

Schaeffler Global Technology Solutions

Raw material extraction and processing

Reconditioning of Bearings in a Roller Press

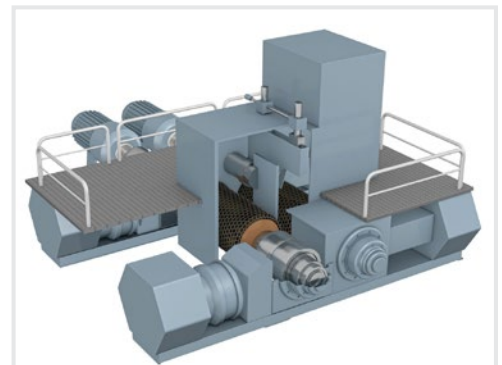
The customer is a leading company in the gold production and refining sector in Kazakhstan. For the crushing process the company is using two roller presses that allow a considerably high efficiency and material throughput.

Challenge for Schaeffler

As part of the overhaul of one of its two roller presses, the four main bearings had to be replaced because they had reached the end of their operating life. The replacement bearings held in stock were found to be damaged by corrosion caused by the ingress of water due to incorrect storage. The customer was looking for a maintenance company capable of reconditioning the bearings on site and called their local Schaeffler engineer in Kazakhstan.

Schaeffler Solution

In close cooperation between Schaeffler Kazakhstan, Schaeffler Russia and Schaeffler Germany a detailed plan for the reconditioning project was set up. Afterwards two experienced reconditioning experts from Germany travelled to Kazakhstan. They brought everything that was required for an onsite bearing reconditioning, like special mounting and dismantling tools, anti-corrosives, packaging goods, polishing and grinding materials. After an initial inspection, the Schaeffler reconditioning experts cleaned the bearings thoroughly and defined the suitable reconditioning level and the necessary process steps. Afterwards they carried out Level II reconditioning within only six days.



Technical Information about the Roller Press

Type:

Roller press

Production volume:

1 000 – 2 000 tons per hour

Feed material:

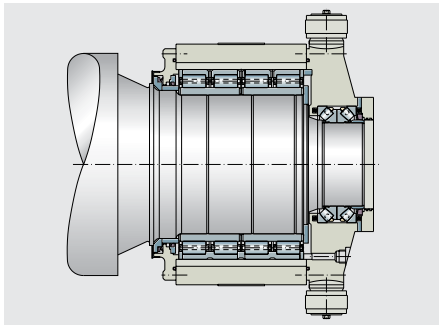
Gold and silver-bearing rock

Bearings effected:

FAG cylindrical roller bearings (CRB)

CRB bearing dimensions:

- Inner ring (ID): 710 mm
- Outer ring (OD): 1 000 mm
- Width: 715 mm
- Weight: 1 830 kg



The roller press features four-row cylindrical roller bearings as main bearings



Bearing inspection



Reconditioned bearings, packaged and made available for assembly

Customer Benefit

The bearings were ready for use after an extremely short time thanks to the fast and professional reconditioning. Subsequently they could be mounted without any delay within the planned overhaul schedule for the roller press. According to the current production volume of the customer only in the field of gold productions seven-digit breakdown costs could be avoided.

Daily breakdown costs only in gold production	
Gold production volume:	44 kg per day
Average gold sales price per kg:	approx. € 32 000
Costs resulting from downtime:	approx. 1.4 m per day

Having the bearings professionally reconditioned by Schaeffler ensures that the roller press will operate reliably in future.

What's special

In this project Schaeffler was able to provide fast and qualified support to the customer thanks to the good collaboration of the Schaeffler experts from Kazakhstan, Russia and Germany within the Schaeffler Global Technology Network. Schaeffler performs reconditioning of rolling bearings following standardized methods throughout the world.

Technical Information about the Solution

Level II reconditioning:

- Dismounting
- Cleaning
- Inspection
- Assessment
- Measurement
- Inspection report
- Polishing
- Lubrication/preservation
- Packing