

SECTION **RAX**  
REAR AXLE

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RAX

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# PRECAUTIONS

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## SERVICE INFORMATION

### PRECAUTIONS

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

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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. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS 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 SRS 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 3 minutes before performing any service.

#### Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

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#### **NOTE:**

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYSTEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the "LOCK" position.
- Always use CONSULT-III to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.

For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.

If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

#### OPERATION PROCEDURE

1. Connect both battery cables.

#### **NOTE:**

Supply power using jumper cables if battery is discharged.

2. Use the Intelligent Key or mechanical key to turn the ignition switch to the "ACC" position. At this time, the steering lock will be released.
3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
4. Perform the necessary repair operation.

# PRECAUTIONS

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5. When the repair work is completed, return the ignition switch to the "LOCK" position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
6. Perform a self-diagnosis check of all control units using CONSULT-III.

## General Precautions

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Observe the following precautions when disassembling and assembling drive shaft.

- Perform work in a location which is as dust-free as possible.
- Before disassembling and assembling, clean the outside of parts.
- Prevention of the entry of foreign objects must be taken into account during disassembly of the service location.
- Disassembled parts must be carefully reassembled in the correct order. If work is interrupted, a clean cover must be placed over parts.
- Paper shop cloths must be used. Fabric shop cloths must not be used because of danger of lint adhering to parts.
- Disassembled parts (except for rubber parts) should be cleaned with kerosene which shall be removed by blowing with air or wiping with paper shop cloths.

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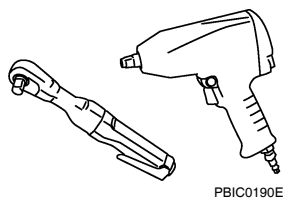
# PREPARATION

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## PREPARATION

### Commercial Service Tool

INFOID:000000005283939

| Tool name   | Description         |
|---|---------------------|
| Power tool<br> | Removing wheel nuts |

# NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SERVICE INFORMATION >

## NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

### NVH Troubleshooting Chart

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

| Reference page                     |           | RAX-6                            |   | RAX-6                |   | RSU-5, "NVH Troubleshooting Chart" |   | WT-5, "NVH Troubleshooting Chart" |   | WT-5, "NVH Troubleshooting Chart" |   | BR-7, "NVH Troubleshooting Chart" |   | PS-5, "NVH Troubleshooting Chart" |   |
|------------------------------------|-----------|----------------------------------|---|----------------------|---|------------------------------------|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|-----------------------------------|---|
|                                    |           |                                  |   |                      |   |                                    |   |                                   |   |                                   |   |                                   |   |                                   |   |
| Possible cause and SUSPECTED PARTS |           | Improper installation, looseness |   | Wheel bearing damage |   | REAR SUSPENSION                    |   | TIRES                             |   | ROAD WHEEL                        |   | BRAKES                            |   | STEERING                          |   |
| Symptom                            | REAR AXLE | Noise                            | x | x                    | x | x                                  | x | x                                 | x | x                                 | x | x                                 | x | x                                 | x |
|                                    |           | Shake                            | x |                      | x | x                                  | x | x                                 | x | x                                 | x | x                                 | x | x                                 | x |
|                                    |           | Vibration                        | x | x                    | x | x                                  | x | x                                 | x | x                                 | x | x                                 | x | x                                 | x |
|                                    |           | Shimmy                           | x |                      | x | x                                  | x | x                                 | x | x                                 | x | x                                 | x | x                                 | x |
|                                    |           | Shudder                          | x |                      | x | x                                  | x | x                                 | x | x                                 | x | x                                 | x | x                                 | x |
|                                    |           | Poor quality ride or handling    | x | x                    | x | x                                  | x | x                                 | x | x                                 | x | x                                 | x | x                                 | x |

x: Applicable

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# WHEEL HUB

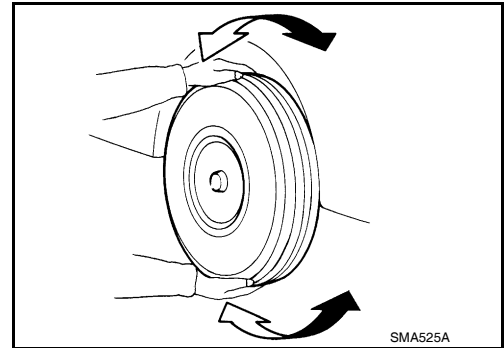
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## WHEEL HUB

### On-Vehicle Inspection and Service

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



### REAR WHEEL BEARING INSPECTION

- Move wheel hub and bearing assembly in the axial direction by hand. Make sure the axial end play is within specification.

**Axial end play : 0.05 mm (0.002 in) or less**

- Check that the wheel hub bearing operates smoothly.
- Replace the wheel hub assembly if the axial end play exceeds specification, or if the wheel bearing does not turn smoothly. Refer to [RAX-6. "Removal and Installation"](#).

#### **CAUTION:**

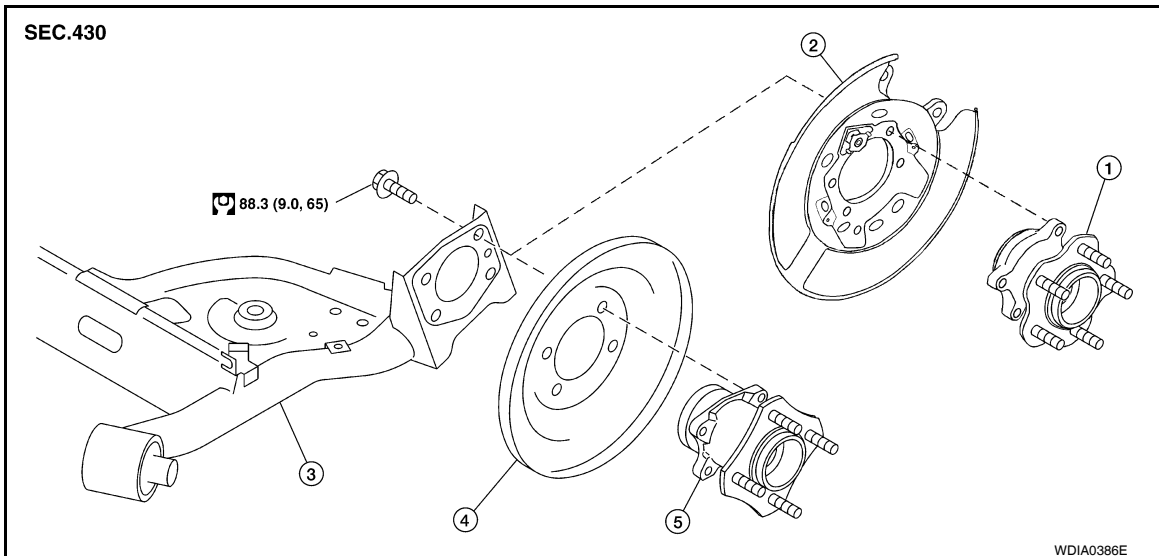
**The wheel hub assembly does not require maintenance. If any of the following symptoms are noted, replace the wheel hub assembly.**

- Growling noise is emitted from the wheel hub bearing during operation.
- Wheel hub bearing drags or turns roughly.

### Removal and Installation

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### COMPONENTS



- |  |  |                         |
|--|--|-------------------------|
| 1. Wheel hub and bearing assembly (disc brake) | 2. Baffle plate                                | 3. Rear suspension beam |
| 4. Back plate                                  | 5. Wheel hub and bearing assembly (drum brake) |                         |

### REMOVAL

# WHEEL HUB

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1. Remove wheel and tire using power tool.
2. Remove wheel sensor from wheel hub and bearing assembly, if equipped. Refer to [BRC-33, "Removal and Installation"](#).  
**CAUTION:**  
**Do not pull on wheel sensor harness.**
3. Remove the brake drum or disc brake rotor. Refer to [BR-44, "Removal and Installation of Drum Brake Assembly"](#) (Drum brake), [BR-38, "Removal and Installation of Caliper Assembly"](#) (Disc brake).
4. Remove wheel hub and bearing assembly bolts, and then remove wheel hub and bearing assembly.
5. Support baffle plate or back plate.

### INSPECTION AFTER REMOVAL

Check for any deformity, cracks, or other damage on the wheel hub assembly, replace if necessary.

#### **CAUTION:**

**The wheel hub assembly does not require maintenance. If any of the following symptoms are noted, replace the wheel hub assembly.**

- **Growling noise is emitted from the wheel hub bearing during operation.**
- **Wheel hub bearing drags or turns roughly.**

### INSTALLATION

Installation is in the reverse order of removal.

- Tighten wheel nuts to specification. Refer to [WT-7, "Adjustment"](#).

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## SERVICE DATA AND SPECIFICATIONS (SDS)

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### SERVICE DATA AND SPECIFICATIONS (SDS)

#### Wheel Bearing

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|                |                            |
|----------------|----------------------------|
| Axial end play | 0.05 mm (0.002 in) or less |
|----------------|----------------------------|

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