JOHANNES HÜBNER GIESSEN

Conveyor belts / Motor: Incremental heavy-duty encoders defy the most adverse conditions in mining operations to ensure reliable speed control

- Direct hollow shaft attachment to the motor shaft
- Optimum compensation for oscillation and shock loads
- Insulated attachment with hybrid bearings and customized torque bracket
- Effectively avoid destructive shaft currents

Conveyor drive station in open cast mining.

Task

Conveyor belt components in particular must be able to permanently withstand the powerful effects of oscillation and vibration. These not only result from the length of the conveyor system or the material being transported. Other causes can be traced back to the design of the drive station, the drive solutions, transfer points, the condition of the belts and similar reasons. The inverter-controlled drives can cause shaft currents that place a heavy strain on the bearings of the encoder system and even destroy them over time. Then there are external factors such as dust, dirt and moisture as well as extreme temperature fluctuations depending on the time of day, and extreme cold or heat depending on the region where the conveyor system is installed.

The Hübner Giessen solution

To ensure optimum compensation for the extreme oscillation and vibration loads we recommended fitting hollow-shaft encoders in conjunction with torque brackets. The heavy duty encoder FGHJ 5 has hybrid bearings; when fitted in combination with the insulated torque bracket and, if required, an insulated adapter shaft they can effectively prevent the negative influence of shaft currents on the service life of the encoders. In line with requirements it is possible to augment the incremental encoders with an overspeed switch integrated in the second terminal box to guarantee additional protection against overspeeds and underspeeds and safeguard special safety-related functions.

Incremental encoder FGHJ 5 with special hybrid bearings in a heavy duty housing.

Products

- FGHJ 5
- Torque brackets
- Engineering support

More information: www.huebner-giessen.com/en/applications