

Customer
Success
Story

We pioneer motion

Remanufacturing to maximize storage life and protect the environment

The BILSTEIN GROUP's maintenance team was looking for a resource-saving solution to increase the service life of the highly stressed component bearings of the work rolls in the cold rolling mill. This was achieved with their remanufacturing.

To do this, Schaeffler's remanufacturing team carried out a load zone change of the bearings in the workpieces. This enabled the bearing service life to be fully utilized. In addition, the 4-row tapered roller bearings used are remanufactured by the Schaeffler team or replaced with new bearings, depending on their condition.

Further customer benefits

- Short delivery times – the load zone change can be completed within 10 days
- High quality – due to compliance with quality standards
- Reduced CO₂-emissions – compared to the respective new purchase, less material, energy and water is required



Customer

BILSTEIN GROUP,
Germany

Sector

Steel industry

Application

Cold roll bearing

Solution

Remanufacturing & Mounting



BILSTEIN

Facts and figures

7

locations

~1400

employees

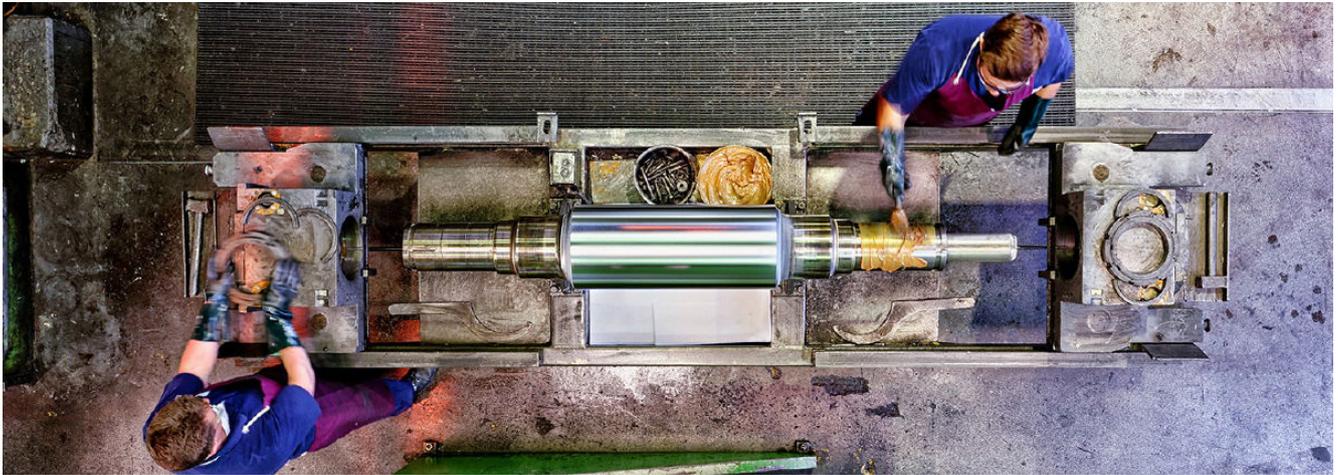
500000

annual tonnage

Continuous

CO₂ reduction through
BILCO₂ initiative

What drives our customer ...



Working rollers of the cold rollers are lubricated

Challenge

For decades, the BILSTEIN GROUP has been focusing on the reversing cold rolling mill in Hagen-Hohenlimburg to reduce its CO₂ footprint.

The company does not miss a single step or detail when it comes to making its contribution to reducing CO₂ emissions. That is why the maintenance team also looked for a solution to increase the service life of the heavily used bearings of the work rollers. This is because they are mainly only stressed and therefore worn in the load zone of the bearing.

The maintenance team from BILSTEIN SERVICE turned to Schaeffler.



Information on cold rolling

In cold rolling, the metal is passed between rollers at temperatures below its recrystallization temperature. The metal is compacted and pressed, which increases the yield strength and hardness of the metal.

The cold rolling of a steel strip is a specialized area within the metalworking industry. The purpose of this process is to produce a defined steel strip with good dimensional precision and a dedicated surface quality for a variety of applications.

What Schaeffler has to offer ...

Solution

The Schaeffler reconditioning experts recommended to remanufacture the bearings of the components in order to utilize the full service life of the bearings.

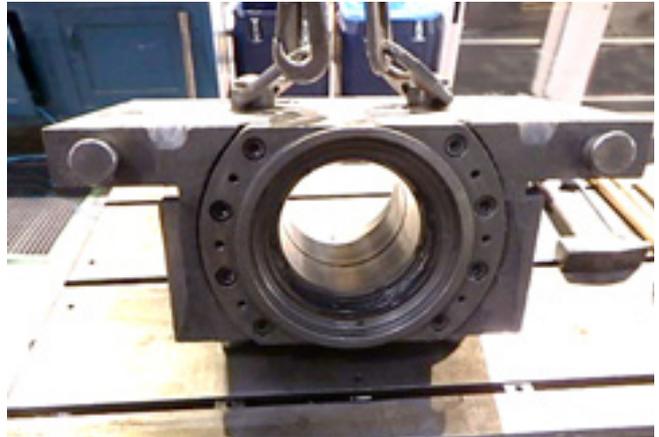
What exactly was done?

BILSTEIN decided to deliver the components to the Schaeffler Remanufacturing plant in Wuppertal, just 45 minutes away. After inspection and maintenance, the bearings in the components were rotated into a new load zone to position the unused side of the bearings for cold rolling. The bearings were then greased, preserved, mounted in the component and packed.

After only 10 days, a set (= 4 components) was back at the BILSTEIN plant. This change was carried out several times. New bearings were only fitted afterwards.

What else?

Whenever a bearing is defective - no matter if it is a Schaeffler bearing or not - the Schaeffler service team is contacted. This was also the case with a tapered roller bearing provided by the customer. The inspection revealed that this bearing was so severely damaged that it had to be replaced. In addition to the load zone change, the bearings are also refurbished or renewed. In consultation with the customer, seals and conversion parts of the components are also checked and replaced if necessary.



Component at the warehouse at Schaeffler



One of the damages to the outer ring raceway

What's special

BILSTEIN has been relying on the remanufacturing service for 5 years in order to continuously reduce its CO2 emissions.

Previously, BILSTEIN had also used this service via another provider. However, as this provider did not have the extensive resources that Schaeffler have, a change was only a matter of time.

What our customer says ...



We are very satisfied with the preparation of our bearings and the all-round service.

Short delivery times, good quality, competent contact partners – everything just fits.

Pierre Sülberg, Group Leader Work Preparation Maintenance, BILSTEIN GROUP

Customer

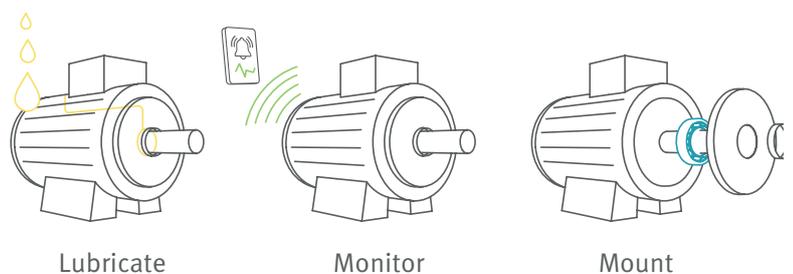
With a company history of over 111 years, the BILSTEIN GROUP develops cold-rolled strip solutions for customers worldwide.

In 2022, the company had more than 1,400 employees, produced more than 500,000 tons of steel at seven locations in the same year and supplied customers worldwide.



Remanufacturing is part of the Schaeffler Lifetime Solutions portfolio, which offers a comprehensive range of products, services and solutions for industrial maintenance. It is designed to support maintenance engineers throughout a machine's entire lifetime.

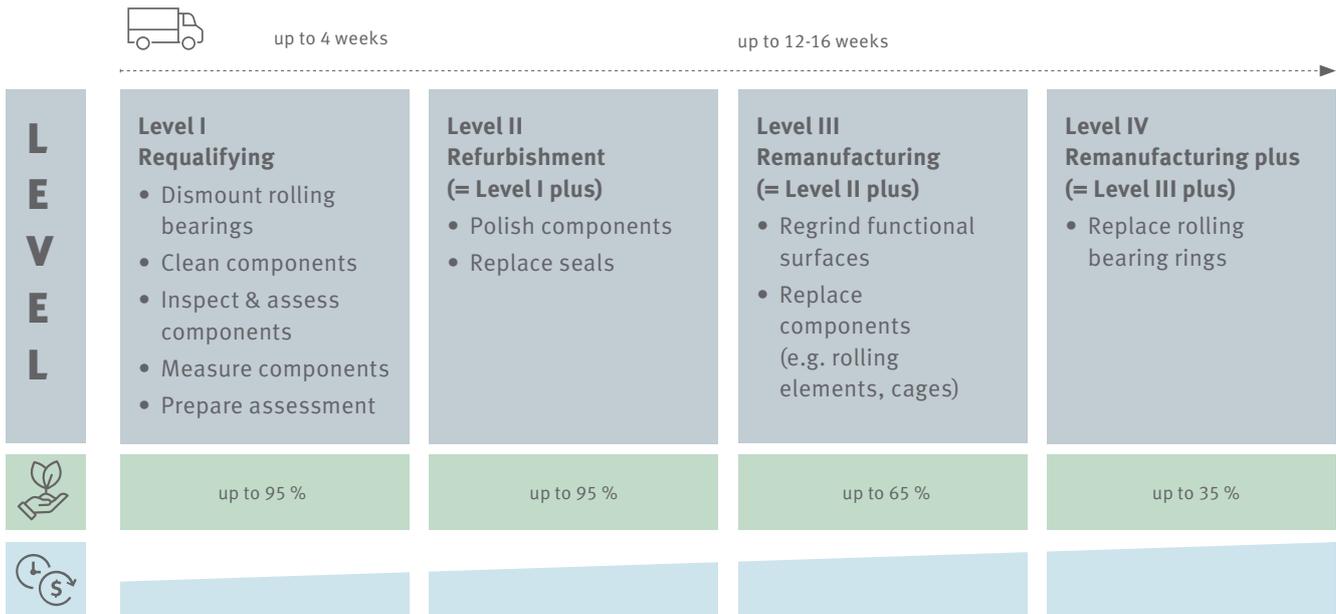
www.schaeffler.de/en/lifetime-solutions



Further information

How are bearings remanufactured at Schaeffler?

Remanufacturing is performed according to levels. Levels I to III always include the following work steps: the rolling bearings are mounted, greased (optional), preserved and then packaged.



What can you gain with remanufacturing?

Remanufacturing offers several advantages. In addition to higher availability due to shorter delivery times, you save money compared to the purchase of new bearings. You also help to improve your CO₂ footprint by making full use of the bearing's service life.

And what about the quality? Absolutely comparable to a new bearing.



Which bearings can remanufactured?

In principle, rolling bearings from machines and vehicles can be remanufactured across all industries, regardless of manufacturer, either on site or in our remanufacturing shops. Remanufacturing and modification can be carried out on all rolling bearings with an external diameter of 120 mm to 4,500 mm.



How do you assess if a bearing can be remanufactured?

This is often difficult to determine. Existing bearings are often replaced with new ones, even though they could have been remanufactured to like-new condition.

But there are experts for this. And a mere assessment of the bearing is not expensive and is always worthwhile.