



January 2011, News Bulletin

Proper Installation Procedures To Ensure The Job Is Done Right

Measuring Hub Run-out:

Measuring hub run-out is a critical procedure that needs to be addressed before installing any new set of rotors. Because you're measuring such fine amounts, a dial indicator is needed. First mount the dial indicator to a solid part of the suspension and adjust the indicator tip to the outer edge of the hub. Then set the indicator needle to zero. Rotate the hub 360° and look closely for run-out variance. If you find there is excessive run-out of more than .02 of a millimeter, you need to replace the hub. The reason is, if you have .02 of a millimeter run-out at the hub surface, by the time you move it out to the outer diameter of the rotor disc, the run out can be well over .05 millimeter. This will cause noticeable pedal pulsation.



Check Hub run-out



Clamp brake line before pushing pads back

Proper procedure for removing the pads from the caliper assembly:

Before pushing the pads back to allow enough clearance for the new disc to fit in with the new pads installed; it's very important we don't push the old fluid that has been sitting in behind the caliper pistons back out to the brake line system. This can contaminate the system and cause issues with the ABS module. Therefore we need to clamp off the brake hose and bleed that fluid out as we push the caliper pistons back. First, use a brake hose clamp and clamp off the line to stop any fluid from returning up the brake line. Next, attach a drain hose to the bleeder screw and run the hose to a suitable retaining bottle to capture the fluid. Then loosen the bleeder screw with a brake line wrench. Now you can use a brake pad spreader or C-clamp to push the pistons back. Once the pads are all the way back, close off the bleeder screw. This will stop air from getting back into the caliper. Once that's done, remove the hose and drain the fluid out of the hose. Now you can easily remove the old brake pads from the caliper assembly.

Inspecting the caliper assembly:

Before installing new pads, it's very important check and make sure that all tensioning springs, rattle clips and shims are in good condition. If any of these components are damaged, they need to be replaced. Also check to see if the caliper seals and dust boots are in good condition and still soft with no signs of cracks or tears. Finally remove any dirt, dust and contaminants from where the pads actually sit on the caliper ears. Failure to do this can prevent the pads from sliding freely and cause them to drag on the disc instead of retracting correctly during normal operation.



Inspect caliper assembly for defects



Check disc rotor run-out

Measuring installed rotor run-out:

Once the new rotor has been installed, it is important to measure run out one more time with a dial indicator. Repeat the same steps as when measuring hub run-out. Rotate the rotor 360° and look closely for run out variance. If we find there is excessive run-out of more than .03 of a millimeter, then check the inside of the rotor assembly as well as the outer hub surface for dirt or debris. A small amount of dirt or debris can be the likely cause of the run-out.

For more installation tips, visit to our website and view the Tech Tip videos at www.dbausa.com.