

Floating Housing Brakes
Airflex product line

Built tough for rugged mining and heavy-duty industrial environments



EATON

Powering Business Worldwide

Reduce maintenance headaches, increase reliability

After more than 50 years of delivering innovative brake solutions, Eaton still leads the way with the introduction of the Airflex® Floating Housing Brake. Eaton's Floating Housing Brake (FHB) is an air-cooled, spring-applied brake, specifically designed to maximize safety and machine uptime.

The Eaton FHB's unique design increases the life of the friction lining and extends the time between friction changes. In addition, the elimination of rotor spline wear and periodic brake adjustments maximize dragline uptime while minimizing maintenance costs.

Traditional disc brakes require the brake to be disassembled for routine maintenance and friction replacements. Disassembly includes heating the hub, or gear, and involves a hydraulic press to complete the removal. Both scenarios can be dangerous and necessitate special permits and tools prior to beginning work.

Eaton's FHB utilizes the tapered shaft lock for easy installation and removal, as well as "quick change" friction, allowing the brake to remain assembled during maintenance activities. This increases hours of uptime.

Features

- "Quick Change" friction lining pads reduce the time needed for replacing friction, while the 360-degree annular friction disc considerably extends friction life
- Taper Shaft Lock eliminates spline wear during freewheeling, maximizing service life and providing safer installation
- Compact design drastically decreases rotational inertia as compared to typical caliper brake systems, reducing thermal power loading
- Reduction of wear parts and frequent adjustments found in traditional dragline brakes decreases "nuisance" shutdowns.

| Size | Nr spring sets | Dynamic Torque | | Max RPM | Engaged length | | Released length | |
|---------|----------------|----------------|--------|---------|----------------|-------|-----------------|--------|
| | | lb-in | N-m | | inch | mm | inch | mm |
| 130 FHB | 32 | 288,000 | 32,540 | 960 | 17.55 | 455.8 | 17.79 | 451.9 |
| 138FHB | 36 | 432,900 | 48,918 | 950 | 18.24 | 463.3 | 18.48 | 469.39 |

Typical applications

130 FHB



Draglines

- Hoist
- Drag
- Swing
- Propel/Walk

Motor frame compatible

- GE820/822
- P&H 8412D

138 FHB



Draglines

- Hoist
- Drag
- Swing
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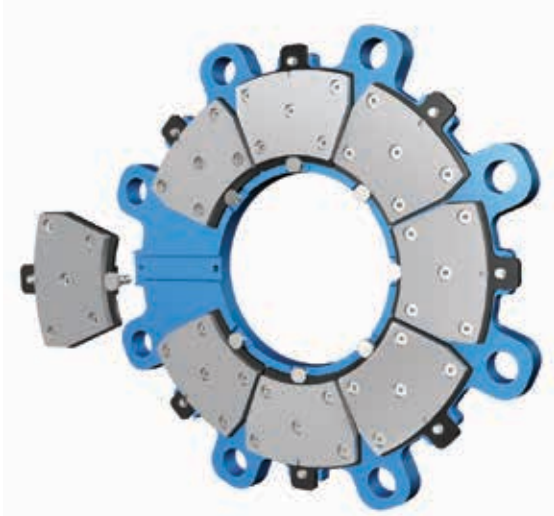
Motor frame compatible

- GE824/826
- Siemens BI348

Safeguard your investment

Lower dragline maintenance costs

Maintenance costs add up quickly when brake linings, friction pads and the brake itself need frequent attention. The FHB's "quick change" friction lining reduces friction changeover time from three hours or more to approximately 40 to 60 minutes. Friction changes happen less often as a result of the 360-degree annular friction disc that extends wear life, requiring replacement once every five years. "Nuisance" shutdowns, as a result of spline wear, are eliminated due to the utilization of the tapered shaft lock.



Airflex Floating Housing Brakes have a 360-degree annular disc that cuts down on maintenance by extending the life of the friction pad.

Improve dragline reliability

Dependable dragline performance is key to your bottom line. Eaton's FHB is designed to be durable in harsh and rugged environments without frequent adjustments or replacement of wear parts and components. Make monthly shutdowns for greasing caliper arms, knuckle joints and pivot pins a thing of the past.

The FHB's compact design reduces rotational inertia, compared to typical caliper brake systems, reducing thermal power loading and yielding softer braking. Eaton's FHB exhibits 20 percent less inertia on the hoist function and 6 to 7 percent less inertia on the swing function.

Reliability is essential in emergency situations. The FHB friction design and material are capable of absorbing 2,400 emergency stops before a friction replacement is needed.



Eaton Floating Housing Brakes have an exclusive Taper Shaft Lock that improves reliability.

Enhance safety for your most important asset

With so many potential hazards at a mine site, protecting your personnel is a top priority. The use of the Tapered Shaft Lock in Eaton's FHB makes brake installation and removal safer for your workers by eliminating risks associated with disassembly.



Dragline brake maintenance is easier and safer with Airflex Floating Housing Brakes.

| | Tapered shaft lock | Key and keyway | Spline | Taper lock bushing | Interference fit |
|---|--------------------|----------------|--------|--------------------|------------------|
| Zero- Backlash connection | + | - | - | - | + |
| Eliminate keyway notch factor/allow smaller shafts | + | - | - | - | + |
| Install/Remove with simple hand tools | + | + | + | + | - |
| permit infinite axial and angular timing | + | - | - | - | - |
| Transmit torque, bending and axial thrust | + | - | - | - | + |

The right support for your operation commissioning and technical supervision services

Eaton's factory-trained field service engineers provide technical guidance and oversight to ensure that installation, alignment and start-up for clutches and brakes meet your specifications.

Maintenance support services

Eaton provides instruction in efficient maintenance and repair techniques and on-site support to help restore equipment to factory specifications and optimum performance.

Hands-on operations and maintenance training

Hands-on operation and maintenance training is available. Working with your equipment, we instruct maintenance personnel on proper inspection, repair and operation techniques for Eaton Airflex products.

Visit eaton.com/AirflexFHB for more information or to schedule a meeting with an Eaton representative.

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