



COOPER HANGER BEARINGS

“The ideal solutions for screw-conveying applications”

- Longer lasting
- No shaft damage
- Power savings on start-up
- No contamination of the material being conveyed
- Cost savings thanks to minimum downtime
- Reduced grease consumption
- Easy maintenance and inspection



Screw conveyor equipped with a troublesome plain bearing before conversion



The use of plain bearings on screw conveyor applications has a number of drawbacks:

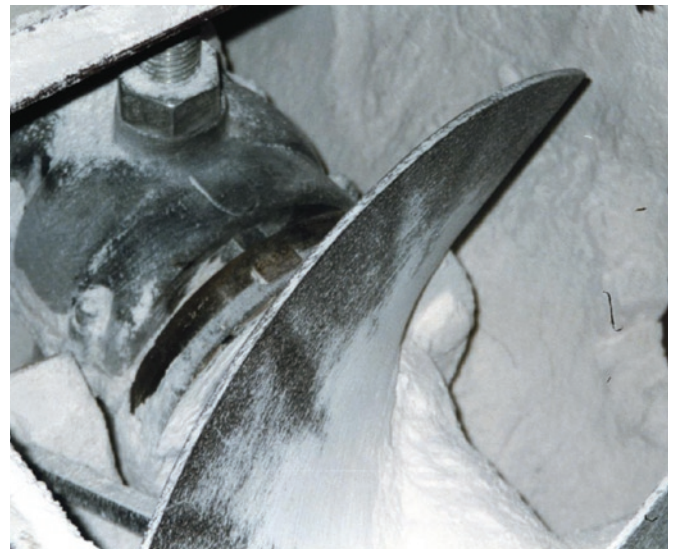
- High grease consumption
- Contamination of the material being conveyed
- Inherent potential for damage to the shaft
- Friction related energy loss



Typical hanger on a screw conveyor

Cooper hanger units with split to the shaft roller bearings counteract many of these disadvantages:

- Less friction generated
- Less grease consumption
- Protection of the shaft
- Easier dismantling of the shaft and bearing replacement



Hanger with heavy duty lip seals in a cement plant

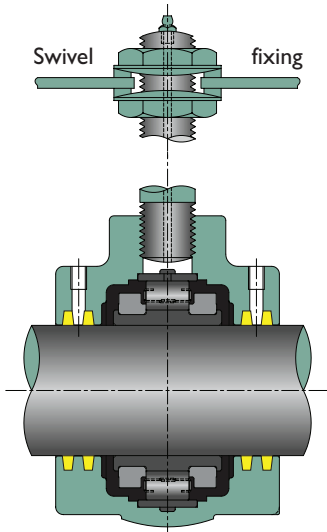
A variety of double sealing arrangements on each bearing housing face guarantees optimum sealing in the harshest of conditions including conveying of abrasive materials such as sugar, cement, silica, ash, chalk, etc.

THE RANGE

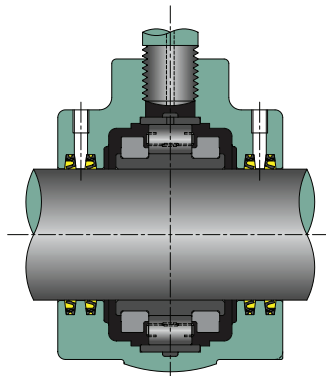
- A wide range of sealing options is available depending on the material to be conveyed. These include felt and rubber lip seals in standard and heavy duty version. High temp. packing can also be specified.
- Housings can be provided with air/grease purge facility for added protection against ingress of contaminants from the outside.
- Standard housings are in grey cast iron and are available in the size range from 40mm to 150mm, using 01/01E Series bearings.
- Special executions are available in stainless steel and other materials.
- Double- and triple-boss versions are also available*.
- Extra compact version available for reduced obstruction to material flow using new 100 Series bearings.

* For sizes available, please contact our technical department.

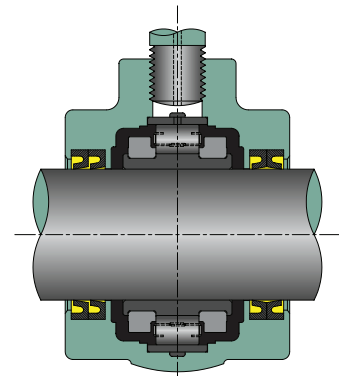
Felt (F) or High Temperature Packing (HTP)



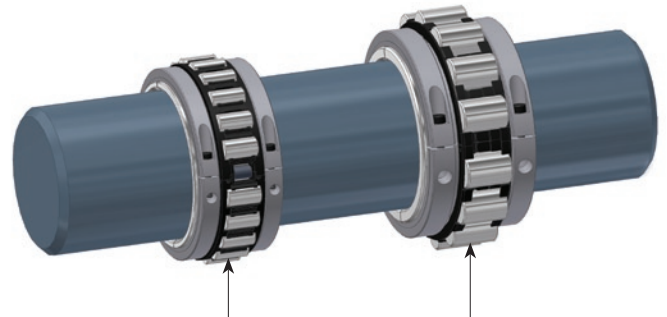
Synthetic rubber lip seal (SRS)



Heavy Duty Lip Seals



Hanger bearings are a compact means of supporting the shafts of screw conveyors and similar equipment. The hanger comprises of a split roller bearing in a cast iron split housing with a threaded boss to facilitate suspension from the conveyor cross bracing.



100 Series

High Speed, Compact Bearing

01 Series

Medium Duty Bearing

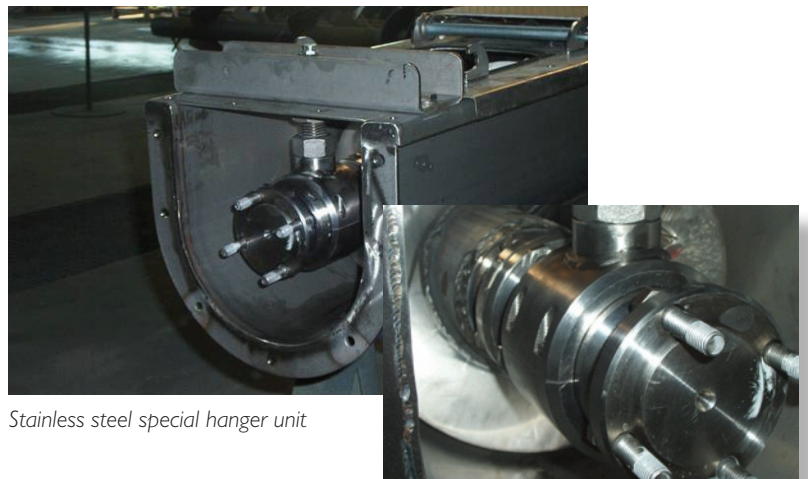
A swivel fixing at the cross bracing joint is recommended to provide alignment of the bearings.

The aspect of sealing should be carefully considered for each application.

Continuous grease feed is sometimes desirable and provision made through hanger rods.



Cast iron double boss hanger on a vertical shaft



Stainless steel special hanger unit

THE APPLICATION

80 and 90mm Dia. Hanger bearing conversion on a gypsum scroll conveyor.

Sealing

Scroll conveying gypsum requires high performance seals in support bearings.

Product Contamination

The original phosphor bronze hanger bearings, when greased at required level for satisfactory performance caused unacceptable contamination of the product.

Life-Span/Shaft Wear

In a 'no win' situation, less lubrication eliminated contamination but gave rise to high wear on the bearings and shafts.

Downtime

The resulting bearing and shaft wear required costly refurbishment and long downtime during critical production periods.

Noise Levels

Location of the site near residential area, caused concern over unacceptable noise.



Hanger bearing on a gypsum scroll conveyor

THE COOPER SOLUTION

Bearing reference - 01 BH 80M EX & 01 BH 90M EX

Product Contamination

The double felt sealing arrangement which is standard for COOPER hanger bearing housings eliminated this problem.

Life-Span

The precision quality COOPER bearing in it's double sealed housing has already been in service four times longer than the previous bearings and continues to operate effectively.

Downtime

As the inner race of the COOPER bearing protects the shaft, costly replacements are eliminated resulting in reduced downtime and increased productivity.

Noise Levels

Residents were happier as a result of a more quietly operating system.

Development

Since the success of this conversion COOPER bearing numbers at this site have increased substantially.

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