

3.5K Disc Brake Mounting Instructions



Disc Brake Installation Instructions

With axle beam prepared for disc brake installation (all brake and/or wheel equipment removed from brake flange and spindle):

1. Install caliper-mounting bracket onto brake flange. Install yoke such that the caliper will be mounted at the 3:00 o'clock position on the road side of the trailer and at the 9:00 o'clock position on the curb side of the trailer. Verify that the bracket fits up on the flange-piloting nibs and sits flush against the flange face. Install 7/16" mounting nuts. Torque nuts in a cross pattern to 40-50 lb.-ft.
2. Install idler hub onto axle spindle. Refer to the *Bearing Adjustment and Hub Replacement* section in the Dexter Axle maintenance manual for instruction. Once installed, inspect idler hub face. Remove any burrs, debris, paint runs, etc from the hub face area of the idler hub that could prevent 100% contact between the rotor and hub face.
3. Install Rotor onto idler hub. Check that the rotor properly seats against the hub face by trying to rock the rotor back and forth. If rotor mounts to hub face properly there should not be any rocking noticed. If there is, then remove the rotor from the hub face and repeat step #2.
4. Install three lug nuts (upside down so cone on nut is away from rotor face) to temporarily secure the rotor to the idler hub. Torque lug nuts to 10-20 lb.-ft.
5. Assemble the brake pads into the caliper prior to mounting the caliper to the mounting bracket. When installing the outboard brake pad to the caliper, there will be two fingers that will protrude through two holes in the caliper. These fingers will need to be folded down, 90°, to retain the pad properly in the caliper. Bending the tabs can be accomplished using a chisel or punch to bend the protruding ears over and against the caliper. The inboard pad has a metal retainer clip on the back so when the pad is assembled to the caliper, the pad will be retained by engagement of the clip into the inner diameter of the caliper piston.
6. Install caliper so that the bleeder screw is pointing in the upward position for proper bleeding. Install caliper guide bolts (do not use any petroleum products during assembly as it may react with the silicone grease that is used to lubricate the caliper seals, o-rings, etc.). Torque the caliper guide bolts to 40-50 lb.-ft.



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Brake Line Hook-up and System Bleeding

1. Install brake lines from hydraulic actuator to disc brake caliper. Use 3/16" or 1/4" steel tubing for all hard-line connections between actuator and take-off to axle. All tubing must have double flare connection at joints. Anchor hydraulic tubing securely to frame and axle. Use DOT high-pressure hose for flex connections such as frame to axle or frame to brake caliper.
2. Follow the actuator manufacturer's recommendations to pressurize the brake lines (a vacuum brake bleeding system may also be used). Brake bleeding should be conducted with tire and wheel assembly removed from hub.
3. The caliper must be installed with the bleeder screw pointing up otherwise the entrapped air will cause the system to not function properly. (On Torflex axles the trailer may need to be loaded with weight or the rear of the trailer elevated with respect to the front of the trailer in order to make the bleeder screw point straight up).
4. Start the bleeding procedure on the disc brake caliper that is the farthest away from the actuator. Insure the bleeder screw is tight before beginning procedure. Use a small bleeder hose that will fit over the top of the bleeder screw. Submerge the other end into a clear container of brake fluid to observe any bubbling.
5. Pressurize the hydraulic fluid system. Open the bleeder approximately 1/2 turn and only for a few seconds. Trapped air and pressurized brake fluid will be vented into the clear container. Close, or tighten, the bleeder screw. Release the pressure in the actuation system. Continue this procedure at each caliper until a clear steady flow of brake fluid comes out of the bleeder into the clear container. The bleeding operation is complete when all the entrapped air is removed from the actuation system. Be sure not to get any brake fluid on rotor or lining surface.
6. Periodically check the fluid level in the master cylinder reservoir so no additional air is introduced into the system during bleeding. After bleeding is completed, make sure the master cylinder reservoir is filled to the proper level and all bleeder screws are tight. Torque range for bleeder screw is 60-75 lb.-in.

Disc Brake Information

Maximum system operating pressure: 1,600 psi
Fluid displacement required per axle: 0.50 in³
Hydraulic line fitting size to install into caliper: 3/8"-24 UNF thread, 3/16" or 1/4" tubing
Minimum rotor thickness: 0.85" inches

Bleeder screw torque: 60-75 lb-in
Brass plug torque: 60-75 lb-in
Caliper mounting bracket nut torque: 40-50 lb-ft
Caliper guide bolt torque: 40-50 lb-ft