SECTION RSU
REAR SUSPENSION

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PRECAUTION

PRECAUTIONS

Precautions for Suspension

INFOID:0000000006545088

- 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.
- The tightening surface must be kept free of oil/grease.
- When jacking up the vehicle with a floor jack, never hang the jack on the suspension beam.

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:0000000006545089

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

Reference page			RSU-8, RSU-11, RSU-13	RSU-8	—	—	—	RSU-8, RSU-11, RSU-13	RSU-6	NVH in RAX and RSU sections	NVH in WT section	NVH in WT section	NVH in BR section
Possible cause and SUSPECTED PARTS			Improper installation, looseness	Shock absorber deformation, damage or deflection	Bushing or mounting deterioration	Parts interference	Spring fatigue	Suspension looseness	Incorrect wheel alignment	REAR AXLE AND REAR SUSPENSION	TIRE	ROAD WHEEL	BRAKE
Symptom	REAR SUSPENSION	Noise	×	×	×	×	×	×		×	×	×	×
		Shake	×	×	×	×		×		×	×	×	×
		Vibration	×	×	×	×	×			×	×		
		Shimmy	×	×	×	×			×	×	×	×	×
		Judder	×	×	×					×	×	×	×
		Poor quality ride or handling	×	×	×	×	×		×	×	×	×	

×: Applicable

PERIODIC MAINTENANCE

REAR SUSPENSION ASSEMBLY

Inspection

INFOID:0000000006545090

COMPONENT PART

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

SHOCK ABSORBER ASSEMBLY

Check for oil leakage, damage, and replace if necessary.

WHEEL ALIGNMENT

Inspection

INFOID:0000000006751935

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

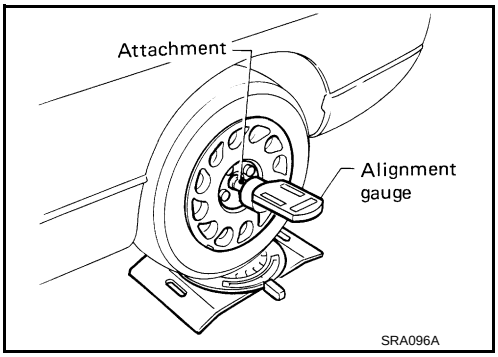
Check the following:

- Tires for improper air pressure and wear
- Road wheels for runout: refer to WT-7, "Inspection".
- Wheel bearing axial end play: refer to RAX-4, "Inspection".
- Shock absorber operation
- Each mounting point of axle and suspension for looseness and deformation
- Each of rear suspension beam and shock absorber for cracks, deformation, and other damage
- Vehicle height (posture)

CAMBER

- Measure camber of both right and left wheels with a suitable alignment gauge.
- If camber is outside specified range, replace rear suspension beam. Refer to RSU-13, "Exploded View".

Camber : Refer to RSU-15, "Wheel Alignment".



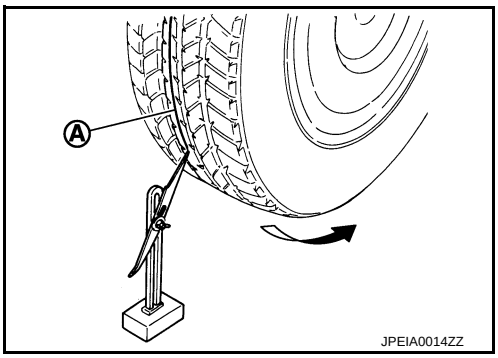
TOE-IN

Measure toe-in by the following procedure.

WARNING:

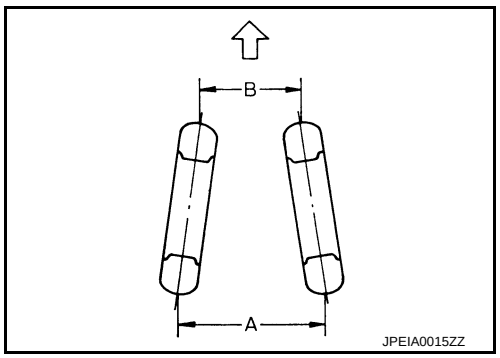
- **Always perform the following procedure on a flat surface.**
- **Check that no person is in front of vehicle before pushing it.**

1. Bounce the front of vehicle up and down to stabilize the vehicle height (posture).
2. Push vehicle straight ahead about 5 m (16 ft).
3. Put matching mark (A) on base line of the tread (rear side) of both tires at the same height of hub center. These are measuring points.



4. Measure distance (A) (rear side).

⇦ : Vehicle front



5. Push vehicle slowly ahead to rotate wheels 180 degrees (1/2 turn).
NOTE:
If the wheels rotates more than 180 degrees (1/2 turn), start this procedure again from the beginning. Do not push the vehicle backward.
6. Measure distance (B) (front side).

Total toe-in = A – B

Total toe-in : Refer to RSU-15, "Wheel Alignment".

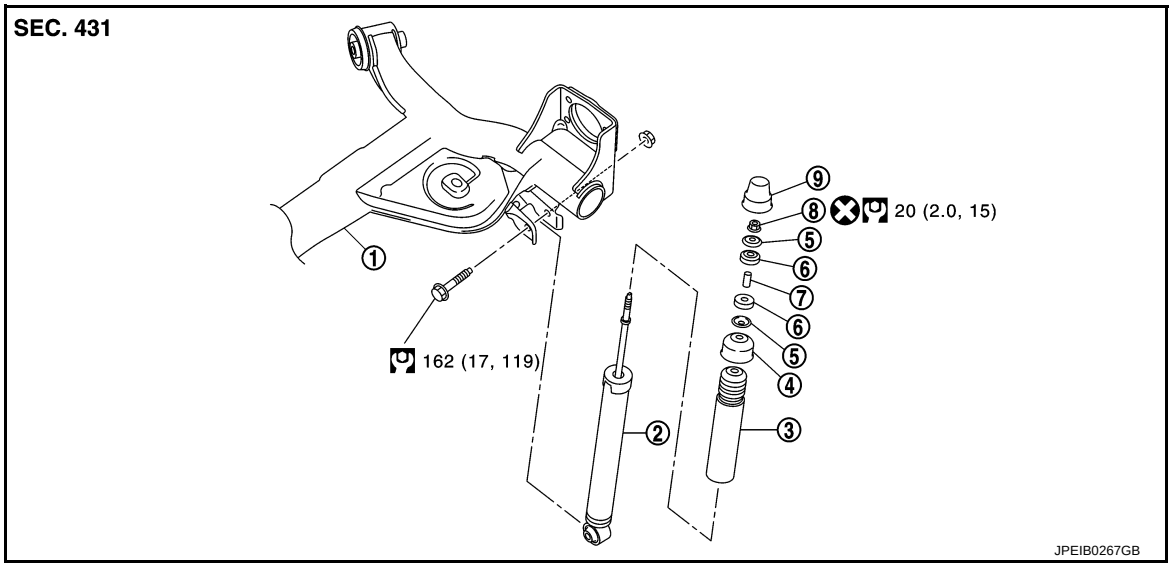
- If toe-in is outside specified range, replace rear suspension beam. Refer to RSU-13, "Exploded View".

REMOVAL AND INSTALLATION

REAR SHOCK ABSORBER

Exploded View

INFOID:0000000006545092



1. Rear suspension beam
2. Shock absorber
3. Bound bumper
4. Bound bumper cover
5. Washer
6. Bushing
7. Distance tube
8. Piston rod lock nut
9. Cap

: Always replace after every disassembly.

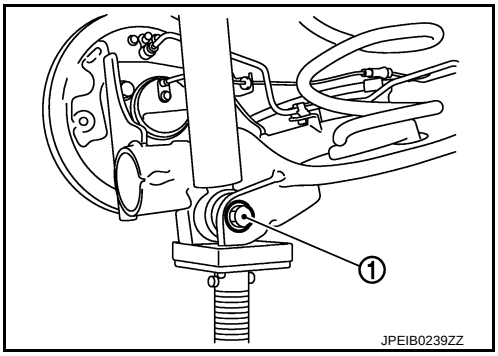
: N·m (kg-m, ft-lb)

Removal and Installation

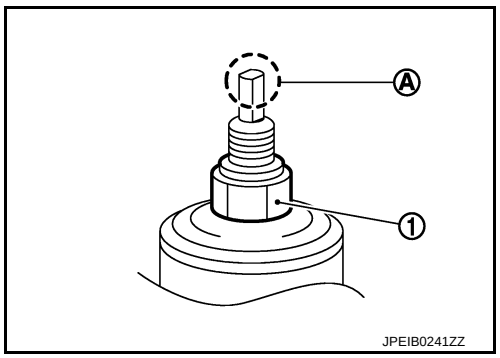
INFOID:0000000006545093

REMOVAL

1. Remove tires. Refer to WT-7, "Removal and Installation".
2. Set suitable jack under rear suspension beam.
   CAUTION:
   - **Never damage the suspension beam with a jack.**
   - **Check the stable condition when using a jack.**
3. Remove shock absorber mounting bolt (lower side) (1).
4. Remove shock absorber mask. Refer to INT-29, "Exploded View".
5. Remove cap.



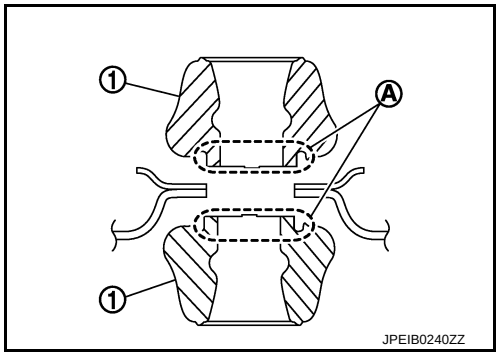
6. Remove piston rod lock nut (1), and then remove washer and bushing.
   NOTE:
   To loosen piston rod lock nut, fix the tip (A) of the piston rod.
7. Remove shock absorber assembly.
8. Remove bushing, distance tube, bound bumper cover, and bound bumper from shock absorber.
9. Perform inspection after removal. Refer to RSU-10, "Inspection".



INSTALLATION

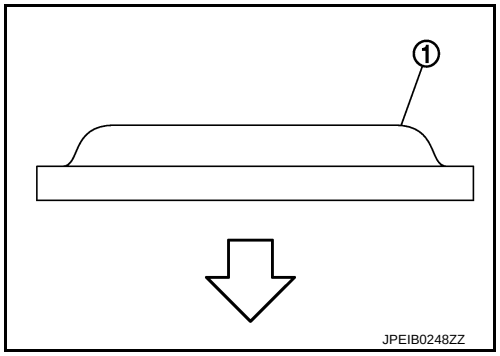
Note the following, and install in the reverse order of removal.

- To install bushings (1), securely insert protrusion (A) into the hole on the vehicle body side.



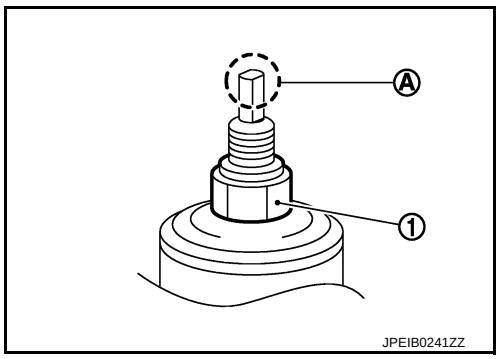
- Install washer (1) in the direction shown in the figure.

  ⇦ : Bushing side

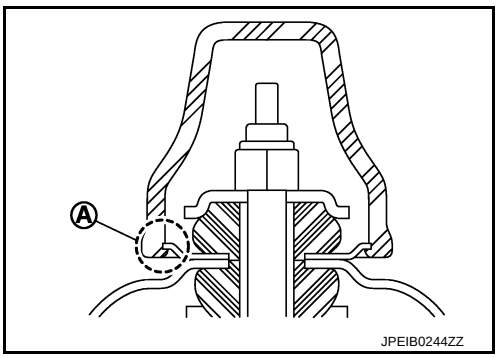


- Perform final tightening of bolts and nuts at the shock absorber lower side (rubber bushing), under unladen conditions with tires on level ground.

- Hold a head (A) of shock absorber piston rod not to have it rotate, then tighten the piston rod lock nut (1) to the specified torque.
  CAUTION:
  Never reuse piston rod lock nut.



- When installing the cap, securely engage the cap groove (A) with the flange on the vehicle side.
- Perform inspection after installation. Refer to RSU-10, "Inspection".
- After replacing the shock absorber, always follow the disposal procedure to discard the shock absorber. Refer to RSU-10, "Inspection".



Inspection

INFOID:0000000006545094

INSPECTION AFTER REMOVAL

Shock Absorber

Check the following items, and replace the part if necessary.
- Shock absorber for deformation, cracks, and other damage.
- Piston rod for damage, uneven wear, and distortion.
- Oil leakage

Bound Bumper, Bushing

Check for cracks and damage. Replace it if necessary.

Washer, Bound Bumper Cover, Distance Tube
- Check for cracks and damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

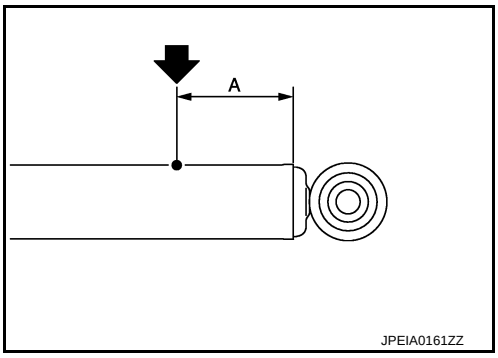
Check wheel alignment. Refer to RSU-6, "Inspection".

Disposal

INFOID:0000000006545095

1. Set shock absorber horizontally to the ground with the piston rod fully extracted.
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 glass).**
   - **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.



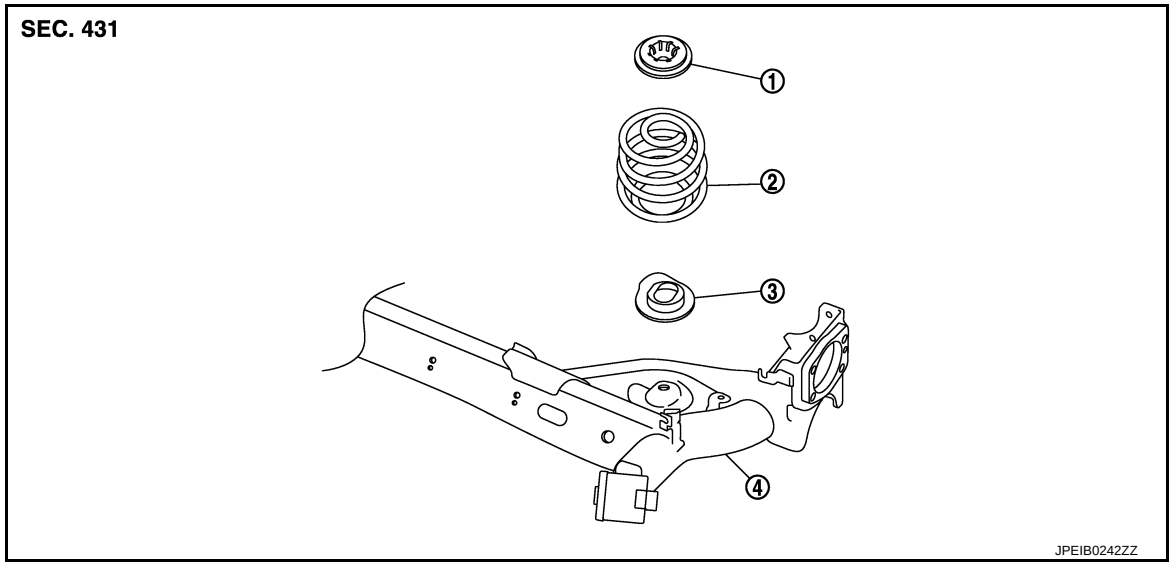
A : 20 – 30 mm (0.79 – 1.18 in)

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.

COIL SPRING

Exploded View

INFOID:0000000006545096



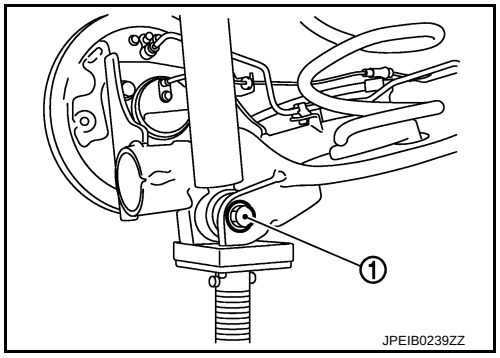
1. Upper rubber seat
2. Coil spring
3. Lower rubber seat
4. Rear suspension beam

Removal and Installation

INFOID:0000000006545097

REMOVAL

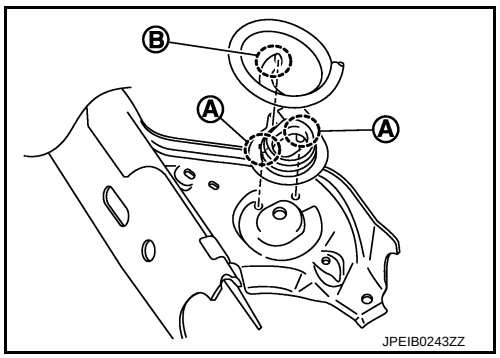
1. Remove tires. Refer to WT-7, "Removal and Installation".
2. Set jack under rear suspension beam.
   CAUTION:
   - **Never damage the suspension beam with a jack.**
   - **Check the stable condition when using a jack.**
3. Remove rear shock absorber mounting bolts (lower side). Refer to RSU-8, "Exploded View".
4. Slowly lower jack, then remove upper rubber seat, coil spring and lower rubber seat from rear suspension beam.
   CAUTION:
   Operate while checking that jack supporting status is stable.
5. Perform inspection after removal. Refer to RSU-12, "Inspection".



INSTALLATION

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

- Install lower rubber seat with its protrusion (A) on the lower area aligned with the hole of rear suspension beam.
- Securely install coil spring with the lower end (B) of the major diameter aligned with the steps of lower rubber seat.
- Perform inspection after installation. Refer to RSU-12, "Inspection".



Inspection

INFOID:0000000006545098

INSPECTION AFTER REMOVAL

Check lubber seat and coil spring for deformation, crack, and damage. Replace it if necessary.

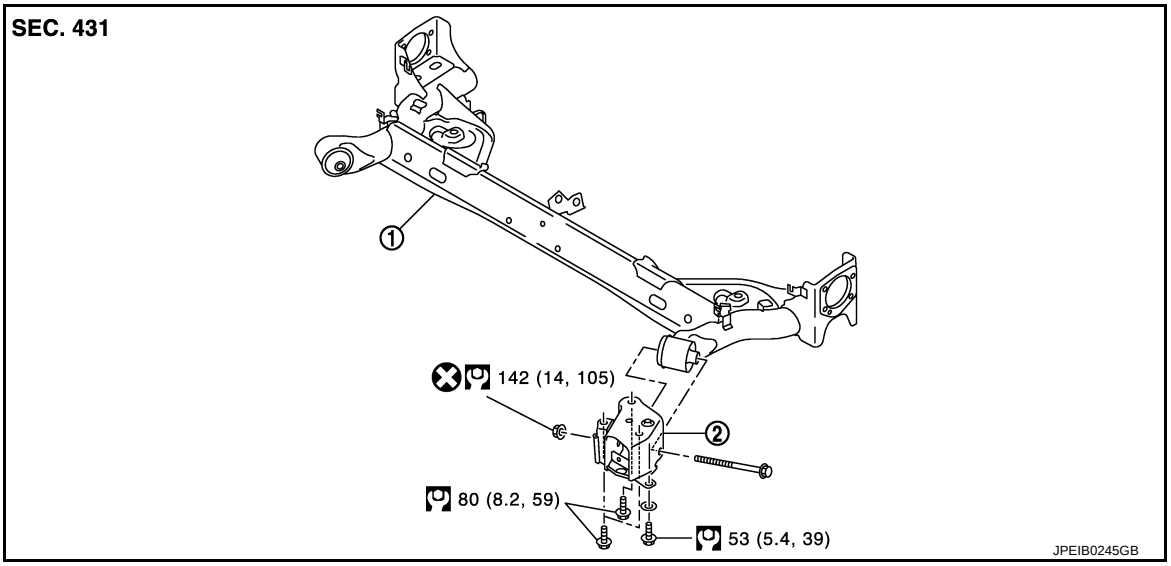
INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to RSU-6, "Inspection".

REAR SUSPENSION BEAM

Exploded View

INFOID:0000000006545099



1. Rear suspension beam
2. Rear suspension arm bracket

: Always replace after every disassembly.

: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:0000000006545100

REMOVAL

1. Remove tires. Refer to WT-7, "Removal and Installation".
2. Drain brake fluid. Refer to BR-12, "Draining" (LHD), BR-80, "Draining" (RHD).
3. Remove wheel sensor and sensor harness. Refer to BRC-86, "REAR WHEEL SENSOR : Removal and Installation" (Without ESP), BRC-227, "REAR WHEEL SENSOR : Removal and Installation" (With ESP).
4. Remove brake caliper assembly. Refer to BR-65, "BRAKE CALIPER ASSEMBLY : Removal and Installation" (LHD), BR-131, "BRAKE CALIPER ASSEMBLY : Removal and Installation" (RHD).
5. Remove disc rotor. Refer to RAX-5, "Removal and Installation".
6. Remove parking brake cable from back plate and rear suspension beam. Refer to PB-5, "Removal and Installation".
7. Set suitable jack under rear suspension beam.
   CAUTION:
   - **Never damage the suspension beam with a jack.**
   - **Check the stable condition when using a jack.**
8. Remove shock absorber mounting bolts (lower side). Refer to RSU-8, "Removal and Installation".
9. Remove coil spring. Refer to RSU-11, "Removal and Installation".
10. Separate brake hose and brake tube. Refer to BR-35, "REAR : Removal and Installation" (LHD), BR-101, "REAR : Removal and Installation" (RHD).
11. Remove rear suspension arm bracket mounting bolts.
12. Slowly lower jack, remove rear suspension arm bracket and rear suspension beam from vehicle.
    CAUTION:
    Operate while checking that jack supporting status is stable.
13. Remove wheel hub assembly. Refer to RAX-5, "Removal and Installation".
14. Remove parking brake shoe assembly. Refer toPB-7, "Removal and Installation".
15. Remove rear suspension arm bracket from rear suspension beam.

16. Perform inspection after removal. Refer to RSU-14, "Inspection".

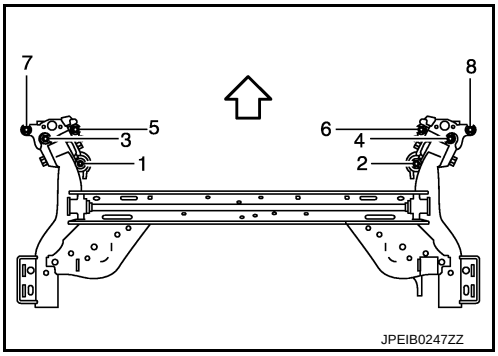
INSTALLATION

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

- Never reuse rear suspension beam mounting nut.
- To install rear suspension arm bracket to the vehicle, temporarily tighten the bolts before tightening to the specified torque, referring to the tightening method and the numerical order shown below:

Temporary tightening	: 1 → 2 → 3 → 4
Final tightening (specified torque)	: 5 → 6 → 7 → 8 → 9 → 10 → 11 → 12

⇦ : Vehicle front



- Perform final tightening of rear suspension beam installation position (rubber bushing), under unladen conditions with tires on level ground.
- Perform inspection after installation. Refer to RSU-14, "Inspection".

Inspection

INFOID:0000000006545101

INSPECTION AFTER REMOVAL

Check rear suspension beam and rear suspension beam bracket for deformation, cracks or damage. Replace the part if necessary.

INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer toBRC-85, "REAR WHEEL SENSOR : Exploded View" (Without ESP), BRC-225, "REAR WHEEL SENSOR : Exploded View" (With ESP).
2. Adjust parking brake. Refer to PB-2, "Inspection and Adjustment".
3. Check wheel alignment. Refer to RSU-6, "Inspection".
4. Adjust neutral position of steering angle sensor. Refer to BRC-149, "Work Procedure". (With ESP)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Wheel Alignment

INFOID:0000000006545102

HR16DE, K9K

Item			Standard	
Wheel size			16 inch	17 inch
Camber Degree minute (Decimal degree)		Minimum	–2° 01′ (–2.01°)	
		Nominal	–1° 31′ (–1.52°)	
		Maximum	–1° 01′ (–1.02°)	
Toe-in	Total toe-in Distance	Minimum	Out 0.3 mm (Out 0.012 in)	Out 0.2 mm (Out 0.008 in)
		Nominal	In 3.7 mm (In 0.146 in)	In 3.8 mm (In 0.150 in)
		Maximum	In 7.7 mm (In 0.303 in)	In 7.8 mm (In 0.307 in)
	Toe angle (left wheel and right wheel)*1 Degree minute (Decimal degree)	Minimum	Out 0° 03′ (Out 0.05°)	
		Nominal	In 0° 20′ (In 0.33°)	
		Maximum	In 0° 43′ (In 0.72°)	

Measure value under unladen*2 conditions.
*1: Since adjustment mechanism is not included, the value of the left and right wheels (both wheels) must be used as the standard value.
*2: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

MR16DDT

Item			Standard
Camber Degree minute (Decimal degree)		Minimum	–2° 01′ (–2.01°)
		Nominal	–1° 31′ (–1.52°)
		Maximum	–1° 01′ (–1.02°)
Toe-in	Total toe-in Distance	Minimum	0.0 mm (0.0 in)
		Nominal	In 4.0 mm (In 0.16 in)
		Maximum	In 8.0 mm (In 0.31 in)
	Toe angle (left wheel and right wheel)*1 Degree minute (Decimal degree)	Minimum	Out 0° 02′ (Out 0.04°)
		Nominal	In 0° 21′ (In 0.35°)
		Maximum	In 0° 44′ (In 0.73°)

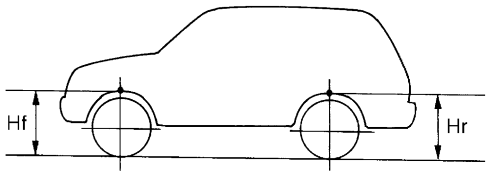
Measure value under unladen*2 conditions.
*1: Since adjustment mechanism is not included, the value of the left and right wheels (both wheels) must be used as the standard value.
*2: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

Wheelarch Height

INFOID:0000000006545103

Item	Standard				
Engine type	HR16DE		MR16DDT	K9K	
Wheel size	16 inch	17 inch		16 inch	17 inch
Front (Hf)	730 mm (28.74 in)	740 mm (29.13 in)	737 mm (29.02 in)	726 mm (28.58 in)	737 mm (29.02 in)

Item	Standard				
Engine type	HR16DE		MR16DDT	K9K	
Wheel size	16 inch	17 inch		16 inch	17 inch
Rear (Hr)	740 mm (29.13 in)	750 mm (29.53 in)	747 mm (29.41 in)	740 mm (29.13 in)	750 mm (29.53 in)



SFA746B

Measure value under unladen* conditions.

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

PRECAUTION

PRECAUTIONS

Precautions for Suspension

INFOID:0000000006601390

- 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.

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:0000000006601393

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

Reference page			RSU-23, RSU-26, RSU-28, RSU-30, RSU-32, RSU-34, RSU-35	RSU-24	—	—	—	RSU-23, RSU-26, RSU-28, RSU-30, RSU-32, RSU-34, RSU-35	RSU-20	RSU-34	NVH in DLN section.	NVH in DLN section.	NVH in RAX and RSU sections.	NVH in WT section.	NVH in WT section.	NVH in RAX section.	NVH in BR section.	NVH in ST section.
Possible cause and SUSPECTED PARTS			Improper installation, looseness	Shock absorber deformation, damage or deflection	Bushing or mounting deterioration	Parts interference	Spring fatigue	Suspension looseness	Incorrect wheel alignment	Stabilizer bar fatigue	PROPELLER SHAFT	DIFFERENTIAL	REAR AXLE AND REAR SUSPENSION	TIRE	ROAD WHEEL	DRIVE SHAFT	BRAKE	STEERING
Symptom	REAR SUSPENSION	Noise	×	×	×	×	×	×			×	×	×	×	×	×	×	×
		Shake	×	×	×	×		×			×		×	×	×	×	×	×
		Vibration	×	×	×	×	×				×		×	×		×		×
		Shimmy	×	×	×	×			×				×	×	×		×	×
		Judder	×	×	×								×	×	×		×	×
		Poor quality ride or handling	×	×	×	×	×		×	×			×	×	×			

×: Applicable

PERIODIC MAINTENANCE

REAR SUSPENSION ASSEMBLY

Inspection

INFOID:0000000006601394

MOUNTING INSPECTION

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

SHOCK ABSORBER

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

WHEEL ALIGNMENT

Inspection

INFOID:0000000006601395

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:

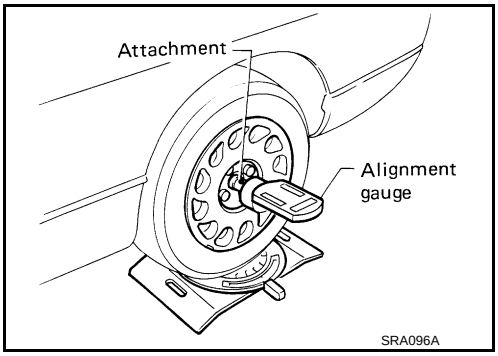
- Tires for improper air pressure and wear
- Road wheels for runout: refer to WT-7, "Inspection".
- Wheel bearing axial end play: refer to RAX-12, "Inspection".
- Shock absorber operation
- Each mounting point of axle and suspension for looseness and deformation
- Each of lower link, upper link, rear suspension member, suspension arm and shock absorber for cracks, deformation, and other damage
- Vehicle height (posture)

CAMBER

- Measure camber of both right and left wheels with a suitable alignment gauge.

Camber : Refer to RSU-37, "Wheel Alignment".

- If camber is outside specified range, adjust with adjusting bolt in rear lower link. Refer to RSU-21, "Adjustment".



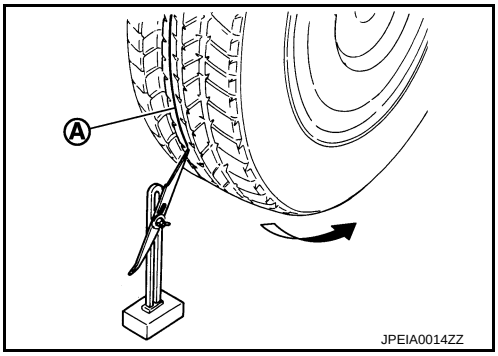
TOE-IN

Measure toe-in by the following procedure.

WARNING:

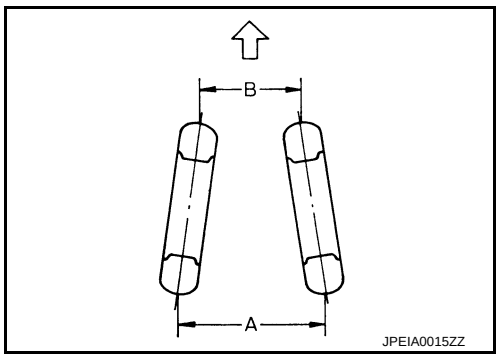
- **Always perform the following procedure on a flat surface.**
- **Check that no person is in front of vehicle before pushing it.**

1. Bounce the front of vehicle up and down to stabilize the vehicle height (posture).
2. Push vehicle straight ahead about 5 m (16 ft).
3. Put matching mark (A) on base line of the tread (rear side) of both tires at the same height of hub center. These are measuring points.



4. Measure distance (A) (rear side).

⇦ : Vehicle front



5. Push vehicle slowly ahead to rotate wheels 180 degrees (1/2 turn).
NOTE:
If the wheels rotates more than 180 degrees (1/2 turn), start this procedure again from the beginning. Do not push the vehicle backward.
6. Measure distance (B) (front side).

Total toe-in = A – B

Total toe-in : Refer to RSU-37, "Wheel Alignment".

- If toe-in is outside specified range, adjust with adjusting bolt in upper link and lower link. Refer to RSU-21, "Adjustment".

Adjustment

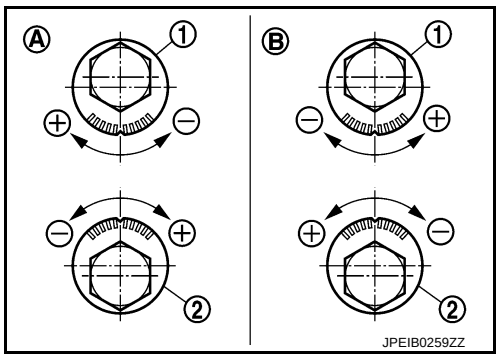
INFOID:0000000006601396

CAMBER, TOE-IN

CAUTION:
- **Adjust camber first, then adjust toe-in last. never change the order.**
- **If camber angle needs to be adjusted, toe-in adjustment is necessary.**
- **Minimize difference of left and right toe-in within tolerance.**

1. Loosen mounting nuts of upper link and lower link on the suspension member side.
2. Adjust camber and toe-in by turning upper link adjusting bolt (1) and lower link adjusting bolt (2) alternately.

A : Left side
B : Right side

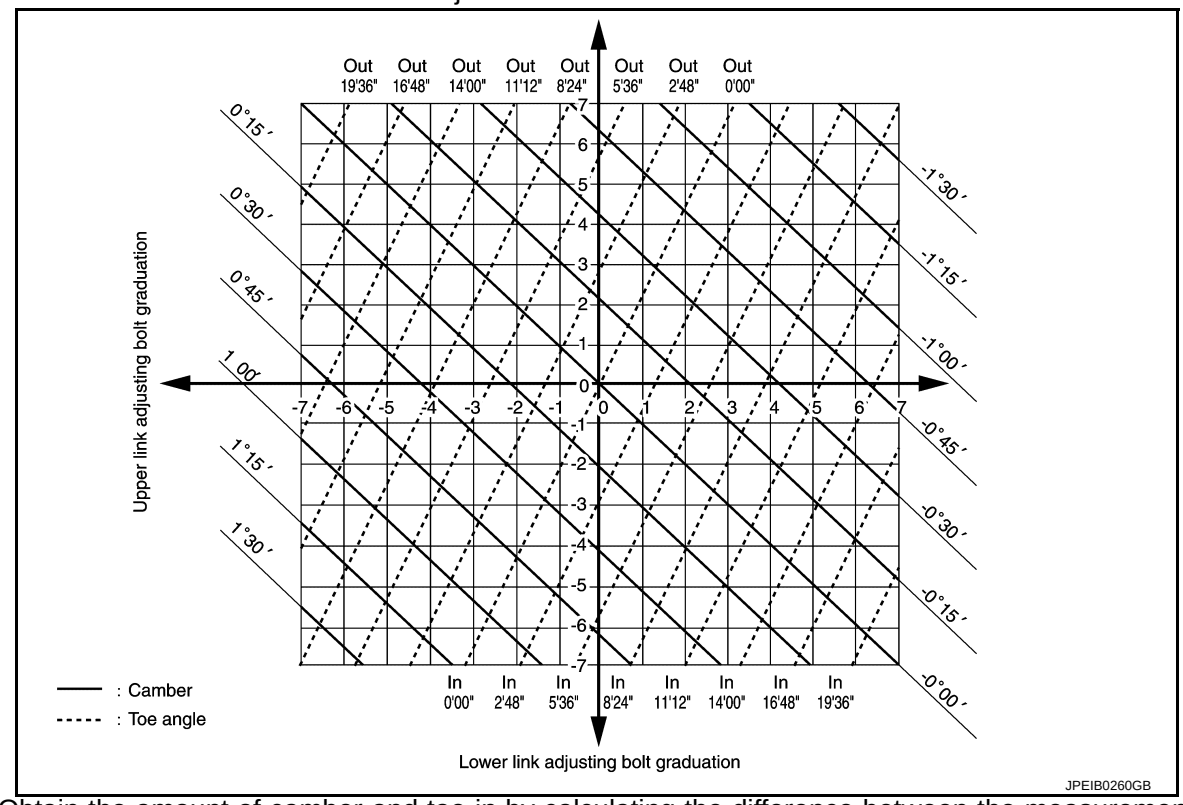


NOTE:

Upper link adjusting bolt
Positive direction : Upper link slides into inner side of vehicle.
Negative direction : Upper link slides into outer side of vehicle.

Lower link adjusting bolt
Positive direction : Lower link slides into outer side of vehicle.
Negative direction : Lower link slides into inner side of vehicle.

- Refer to the table below for easier adjustment.



- Obtain the amount of camber and toe-in by calculating the difference between the measurement result and the standard value.
- Obtain the needed adjustment amount from the graph and move adjusting bolts, respectively.

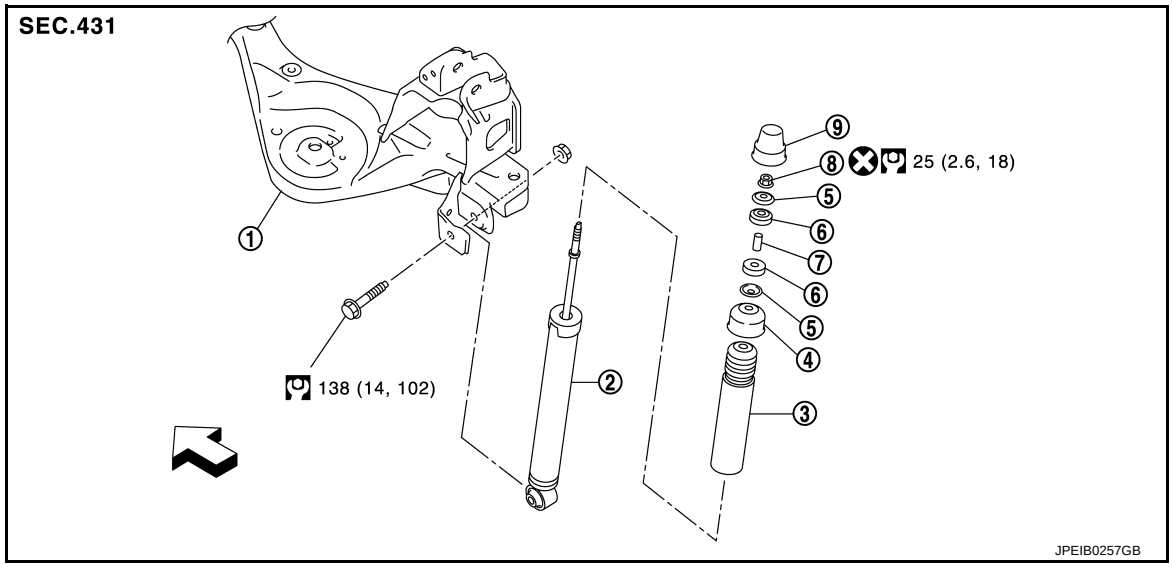
3. After adjustment, tighten mounting nuts of upper link and lower link on the suspension member side.
CAUTION:
When tightening nut to the specified torque, the bolt must be fixed with a wrench.

REMOVAL AND INSTALLATION

REAR SHOCK ABSORBER

Exploded View

INFOID:0000000006601397



1. Suspension arm
2. Shock absorber
3. Bound bumper
4. Bound bumper cover
5. Washer
6. Bushing
7. Distance tube
8. Piston rod lock nut
9. Cap

⇦: Vehicle front

⊗: Always replace after every disassembly.

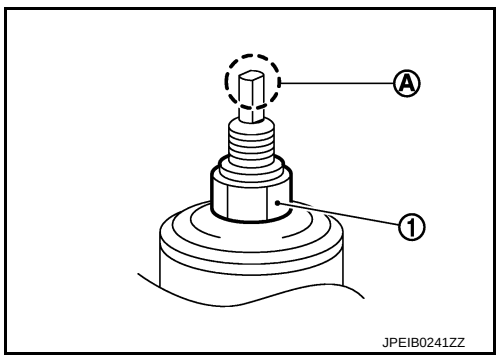
: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:0000000006608124

REMOVAL

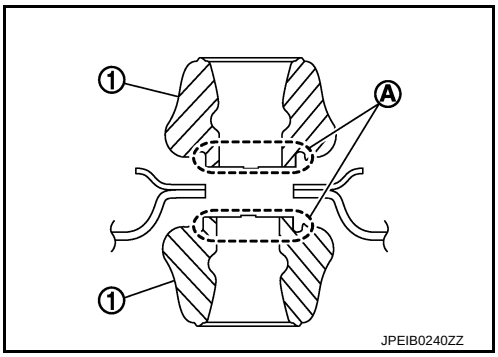
1. Remove tires. Refer to WT-7, "Removal and Installation".
2. Set suitable jack under suspension arm.
   CAUTION:
   - **Never damage the suspension arm with a jack.**
   - **Check the stable condition when using a jack.**
3. Remove shock absorber mounting bolt and nut (lower side).
4. Remove shock absorber mask. Refer to INT-29, "Exploded View".
5. Remove cap.
6. Remove piston rod lock nut (1), and then remove washer and bushing.
   NOTE:
   To loosen piston rod lock nut, fix the tip (A) of the piston rod.
7. Remove shock absorber assembly.
8. Remove bushing, distance tube, bound bumper cover, and bound bumper from shock absorber.
9. Perform inspection after removal. Refer to RSU-24, "Inspection".



INSTALLATION

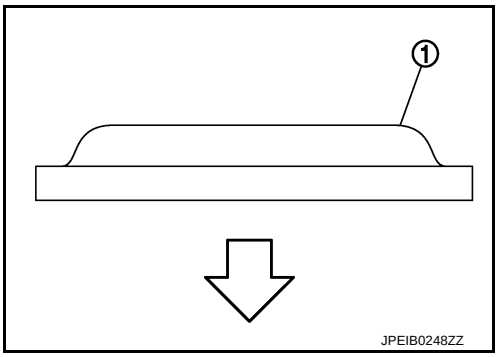
Note the following, and install in the reverse order of removal.

- To install bushings (1), securely insert protrusion (A) into the hole on the vehicle body side.



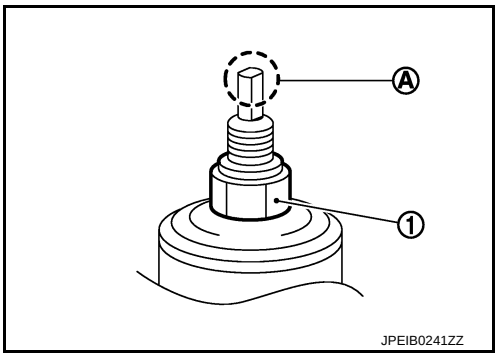
- Install washer (1) in the direction shown in the figure.

  ⇦ : Bushing side

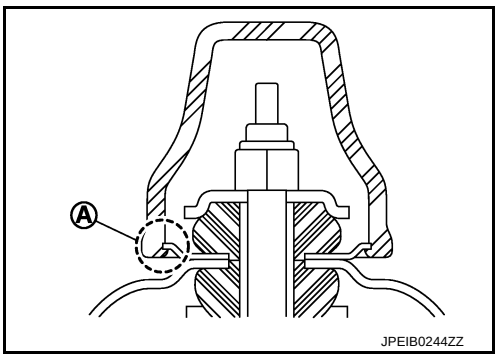


- Perform final tightening of bolts and nuts at the shock absorber lower side (rubber bussing), under unladen conditions with tires on level ground.

- Hold a head (A) of shock absorber piston rod not to have it rotate, then tighten the piston rod lock nut (1) to the specified torque.
  CAUTION:
  Never reuse piston rod lock nut.



- When installing the cap, securely engage the cap groove (A) with the flange on the vehicle side.
- Perform inspection after installation. Refer to RSU-24, "Inspection".
- After replacing the shock absorber, always follow the disposal procedure to discard the shock absorber. Refer to RSU-24, "Inspection".



Inspection

INFOID:0000000006608125

INSPECTION AFTER REMOVAL

Shock Absorber

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

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

Bound Bumper, Bushing
Check for cracks and damage. Replace it if necessary.

Washer, Bound Bumper Cover, Distance Tube
- Check for cracks and damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

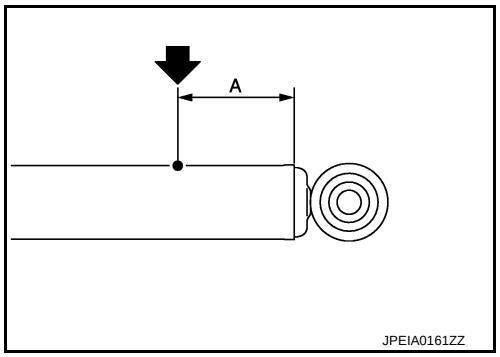
Check wheel alignment. Refer to RSU-20, "Inspection".

Disposal

INFOID:0000000006608126

1. Set shock absorber horizontally to the ground with the piston rod fully extracted.
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 glass).**
   - **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.



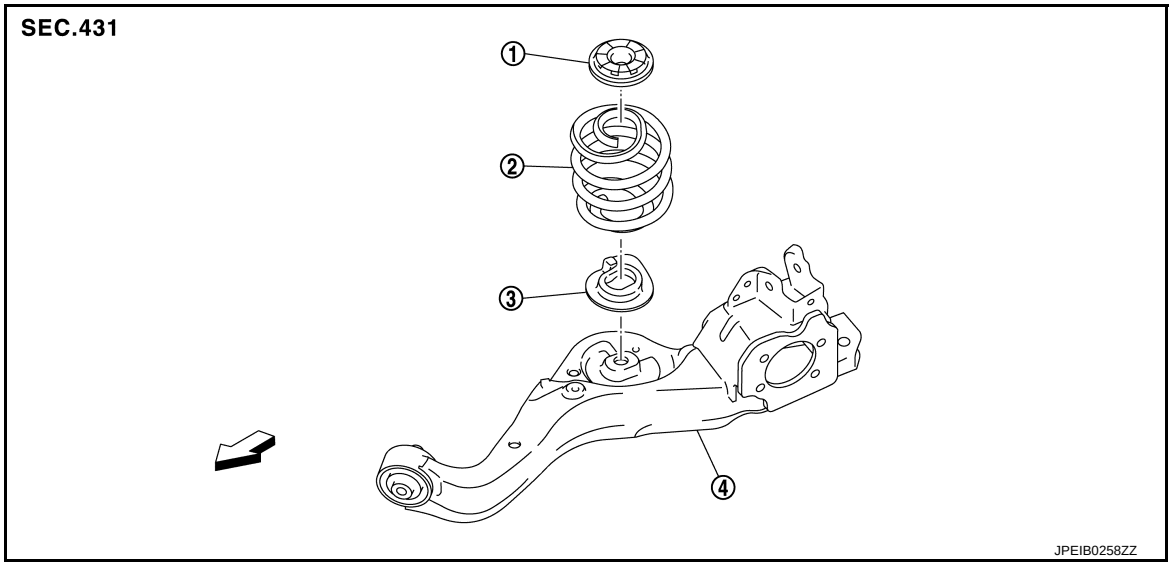
A : 20 – 30 mm (0.79 – 1.18 in)

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.

COIL SPRING

Exploded View

INFOID:0000000006601423



1. Upper rubber seat
2. Coil spring
3. Lower rubber seat
4. Suspension arm

⇦: Vehicle front

Removal and Installation

INFOID:0000000006601424

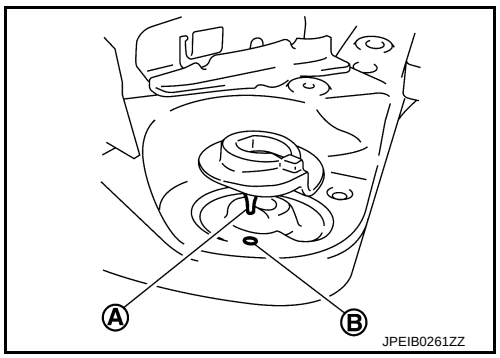
REMOVAL

1. Remove tires. Refer to WT-7, "Removal and Installation".
2. Remove wheel sensor and sensor harness. Refer to BRC-86, "REAR WHEEL SENSOR : Removal and Installation" (Without ESP), BRC-227, "REAR WHEEL SENSOR : Removal and Installation" (With ESP).
3. Set jack under suspension arm.
   CAUTION:
   - **Never damage the suspension arm with a jack.**
   - **Check the stable condition when using a jack.**
4. Separate rear shock absorber lower side form suspension arm. Refer to RSU-8, "Removal and Installation".
5. Separate upper link from suspension arm.
6. Slowly lower jack, then remove upper rubber seat, coil spring and lower rubber seat from suspension arm.
   CAUTION:
   Operate while checking that jack supporting status is stable.
7. Perform inspection after removal. Refer to RSU-27, "Inspection"

INSTALLATION

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

- Install the lower rubber seat a projection (A) is attached as suspension arm mounting hole (B).
- Match up lower rubber seat indentions and suspension arm grooves and attach.
- Perform inspection after installation. Refer to RSU-27, "Inspection".



Inspection

INFOID:0000000006608127

INSPECTION AFTER REMOVAL

Check lubber seat and coil spring for deformation, crack, and damage. Replace it if necessary.

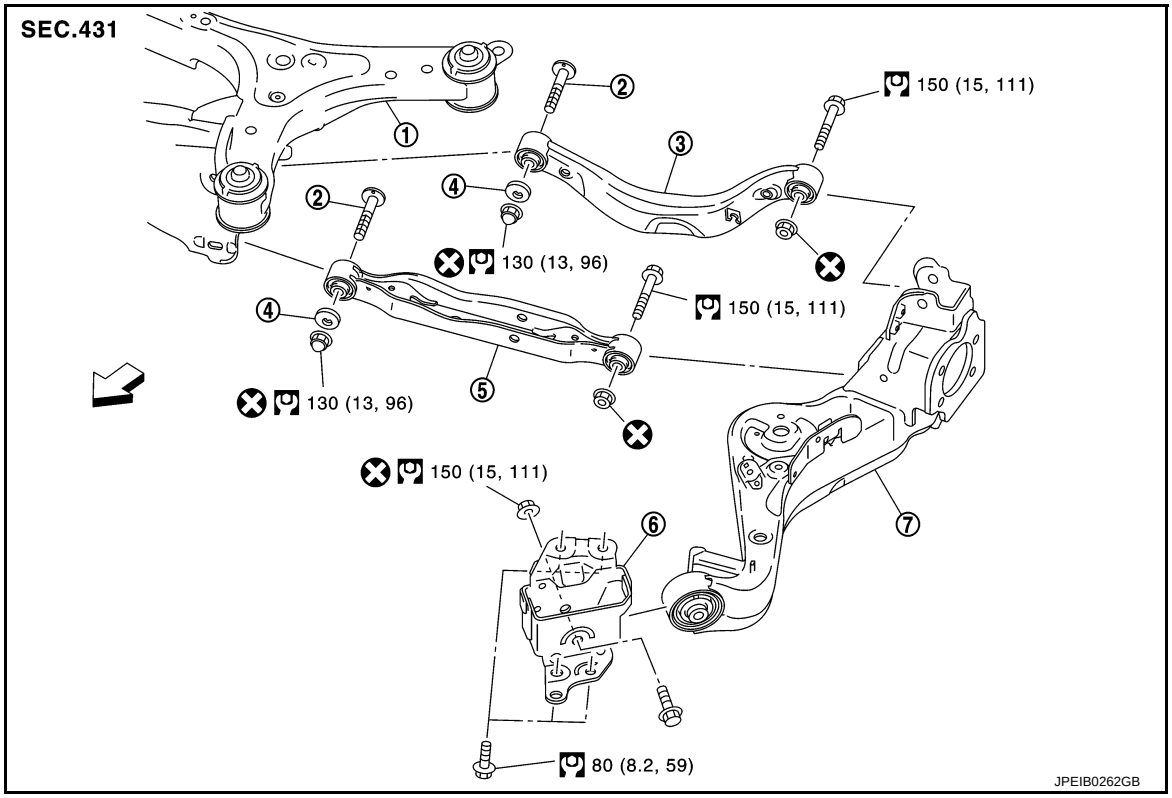
INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer toBRC-85, "REAR WHEEL SENSOR : Exploded View" (Without ESP), BRC-225, "REAR WHEEL SENSOR : Exploded View" (With ESP).
2. Check wheel alignment. Refer to RSU-20, "Inspection".

SUSPENSION ARM

Exploded View

INFOID:0000000006601402



1. Rear suspension member
2. Adjusting bolt
3. Upper link
4. Eccentric disk
5. Lower link
6. Suspension arm bracket
7. Suspension arm

⇦: Vehicle front

⊗: Always replace after every disassembly.

: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:0000000006608141

REMOVAL

1. Remove tires. Refer to WT-7, "Removal and Installation".
2. Drain brake fluid. Refer to BR-12, "Draining" (LHD), BR-80, "Draining" (RHD).
3. Remove wheel sensor and sensor harness. Refer to BRC-86, "REAR WHEEL SENSOR : Removal and Installation" (Without ESP), BRC-227, "REAR WHEEL SENSOR : Removal and Installation" (With ESP).
4. Remove caliper assembly. Refer to BR-65, "BRAKE CALIPER ASSEMBLY : Removal and Installation" (LHD), BR-131, "BRAKE CALIPER ASSEMBLY : Removal and Installation" (RHD).
5. Remove disc rotor. Refer to RAX-14, "Removal and Installation".
6. Remove parking brake cable mounting bolt. Refer to PB-5, "Removal and Installation".
7. Separate the brake tube from the brake hose, and remove lock plate. Refer to BR-30, "REAR : Exploded View" (LHD), BR-97, "REAR : Exploded View" (RHD).
8. Remove wheel hub assembly. Refer to RAX-14, "Removal and Installation".
9. Remove parking brake shoe and back plate. Refer to RAX-14, "Removal and Installation".
10. Set jack under suspension arm.
    CAUTION:

- **Never damage the suspension arm with a jack.**
- **Check the stable condition when using a jack.**

11. Remove stabilizer link. Refer to RSU-34, "Removal and Installation".
12. Remove upper link from suspension arm. Refer to RSU-32, "Removal and Installation".
13. Remove lower link from suspension arm. Refer to RSU-30, "Removal and Installation".
14. Remove coil spring from suspension arm. Refer to RSU-26, "Removal and Installation".
15. Remove suspension arm bracket from vehicle.
16. Remove suspension arm from suspension arm bracket.
17. Perform inspection after removal. Refer to RSU-29, "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.
- Never reuse suspension arm mounting nut.
- Perform inspection after installation. Refer to RSU-29, "Inspection".

Inspection

INFOID:0000000006608142

INSPECTION AFTER REMOVAL

Check suspension arm and bushing for deformation, cracks or damage. Replace it if necessary.

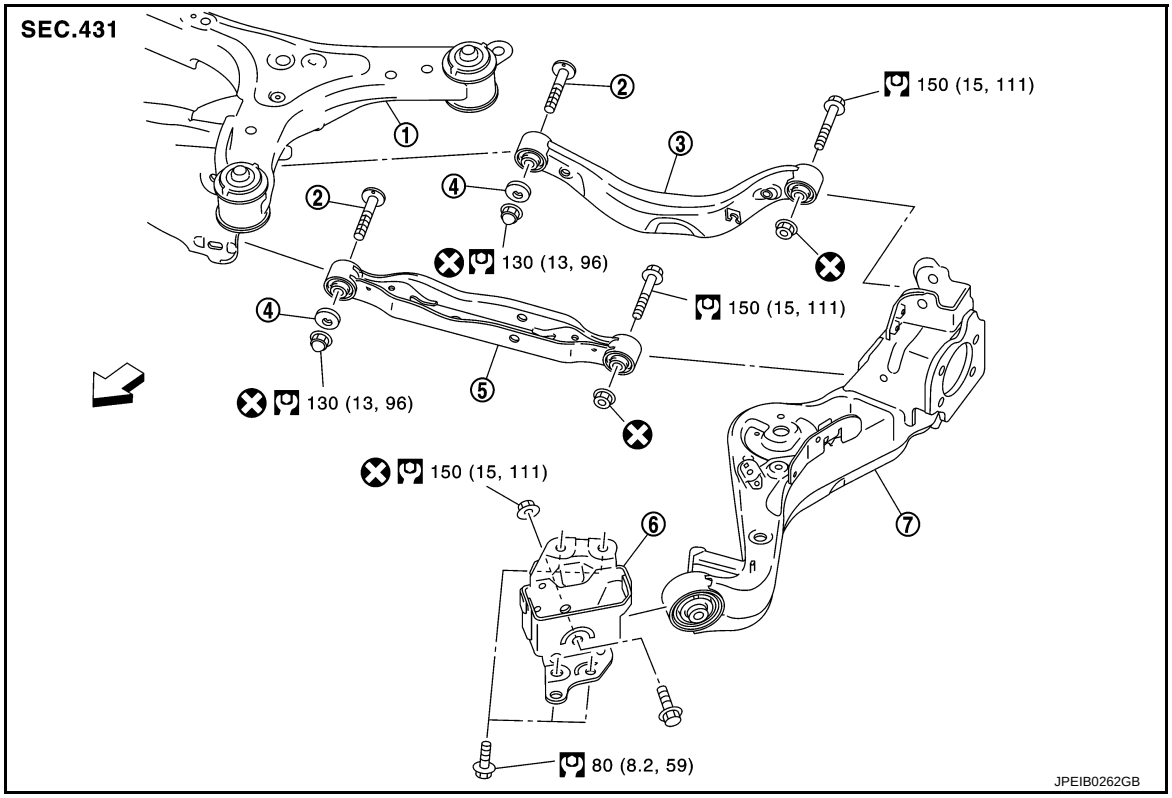
INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer toBRC-85, "REAR WHEEL SENSOR : Exploded View" (Without ESP), BRC-225, "REAR WHEEL SENSOR : Exploded View" (With ESP).
2. Adjust parking brake operation (stroke). Refer toPB-2, "Inspection and Adjustment".
3. Check wheel alignment. Refer to RSU-20, "Inspection".
4. Adjust neutral position of steering angle sensor. Refer to BRC-149, "Work Procedure". (With ESP)

LOWER LINK

Exploded View

INFOID:0000000006608136



1. Rear suspension member
2. Adjusting bolt
3. Upper link
4. Eccentric disk
5. Lower link
6. Suspension arm bracket
7. Suspension arm

⇦: Vehicle front

⊗: Always replace after every disassembly.

: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:0000000006608128

REMOVAL

1. Remove tires. Refer to WT-7, "Removal and Installation".
2. Set jack under suspension arm.
   CAUTION:
   - **Never damage the suspension arm with a jack.**
   - **Check the stable condition when using a jack.**
3. Remove stabilizer link. Refer to RSU-34, "Removal and Installation".
4. Remove eccentric disc, adjusting bolt, mounting bolt, and nut, then remove lower link.
5. Perform inspection after removal. Refer to RSU-31, "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.
- Never reuse lower link mounting nut.
- Perform inspection after installation. Refer to RSU-31, "Inspection".

Inspection

INFOID:0000000006608129

INSPECTION AFTER REMOVAL

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

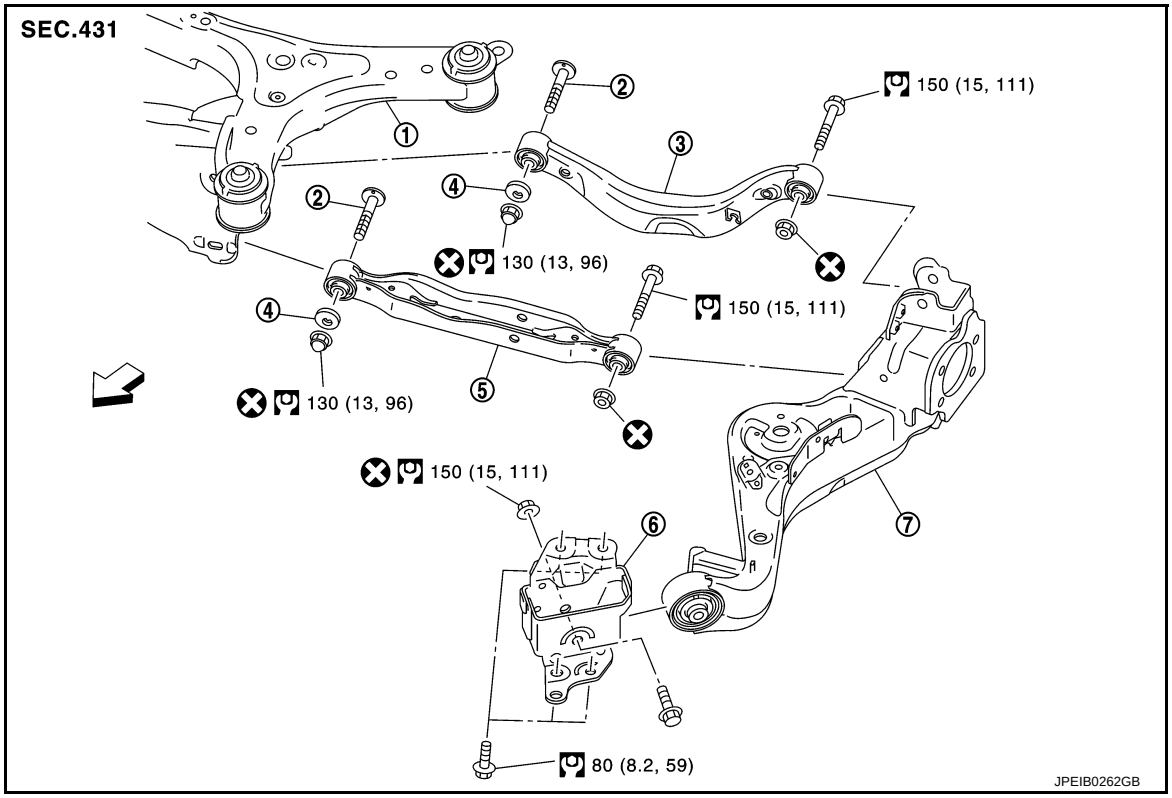
INSPECTION AFTER INSTALLATION

1. Check wheel alignment. Refer to RSU-20, "Inspection".
2. Adjust neutral position of steering angle sensor. Refer to BRC-149, "Work Procedure" (With ESP).

UPPER LINK

Exploded View

INFOID:0000000006608137



1. Rear suspension member
2. Adjusting bolt
3. Upper link
4. Eccentric disk
5. Lower link
6. Suspension arm bracket
7. Suspension arm

⇦: Vehicle front

⊗: Always replace after every disassembly.

: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:0000000006608130

REMOVAL

1. Remove tires. WT-7, "Removal and Installation".
2. Remove wheel sensor and sensor harness. Refer to BRC-86, "REAR WHEEL SENSOR : Removal and Installation" (Without ESP), BRC-227, "REAR WHEEL SENSOR : Removal and Installation" (With ESP).
3. Set jack under suspension arm.
   CAUTION:
   - **Never damage the suspension arm with a jack.**
   - **Check the stable condition when using a jack.**
4. Remove eccentric disc, adjusting bolt, mounting bolt, and nut, then remove upper link.
5. Perform inspection after removal. Refer to RSU-33, "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.
- Never reuse upper link mounting nut.
- Perform inspection after installation. Refer to RSU-33, "Inspection".

Inspection

INFOID:0000000006608131

INSPECTION AFTER REMOVAL

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

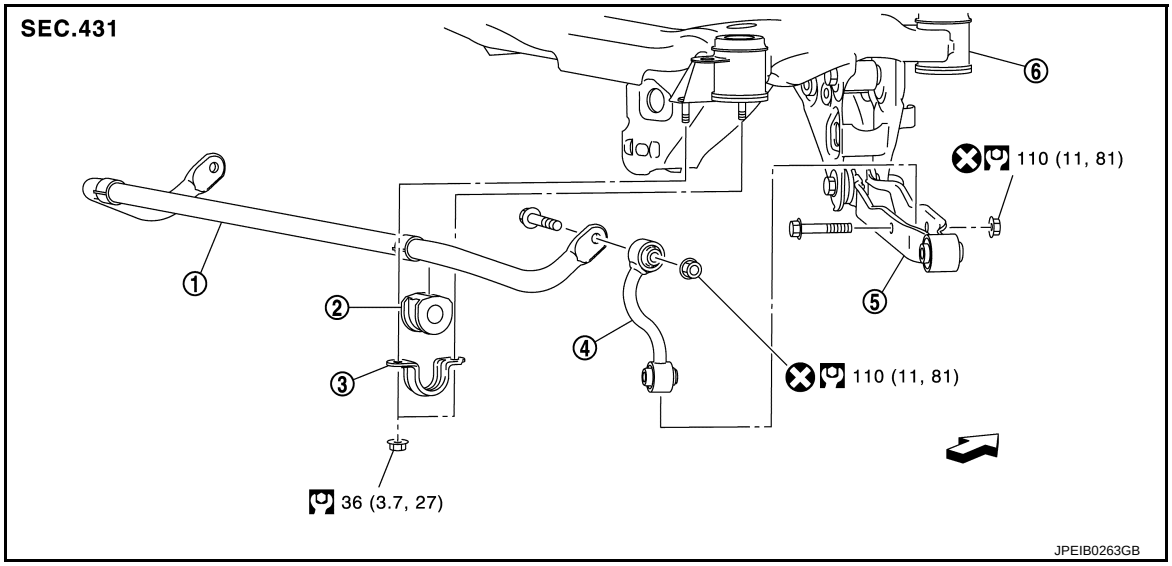
INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer toBRC-85, "REAR WHEEL SENSOR : Exploded View" (Without ESP), BRC-225, "REAR WHEEL SENSOR : Exploded View" (With ESP).
2. Check wheel alignment. Refer to RSU-20, "Inspection".
3. Adjust neutral position of steering angle sensor. Refer to BRC-149, "Work Procedure" (With ESP).

REAR STABILIZER

Exploded View

INFOID:0000000006601414



1. Stabilizer bar
2. Bushing
3. Stabilizer clamp
4. Stabilizer link
5. Lower link
6. Rear suspension member

⇦: Vehicle front

⊗: Always replace after every disassembly.

: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:0000000006608132

REMOVAL

1. Remove stabilizer link.
2. Remove center pipe. Refer to EX-6, "Removal and Installation".
3. Remove mounting nuts on stabilizer clamp, bushing, and stabilizer bar from suspension member.
4. Perform inspection after removal. Refer to RSU-34, "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.
- Never reuse stabilizer link mounting nut.

Inspection

INFOID:0000000006608133

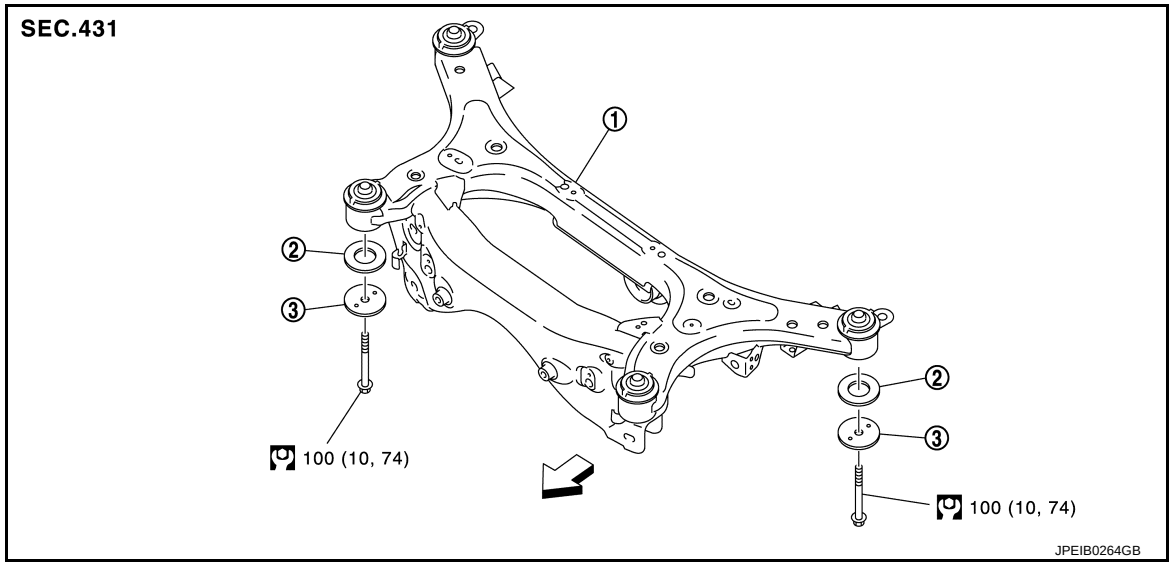
INSPECTION AFTER REMOVAL

Check stabilizer bar, stabilizer link, stabilizer bushing and stabilizer clamp for deformation, cracks or damage. Replace it if necessary.

REAR SUSPENSION ASSEMBLY

Exploded View

INFOID:0000000006601417



1. Rear suspension member
2. Rebound stopper
3. Washer

⇦: Vehicle front

: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:0000000006608134

REMOVAL

1. Remove tires. Refer to WT-7, "Removal and Installation".
2. Remove center pipe. Refer to EX-6, "Removal and Installation".
3. Remove propeller shaft. Refer to DLN-121, "Removal and Installation".
4. Remove stabilizer bar. Refer to RSU-34, "Removal and Installation".
5. Remove wheel sensor and sensor harness. Refer to BRC-86, "REAR WHEEL SENSOR : Removal and Installation" (Without ESP), BRC-227, "REAR WHEEL SENSOR : Removal and Installation" (With ESP).
6. Remove upper link from suspension arm. Refer to RSU-32, "Removal and Installation".
7. Remove lower link from suspension arm. Refer to RSU-30, "Removal and Installation".
8. Remove drive shaft from rear final drive. Refer to RAX-17, "Removal and Installation".
9. Remove rear final drive. Refer to DLN-144, "Removal and Installation".
10. Set jack under rear suspension member.
    CAUTION:
    - **Never damage the suspension member with a jack.**
    - **Check the stable condition when using a jack.**
11. Remove rear suspension member mounting bolts, rebound stopper, and washer.
12. Slowly lower jack, then remove rear suspension member, lower link and upper link from vehicle as a unit.
    CAUTION:
    Operate while checking that jack supporting status is stable.
13. Remove lower link and upper link from rear suspension member.
14. Perform inspection after removal. Refer to RSU-36, "Inspection".

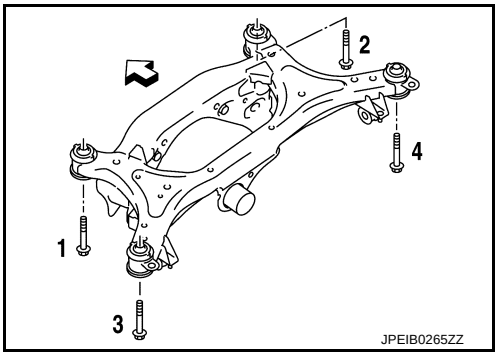
INSTALLATION

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

- To install mounting bolts of the suspension member, temporarily tighten them in numerical order shown in the figure and tighten them to the specified torque.

⇦ : Vehicle front

- Perform the final tightening of each parts removed when removing rear suspension assembly under unladen conditions.
- Perform inspection after installation. Refer to RSU-36, "Inspection".



Inspection

INFOID:0000000006608135

INSPECTION AFTER REMOVAL

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

INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer toBRC-85, "REAR WHEEL SENSOR : Exploded View" (Without ESP), BRC-225, "REAR WHEEL SENSOR : Exploded View" (With ESP).
2. Check wheel alignment. Refer to RSU-20, "Inspection".
3. Adjust neutral position of steering angle sensor. Refer to BRC-149, "Work Procedure" (With ESP).

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Wheel Alignment

INFOID:0000000006601420

Item			Standard
Camber Degree minute (Decimal degree)		Minimum	–0° 45′ (–0.75°)
		Nominal	0° 00′ (0.00°)
		Maximum	0° 45′ (0.75°)
Toe-in	Total toe-in Distance	Minimum	In 1.1 mm (0.043 in)
		Nominal	In 3.1 mm (0.122 in)
		Maximum	In 5.1 mm (0.201 in)
	Toe angle (left wheel or right wheel) Degree minute (Decimal degree)	Minimum	In 0° 03′ (0.05°)
		Nominal	In 0° 08′ (0.13°)
		Maximum	In 0° 13′ (0.21°)

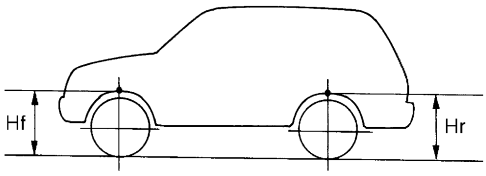
Measure value under unladen* conditions.

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

Wheelarch Height

INFOID:0000000006601422

Item	Standard
Front (Hf)	736 mm (28.98 in)
Rear (Hr)	742 mm (29.21 in)



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Measure value under unladen* conditions.

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