

SECTION **RSU** REAR SUSPENSION

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PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precautions for Suspension

INFOID:000000009236505

- When installing rubber bushings, the final tightening must be carried out under unladen conditions with tires on ground. Spilled oil might shorten the life of rubber bushings. Be sure to wipe off any spilled oil.
- Unladen conditions mean that fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.
- After servicing suspension parts, be sure to check wheel alignment.
- Self-lock nuts are not reusable. Always use new ones when installing. Since new self-lock nuts are pre-oiled, tighten as they are.

PREPARATION

< PREPARATION >

PREPARATION

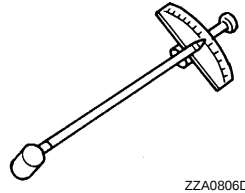
PREPARATION

Special Service Tools

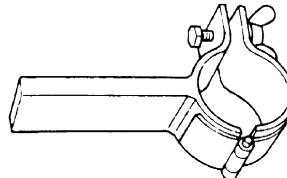
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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
ST3127S000 (J-25765-A) Preload gauge	Measuring rotating torque of ball joint
ST35652000 (-) Shock absorber attachment	Disassembling and assembling shock absorber



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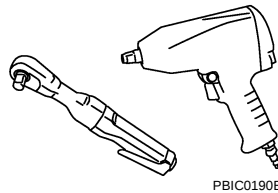


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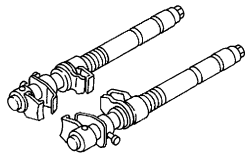
Commercial Service Tools

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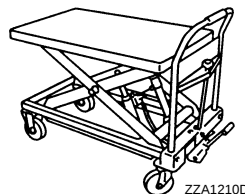
Tool name	Description
Power tool	Loosening bolts and nuts
Spring compressor	Removing and installing coil spring
Manual lift table caddy	Removing and installing rear suspension member



PBIC0190E



S-NT717



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NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:000000009236508

Use chart below to find the cause of the symptom. If necessary, repair or replace these parts.

Symptom			Possible cause and SUSPECTED PARTS						Reference	
REAR SUSPENSION	Noise	x	x	x	x	x	x	RSU-8, RSU-12, RSU-15, RSU-17, RSU-19, RSU-21, RSU-23		
	Shake	x	x	x	x		x	RSU-11		
	Vibration	x	x	x	x	x				
	Shimmy	x	x	x	x					
	Judder	x	x	x						
	Poor quality ride or handling	x	x	x	x	x		x	x	

x: Applicable

REAR SUSPENSION ASSEMBLY

< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE

REAR SUSPENSION ASSEMBLY

Inspection

INFOID:000000009236509

COMPONENT PART

Check the mounting conditions (looseness, backlash) of each component and component conditions (wear, damage) are normal.

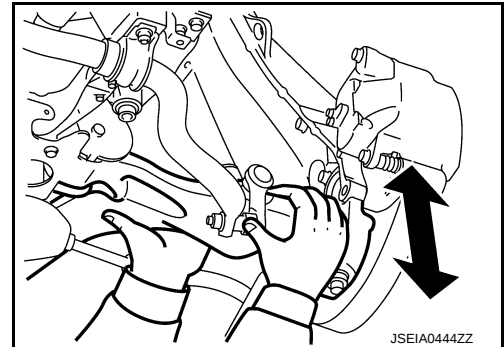
Ball Joint Axial End Play

Move axle side of suspension arm in the axial direction by hand.
Check there is no end play.

Axial end play : Refer to [RSU-28, "Ball Joint"](#).

CAUTION:

- Never depress brake pedal when measuring.
- Never perform with tires on level ground.
- Never damage ball joint boot. Never damage the installation position by applying excessive force.



SHOCK ABSORBER

Check for oil leakage and damage. Replace it if necessary.

WHEEL ALIGNMENT

< PERIODIC MAINTENANCE >

WHEEL ALIGNMENT

Inspection

INFOID:000000009236510

DESCRIPTION

Measure wheel alignment under unladen conditions.

NOTE:

"Unladen conditions" means that fuel, engine coolant, and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

PRELIMINARY CHECK

Check the following:

- Tires for improper air pressure and wear. Refer to [WT-68, "Tire Air Pressure"](#).
- Road wheels for runout.
- Wheel bearing axial end play. Refer to [RAX-6, "Inspection"](#).
- Ball joint axial end play of suspension arm. Refer to [RSU-5, "Inspection"](#).
- Shock absorber operation.
- Each mounting point of axle and suspension for looseness and deformation.
- Each of front lower link, rear lower link, toe control link, rear suspension member, suspension arm and shock absorber for cracks, deformation, and other damage.
- Vehicle height (posture).

GENERAL INFORMATION AND RECOMMENDATIONS

- A four-wheel thrust alignment should be performed.
- This type of alignment is recommended for any NISSAN/INFINITI vehicle.
- The four-wheel "thrust" process helps ensure that the vehicle is properly aligned and the steering wheel is centered.
- The alignment rack itself should be capable of accepting any NISSAN/INFINITI vehicle.
- The rack should be checked to ensure that it is level.
- Make sure the machine is properly calibrated.
- Your alignment equipment should be regularly calibrated in order to give correct information.
- Check with the manufacturer of your specific equipment for their recommended Service/Calibration Schedule.

ALIGNMENT PROCESS

IMPORTANT:

Use only the alignment specifications listed in this Service Manual.

- When displaying the alignment settings, many alignment machines use "indicators": (Green/red, plus or minus, Go/No Go). **Never use these indicators.**
- The alignment specifications programmed into your machine that operate these indicators may not be correct.
- This may result in an ERROR.
- Most camera-type alignment machines are equipped with both "Rolling Compensation" method and optional "Jacking Compensation" method to "compensate" the alignment targets or head units. "Rolling Compensation" is the preferred method.
- If using the "Rolling Compensation" method, after installing the alignment targets or head units, push or pull on the rear wheel to move the vehicle. **Do not push or pull on the vehicle body.**
- If using the "Jacking Compensation" method, after installing the alignment targets or head units, raise the vehicle and rotate the wheels 1/2 turn both ways.

NOTE:

- Do not use the "Rolling Compensation" method if you are using sensor-type alignment equipment.
- Follow all instructions for the alignment machine you're using for more information.

Adjustment

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CAMBER

WHEEL ALIGNMENT

< PERIODIC MAINTENANCE >

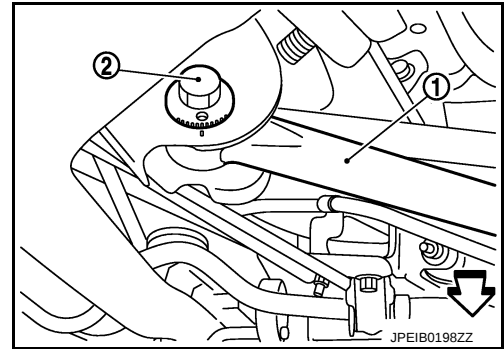
- If camber exceeds the standard value, adjust with adjusting bolt ② in rear lower link ①.

← : Vehicle front

Camber: Refer to [RSU-28, "Wheel Alignment"](#).

CAUTION:

- When tightening the nut firmly and checking the torque, use a wrench to prevent the turning of the bolt.
- After adjusting camber, be sure to check toe-in.
- If camber is not still within the specification, inspect and replace any damaged or worn suspension parts.



TOE-IN

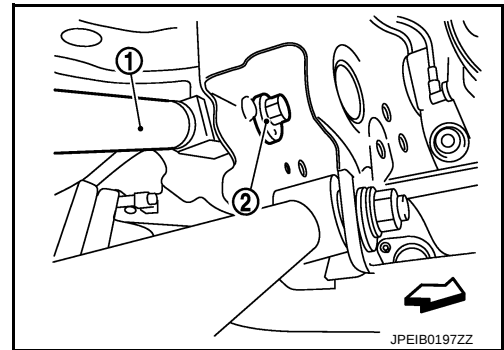
- If toe-in exceeds the standard value, adjust with adjusting bolt ② in toe control link ①.

← : Vehicle front

Toe-In: Refer to [RSU-28, "Wheel Alignment"](#).

CAUTION:

- Be sure to adjust equally on right and left side with adjusting bolt.
- When tightening the nut firmly and checking the torque, use a wrench to prevent the turning of the bolt.
- If toe-in is not still within the specification, inspect and replace any damaged or worn suspension parts.
- After toe-in adjustment, adjust neutral position of steering angle sensor. Refer to [BRC-70, "Work Procedure"](#).



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REAR COIL SPRING AND SHOCK ABSORBER

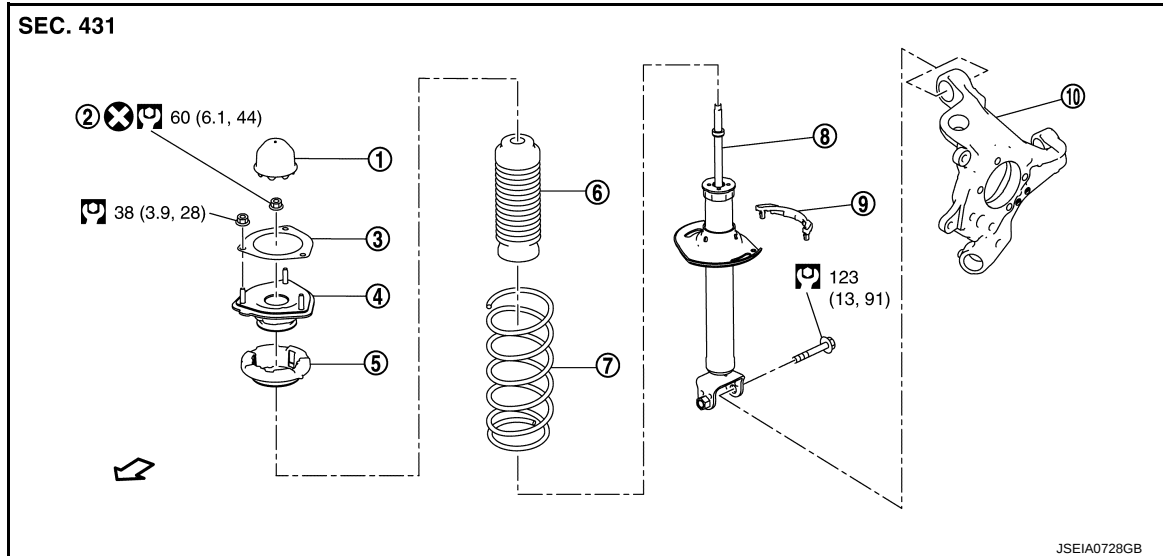
< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

REAR COIL SPRING AND SHOCK ABSORBER

Exploded View

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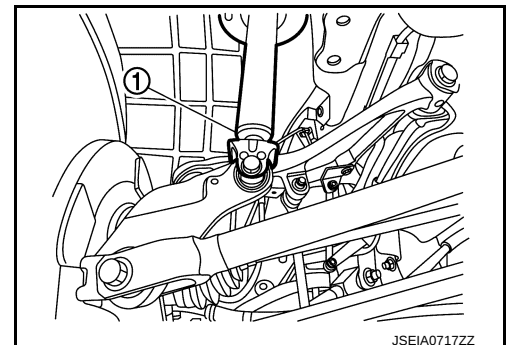


Removal and Installation

INFOID:000000009236513

REMOVAL

1. Remove tires with power tool. Refer to [WT-62, "Removal and Installation"](#).
2. Set jack under axle housing.
CAUTION:
 - Check the stable condition when using a jack.
 - Never damage axle housing with a jack.
3. Remove shock absorber ① from axle housing.



4. Remove the rear parcel shelf finisher. Refer to [INT-33, "Removal and Installation"](#).
5. Remove the seat belt retractor. Refer to [SB-14, "SEAT BELT RETRACTOR : Removal and Installation"](#).

REAR COIL SPRING AND SHOCK ABSORBER

< REMOVAL AND INSTALLATION >

6. Remove mounting insulator nuts, and then remove shock absorber assembly.

INSTALLATION

Note the following, and install in the reverse order of removal.

- Perform final tightening of bolts and nuts at the shock absorber lower side (rubber bushing), under unladen conditions with tires on level ground.
- Perform inspection after installation. Refer to [RSU-11, "Inspection"](#).
- After replacing the shock absorber, always follow the disposal procedure to discard the shock absorber. Refer to [RSU-11, "Disposal"](#).

Disassembly and Assembly

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DISASSEMBLY

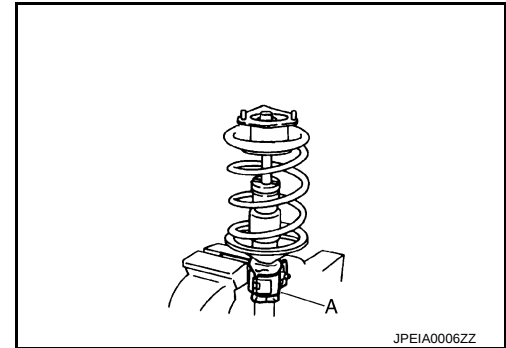
CAUTION:

Never damage shock absorber piston rod when removing components from shock absorber.

1. Remove gasket and cap from mounting insulator.
2. Install shock absorber attachment (A) [SST: ST35652000 (–)] to shock absorber and secure it in a vise.

CAUTION:

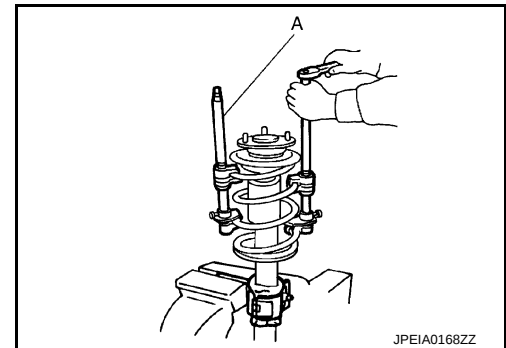
When installing the shock absorber attachment to shock absorber, wrap a shop cloth around shock absorber to protect it from damage.



3. Using a spring compressor (A) (commercial service tool), compress coil spring between rubber seat and shock absorber until coil spring with a spring compressor is free.

CAUTION:

Be sure a spring compressor is securely attached coil spring. Compress coil spring.



4. Make sure coil spring with a spring compressor between rubber seat and shock absorber is free. And then remove piston rod lock nut while securing the piston rod tip so that piston rod does not turn.

CAUTION:

Start compressing the coil spring after checking that the spring compressor is completely attached.

5. Remove mounting insulator, rubber sheet, and bound bumper from shock absorber.
6. After remove coil spring with a spring compressor (commercial service tool), and then gradually release a spring compressor.

CAUTION:

Loosen while making sure coil spring attachment position does not move.

7. Remove the shock absorber attachment [SST: ST35652000 (–)] from shock absorber.

ASSEMBLY

CAUTION:

Never damage shock absorber piston rod when installing components from shock absorber.

1. Install shock absorber attachment [SST: ST35652000 (–)] to shock absorber and secure it in a vise.

CAUTION:

When installing the shock absorber attachment to shock absorber, wrap a shop cloth around shock absorber to protect it from damage.

REAR COIL SPRING AND SHOCK ABSORBER

< REMOVAL AND INSTALLATION >

2. Compress coil spring using a spring compressor (commercial service tool), and install it onto shock absorber.

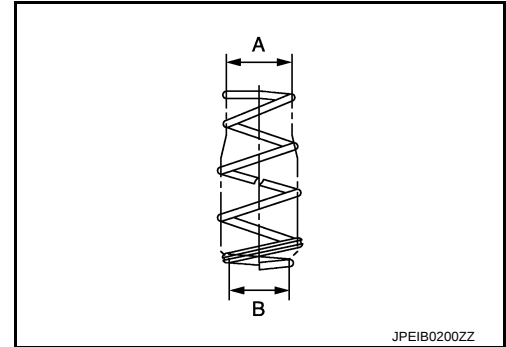
CAUTION:

- Install with the large-diameter side (A) facing up and the small-diameter side (B) facing down.
- Be sure a spring compressor is securely attached to coil spring. Compress coil spring.

3. Apply soapy water to bound bumper.

CAUTION:

Never use machine oil.



4. Install rubber sheet and mounting insulator to shock absorber.

CAUTION:

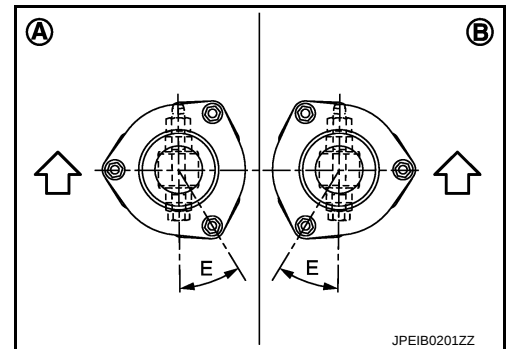
Install the mount insulator so that the stud bolt is in the position shown in the figure.

Ⓐ : LH

Ⓑ : RH

⇐ : Vehicle front (shock absorber lower bolt insertion direction)

Angle (E) : 29.7°



5. Secure piston rod tip so that piston rod does not turn, then tighten piston rod lock nut with specified torque.

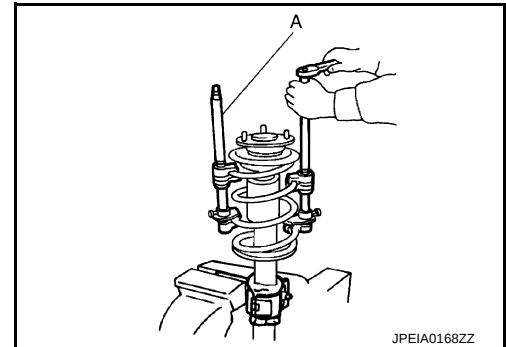
CAUTION:

Never reuse piston rod lock nut.

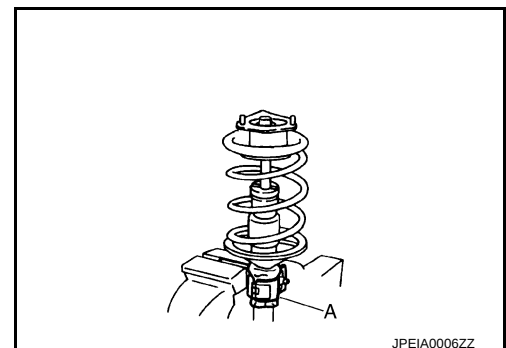
6. Gradually release a spring compressor (A) (commercial service tool), and remove coil spring.

CAUTION:

Loosen while making sure coil spring attachment position does not move.



7. Remove the shock absorber attachment (A) [SST: ST35652000 (-)] from shock absorber.



8. Install the gasket and cap to the mounting insulator.

REAR COIL SPRING AND SHOCK ABSORBER

< REMOVAL AND INSTALLATION >

Inspection

INFOID:000000009236515

INSPECTION AFTER DISASSEMBLY

Shock absorber

Check the following items and replace if necessary.

- Shock absorber for deformation, cracks, and other damage.
- Piston rod for damage, uneven wear, and distortion.
- Oil leakage

Mounting insulator, rubber seat, bound bumper, and gasket

Check for cracks, uneven wear, and damage. Replace if necessary.

Coil spring

Check for cracks, uneven wear, and damage. Replace if necessary.

INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to [RSU-6, "Inspection"](#).

Disposal

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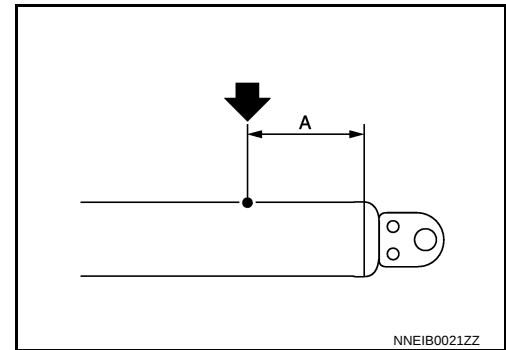
1. Set shock absorber horizontally with the piston rod fully extended.
2. Drill 2 – 3 mm (0.08 – 0.12 in) hole at the position (●) from top as shown in the figure to release gas gradually.

CAUTION:

- Wear eye protection (safety glasses).
- Wear gloves.
- Be careful with metal chips or oil blown out by the compressed gas.

NOTE:

- Drill vertically in this direction (←).
- Directly to the outer tube avoiding brackets.
- The gas is clear, colorless, odorless, and harmless.



A : 20 – 30 mm (0.79 – 1.18 in)

3. Position the drilled hole downward and drain oil by moving the piston rod several times.

CAUTION:

Dispose of drained oil according to the law and local regulations.

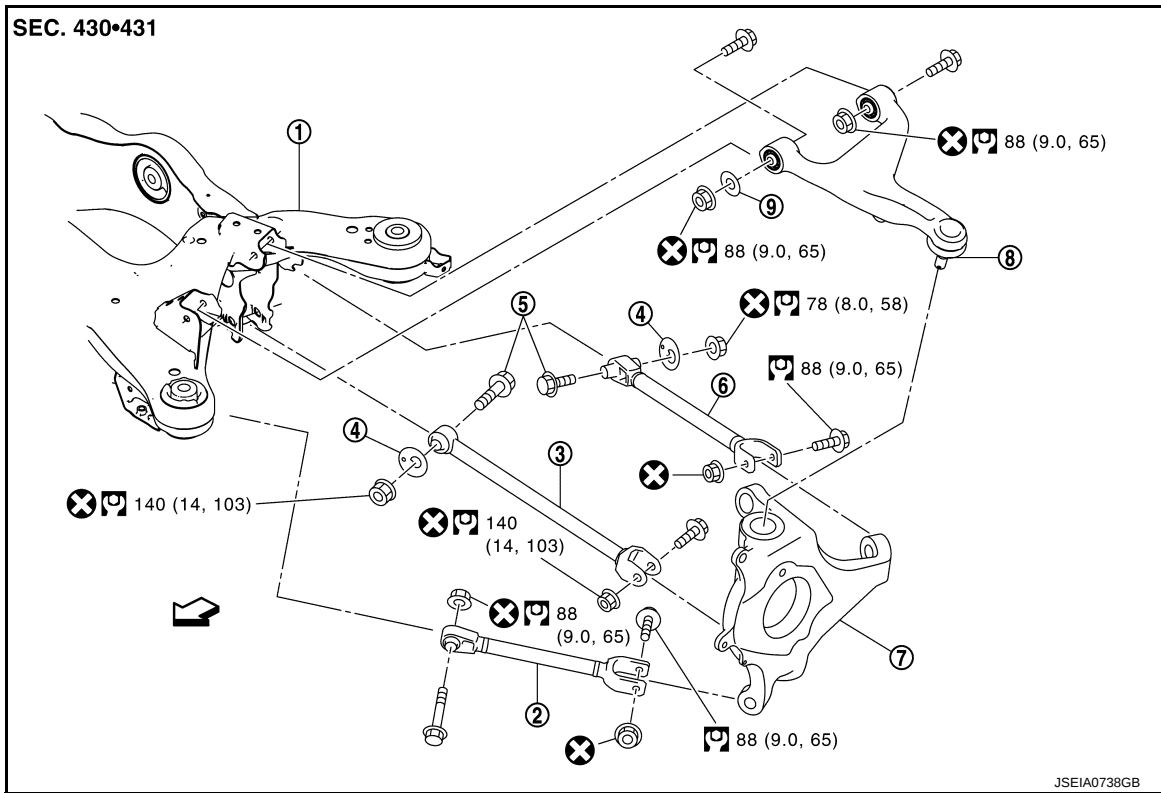
SUSPENSION ARM

< REMOVAL AND INSTALLATION >

SUSPENSION ARM

Exploded View

INFOID:000000009236517



- | | | |
|--------------------------|--------------------|--------------------|
| ① Rear suspension member | ② Front lower link | ③ Rear lower link |
| ④ Eccentric disk | ⑤ Adjusting bolt | ⑥ Toe control link |
| ⑦ Axle housing | ⑧ Suspension arm | ⑨ Stopper bushing |

⇐: Vehicle front

: N·m (kg-m, ft-lb)

: Always replace after every disassembly.

Removal and Installation

INFOID:000000009236518

REMOVAL

Right Side

1. Remove rear suspension assembly. Refer to [RSU-23, "Removal and Installation"](#).
2. Remove stabilizer connecting rod from suspension arm. Refer to [RSU-21, "Exploded View"](#).
3. Separate suspension arm from axle housing. Refer to [RSU-8, "Exploded View"](#).
4. Remove suspension arm from axle housing.
5. Remove stopper bushing, bolts, and nuts, and then remove suspension arm from suspension member.
6. Perform inspection after removal. Refer to [RSU-13, "Inspection"](#).

Left Side

NOTE:

When removing and installing the right side at the same time, it is efficient to remove the suspension arm assembly.

1. Remove tire with power tool. Refer to [WT-62, "Exploded View"](#).
2. Remove caliper assembly. Hang caliper assembly in a place where it will not interfere with work.

SUSPENSION ARM

< REMOVAL AND INSTALLATION >

- 1 piston type: Refer to [BR-68, "BRAKE CALIPER ASSEMBLY \(1 PISTON TYPE\) : Removal and Installation"](#).
- 2 piston type: Refer to [BR-74, "BRAKE CALIPER ASSEMBLY \(2 PISTON TYPE\) : Removal and Installation"](#).

CAUTION:

Never depress brake pedal while brake caliper is removed.

3. Remove disc rotor. Refer to [RAX-8, "Removal and Installation"](#).
4. Remove drive shaft. Refer to [RAX-13, "Removal and Installation"](#).
5. Remove shock absorber from axle housing. Refer to [RSU-8, "Removal and Installation"](#).
6. Remove height sensor from suspension arm. (AFS models) Refer to [EXL-182, "Removal and Installation"](#).
7. Remove stabilizer connecting rod from suspension arm. Refer to [RSU-21, "Removal and Installation"](#).
8. Separate suspension arm from axle housing. Refer to [RSU-12, "Removal and Installation"](#).
9. Remove stopper bushing, bolt, and nut, and then remove suspension arm from suspension member.
10. Perform inspection after removal. Refer to [RSU-13, "Inspection"](#).

INSTALLATION

Note the following and, install in the reverse order of removal.

- Perform final tightening of rear suspension member installation position (rubber bussing), under unladen conditions with tires on level ground.
- Perform inspection after installation. Refer to [RSU-13, "Inspection"](#).

Inspection

INFOID:000000009236519

INSPECTION AFTER REMOVAL

Appearance

Check the following items, and replace the part if necessary.

- Check suspension arm and bushing for deformation, cracks, and other damage.
- Check ball joint boot for cracks, damage, and leakage of grease.

Ball Joint Inspection

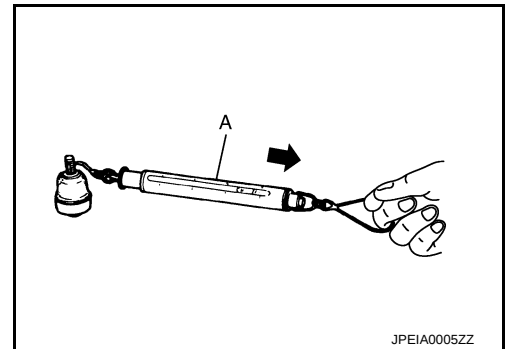
Manually move ball stud to confirm that it moves smoothly with no binding.

Swing Torque Inspection

1. Move the ball stud at least ten times by hand to check for smooth movement.
2. Hook spring balance (A) at cotter pin mounting hole. Confirm spring balance measurement value is within specifications when ball stud begins moving.

Swing torque : Refer to [RSU-28, "Ball Joint"](#).

- If swing torque exceeds the standard range, replace suspension arm assembly.



Rotating Torque Inspection

1. Move the ball stud at least ten times by hand to check for smooth movement.

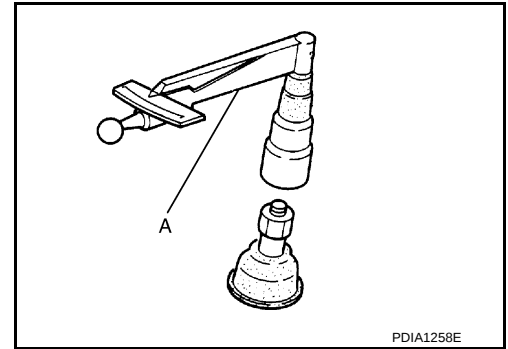
SUSPENSION ARM

< REMOVAL AND INSTALLATION >

2. Attach the mounting nut to ball stud. Make sure that rotating torque is within the specifications with a preload gauge (A) [SST: ST3127S000 (J-25765-A)].

Rotating torque : Refer to [RSU-28, "Ball Joint"](#).

- If rotating torque exceeds the standard range, replace suspension arm assembly.



Axial End Play Inspection

1. Move the ball stud at least ten times by hand to check for smooth movement.
2. Move tip of ball stud in axial direction to check for looseness.

Axial end play : Refer to [RSU-28, "Ball Joint"](#).

- If axial end play exceeds the standard range, replace suspension arm assembly.

INSPECTION AFTER INSTALLATION

Right Side

1. Adjust parking brake operation (stroke). Refer to [PB-5, "Inspection and Adjustment"](#).
2. Check wheel alignment. Refer to [RSU-6, "Inspection"](#).

Left Side

Check wheel alignment. Refer to [RSU-6, "Inspection"](#).

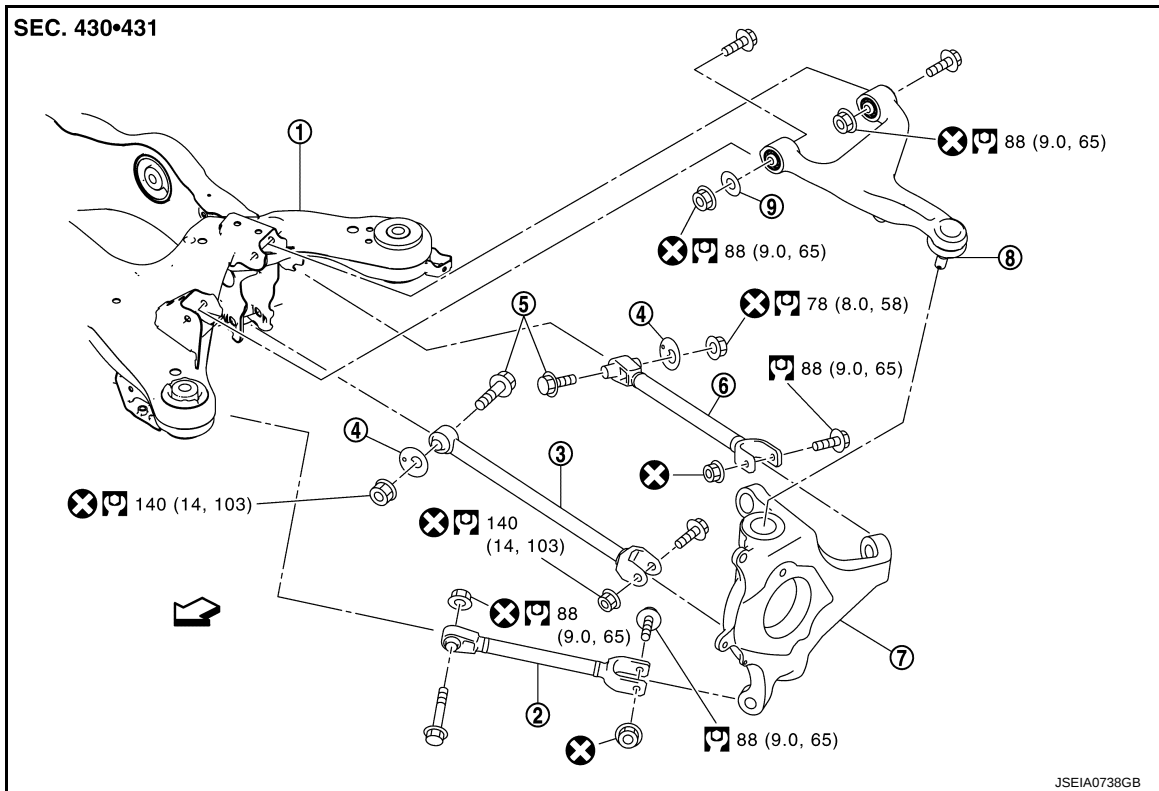
FRONT LOWER LINK

< REMOVAL AND INSTALLATION >

FRONT LOWER LINK

Exploded View

INFOID:000000009616535



- | | | |
|--------------------------|--------------------|--------------------|
| ① Rear suspension member | ② Front lower link | ③ Rear lower link |
| ④ Eccentric disk | ⑤ Adjusting bolt | ⑥ Toe control link |
| ⑦ Axle housing | ⑧ Suspension arm | ⑨ Stopper bushing |

↔ Vehicle front

: N·m (kg-m, ft-lb)

: Always replace after every disassembly.

Removal and Installation

INFOID:000000009236521

REMOVAL

1. Remove tires with power tool. Refer to [WT-62, "Removal and Installation"](#).
2. Set jack under axle housing.
CAUTION:
 - Check the stable condition when using a jack.
 - Never damage axle housing with a jack.
3. Separate shock absorber from axle housing. Refer to [RSU-8, "Removal and Installation"](#).
4. Remove rear under cover. Refer to [EXT-34, "FLOOR UNDER COVER : Exploded View"](#).
5. Remove rear suspension member stay. Refer to [RSU-23, "Exploded View"](#).
6. Remove nuts and bolts, and remove front lower link.
7. Perform inspection after removal. Refer to [RSU-16, "Inspection"](#).

INSTALLATION

Note the following, and install in the reverse order of removal.

- Perform final tightening of rear suspension member installation position (rubber bussing), under unladen conditions with tires on level ground.

FRONT LOWER LINK

< REMOVAL AND INSTALLATION >

- Perform inspection after installation. Refer to [RSU-16, "Inspection"](#).

Inspection

INFOID:000000009236522

INSPECTION AFTER REMOVAL

Check front lower link and bushing for any deformation, cracks, or damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to [RSU-6, "Inspection"](#).

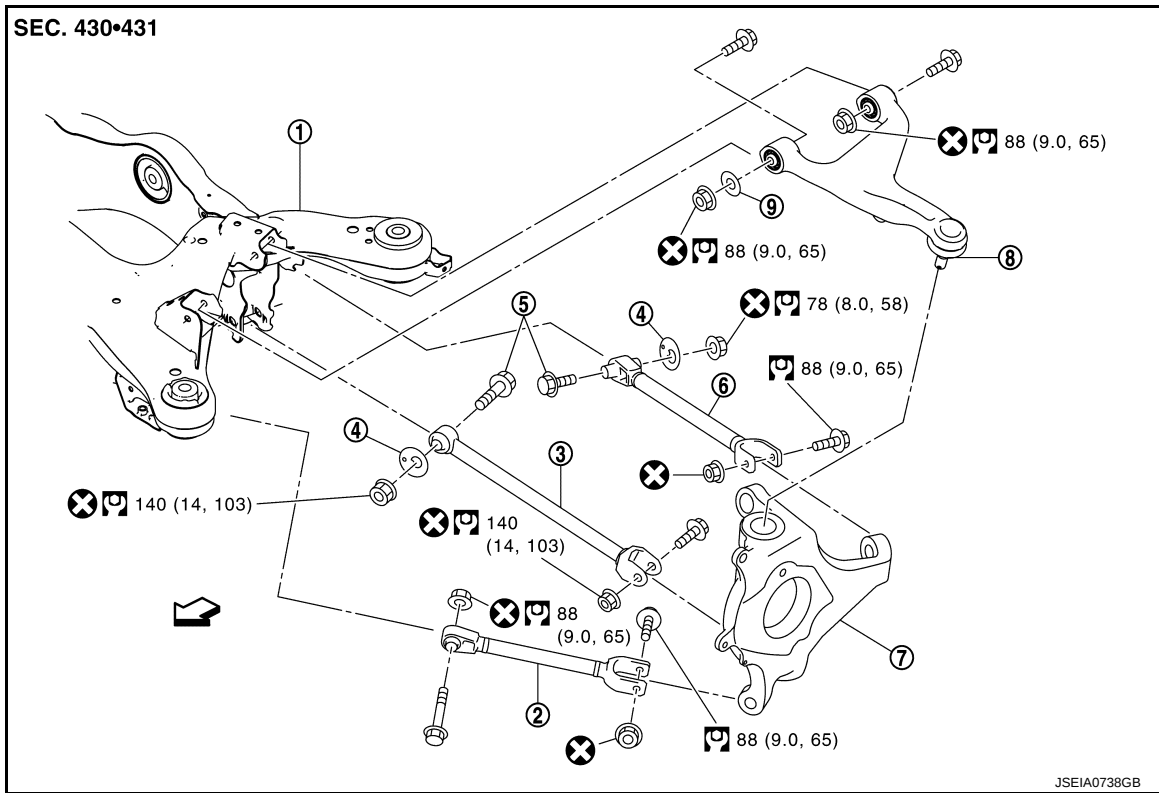
REAR LOWER LINK

< REMOVAL AND INSTALLATION >

REAR LOWER LINK

Exploded View

INFOID:000000009616536



- | | | |
|--------------------------|--------------------|--------------------|
| ① Rear suspension member | ② Front lower link | ③ Rear lower link |
| ④ Eccentric disk | ⑤ Adjusting bolt | ⑥ Toe control link |
| ⑦ Axle housing | ⑧ Suspension arm | ⑨ Stopper bushing |

↔: Vehicle front

: N·m (kg-m, ft-lb)

: Always replace after every disassembly.

Removal and Installation

INFOID:000000009236524

REMOVAL

1. Remove tires with power tool. Refer to [WT-62, "Removal and Installation"](#).
2. Set jack under axle housing.
CAUTION:
 - Check the stable condition when using a jack.
 - Never damage axle housing with a jack.
3. Separate shock absorber from axle housing. Refer to [RSU-8, "Removal and Installation"](#).
4. Remove eccentric disc, adjusting bolt, mounting bolt, and nut. Remove rear lower link.
5. Perform inspection after removal. Refer to [RSU-18, "Inspection"](#).

INSTALLATION

Note the following, and install in the reverse order of removal.

- Perform final tightening of rear suspension member installation position (rubber bussing), under unladen conditions with tires on level ground.
- Perform inspection after installation. Refer to [RSU-18, "Inspection"](#).

REAR LOWER LINK

< REMOVAL AND INSTALLATION >

Inspection

INFOID:000000009236525

INSPECTION AFTER REMOVAL

Check rear lower link and bushing for any deformation, cracks, or damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to [RSU-6, "Inspection"](#).

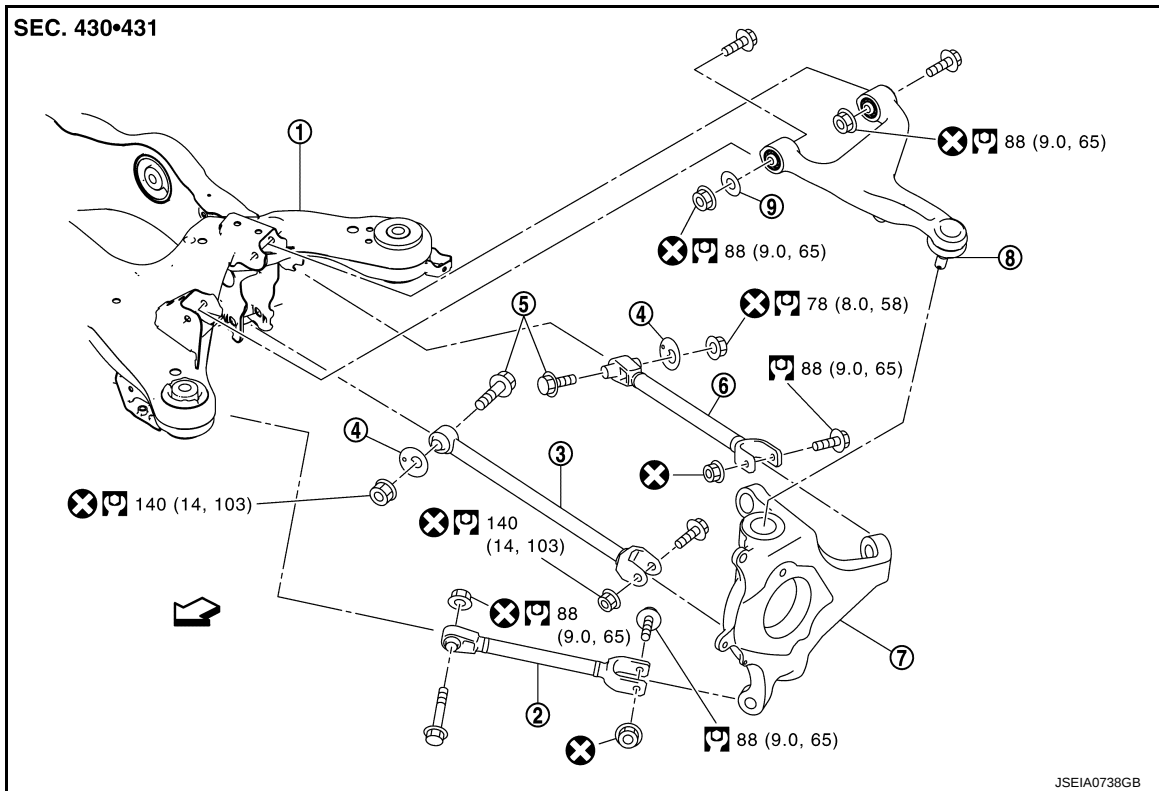
TOE CONTROL LINK

< REMOVAL AND INSTALLATION >

TOE CONTROL LINK

Exploded View

INFOID:000000009616537



- | | | |
|--------------------------|--------------------|--------------------|
| ① Rear suspension member | ② Front lower link | ③ Rear lower link |
| ④ Eccentric disk | ⑤ Adjusting bolt | ⑥ Toe control link |
| ⑦ Axle housing | ⑧ Suspension arm | ⑨ Stopper bushing |

↔: Vehicle front

: N·m (kg-m, ft-lb)

: Always replace after every disassembly.

Removal and Installation

INFOID:000000009236527

REMOVAL

1. Remove tires with power tool. Refer to [WT-62, "Removal and Installation"](#).
2. Set jack under axle housing.
CAUTION:
 - Check the stable condition when using a jack.
 - Never damage axle housing with a jack.
3. Separate shock absorber from axle housing. Refer to [RSU-8, "Removal and Installation"](#).
4. Remove eccentric disk, adjusting bolt, mounting bolt, and nut. Remove toe control link.
5. Perform inspection after removal. Refer to [RSU-20, "Inspection"](#).

INSTALLATION

Note the following, and install in the reverse order of removal.

- Perform final tightening of rear suspension member and axle installation position (rubber bushing), under unladen conditions with tires on level ground.
- Perform inspection after installation. Refer to [RSU-20, "Inspection"](#).

TOE CONTROL LINK

< REMOVAL AND INSTALLATION >

Inspection

INFOID:000000009236528

INSPECTION AFTER REMOVAL

Check toe control link and bushing for any deformation, cracks, or damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to [RSU-6, "Inspection"](#).

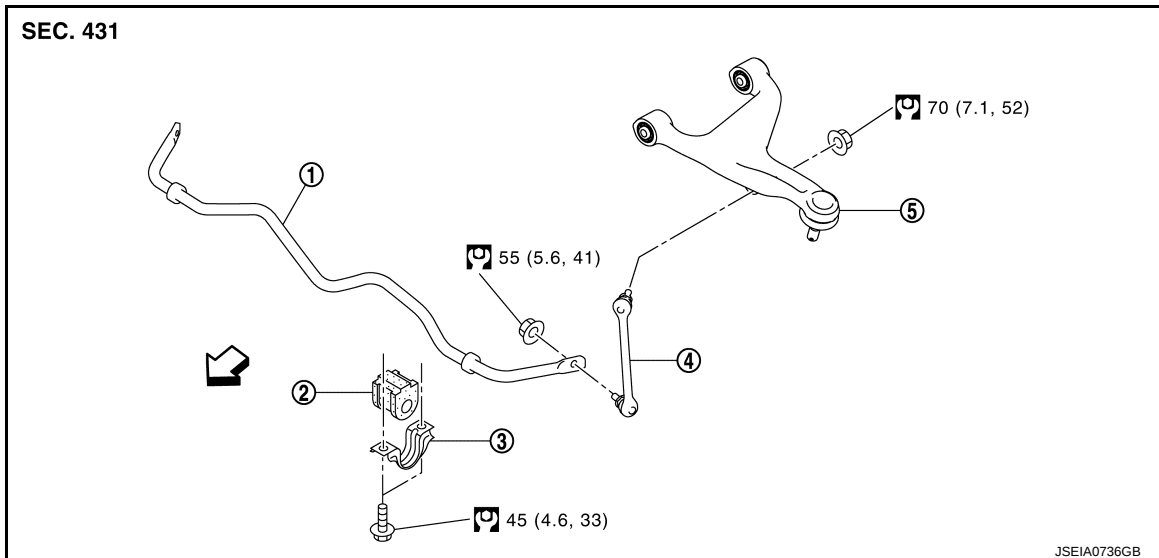
REAR STABILIZER

< REMOVAL AND INSTALLATION >

REAR STABILIZER

Exploded View

INFOID:000000009236529



- | | | |
|-----------------------------|------------------|--------------------|
| ① Stabilizer bar | ② Bushing | ③ Stabilizer clamp |
| ④ Stabilizer connecting rod | ⑤ Suspension arm | |

↔: Vehicle front

⊞ : N·m (kg-m, ft-lb)

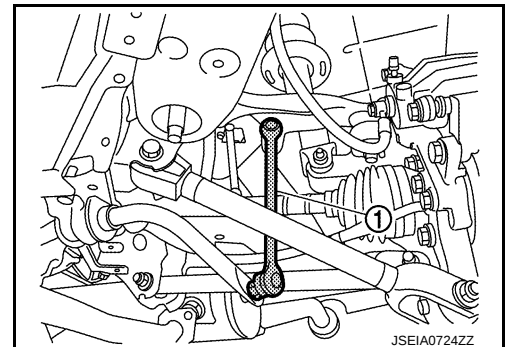
⊗ : Always replace after every disassembly.

Removal and Installation

INFOID:000000009236530

REMOVAL

1. Remove member stay. Refer to [RSU-23, "Exploded View"](#).
2. Remove rear under cover. Refer to [EXT-34, "FLOOR UNDER COVER : Exploded View"](#).
3. Remove rear floor rear cover. Refer to [EXT-34, "FLOOR UNDER COVER : Exploded View"](#).
4. Remove stabilizer connecting rods ①.



5. Remove stabilizer clamp and bushing.
6. Remove stabilizer bar.
7. Perform inspection after removal. Refer to [RSU-22, "Inspection"](#).

INSTALLATION

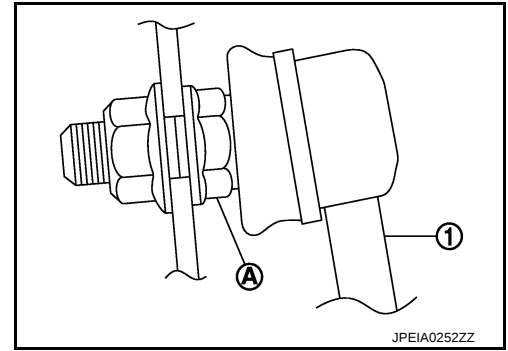
Note the following, and install in the reverse order of removal.

- Perform final tightening of rear suspension member and axle installation position (rubber bushing), under unladen conditions with tires on level ground.

REAR STABILIZER

< REMOVAL AND INSTALLATION >

- To install stabilizer connecting rod ①, tighten the mounting nut with hexagon part ② on the stabilizer connecting rod side fixed.



Inspection

INFOID:000000009236531

INSPECTION AFTER REMOVAL

Check stabilizer bar, stabilizer bushing, stabilizer clamp, and stabilizer connecting rod for any deformation, crack or damage. Replace if necessary.

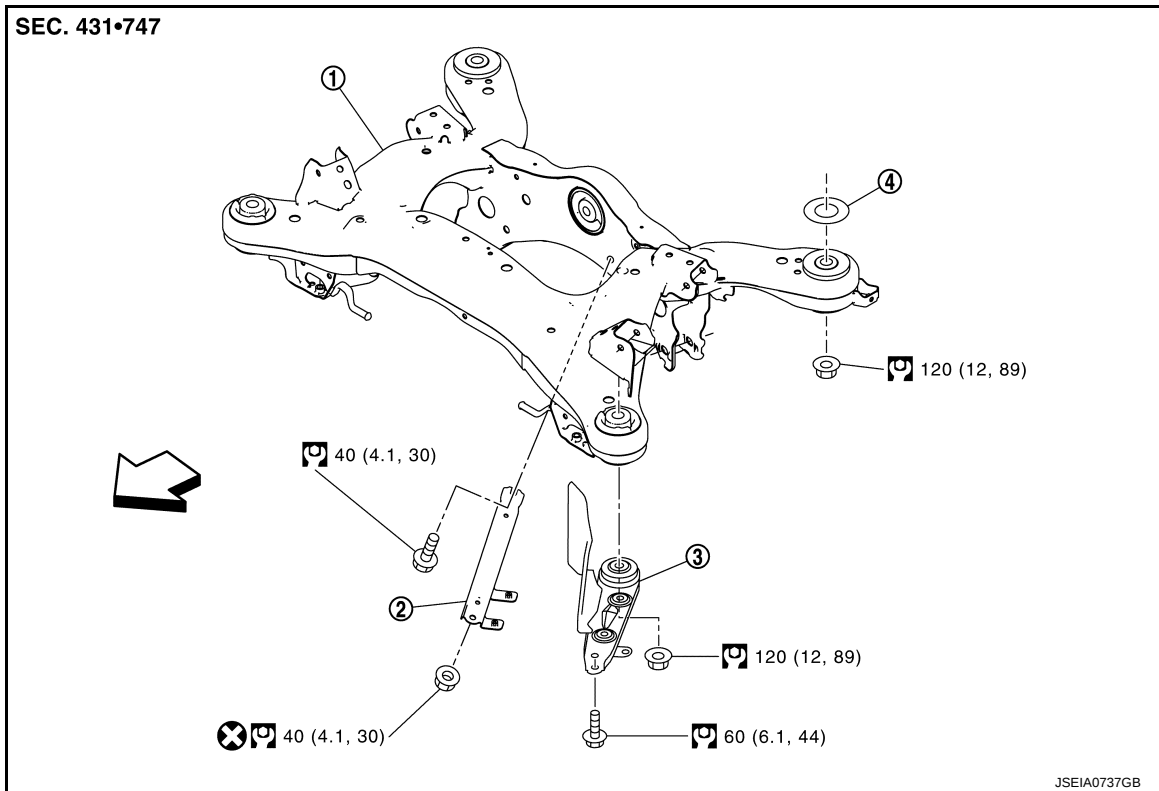
REAR SUSPENSION MEMBER

< REMOVAL AND INSTALLATION >

REAR SUSPENSION MEMBER

Exploded View

INFOID:000000009236532



- ① Rear suspension member ② Member stay ③ Rear suspension member stay
④ Mount stopper
⇐ Vehicle front
⊞ : N·m (kg-m, ft-lb)
⊗ : Always replace after every disassembly.

Removal and Installation

INFOID:000000009236533

REMOVAL

1. Remove tires with power tool. Refer to [WT-62, "Removal and Installation"](#).
2. Remove rear suspension member assembly. Refer to [RSU-25, "Removal and Installation"](#).
3. Remove the following parts.
 - Remove rear wheel hub and axle housing: Refer to [RAX-8, "Exploded View"](#).
 - Remove suspension arm: Refer to [RSU-12, "Exploded View"](#).
 - Remove height sensor (AFS models): Refer to [EXL-182, "Removal and Installation"](#).
 - Remove front lower link: Refer to [RSU-15, "Exploded View"](#).
 - Remove rear lower link: Refer to [RSU-17, "Exploded View"](#).
 - Remove toe control link: Refer to [RSU-19, "Exploded View"](#).
 - Remove rear stabilizer: Refer to [RSU-21, "Exploded View"](#).

INSTALLATION

Note the following, and install in the reverse order of the removal.

- Perform final tightening of rear suspension member installation position (rubber bussing), under unladen conditions with tires on level ground.
- Perform inspection after installation. Refer to [RSU-26, "Inspection"](#).

REAR SUSPENSION MEMBER

< REMOVAL AND INSTALLATION >

Inspection

INFOID:000000009236534

INSPECTION AFTER REMOVAL

Check rear suspension member for deformation, cracks, or any other damage. Replace if necessary.

REAR SUSPENSION ASSEMBLY

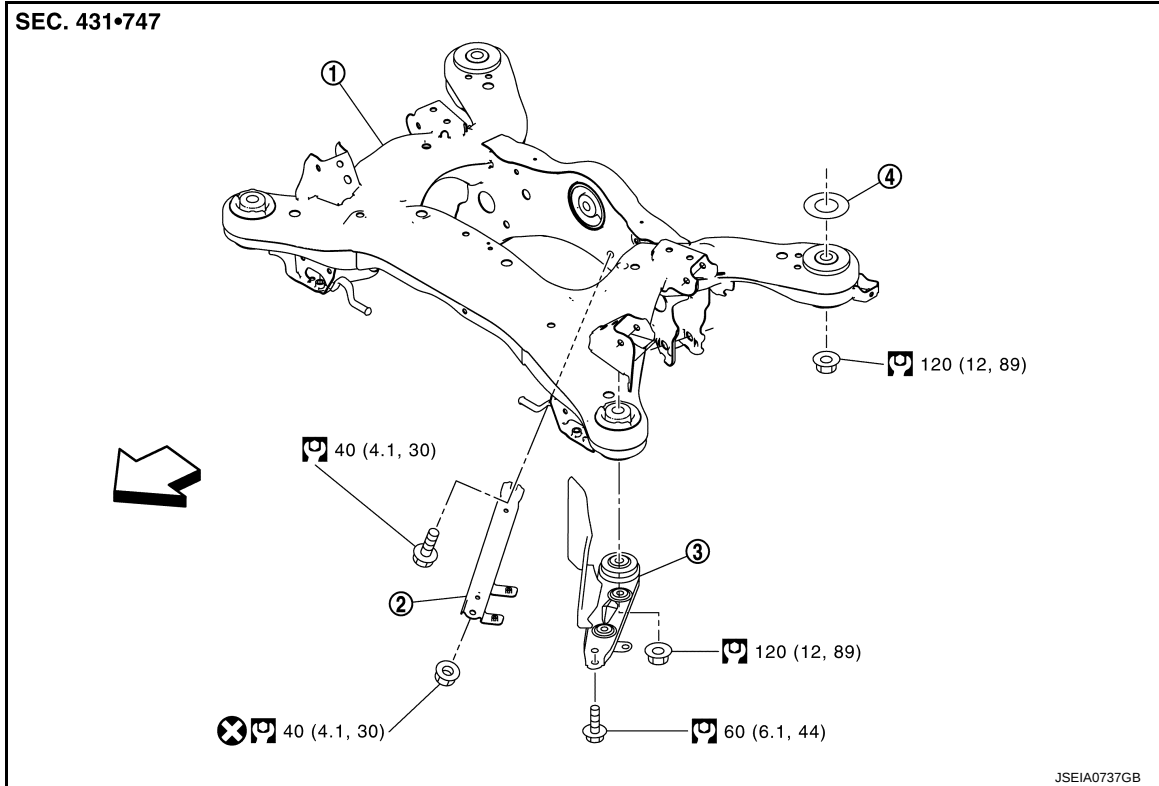
< UNIT REMOVAL AND INSTALLATION >

UNIT REMOVAL AND INSTALLATION

REAR SUSPENSION ASSEMBLY

Exploded View

INFOID:0000000009616544



- ① Rear suspension member ② Member stay ③ Rear suspension member stay
④ Mount stopper
⇐: Vehicle front
⊞ : N·m (kg-m, ft-lb)
⊗ : Always replace after every disassembly.

Removal and Installation

INFOID:0000000009615078

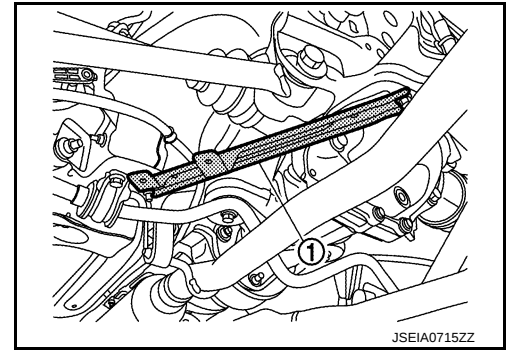
REMOVAL

1. Remove tires with power tool. Refer to [WT-62, "Exploded View"](#).
 2. Remove caliper assemblies. Hang caliper assembly in a place where it will not interfere with work.
 - 1 piston type: Refer to [BR-68, "BRAKE CALIPER ASSEMBLY \(1 PISTON TYPE\) : Removal and Installation"](#).
 - 2 piston type: Refer to [BR-74, "BRAKE CALIPER ASSEMBLY \(2 PISTON TYPE\) : Removal and Installation"](#).
- CAUTION:**
Avoid depressing brake pedal while brake caliper is removed.
3. Remove disc rotor. Refer to [RAX-8, "Removal and Installation"](#).
 4. Remove main muffler. Refer to [EX-6, "Removal and Installation"](#).

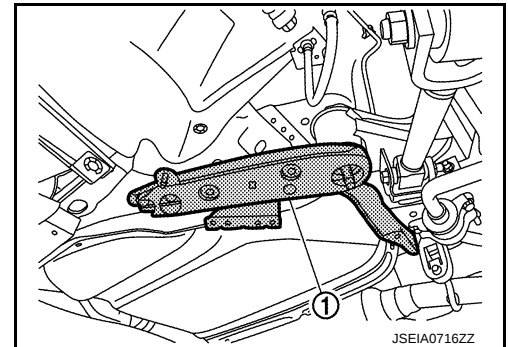
REAR SUSPENSION ASSEMBLY

< UNIT REMOVAL AND INSTALLATION >

5. Remove member stays ①.



6. Remove rear final drive assembly. Refer to [DLN-167, "Removal and Installation"](#).
7. Remove drive shaft. Refer to [RAX-13, "Removal and Installation"](#).
8. Separate rear cable from front cable, and then remove rear cable from rear suspension member. Refer to [PB-8, "Removal and Installation"](#).
9. Remove wheel sensor and sensor harness from rear suspension member. Refer to [BRC-175, "REAR WHEEL SENSOR : Removal and Installation"](#).
10. Disconnect height sensor harness connector. (AFS models) Refer to [EXL-182, "Removal and Installation"](#).
11. Remove shock absorber from axle housing. Refer to [RSU-8, "Removal and Installation"](#).
12. Set manual lift table caddy (commercial service tool) under rear suspension member.
- CAUTION:**
- At this step, the manual lift table caddy must be set only for supporting the removal procedure. For details on jacking up the vehicle, refer to [GI-29, "Garage Jack and Safety Stand and 2-Pole Lift"](#).
 - Never damage the rear suspension member with a manual lift table caddy.
 - Check the stable condition when using a manual lift table caddy.
13. Remove rear under cover from rear suspension member stay. Refer to [EXT-35, "FLOOR UNDER COVER : Removal and Installation"](#).
14. Remove rear suspension member stays ①.



15. Remove rear suspension member mounting nuts.
16. Slowly lower manual lift table caddy, then remove rear suspension member, suspension arms, front lower links, wheel hub and housings from vehicle as a unit.
- CAUTION:**
- Operate while checking that manual lift table caddy supporting status is stable.**
17. Remove mount stopper from rear suspension member.

INSTALLATION

Note the following, and install in the reverse order of the removal.

- Perform final tightening of rear suspension member installation position (rubber bussing), under unladen conditions with tires on level ground.
- Perform inspection after installation. Refer to [RSU-26, "Inspection"](#).

Inspection

INFOID:000000009615079

INSPECTION AFTER REMOVAL

REAR SUSPENSION ASSEMBLY

< UNIT REMOVAL AND INSTALLATION >

Check rear suspension member for deformation, cracks, or any other damage. Replace if necessary.

INSPECTION AFTER INSTALLATION

1. Check wheel sensor and harness for proper connection. Refer to [BRC-175, "REAR WHEEL SENSOR : Exploded View"](#).
2. Adjust parking brake operation (stroke). Refer to [PB-5, "Inspection and Adjustment"](#).
3. Check wheel alignment. Refer to [RSU-6, "Inspection"](#).

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Wheel Alignment

INFOID:000000009236535

Item		Standard
Camber Degree minute (Decimal degree)	Minimum	-1° 40' (-1.66°)
	Nominal	-1° 10' (-1.17°)
	Maximum	-0° 40' (-0.67°)
Toe-in	Total toe-in Distance	Minimum 0 mm (0 in)
		Nominal In 2.8 mm (In 0.110 in)
		Maximum In 5.6 mm (In 0.220 in)
	Total toe-angle Degree minute (Decimal degree)	Minimum 0° 00' (0.00°)
		Nominal In 0° 14' (In 0.23°)
		Maximum In 0° 28' (In 0.46°)

Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

Ball Joint

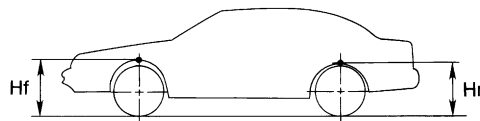
INFOID:000000009236536

Item	Standard
Swing torque	0.5 – 3.4 N·m (0.06 – 0.34 kg-m, 5 – 30 in-lb)
Measurement on spring balance (cotter pinhole position)	8.1 – 54.8 N (0.83 – 5.59 kg, 1.83 – 12.31 lb)
Rotating torque	0.5 – 3.4 N·m (0.06 – 0.34 kg-m, 5 – 30 in-lb)
Axial end play	0 mm (0 in)

Wheelarch Height

INFOID:000000009236537

Item	Standard			
Axle type	2WD		AWD	
Wheel size	17 inch	19 inch	17 inch	19 inch
Front (Hf)	705 mm (27.76 in)	706 mm (27.80 in)	714 mm (28.11 in)	715 mm (28.15 in)
Rear (Hr)	698 mm (27.48 in)	697 mm (27.44 in)	708 mm (27.87 in)	706 mm (27.80 in)



SFA818A

Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.