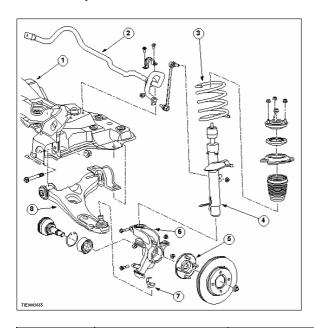
Front Suspension



Item	Part Number	Description
1	-	Crossmember
2	-	Stabilizer bar
3	-	Spring
4	-	Strut
5	-	Wheel hub
6	-	Wheel knuckle
7	-	Lower arm ball joint heat shield
8	-	Lower arm

Front Suspension 1037

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Front Suspension 1038

SECTION 204-01: Front Suspension DIAGNOSIS AND TESTING

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Front Suspension

For additional information, refer to $\underline{\text{Section } 204-00}$.

Front Suspension 1039

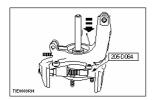
Wheel Bearing 2.0L SPI/2.0L Zetec-E

Special Tool(s)

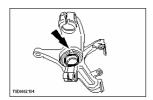
T80T-4000-D,E,F	Installer, Drive Pinion Bearing Cup 205-139 (T80T-4000-E)
D84L-1123-A	Puller, Bearing 205-D064 (D84L-1123-A)

Removal

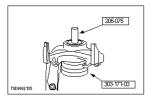
- 1. Remove the wheel knuckle. For additional information, refer to Wheel Knuckle.
- 2. Using the special tool and a suitable drift, remove the wheel hub and outer bearing race.



3. Remove the bearing circlip.



4. Using a suitable drift, remove the inner bearing.



Installation

A CAUTION: Avoid any impact on the wheel speed sensor ring.

△ CAUTION: Make sure the wheel speed sensor ring is clean.

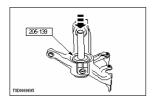
A CAUTION: Avoid any contact between the wheel speed sensor ring and a magnetic surface.

1. **A** CAUTION: Make sure the wheel bearing is installed into the wheel knuckle with the wheel

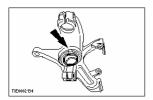
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speed sensor ring, colored black, at the wheel speed sensor end of the wheel knuckle.

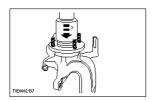
Using the special tool and a suitable drift, install the new bearing.



2. Install the bearing circlip.



3. Install the wheel hub.



4. Install the wheel knuckle. For additional information, refer to Wheel Knuckle.

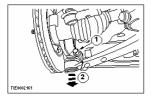
Lower Arm

Removal

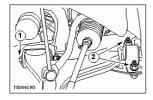
- 1. Loosen the wheel nuts.
- 2. Raise and support the vehicle. For additional information, refer to Section 100-02.
- 3. Remove the wheel.
- 4. <u>A</u> CAUTION: Protect the ball joint seal using a soft cloth to prevent damage.

Remove the lower arm ball joint.

- 1. Remove the bolt.
- 2. Remove the lower arm ball joint.



- 5. Remove the lower arm bolts.
 - 1. Remove the front bolt.
 - 2. Remove the rear clamp bolts.



6. Remove the lower arm.

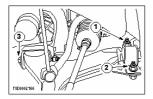
Installation

1. **NOTE:** Bolts 1 and 3 are torque-to-yield. New nuts, bolts and ball bearing washers must be installed.

Install the lower arm bolts.

- Tighten the bolts in the sequence shown in five stages.
- Stage 1: Tighten nut 1 to 100 Nm.
- Stage 2: Tighten nut 1 an additional 60 degrees.
- Stage 3: Tighten nut 2 to 120 Nm.
- Stage 4: Tighten bolt 3 to 120 Nm.
- Stage 5: Tighten bolt 3 to an additional 90 degrees. After 90 degrees, check bolt 3 torque is between 170-230 Nm.

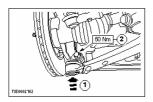
Lower Arm 1042

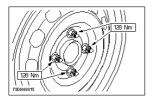


2. **A** CAUTION: Make sure the heat shield is installed to prevent damage to the ball joint.

Install the lower arm ball joint.

- 1. Install the lower arm ball joint.
- 2. Install the bolt.





Lower Arm 1043

Stabilizer Bar

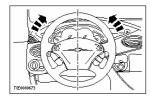
Special Tool(s)

T847-2100-AH	Alignment Pins, Subframe 502-002 (T94P-2100-AH)
TOOLUSSED	Remover, Tie-Rod End 211-001 (Tool-3290-D)

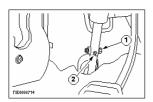
Removal

- 1. Disconnect the battery ground cable.
- 2. **NOTE:** Make sure the road wheels are in the straight ahead position.

Centralize the steering and lock it in position.

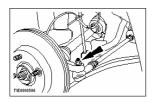


- 3. Disconnect the steering column shaft from the steering gear pinion extension.
 - 1. Remove the bolt.
 - 2. Release the pinion shaft extension from the steering column.
 - ♦ Discard the bolt.



- 4. Remove the front wheels and tires. For additional information, refer to Section 204-04.
- 5. A CAUTION: Leave the tie-rod end retaining nut in place to protect the ball joint stud.

Loosen the tie-rod end retaining nuts (left-hand side shown).

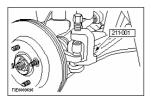


6. **A** CAUTION: Protect the ball joint seal using a soft cloth to prevent damage.

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Using the special tool, detach the tie-rod ends from the wheel knuckles.

• Discard the retaining nuts.



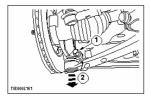
7. Detach the stabilizer bar connecting links from the stabilizer bar (left-hand side shown).



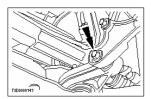
8. **A CAUTION:** Protect the ball joint seal using a soft cloth to prevent damage.

Detach the lower arm ball joints from the wheel knuckles (left-hand side shown).

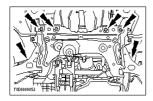
- 1. Remove the bolt.
- 2. Detach the lower arm ball joint.
 - Remove the heat shield.



9. Remove the support insulator to transaxle center bolt.

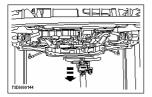


- 10. Using a suitable transmission jack, support the crossmember.
- 11. Remove the six crossmember bolts (support removed for clarity).

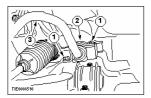


12. **A CAUTION:** The power steering lines are attached to the steering gear.

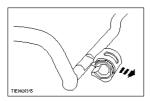
Lower the crossmember to gain access to the stabilizer bar.



- 13. Remove the stabilizer bar.
 - 1. Remove the bolts.
 - 2. Remove the clamps.
 - 3. Remove the stabilizer bar.



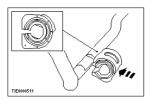
14. Remove the stabilizer bar bushings.



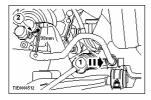
Installation

1. **A** CAUTION: The stabilizer bar bushings must be located correctly on the flats of the stabilizer bar with no lubricant.

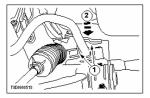
Install the stabilizer bar bushings (both sides).



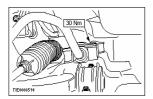
- 2. Install the stabilizer bar.
 - 1. Locate the bushing against the spacer (both sides).
 - 2. Using suitable cable ties, support the stabilizer bar to specification (both sides).



- 3. Install the stabilizer bar clamps.
 - 1. Apply water to the clamp to assist installation.
 - 2. Press the clamp onto the bushing.



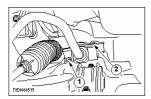
4. Install the stabilizer bar clamp rear retaining bolts.



5. **NOTE:** Do not fully tighten stabilizer bar clamp front retaining bolts at this stage.

Install the stabilizer bar clamp front retaining bolts.

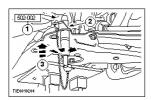
- 6. Tighten the stabilizer bar clamp retaining bolts.
 - Tighten the bolts in the sequence shown in two stages.
 - Stage 1: Tighten bolts 1 through 2 to 50 Nm.
 - Stage 2: Tighten bolts 1 through 2 to 70 Nm.



- 7. Remove the cable ties supporting the stabilizer bar.
- 8. **A CAUTION:** Make sure the crossmember ball bearing washers and captives are installed correctly.

Using the special tools, align the crossmember.

- 1. Insert the guide pins through the crossmember alignment holes.
- 2. Slide the locking plates into the grooves and tighten the guide pin sleeve.
- 3. Raise the crossmember, engaging the guide pins into the chassis alignment holes.



9. **NOTE:** Do not fully tighten the cross member retaining bolts at this stage.

Install the crossmember retaining bolts.