

Schaeffler Global Technology Solutions

Raw material extraction
and processing

Split Bearings – an excellent Way to reduce Machine Downtime

The customer is a global mining and processing company headquartered in Brazil with numerous locations around the world. He produces a large number of minerals, including gold, zinc, lead, cobalt, aluminum and iron. Moreover, the customer is leading in the production and marketing of iron ore and pellets.

Challenge for Schaeffler

The customer wanted to reduce costs and machine downtime at one of its Brazilian iron pellet production plants, while increasing the components' service life. Replacing conventional bearings in this application takes a considerable amount of time.

Schaeffler Solution

After having been introduced to split spherical roller bearing technology by Schaeffler, the customer decided to test the product's durability and the time needed for mounting. The company is very satisfied with the product's performance and with the service provided by Schaeffler. Therefore, the customer is interested in using split bearing technology in other applications as well.



Technical Information about the Plant

Shaft drive end - apron feeder,
railway car dumper

Driving power:

73,55 kW

Speed:

20 to 30 RPM, variable

Dumper capacity:

2 railway cars, each carrying 75 t
at a time (total 150 t)

Apron feeder capacity:

6 000 tons/hour





Sinter plant in an iron pellet production plant



Pelletizing plant to fill the preformed pellets into the pellet cars



FAG split spherical roller bearings allow rapid bearing replacement at locations of restricted access

Customer Benefit

By using FAG split spherical roller bearings, the customer can realize enormous time and cost savings.

Saving potential	
Estimated time for replacing conventional spherical roller bearings:	36 hours
Estimated time using FAG split bearings:	28 hours
Time savings:	8 hours
Avoided production losses: 8 h x 6 000 tons/hours 48 000 tons	

Technical information about the Solution

FAG split spherical roller bearing:

- 230S.907
(replacing spherical roller bearing 23152-K + adapter sleeve HE 3152 X)

What's special

The FAG split spherical roller bearing solution is applicable to several other industry sectors and simplify bearing replacement at locations of restricted access. The dimensions were adjusted so that FAG split spherical roller bearings can be used instead of unsplit bearings and their adapter sleeves. According to application downtime of mounting can be reduced up to two-third compared to use of unsplit bearings.