

# All in the FAMILY

**What started as a humble family business has grown into the Liebherr empire**

*By Heather Hudson*

**I**f you're in the pile driving business, you know the Liebherr name.

Emblazoned across their innovative line of mobile, construction and crawler cranes, deep foundation machines, mining equipment and numerous other heavy construction products, Liebherr has become synonymous with quality.

Behind that distinctive name is a family business that has grown from humble beginnings to one of the world's leading manufacturers of construction machinery.



The Liebherr LRB 255 on site and in operation in Quebec, Canada



The Liebherr LRH 100, the company's newest pure piling rig that was first presented at BAUMA 2010



Established by Hans Liebherr in 1949 in Kirchdorf, a small southern German town, the business truly took off with the success of his first mobile, easy-to-assemble and affordable tower crane. However, “took off” might be an understatement. Kirchdorf is now one of 40 manufacturing sites of the Liebherr Group and has an annual output of some 2,800 wheeled excavators and a workforce of more than 1,500.

And that’s just the tip of the Liebherr iceberg. Today, the Liebherr Group comprises more than 130 companies in every continent of the world and employs a workforce of about 38,000 people.

Over the years, Liebherr passed the torch to his children, h.c. Isolde Liebherr and her brother h.c. Willi Liebherr. Just last year, members of a third generation came on board to manage individual divisions and help set the company’s course for the future.

### Spotlight on LWN

North Americans may be most familiar with a division based in Nenzing, Austria, which manufactures a broad range of heavy equipment that’s well used in North America.

Hans Liebherr bought the production site for Liebherr-Werk Nenzing (LWN) in 1976 to make ship and offshore cranes. In 1979, duty cycle crawler cranes became the first construction machinery to be produced there.

In 1999, the company began develop-

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## The Group

ment work on a new series of combined piling and drilling rigs (LRB). Striving to provide “everything from a single source,” the company was keen to add machines for various special deep foundation tasks to their product range. Currently, the LRB series consists of three types: LRB 125, LRB 155 and LRB 255.

As a result of this innovation and mass manufacturing, the plant site in Nenzing now employs almost 1,700 people and has a total area of more than 254,000 square metres with eight workshop buildings and two administrative buildings. In 2012, LWN alone achieved a turnover of 951 million euros.

For the international construction machinery market, LWN provides lift cranes, universal duty cycle crawler cranes as well as piling and drilling rigs. The Nenzing plant also coordinates production sites in Sunderland (UK) and Rostock (DE) as well as fully owned sales and service organizations in Hong Kong (CHN), Hamburg (DE), Amersfoort (NL), Niederhergheim (F), Mumbai (IND), Istanbul (TK) and Baku (AZ). In addition, employees from Nenzing are represented in more than 30 mixed sales companies throughout the world.

### North American connection

Liebherr products saved huge amounts of time and created a number of efficiencies during deep foundation work on the site of an iron ore mine in Quebec just this past autumn. The mine is operated by the U.S.-based firm Cliffs Natural Resources and is situated in Pointe-Noire in the bay of Sept-Îles.

### Project specs

The core of the project was constructing a multi-user dock capable of accommodating larger ore-carriers of more than 200,000-ton capacity in the future. In the first phase, the jetty facilities had to be reinforced to withstand heavier loads. Ten casings with a diameter of 640 mm were vibrated down to be embedded in the rocky layer of the seabed.

The maximum depth was 42 meters with the seabed lying approximately 20 meters below sea level. The ground consists of about 20 meters of clay followed by black granite, which had to be penetrated another two meters.

The LRB 255’s powerful engine was able to complete one pile within four to six hours, saving the company a significant

amount of time. Previously, up to three days were required for the same work.

#### Challenges on the job

- Demanding work for man and technology: The extensive active times of more than two hours without a break were especially taxing.
- Restricted space: The positioning of the piling and drilling rig on a jetty was tricky. Since space was at a premium, it proved to be particularly challenging to find enough room for the swing movement. Also, in order to avoid the tracks of the ship loader crane, the LRB 255 had to be put on a wooden platform. A crane was used to bring the platform into the correct position and move it in the desired direction depending on the requirement.
- Preparation times: The rig had to be completely assembled and disassembled several times because the piles were spread over the entire jetty facility. This was the only way to move the machine below the ship loaders. Preparation time was significant, but was reduced to a minimum due to the high mobility of the LRB 255.

In the end, the Liebherr rig was able to complete the job successfully within the scheduled period of time and within budget.

#### Secrets to success

Innovation and technology have always been two key factors for the success of LWN, particularly in the crane sector. In 2012, LWN won the State Prize Clean Technology Austria award for its innovative hydraulic drive system, Pactronic®. Originally developed for Liebherr mobile harbor cranes, the drive is now also adapted for construction machinery. It is the first hydraulic hybrid drive for cranes to achieve increased handling performance with reduced fuel consumption.

#### Future plans

Liebherr has identified the trend in recent years toward construction-site, application and process consultation and incorporated it into its own strategy. For example, in the deep foundation area, they publish a compendium on process technology and equipment selection. In a short time, it has become a standard work of reference in the industry.

Always on the cutting-edge of technology, Liebherr developed a line of ITM

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products, including LiDAT, a data transmission and positioning system for Liebherr machines and machines of other manufacturers. LiDAT provides information on the location and operation of your machines, allowing for efficient management, optimal operation scheduling and remote supervision. One of the crowning products is the

Crane Planner – a 3-D lift-planning tool for LR cranes.

For now, one thing is clear: those in the industry can count on Liebherr Group to be constantly innovating to provide solutions for just about any situation. ▼

Photos courtesy of Liebherr-Werk Nenzing GmbH



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