

## Wheel Grease Seal and Bearing, Front

### Replacement and Repacking

#### SPECIAL SERVICE TOOL(S) REQUIRED

Description	Tool Number
Hub Nut Wrench	T95T-1197-B
Bearing Cup Puller	T77F-1102-A
Impact Slide Hammer	T50T-100-A
Driver Handle	T80T-4000-W

**⚠ CAUTION:** Use of incompatible bearing lubricant could result in premature lubricant breakdown.

The recommended wheel bearing lubricant is the lithium-base grease High Temperature 4x4 Front Axle and Wheel Bearing Grease E8TZ-19590-A or equivalent meeting Ford specification ESA-M1C198-A.

Sodium-base grease is not compatible with lithium-base grease and should not be intermixed. Therefore, before lubricating front or rear wheel bearings (1225), thoroughly clean all old grease from the bearing and front disc brake hub and rotor (1102).

If bearing adjustment does not eliminate looseness or rough and noisy operation, clean and inspect the front disc brake hub and rotor and bearings. If bearing cups or the cone and roller assemblies are worn or damaged, replace.

#### Disassembly

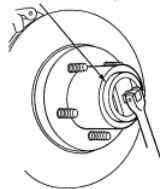
1. Raise vehicle and install safety stands.
2. Remove the wheel and tire. Refer to [Section 04-04](#) in the Body, Chassis Manual.
3. Remove the locking hubs.
4. **⚠ CAUTION:** Do not let the disc brake caliper (2B120) hang only by the hose, or damage might occur to the hose or disc brake caliper.

Remove the disc brake caliper. Refer to [Section 06-03](#) in the Body, Chassis manual. Securely wire the disc brake caliper to the frame.

5. For vehicles equipped with automatic locking hubs, remove C-ring or snap ring and three-piece thrust washers (spacers). Remove the cam assembly and wheel bearing nut retaining key. Remove wheel bearing retainer (nut) using Hub Nut Wrench T95T-1197-B.

Repack the wheel bearings with the specified lubricant (grease).

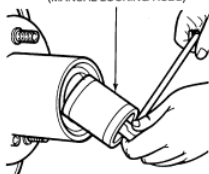
HUB NUT WRENCH  
T95T-1197-B  
(AUTOMATIC LOCKING HUBS)



DE0189-A

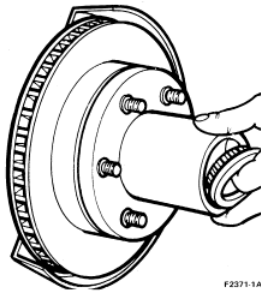
For vehicles with manual locking hubs, remove snap ring, three-piece thrust washers (spacers), the outer lock nut, lockwasher, and inner lock nut using Spanner Locknut Wrench D85T-1197-A or equivalent.

SPANNER  
LOCKNUT WRENCH  
D85T-1197-A  
(MANUAL LOCKING HUBS)



DE0188-A

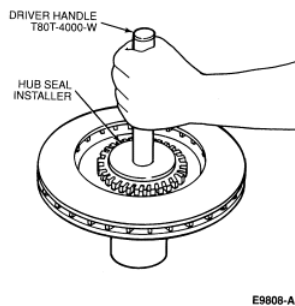
6. Remove the front disc brake hub and rotor. The front outer wheel bearing will slide out as the hub is removed.



7. Remove the retaining nuts of the front wheel spindle (3105). Carefully remove the front wheel spindle from the knuckle studs and halfshaft (3A329). If necessary, lightly tap the end of the spindle with a rawhide hammer to remove.
8. Clean old grease from the needle bearings and the bore seal of the front wheel spindle. To replace spindle bearing or inner seal, refer to [Section 05-03A](#) or [Section 05-03B](#).
9. Clean any old grease or dirt from these parts and replace if signs of excessive wear are noted.

#### Assembly

1. Using High-Temperature 4x4 Front Axle and Wheel Bearing Grease E8TZ-19590-A or equivalent meeting Ford specification ESA-M1C198-A, thoroughly lubricate the needle bearing and coat the front wheel spindles or face that mates with the seals of the front wheel spindle.
2. Assemble the front wheel spindle over the halfshaft onto the knuckle studs. Tighten the retaining nuts to 68-81 Nm (50-60 lb-ft).
3. Remove the front inner wheel bearing, wheel hub grease seal (1190) from the front disc brake hub and rotor using Bearing Cup Puller T77F-1102-A and Impact Slide Hammer T50T-100-A. Inspect bearings and replace as necessary.
4. Inspect the bearing cups for pits or cracks. If necessary, remove with a drift. If new cups are installed, install new cones and rollers.
5. Lubricate the bearings with High Temperature 4x4 Front Axle and Wheel Bearing Grease E8TZ-19590-A or equivalent meeting Ford Specification ESA-M1C198-A. Clean all old grease from the front disc brake hub and rotor. Pack the cones and rollers. If a bearing packer is not available, work as much lubricant as possible between the rollers and the cages.
6. Position the front inner wheel bearing in the inner cup and install the new wheel hub grease seal using a hammer, Driver Handle T80T-4000-W and the proper seal installer.



7. Carefully position the hub and disc assembly on the front wheel spindle.
8. Install the front outer wheel bearing, and wheel retainer nut or lock nuts and lockwashers.
9. Adjust the wheel bearings. Refer to [Front Wheel Bearing](#) in the Adjustments portion of this section.
10. For vehicles with automatic locking hubs, install cam assembly.
11. **CAUTION: Improper sequence of three-piece thrust washers will result in excessive wear of assembly.**  
Install three-piece thrust washers (first metal, second plastic, third splined) and C-ring or snap ring on the halfshaft groove.
12. Install calipers and pads. Refer to [Section 06-03](#).
13. Install tire and wheel (1007). Refer to [Section 04-04](#) in the Body, Chassis manual.
14. Install the locking hubs.
15. Remove the safety stands and lower the vehicle.

