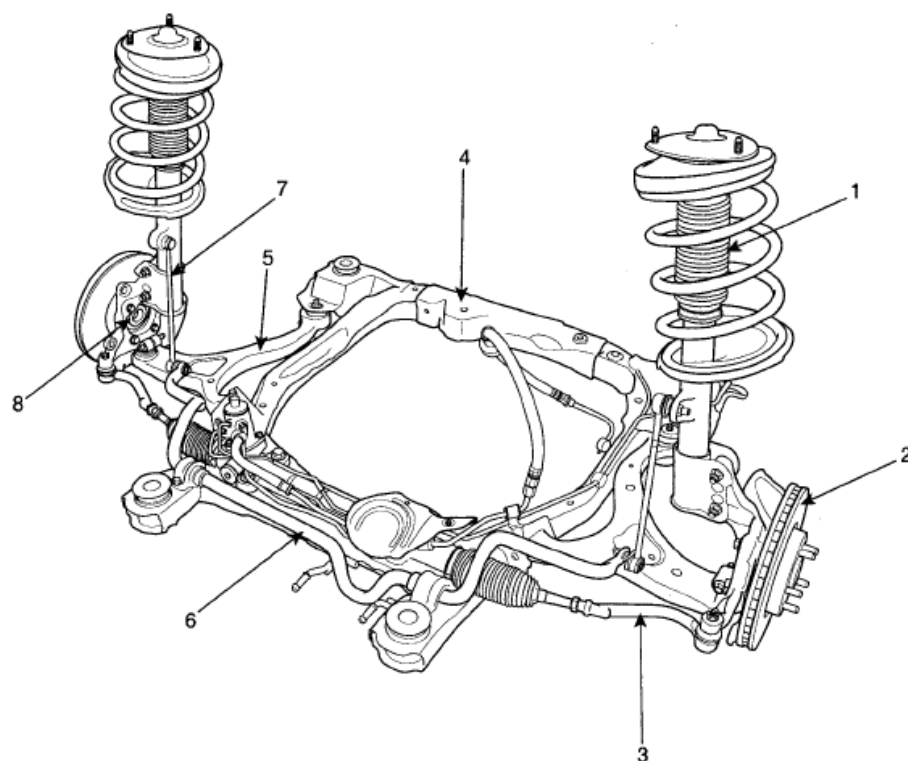


2007 SUSPENSION

Front Suspension System - Santa Fe

FRONT SUSPENSION SYSTEM

COMPONENTS



- 1. Front strut assembly
- 2. Front disc
- 3. Tie rod end assembly
- 4. Front subframe

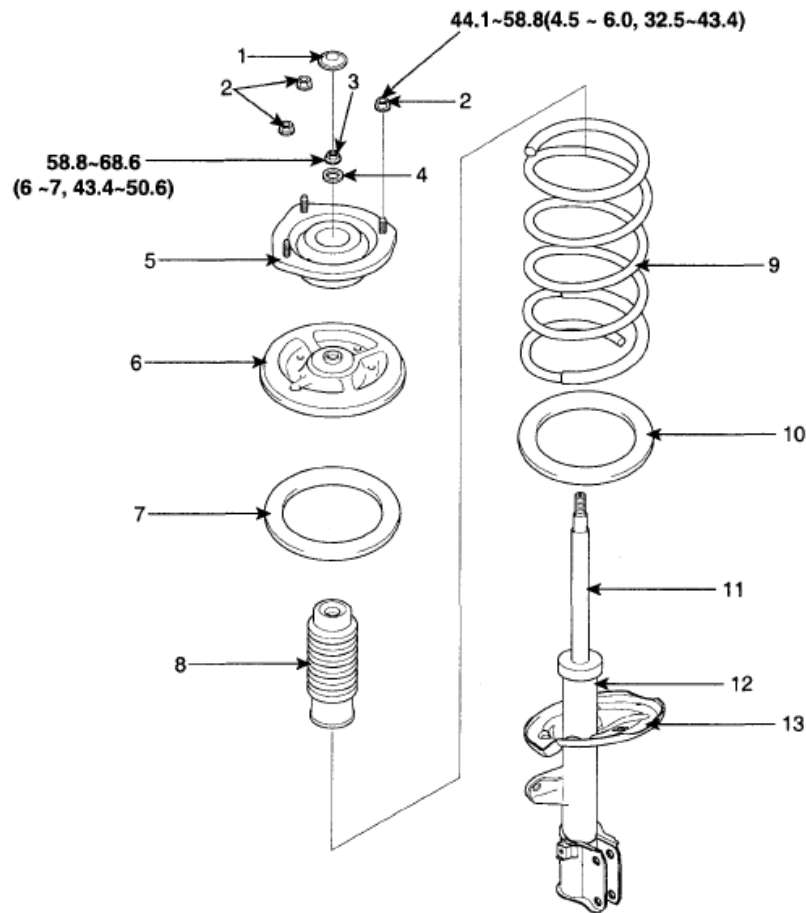
- 5. Front lower arm
- 6. Front stabilizer bar assembly
- 7. Front stabilizer link assembly
- 8. Front axle assembly

SCMSS6505N

Fig. 1: Identifying Front Suspension System Components
Courtesy of HYUNDAI MOTOR CO.

FRONT STRUT ASSEMBLY

COMPONENTS



TORQUE : Nm (kgf.m, lb-ft)

- | | |
|-----------------------|---------------------------------------|
| 1. Dust cover | 8. Strut dust cover and bumper rubber |
| 2. Upper mounting nut | 9. Coil spring |
| 3. Self-locking nut | 10. Spring lower pad |
| 4. Spacer | 11. Piston rod |
| 5. Insulator | 12. Strut assembly |
| 6. Spring upper seat | 13. Spring lower seat |
| 7. Spring upper pad | |

SCMSS6501L

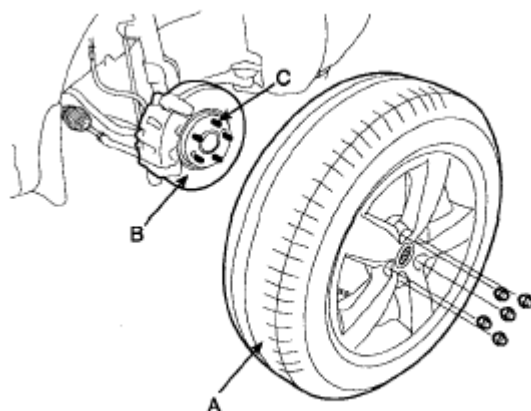
Fig. 2: Identifying Front Strut Assembly Components
Courtesy of HYUNDAI MOTOR CO.

REMOVAL

1. Loosen the wheel nuts slightly.

Raise the vehicle, and make sure it is securely supported.

2. Remove the front wheel and tire (A) from the front hub (B).

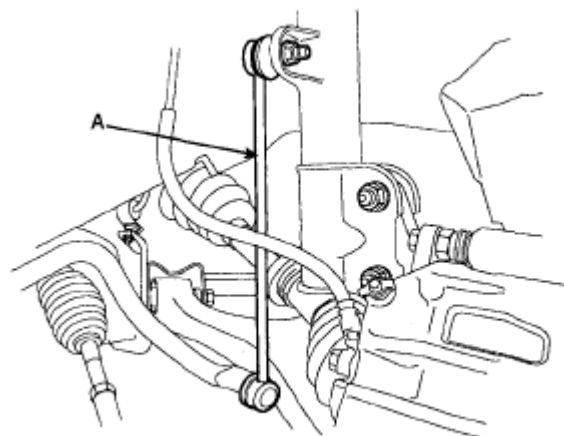


SCMSS6502D

Fig. 3: Locating Front Wheel And Tire And Front Hub
Courtesy of HYUNDAI MOTOR CO.

CAUTION: Be careful not to damage to the hub bolts (C) when removing the front wheel and tire (A).

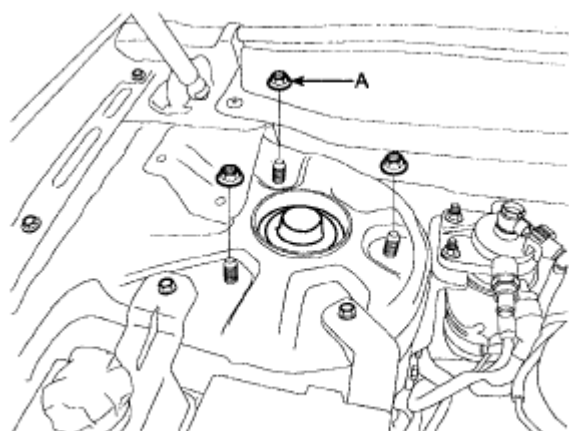
3. Remove the front stabilizer link (A) from the strut assembly.



SCMSS6603D

Fig. 4: Locating Front Stabilizer Link
Courtesy of HYUNDAI MOTOR CO.

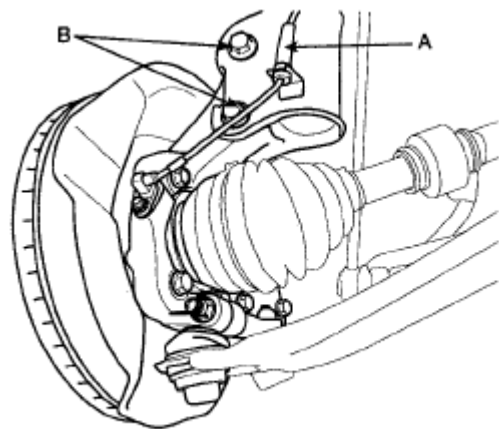
4. Remove the strut upper mounting nuts (A).



SCMSS6001D

Fig. 5: Locating Strut Upper Mounting Nuts
Courtesy of HYUNDAI MOTOR CO.

5. Remove the wheel speed sensor cable (A) and strut lower mounting bolts (B), then remove the strut assembly.

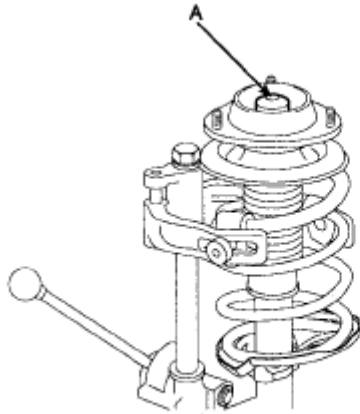


SCMSS6030D

Fig. 6: Locating Wheel Speed Sensor Cable And Strut Lower Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

DISASSEMBLY

1. Remove the dust cover (A).

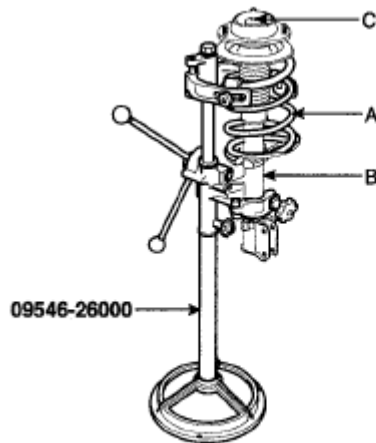


SCMSS6525D

Fig. 7: Locating Dust Cover

Courtesy of HYUNDAI MOTOR CO.

2. Using the special tool (09546-26000), compress the coil spring (A).



KHQE110C

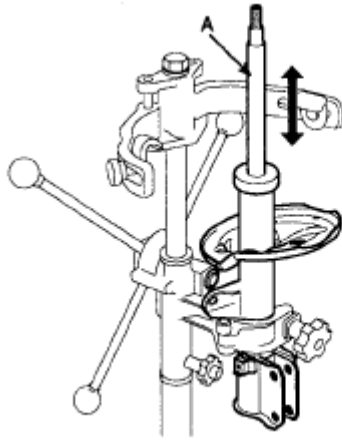
Fig. 8: Compressing Coil Spring

Courtesy of HYUNDAI MOTOR CO.

3. Remove the self-locking nut (C) from the strut assembly (B).
4. Remove the insulator, spring seat, coil spring and dust cover from the strut assembly.

INSPECTION

1. Check the strut insulator for wear or damage.
2. Check rubber parts for damage or deterioration.
3. Compress and extend the piston rod (A) and check that there is no abnormal resistance or unusual sound during operation.

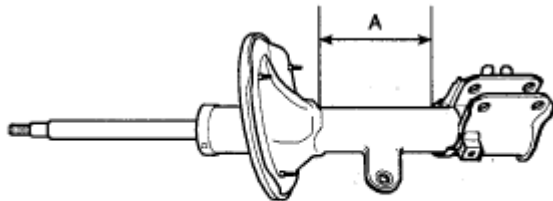


KHQE120A

Fig. 9: Checking Extend Piston Rod
Courtesy of HYUNDAI MOTOR CO.

DISPOSAL

1. Fully extend the piston rod.
2. Drill a hole on the A section to remove gas from the cylinder.



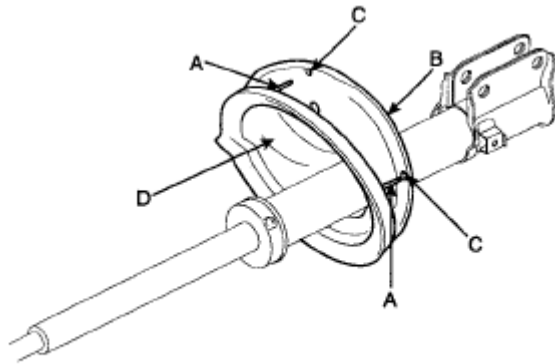
KHQE121A

Fig. 10: Identifying Drill Hole Dimension
Courtesy of HYUNDAI MOTOR CO.

CAUTION: The gas coming out is harmless, but be careful of chips that may fly when drilling.
Be sure to wear safety goggles or eye protection when performing this task.

REASSEMBLY

1. Install the spring lower pad (D) so that the protrusions (A) fit in the holes (C) in the spring lower seat (B).



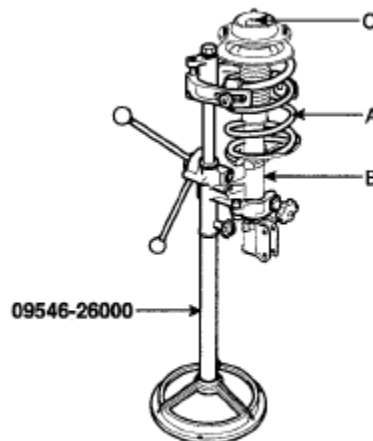
KHQE130A

Fig. 11: Locating Spring Lower Pad, Holes And Spring Lower Seat
Courtesy of HYUNDAI MOTOR CO.

2. Compress coil spring using special tool (09546-26000). Install compressed coil spring into shock absorber.

NOTE:

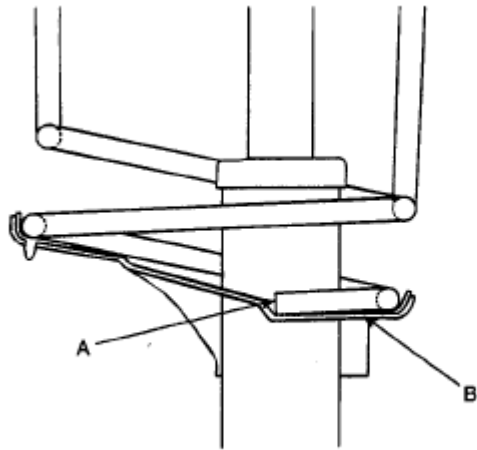
- a. Indicated identification color marks on the coil spring. Pay attention to identification mark and then install them.
- b. Install the coil spring with the identification mark directed toward the knuckle.



KHQE110C

Fig. 12: Compressing Coil Spring
Courtesy of HYUNDAI MOTOR CO.

3. After fully extending the piston rod, install the spring upper seat and insulator assembly.
4. After seating the upper and lower ends of the coil spring (A) in the upper and lower spring seat grooves (B) correctly, tighten new self-locking nut temporarily.



KSMSS44B

Fig. 13: Locating Upper And Lower Ends Of Coil Spring And Upper And Lower Spring Seat Grooves

Courtesy of HYUNDAI MOTOR CO.

5. Remove the special tool (09546-26000).
6. Tighten the self-locking nut to the specified torque.

Tightening torque Nm (kgf-m, lb-ft):

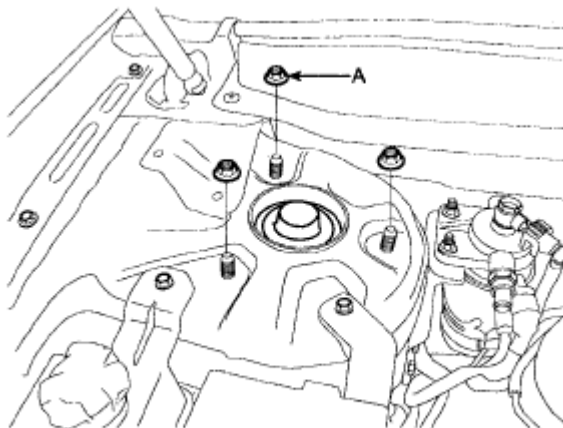
58.8~68.6 (6~7, 43.4~50.6)

INSTALLATION

1. Install the strut assembly and then tighten the strut upper mounting nuts (A).

Tightening torque Nm (kgf-m, lb-ft):

44.1~58.8 (4.5~6.0, 32.5~43.4)



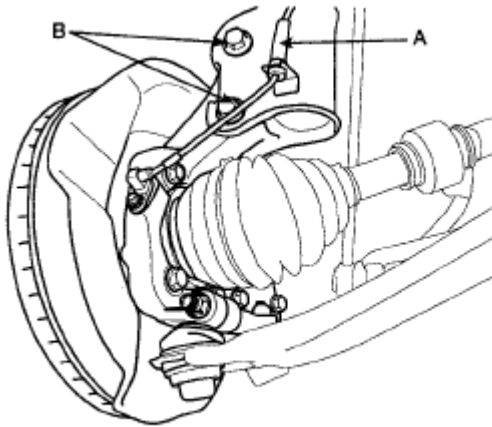
SCMS6001D

Fig. 14: Locating Strut Upper Mounting Nuts
Courtesy of HYUNDAI MOTOR CO.

2. Install the wheel speed sensor cable (A) and strut lower mounting bolts (B).

Tightening torque Nm (kgf-m, lb-ft):

Bolt (B) : 152.0~171.6 (15.5~17.5, 112.1~126.6)



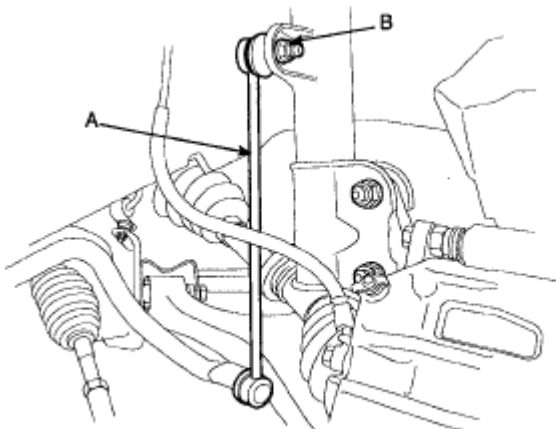
SCMS56030D

Fig. 15: Locating Wheel Speed Sensor Cable And Strut Lower Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

3. Install the front stabilizer link (A) to the strut assembly.

Tightening torque Nm (kgf-m, lb-ft) :

Nut (B) : 98.1 ~ 117.7 (10.0 ~ 12.0, 72.3 ~ 86.8)



SCMS56504D

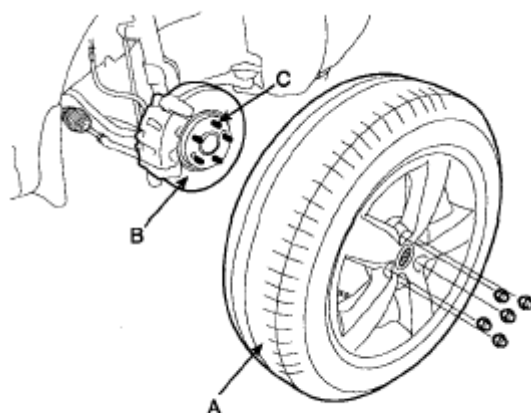
Fig. 16: Locating Front Stabilizer Link

Courtesy of HYUNDAI MOTOR CO.

4. Install the wheel and tire (A) to the front hub (B).

Tightening torque Nm (kgf-m, lb-ft):

88.3~107.9 (9~11, 65.1~79.6)



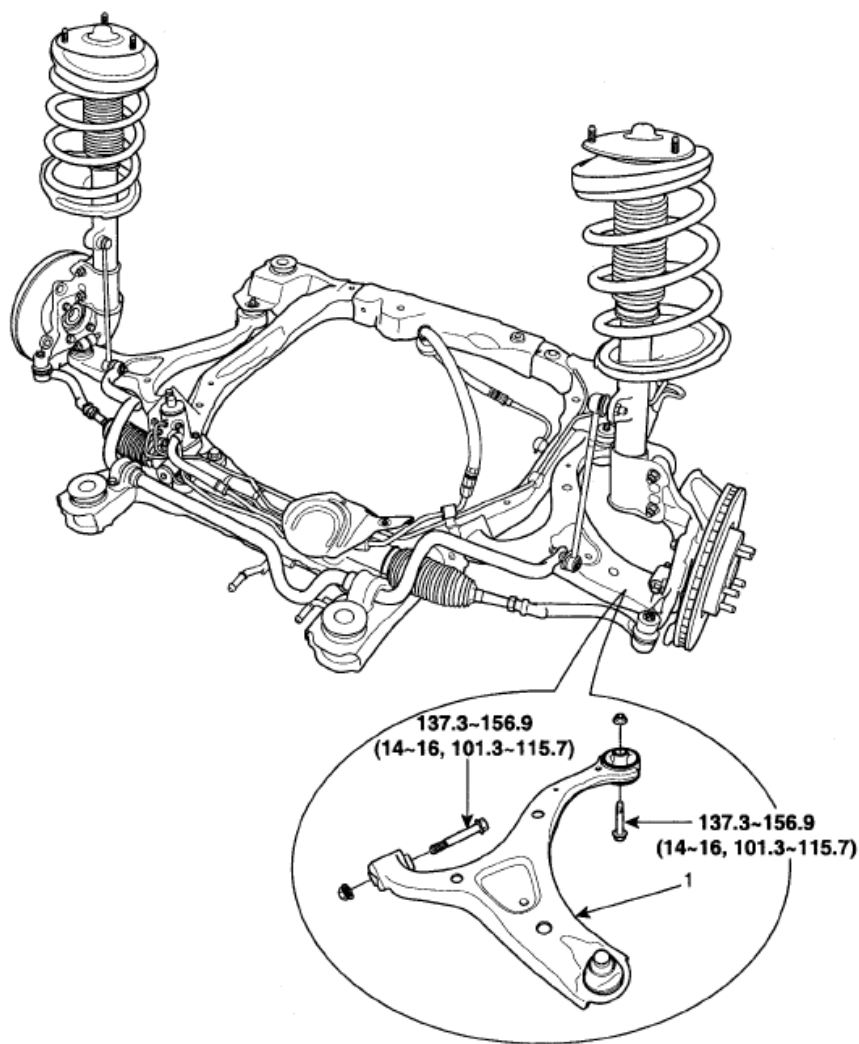
9CMS56502D

Fig. 17: Locating Wheel And Tire And Front Hub
Courtesy of HYUNDAI MOTOR CO.

CAUTION: Be careful not to damage the hub bolts (C) when installing the front wheel and tire (A).

FRONT LOWER ARM

COMPONENT



TORQUE : Nm (kgf.m, lb-ft)

1. Front lower arm

SCMSS6506N

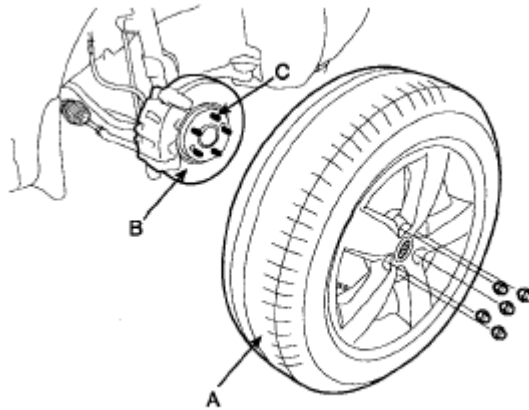
Fig. 18: Identifying Front Lower Arm Component And Torque Specifications
Courtesy of HYUNDAI MOTOR CO.

REMOVAL

1. Loosen the wheel nuts slightly.

Raise the vehicle, and make sure it is securely supported.

2. Remove the front wheel and tire (A) from the front hub (B).

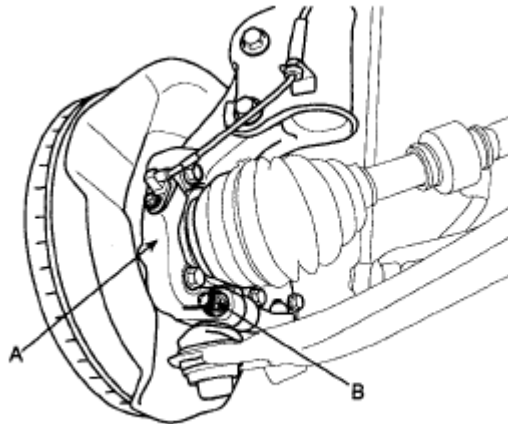


SCMS56502D

Fig. 19: Locating Wheel And Tire And Front Hub
Courtesy of HYUNDAI MOTOR CO.

CAUTION: Be careful not to damage to the hub bolts (C) when removing the front wheel and tire (A).

3. Remove the split pin and front lower arm mounting bolt (B) from the knuckle (A).



SCMS96505D

Fig. 20: Locating Hub Bolts And Front Wheel And Tire
Courtesy of HYUNDAI MOTOR CO.

4. Remove the lower arm mounting bolts (A,B) and then remove the lower arm.

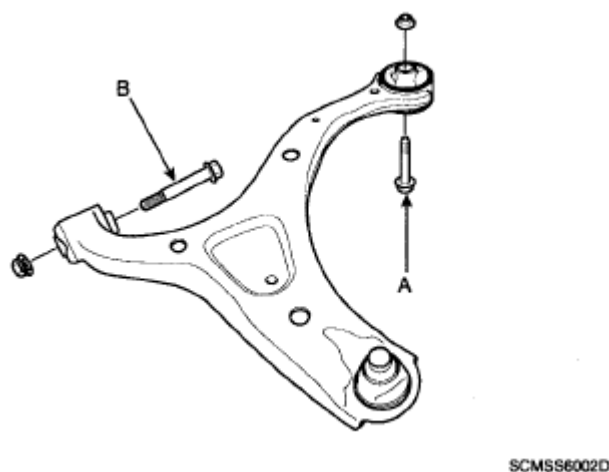


Fig. 21: Locating Lower Arm Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

CAUTION: If the bush is excessive worn and damaged, replace the lower arm assembly.

INSPECTION

1. Check the bushing for wear and deterioration.
2. Check the lower arm for bending or breakage.
3. Check the ball joint dust cover for cracks.
4. Check all bolts.

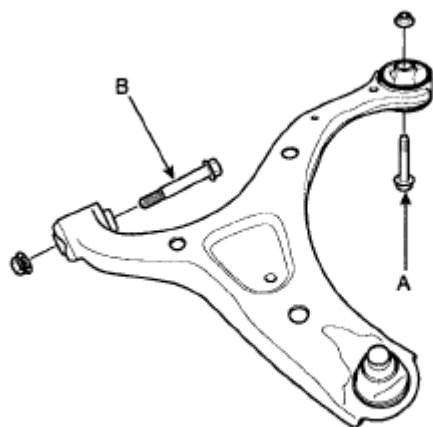
INSTALLATION

1. Install the lower arm and then tighten the lower arm mounting bolts (A, B).

Tightening torque Nm (kgf-m, lb-ft):

Bolt (A) : 137.3~156.9 (14~16, 101.3~115.7)

Bolt (B) : 137.3~156.9 (14~16, 101.3~115.7)



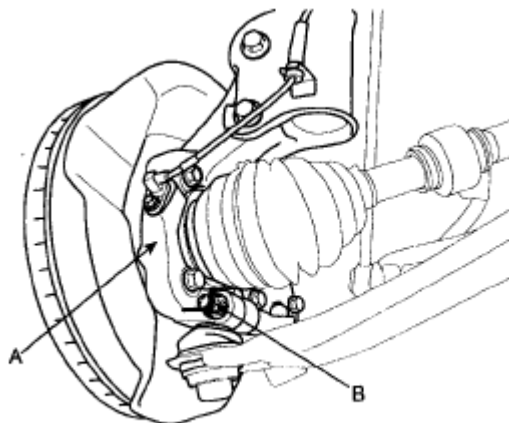
SCMSS6002D

Fig. 22: Locating Lower Arm Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

2. Install the split pin and front lower arm mounting bolt (B) to the knuckle (A).

Tightening torque Nm (kgf-m, lb-ft):

98.1~117.7 (10.0~12.0, 72.3~86.8)



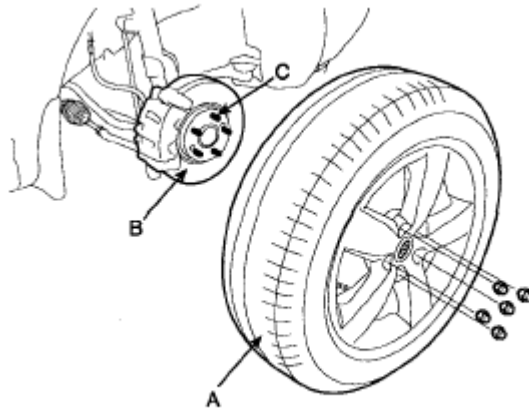
SCMSS605D

Fig. 23: Locating Front Lower Arm Mounting Bolt And Knuckle
Courtesy of HYUNDAI MOTOR CO.

3. Install the wheel and tire (A) to the front hub (B).

Tightening torque Nm (kgf-m, lb-ft) :

88.3~107.9 (9~11, 65.1~79.6)



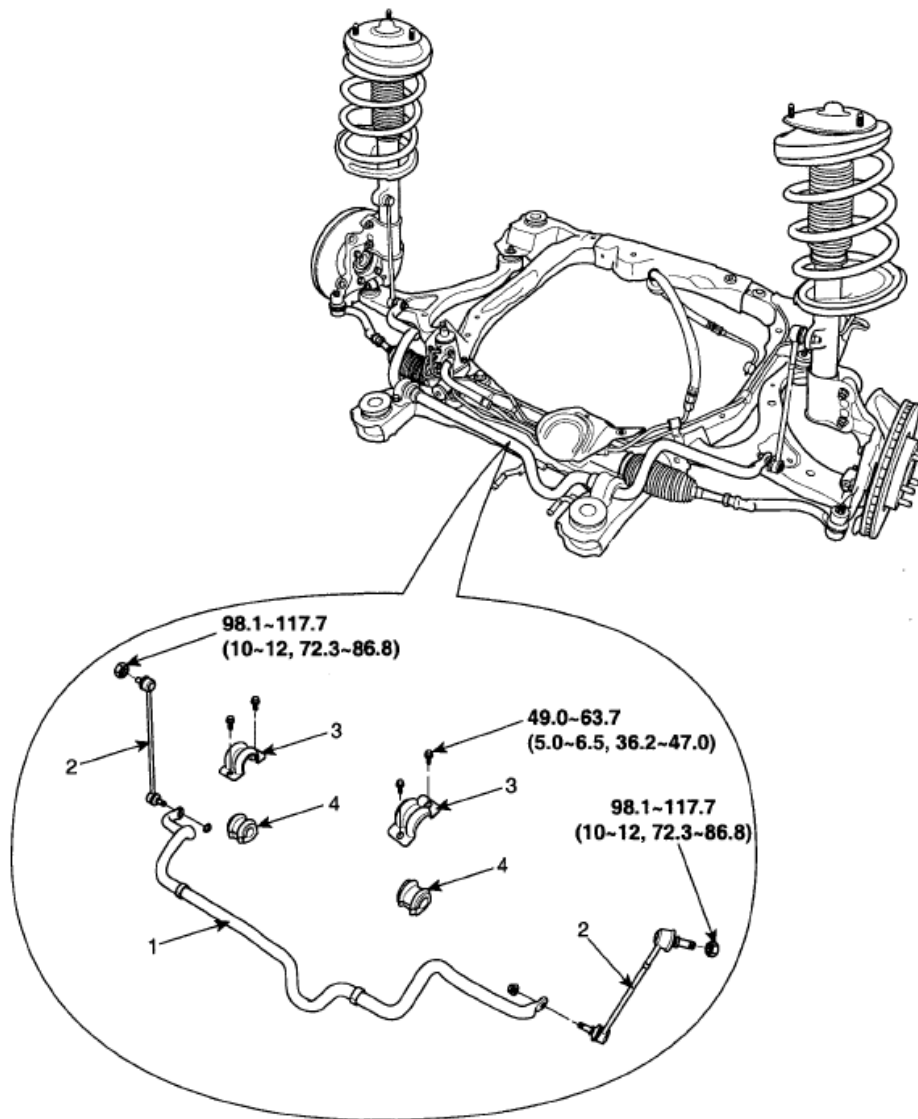
SCMS56502D

Fig. 24: Locating Wheel And Tire And Front Hub
Courtesy of HYUNDAI MOTOR CO.

CAUTION: Be careful not to damage the hub bolts (C) when installing the front wheel and tire (A).

FRONT STABILIZER BAR

COMPONENT



TORQUE : Nm (kgf.m, lb-ft)

1. Front stabilizer bar
2. Front stabilizer link

3. Front stabilizer bar bracket
4. Front stabilizer bushing

SCMS96507N

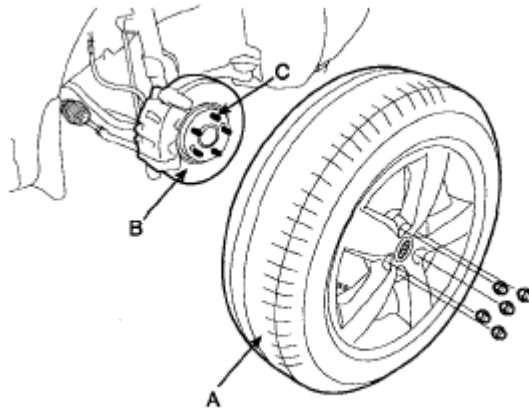
Fig. 25: Identifying Front Stabilizer Bar Component And Torque Specifications
Courtesy of HYUNDAI MOTOR CO.

REMOVAL

1. Loosen the wheel nuts slightly.

Raise the vehicle, and make sure it is securely supported.

2. Remove the front wheel and tire (A) from the front hub (B).

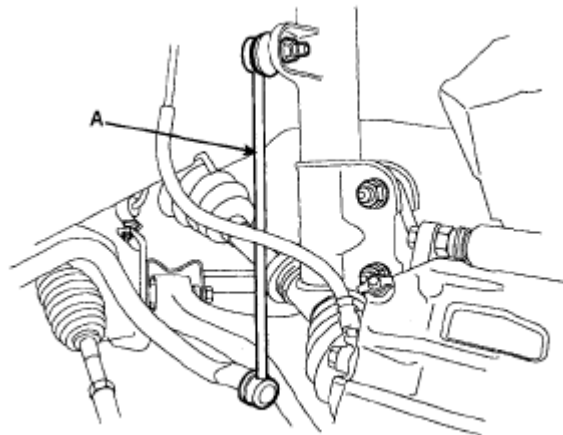


SCMSS6502D

Fig. 26: Locating Wheel And Tire And Front Hub
Courtesy of HYUNDAI MOTOR CO.

CAUTION: Be careful not to damage to the hub bolts (C) when removing the front wheel and tire (A).

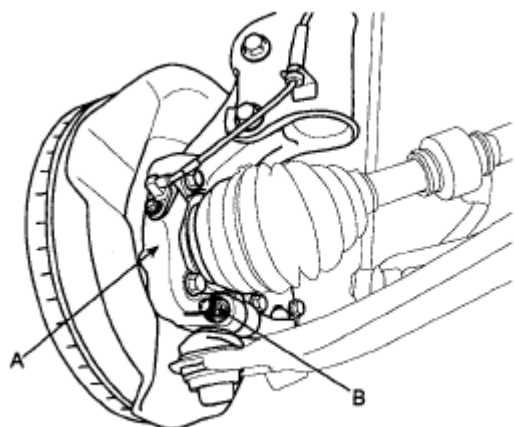
3. Remove the front stabilizer link (A) from the strut assembly.



SCMSS6603D

Fig. 27: Locating Front Stabilizer Link
Courtesy of HYUNDAI MOTOR CO.

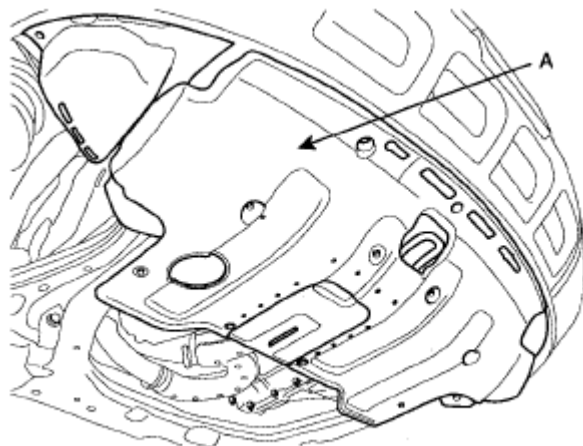
4. Remove the split pin and front lower arm mounting bolt (B) from the knuckle (A).



SCMSS6505D

Fig. 28: Locating Hub Bolts And Front Wheel And Tire
Courtesy of HYUNDAI MOTOR CO.

5. Remove the under cover (A).



SCMSS6506N

Fig. 29: Locating Under Cover
Courtesy of HYUNDAI MOTOR CO.

6. Remove the connecting bolt (A) between the steering universal joint assembly and the pinion shaft.
7. Disconnect the EPS connector (B).

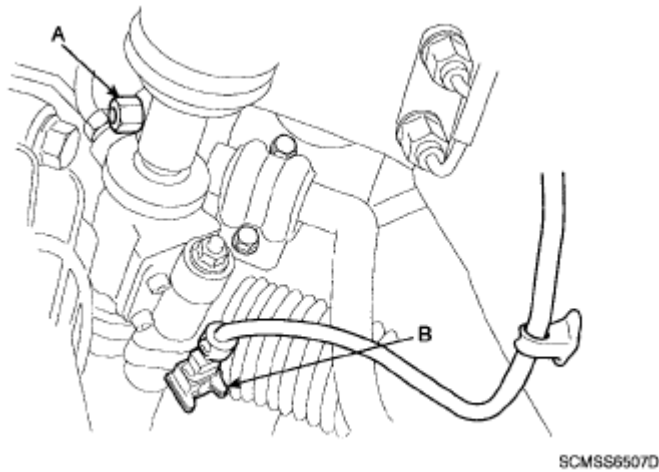


Fig. 30: Locating EPS Connector And Connecting Bolt
Courtesy of HYUNDAI MOTOR CO.

8. Remove the front muffler (A).

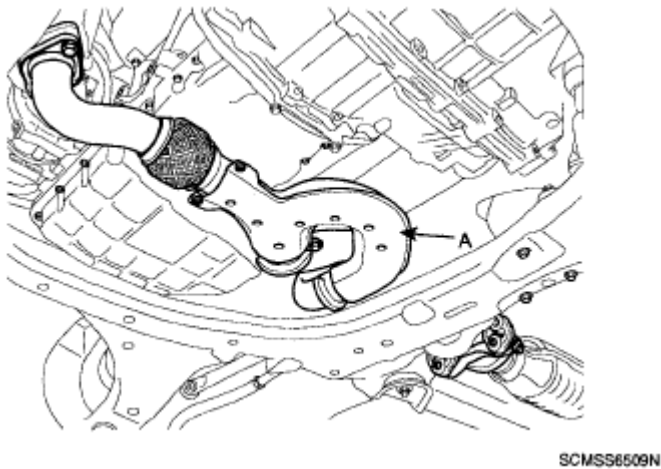
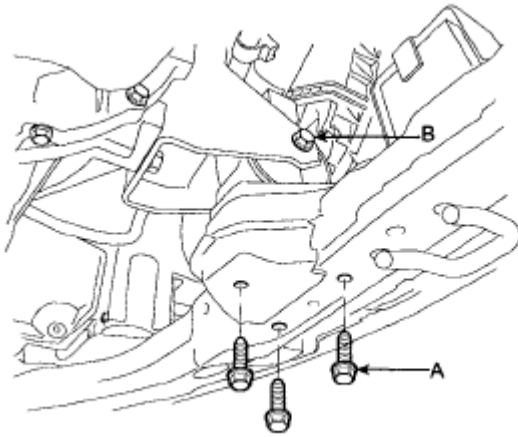


Fig. 31: Locating Front Muffler
Courtesy of HYUNDAI MOTOR CO.

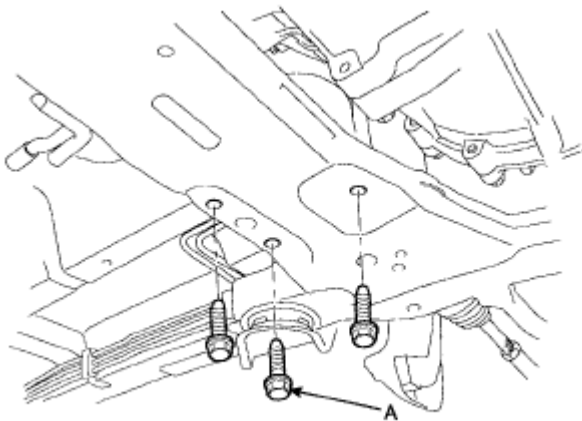
9. Remove the front roll stopper mounting bolts (A).



SCMSS6509D

Fig. 32: Locating Front Roll Stopper Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

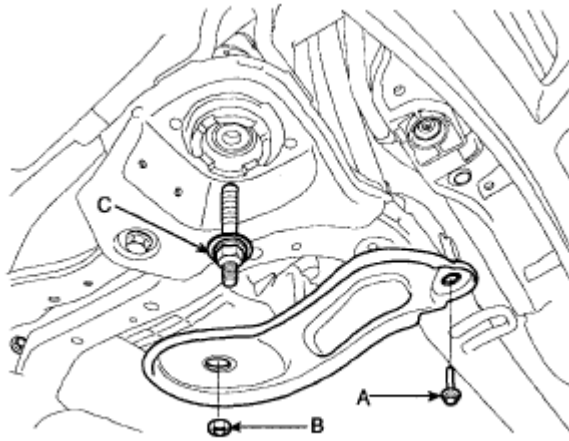
10. Remove the rear roll stopper mounting bolts (A).



SCMSS6510D

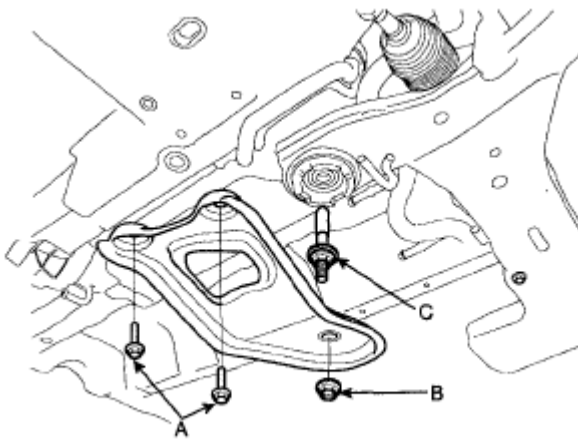
Fig. 33: Locating Rear Roll Stopper Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

11. Remove the sub frame stay mounting bolts (A), nuts (B) and the sub frame mounting bolts (C) by supporting it with a jack.



SCMSS8004D

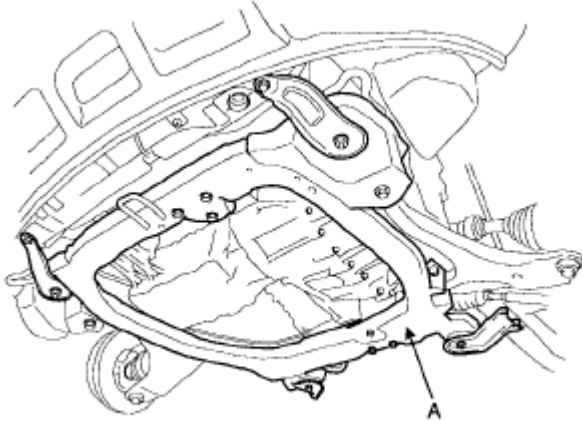
Fig. 34: Locating Sub Frame Stay Mounting Bolts And Nuts
Courtesy of HYUNDAI MOTOR CO.



SCMSS8005D

Fig. 35: Locating Sub Frame Stay Mounting Bolts, Nuts And Sub Frame Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

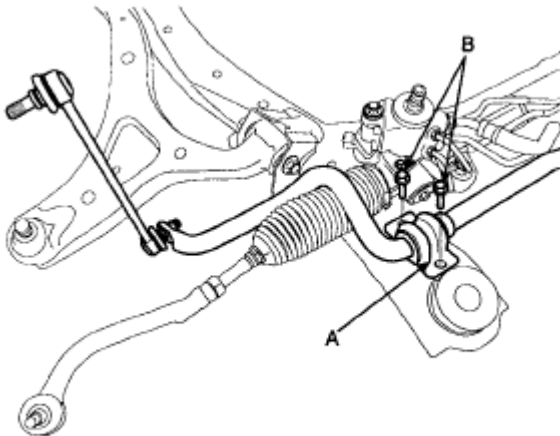
12. Remove the sub frame (A).



SCMSS6511D

Fig. 36: Locating Sub Frame
Courtesy of HYUNDAI MOTOR CO.

13. Remove the stabilizer bar bracket (A) mounting bolts (B) from the sub frame.



SCMSS6006D

Fig. 37: Locating Stabilizer Bar Bracket And Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

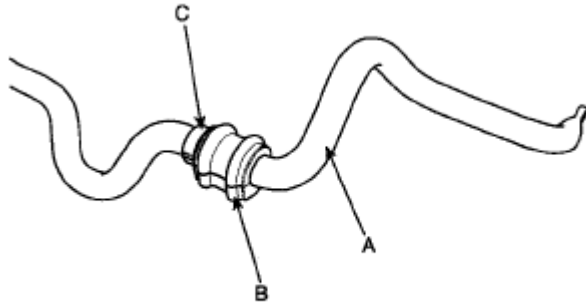
14. Remove the stabilizer bar.

INSPECTION

1. Check the bushing for wear and deterioration.
2. Check the stabilizer bar for bending or breakage.
3. Check the ball joint dust cover for cracks.
4. Check all bolts.

INSTALLATION

1. Install the bushing (B) on the stabilizer bar (A).



SCMSS6007D

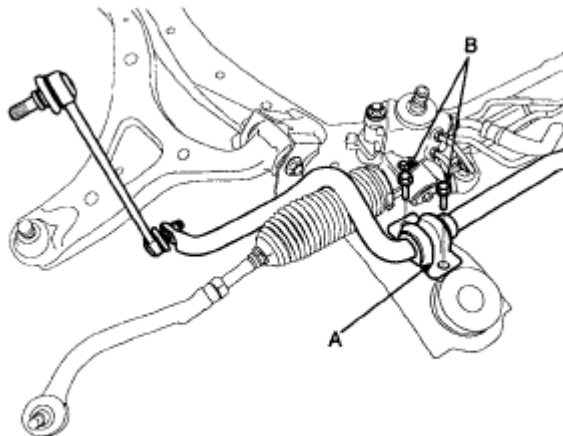
Fig. 38: Locating Bushing And Stabilizer Bar
Courtesy of HYUNDAI MOTOR CO.

NOTE: Bring clamp (C) of stabilizer bar (A) into contact with bushing (B).

2. Install the bracket on the bushing (B).
3. Install the stabilizer bar to the sub frame.
4. Install the stabilizer bar bracket (A) mounting bolts (B).

Tightening torque Nm (kgf-m, lb-ft):

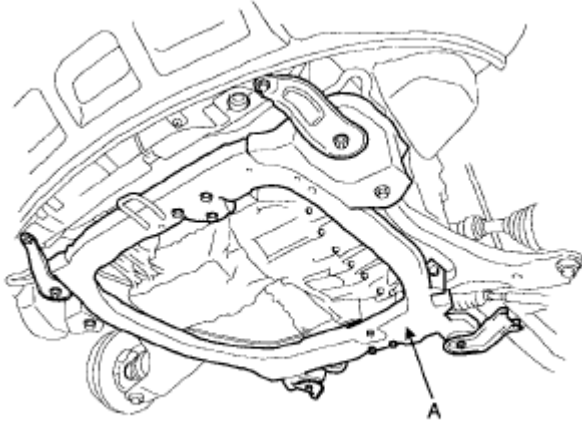
Bolt (B) : 49.0~63.7 (5.0~6.5, 36.2~47.0)



SCMSS6006D

Fig. 39: Locating Stabilizer Bar Bracket And Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

5. Install the sub frame (A) by supporting it with a jack.



SCMSS6511D

Fig. 40: Locating Sub Frame

Courtesy of HYUNDAI MOTOR CO.

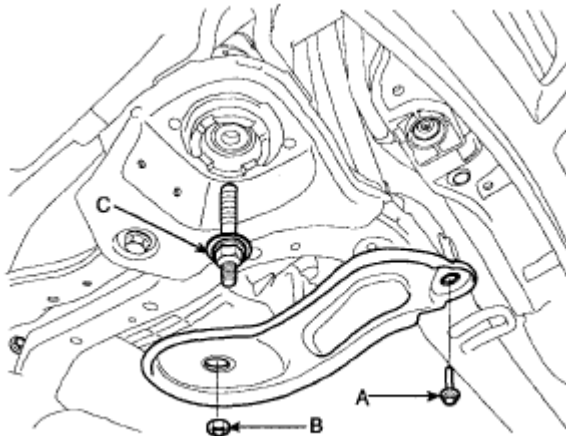
6. Install the sub frame stay mounting bolts (A), nuts (B) and the sub frame mounting bolts (C).

Tightening torque Nm (kgf-m, lb-ft):

Bolt (A) : 68.6~88.3 (7.0~9.0, 50.6~65.1)

Nut (B) : 68.6~88.3 (7.0~9.0, 50.6~65.1)

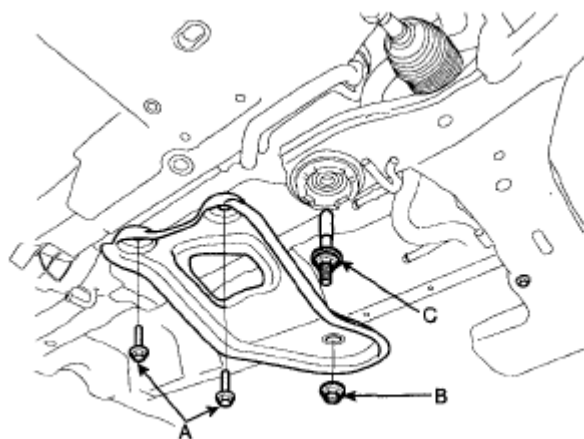
Bolt (C) : 137.3~156.9 (14~16, 101.3~115.7)



SCMSS6004D

Fig. 41: Locating Sub Frame Stay Mounting Bolts And Nuts

Courtesy of HYUNDAI MOTOR CO.



SCMSS6005D

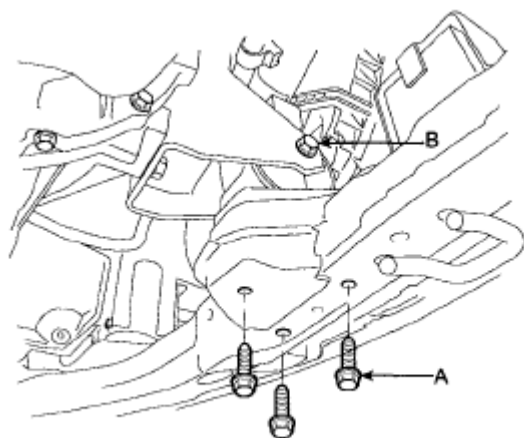
Fig. 42: Locating Sub Frame Stay Mounting Bolts, Nuts And Sub Frame Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

7. Install the front roll stopper mounting bolts (A).

Tightening torque Nm (kgf-m, lb-ft) :

Bolt (A) : 49.0~63.7 (5.0~6.5, 36.2~47.0)

Bolt (B) : 78.5~98.1 (8.0~10.0, 57.9~72.3)



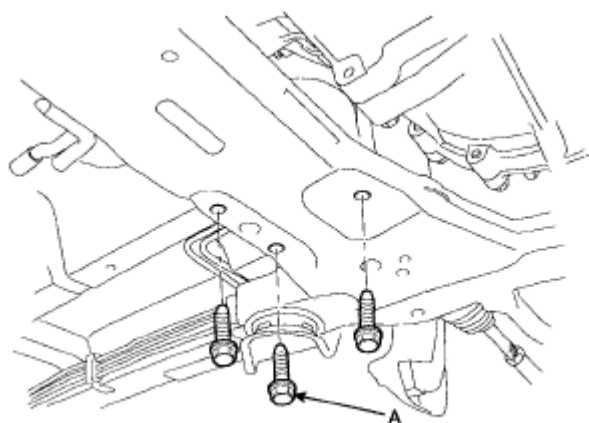
SCMSS6509D

Fig. 43: Locating Front Roll Stopper Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

8. Install the rear roll stopper mounting bolts (A).

Tightening torque Nm (kgf-m, lb-ft):

Bolt (A) : 49.0~63.7 (5.0~6.5, 36.2~47.0)



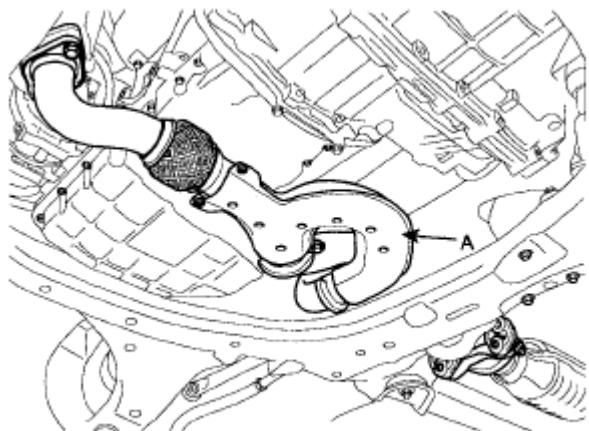
SCMSS65100

Fig. 44: Locating Rear Roll Stopper Mounting Bolts
Courtesy of HYUNDAI MOTOR CO.

9. Install the front muffler (A).

Tightening torque Nm (kgf-m, lb-ft):

39.2~58.8 (4.0~6.0, 28.9~43.4)



SCMSS6509N

Fig. 45: Locating Front Muffler
Courtesy of HYUNDAI MOTOR CO.

10. Install the connecting bolt (A) between the steering universal joint assembly and the pinion shaft.

Tightening torque Nm (kgf-m, lb-ft):

29.4~44.1 (3.0~4.5, 21.7~32.5)

11. Reconnect the EPS connector (B).

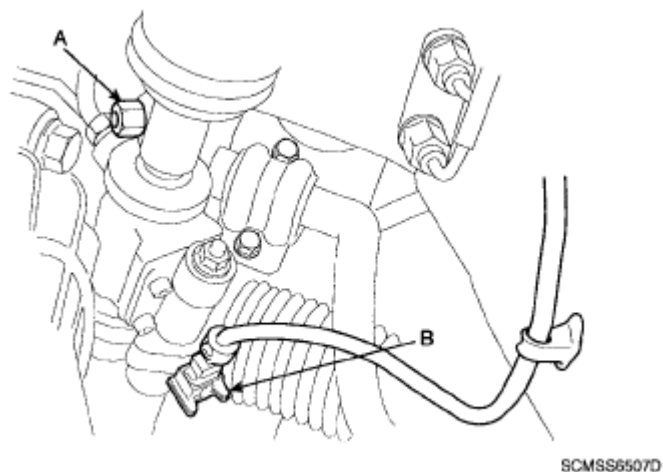


Fig. 46: Locating EPS Connector And Connecting Bolt
Courtesy of HYUNDAI MOTOR CO.

12. Install the under cover (A).

Tightening torque Nm (kgf-m, lb-ft)

16.7~25.5 (1.7~2.6, 12.3~18.8)

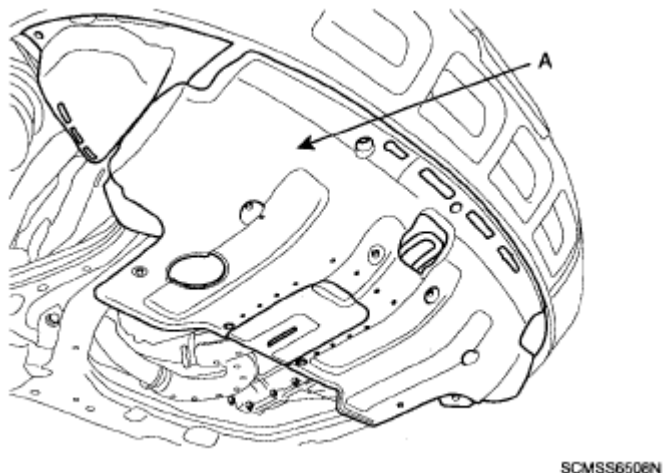
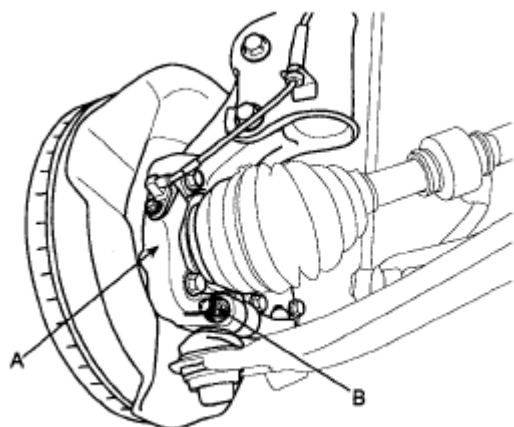


Fig. 47: Locating Under Cover
Courtesy of HYUNDAI MOTOR CO.

13. Install the split pin and front lower arm mounting bolt (B) to the knuckle (A).

Tightening torque Nm (kgf-m, lb-ft):

98.1~117.7 (10.0~12.0, 72.3~86.8)



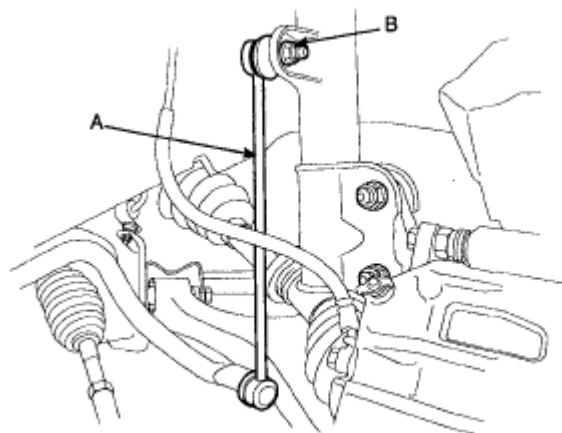
SCMSS6505D

Fig. 48: Locating Hub Bolts And Front Wheel And Tire
Courtesy of HYUNDAI MOTOR CO.

14. Install the front stabilizer link (A) to the strut assembly.

Tightening torque Nm (kgf-m, lb-ft):

Nut (B) : 98.1~117.7 (10.0~12.0, 72.3~86.8)



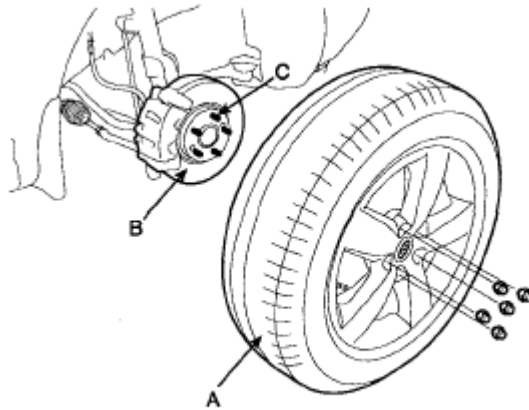
SCMSS6504D

Fig. 49: Locating Front Stabilizer Link
Courtesy of HYUNDAI MOTOR CO.

15. Install the wheel and tire (A) to the front hub (B).

Tightening torque Nm (kgf-m, lb-ft):

88.3~107.9 (9~11, 65.1~79.6)



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Fig. 50: Locating Wheel And Tire And Front Hub
Courtesy of HYUNDAI MOTOR CO.

CAUTION: Be careful not to damage the hub bolts (C) when installing the front wheel and tire (A).