

Schaeffler Global Technology Solutions

Woodworking Industry

Professional Mounting Support Ensures Plant Availability

The customer is one of the largest Spanish producers of chipboard and medium density fiberboard (MDF). Founded in 1931, the customer began as a sawmill and has continued to grow steadily over the past 70 years, being today one of the biggest companies in the timber industry worldwide. Today, the customer has 22 factories, each producing a wide and varied range of panel products. With about 5 000 employees, they produce approximately 3 000 000 m³ of chipboard and MDF a year.

Schaeffler Challenge

The customer experienced failures of the two main bearings in the drum chipper, which were caused by incorrect bearing mounting. So the bearings had to be replaced long before they had reached their calculated service lives (about 45 000 operating hours for this application). Determined to avoid such early bearing replacements in future, the customer turned to Schaeffler for support and advice in the mounting of the new bearings.

Schaeffler-Solution

Schaeffler experts supported the customer in the planning and execution of the mounting work. First, the bearings were mounted into their housings. Then the rotor was mounted into the machine again. The housings were inserted, the bearing clearance was adjusted from initially 0.36 mm to 0.20 mm with the help of withdrawal sleeves, and the housings were tightened. The locating bearing was mounted on the pulley side, and the floating bearing was mounted on the opposite side. Then the bearings were packed with 450 g of grease for initial lubrication. Due to the adverse operating conditions, the expert recommended the customer to relubricate the bearings every 50 hours.



Technical Information about the Plant

Production:

2 production lines

Products:

Chipboard and MDF

Machine:

Drum chipper

Model:

PHT 660 x 1050

Year of construction:

1998





Drum chipper



Drum chipper rotor



Double row spherical roller bearing

Customer Benefit

Correct bearing mounting and regular relubrication are two key factors in ensuring trouble-free machine operation and achieving the bearings' calculated service life. The drum chipper bearings were designed for a service life of eight years. By minimising the risk of premature bearing failures, the chipboard and MDF producer realises substantial cost savings.

Costs of one unscheduled shutdown (20 hrs) and production loss:	€ 90 000
Costs of two new bearings:	€ 5 400
Mounting costs:	€ 1 500
Total savings for every avoided early replacement:	€ 83 100

Technical Information about the Solution

Bearing type:

Double row spherical roller bearing

Bearing designation:

23152.K.MB.C3

Dimensions:

260 x 440 x 144 mm

Weight:

90 kg

Location:

Drum chipper rotor

What's special

Schaeffler offers a wide range of maintenance measures for achieving maximum bearing service lives. The portfolio comprises mounting, lubrication, alignment, condition monitoring, dismounting and bearing reconditioning.