



Industry:
Steel

Application:
Slab-lifting

Problem / Requirement:
Create a better performing 3.5-inch pitch roller chain which will fit in the dimension restriction of the application

Solution:
Customized Rexnord Extreme Performance RexProX Roller Chain

Result:
Rexnord provided the technical knowledge and expertise to design and select a long-life chain for this rough environment

Rexnord Extreme Performance Roller Chain Provides a Reliable Solution for a Slab-lifting Application

Customized Rexnord RexProX Roller Chain in machine tool quality for heavy-duty lifting application

A major steel manufacturer was facing severe issues with a heavy-duty slab-lifting application.

The performance of the current used chain did not meet the requirements which resulted in a shorter lifetime. Due to the high dynamic strength required within the application, the steel plant was experiencing too many chain breaks.

Rexnord partnered with the customer to find a solution and designed a chain with the same dimensions as the competitive chain. This way the customer wouldn't have to change the complete construction of connecting parts and sprockets, and could avoid changes in the machinery directive.

The outcome is a completely new 3.5-inch pitch roller chain in our machine tool quality.

Machine tool quality

The machine tool quality is recommended in case the chain is under constant load with no load release. Under these conditions relubrication of the chain is not possible. The machine tool quality ensures a better wear resistance.

The main reason for the failure of the previous chain was the insufficient quality of the bore holes. The contact area of all holes should be more than 80 percent. A lower percentage can lead to fatigue failure.

Key project facts

As a result of great partnership the customized Rexnord® RexProX® Roller Chain was delivered:

- Length: 110 meters (6 x 19 meter)
- Weight: 13.500 kg
- Lead time: 8 weeks
- Production time: 6 weeks
- Expected life time: 10 years instead of 1 year



Bore hole quality of the current used chain



Rexnord bore hole with a special calibration