

SECTION **RAX**
REAR AXLE

A
B
C

RAX

CONTENTS

E

PRECAUTION 2

PRECAUTIONS 2

 Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"2

 Precautions for Axle Shaft2

 General Precautions2

PREPARATION 3

PREPARATION 3

 Commercial Service Tool3

SYMPTOM DIAGNOSIS 4

NOISE, VIBRATION, AND HARSHNESS (NVH) TROUBLESHOOTING 4

 NVH Troubleshooting Chart 4

BASIC INSPECTION 5

AXLE SHAFT 5

 On-Vehicle Inspection 5

REMOVAL AND INSTALLATION 6

AXLE SHAFT 6

 Exploded View 6

 Removal and Installation 6

F
G
H
I
J

K

L

M

N

O

P

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000013498343

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, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, 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 Air Bag Diagnosis Sensor Unit or other Air Bag 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 or batteries, and wait at least three minutes before performing any service.

Precautions for Axle Shaft

INFOID:000000013230703

Observe the following precautions when disassembling and assembling axle shaft.

- Perform work in a location which is as dust-free as possible.
- Before disassembly 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 assembled in the correct order. If work is interrupted, a clean cover must be placed over 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.
- Paper shop cloths must be used. Fabric shop cloths must not be used because of the danger of lint adhering to parts.

General Precautions

INFOID:000000012544524

When installing rubber parts, final tightening must be carried out under unladen condition* with tires on ground.

* Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

PREPARATION


< PREPARATION >

PREPARATION

PREPARATION

Commercial Service Tool

INFOID:000000012544526

Tool name	Description
Power tools  P11B1407E	Loosening nuts, screws and bolts

A

B

C

RAX

E

F

G

H

I

J

K

L

M

N

O

P

NOISE, VIBRATION, AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NOISE, VIBRATION, AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:0000000012544527

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

Reference page		RAX-5	RAX-5	RAX-5	DLN-130	DLN-179 (MA248), DLN-217 (MA248) ELD	RSU-4	WT-64	WT-64	BR-7
Possible cause and SUSPECTED PARTS		Improper installation, looseness	Parts interference	Wheel bearing damage	REAR PROPELLER SHAFT	REAR FINAL DRIVE	REAR SUSPENSION	TIRES	WHEEL	BRAKES
Symptom	Noise	x	x		x	x	x	x	x	x
	Shake	x	x		x		x	x	x	x
	Vibration	x	x		x		x	x		
	Shimmy	x	x				x	x	x	x
	Shudder	x					x	x	x	x
	Poor-quality ride or handling	x	x	x			x	x	x	

x: Applicable

AXLE SHAFT

< BASIC INSPECTION >

BASIC INSPECTION

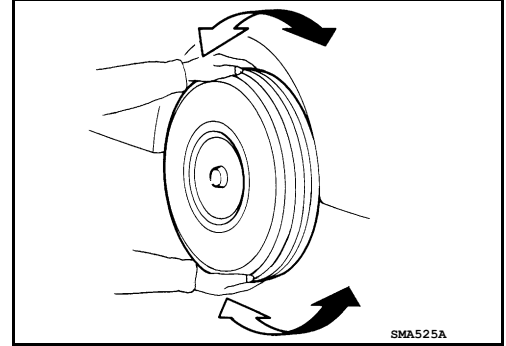
AXLE SHAFT

On-Vehicle Inspection

INFOID:000000012544528

REAR AXLE

- Check the axle parts for excessive play, wear, and damage. Replace as necessary.
- Shake each rear wheel to check for excessive play. Repair as necessary.
- Retighten all nuts and bolts to specification. Refer to [RAX-6](#), "[Exploded View](#)".



WHEEL BEARING INSPECTION

Check the axial end play, replace as necessary.

- Check that the axle shaft bearing operates smoothly. Replace as necessary.

A

B

C

RAX

E

F

G

H

I

J

K

L

M

N

O

P

AXLE SHAFT

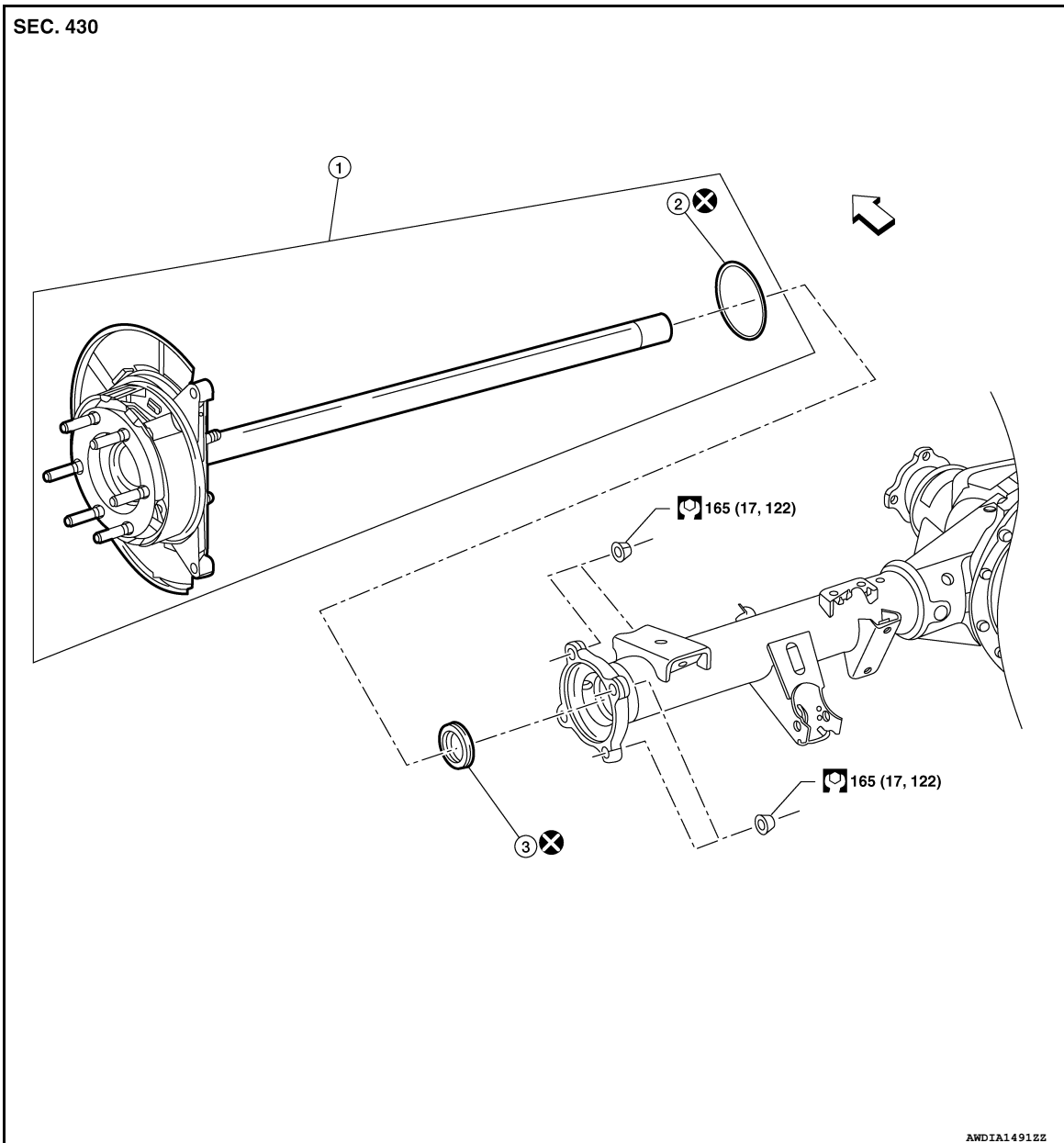
< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

AXLE SHAFT

Exploded View

INFOID:0000000012544531



1. Axle shaft assembly

2. O-ring

3. Seal

⇐ Front

Removal and Installation

INFOID:0000000013211369

REMOVAL

1. Remove rear wheel sensor from axle housing. Refer to [BRC-160, "REAR WHEEL SENSOR : Removal and Installation"](#).

CAUTION:

Before removing the axle shaft, remove the wheel sensor to reposition the wheel sensor out of the way. Failure to do so may result in damage to the wheel sensor and cause the wheel sensor to become inoperative.

2. Remove rear disc brake rotor. Refer to [BR-41, "DISC BRAKE ROTOR : Removal and Installation"](#).

AXLE SHAFT

< REMOVAL AND INSTALLATION >

3. Disconnect park brake cable from lever. Refer to [PB-7. "Exploded View"](#).
4. Remove axle nuts. A
5. Remove axle shaft assembly. Discard O-ring and seal.
6. Using a suitable tool, remove seal from axle housing. Remove O-ring. Discard O-ring and seal. B
CAUTION:
 - Do not reuse O-ring.
 - Do not reuse seal.

INSPECTION AFTER REMOVAL C

Check component parts for deformation, cracks, and scratches. If a component part has damage, replace the component part.

Axle Shaft

Check axle shaft for cracks, bends, and wear.

Sensor Rotor

Clean the sensor rotor if any foreign matter is present. E

INSTALLATION

Installation is in the reverse order of removal. F

CAUTION:

- Do not reuse O-ring.
- Do not reuse seal.
- Check and adjust rear differential gear oil level as necessary. Refer to [DLN-181. "Inspection"](#) (MA248), or [DLN-279. "Inspection"](#) (MA248) ELD. G
- Adjust park brake. Refer to [PB-5. "Adjustment"](#). H

RAX

E

F

G

H

I

J

K

L

M

N

O

P