

Technology Bulletin

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Proper Service and Reinstallation of ConMet Brake Drums

Adhering to simple procedures in mounting, inspecting, and servicing your ConMet brake drums will help you prevent early failure and ensure long life. While our Service Manuals describe in detail the reinstallation of brake drums and wheels, the guidelines below will reiterate the information in the manual and provide helpful tips. One of the most common causes of brake drum failure is cracking (see photograph at right). And the most common cause of cracking is improper mounting. Mismounting can shave or crush the pilot (see picture at right), which can lead to the drum cracking cross flange through a bolt hole. Another cause of drum malfunction is the failure to remove the build up of rust and corrosion in and around the studs and pilots before reinstallation of the brake drum. In both cases, the drum does not fully seat against the hub flange. The gap between the drum flange and the hub flange will cause high bending stresses, which is how brake drum flanges crack through bolt holes. Other important things to remember to prevent drum failure:



Rust and corrosion build-up.

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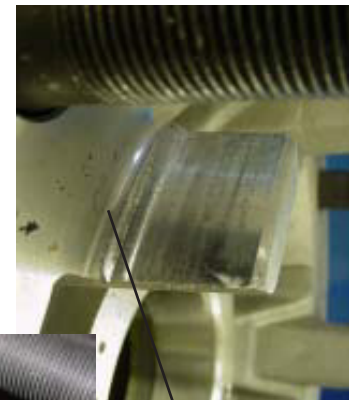
- Use a wire brush to remove any dirt and corrosion in the pilot or flange before reinstalling the drum
- If corrosion is a consistent issue, ConMet recommends using a light coat of a corrosion inhibitor (such as Corrosion Block, a product of Lear Chemical Research, 905-564-0018) on the drum and wheel pilots
- Before installation of brake drums and wheels that feature a hub pilot mounting system, rotate the hub so that one of the wheel pilot holes is at the top, or 12 o'clock position



Example of drum cracking.

- Once the drum is properly seated on the drum pilot against the hub face, begin by tightening the 12 o'clock nut first
- For ball seat wheel mounting system, be sure to install the inner cap nuts by hand to ensure they are not crossthreaded

- Apply sufficient torque (about 50 ft-lbs.) to the inner top cap nut to draw the brake drum up on the drum pilot against the hub. Then seat the ball seat of the nut into the ball socket of the wheel



Drum shaving as a result of mismounting.