



HIGHLIGHTS

- Clutch coupling comprised of an FSO clutch placed between two Torsiflex disc couplings
- 2,250 lb.ft. (3,060 Nm) torque capacity



FDB600 Clutch Coupling Power Plant Coal Conveyor

PROBLEM

A large coal-fired power plant in Colorado needed a replacement clutch solution for a creep drive on an incline conveyor that moves coal onto stockpiles. The conveyor utilized a clutch in a chain and sprocket drive configuration operating at slow speed when not in use during cold temperatures to insure it doesn't freeze up. The clutch allowed overrunning of the standby drive during normal operation. The problem was that the chain kept failing.

SOLUTION

The customer replaced the chain and sprocket drive with a small gear motor. Formsprag engineers collaborated with TB Wood's, another Regal Rexnord company, to develop a custom clutch solution.

An FDB600 clutch coupling, comprised of a Formsprag FSO clutch placed between two TB Wood's Torsiflex disc couplings, was supplied. The 6.5" dia. FSO600 clutch has a torque capacity of 2,250 lb.ft. (3,060 Nm). The new clutch coupling is mounted between the conveyor's main drive and the low speed creep drive to provide a smooth transfer of power when switching between the two drives.

The clutch assembly was designed to fit within the limited space available. Modified hubs were required to fit the existing drive shaft sizes. Special care was taken to ensure that the customer had the correct alignment and rotation.

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