



HIGHLIGHTS

- Spring-applied, air-released caliper brakes
- Easy-to-replace brake pads
- Torque adjusted to meet operating conditions
- Modularity allows for quick change out



GMR-SD Caliper Brakes Coal Field Dragline

PROBLEM

Heavy-duty caliper brakes were needed for use on a new medium-duty 4,500 ton dragline at a mine in India. The brakes stop the dragline's load from moving as quickly as possible and bring it to rest in a controlled manner to avoid shocking the drivetrain and machine frame.

SOLUTION

GMR-SD caliper brakes, Twiflex's most popular model for draglines, were selected for the application. GMR-SD brakes are designed to handle the high energy associated with stopping these massive dragline loads. Units consist of a cast frame with two pivot-mounted arms which are actuated by a spring-applied, air-released thruster. Depending on the peak disc temperature calculated, the calipers can be fitted with either organic or sintered bronze pads which are suitable for emergency stops.

Twiflex provided GMR-SD spring-applied, air-released caliper brakes for the following dragline motors:

- 4 hoist & 4 drag 1230 kW motors: Each with multiple GMR-SD 15.6 caliper brakes operating on 38" dia. discs that provide a combined braking force of 108 kN
- 4 swing 932 kW motors: Each with multiple GMR-SD 8.4 caliper brakes operating on 38" dia. discs that provide a combined braking force of 58.5 kN

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P-7816-TF 8/23