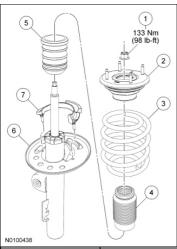
SECTION 204-01: Front Suspension DISASSEMBLY AND ASSEMBLY

2012 Taurus Workshop Manual Procedure revision date: 07/14/2011

## **Strut and Spring Assembly**

#### Material

Item	Specification
Silicone Brake Caliper Grease and Dielectric Compound	ESE-M1C171-A
XG-3-A	



Item	Part Number	Description
1	W713968	Strut rod nut
2	18183	Upper strut mount
3	5310	Spring
4	18A047	Dust boot
5	18198	Jounce bumper
6	18124	Strut
7	5415	Lower spring isolator

**Disassembly and Assembly** 

▲ WARNING: Do not apply heat or flame to the shock absorber or strut tube. The shock absorber and strut tube are gas pressurized and could explode if heated. Failure to follow this instruction may result in serious personal injury.

▲ WARNING: Keep all body parts clear of shock absorbers or strut rods. Shock absorbers or struts can extend unassisted. Failure to follow this instruction may result in serious personal injury.

*NOTICE:* Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure may result in major service expense. New parts must be installed with the same part numbers or equivalent part, if replacement is necessary. Do not use a replacement 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.

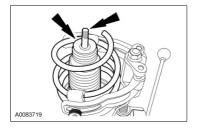
NOTICE: When installing a suitable spring compressor, use care not to damage the spring coating.

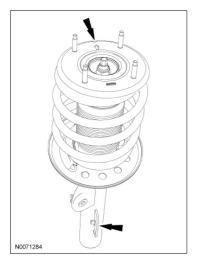
- 1. Remove the strut and spring assembly. For additional information, refer to <u>Strut and Spring Assembly</u> in this section.
- 2. A WARNING: Do not attempt to disassemble the shock absorber and spring assembly without using a spring compressor. Assemblies are under extreme load. Failure to follow this instruction may result in serious personal injury.

**NOTE:** Use the hex-holding feature to prevent the shock absorber rod from turning while removing or installing the strut rod nut.

Using a suitable spring compressor, slightly compress the spring to remove initial tension. Using the hex-holding feature to hold the strut rod, loosen the strut rod nut. Continue to compress the spring until tension is relieved.

- 3. Using the hex-holding feature to hold the strut rod, remove and discard the strut rod nut.
  - To install, tighten the new nut to 133 Nm (98 lb-ft).
- 4. Inspect the upper strut mount and seat-bearing assembly. The spring insulator should not be cracked, torn or distorted. The strut bearing should turn freely without grinding. Install a new upper strut mount, if necessary.
- 5. Decompress and remove the spring. Remove the dust boot and jounce bumper.
  - To maintain wheel camber:
    - ♦ position the notch and arrow on the upper strut mount outboard opposite the locator tab on the strut.
  - To adjust camber +0.5 degrees:
    - position the notch and arrow on the upper strut mount inboard aligned with the locator tab on the strut.





6. NOTICE: Do not overtighten the strut rod nut. Damage to the nut or strut rod may occur.

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

**NOTE:** During assembly, apply the specified silicone brake grease to the strut rod and the top and sides of the outermost part of the dust boot.

To assemble, reverse the disassembly procedure.

# **Torque Specifications**

Description	Nm	lb-ft	lb-in
Brake caliper anchor plate bolts	103	76	-
Brake disc shield bolt	15	-	133
Lower arm-to-subframe bolt	215	159	-
Lower arm-to-wheel knuckle bolt	265	196	-
Parking brake cable bracket bolt	15	-	133
Shock absorber lower bolt	175	129	-
Shock absorber upper insulator and mount nut	55	41	-
Stabilizer bar bracket bolts	55	41	-
Stabilizer bar link lower nut	63	46	-
Stabilizer bar link upper nut	55	41	-
Subframe bracket bolts	55	41	-
Subframe forward bolts	150	111	-
Subframe rearward bolts	200	148	-
Toe link-to-subframe bolt	70	52	-
Toe link-to-wheel knuckle nut	80	59	-
Trailing arm-to-subframe bolt	165	122	-
Trailing arm-to-wheel knuckle nut	90	66	-
Upper arm rearward bushing bolt	200	148	-
Upper arm-to-subframe forward bolt	150	111	-
Upper arm-to-subframe rearward bolts	150	111	-
Upper arm-to-wheel knuckle nut	200	148	-
Wheel bearing and wheel hub bolts a	-	-	-
Wheel hub nut <sup>a</sup>	-	-	-
Wheel speed sensor bolt	15	-	133

<sup>&</sup>lt;sup>a</sup> Refer to the procedure in this section.

SECTION 204-02: Rear Suspension DESCRIPTION AND OPERATION

2012 Taurus Workshop Manual Procedure revision date: 07/14/2011

# **Rear Suspension**

The rear suspension consists of the following components:

- Lower arm(s)
- Shock absorber(s)
- Spring(s)
- Stabilizer bar(s)
- Stabilizer bar link(s)
- Trailing arm(s)
- Toe link(s)
- Upper arm(s)
- Wheel bearing and wheel hub(s)
- Wheel knuckle(s)

The rear suspension utilizes an independent short/long arm design. This suspension system incorporates a separate wheel knuckle for each wheel and allows the wheels to react to road imperfections independent of each other. This independent action offers improved isolation from the effects of jounce and rebound.

Rear Suspension 2887

SECTION 204-02: Rear Suspension DIAGNOSIS AND TESTING

2012 Taurus Workshop Manual Procedure revision date: 07/14/2011

# **Rear Suspension**

Refer to Section 204-00.

Rear Suspension 2888

SECTION 204-02: Rear Suspension REMOVAL AND INSTALLATION

2012 Taurus Workshop Manual Procedure revision date: 07/14/2011

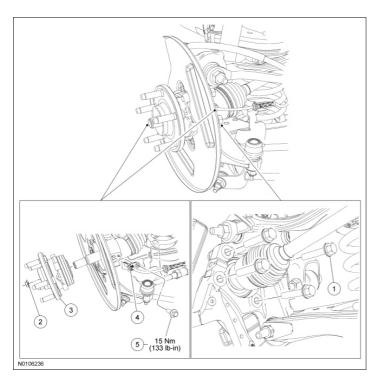
## Wheel Bearing and Wheel Hub

## Special Tool(s)



Remover, Front Wheel Hub 205-D070 (D93P-1175-B) or equivalent

**NOTE:** All-Wheel Drive (AWD) shown, Front Wheel Drive (FWD) vehicles similar.



Item	Part Number	Description
1	W714333	Wheel bearing and wheel hub bolt (4 required)
2	W712435	Wheel hub nut All-Wheel Drive (AWD)
3	2C300	Wheel bearing and wheel hub
4	2C190	Wheel speed sensor
5	W712797	Wheel speed sensor bolt

### Removal

#### All vehicles

*NOTICE:* Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure may result in major service expense. New parts must be installed with the same part numbers or equivalent part, if replacement is necessary. Do not use a replacement 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.

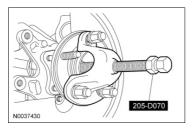
- 1. Remove the brake disc. For additional information, refer to Section 206-04.
- 2. Remove the wheel speed sensor bolt and position the sensor aside.

## All-Wheel Drive (AWD) vehicles

3. **NOTE:** Do not discard the nut at this time.

Remove the wheel hub nut.

4. Using the Front Wheel Hub Remover, separate the halfshaft from the wheel hub.



### All vehicles

- 5. Remove the 4 bolts and the wheel bearing and wheel hub.
  - Discard the bolts.
- 6. NOTICE: The wheel knuckle bore must be clean enough to allow the wheel bearing and wheel hub to seat completely by hand. Do not press or draw the wheel hub and bearing into place or damage to the bearing may occur.

*NOTICE:* Make sure the wheel hub-to-knuckle mating surfaces are clean and free of any adhesive. Failure to clean adhesive from both surfaces may cause bearing damage.

Using a clean shop towel, clean the wheel knuckle-to-mating surfaces and inspect the knuckle bearing bore.

• If the wheel knuckle is cracked or damaged, install a new wheel knuckle.

#### Installation

### All vehicles

- 1. Install the wheel bearing and wheel hub assembly.
- 2. Install the 4 new wheel bearing and wheel hub bolts.
  - Tighten the bolts to 133 Nm (98 lb-ft) in a cross-pattern.
- 3. Install the brake disc. For additional information, refer to Section 206-04.
- 4. Position the wheel speed sensor and install the bolt.
  - Tighten to 15 Nm (133 lb-in).

## **AWD** vehicles

5. NOTICE: Do not tighten the rear wheel hub nut with the vehicle on the ground. The nut must be tightened to specification before the vehicle is lowered to the ground. Wheel bearing damage

will occur if the wheel bearing is loaded with the weight of the vehicle applied.

**NOTE:** Apply the brake to keep the halfshaft from rotating.

Position the halfshaft in the hub and use the previously removed wheel hub nut to seat the halfshaft.

- Tighten the nut to 350 Nm (258 lb-ft).
- Remove and discard the nut.
- 6. NOTICE: Install and tighten the new wheel hub nut to specification within 5 minutes of starting it on the threads. Always install a new wheel hub nut after loosening or when not tightening within the specified time or damage to the components may occur.

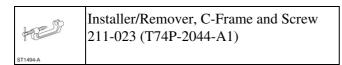
Install a new wheel hub nut.

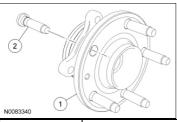
• Tighten the nut to 350 Nm (258 lb-ft).

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#### Wheel Studs

# Special Tool(s)



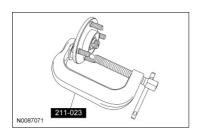


Item	Part Number	Description
1	1104	Wheel bearing and wheel hub
2	1107	Wheel stud (5 required)

### Removal

*NOTICE:* Suspension fasteners are critical parts because they affect performance of vital components and systems and their failure may result in major service expense. New parts must be installed with the same part numbers or equivalent part, if replacement is necessary. Do not use a replacement 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 bearing and wheel hub. For additional information, refer to Wheel Bearing and Wheel Hub in this section.
- 2. Using the C-Frame and Screw Installer/Remover, remove the wheel stud.



### Installation

NOTICE: Do not use air tools to install the wheel stud. The serrations in the hub flange can be stripped.

1. **NOTE:** Make sure to use washers that have an ID that is larger than the OD of the wheel stud serrations. Use enough washers (approximately 4) to allow the wheel stud to seat against the hub flange.

Position the wheel stud in the axle flange, making sure that the serrations are aligned with those made by the original wheel stud.

Wheel Studs 2892