

Wheel Hub

Special Tool(s) / General Equipment

	100-002 (TOOL-4201-C) Holding Fixture with Dial Indicator Gauge
	205-282 (T88T-4252-A) Socket, Wheel Hub Nut TKIT-1988-FLM TKIT-1988-F

Materials

Name	Specification
Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant XY-75W140-QL	WSL-M2C192-A

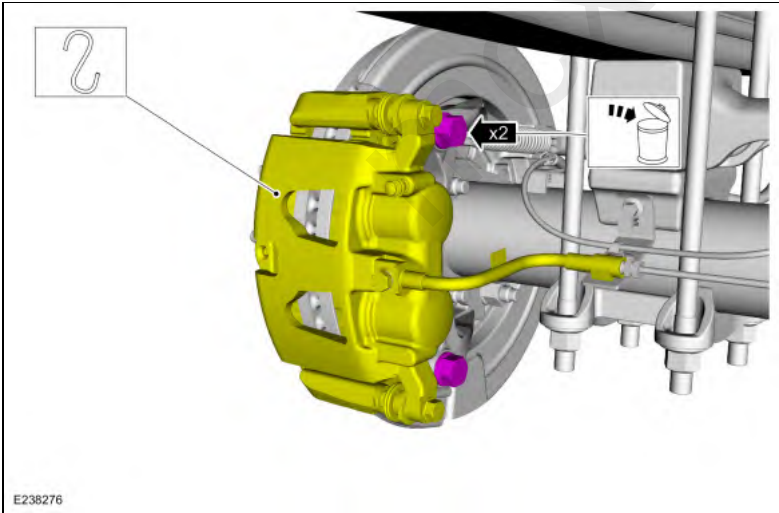
Removal

All vehicles

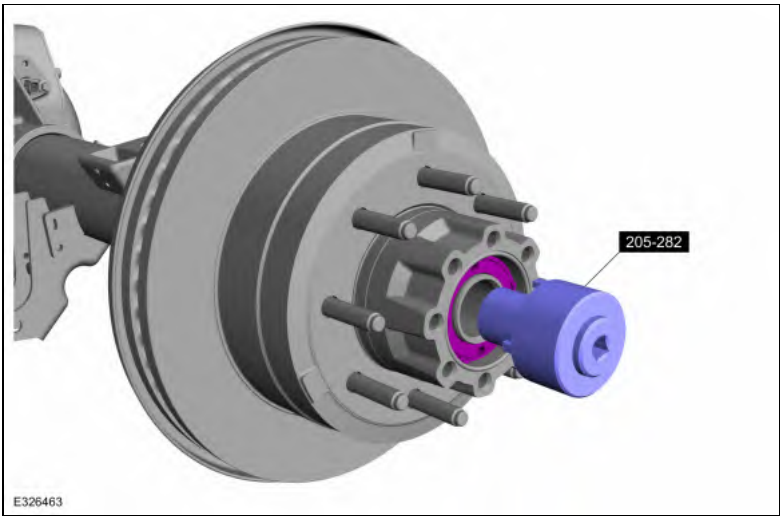
1. Remove the wheel and tire.
Refer to: Wheel and Tire - Vehicles With: Dual Rear Wheels (204-04A Wheels and Tires, Removal and Installation).
Refer to: Wheel and Tire - Vehicles With: Single Rear Wheels (204-04A Wheels and Tires, Removal and Installation).
2. Remove the axle shaft.
Refer to: Axle Shaft (205-02C Wheel Hubs and Bearings - Full Floating Axle - Vehicles With: Dana M275/Dana M300, Removal and Installation).

F250/350

3. **NOTICE: Do not pry in the caliper sight hole to retract the piston as this can damage the piston and boot.**
NOTICE: Do not allow the brake caliper to hang from the brake hose or damage to the hose can occur.
Remove the bolts and position the brake caliper and anchor plate aside. Discard the bolts.

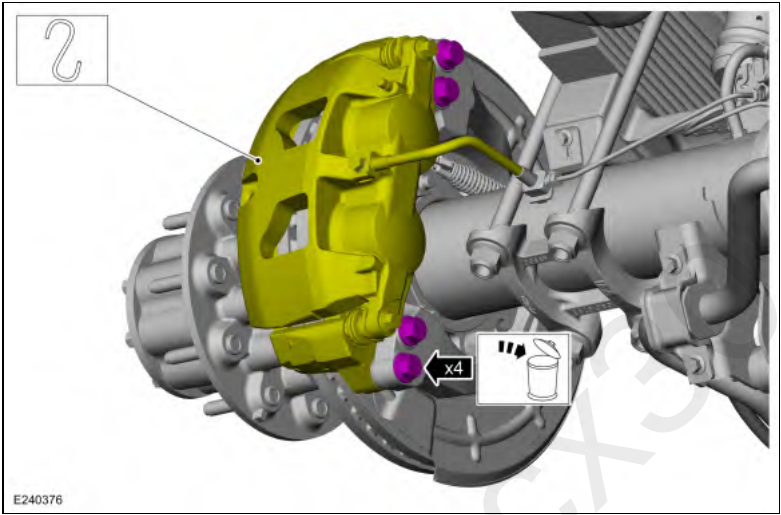


4. **NOTICE: Under no circumstances are power tools to be used when carrying out these operations or damage to the component may occur.**
NOTICE: The wheel hub nut should not ratchet during this operation. If it does, check the Ford Axle Locknut Socket tabs for wear. They should be a minimum of 5.08 mm (0.2 in) or damage to the components can occur.
NOTE: Apply inward pressure to the socket to separate the ratcheting components of the hub nut.
Using the special tool, remove the hub nut.
Use Special Service Tool: 205-282 (T88T-4252-A) Socket, Wheel Hub Nut.

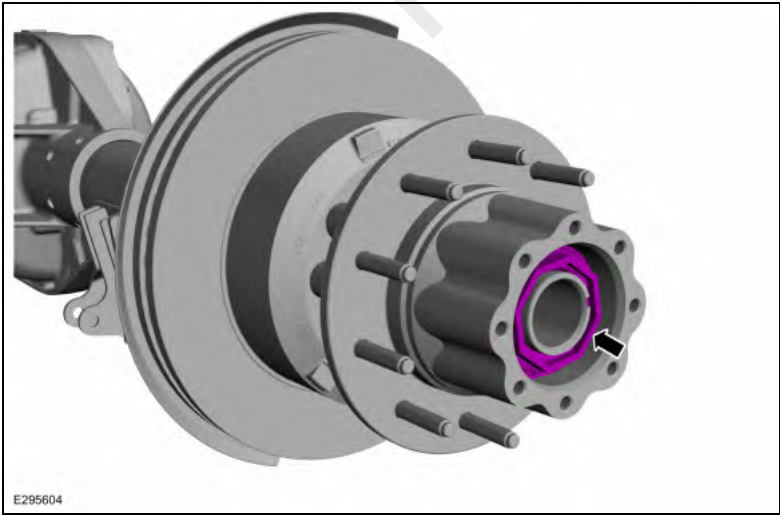


F450/550

5. **NOTICE:** Do not pry in the caliper sight hole to retract the piston as this can damage the piston and boot.
- NOTICE:** Do not allow the brake caliper to hang from the brake hose or damage to the hose can occur.
- Remove the bolts and position the brake caliper and anchor plate aside. Discard the bolts.

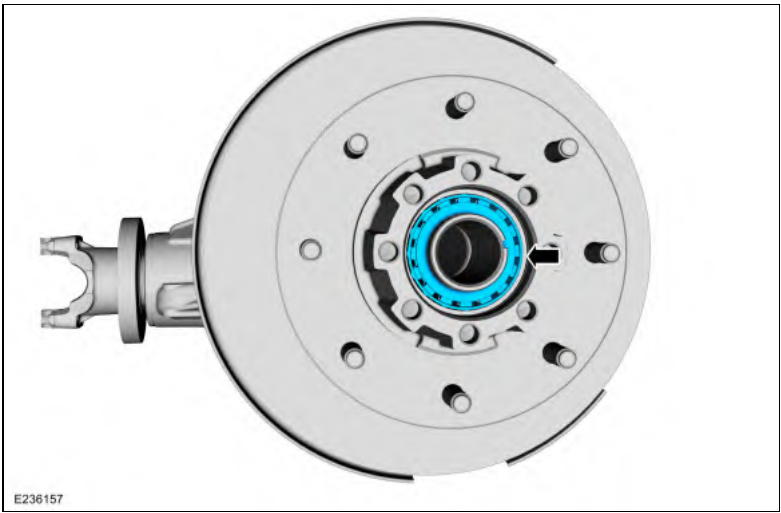


6. **NOTICE:** Under no circumstances are power tools to be used when carrying out these operations or damage to the component may occur.
- Using wheel end nut socket, remove the hub nut.

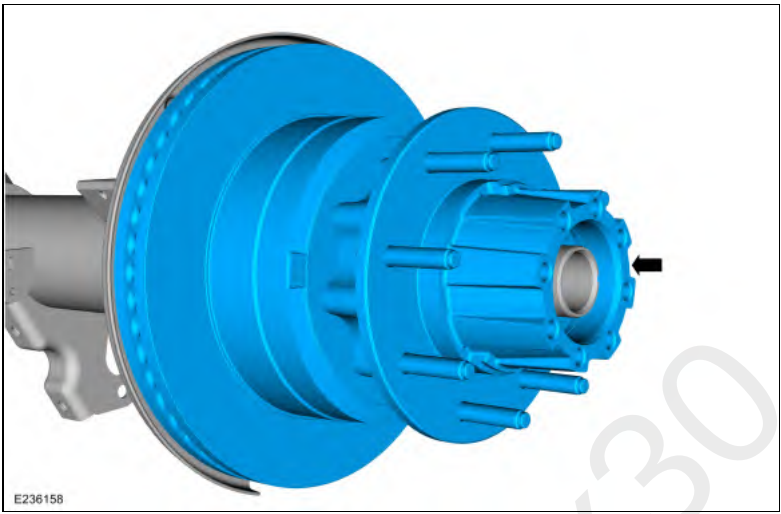


All vehicles

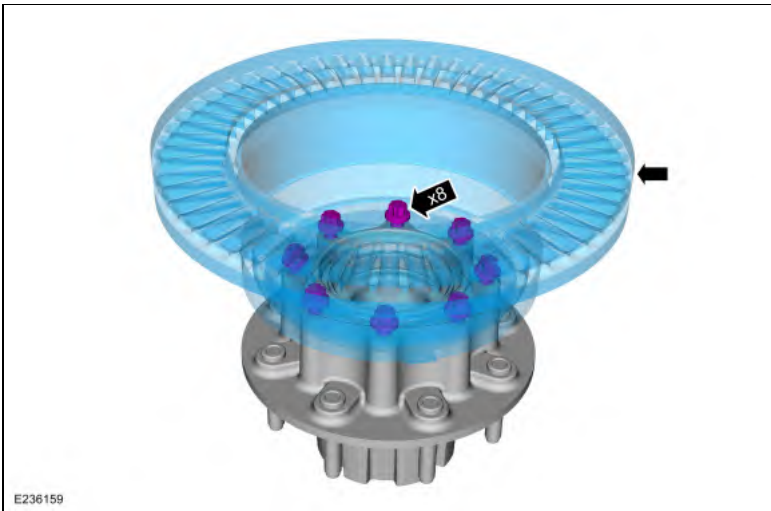
7. Remove the outer wheel hub bearing.



8. **NOTE:** *DRW shown, SRW is similar.*
Remove the wheel hub assembly.



9. **NOTE:** *This step is necessary only if replacement of brake rotor or wheel hub is required.*
Remove the brake rotor bolts and the brake rotor.



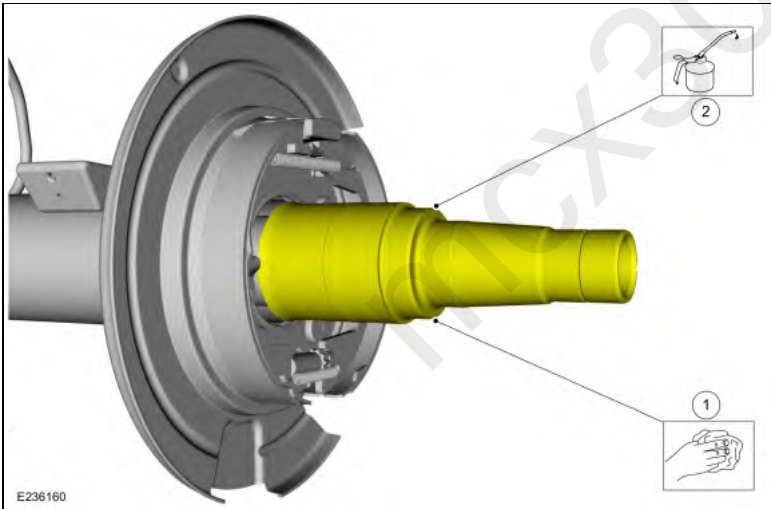
All vehicles

10. Remove and discard the wheel hub inner seal.
Refer to: Wheel Bearings, Wheel Hub Seal and Wheel Bearing Cups (205-02C Wheel Hubs and Bearings - Full Floating Axle - Vehicles With: Dana M275/Dana M300, Removal and Installation).

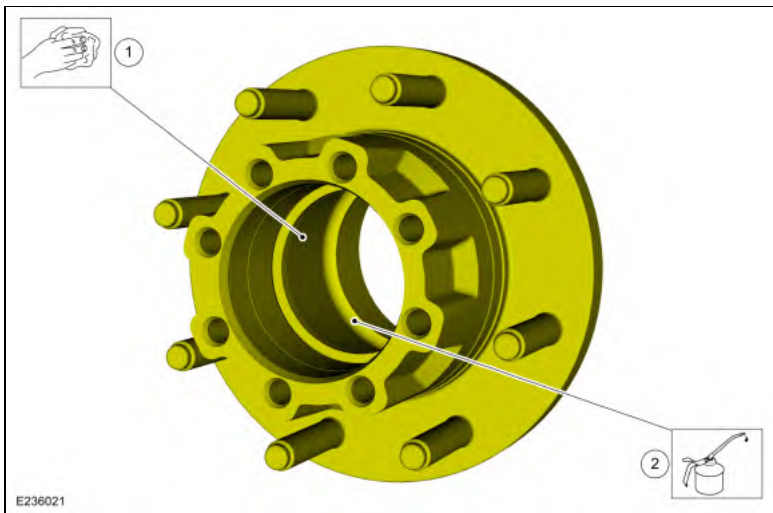
Installation

All vehicles

1. Install the new inner wheel hub seal.
Refer to: Wheel Bearings, Wheel Hub Seal and Wheel Bearing Cups (205-02C Wheel Hubs and Bearings - Full Floating Axle - Vehicles With: Dana M275/Dana M300, Removal and Installation).
2. Clean and lube the hub spindle.
 1. Clean the hub spindle.
 2. Coat the hub spindle with clean axle lubricant.
Material: Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant / XY-75W140-QL (WSL-M2C192-A)

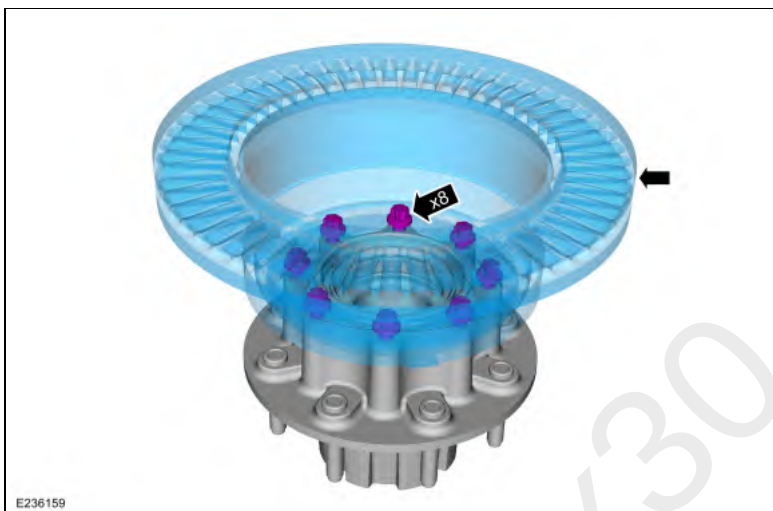


3. Clean and inspect the hub.
 1. Clean the hub.
 2. Coat the hub with clean axle lubricant.
Material: Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant / XY-75W140-QL (WSL-M2C192-A)



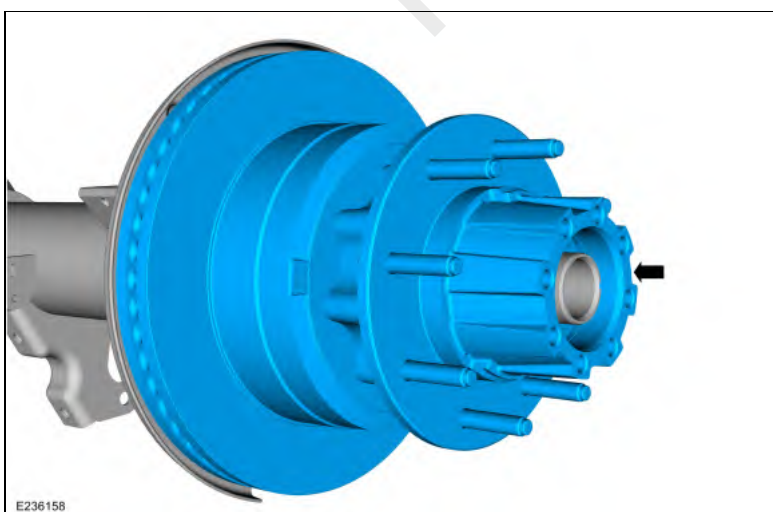
4. **NOTE:** This step is necessary only if replacement of brake rotor or wheel hub is required.

Install the brake rotor and the brake rotor bolts.
Torque: 114 lb.ft (155 Nm)



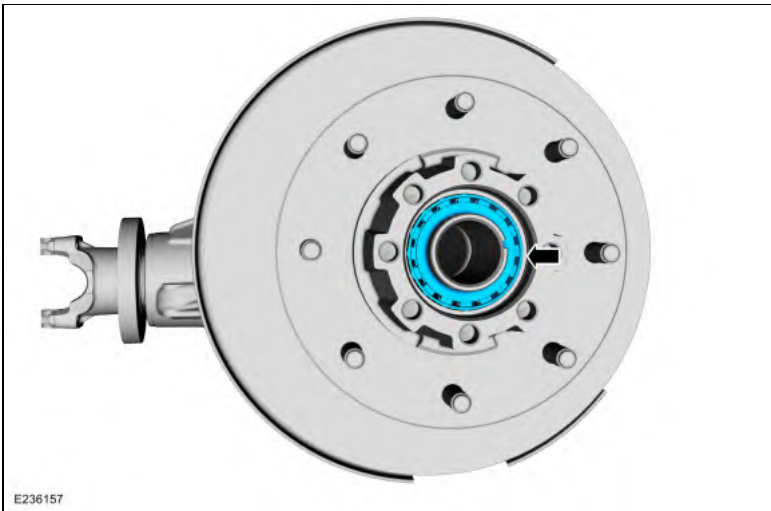
All vehicles

5. Install the wheel hub assembly.



6. **NOTE:** The wheel hub bearings must be prelubricated with grease prior to installation. Pack each bearing with a bearing packing tool. Also apply grease to the thrust surface of the bearing.

Install the outer wheel hub bearing.



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7. **NOTE:** LH shown RH similar.

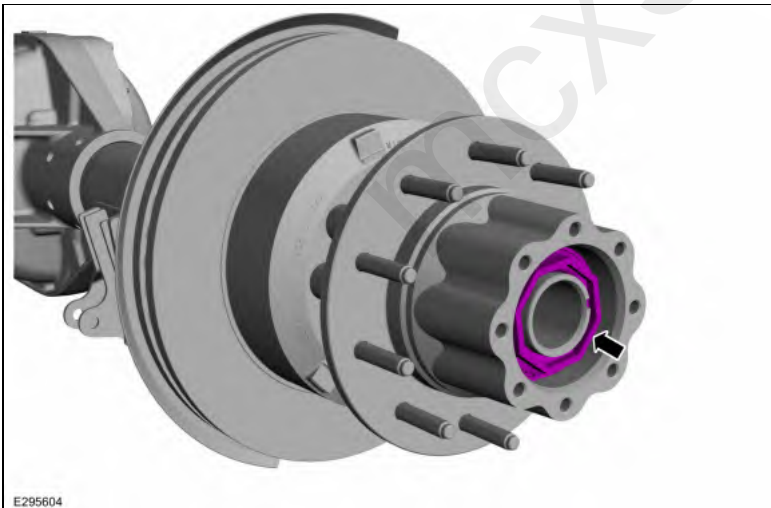
Using wheel end nut socket, install the hub nut.

Torque:

Stage 1: 70 lb.ft (95 Nm)

Stage 2: Loosen: 90°

Stage 3: 18 lb.ft (24 Nm)



8.
 - Zero the Dial Indicator Gauge with the Holding Fixture.
 - Use Special Service Tool: 100-002 (TOOL-4201-C) Holding Fixture with Dial Indicator Gauge.
 - **NOTE:** Final bearing adjustment has zero end play. The maximum torque to rotate the hub is 2.3 Nm (20 lb-in) when end play is zero.
- Place the dial indicator tip on the outboard surface of the wheel hub and verify there is no side-to-side end play.

11. **NOTE:** LH shown RH similar.

NOTE: Always apply inward pressure when tightening or loosening the hub nut.

NOTE: The wheel hub nuts are RH thread (right hub), and LH thread (left hub).

NOTE: Rotate the wheel hub occasionally while tightening the hub nut.

Using the special tool, install the hub nut.

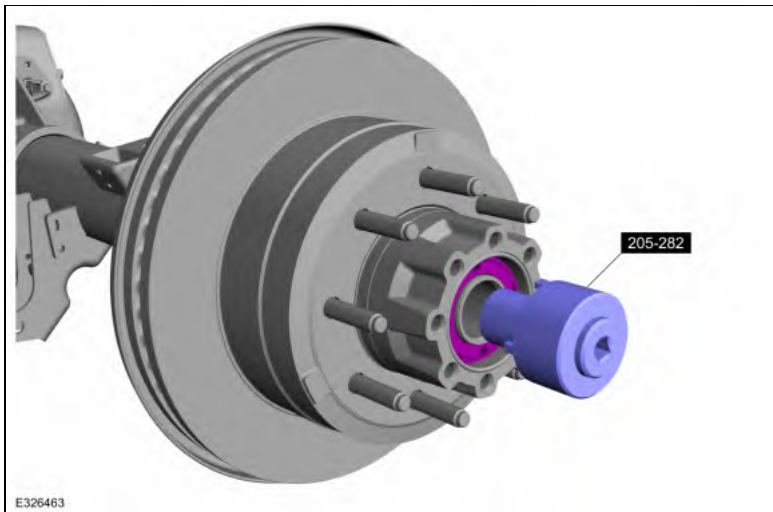
Use Special Service Tool: 205-282 (T88T-4252-A) Socket, Wheel Hub Nut.

Torque:

Stage 1: 70 lb.ft (95 Nm)

Stage 2: Loosen: 90°

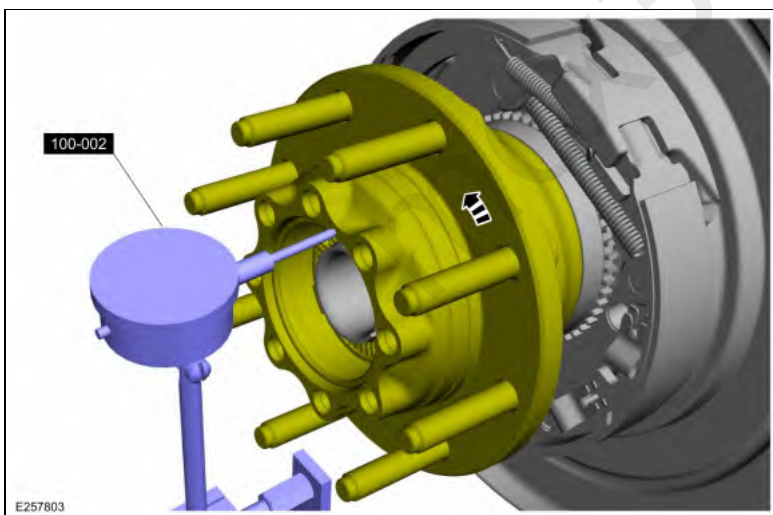
Stage 3: 18 lb.ft (24 Nm)



12.

- Zero the Dial Indicator Gauge with the Holding Fixture.
- Use Special Service Tool: 100-002 (TOOL-4201-C) Holding Fixture with Dial Indicator Gauge.
- **NOTE:** Final bearing adjustment has zero end play. The maximum torque to rotate the hub is 2.3 Nm (20 lb-in) when end play is zero.

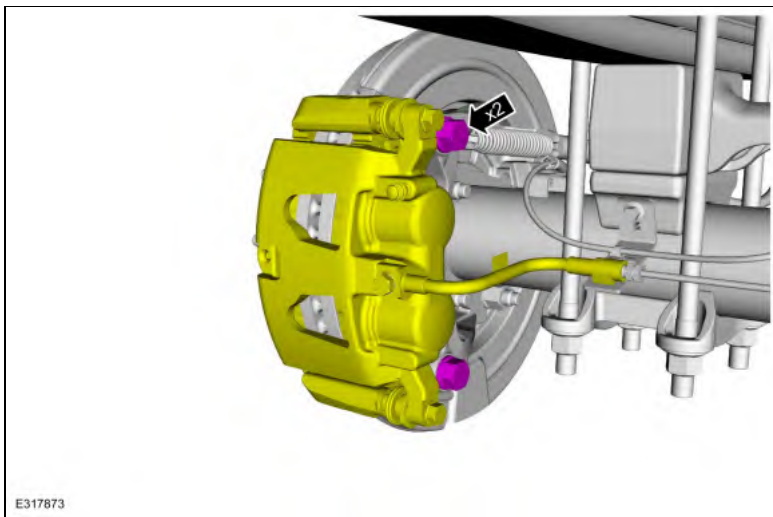
Place the dial indicator tip on the outboard surface of the wheel hub and verify there is no side-to-side end play.



13. **NOTICE:** Make sure that the brake hose is not twisted and is correctly located.

Position the brake caliper and anchor plate. Install the new bolts.

Torque: 55 lb.ft (74 Nm)



All vehicles

14. Install the axle shaft.
Refer to: Axle Shaft (205-02C Wheel Hubs and Bearings - Full Floating Axle - Vehicles With: Dana M275/Dana M300, Removal and Installation).
15. Install the wheel and tire.
Refer to: Wheel and Tire - Vehicles With: Dual Rear Wheels (204-04A Wheels and Tires, Removal and Installation).
Refer to: Wheel and Tire - Vehicles With: Single Rear Wheels (204-04A Wheels and Tires, Removal and Installation).
16. Check the differential fluid level.
Refer to: Differential Fluid Level Check (205-02A Rear Drive Axle/Differential - Vehicles With: Dana M275, General Procedures).
Refer to: Differential Fluid Level Check (205-02B Rear Drive Axle/Differential - Vehicles With: Dana M300, General Procedures).
17. Depress the brake pedal, check the brake fluid level in the brake fluid reservoir and top up as necessary with brake fluid.
Refer to: Specifications (206-00 Brake System - General Information, Specifications).