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RS

REAR AXLE & SUSPENSION

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MRS00001-00000

PRECAUTION

1. In this manual, explanation is made, mainly using illustrations for the right suspension of the vehicle. Since the left suspension is basically symmetrical with the right suspension, illustrations of the left suspension are omitted.
2. If the vehicle should be raised with the garage jack applied to the rear suspension beam, the beam may be damaged.
Use the transport hook section as the jacking-up point.
For the details, see Section GI.

MRS00002-00000

PRIOR CHECK

CHECK OF TIRES

1. Visually inspect the tires for uneven wear.
2. Check the tire air inflation pressure.

NOTE:

- The check should be performed with the vehicle parked at a level place.

The vehicle to be checked should have the vehicle weight in an unloaded state. The vehicle weight in an unloaded state means the vehicle weight when the fuel is filled to the full level, and the spare tire, standard tools and jack are stored in the specified positions.

Tire Size: 145/80R13 75S

165/65R14 79S

Air pressure: 197 KPa (2.0 kgf/cm²)

3. Jack up the vehicle and place the safety stand underneath the vehicle.
4. With a dial gauge applied to the tire, measure the runout.

Specified Value:

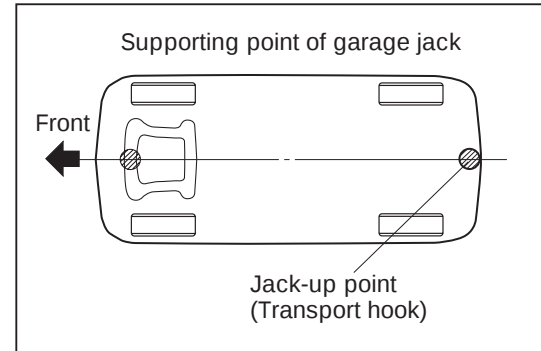
Not to exceed 2 mm in a right-and-left direction

Not to exceed 1.4 mm in an up-and-down direction

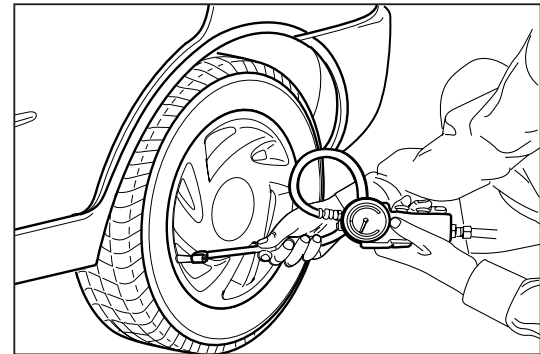
NOTE:

- Prior to the check, the vehicle should be operated at a speed of 60 km/h to 80 km/h for at least 30 minutes. After this run, the measurement should be performed within five minutes.

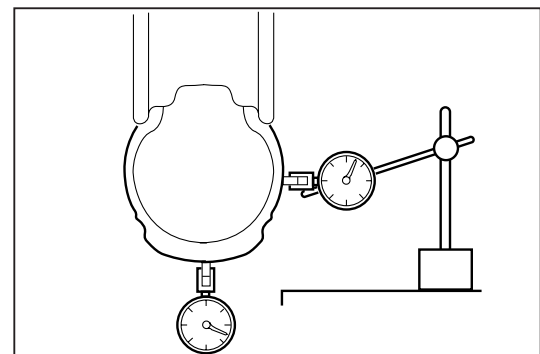
5. If defects are found, replace the wheel or tire.



MRS00003-00001



MRS00004-00002



MRS00005-00003

CHECK OF AXLE BEARING

1. Jack up the vehicle and remove the rear wheel.
See Section GI.
2. Perform the following measurements with a dial gauge applied to the end surface and circumference surface of the brake drum as shown in the figure.

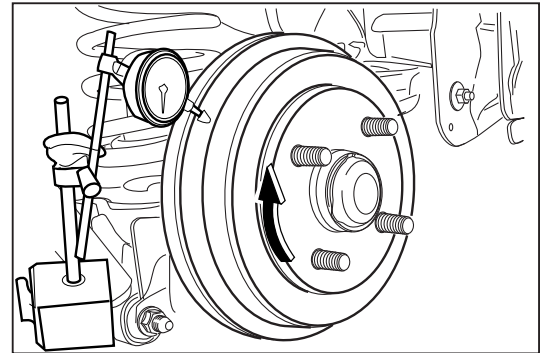
Specified Value:

Not to exceed 0.8 mm

(Move the drum in the axial direction.)

Not to exceed 0.1 mm

(Move the drum in the up-and-down direction.)



MRS00006-00004

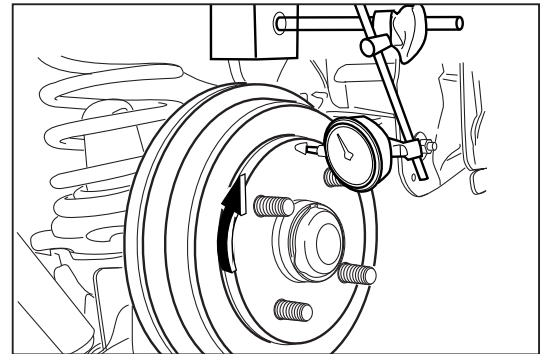
3. If the drum exhibits defects, replace it.
See page RS-8.

CHECK OF AXLE HUB (BRAKE DRUM)

1. Jack up the vehicle and remove the rear wheel.
See Section GI.
2. Measure the runout when the brake drum is turned one turn with a dial gauge applied to the end surface of the brake drum as shown in the figure.

Specified Value: Not to exceed 0.2 mm.

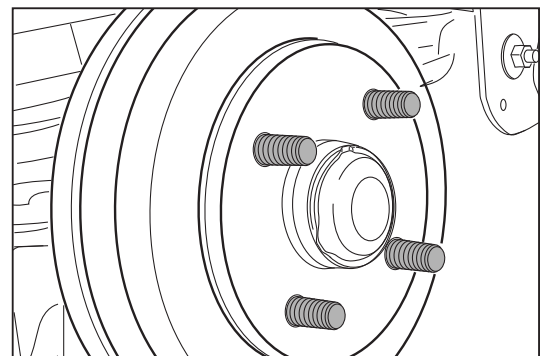
3. If the drum exhibits defects, replace it.
See page RS-8.



MRS00007-00005

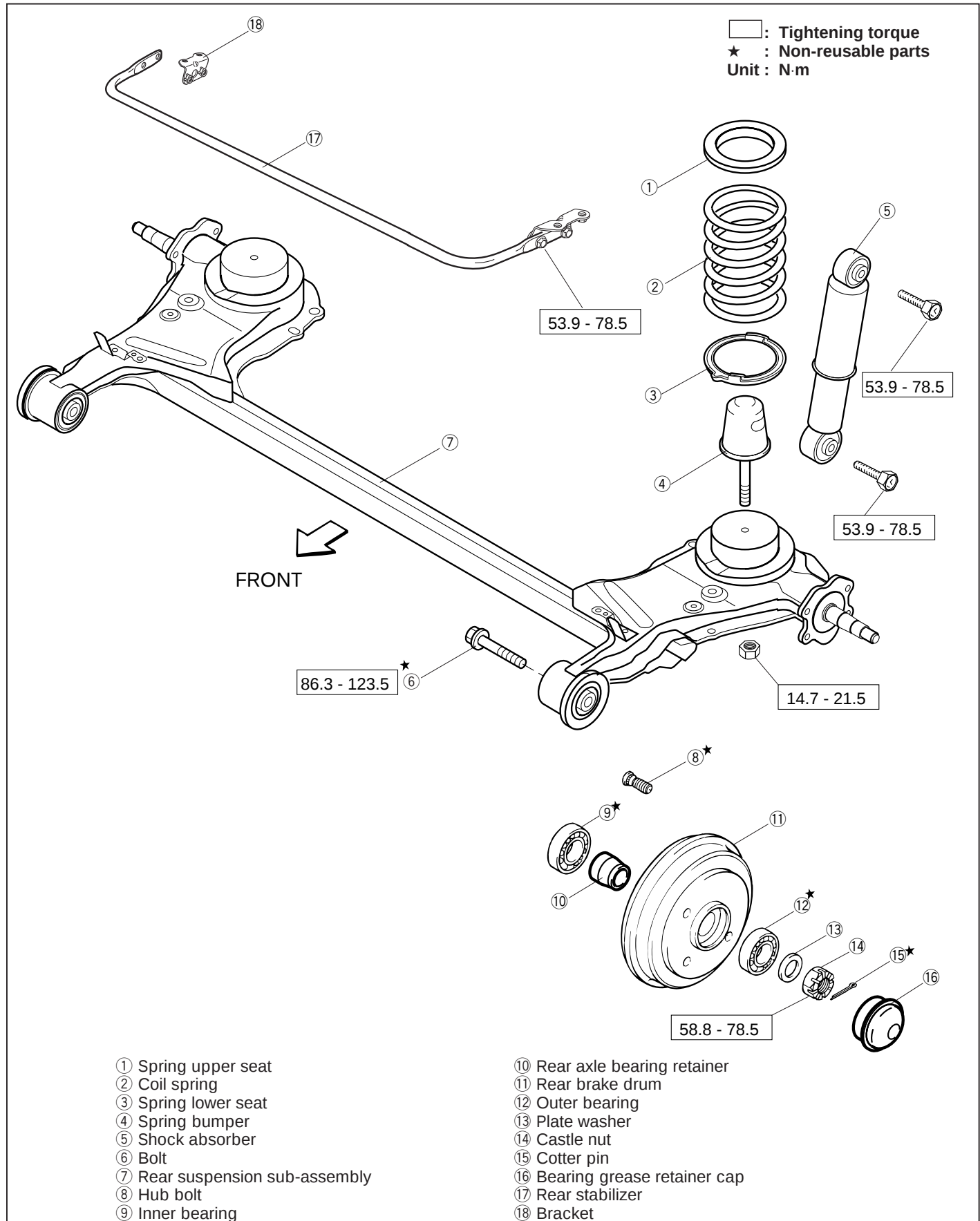
CHECK OF HUB BOLTS

1. Jack up the vehicle and remove the rear wheel.
See Section GI.
2. Check the threaded portions of the bolts for defects.
3. If the bolt exhibits defects, replace it.
See page RS-9.



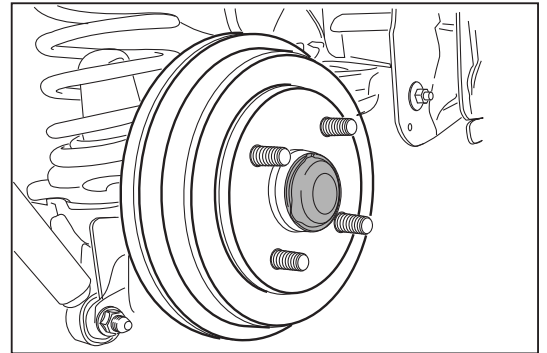
MRS00008-00006

COMPONENTS

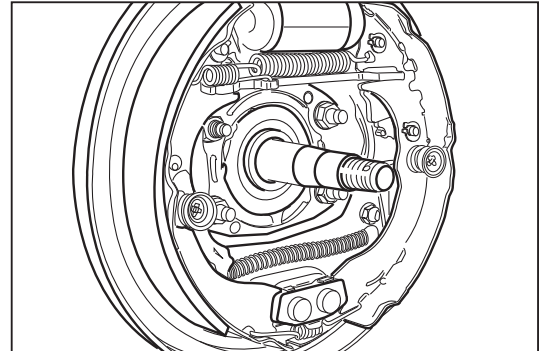


REMOVAL

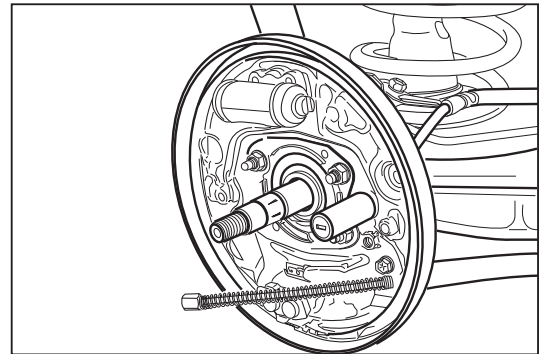
1. Jack up the vehicle and remove the rear wheel.
See Section GI.
2. Remove the bearing grease retainer cap.
3. Remove the cotter pin.
4. Remove the castle nut.
5. Remove the brake drum.
6. Remove the brake shoe.
7. Disconnect the parking brake cable from the brake shoe.
8. Disconnect the parking brake cable from the backing plate.
9. Disconnect the clamp of the parking brake cable.
10. In the case of the vehicle with the ABS brake specification, remove the backing plate. Remove the ABS speed sensor.
11. Disconnect the brake tube from the brake pipe. Remove the clamp.
NOTE:
 - The operations in Steps 10 and 11 are not necessary except for the removal of the rear suspension assembly.



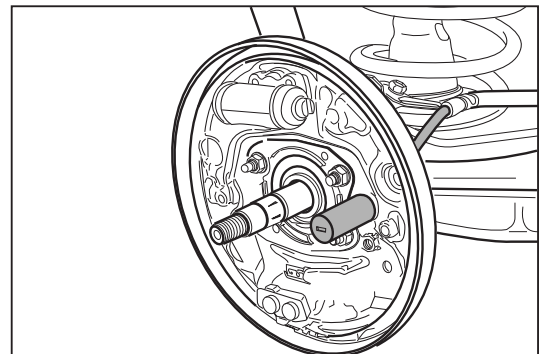
MRS00010-00008



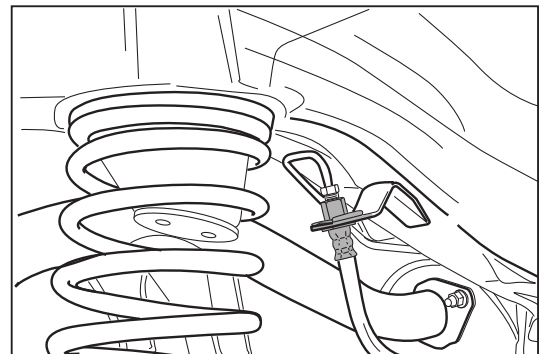
MRS00011-00009



MRS00012-00010

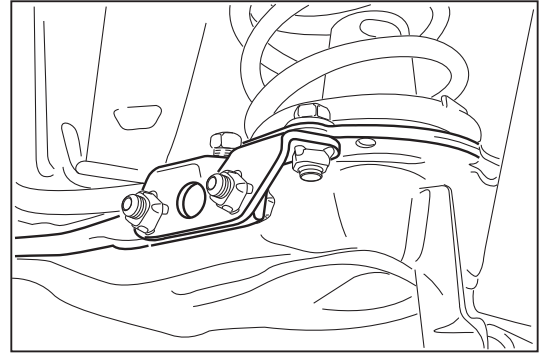


MRS00013-00011



MRS00014-00012

12. Remove the rear stabilizer.



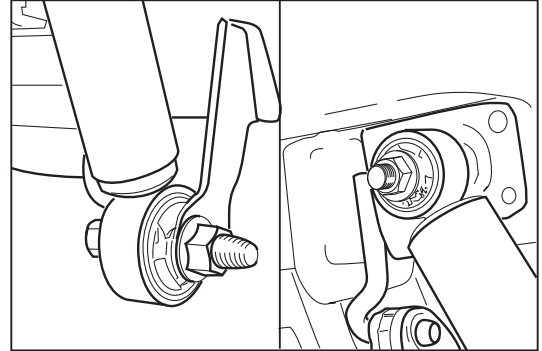
MRS00015-00013

13. Remove the bolt at the lower fulcrum of the shock absorber.

14. Remove the bolt at the upper fulcrum of the shock absorber.

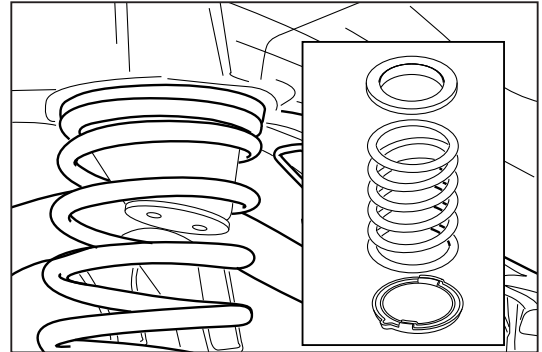
NOTE:

- When the right and left shock absorbers are removed, the tension of the coil spring is applied to the suspension arm. Therefore, apply a jack temporarily to underneath the suspension arm so as to release the tension.



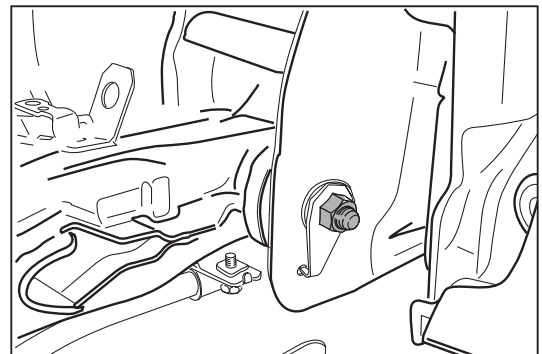
MRS00016-00014

15. Gradually lower the jack and remove the spring, spring upper seat and spring lower seat.

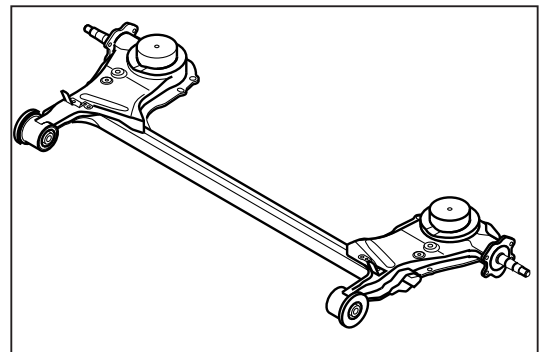


MRS00017-00015

16. Remove the connecting bolt. Remove the rear suspension assembly from the vehicle.



MRS00018-00016

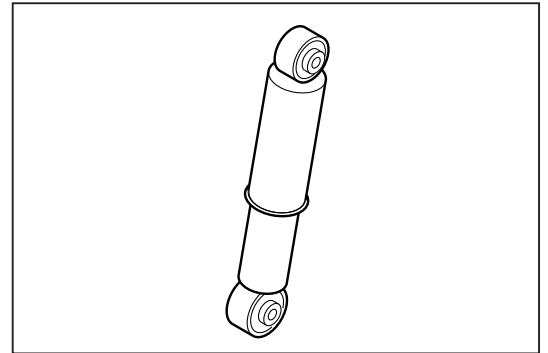


MRS00000-00017

INSPECTION

SHOCK ABSORBER

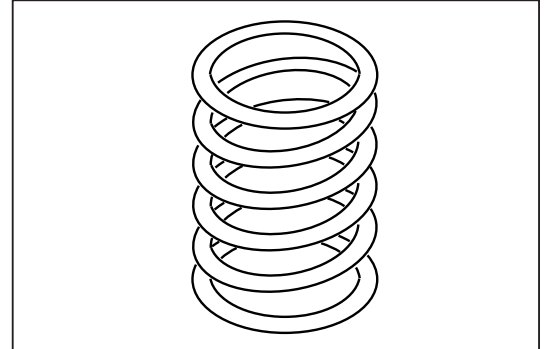
1. Contract and expand the shock absorber. Ensure that the shock absorber moves smoothly.
2. Check the absorber for oil leakage.
3. Check the absorber for damage, rust formation, etc.
4. Check the bush of the installation section for wear and cracks.
5. Replace the shock absorber if it exhibits defects.



MRS00019-00018

COIL SPRING

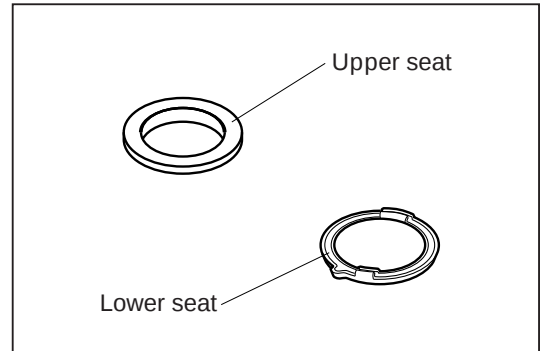
1. Check the coil spring for damage, rust formation, etc.
2. Replace the coil spring if it exhibits defects.



MRS00020-00019

SPRING SEAT (Upper & Lower)

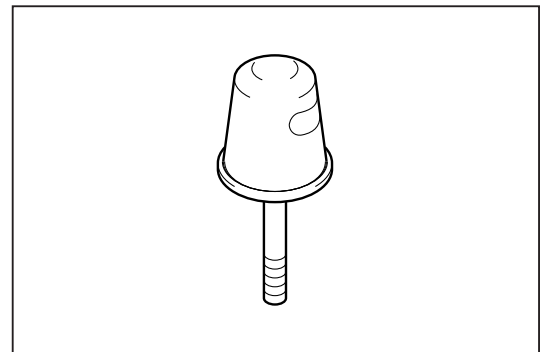
1. Clean the spring seat if mud or dusts has adhered to it.
2. Check the spring seats for damage.
3. Check the spring seats for wear and cracks.
4. Replace the spring seat if it exhibits defects.



MRS00021-00020

SPRING BUMPER

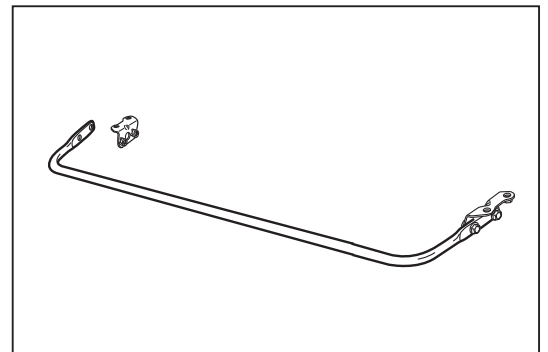
1. Clean the spring bumper if mud or dusts has adhered to it.
2. Check the spring bumper for damage.
3. Check the spring bumper for cracks.
4. Replace the spring bumper if it exhibits defects.



MRS00022-00021

STABILIZER

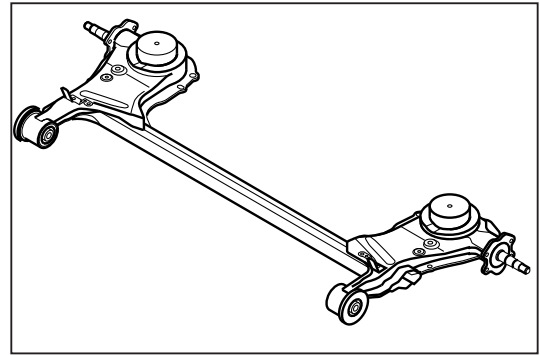
1. Check the bar and bracket for damage.
2. Check the bar for twist and bend.
3. Replace the bar if it exhibits defects.



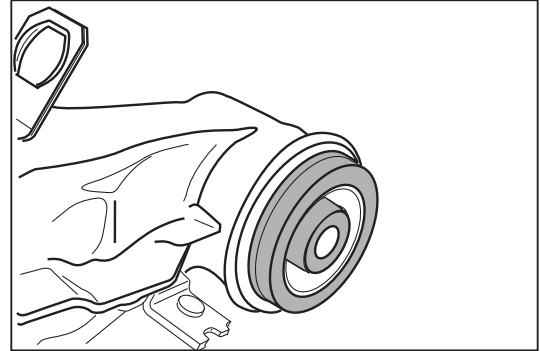
MRS00023-00022

REAR SUSPENSION SUBASSEMBLY

1. Check the beam and other sections for damage.
 2. Check the subassembly for twist and bend.
-
3. Check the suspension arm bush for wear and cracks.
 4. Replace the rear suspension subassembly if it exhibits defects.



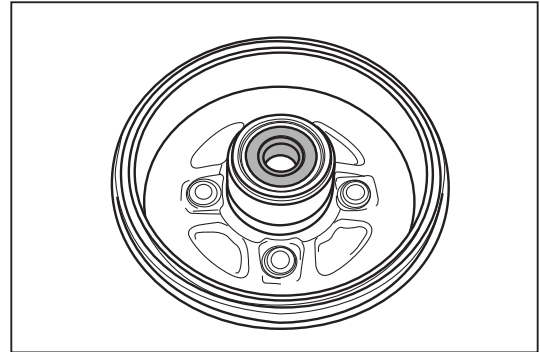
MRS00024-00023



MRS00025-00024

WHEEL BEARING

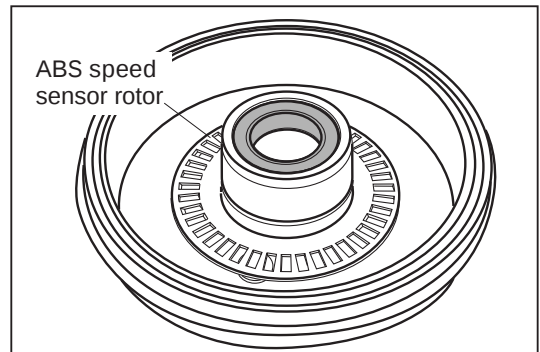
1. Turn the inner race with your finger. Check that there is no excessive play.
2. Check that grease has been applied thoroughly.
3. Replace the wheel bearing if it exhibits defects.



MRS00026-00025

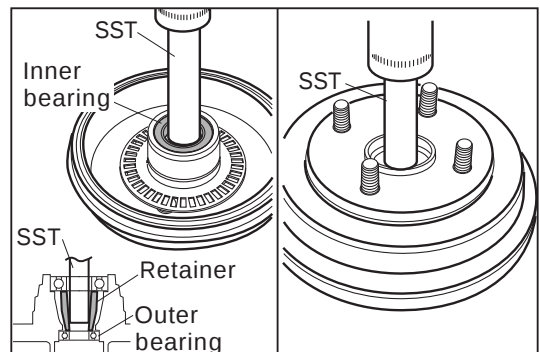
DISASSEMBLY

1. Remove the ABS speed sensor rotor.
NOTE:
 - It is not necessary to perform this removal, except for the replacement of the hub bolt. (Non-reusable part)
2. Remove the hub bolt, using a hydraulic press.



MRS00027-00026

3. Remove the outer bearing with a hydraulic press in combination with the following SST given below.
SST: 09301-87702-000



MRS00028-00027

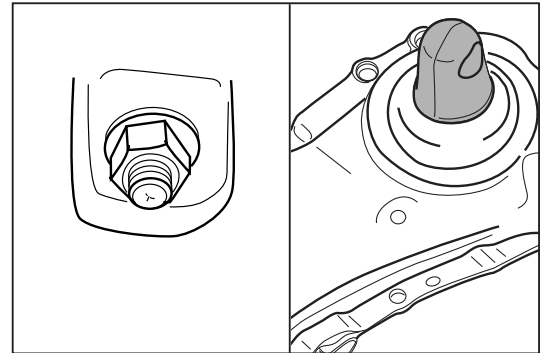
NOTE:

- With the SST applied to the rear axle bearing retainer, pull it out with the outer bearing.
4. Remove the inner bearing with a hydraulic press in combination with the following SST given below.
SST: 09237-87201-000

ASSEMBLY

1. Install the spring bumper to the rear suspension assembly by tightening it to the lower surface of the assembly with the nut.

Tightening Torque: 14.7 - 21.5 N·m



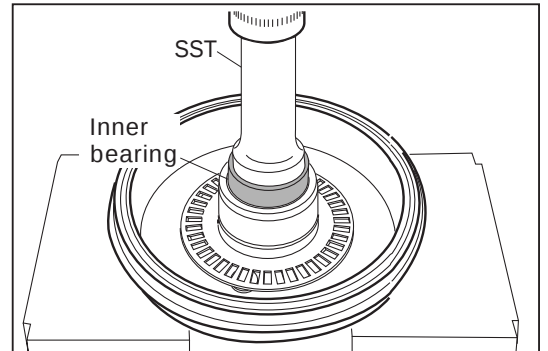
MRS00029-00028

2. Press-fit the inner bearing into the rear brake drum with a hydraulic press in combination with the following SST given below.

SST: 09309-87201-000

NOTE:

- Perform this installation in such a way that the dust cover of the bearing comes faces the outside. (In the illustration, the dust cover must face upward.)

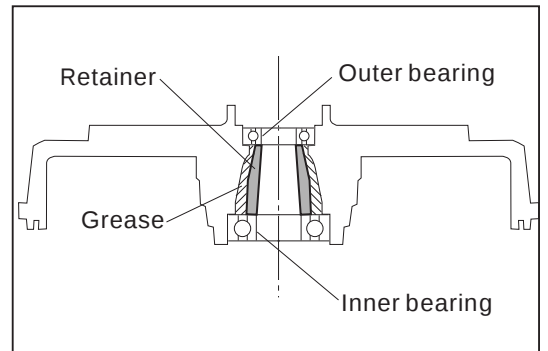


MRS00030-00029

3. Pack grease.
4. Install the rear axle bearing retainer.

NOTE:

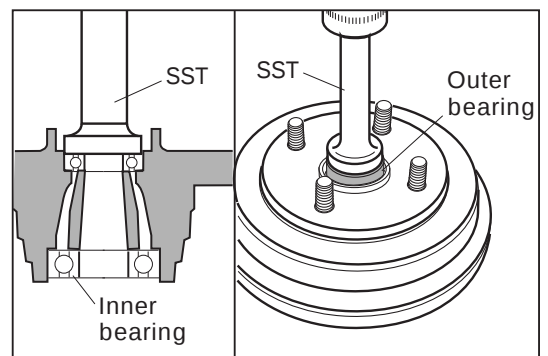
- The greater diameter side should come at the inner bearing side.



MRS00031-00030

5. Press-fit the outer bearing into the rear brake drum with a hydraulic press in combination with the following SST given below.

SST: 09515-87201-000

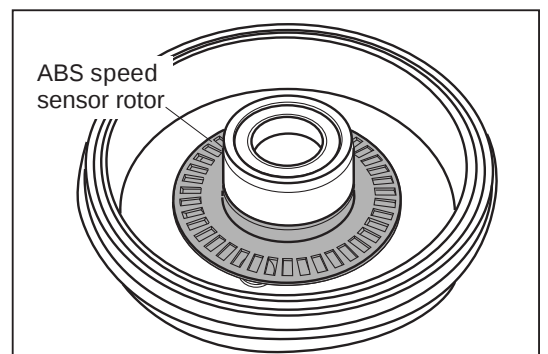


MRS00032-00031

6. Press-fit a new hub bolt into the rear brake drum with a hydraulic press.
(Only when the hub bolt was removed)
7. Press-fit a new ABS speed sensor rotor to the rear brake drum with a hydraulic press.
(Only when the ABS speed sensor rotor was removed)

NOTE:

- Perform the press-fitting, using a suitable cylinder having an inner diameter of about 70 mm. Failure to observe this note may cause distortion of the rotor.



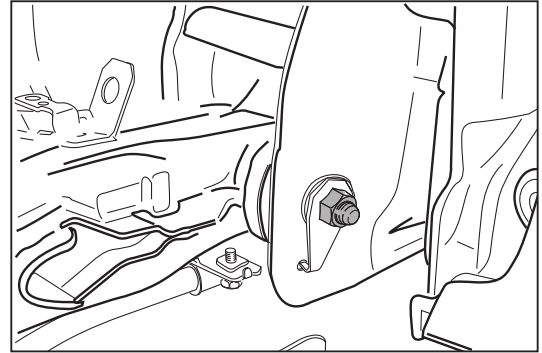
MRS00033-00032

RS-10

INSTALLATION

1. Support the rear suspension subassembly with a jack. Raise the rear suspension subassembly up to the bush installation position of the suspension arm. Insert the bolt and tighten it.

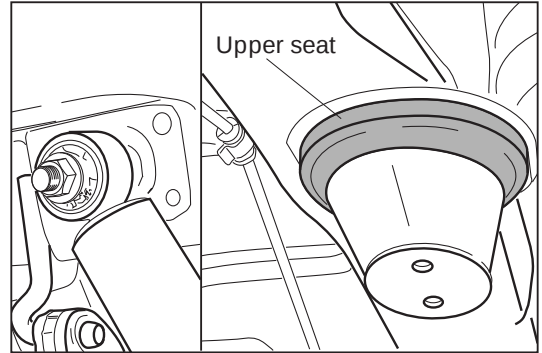
Tightening Torque: 86.3 - 123.5 N·m



MRS00034-00033

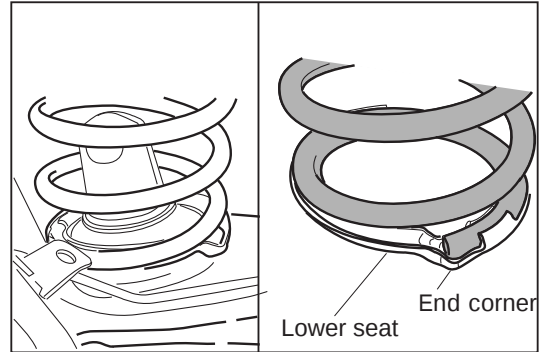
2. Install the upper fulcrum of the shock absorber to the vehicle.

Tightening Torque: 53.9 - 78.5 N·m



MRS00035-00034

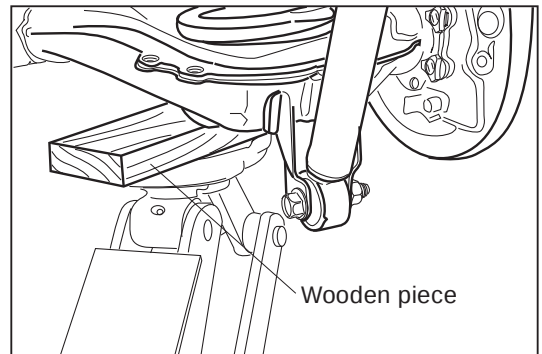
4. Install the spring lower seat to the specified position of the spring. At this time, ensure that the end of the spring comes at the coil end of the rear suspension subassembly.



MRS00036-00035

5. While compressing the spring of the rear suspension arm with a jack, raise the rear suspension subassembly up to the installation section of the lower fulcrum of the shock absorber. Tighten the bolt and nut.

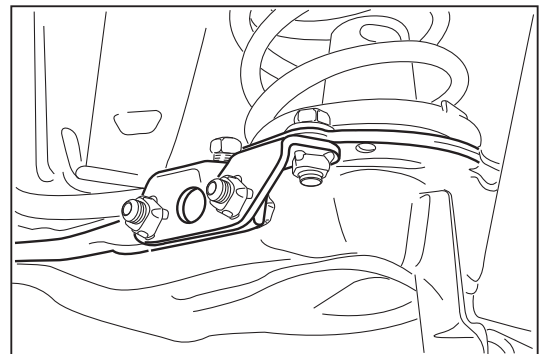
Tightening Torque: 53.9 - 78.5 N·m



MRS00037-00036

6. Install the rear stabilizer to the rear suspension subassembly.

Tightening Torque: 53.9 - 78.5 N·m



MRS00038-00037

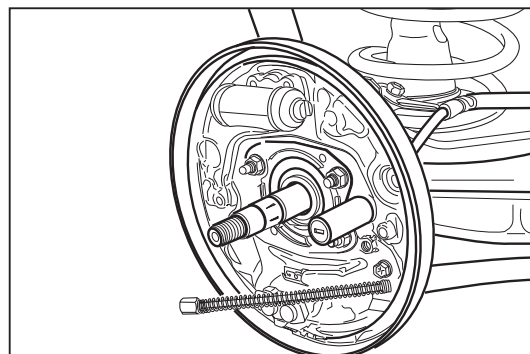
7. Install the ABS speed sensor to the backing plate.

NOTE:

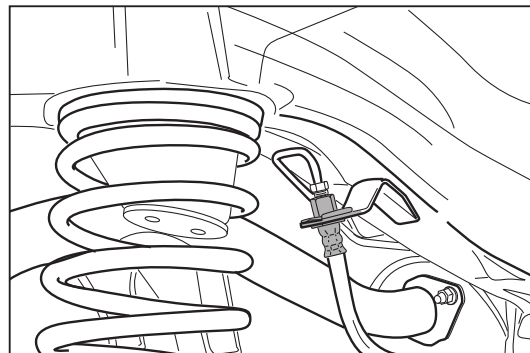
- In the case where the ABS speed sensor has been removed, first install the sensor to the backing plate. Then, install the backing plate to the rear axle. (Refer to Section BR.)

8. Install the parking brake cable to the backing plate.

9. Connect the brake tube to the brake pipe.



MRS00039-00038



MRS00040-00039

10. Install the rear brake drum subassembly to the rear suspension subassembly.

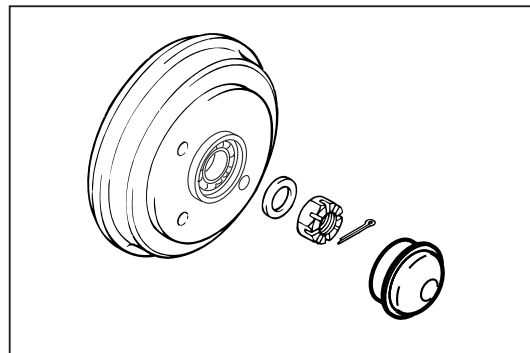
11. Install the plate washer. Tighten the castle nut to the specified torque.

Tightening Torque: 58.8 - 78.5 N·m

12. Prevent the castle nut from being turned with the cotter pin.

13. Pack grease to the grease retainer cap.

14. Install the grease retainer cap to the brake drum.

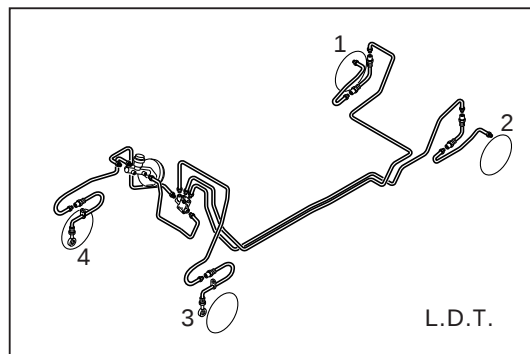


MRS00041-00040

15. Perform air bleeding for the brake hydraulic system.

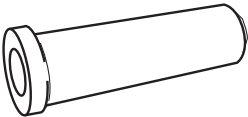
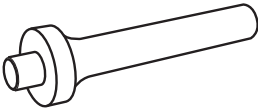
NOTE:

- Perform the air bleeding, starting from the wheel brake cylinder which is the farthest from the master cylinder. For details, refer to Section BR.)



MRS00042-00041

SSTs

Shape	Parts number & Name	Purpose	See page
	09301-87702-000 Clutch guide tool	For removing outer bearing	RS-8
	09237-87201-000 Output shaft bearing replacer	For removing inner bearing	RS-8
	09309-87201-000 Transmission bearing replacer	For press-fitting inner bearing	RS-9
	09515-87201-000 Rear axle bearing outer replacer	For press-fitting outer bearing	RS-9

MRS00043-00000

TIGHTENING TORQUE

Components	N·m	kgf·cm	
Rear suspension assembly × Body	86.3 - 123.5	880 - 1260	
Shock absorber (Upper) × Body	53.9 - 78.5	550 - 800	
Shock absorber (Lower) × Body	53.9 - 78.5	550 - 800	
Rear stabilizer bracket × Suspension arm	53.9 - 78.5	550 - 800	
Rear axle shaft × Castle nut	58.8 - 78.5	600 - 800	
Rear suspension assembly × Spring bumper	14.7 - 21.5	150 - 220	

MRS00044-00000