

Five large Liebherr tower cranes used for mining in the Atacama Desert, Chile

- 40 and 50-tonne versions of 1250 HC tower cranes
- First used as construction cranes, then as maintenance cranes
- Adverse geographical and climatic conditions

April 2014 – Five Liebherr 1250 HC tower cranes are being used at two mining projects in the Atacama Desert in Chile. These large 40 and 50-tonne versions have one of the highest lifting capacities of any tower cranes in Latin America.

Two tower cranes at the "Minera Escondida"

Two 1250 HC 40 Litronic tower cranes have been mounted on foundation anchors at the "Minera Escondida" copper mine which is at an altitude of 3100 m above sea level.

During the initial phase the tower cranes will be used for extension work and to build the mine infrastructure. Both machines have a working radius of 52.0 m which covers the required working area and have hook heights of 40 m and 52 m. During the construction phase they handle loads of up to 20 tonnes which they master without any problem.

After the construction phase has been completed the two Liebherr tower cranes will be used for maintenance purposes. Their planned service life is around 25 years. In addition to their reliability and the long term availability of spare parts, the "Made in Germany" quality feature was the main factor for selecting Liebherr tower cranes for this long term project.

Three tower cranes at the "Minera Sierra Gorda"

A total of three 1250 HC tower cranes are in use at the "Min-era Sierra Gorda" copper mine. Two of these cranes are the 50-tonne version and the third is the 40-tonne

version. All three cranes have been mounted on foundation anchors and erected in similar configurations.

The 1250 HC 40 reaches a hook height of 34.9 m and a working radius of 51.9 m. The two 1250 HC 50 are configured with hook heights of 68.6 and 69.6 m and each has a working radius of 38.8 m.

During the construction phase the cranes are used as classic tower cranes for effective load handling for the assembly of tanks. The construction of the tanks, each with a capacity of 300 m², is scheduled to take one year. During this process loads of 14 - 17 tonnes per component will be handled.

In the long term all three cranes will be used as maintenance cranes in the mine. One 1250 HC will be used to support maintenance work on the flotation cells. The two others will help with service and maintenance work at the ball mills.

Liebherr tower cranes for use in adverse conditions

The extreme geographical and climatic conditions not only present challenges to the workforce but also to the crane equipment. The high temperature differences of up to 40°C between night and day and the dust created by the arid desert climate produce extraordinary stresses.

In addition Chile is one of the most earthquake-prone countries on Earth where earthquakes up to a magnitude of 5 are by no means a rarity. This means that all the cranes must comply with a Chilean standard which ensures that they are resistant to earthquakes. Since 2010 several Liebherr EC-H and HC tower cranes have been used successfully in mining projects in Chile and Peru.

Captions

liebherr-1250hc-atacama-chile.jpg

1250 HC tower cranes at the "Minera Sierra Gorda"

Contact person

Hans-Martin Frech

Phone: +49 7351 41-2330

E-mail: Hans-Martin.Frech@Liebherr.com

Published by

Liebherr-Werk Biberach GmbH

Biberach, Riss / Germany

www.liebherr.com