

AirBrake® Installation Instructions



Prior to installation please confirm that the following parts are present.



- Qty(1) AirBrake® assembly
- Qty(1) Double Link Bar
- Qty(1) Shoulder Bushing
- Qty(1) SAE 3/8-16 Bolt
- Qty(1) SAE 3/8-16 Nut
- Qty(2) Shackle with screw pin
- Qty(6) Wire rope clips
- Qty(2) Thimble
- Qty(2) 1/2"-13 Eye bolt, washer, and nut
- Qty(2) Stainless steel restraining cable assembly
- Qty(1) Package of Loctite 262

CAUTION:

Prior to installation confirm the operation direction of the fan, and ensure this coincides with the direction of free rotation of the AirBrake®.

STEP 1:

NOTE:

Confirm there is at least 1.5 inches (38.1 mm) of available shaft and that there is at least 3 inches (76.2 mm) of clearance between the bottom of the shaft and the nearest obstacle.

STEP 2:

Install the AirBrake® assembly onto the fan shaft by aligning the modified setscrew with the keyway of the fan shaft and sliding the assembly onto the shaft until the bottom of the shaft comes into contact with the lip of the AirBrake® assembly.

STEP 3:

Apply Loctite 262 to the threads of the modified setscrew and tighten using a hex wrench to the proper torque value (see Table 1).

STEP 4:

Apply Loctite 262 to the threads of the plain setscrew and tighten using a hex wrench to 45 ft-lbs (6.2 kg-m).

STEP 5:

Install double cable link bar onto AirBrake® arm, at the center hole of the link bar, with supplied shoulder bushing, bolt and nut. Apply Loctite 262 to bolt threads and tighten bolt and nut to 20 Lb-Ft (2.7 m-kg). Insert thimble portion of each cable onto each of the shackles. Install each shackle opposed to each other at the ends of the cable link bar. See Figure 3 for installation illustration. Tighten the nut of each shackle bolt to 20 Lb-Ft (2.8 m-kg) and install safety cotter pin through each bolt.

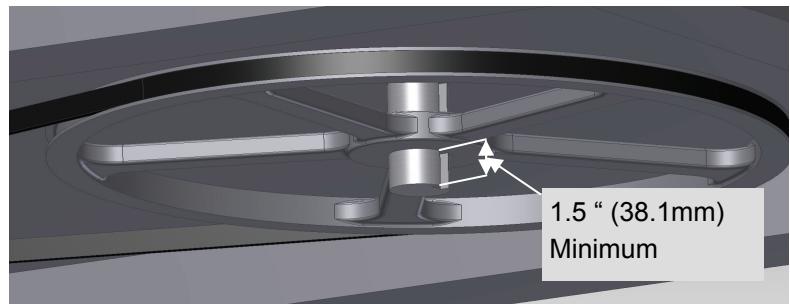


Figure 1. Minimum shaft extension.

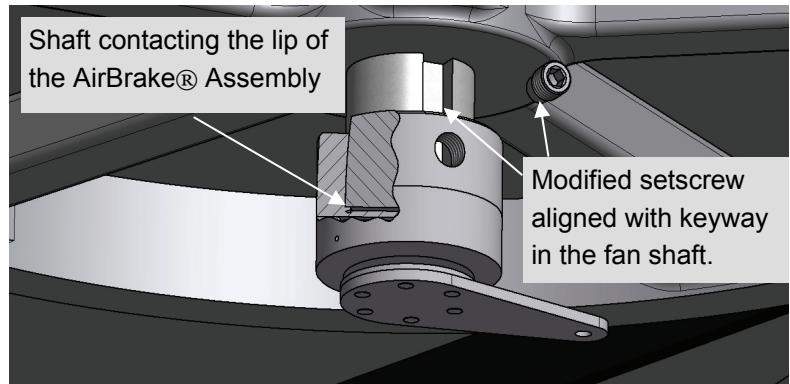


Figure 2. AirBrake® coming into contact with shaft.

STEP 6:

Attach the supplied 1/2"-13 eye bolts to nearby suitable supports using supplied lock-washers and nuts. Each eye bolt should be as near to straight line opposite each other as possible. Effectively creating an imaginary line through the junction of the double cable link bar center point with the AirBrake® arm (See Figure 4). While 180° is the optimum cable placement, it is allowable for the cables to form as small an angle as 90° on the plane of the AirBrake® arm. Secure the free ends of the restraining cables to the eyebolts by first inserting one of the supplied thimbles through each eye bolt. Pass each cable around its associated thimble and secure with three wire rope clips on each cable. See figure 5 for proper rope clip installation. Ensure that the attachment of the cable to the support will not make the cable more than plus or minus 10° out of level as illustrated in figure 6. Remove as much slack as practical from each cable. However, cables should NOT be taught. Apply Loctite 262 (or equivalent) to the threads of the rope clips and tighten the clips.

Table 1. Torque values for the modified set screw.

Keyway Width	Torque
3/4 inch	150 (ft-lbs)
5/8 inch	100 (ft-lbs)
1/2 inch	50 (ft-lbs)
3/8 inch	20 (ft-lbs)
1/4 inch	6 (ft-lbs)
20 mm	19.4 (kg-m)
18 mm	15.3 (kg-m)
16 mm	11.4 (kg-m)
14 mm	7.6 (kg-m)

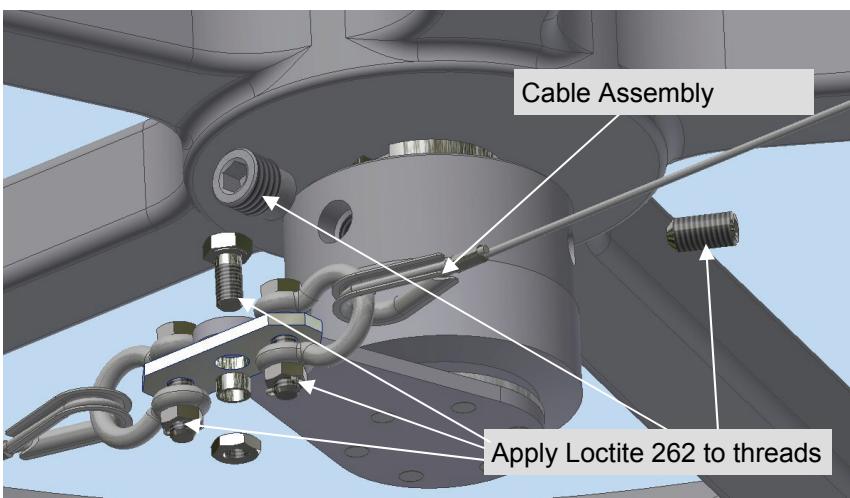


Figure 3. Installation of set screws and shackle.

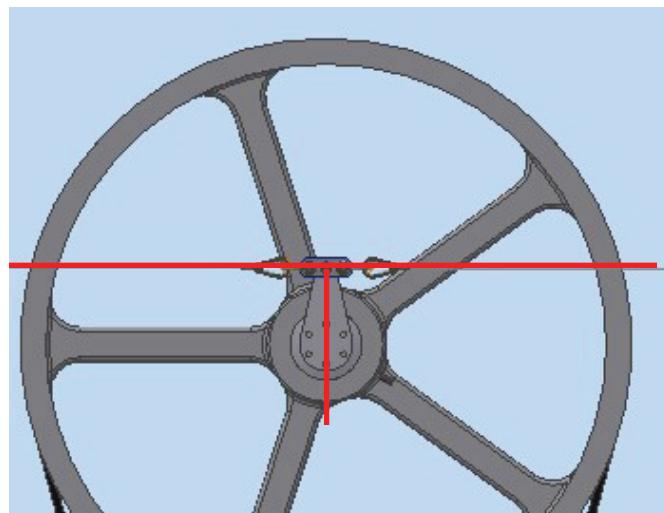


Figure 4. Straight line installation.

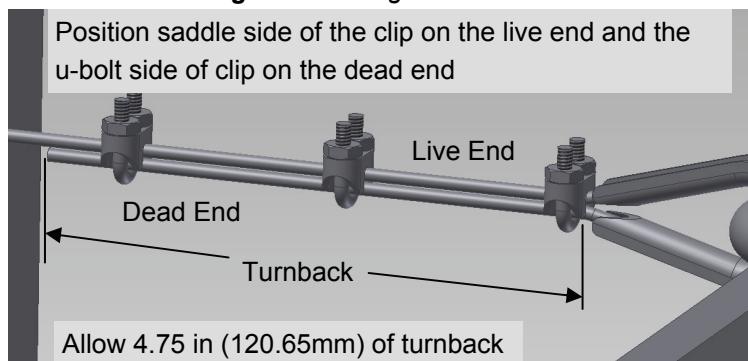


Figure 5. Proper installation of wire rope clips.

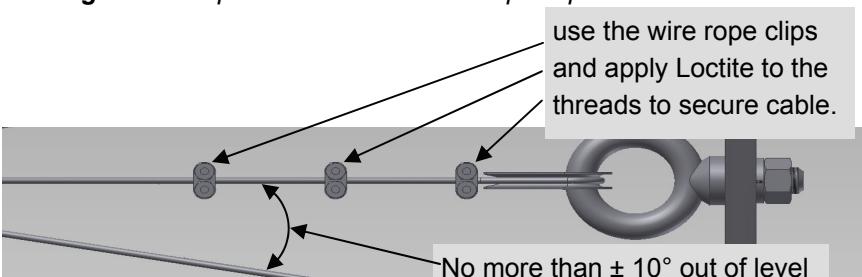


Figure 6. Restraining cable angle tolerance.

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