



## Keep heavy plate mills rolling longer, for less

### Benefits

- Increase bearing service life
- Increase roll system uptime and reliability
- Reduce grease consumption and costs
- Reduce maintenance demands and costs
- Reduce hazardous waste and clean-up costs

### Applications

- Heavy plate mills
- Roughing mills

### SKF LGEV 2 bearing grease and sealed, four-row tapered roller bearings help reduce rolling mill downtime and operating costs

For heavy plate mills with low-speed rolling phases, keeping the work roll bearings properly lubricated is often a considerable challenge. The low speeds and heavy loads make it very difficult for a lubricant film to form properly, resulting in metal-to-metal contact inside the bearings. Water and scale contamination can add to lubrication problems, particularly in open bearings using standard greases.

It's no surprise then that the service life of open bearings in mill stands is short and unpredictable. Costly results range from unplanned shutdowns and reduced machine availability to higher maintenance and repair expenses.

Designed to outperform open bearings and greases and help improve rolling mill reliability, the SKF rolling mill solution – SKF LGEV 2 bearing grease and sealed, four-row tapered roller bearings – can boost work roll bearing service life and cut operating costs substantially.

An extremely high viscosity grease with solid lubricants, SKF LGEV 2 provides an ideal solution for improving uptime in work rolls in plate mills or other heavily-loaded, low-speed applications. This grease has excellent mechanical stability, excellent water resistance and corrosion protection.



### SKF sealed, four-row tapered roller bearings

To keep the grease in, and water and other contaminants out, SKF sealed, four-row tapered roller bearings incorporate advanced seals. Made of environmentally friendly material, SKF four-row tapered roller bearing seals are thermally and chemically stable, and can withstand high sliding velocities.

Additionally, O-rings inserted in grooves in the outer ring prevent contaminants from penetrating between the outer rings and the chock bore. And, since they are sealed, SKF four-row tapered roller bearings will cut grease consumption and costs, and generate less hazardous waste and disposal costs.



For more information about SKF products and solutions for the metals industry, contact your SKF Authorized Distributor.



## Increase the return on your maintenance investment with SKF

The whole idea behind the SKF 360° Solution is to help you get more out of your plant machinery and equipment investment. This may mean lowering your maintenance costs, raising your productivity, or both! Here's an example of the SKF 360° Solution at work in the metals industry.



### SKF saves German heavy plate mill €96 000 annually

#### The challenge

During the course of an ongoing plant modernization project, a single-stand, heavy plate mill based in Germany was experiencing a huge drop in work roll bearing service life. Intent on determining the cause of the problem, and increasing work roll system reliability, the mill turned to SKF.

#### The SKF solution

After conducting an extensive failure analysis, SKF engineers identified the problem: the standard grease being used in the bearings. The heavy loads and slow speeds involved in the mill's thermo-mechanical rolling process were simply too much for the standard grease to handle.

The mill agreed to implement SKF's solution: a combination of SKF LGEV 2 bearing grease and sealed, four-row tapered roller bearings.

#### The results

After more than a year of operation, SKF sealed, four-row tapered roller bearings have delivered three times the service life of the previous ones, allowing the mill to save €80 000 on bearing replacement costs. The SKF solution also slashed annual grease consumption more than tenfold, allowing the mill to save €6 000 on purchasing costs, plus €10 000 on grease disposal costs. So far, SKF has helped the mill save a total of €96 000.

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