

2005 SUSPENSION

Front Suspension - Taurus & Sable

SPECIFICATIONS

TORQUE SPECIFICATIONS

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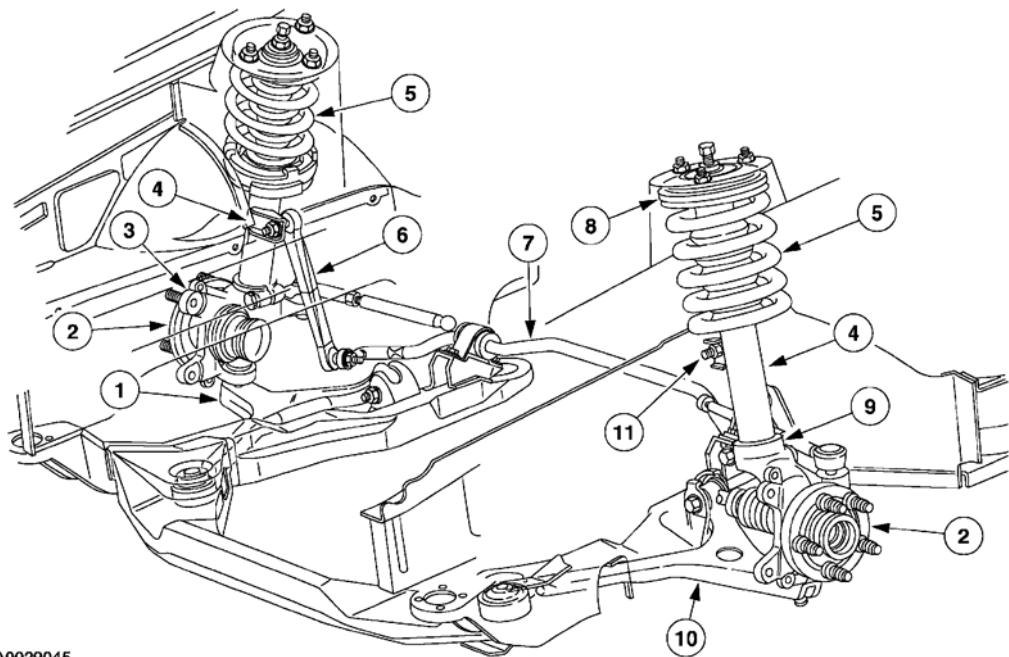
Description	Nm	lb-ft
Front suspension lower arm-to-subframe front nut	133	98
Front suspension lower arm-to-subframe rear nut	115	85
Front axle wheel hub retainer	250	184
Front wheel hub and bearing bolts-to-front wheel knuckle	95	70
Front suspension lower arm ball joint nut	80	59
Front wheel knuckle-to-strut and spring assembly pinch bolt	115	85
Front strut and spring assembly mounting bracket nuts	35	26
Front strut and spring assembly strut rod nut	62	46
Front subframe-to-body bolt	103	76
Steering gear-to-front subframe nuts	115	85
Stabilizer bar bracket bolts	35	26
Front stabilizer bar link-to-stabilizer bar nut	80	59
Front stabilizer bar link-to-strut nut	90	66
Tie-rod end-to-front wheel knuckle nut	55	41
Front brake hose bracket-to-strut bolt	15	11
ABS sensor retaining bolt	12	9
Catalytic converter-to-exhaust manifold nuts	40	30
Catalytic converter-to-muffler inlet pipe clamp nuts	40	30

DESCRIPTION AND OPERATION

FRONT SUSPENSION

The Taurus/Sable front suspension consists of the components shown in the following illustration.

Front Suspension



A0029045

Item	Part Number	Description
1	3042	Lower control arm (RH)
2	1104	Wheel hub and bearing
3	3K185	Wheel knuckle (RH)
4	18124	Strut
5	5310	Coil spring
6	5K484	Stabilizer bar link (RH)

Item	Part Number	Description
7	5482	Stabilizer bar and insulator assembly
8	3K028	Mount and seat-bearing assembly
9	3K186	Wheel knuckle (LH)
10	3051	Lower control arm (LH)
11	5K483	Stabilizer bar link (LH)

Fig. 1: Identifying Taurus/Sable Front Suspension Components
Courtesy of FORD MOTOR CO.

DIAGNOSIS AND TESTING

FRONT SUSPENSION

Refer to SUSPENSION SYSTEM-GENERAL INFORMATION .

REMOVAL AND INSTALLATION

WHEEL BEARING AND HUB

Material

MATERIAL SPECIFICATIONS

Item	Specification
Rust Penetrant and Inhibitor F2AZ-19A501-A	ESR-M99C56-A
High Temperature Nickel Anti-Seize Lubricant F6AZ-9L494-AA	ESE-M12A4-A

Removal and Installation

CAUTION: Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure can result in major service expense. A new part with the same part number must be installed if installation is necessary. Do not use a new part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make sure of correct retention of these parts.

- 1. Remove the wheel knuckle (3K185). For additional information, refer to **WHEEL KNUCKLE** .

CAUTION: The wheel bearing and hub is not pressed into the knuckle. Do not use a slide hammer or strike the inner race of the bearing. Damage to the bearing can result.

NOTE: If necessary, lubricate the knuckle and bearing with rust inhibitor meeting Ford specification.

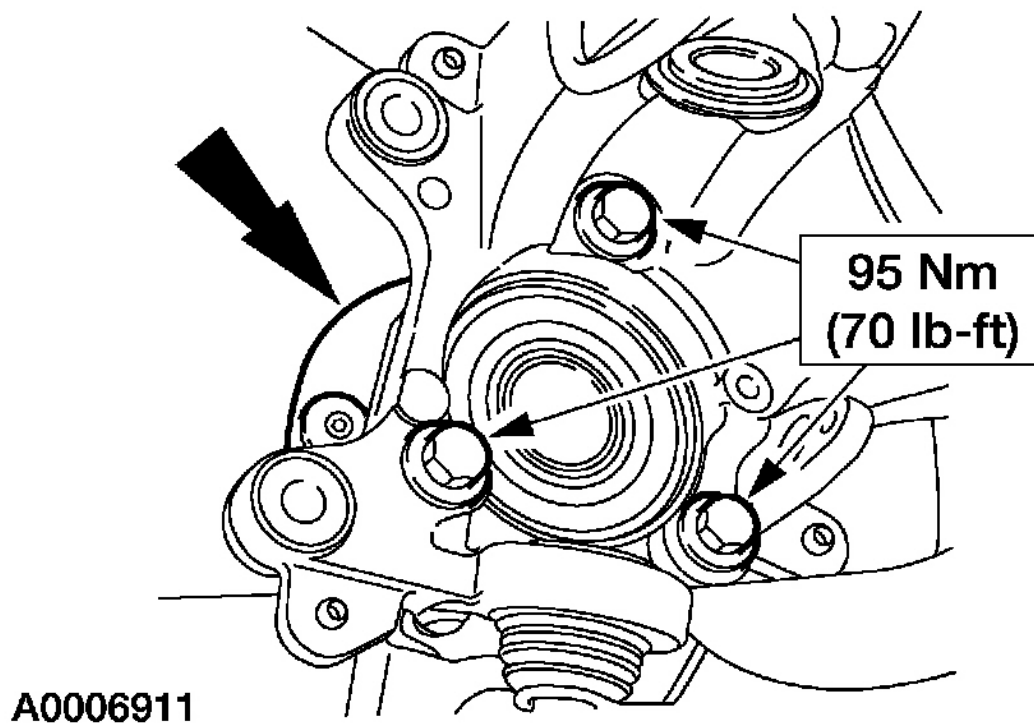


Fig. 2: Removing Wheel Hub And Bearing - With Torque Specification
Courtesy of FORD MOTOR CO.

2. Remove the bolts and the wheel hub and bearing (1104). Discard the bolts.

CAUTION: The knuckle bore must be clean enough to allow the wheel bearing and hub to seat completely by hand. Do not press or draw the wheel hub and bearing into place.

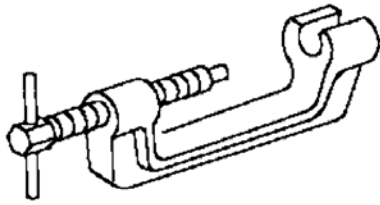
3. Clean and inspect the knuckle bearing bore. If the knuckle is cracked, install a new knuckle.
4. Lubricate the knuckle bearing bore with anti-seize lubricant meeting Ford specification.
5. To install, reverse the removal procedure.

WHEEL STUDS

Special Tool(s)

SPECIAL TOOLS DESCRIPTION

	Installer/Remover, C-Frame and Screw 211-023 (T74P-3044-A1)
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ST1494-A

Removal

CAUTION: Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure can result in major service expense. A new part with the same part number must be installed if installation is necessary. Do not use a new part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make sure of correct retention of these parts.

NOTE: Make sure the steering wheel is in the unlocked position.

1. Remove the front brake disc. For additional information, refer to **FRONT DISC BRAKE** .
2. Using the special tool, remove the wheel stud.

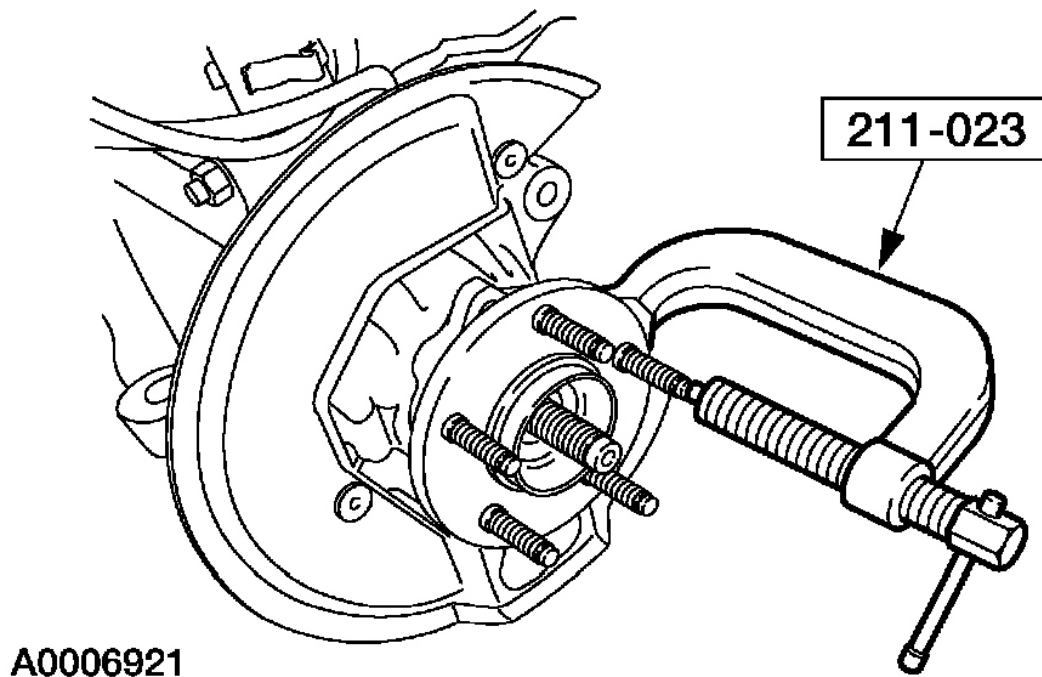
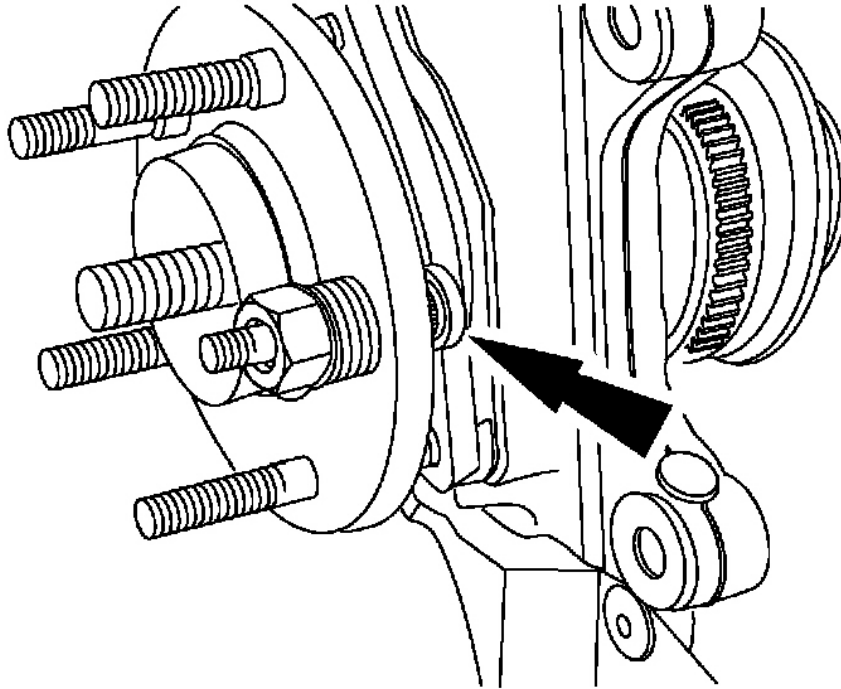


Fig. 3: Removing Wheel Stud
Courtesy of FORD MOTOR CO.

Installation

1. Position the wheel stud in the flange making sure the serrations on the stud line up with the serrations in the flange. Install four washers and a reversed wheel nut.

CAUTION: Do not use power tools to install the wheel stud. Damage to the flange can occur.



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Fig. 4: Installing Stud In Hub Flange
Courtesy of FORD MOTOR CO.

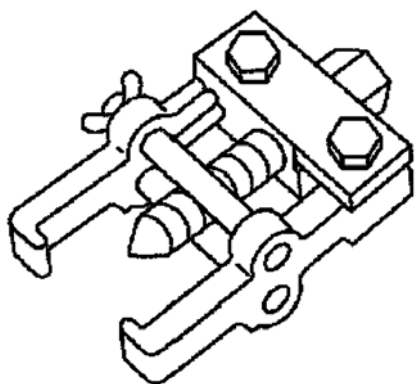
2. Tighten the nut until the stud is seated against the flange.
3. Remove the nut and washers. Discard the nut.
4. Install the front brake disc. For additional information, refer to **FRONT DISC BRAKE** .

LOWER ARM

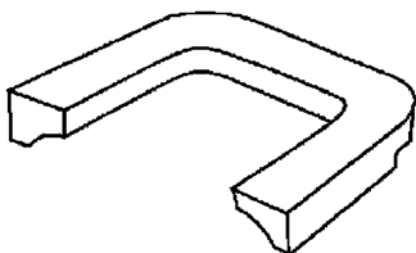
Special Tool(s)

SPECIAL TOOLS DESCRIPTION

	Remover, Steering Arm 211-003 (T64P-3590-F)
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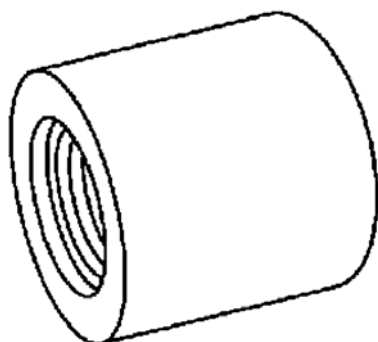


ST1263-A



ST2461-A

Adapter for 211-S200 211-211 (T96P-3010-A1)



ST2646-A

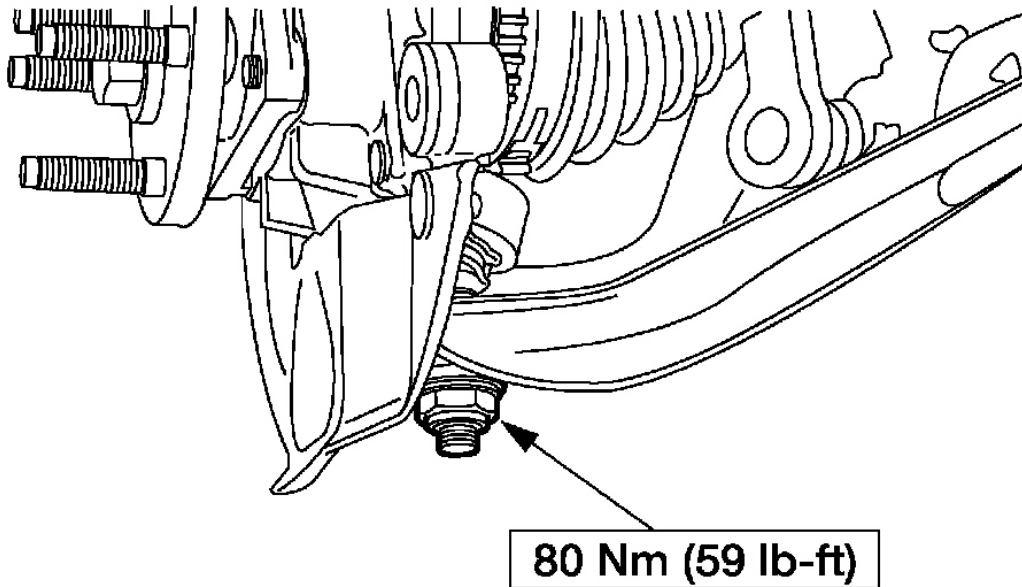
Adapter for 211-S200 211--212 (T96P-3010-A2)

Removal and Installation

CAUTION: Suspension fasteners are critical parts because they affect the performance of vital components and systems and their failure can result

in major service expense. A new part with the same part number must be installed if installation becomes necessary. Do not use a new part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make sure of correct retention of these parts.

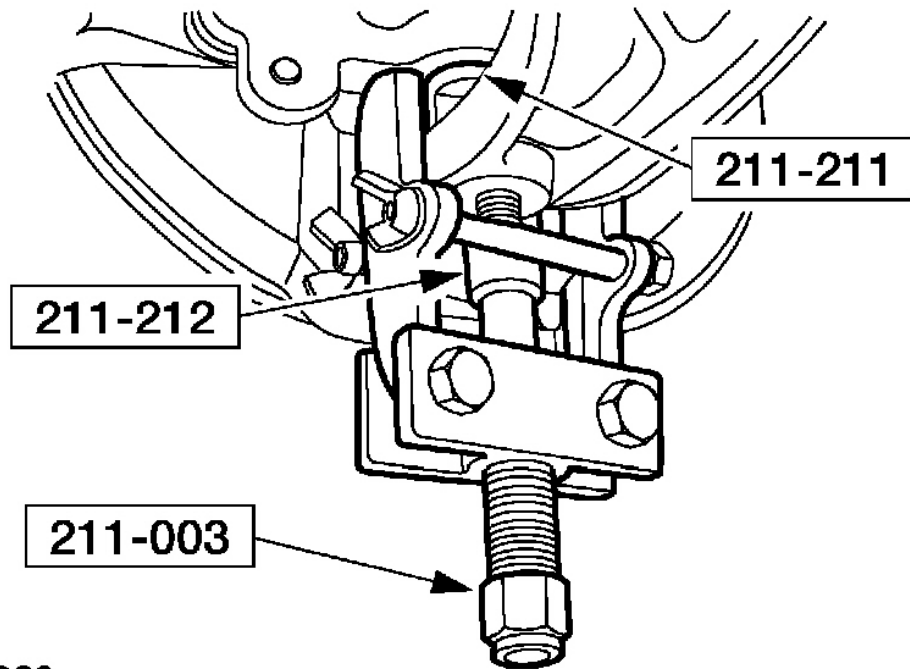
1. Remove the wheel and tire assembly. For additional information, refer to WHEELS & TIRES .
2. Remove and discard the nut.



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Fig. 5: Installing Lower Ball Joint Nut - With Torque Specification
Courtesy of FORD MOTOR CO.

3. Using the special tools, disconnect the ball joint from the lower arm.



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Fig. 6: Disconnecting Ball Joint From Lower Arm
 Courtesy of FORD MOTOR CO.

4. Using a pry bar, push the lower arm down until the ball joint is free of the arm.

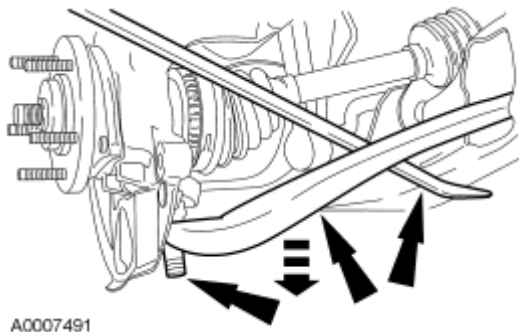


Fig. 7: Pushing Lower Arm Down Using Pry Bar
 Courtesy of FORD MOTOR CO.

5. Remove the nut and bolt. Discard the nut.

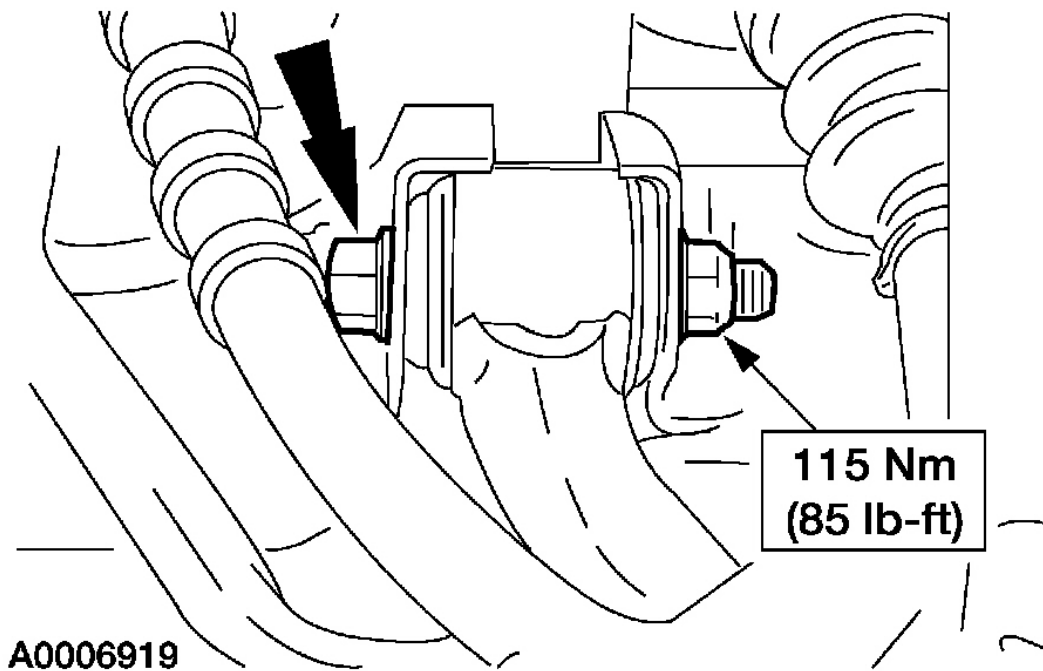


Fig. 8: Removing Nut And Bolt - With Torque Specification
Courtesy of FORD MOTOR CO.

6. Remove the nut, bolt and lower arm. Discard the nut.

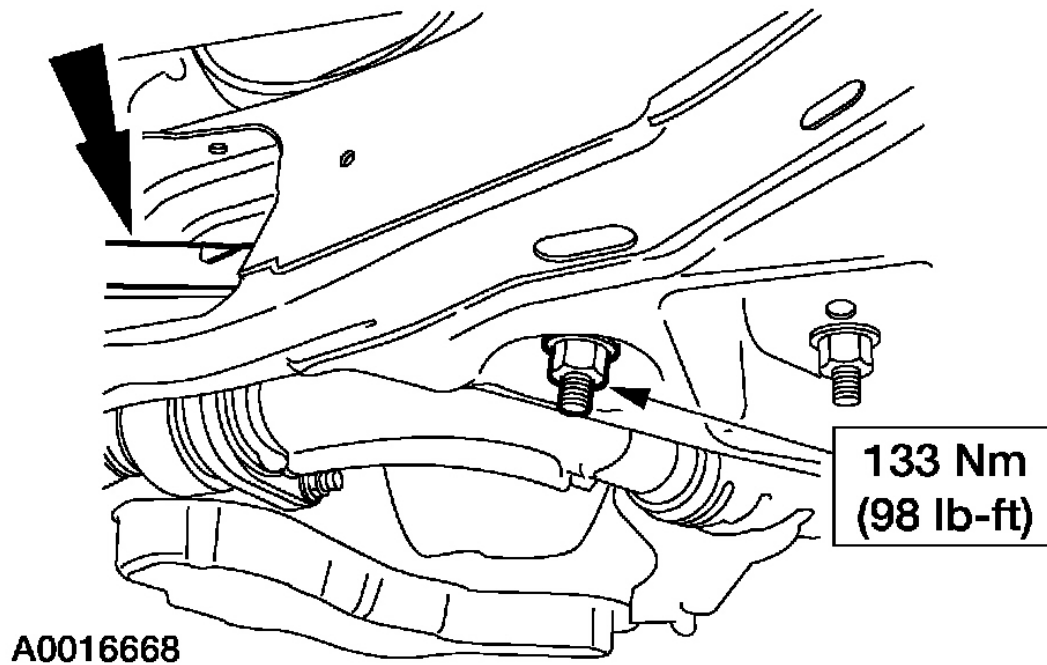


Fig. 9: Removing Lower Arm - With Torque Specification
Courtesy of FORD MOTOR CO.

7. To install, reverse the removal procedure.
 - Use new fasteners.

STABILIZER BAR

Removal and Installation

CAUTION: Suspension fasteners are important parts because they affect performance of vital components and systems and their failure can result in major service expense. A new part with the same part number must be installed if installation is necessary. Do not use a new part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make sure of correct retention of these parts.

NOTE: Make sure the steering wheel is in the unlocked position.

NOTE: The stabilizer bushing and bracket are part of the stabilizer bar assembly. The stabilizer bar will not turn easily in the bushing.

1. Remove the wheel and tire assembly. For additional information, refer to **WHEELS & TIRES**.

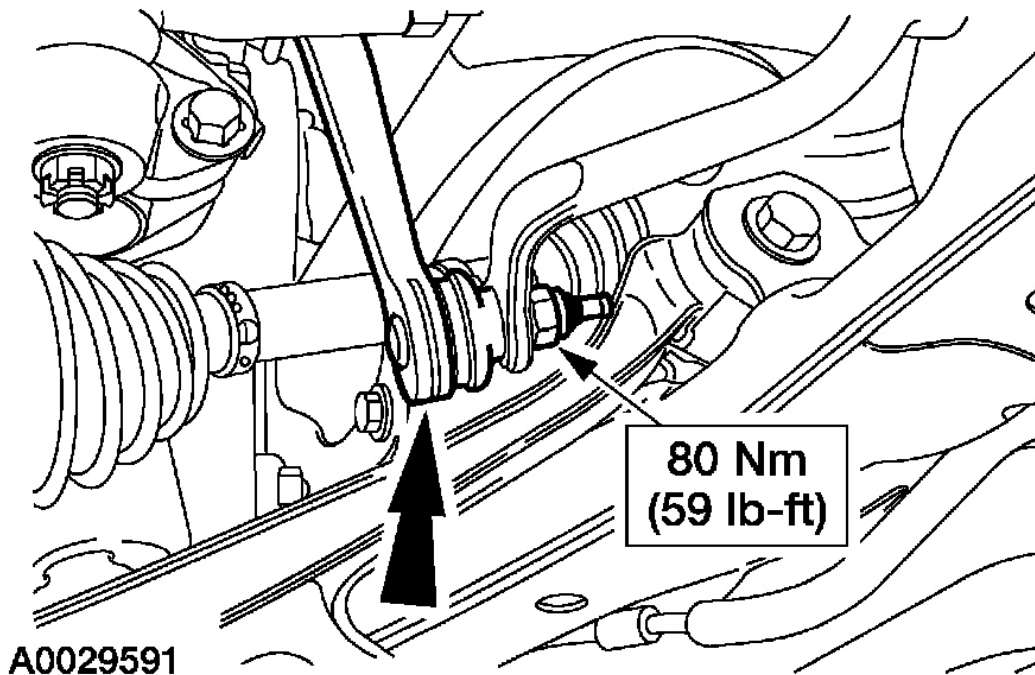


Fig. 10: Disconnecting Stabilizer Bar Links - With Torque Specification
Courtesy of FORD MOTOR CO.

CAUTION: Do not use power tools to remove the nut. Damage to the stabilizer link ball joint or boot can occur.

NOTE: To remove the nut, first loosen the nut, then use the hex holding feature to prevent the ball joint from turning while removing the nut.

2. Remove and discard the nuts. Disconnect the stabilizer bar links (5K484/5K483).
3. Using suitable jack stands, support the front subframe.
4. Remove and discard the nuts.

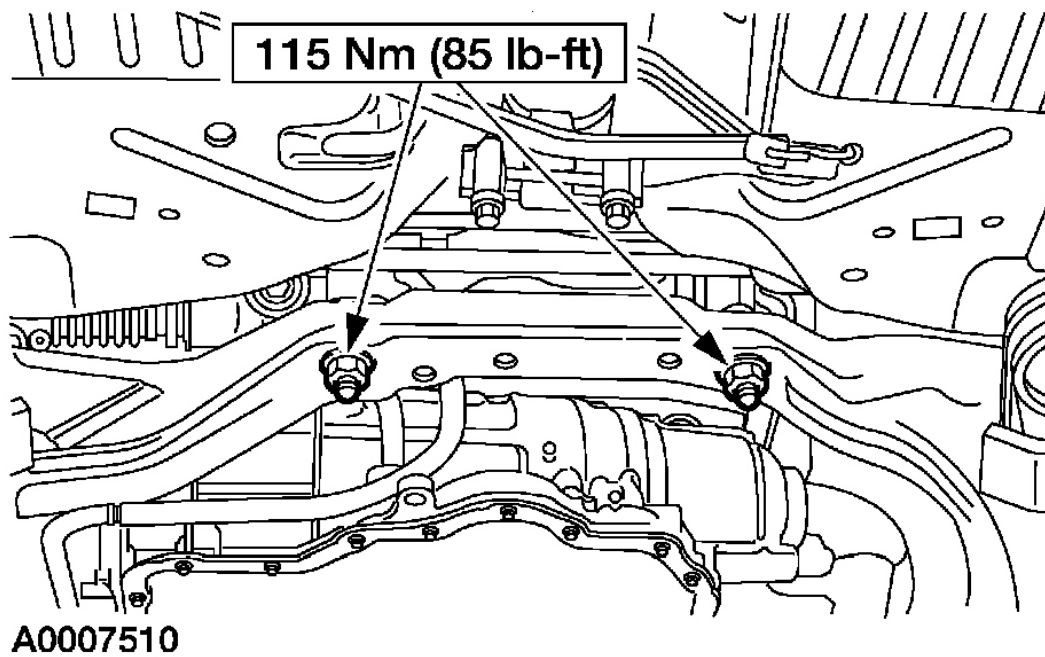


Fig. 11: Removing Nuts - With Torque Specification
Courtesy of FORD MOTOR CO.

5. Remove and discard the bolts.

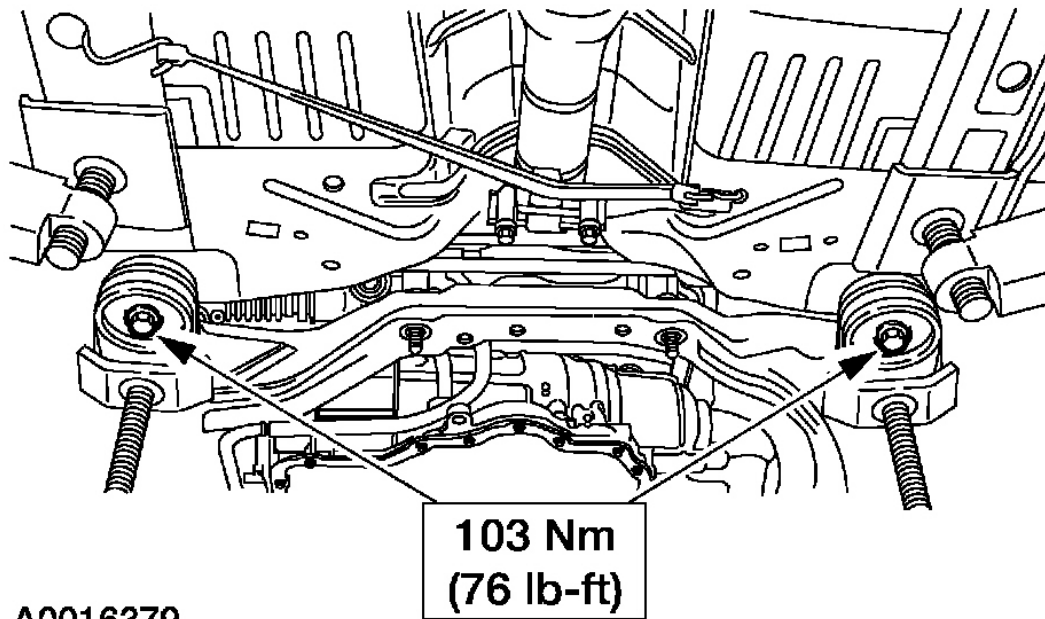


Fig. 12: Removing Bolts - With Torque Specification
Courtesy of FORD MOTOR CO.

NOTE: Support the steering gear before lowering the subframe.

6. Lower the rear of the front subframe approximately 102 mm (4 inches).
7. Remove the bolts and the stabilizer bar and insulator assembly (5482). Discard the bolts.

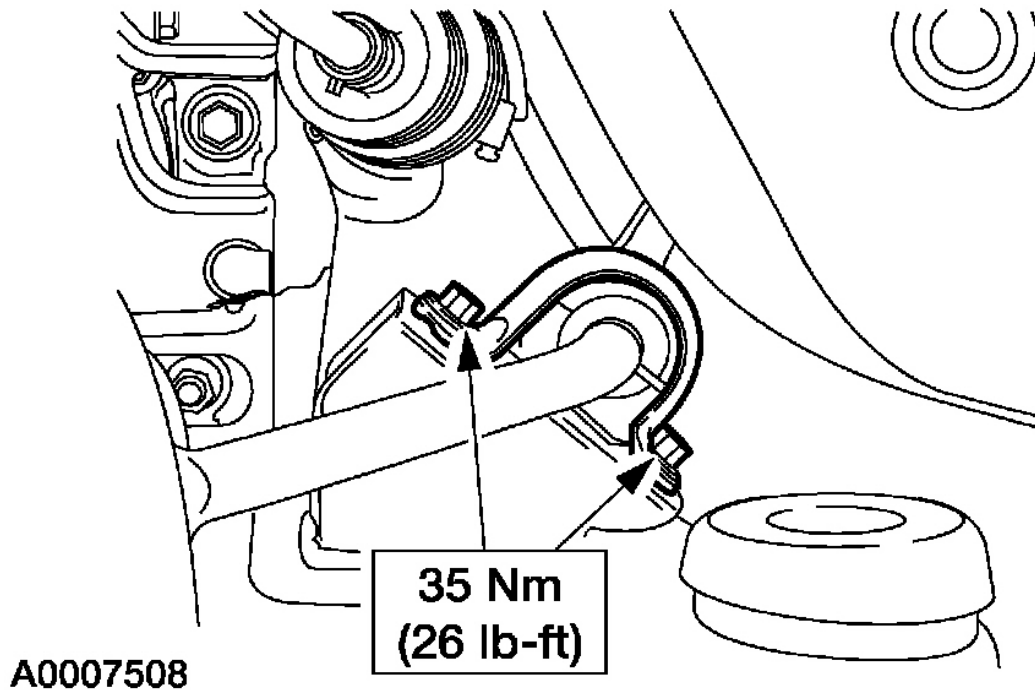


Fig. 13: Removing Stabilizer Bar And Insulator Assembly - With Torque Specification
Courtesy of FORD MOTOR CO.

8. To install, reverse the removal procedure.
 - Use new fasteners.

STABILIZER BAR LINK

Removal and Installation

CAUTION: Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure can result in major service expense. A new part with the same part number must be installed if installation is necessary. Do not use a new part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make sure of correct retention of these parts.

1. Remove the wheel and tire assembly. For additional information, refer to **WHEELS AND TIRES** .

CAUTION: Do not use power tools to remove or install the nuts. The stabilizer bar link ball joints or boots can be damaged.

NOTE: To remove the nuts, first loosen the nuts, then use the hex holding feature to prevent the stabilizer bar link ball joints from turning while removing the nuts.

2. Remove the nut and disconnect the stabilizer bar link (5K484/5K483). Discard the nut.

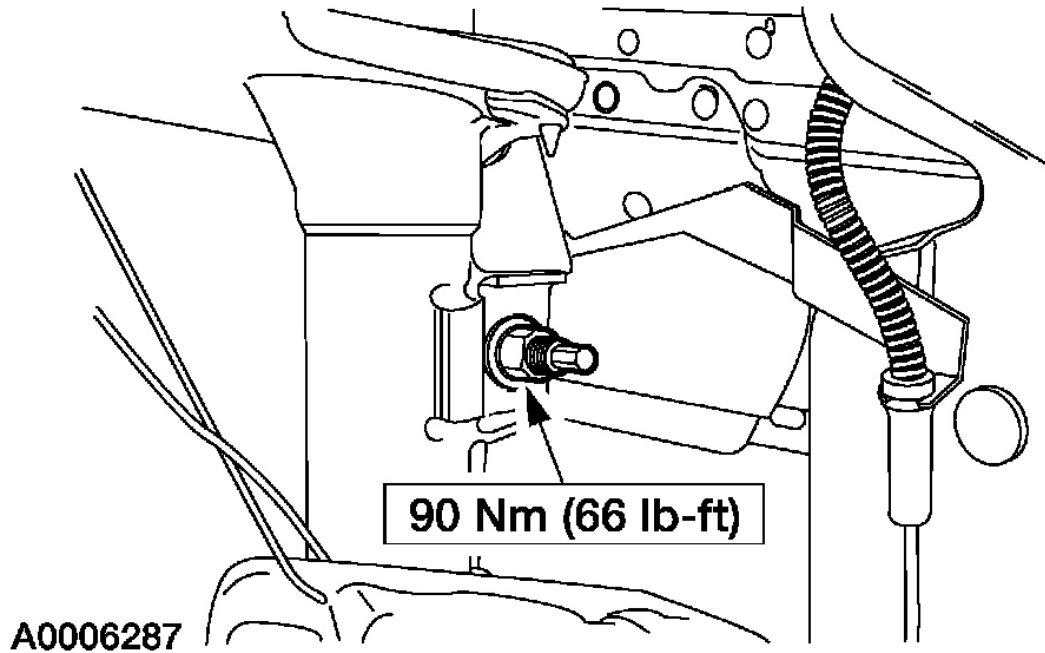


Fig. 14: Locating Stabilizer Bar Link Nut - With Torque Specification
Courtesy of FORD MOTOR CO.

3. Remove the nut and the stabilizer bar link. Discard the nut.

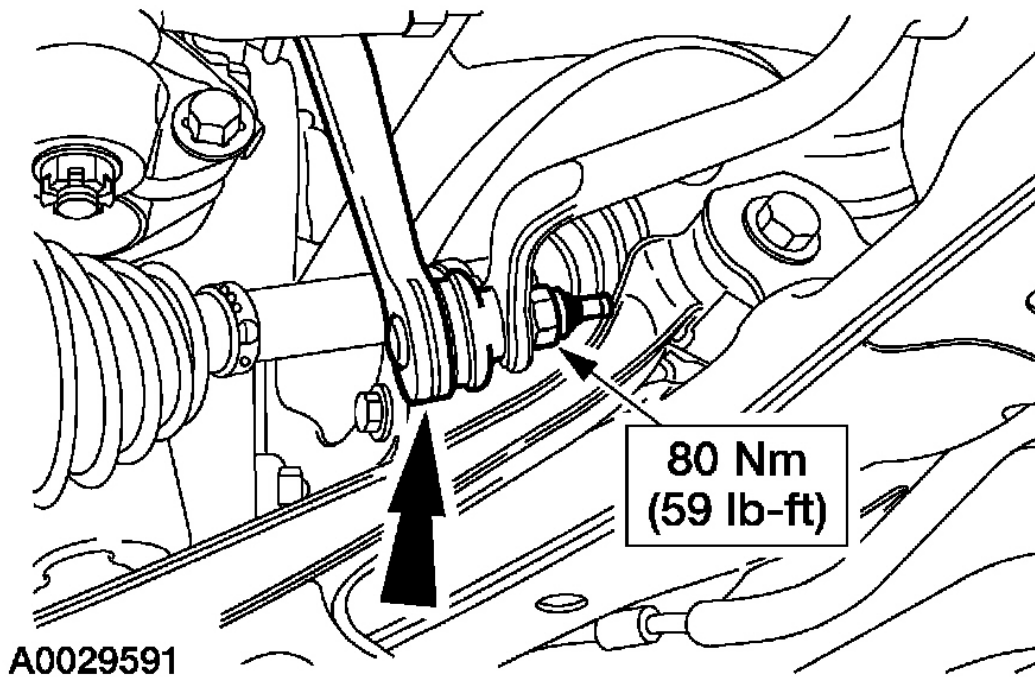


Fig. 15: Removing Stabilizer Bar Link - With Torque Specification
Courtesy of FORD MOTOR CO.

NOTE: To install the nuts, use the hex holding feature to prevent the stabilizer link ball joints from turning while installing the nuts until snug. Final tighten the nuts using a socket and a torque wrench.

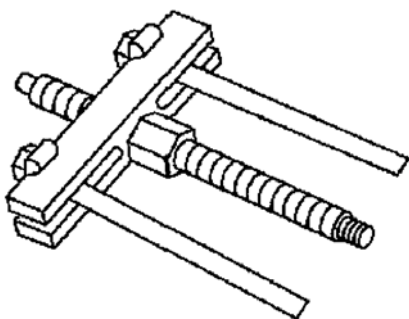
4. To install, reverse the removal procedure.
 - Use new nuts.

WHEEL KNUCKLE

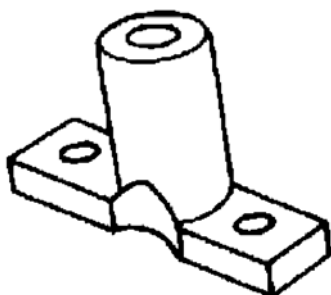
Special Tool(s)

SPECIAL TOOLS DESCRIPTION

	Remover/Installer, Front Wheel Hub 204-069 (T81P-1104-C)
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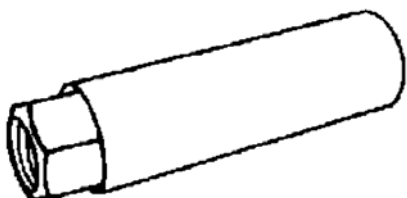


ST1516-A



ST1517-A

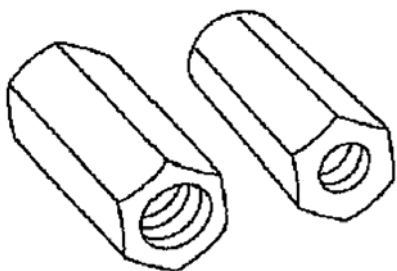
Adapter, Wheel Hub 205-237 (T86P-1104-A1)



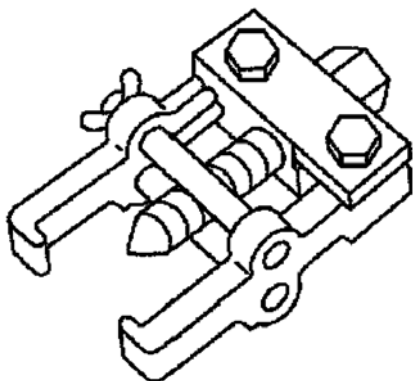
ST1515-A

Installer, Halfshaft 204-067 (T81P-1104-A)

Remover, Wheel Stud (Metric) 204-085 (T83P-1104-BH1)

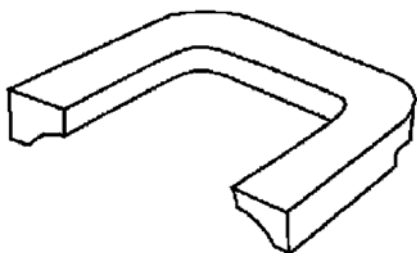


ST1518-A



ST1263-A

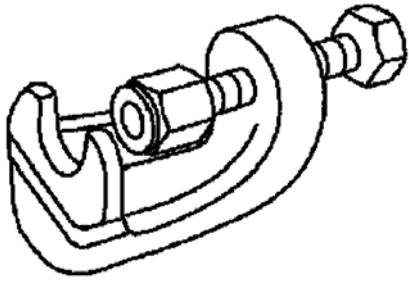
Remover, Steering Arm 211-003 (T64P-3590-F)



ST2461-A

Adapter for 211-S200 211-211 (T96P-3010-A1)

Remover, Tie-Rod End 211-001 (TOOL-3290-D) or equivalent



ST1106-A

Removal

CAUTION: Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure can result in major service expense. A new part with the same part number must be used if installation is necessary. Do not use a new part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make sure of correct retention of these parts.

All vehicles

CAUTION: Discard the wheel hub retainer (3B477). It is a torque prevailing design and cannot be reused. If loosened, the retainer must be removed and a new one installed.

NOTE: Make sure the steering wheel is in the unlocked position.

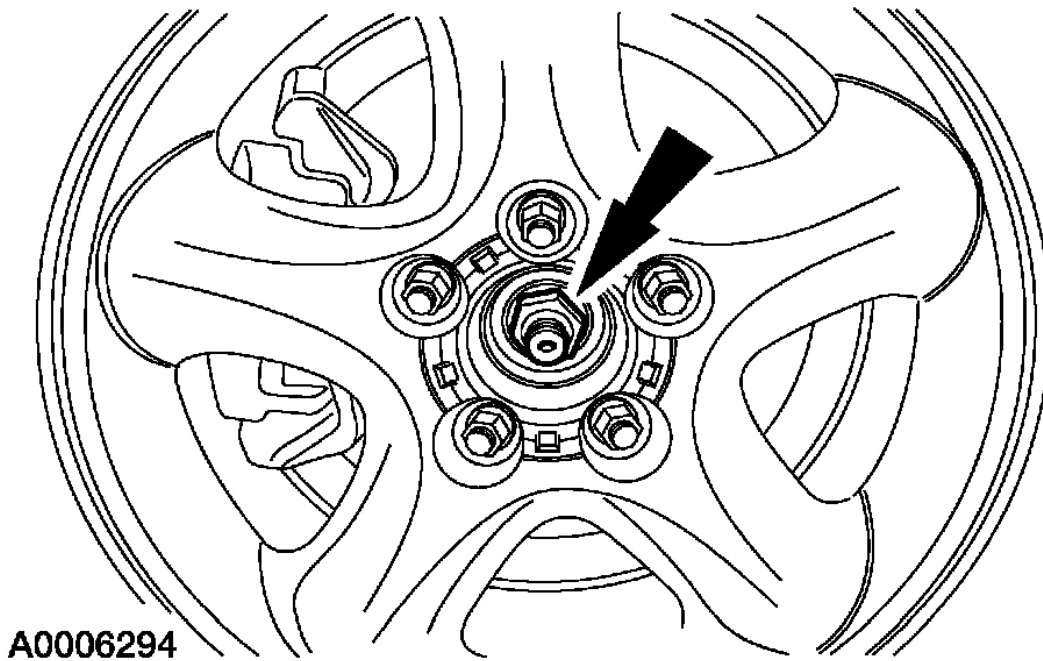
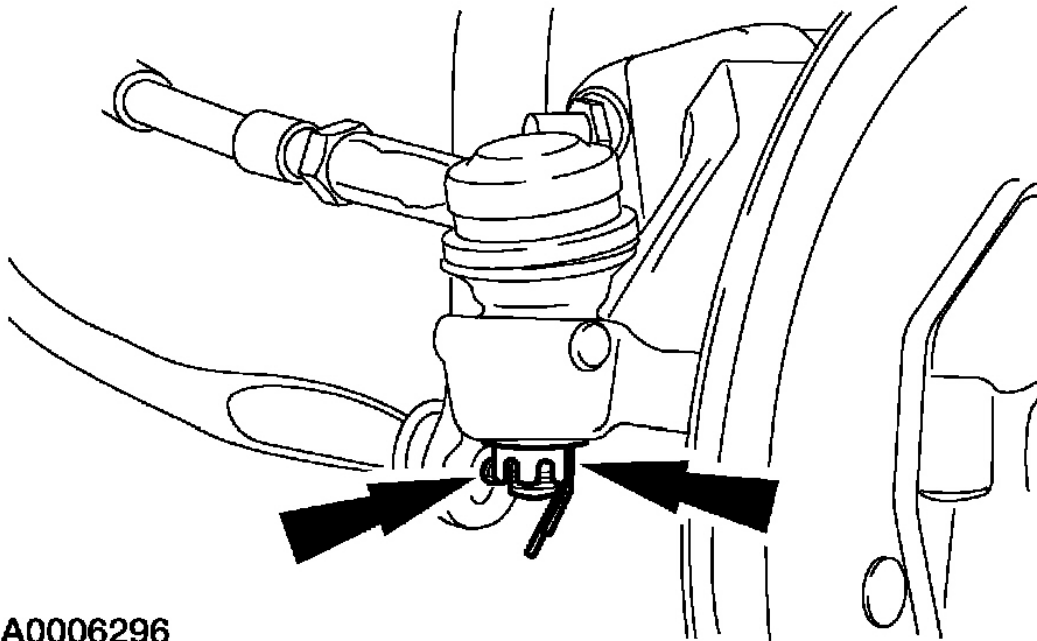


Fig. 16: Locating Front Axle Wheel Hub Nut
Courtesy of FORD MOTOR CO.

1. Remove the hub cap or wheel cover, the wheel hub retainer, and the washer. Discard the retainer.
2. Remove the front brake disc. For additional information, refer to **FRONT DISC BRAKE** .
3. Remove and discard the cotter pin and nut.



A0006296

Fig. 17: Removing Cotter Pin And Nut
Courtesy of FORD MOTOR CO.

CAUTION: Do not damage the tie-rod end boot when installing the special tool.

NOTE: Remove the adapter from the ball end of the special tool. Apply a small amount of grease to the tie-rod end stud and the ball of the special tool.

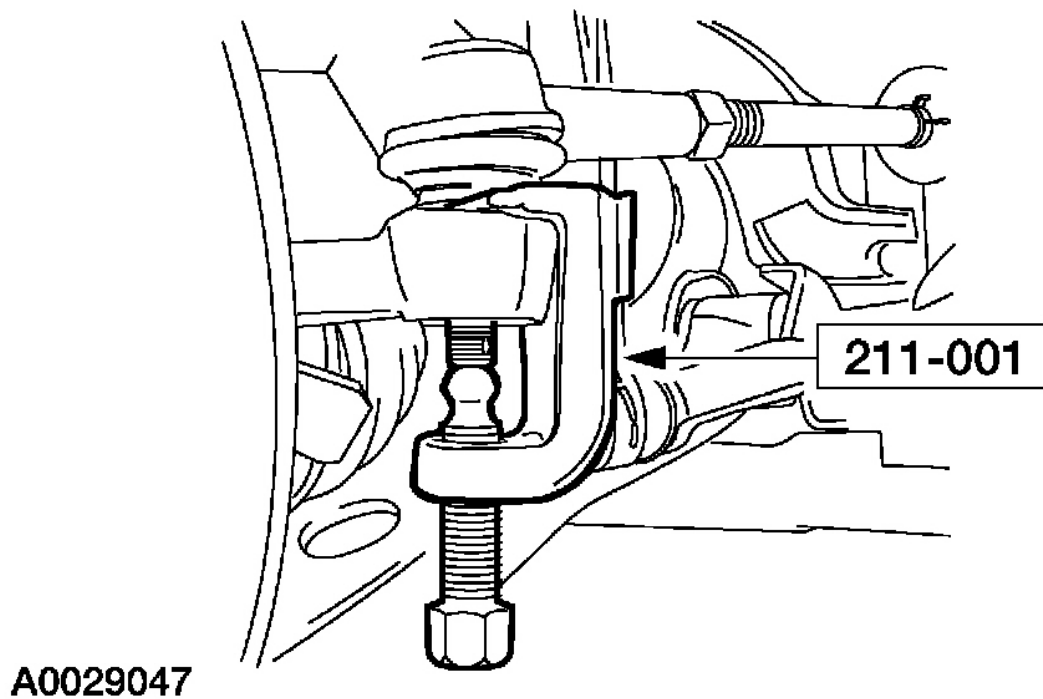
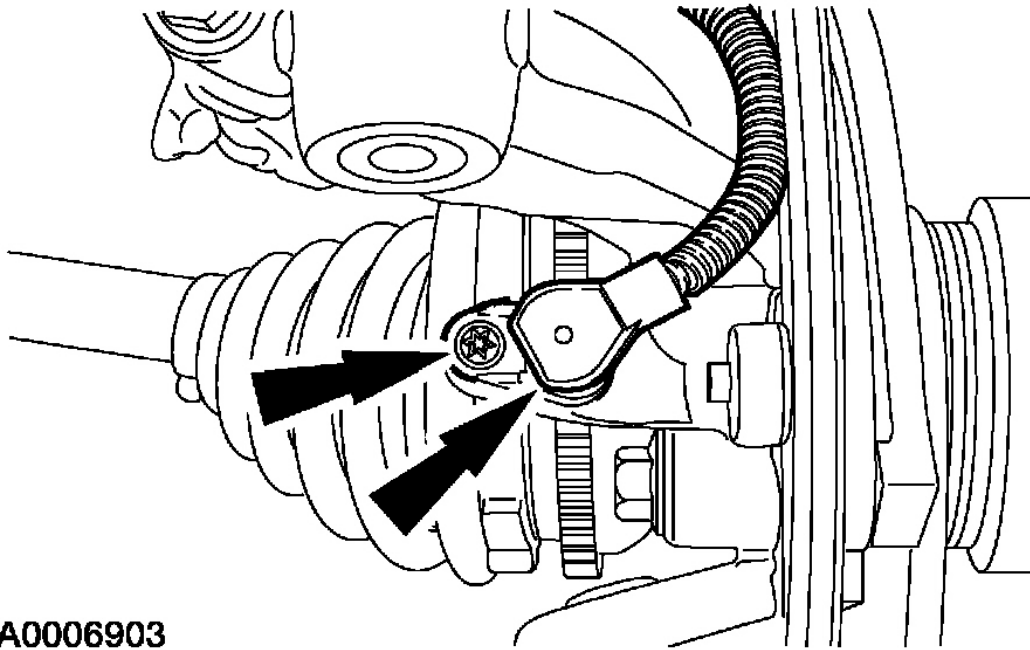


Fig. 18: Disconnecting Tie-Rod End
Courtesy of FORD MOTOR CO.

4. Using the special tools, disconnect the tie-rod end.

Vehicles equipped with ABS

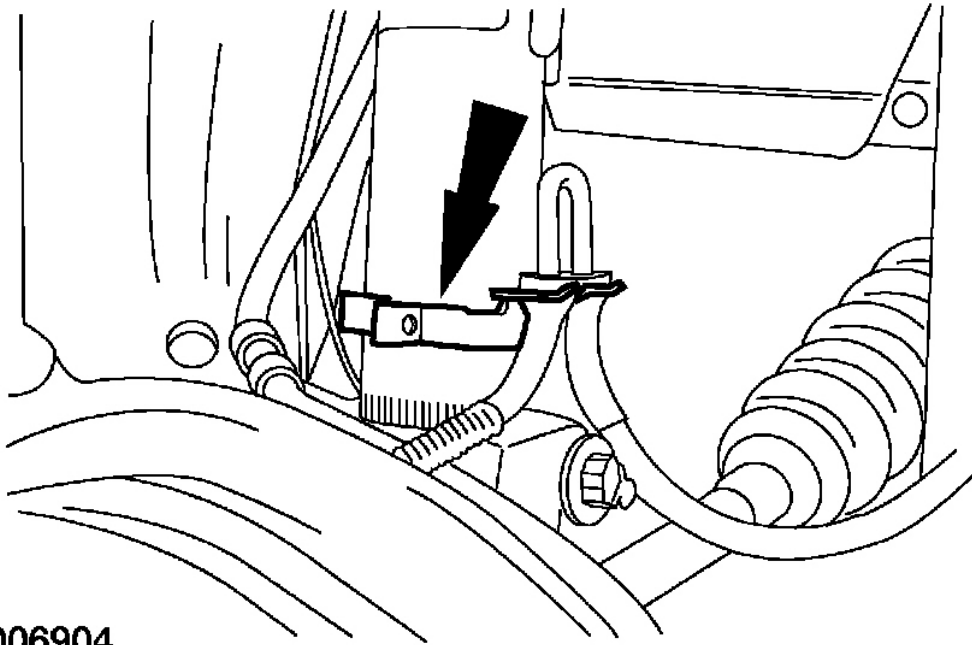
5. Remove the bolt and detach the ABS sensor.



A0006903

Fig. 19: Removing ABS Sensor
Courtesy of FORD MOTOR CO.

6. Unclip the ABS sensor wire retainer and position the sensor out of the way.

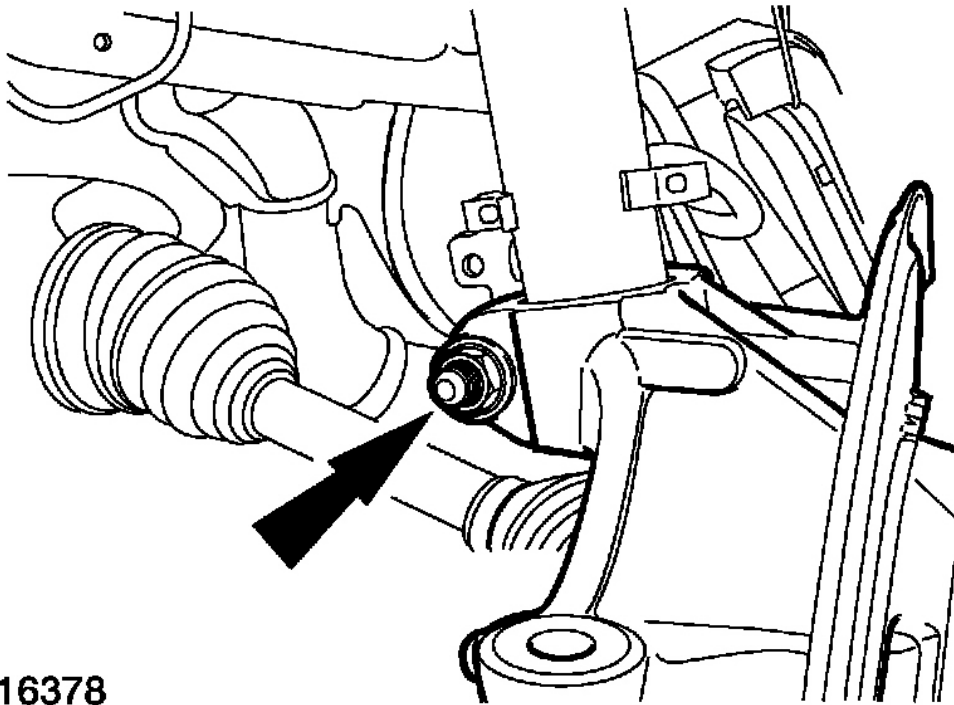


A0006904

Fig. 20: Locating ABS Sensor Wire Retainer
Courtesy of FORD MOTOR CO.

All vehicles

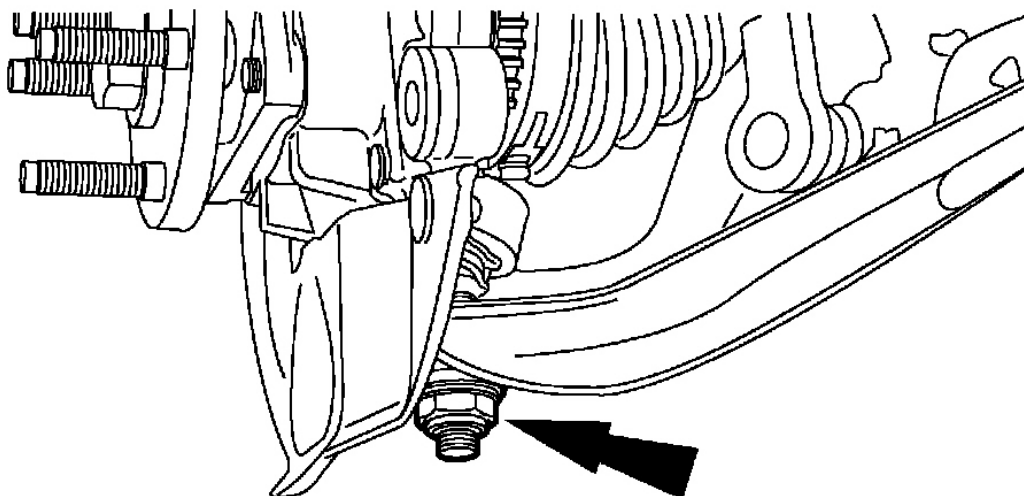
7. Remove and discard the nut.



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Fig. 21: Locating Strut Lower Nut
Courtesy of FORD MOTOR CO.

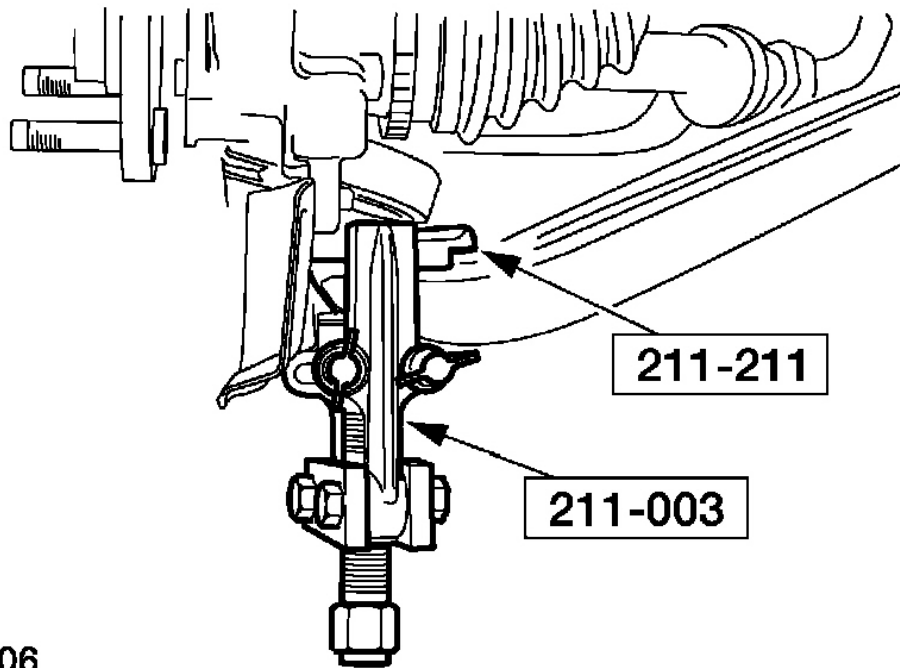
8. Remove and discard the nut.



A0006905

Fig. 22: Locating Lower Ball Joint Nut
Courtesy of FORD MOTOR CO.

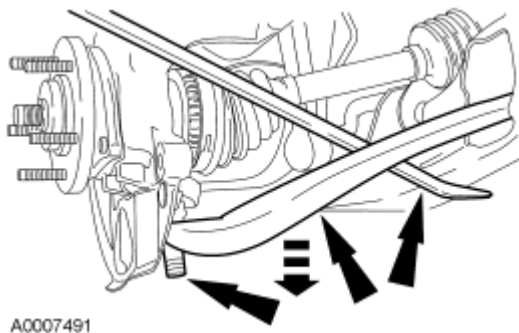
9. Using the special tools, disconnect the ball joint from the lower arm.



A0006906

Fig. 23: Disconnecting Ball Joint From Lower Arm
 Courtesy of FORD MOTOR CO.

10. Using a pry bar, push the lower arm down until the ball joint is free of the arm.



A0007491

Fig. 24: Pushing Lower Arm Down Using Pry Bar
 Courtesy of FORD MOTOR CO.

CAUTION: Do not allow the halfshaft to move outboard. Over-extension of the tripod CV joint can result in separation of internal parts, causing failure of the halfshaft.

NOTE: Hold the threaded rod while turning the nut.

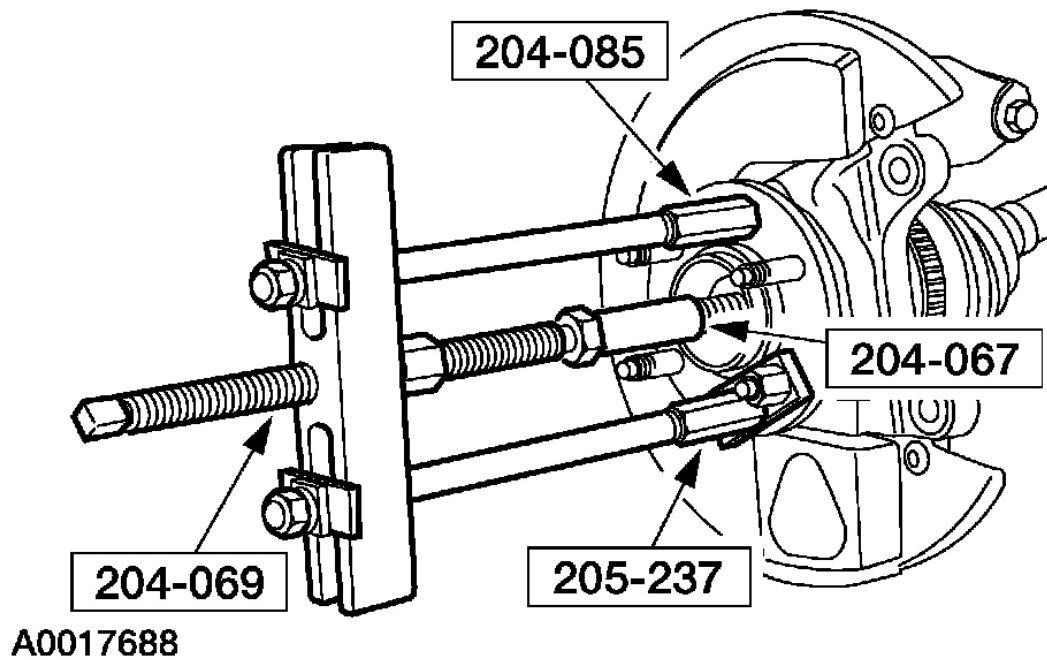


Fig. 25: Pressing Halfshaft From Wheel Bearing And Hub
Courtesy of FORD MOTOR CO.

11. Using the special tools, press the halfshaft from the wheel bearing and hub. Wire the halfshaft in a level position.
12. Remove the flag bolt and the knuckle.

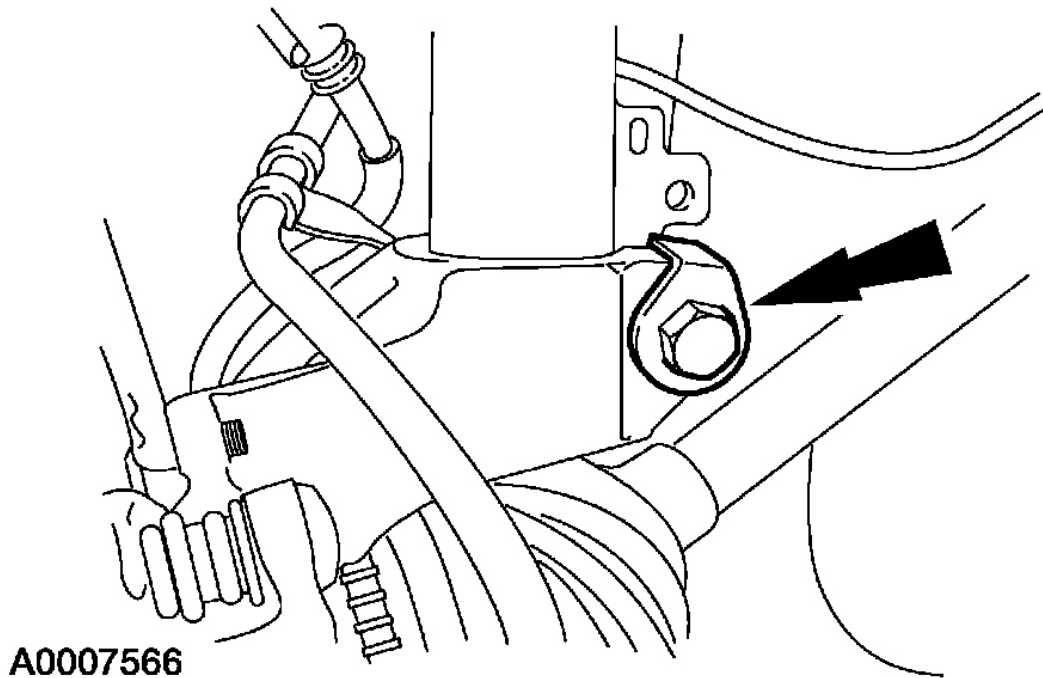
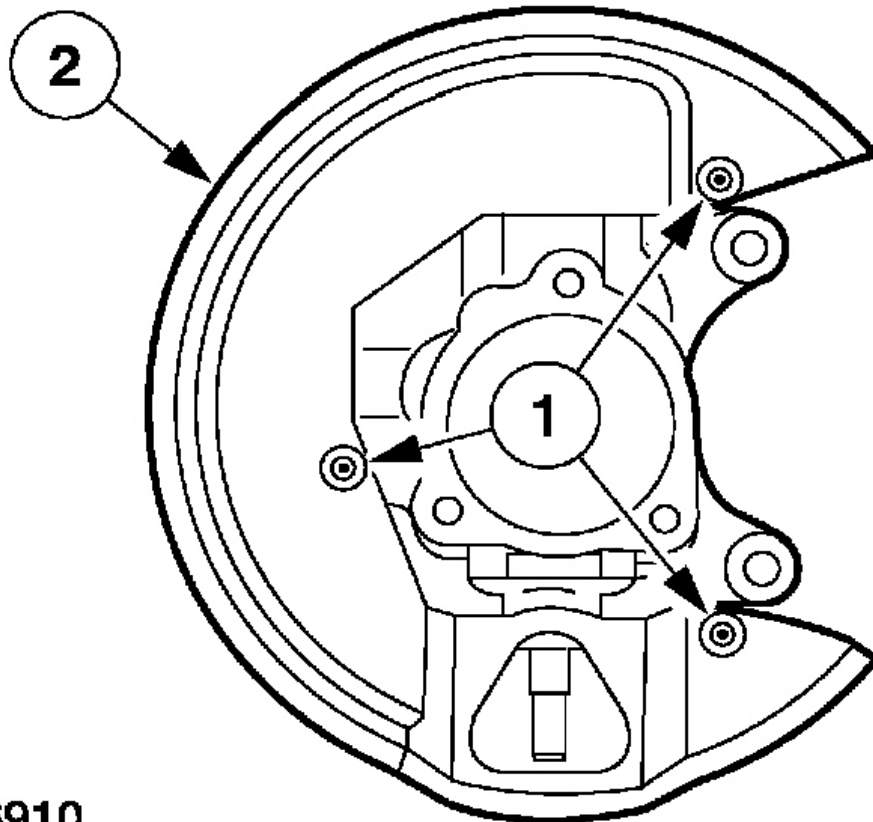


Fig. 26: Removing Flag Bolt And Knuckle
Courtesy of FORD MOTOR CO.

13. If necessary, remove the wheel hub and bearing. For additional information, refer to **WHEEL BEARING AND HUB** .

CAUTION: Use care not to damage the knuckle or dust shield when drilling out the rivets.



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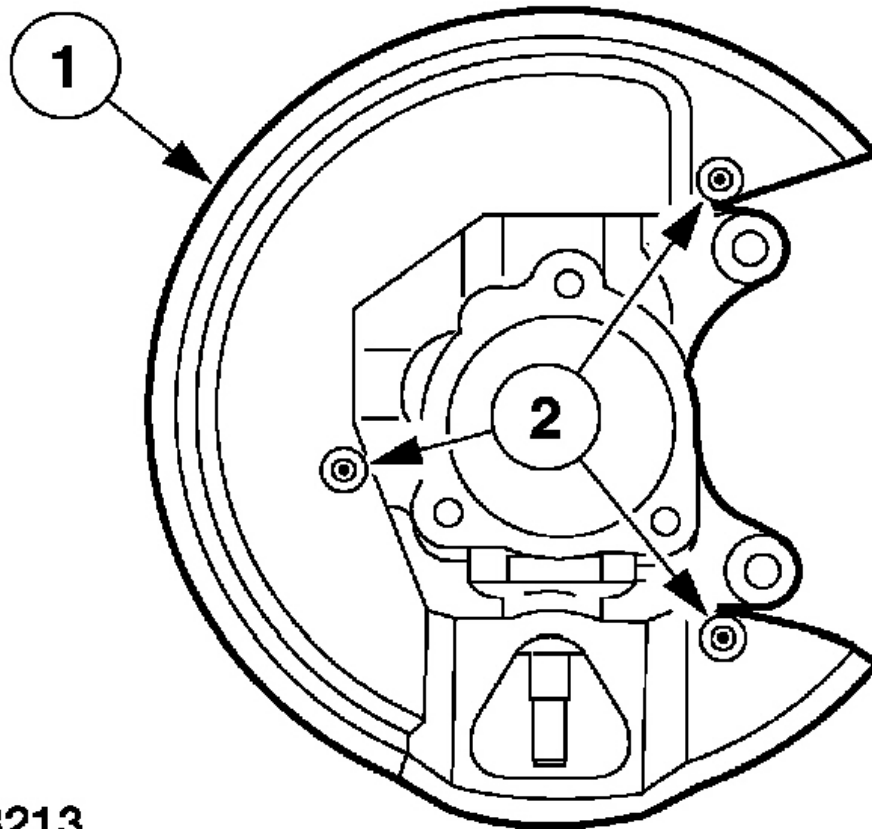
Fig. 27: Removing Dust Shield
Courtesy of FORD MOTOR CO.

14. If necessary, remove the dust shield.
 1. Using a 5.5 mm (0.22 in) drill bit, drill out the rivets. If a larger bit is needed, do not use a bit larger than 6 mm (0.24 in).
 2. Remove the dust shield.

Installation

All vehicles

CAUTION: Use only the appropriate size aluminum rivets. Do not use steel rivets. Galvanic corrosion can occur.



A0008213

Fig. 28: Installing Dust Shield
Courtesy of FORD MOTOR CO.

1. If removed, install the dust shield.
 1. Position the dust shield.
 2. Install the rivets.
2. If removed, install the wheel hub and bearing. For additional information, refer to **WHEEL BEARING AND HUB** .
3. Position the knuckle on the strut and install the flag bolt.

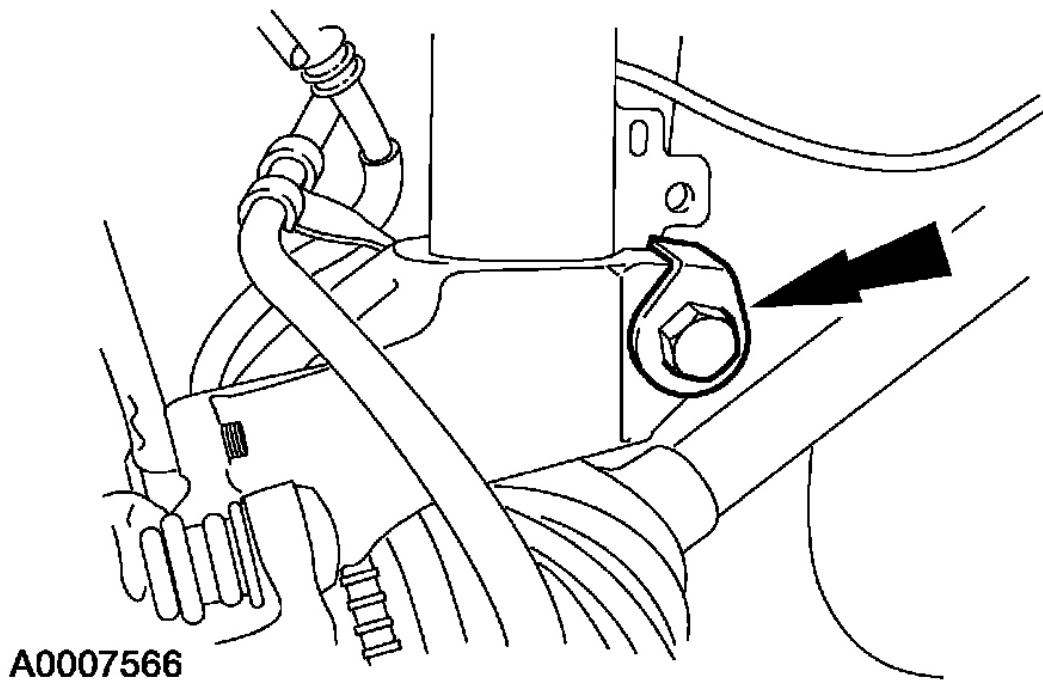


Fig. 29: Installing Flag Bolt
Courtesy of FORD MOTOR CO.

4. Using the special tools, press the halfshaft into the wheel bearing and hub.

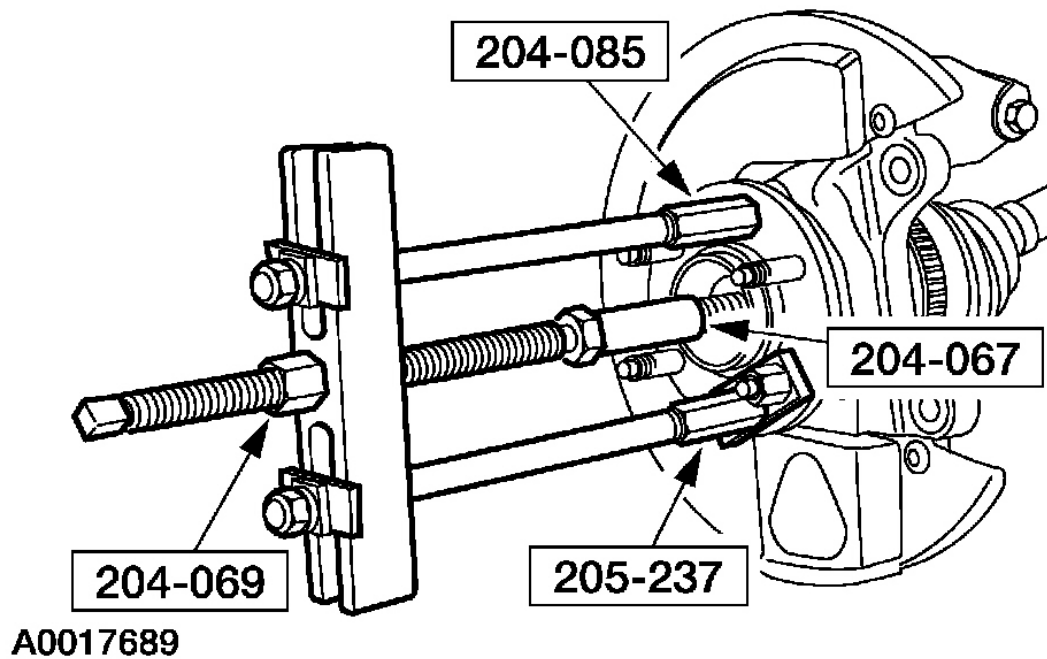


Fig. 30: Pressing Halfshaft Into Wheel Bearing And Hub
 Courtesy of FORD MOTOR CO.

5. Using a pry bar, push the lower arm down until the ball joint can be installed.

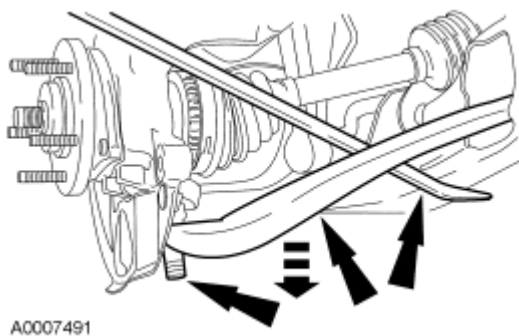
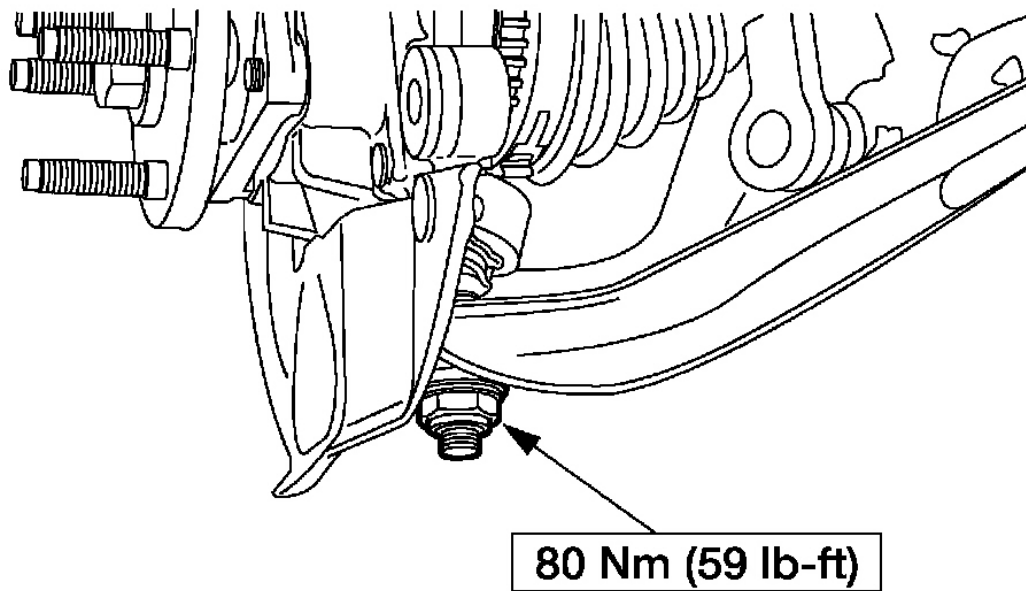


Fig. 31: Pushing Lower Arm Down Using Pry Bar
 Courtesy of FORD MOTOR CO.

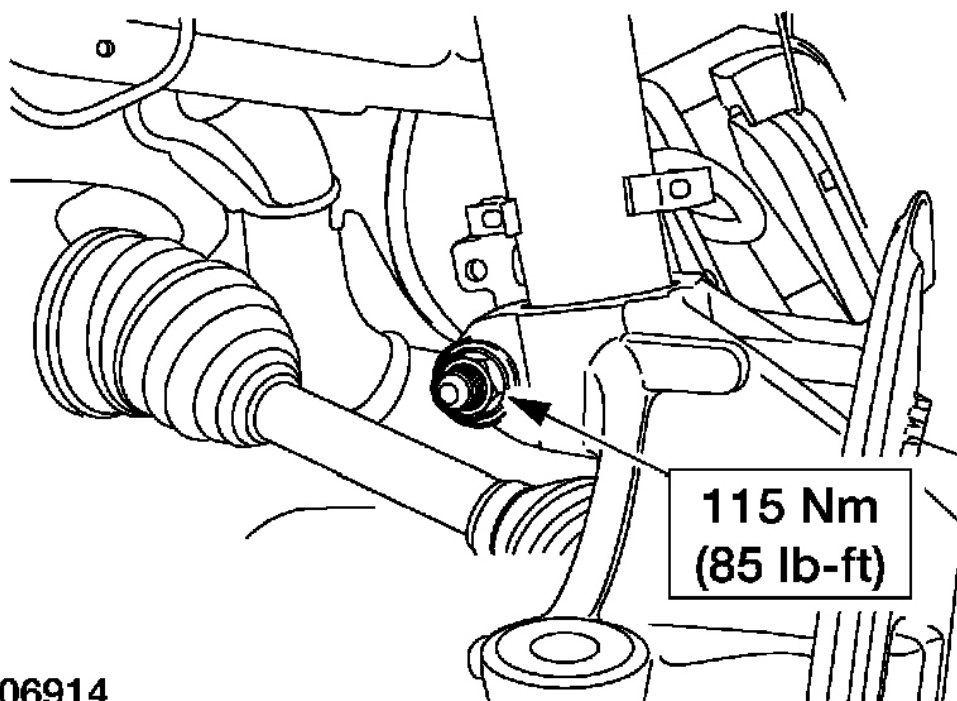
6. Install a new nut.



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Fig. 32: Installing Lower Ball Joint Nut - With Torque Specification
Courtesy of FORD MOTOR CO.

7. Install a new nut.

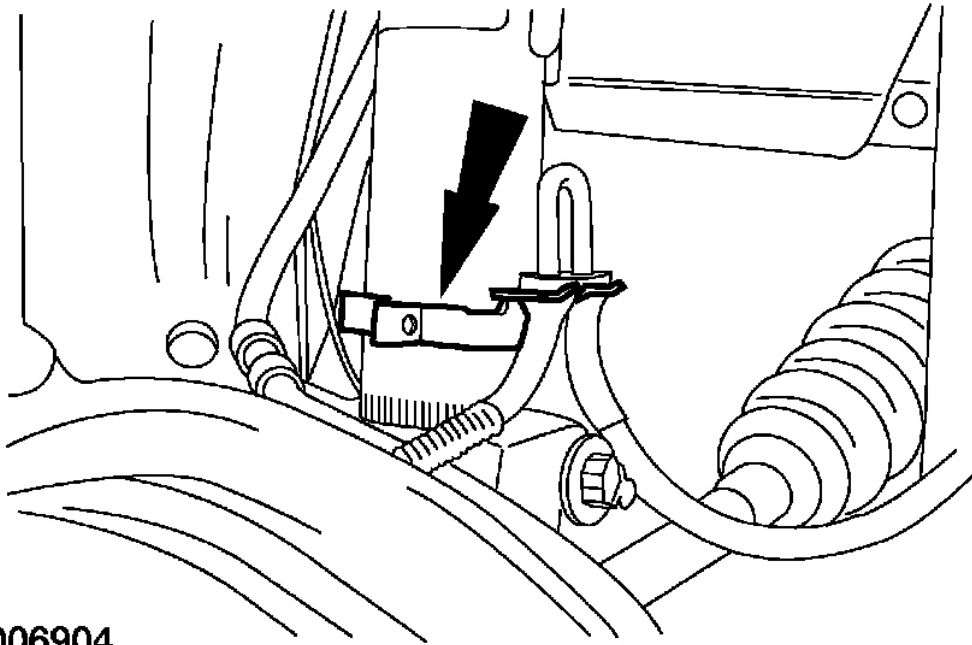


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Fig. 33: Installing Strut Lower Nut - With Torque Specification
Courtesy of FORD MOTOR CO.

Vehicles equipped with ABS

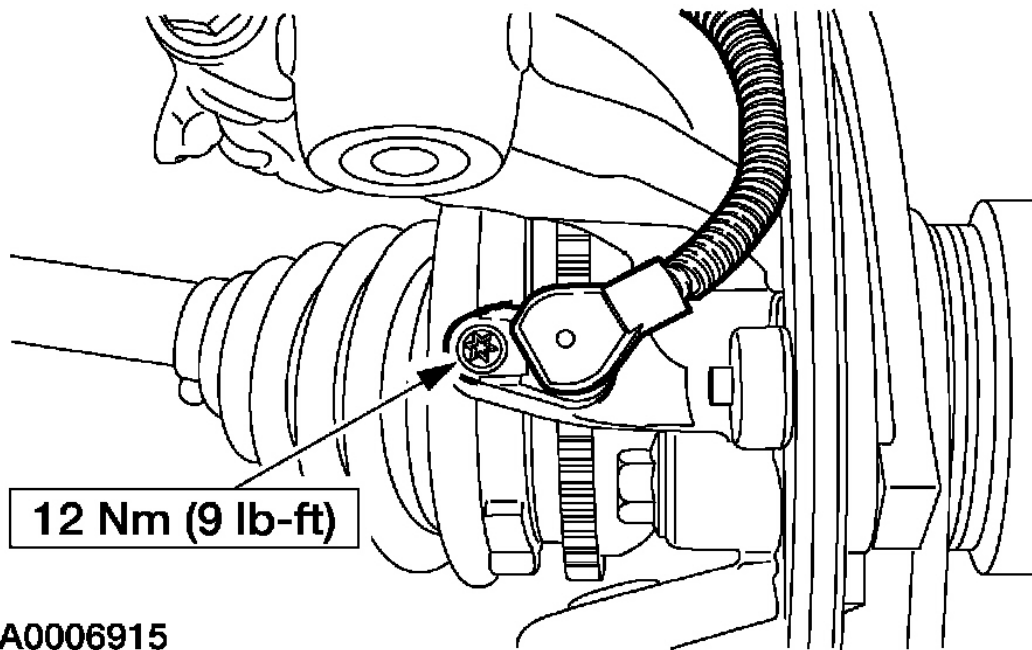
8. Attach the ABS sensor wire retainer.



A0006904

Fig. 34: Locating ABS Sensor Wire Retainer
Courtesy of FORD MOTOR CO.

NOTE: Make sure the ABS sensor mounting hole does not have debris or corrosion build up, or false ABS activation can occur.



A0006915

Fig. 35: Locating ABS Sensor - With Torque Specification
Courtesy of FORD MOTOR CO.

9. Position the ABS sensor and install the bolt.

All vehicles

NOTE: If the hole in the tie-rod end does not line up with the slots in the nut, continue tightening the nut. Do not loosen the nut to align the slots in the nut with the hole in the outer tie-rod end.

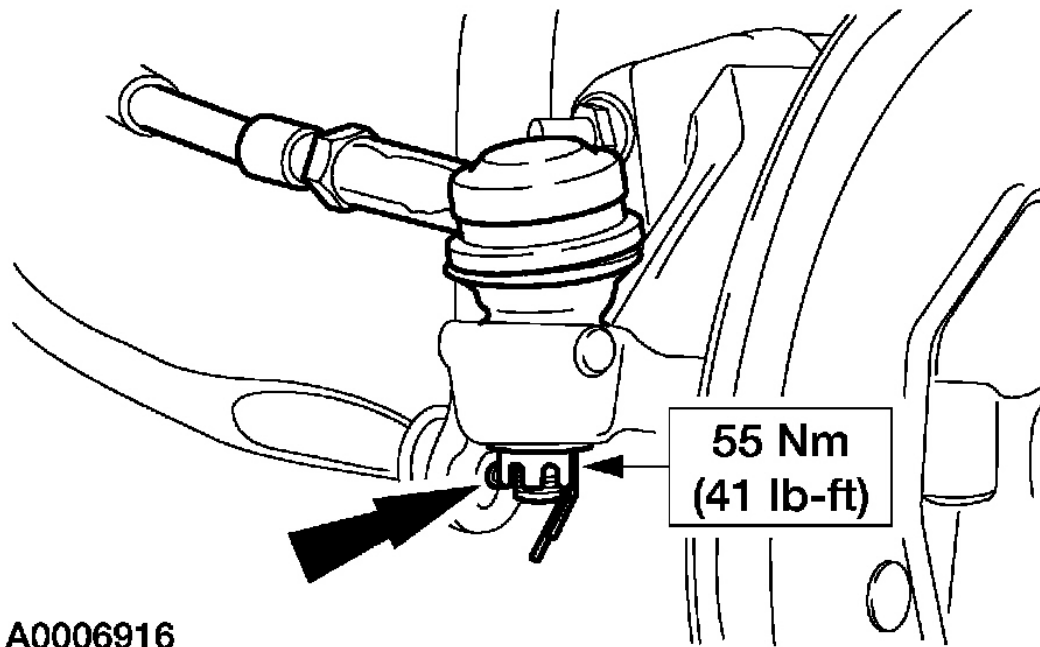


Fig. 36: Identifying Nut And Cotter Pin - With Torque Specification
Courtesy of FORD MOTOR CO.

10. Connect the tie-rod end to the knuckle and install a new nut and cotter pin.
11. Install the brake disc. For additional information, refer to **FRONT DISC BRAKE** .

CAUTION: The front axle wheel hub retainer must be tightened to specification immediately during installation. If the retainer is not tightened immediately, the nylon lock will set incorrectly, leading to incorrect torque readings and bearing failure. Any front wheel hub retainer that is not immediately tightened to specification or is loosened must be removed and a new retainer installed.

12. Install the washer, the wheel hub retainer and the hub cap or wheel cover.

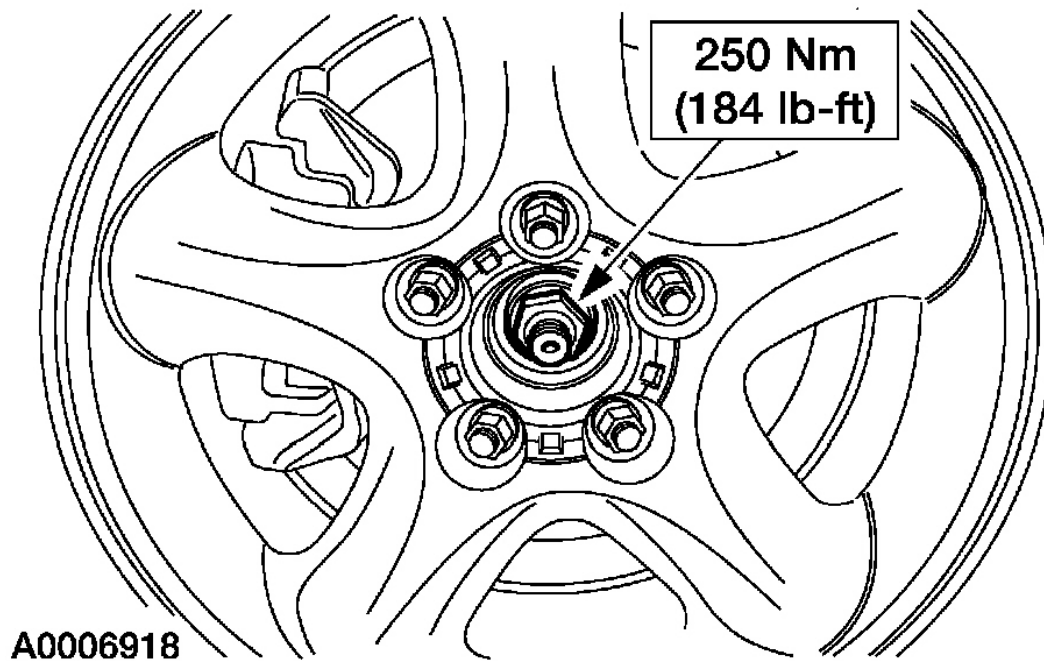


Fig. 37: Tightening Nut - With Torque Specification
Courtesy of FORD MOTOR CO.

STRUT AND SPRING ASSEMBLY

Removal and Installation

WARNING: All vehicles are equipped with gas-pressurized front shock absorbers (18124) which will extend unassisted. Do not apply heat or flame to the front shock absorber during removal or disassembly. Failure to follow these instructions may result in personal injury.

CAUTION: Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure can result in major service expense. A new part with the same part number must be installed if installation is necessary. Do not use a new part of lesser quality or substitute design. Torque values must be used as specified during reassembly to make sure of correct retention of these parts.

NOTE: Turn the ignition switch to position 1.

NOTE: It is not necessary to remove the wheel hub and bearing or the disc brake dust shield from the knuckle.

1. Remove the wheel knuckle. For additional information, refer to **WHEEL KNUCKLE** .

CAUTION: Do not use power tools to remove the nut. Damage to the boot or ball joint can result.

NOTE: To remove the nut, first loosen the nut, then use the hex holding feature to keep the stabilizer bar link ball joint from turning while removing the nut.

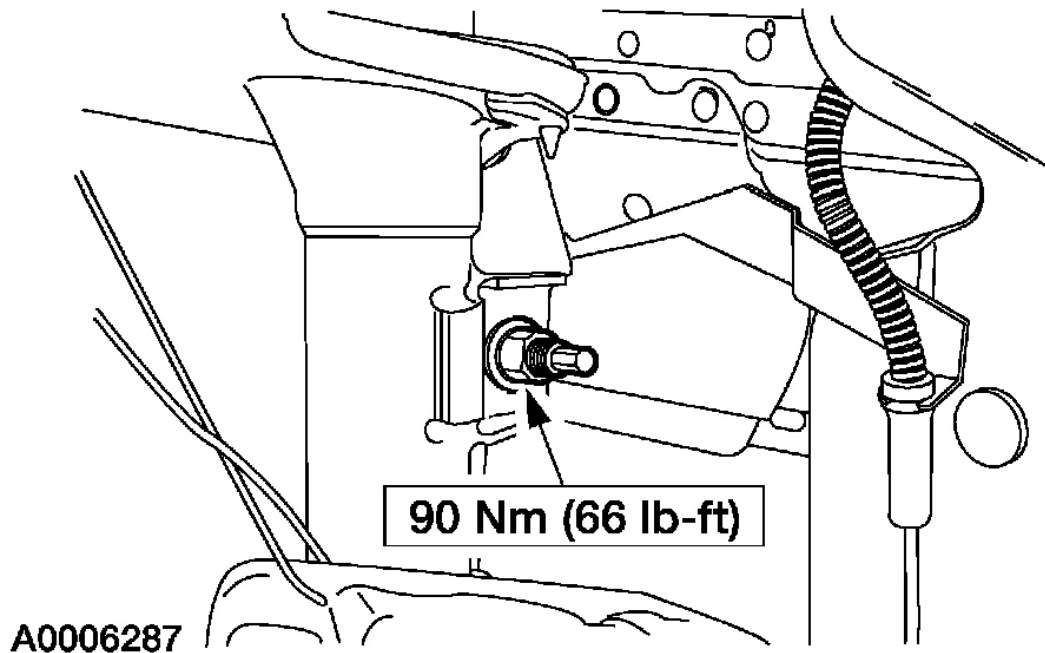
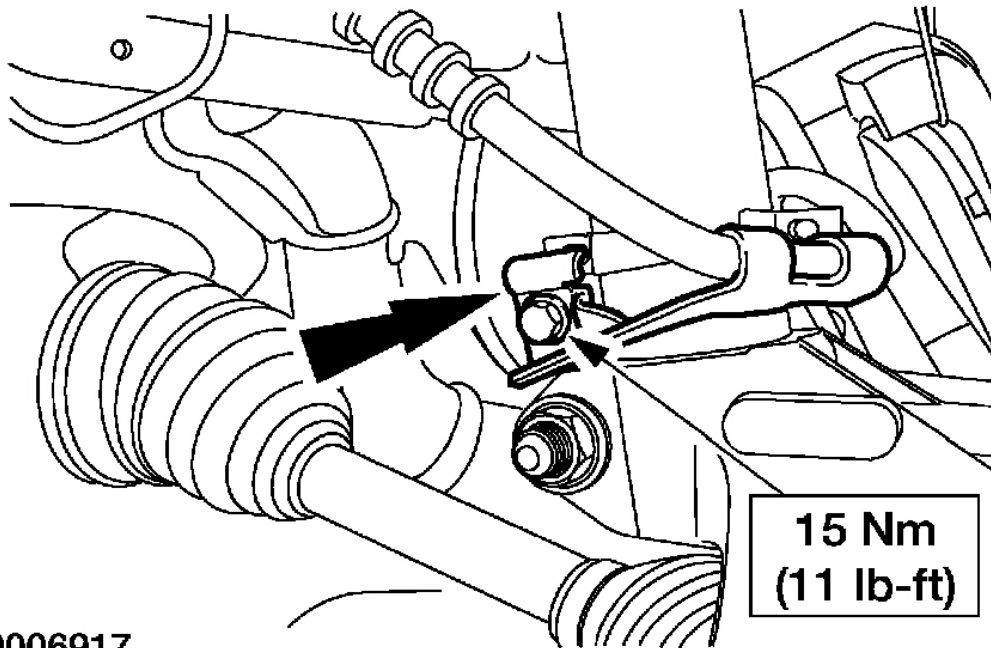


Fig. 38: Locating Stabilizer Bar Link Nut - With Torque Specification
Courtesy of FORD MOTOR CO.

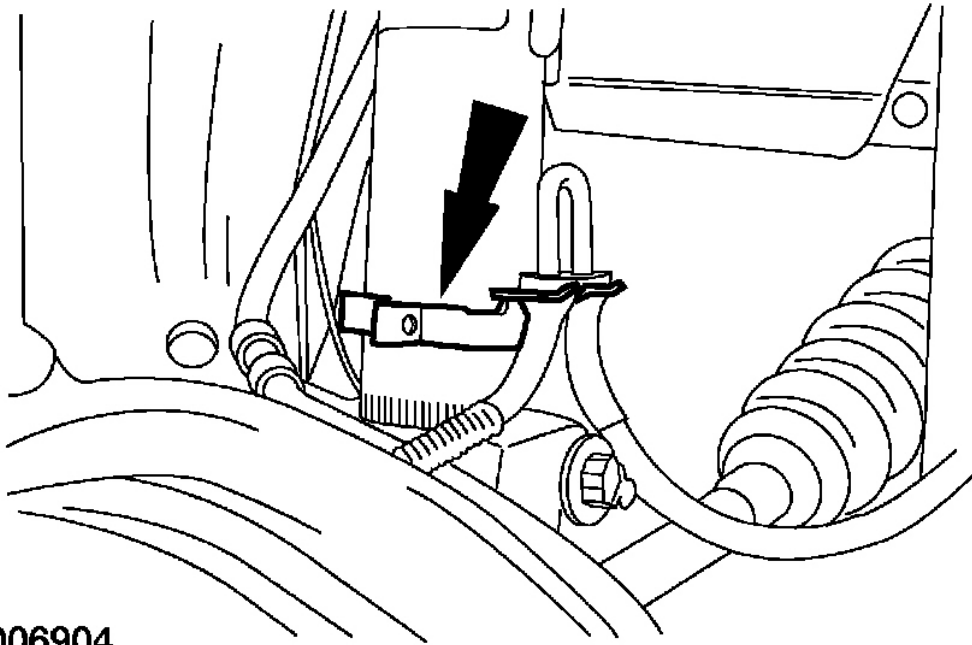
2. Remove the nut and disconnect the stabilizer bar link. Discard the nut.
3. Remove the bolt and detach the brake hose bracket.



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Fig. 39: Removing Bolt - With Torque Specification
Courtesy of FORD MOTOR CO.

4. Unclip the ABS sensor wire retainer and position the sensor out of the way.



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Fig. 40: Locating ABS Sensor Wire Retainer
Courtesy of FORD MOTOR CO.

5. Lower the vehicle far enough to access the strut and spring assembly-to-body nuts.
6. If necessary, detach the washer hose retainer.

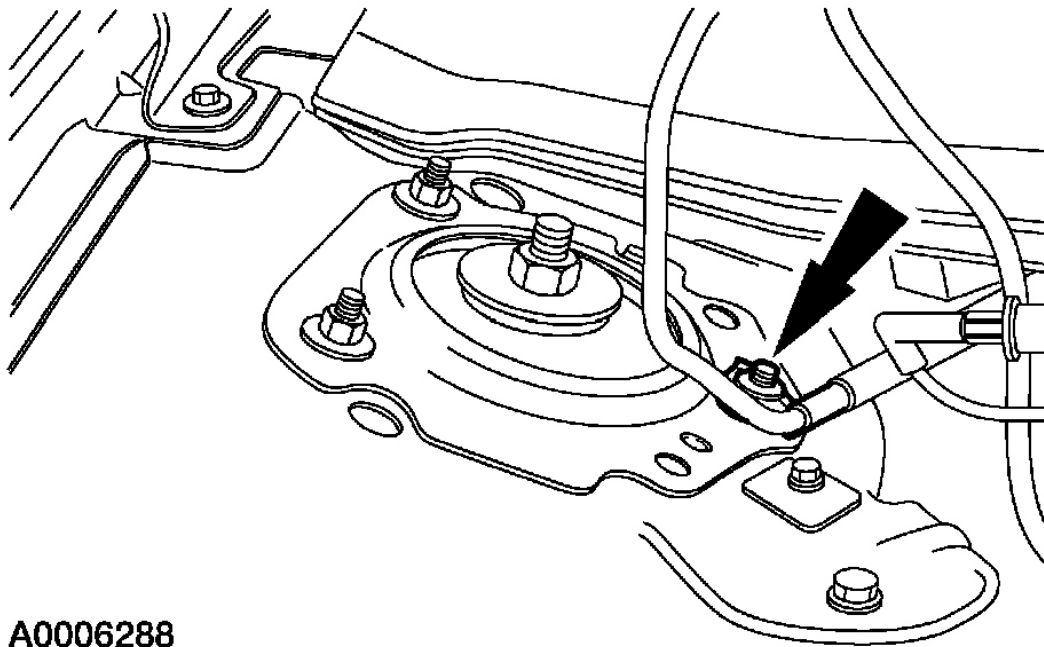


Fig. 41: Removing Washer Hose Retainer
Courtesy of FORD MOTOR CO.

7. Remove the nuts and the strut and spring assembly. Discard the nuts.

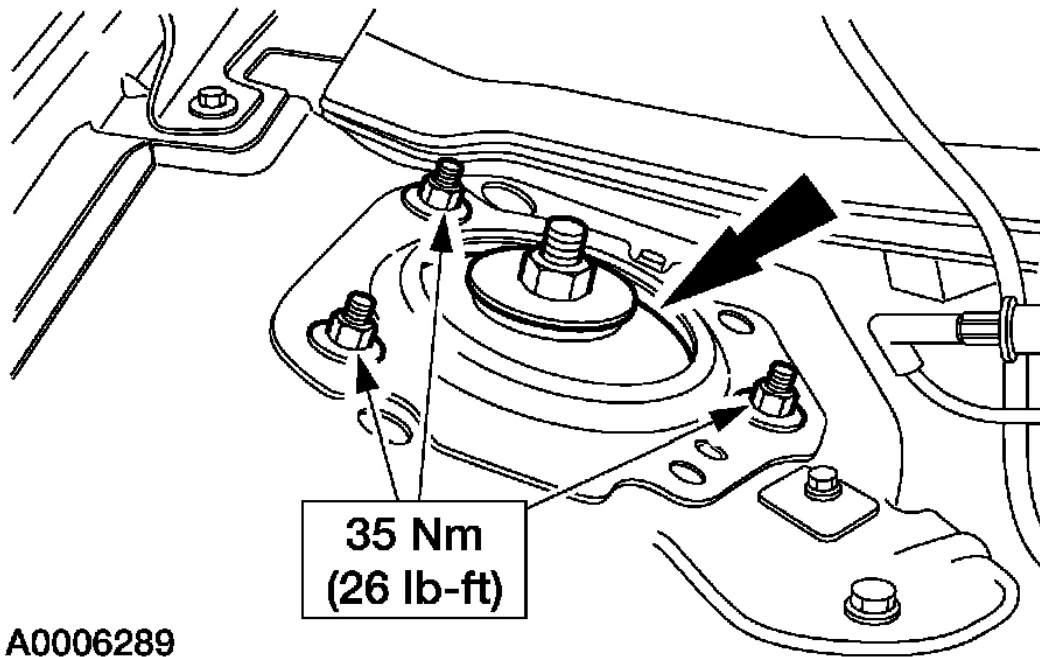


Fig. 42: Removing Strut And Spring Assembly - With Torque Specification
Courtesy of FORD MOTOR CO.

NOTE: Make sure the spring is correctly seated in both spring seats.

8. To install, reverse the removal procedure.

DISASSEMBLY AND ASSEMBLY

STRUT AND SPRING ASSEMBLY

Disassembly and Assembly

WARNING: All vehicles are equipped with gas-pressurized front shock absorbers (18124) which will extend unassisted. Do not apply heat or flame to the front shock absorber during removal or disassembly. Failure to follow these instructions may result in personal injury.

CAUTION: Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure can result in major service expense. A new part with the same part number must be installed if installation is necessary. Do not use a new part of lesser quality or substitute design. Torque values must be used as specified during

reassembly to make sure of correct retention of these parts.

WARNING: The strut assembly is under spring tension. Attempting to disassemble the strut without correctly compressing the spring can result in personal injury.

1. Using a suitable spring compressor, slightly compress the spring to remove initial tension. While holding the strut rod, loosen the nut. Continue to compress the spring until tension is relieved.

NOTE: The washers on either side of the upper mount and seat-bearing assembly are unique and cannot be interchanged. Note the position of each washer during removal for installation reference.

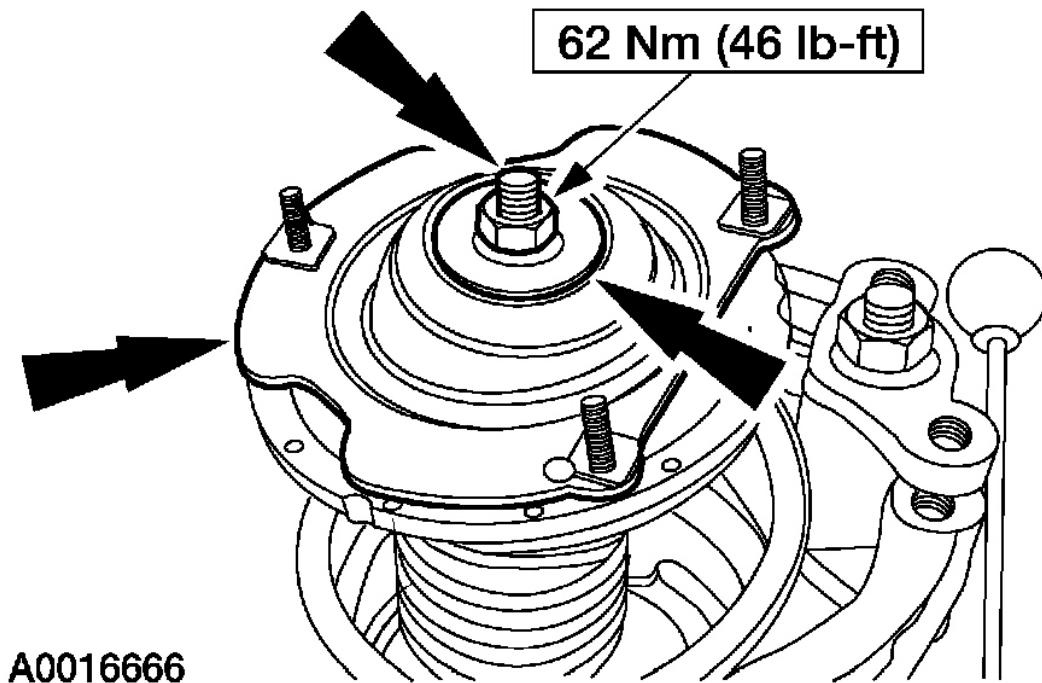
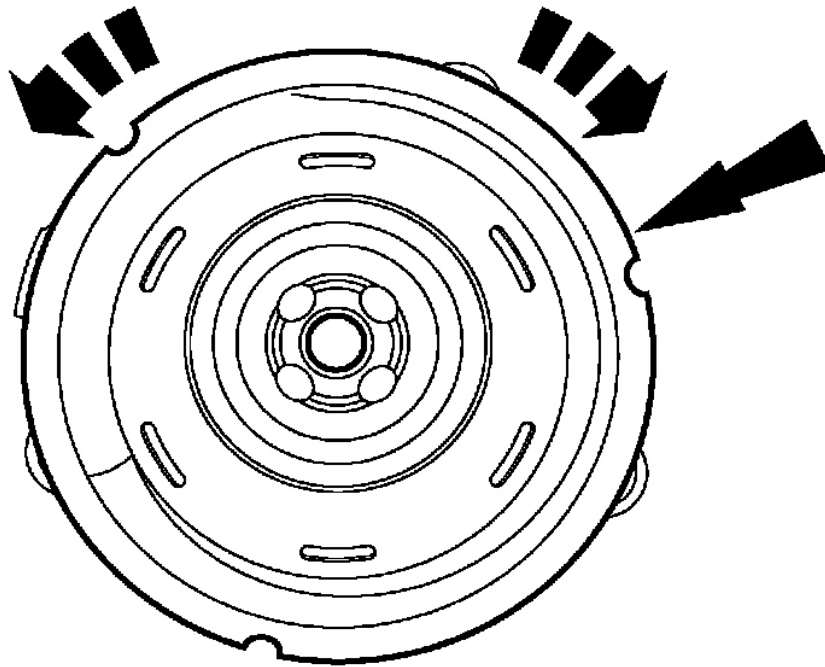


Fig. 43: Removing Upper Mount And Seat-Bearing Assembly - With Torque Specification
Courtesy of FORD MOTOR CO.

2. While holding the strut rod, remove and discard the nut. Remove the cupped washer and the upper mount and seat-bearing assembly.
3. Inspect the upper mount and seat-bearing assembly. The spring insulator should not be cracked, torn or distorted, and the bearing should turn freely without grinding. Install a new upper mount and seat-bearing assembly, if necessary.



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Fig. 44: Inspecting Upper Mount And Seat-Bearing Assembly
Courtesy of FORD MOTOR CO.

4. Remove the strut and the dished washer.
 - Remove the dust boot.
 - Remove the jounce bumpers and insulators.

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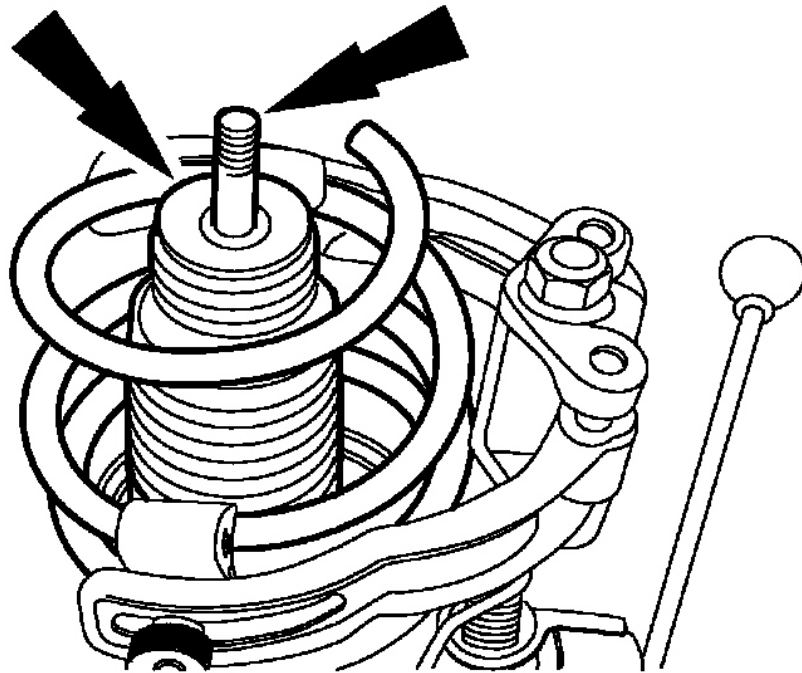


Fig. 45: Removing Jounce Bumpers And Insulators
Courtesy of FORD MOTOR CO.

CAUTION: The seat-bearing assembly is press-fit onto the upper mount by hand. The mount washers must be assembled with the cupped side of the washer facing away from the mount and seat-bearing assembly.

CAUTION: Do not over tighten the strut rod lock nut. Damage to the lock nut or strut rod can result.

NOTE: Make sure the spring is correctly seated in both spring seats.

5. To install, reverse the removal procedure.

**Thank you very much
for your reading.**

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**Then Get More
Information.**