

Ribbon Mixer Case Study

Bearings and Power Transmission have been dealing with this customer since 2005.

So, they've been one of our many long time customers.

As part of their business operations they operate a 2 ton rated ribbon mixer which is like a big auger mixer.

The power transmission driving this mixer is a Cyclo Sumitomo 619 series gearbox with a 11.1 reduction.

This Cyclo Sumitomo gearbox has been in continuous service since 2006.

Previous to using Cyclo Sumitomo gearbox drive, the customer was replacing their conventional helical gearbox box drive every 18 months to 2 years.

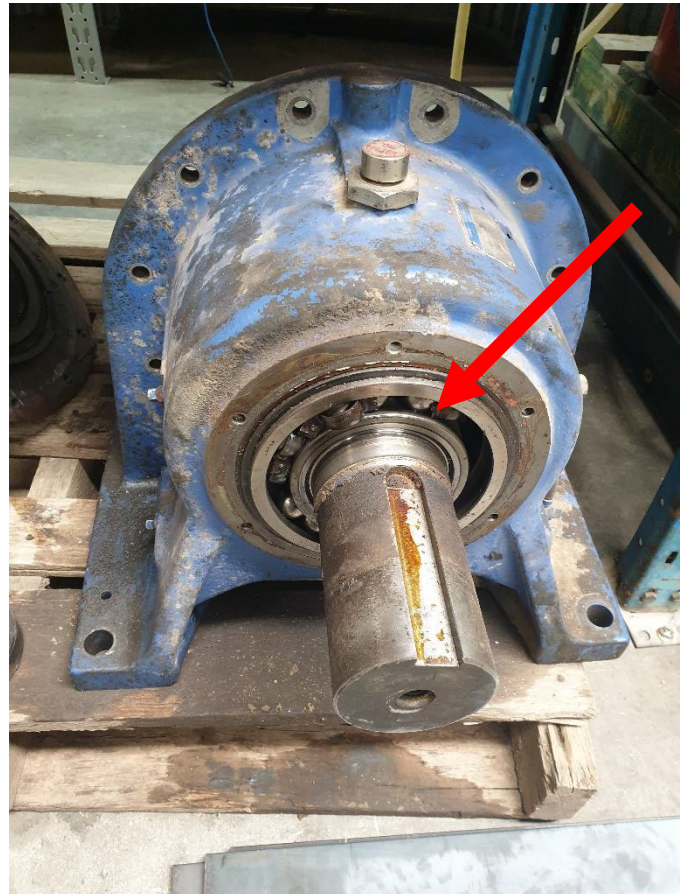
Key advantage of the Cyclo Sumitomo gearbox is, it can take up to 5 times more shock load than conventional gearboxes and therefore being a much more reliable power source than a conventional helical gearbox box for this application.

At the end of 2019, it started developing some weird noises.

So, we had it pulled out and replaced with their identical spare gearbox they have had on hand since the first one was put into service. Due to the nature of this particular business they have elected to always have a backup spare gearbox on hand because they can't afford any downtime while waiting for a replacement gearbox.

So, this gearbox is a vital part of their operations.

After inspection, we found the outer bearing had failed.



The price to replace the gearbox with a new one was app \$ **15,000** with a new the motor costing app \$ **4,500**. So, it was nearly \$ **19,500** to replace both gearbox and electric motor with a new one.

BPT had the gearbox stripped down.

We found that not only had the outer bearing failed, there was damage throughout the whole gearbox.





One of the advantages with the Cyclo Sumitomo gearbox is we could replace the cartridge and all the moving parts inside that gearbox and just keep the housing and the output shaft.



Replacing all those parts and having the electric motor rebuilt worked out to be very cost effective for the customer compared to buying a brand new gearbox and electric motor.

So, the electric motor was stripped down cleaned, new bearings and V rings were fitted.



The completed reconditioning of the electric motor and full rebuild of the gearbox including the cartridge came in at 11,000 dollars total.



Saving of \$ 8,500 to that customer.

This recently replaced gearbox was in service for app 13 years, compared to a conventional gearbox which needed replacing every 18 month to 2 years with.

When rebuild, BPT replaced every bearing, seal and gasket.

The only parts reused was the housing and output shaft which is 95mm diameter on the slow speed output side.

End Result.....

Another Happy Customer from BPT