

The Grease Fittings

For the rear wheel bearings

by Tom Endy

A grease fitting is located on the bottom side of each rear axle housing right next to the backing plate. Its intended purpose was to provide a means to pump grease into each rear wheel bearing.



Grease fitting located on the rear axle housing

However, unless the rear axle assembly has been apart in the last 20 years and the inner seals were replaced and the grease paths with 80 plus years of "crud" accumulation was cleaned out there is little chance for grease to find its way to the rear wheel bearing from the grease fitting.

The inner grease seal is located just inboard from the grease fitting. Its outside diameter is pressed into the housing against a machined stop and the inner diameter seals around the axle shaft. There is a circular groove machined inside the axle housing just outboard of the seal that runs around the full circumference of the housing. The hole for the grease fitting is drilled into the center of the groove. You can reach your finger down inside the hub (when it is disassembled) and feel the circular groove and the hole for the grease fitting. Just past the groove you can feel the machined stop for the grease seal.

The circular groove is to allow grease being pumped in to travel around the full inside circumference of the bearing hub.

The design intent was for the grease seal to prevent grease being pumped in through the fitting from migrating inward toward the differential and instead forcing it to travel outward toward the rear wheel bearing. There is a nominal 1/8" circular space between the axle shaft and the inside diameter of the bearing hub on the axle housing. This allows grease being forced outward by the inner grease seal to travel inside the bearing hub around the axle shaft toward the wheel bearing.

The brake drum has a large grease seal installed such that it fits over the bearing hub on the axle housing. The taper in the drum holds the axle shaft in line. The grease pumped in through the grease fitting is blocked by both seals so that the only place it can go is into the wheel bearing.

Contrary to popular belief the inner grease seal in the axle housing is not there for the purpose of preventing oil from the differential from migrating out to the brake shoes; it is a grease seal, not an oil seal. The same seal that is used inside the axle housing is also used in the front of the torque tube behind the drive shaft roller bearing; its purpose is the same, to keep grease for the roller bearing and U-joint from migrating down the drive shaft toward the differential.

Quite often when disassembling a rear axle assembly where the inner grease seals failed years before there will be found a build up of grease around the circumference of the axle shaft that has been centrifuged to a very large diameter. It can extend six to ten inches long toward the differential; the length depending on how often the owner attempted to grease the rear wheel bearings.

In later years, after Model A production ceased, Ford discontinued providing grease fittings to grease the rear wheel bearings on their cars. Instead it was recommended that the bearings be packed with grease before the drum is installed.

This same modern day practice should be employed with the Model A. Grease the rear wheel bearings by removing the brake drums and packing the wheel bearings by hand. Repack the bearings each time the brake shoes are inspected or replaced instead of relying on the rear wheel bearing grease fittings.