

The Preventive Maintenance Series

Mike Dawson

Viton Crankshaft Seals: I recently had to pull the engine and replace the flywheel end crankshaft seal on my Lakewood which only had 10,000 miles on the seal since installation. This is the fourth leaking Viton crankshaft seal I have replaced in various vehicles in the past few years; two seals I had installed and two had been installed by others. None of them should have had to be replaced; I have a Clark's Polyacrylate crankshaft seal in one of my Greenbriers that has been there since 1985, and still dry.

All four of the failed seals had been installed correctly and I have placed grease between the lips on all seals for the last 50 years so that was not an issue for my two failures. And the crankshaft hubs were in perfect condition except for areas where some of the Viton material had stuck.





Looking at the pictures you can see that the primary lip (bottom picture) has a worn and flatten appearance (shiny area) and you can see evidence of grease residue. The secondary lip had crumbled and began peeling from what was obviously overheating caused by a lack of lubrication. Even the grease placed between the lips is not enough for the years and mileage if the primary lip does not allow oil seepage for lubrication purposes. I guess I am thinking that the Viton does too good a job (Viton tube seals last forever) and is not well suited to a rotational assignment.

I have removed two pulley end crankshaft seals that were Viton with no evidence of any leakage or damage to the seal. I would expect that the smaller diameter shaft causes less friction and wear during rotation (or they were just not as old).