



Evaluating and Correcting Screw Conveyor Hanger Bearing Wear

Question

I have a screw conveyor that uses hanger bearings, and they are wearing out much faster than expected. How can I figure out why this is happening and how do I fix it?

Answer

Premature hanger bearing wear is typically the result of one or more factors working against the bearing material's design limits. Start by confirming that the bearing was selected correctly for the application. KWS engineers select a hanger bearing material based on the bulk material being conveyed, conveyor speed, and operating temperature using the selection criteria outlined in the KWS Engineering Guide.

If the bearing material in service was not selected for the actual bulk material characteristics, abrasiveness, or temperature range, accelerated wear will result regardless of how well the conveyor is maintained.

Review bulk material characteristics [here](#).

Every hanger bearing material has a maximum RPM rating, and running above that recommendation increases friction and heat, shortening bearing life significantly. Compare your conveyor's operating speed to the rated speed range for the bearing material installed.

Bearing materials also have specific temperature limits, and operating above those limits softens the material and accelerates wear. Confirm actual process temperatures against the rated range for your bearing material. Review hanger bearing speed and temperature ratings [here](#).

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Finally, check trough and hanger alignment. Misalignment is the most common cause of premature bearing wear and is often indicated by uneven wear patterns on the bearing. When a hanger is out of alignment, it forces the screw to one side, creating uneven contact between the shaft and bearing, increased friction, and accelerated wear. Trough and hanger alignment is critical to achieving optimal bearing life.

Contact KWS to request review of your specific application and recommend the correct solution.



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Ask the Experts



Hanger Bearing Selection is Based on Bulk Material Characteristics, Conveyor Speed, and Temperature



Misalignment is the Most Common Cause of Hanger Bearing Failure



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