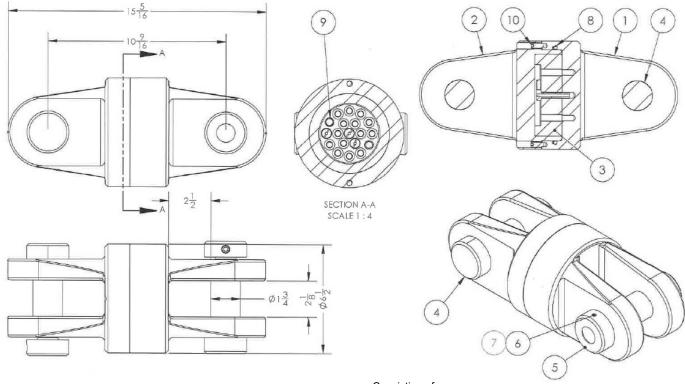
OPERATING SPECIFICATIONS

DCD Design & Manufacturing Ltd. 00560-280/-280S BREAKAWAY CONNECTOR

1. The breakaway connector is intended as mechanical overload protection for use when installing cable, ducting or pipe. It is used in conjunction with series 00575 breakaway pins.

The Series 00560 Breakaway Connector is made up of six basic components, as shown on the drawing. The breakaway pins can be assembled in any configuration, <u>provided they are installed in a symmetrical pattern</u>. Separation will occur at the value of the sum of the pin values. The "S" in the 00560-280S designation indicates this model is built with marine grade stainless steel and is intended for Marine applications.



Estimated Weight: 00560-280: 74lbs. 00560-280S: 76lbs

Dimensions and weights subject to change without notice.

Consisting of:

- Cap
 Adapter
- Pin Chamber
- Clevis Pin
- 5. Clevis Pin Nut
- 6. Lockwasher
- 7. Capscrew
- 3. O-ring
- 9. Dowel pins for anti-torque
- Locking setscrews

BREAKAWAY PINS

Pin Kit (14 Pins / Kit)	Break Value (+/-5%)	Colour Code	Torque (ft-lbs)	Preload (Lbs)	Material	Replacement Clevis Pin Kit		
00575-470	4,700LB	BLUE	13	2,080 LBS	Marine Grade Stainless	00508-040S		

1/4 Rev D 6/14/2024

OPERATING INSTRUCTIONS

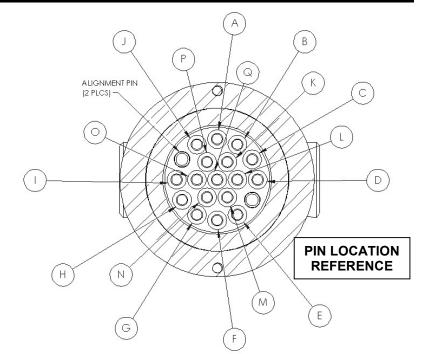




INSTALLATION

- 1. To install the pins in the unit, first select the break value required, then by referring to the load distribution tables on the following pages, select the proper pin combination.
- 2. Ensure all parts are clean. Ensure the o-ring is in place. Insert the pin chamber into the body locating the alignment pins into the small drilled holes.
- 3. Screw the required Breakaway Pins in the proper locations. For longer term installations subject to cyclic loading, torque the pins to the recommended torque value per the tables above. This will prevent fatigue on the pin from all loads below the preload value listed. The final breakload of the pin will remain unchanged.

DCD recommends the Stanley Proto J5444A, $\frac{1}{2}$ " drive socket for torquing the breakaway pins to prevent stripping of the head slot.



- 4. Screw the Adapter into the pin chamber. Install and tighten the locking setscrews and ensure the holes between ends of the connector are aligned to allow the setscrew to pass into the Cap end.
- 5. Ensure the Clevis pins and Clevis pin nuts are in place, with Lockwasher and capscrews fastened in place.

<u>WARNING:</u> Do not over tighten the pins beyond the recommended torque and ensure they are assembled in a symmetrical manner. Failure to do this may result in distorted values.

4. To remove broken pins, use a Phillips screwdriver pressed firmly into the hole of each pin, unscrew broken end out of hole.

OPERATION



- 1. This product <u>must not</u> be used if the pulling mechanism functions in a <u>counter clockwise rotation</u>. This will cause the Breakaway Connector to loosen its assembled condition. The locking setscrews will support up to 400ftlbs of torque in either direction of rotation.
- 2. A swivel must <u>always</u> be used between the Breakaway Connector and the pulling mechanism to avoid severe damage to the Connector as well as extreme likelihood of personal injury.
- 3. For greasing threads, clevis pins or other surfaces on this assembly, DCD recommends the use of Molykote Cu-7439 for best suitability in saltwater environments for use on 316 grade stainless steel parts. Molykote-55 oring lubricant is suitable for the o-rings used in this assembly.

2/4 Rev D 6/14/2024

OPERATING INSTRUCTIONS





SAFETY



- 1. An overload condition <u>will</u> cause the Breakaway Connector to separate and release the stored energy of the duct, rope, chain or cable. Make sure 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. Never use a worn, defective or incomplete component.
- 2. Except where otherwise recommended, use Breakaway pins once only. Elongation or stretching of the pins may occur during the first use and we will not guarantee predictable results on subsequent usage. If operational conditions can guarantee loads do not exceed the pin 'Preload' values, the pins will not experience fatigue and may be reused. However, they should still be inspected for corrosion or damage.
- 3. Be prepared for the unexpected. Always use recognized safety practices and wear recognized safety equipment.

SERVICE



1. To maintain this product in the best possible condition, it must be thoroughly cleaned out after each use and a light smear of grease should be applied to the surfaces of the bronze bushing and the Pin Chamber after each use.

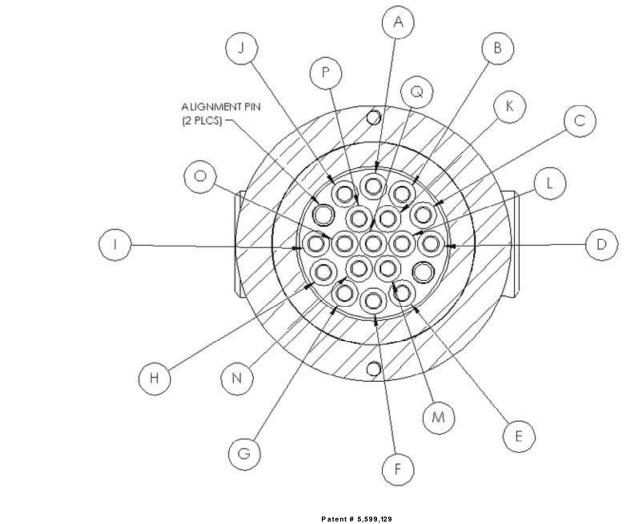
3/4 Rev D 6/14/2024

00560-280/280S BREAKAWAY PIN LOAD DISTRIBUTION TABLE

In the following table are suggested ways of arriving at required load values. There are usually several options other than those shown below. The pin locations are designated as A, through Q. All numbers below are expressed in lb or kg.

Pin Location													Break Value				
Α	В	С	D	E	F	G	Н	I	J	к	L	М	N	0	Р	Q	lb
																4700	4700
										4700			4700				9400
										4700		4700		4700			14 10 0
										4700		4700	4700		4700		18800
										4700		4700	4700		4700	4700	23500
										4700	4700	4700	4700	4700	4700		28200
										4700	4700	4700	4700	4700	4700	4700	32900
4700										4700	4700	4700	4700	4700	4700	4700	37600
4700					4700					4700	4700	4700	4700	4700	4700	4700	42300
			4700			4700			4700	4700	4700	4700	4700	4700	4700	4700	47000
4700			4700		4700			4700		4700	4700	4700	4700	4700	4700	4700	51700
4700		4700		4700		4700		4700		4700	4700	4700	4700	4700	4700	4700	56400
	4700		4700	4700		4700		4700	4700	4700	4700	4700	4700	4700	4700	4700	6 110 0
	4700		4700	4700	4700		4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	65800
4700	4700		4700	4700	4700		4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	70500
4700	4700	4700	4700	4700	4700		4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	75200
4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	4700	79900

*Note! Uneven pin distribution may result in up to 10% higher breaking point.



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