

# The ConMet Connection

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## Proper Wheel and Drum Mounting for Hub Piloted Hub Assemblies

Whether it is during the initial assembly of a new truck or trailer or the reassembly of a wheel end after service, it is very important that the proper steps are taken to install the brake drum and wheel on to the hub. Attention to details here can prevent potential problems down the road like cracked drums, broken wheel bolts or a wheel off situation.

Begin by making sure the mating surfaces of the hub, brake drum and wheels are free from dirt, rust or foreign material. Careful attention should be paid to the drum and wheel pilot diameters and the pilot bosses on the hub. A wire brush can be used to remove the build up of rust and other foreign material from these surfaces.

While it is important that these surfaces are clean and dry, it is just as important that these surfaces are free from lubricant. Never lubricate the mounting surfaces between the mounting face of the hub, the brake drum and the wheels. It is permissible to lubricate the wheel and drum pilot only, with grease or "anti-seize." In environments where a corrosion inhibitor on the pilot bosses is beneficial, ConMet recommends the use of Corrosion Block, a product of Lear Chemical Research (905-564-0018). In severe corrosive environments, a light coat of Corrosion Block on the wheel and drum pilots is most effective. Be sure that the

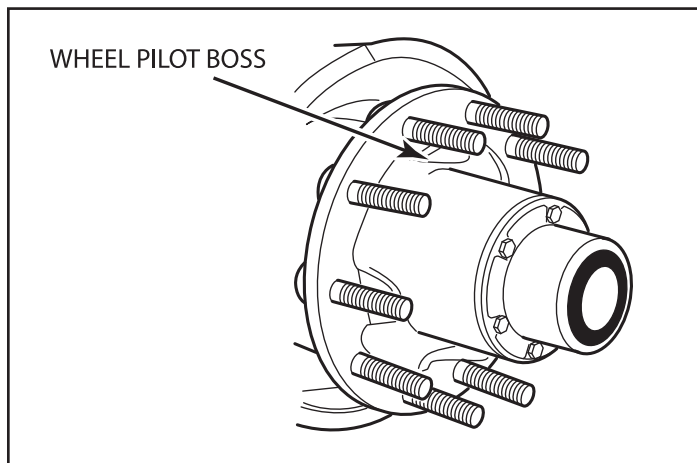


Figure 1: Rotating the hub.

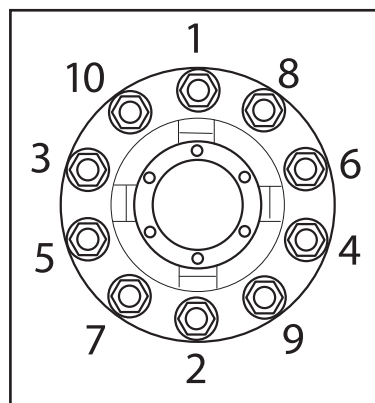


Figure 2: 10 stud tightening sequence.

Corrosion Block does not get on the flange face of the hub. After all surfaces have been cleaned, position a drum and wheel pilot boss on the hub to the 12:00 position (see figure 1). Apply two drops of oil between the nut and the nut flange washer on each nut and two drops of oil to the last two or three threads at the outer end of the stud. Position the brake drum on to the drum pilot of the hub and seat it against the flange face of the hub. Place the wheels into position on the hub.

Hand tighten the top nut to hold the wheel and drum in position. Snug the top nut first and apply 50 ft-lbs of torque to hold the drum and wheels in position. Install the remaining nuts and then torque all nuts to 50 ft-lbs in a star pattern (see figure 2 and 3). Retorque the wheel nuts to 450 to 500 ft-lbs in a star pattern. The last nut rotation must be with a calibrated torquing device. Inspect the brake and wheel installation by checking the seating of the wheels and drum at the pilots. Rotate the wheel and check for any irregularity.

**Note:** Inadequate or excessive wheel nut torque can result in failure of the wheel mounting system and could result in a wheel off situation. Always use a calibrated torquing device. Retorque the wheel nuts after 50 to 100 miles.

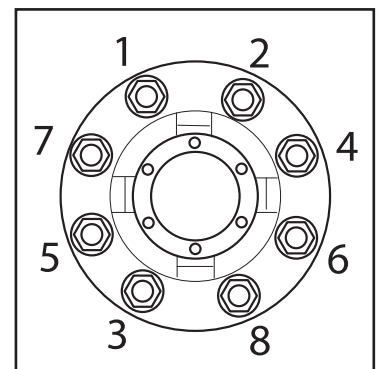


Figure 3: 8 stud tightening sequence.