

# COOPER

SPLIT ROLLER BEARINGS

## I 00 Series Case Studies

# Cooper is ingrained into the industry...

## Result - huge cost and time savings!

Crisp Maltings and Muntons Grain process the various types of grain used in the brewing industry.

One of the most critical pieces of equipment on site is the loading and unloading screw conveyor. If a conveyor fails, grain handling cannot proceed.

### Beginning of the end

Prior to using Cooper's split roller bearings, they used solid spherical bearings in a special housing on the main horizontal and vertical screw support positions.

Changing these bearings usually took one to two days and involved the costly exercise of a complete drive disassembly, requiring the use of cranes. It also involved emptying the germination tank by hand, which resulted in expensive labour costs.

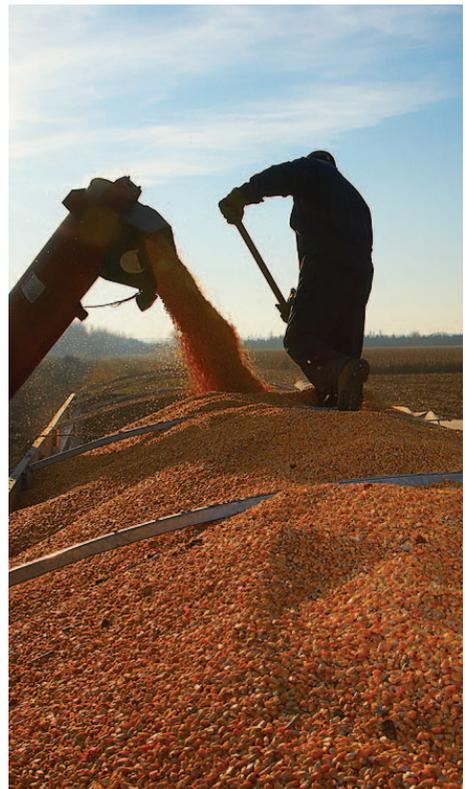
### Yes please

The solution was to replace the solid bearings with standard Cooper split-to-the-shaft bearings, in Flange Housings (BCF) and Pedestals (BCP) with slight modifications to the housing seating area to meet with the customer's specification. As a result, the bearing change time was reduced to 2 to 3 hours.

An additional issue for the customer was high humidity in the germination tank, which caused lubrication problems. This situation

was addressed by the combination of the SRS seals for wet applications, and the Cooper external misalignment feature which ensures that the seals remain in complete concentricity with the shaft at all times.

This both keeps out foreign matter and retains lubricant within the bearing, thereby increasing the life of the bearing, which in turn leads to greater productivity for the customer.



# Changed in a Flash

## **Production time on a coal mine is critical**

That is why on Drummond Coal sites, conveyors are used in large quantities. However, these conveyors can hugely disrupt productivity if they fail. If the failure is because the sleeve or solid bearing has failed then that conveyor could be shut down for weeks whilst it is replaced.

That's why Drummond Coal in West Virginia specified that Cooper split

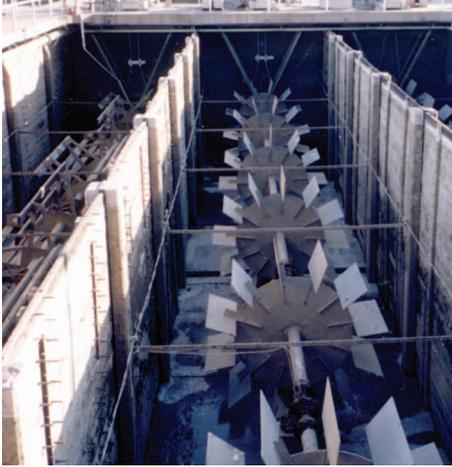
bearings should be used on their conveyors. This is because the split bearing can be accessed, assembled and maintained in situ. A replacement can take a couple of hours rather than several days.

Recently Cooper replaced a bearing on their conveyor head drum. It was a matter of a simple inspection and speedy replacement, whilst allowing the rest of the driveline and associated equipment to remain undisturbed. Job done!



# Cost savings sealed the deal...

Premature bearing failure is a regular occurrence for many water treatment plants. The bearings on a number of applications are partially submerged and because of their poor sealing, liquid gets in and causes the bearing to seize.



The maintenance and replacement costs are huge, so it's no wonder many are looking for alternatives.

It's not just the cost of a new bearing you have to worry about. The cost of downtime can be hugely damaging. If the bearing is located in a trapped position, it is not a quick job!

## **Saving thousands**

One Salt Lake City water company were delighted when Cooper Roller Bearings were able to deliver a solution to this expensive problem.

A flocculator is a crucial underwater application in their company and one which demands an efficient, compact bearing. Not only that, but because of the sub aqua environment, the need for superior sealing is essential.

The new Cooper 100 series was an ideal solution for them and Cooper fitted a 100 series with high performance and split rubber lip sealing.

But it wasn't just the sealing which attracted them to Cooper. Manufacturing of the flocculators could be sped up as the bearing can be assembled directly on the shaft.

Not only that, but their maintenance in the field could be greatly simplified too – saving them money and a lot of hassle.

Subsequently, the difference the 100 series made to the flocculator manufacture and maintenance was so significant the company has now standardised the 100 series across their entire flocculator range.

