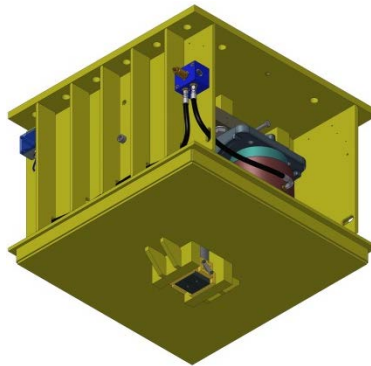


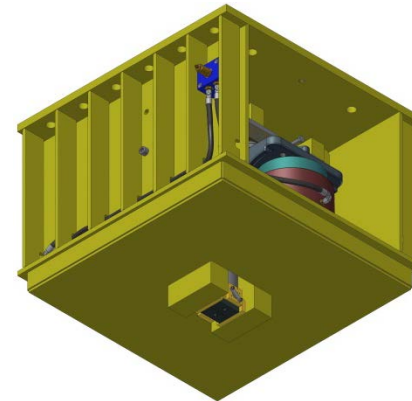
2 COIL SPRING RAIL BRAKES

INTERNATIONAL PATENTS APPLY

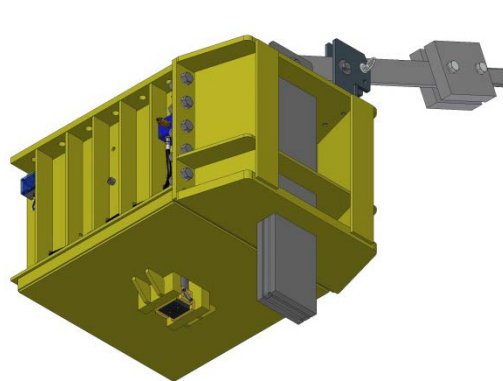
1.0 Coil Spring Rail Brake Models



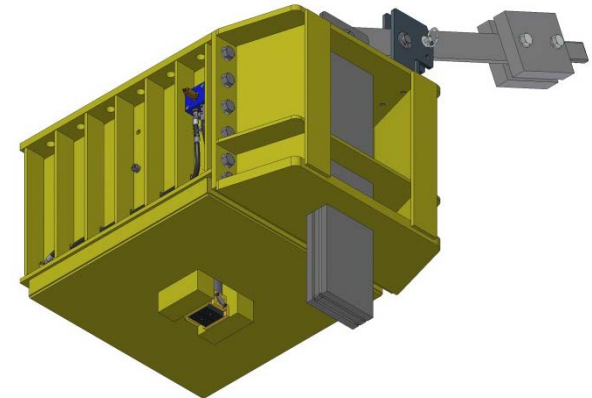
CS-RBS-SR-200-050



CS-RBS-SR-300-050

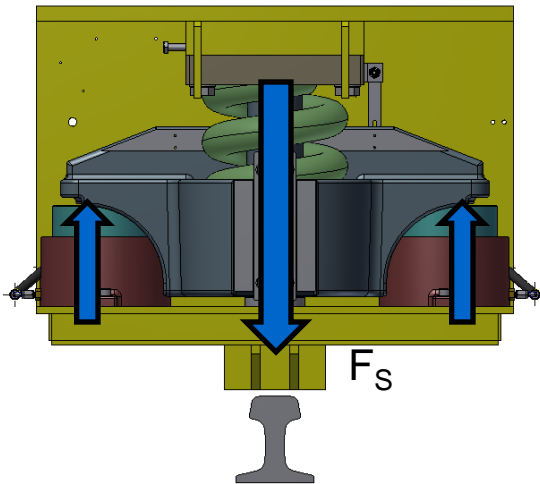


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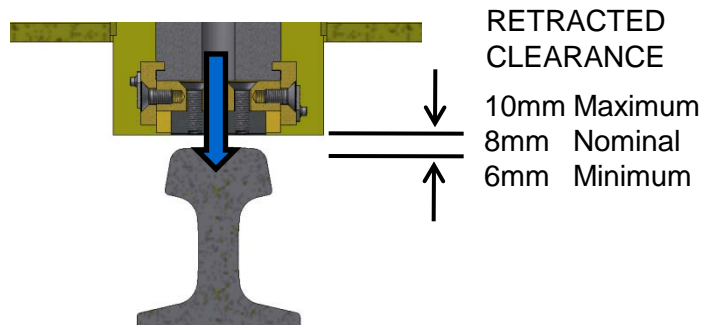


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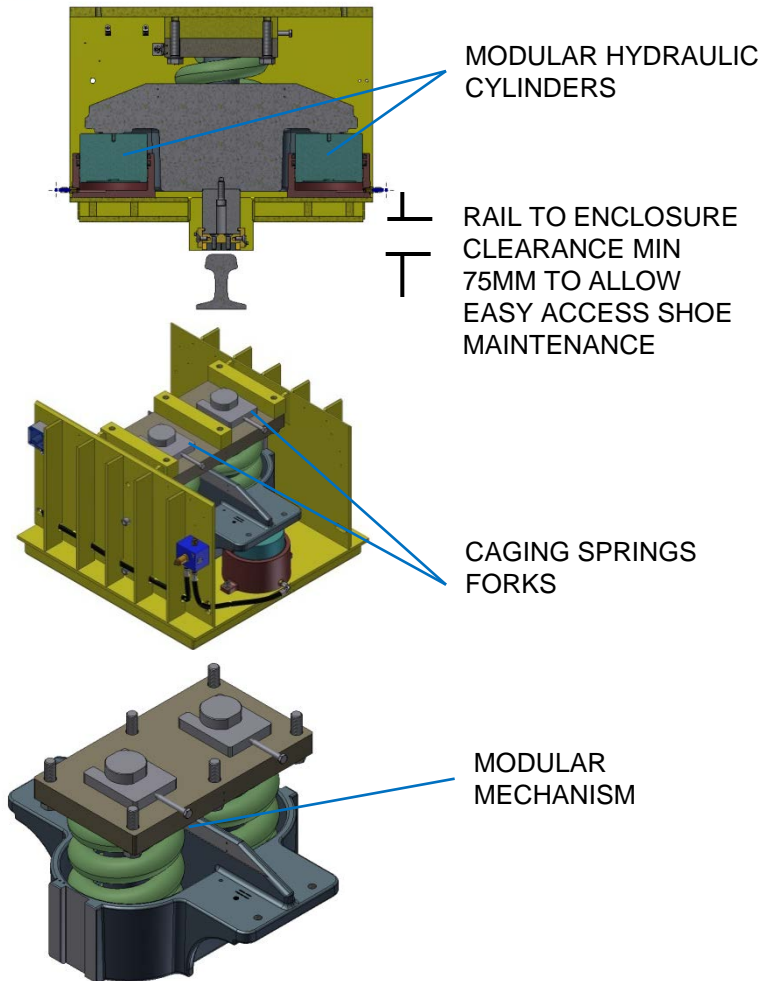
2.0 Principles of Operation



- P_R = Cylinder Release Pressure
- P_S = Cylinder Set Pressure
- F_S = Spring Force
- F_B = Braking Force
- $F_B = F_S \times \mu$

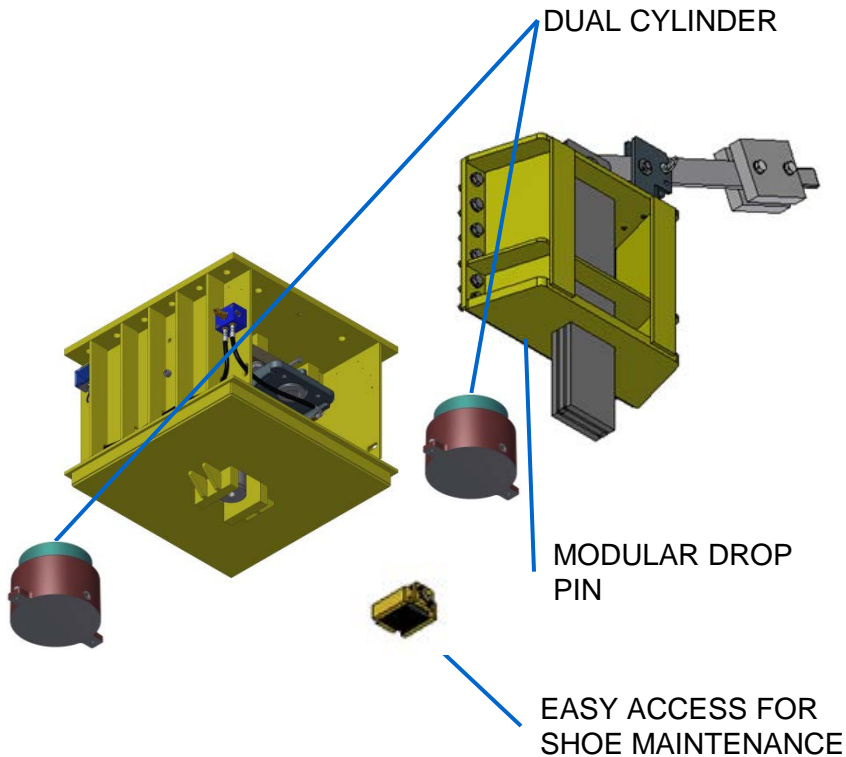


3.0 Design Highlights



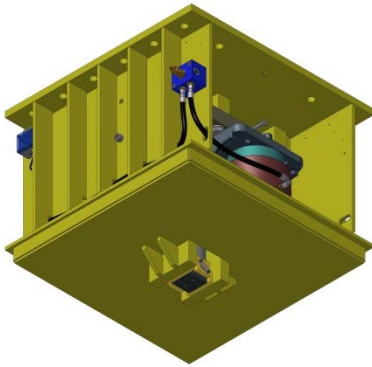
- International patents apply.
- Brake design available for both parking & dynamic modes of operation.
- This design utilizes the weight of the crane.
- Hydraulic release
- Cylinders are completely removable.
- Caging feature ensures that brake is simple to install. Hold in released (caged) position until installation completed.
- Caging feature standard to hold the brake in released position during scheduled maintenance.
- Mechanism completely removable as single module.
- Friction shoe completely field replaceable.
- Complete corrosion protection
- Back pressure test connection standard
- Springs designed for 1 million + cycles
- Complete hydraulic system design
- Maximum system design hydraulic pressure 14 MPa.
- All hydraulic systems provided with bleed ports.

4.0 Standard Features

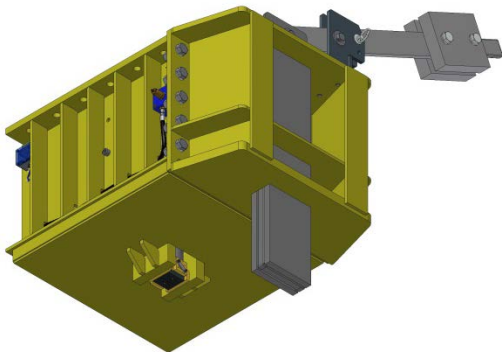


- Dual cylinder system – easy maintenance,
- Coil spring design with design life greater than 1 million cycles,
- Low operating hydraulic pressure due to large cylinder piston diameters,
- Complete 5 year structural corrosion protection,
- Flow control valve standard,
- Brake release switch standard,
- Nominal design release clearance 8mm,
- 2 sizes available,
- Field replaceable friction shoes,
- Bolted dropped pin structure allows access for cylinder replacement,
- 75mm clearance between rail & brake structure to allow easy access for shoe replacement.

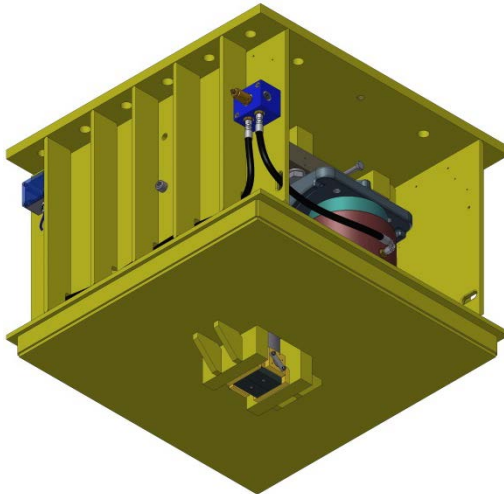
5.0 Optional Features



- Hillmar HPT-series Hydraulic Power Unit.
- Customized mounting flange enclosure design.
- Back Pressure Test Equipment.
- Custom paint colour.
- Caging Tool Storage Kit.
- Customized drop pin bolted to standard structure.



6.0 Standards



All Hillmar products are designed & manufactured in accordance with the following standards.

- 6.1** Design standards.
- 6.2** Performance standards.
- 6.3** Document standards.
- 6.4** Production & Quality standards.
- 6.5** Packaging standards.

All Hillmar products are delivered with Hillmar commitment to customer satisfaction.

Hillmar works have a fully registered ISO 9001-2008 Quality Assurance Program.