



PRODUCT TORQUE/TIGHTENING INFORMATION

The **Swing Tongue** hinge bolt is initially tightened to 150 foot pounds to firmly clamp the tongue together, then loosen 1/8 to 1/4 turn until the tongue will pivot with some resistance. See attached instructions

The brake line fastener referred to below is our part number 007-307-00 (old # 32307) **Banjo Bolt**. It has a 5/8" diameter head, and secures the brass brake line inlet fitting to the caliper. It comes pre-torqued from DEXTER as part of the axle assembly, and theoretically should not need re-torquing as part of normal trailer production. If a bolt needs to be removed, or the brass brake line inlet repositioned, it is best to replace the copper washers under the bolt head and brass fitting, the copper washer part number is part number 32230. (Note: Used copper washers will often reseal if just removed and flipped over and reinstalled) The banjo bolt is then torqued to 38-45 foot pounds. If re-using used washers, go to the higher end of the torque range.

When threading a brake line into either the rear inlet of the actuator brake solenoid or into a **brass banjo fitting** on a disk brake caliper, the torque is 75 INCH pounds. If using a crowfoot adapter on an inch-pound torque wrench, an offset adjustment is made to the torque wrench setting to account for the radius of the crowfoot, in our case; the crowfoot reduces the torque wrench setting to 67 INCH pounds. Note: These fittings seal with an inverted flare, so unlike a typical pipe thread, don't need to be extremely tight to seal.

If a caliper itself needs to be removed, it is best to remove the entire caliper via **the two 9/16" head caliper bolts** securing the caliper anchor bracket to the axle itself. When reinstalling, either use new bolts with the pre-installed Loctite patch or add blue Loctite 242 or equivalent thread locker to the original bolts. We use the liquid 242 thread locker in conjunction with the pre-Loctite patched patch bolts on all new axle production. Key point is to quickly torque the bolts to 55 foot pounds prior to the Loctite patch setting up. Attached is the more detailed version of caliper installation instructions for service. Since these calipers come pre-installed from DEXTER, this would not be a normal trailer production operation.

Note: The caliper will actually disassemble via the **Allen head slider pins**, but the caliper body and anchor bracket are supplied and serviced in all cases as a unit, so there is no need to disassemble the slider pins. If the slider pins have to be reinstalled for any reason, the torque is 25 foot pounds, plus blue Loctite applied to the threaded part of the pin only before assembly.

One suggestion: With regards to measuring torques, the most critical trailer fastener torqueing effort will be the wheel fasteners (lug nuts). The National Association of Trailer Manufacturers has done some really good engineering work on this, and they have both a recommended practice and technical information on the subject. Nearly all wheel studs used on DEXTER axles are 1/2-20 UNF (Fine) thread. The actual torque needed on the wheel fasteners totally depends on the wheel, nut design, and actual loading of the wheel. For example, a lightly loaded stamped steel wheel in a five lug tandem application may need 90-95 foot pounds, where an aluminum wheel in a heavily loaded six lug application may need 120-125 foot pounds. Once the actual torques is arrived at with the wheel manufacturer, it is critical that the trailer assembly process provides excellent control of them in production. In our opinion, it is best to install the nuts on the stud threads about two or three revolutions by hand, then apply the initial nut torque evenly in a cross pattern via a torque limiting device, and then finally reach the final torque with a calibrated torque wrench. It is not uncommon for manufacturers to run down and initially tighten lug nuts in an entirely uncontrolled fashion with an impact wrench and then confirm with a clicker type torque wrench that "at least" the minimum specified torque was reached. Unfortunately in that case, the forces on the wheel, studs, and nuts can be unevenly applied, and it is remotely possible to stretch the studs beyond their yield point.

With the addition of the 150 foot pounds torque numbers previously given for the **axle installation brackets and trailing arm bolts/nuts**, I believe that should cover all the axle related fasteners. Please let us know if we missed something or you need anything else.