OPERATING SPECIFICATIONS

DCD Design & Manufacturing Ltd.

SERIES 00540 MAGNETIC BREAKAWAY

- The connector is intended as mechanical overload protection for use in low force applications were accuracy and repeatability are required. The connector is intended to be suitable for long term use where fatigue of traditional mechanical fuses needs to be eliminated, and easy, quick, inexpensive reset of the connector is required. It is used in conjunction with series 00537 breakaway magnet kits.
- 2. The connector is not designed to run around bull wheels.



SPECIFICATIONS: -MASS: 2.88LBS -STAINLESS STEEL BODY -SEALED MAGNET CHAMBER -MAGNET COMBINATIONS ALLOW FOR SEPARATION LOADS OF 22LBS TO 80 LBS -EXCELLENT FOR PERMANENT INSTALLATIONS, NO FATIGUE DUE TO CYCLIC LOADING

Dimensions and weights subject to change without notice.

The **Underground Safe Working Limit** is calculated using a 3:1 safety factor based on the ultimate load. The **Overhead Safe Working Limit** is calculated using a 5:1 safety factor based on the ultimate load. The **Ultimate Load** is the tensile load required to separate the connector into two or more parts.

All of breakaway magnets used with this connector are designed to fail at a load much lower than the safe working load of the connector.

OPERATING INSTRUCTIONS DCD Design & Manufacturing Ltd. SERIES 00540 BREAKAWAY CONNECTOR



INSTALLATION

1. Insert the magnet separator into one clevis end. Install the magnets into the 7 available locations as required based on the desired separation load. Install the ring locations all facing the same direction (North upwards) with the center magnet facing the opposite direction (South upwards).

2. Gently, starting at an angle, place one edge of the connector in contact with the other edge of the connector and slowly align the ends to close the connector. Do not allow the ends to snap hard into place. Impact to the magnets may cause chipping or reduced pull force.



Assemble connector by starting at the edge, on an angle, and gently bringing the two halves together.

3. Ensure the clevis pins are tightly torqued once connected to other equipment.

4. To open the connector, reverse the process by bending it to 'break' it open along the center seam. Use caution as the magnets may pop out of position or stick to one side of the connector or another.

SAFETY



- 1. The connector is designed to operate only within its specified **safe working limit** (see *Operating Specifications*). Operation of the connector at loads in excess of its **safe working limit** will void the warranty even though separation due to failure will not occur until the specified **ulitimate load** is reached.
- 2. For underground use, the recommended safe working limit is 3:1 based on the ultimate load. For overhead use, the required safe working limit is 5:1 based on the ultimate load due to the higher risk of severe personal injury or property damage.
- 3. The connector is not intended to be pulled over sheaves or bullwheels since a bending load acts to increase the tension in the connector, resulting in premature seperation, and may cause damage to the connector.
- 4. Never use a worn, defective or incomplete component. Ensure that all components of the pulling system are able to withstand the maximum pulling loads. Components not rated for the pull force may break and release the stored energy of the pull.
- 5. Do not modify the connector. It is only covered by a warranty in its "as shipped" form. Any attempt to modify the connector will void the warranty and may result in property damage, severe bodily harm, or death.
- 6. Be prepared for the unexpected. Use recognized safety practices and wear recognized safety equipment.

Magnet handling

- 1. Always wear safety goggles when handling large magnets.
- 2. Always wear gloves when handling magnets to prevent pinching.
- 3. Keep magnets at least 20cm away from sensitive electronic and storage devices.
- 4. For large magnets, use a vice and fixturing to ease separation.
- 5. Magnets can have a dangerous effect on medical implants such as pacemakers. Keep away from pacemakers.
- 6. Peel or slide magents off steel plates and place them into contact with the metal ends gently to avoid damage to the magnets.

SERVICE



After each use, assess the condition of the connector for wear and damage. Replace worn or bent parts with original manufacturer's parts.