

LOCTITE*Adhesives for more
reliable assemblies***APPLICATION CASE HISTORY****No. 157**

Loctite® 771 Nickel Anti-Seize For Automotive Brake Rotor/Hub Assemblies

*Car Makers Seek to Eliminate \$3 Repair and Warranty Costs***Situation:**

Corrosion can develop between the hub and brake rotor of automobiles equipped with disc brakes. This causes a shimming effect, knocking the two pieces out of parallel and resulting in excessive run-out of the rotor. The result is excessive brake pad wear, brake shuddering, and uneven braking and rotor wear. Industry estimates that this phenomenon costs in excess of \$3 per vehicle in repair and warranty costs during the three-year warranty on the vehicle and is a leading cause of customer dissatisfaction over the life of a vehicle.

Car makers have tried numerous approaches to eliminate this problem. Materials tested have included greases, treated gaskets and various surface coatings none of which solved the problem due to fretting, unacceptable surface hardness, and excessive squeeze out at temperature.

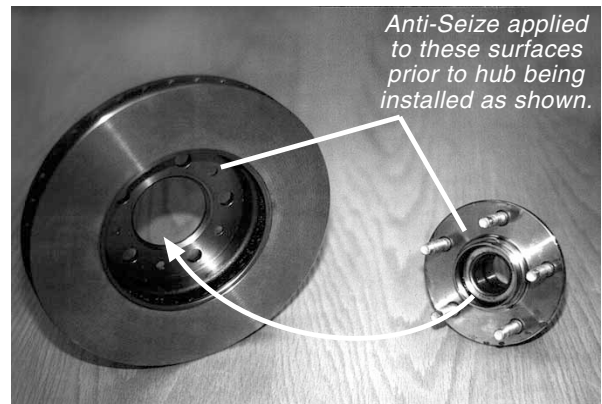
Solution:

Loctite 771 Nickel Anti-Seize contains a unique combination of lubricating metals, oils and graphite. Its major industry use is on harsh environment threaded fasteners to prevent galling and corrosion. In fact, Anti-Seize will not evaporate or harden — even under extreme cold conditions or temperatures up to 1600°F. It has been used on automotive brake assemblies for years. Unaffected by moisture, Anti-Seize displays exceptional resistance to all automotive fluids. It allows for easy disassembly of parts, even after years of service.

Anti-Seize can be dispensed in a variety of ways from hand-operated units to fully automated dispensing stations. It can be applied at the automobile's final assembly or onto sub-assemblies prior to shipping to the final assembly plant.

Results:

After passing strict requirements in 150,000 mile durability trials, plant trials, contamination testing, police, limo and taxi fleet testing, this application has been approved. The new disc brake assembly process is expected to eliminate associated repair and warranty costs during the warranty period, and increase overall customer satisfaction.



A major car company now specifies the application of Loctite® 771 Nickel Anti-Seize to the hub and rotor surfaces prior to assembly to eliminate corrosion and associated warranty and repair costs.

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