SECTION RAX
REAR AXLE

CONTENTS

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:0000000012226960

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.**
- **Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.**

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

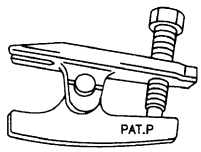
- **When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.**
- **When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least three minutes before performing any service.**

PREPARATION

PREPARATION

Commercial Service Tool

INFOID:0000000011933511

Tool name	Description
Ball joint remover  NT146	Removing wheel stud
Power tool  PIIB1407E	Loosening nuts, screws and bolts

SYMPTOM DIAGNOSIS

NOISE, VIBRATION, AND HARSHNESS(NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:0000000011933512

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

Reference			RAX-6	RAX-6	RAX-6	RSU-4	WT-62	WT-62	BR-6
Possible cause and SUSPECTED PARTS			Improper installation, looseness	Parts interference	Wheel bearing damage	REAR SUSPENSION	TIRE	WHEEL	BRAKE
Symptom	REAR AXLE	Noise	×	×		×	×	×	×
		Shake	×	×		×	×	×	×
		Vibration	×	×		×	×	x	
		Shimmy	×	×		×	×	×	×
		Shudder	×			×	×	×	×
		Poor quality ride or handling	×	×	×	×	×	×	

×: Applicable

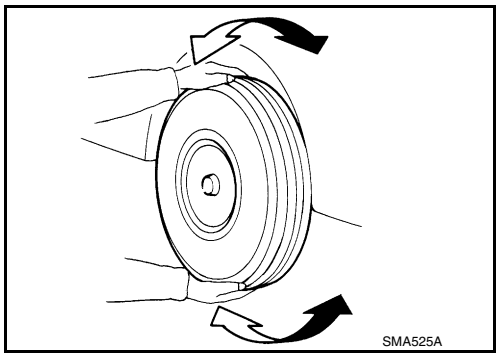
PERIODIC MAINTENANCE

WHEEL HUB

On-vehicle Service

INFOID:0000000011933513

Check axle and suspension parts for excessive play, wear or damage.
- Move the wheel as shown to check for excessive play.



Inspection

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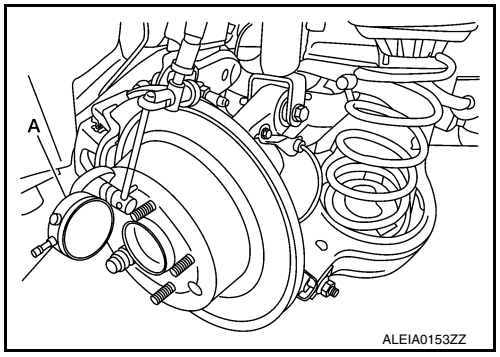
Rear Wheel Hub

If the following conditions are not met or not within specification, replace the wheel hub and bearing.
- Check that the wheel hub and bearing rotates smoothly.
- Check wheel hub and bearing axial end play.

Axial end play : **Refer to RAX-8, "Wheel Bearing (Rear)".**

- Check wheel hub and bearing runout.

Runout : **Refer to RAX-8, "Wheel Bearing (Rear)".**



NOTE:
- Make sure the area between the disc brake rotor and wheel hub and bearing are free from dirt or debris.
- Place the dial gauge (A) on a smooth surface, free from scratches or dents.
- Make sure the disc brake rotor is securely fastened to the wheel hub and bearing.

REMOVAL AND INSTALLATION

WHEEL HUB

Exploded View

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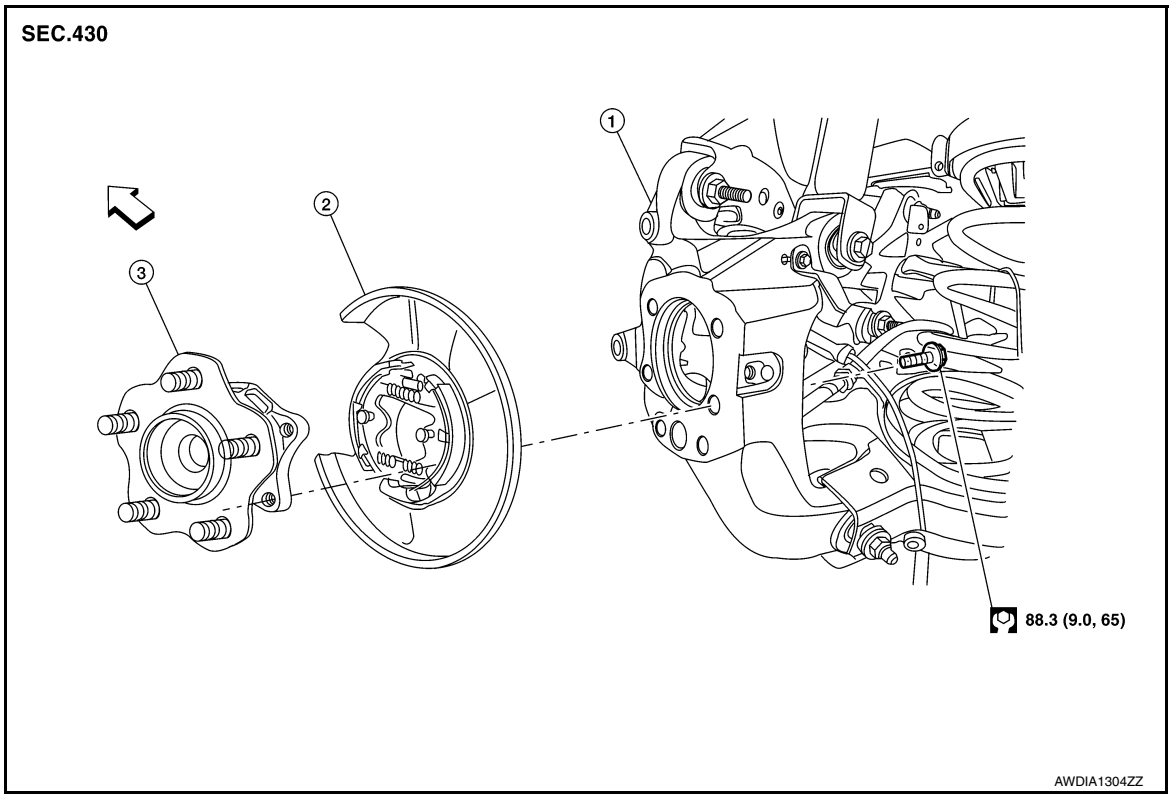


1. Knuckle
2. Back plate
3. Wheel hub and bearing

⇦ Front

Removal and Installation

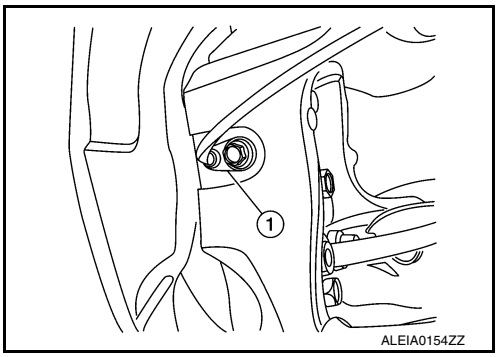
INFOID:0000000011933515

REMOVAL

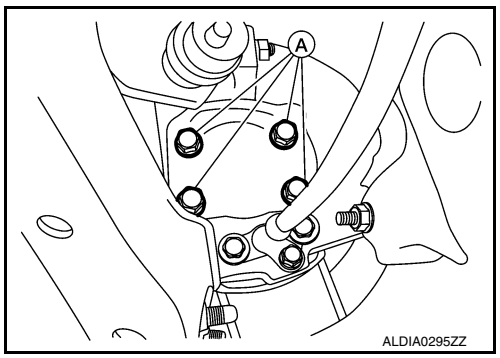
1. Remove disc brake rotor. Refer to BR-46, "DISC BRAKE ROTOR : Removal and Installation".
2. Remove the rear wheel sensor (1) from the knuckle and place it aside.

CAUTION:

- **Pull out rear wheel sensor being careful to turn it as little as possible. Do not pull on wheel sensor harness.**
- **Failure to remove rear wheel sensor from rear knuckle may result in damage to rear wheel sensor.**

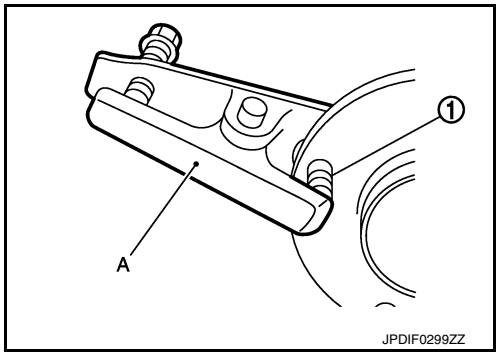


3. Remove the bolts (A) from the wheel hub and bearing.



4. Remove the wheel hub and bearing from knuckle.
5. Remove the wheel hub and bearing dust cap.
6. If necessary, remove wheel studs (1) from wheel hub and bearing using a suitable tool (A).

CAUTION:
- **Remove wheel studs only when necessary.**
- **Do not hammer wheel studs or damage to wheel hub and bearing may occur.**
- **Pull out wheel studs in a direction perpendicular to wheel hub and bearing.**



INSPECTION AFTER REMOVAL

Wheel Hub and Bearing

Check wheel hub and bearing for wear, cracks, and damage. Replace wheel hub and bearing if necessary.

Rear Knuckle

Check rear knuckle for wear, cracks, and damage. Replace rear knuckle if necessary.

INSTALLATION

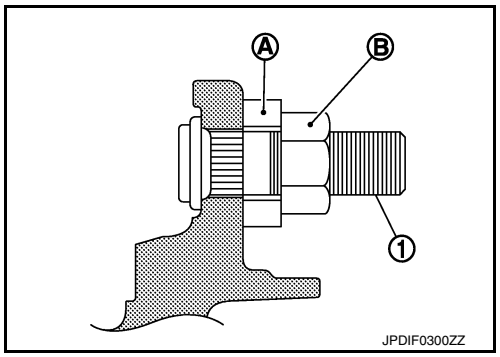
Installation is in the reverse order of removal.

CAUTION:

Do not use a power tool to tighten wheel hub lock nut.

- Place a washer (A) as shown to install wheel studs (1) by using tightening force of nut (B).

CAUTION:
- **Check that there is no clearance between wheel stud and wheel hub and bearing.**
- **Do not reuse wheel stud.**



- Clean mating surface of wheel hub lock nut and wheel hub and bearing.
- Clean mating surface of drive shaft and wheel hub and bearing.
- Make sure wheel hub and bearing operate smoothly.
- Install rear wheel sensor to rear knuckle. Refer to BRC-363, "REAR WHEEL SENSOR : Exploded View".

CAUTION:
- **Before installing, make sure there is no foreign material, such as iron fragments, adhered to pick-up part of rear wheel sensor.**
- **When installing, make sure there is no foreign material, such as iron fragments, on and in the hole in rear knuckle for rear wheel sensor. Make sure no foreign material has been caught in sensor rotor. Remove any foreign material and clean mount.**

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Wheel Bearing (Rear)

INFOID:0000000011933516

Wheel bearing axial end play	0.1 mm (0.004 in) or less
Runout	0.05 mm (0.002 in) or less