500
Working radius	m	20,0 / 25,0
Heaviest component	kg	1.000
Largest component	m	2,20 x 1,10 x 1,10



Extremely adaptable base area