

SECTION **FAX**
FRONT AXLE

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FAX

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NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:000000009163148

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

Reference																	
Possible cause and SUSPECTED PARTS																	
Symptom	DRIVE SHAFT	Noise	x	x				x	x	x	x	x	x	x	x		
		Shake	x		x			x	x	x	x	x			x	x	
	FRONT AXLE	Noise				x	x	x	x		x	x	x	x	x	x	x
		Shake				x	x	x	x		x	x	x	x	x	x	x
		Vibration				x	x	x	x		x		x				x
		Shimmy				x	x		x		x	x			x	x	
		Judder				x			x		x	x			x	x	
		Poor quality ride or handling				x	x		x		x	x					
		Excessive joint angle															
		Joint sliding resistance	This work is recommended to be performed by GT-R certified NISSAN dealer.														
		Imbalance															
		Improper installation, looseness	This work is recommended to be performed by GT-R certified NISSAN dealer.														
		Parts interference															
		Wheel bearing damage	This work is recommended to be performed by GT-R certified NISSAN dealer.														
		FRONT AXLE AND FRONT SUSPENSION	NVH in FAX and FSU sections														
		FRONT AXLE	Refer to Front axle in this chart.														
		TIRE	NVH in WT section														
		ROAD WHEEL	NVH in WT section														
		DRIVE SHAFT	Refer to DRIVE SHAFT in this chart.														
		BRAKE	NVH in BR section														
		STEERING	NVH in ST section														

x: Applicable

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precaution for Working Range at a Regular Dealership

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CAUTION:

The service items unmentioned on this manual are recommended to be performed by a GT-R certified NISSAN dealer. Because those service items require special equipment and a GT-R certified technical staff who completed special training.

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 AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never 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.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnection

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CAUTION:

Comply with the following cautions to prevent any error and malfunction.

- Before removing and installing any control units, first turn the ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.

PRECAUTIONS

< PRECAUTION >

NOTE:

Supply power using jumper cables if battery is discharged.

2. Turn the ignition switch to ACC position.
(At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT.

General Precautions

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CAUTION:

After finishing servicing, check that all the tools and waste are stored in a customary place.

FRONT WHEEL HUB AND KNUCKLE

< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE

FRONT WHEEL HUB AND KNUCKLE

Inspection

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MOUNTING INSPECTION

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

WHEEL BEARING INSPECTION

- Move wheel hub and bearing assembly in the axial direction by hand. Check there is no looseness of wheel bearing.

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

- Rotate wheel hub and check is no unusual noise or other irregular conditions. If there is any of abnormal conditions, replace wheel hub and bearing assembly.

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FRONT DRIVE SHAFT

< PERIODIC MAINTENANCE >

FRONT DRIVE SHAFT

Inspection

INFOID:000000009163157

- Check drive shaft mounting point and joint for looseness and other damage.
- Check boot for cracks and other damage.

CAUTION:

Replace entire drive shaft assembly when noise or vibration occurs from drive shaft.

FRONT WHEEL HUB AND KNUCKLE

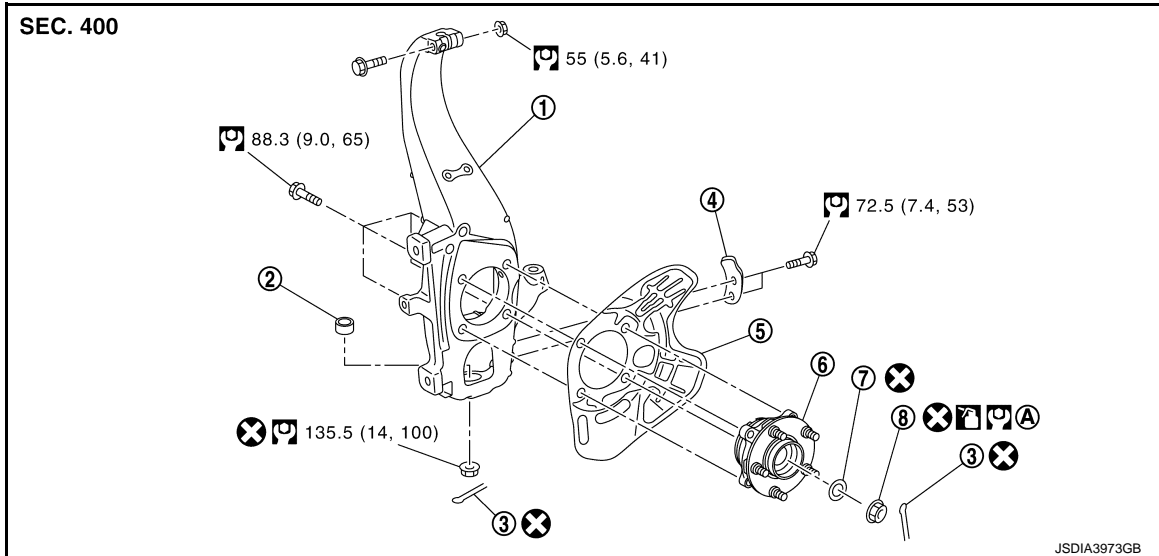
< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

FRONT WHEEL HUB AND KNUCKLE


Exploded View

INFOID:000000009163158



- | | | |
|-----------------------------|-----------------------|-----------------------------------|
| 1. Steering knuckle | 2. Ball seat | 3. Cotter pin |
| 4. Steering support bracket | 5. Splash guard | 6. Wheel hub and bearing assembly |
| 7. Spring washer | 8. Wheel hub lock nut | |

- A. When tightening wheel hub lock nut, tighten the lock nut to 225 N·m (23 kg·m, 166 ft·lb), loosen it, and retighten it to 350 N·m (36 kg·m, 258 ft·lb) to break in spring washer and the contact surface of wheel hub assembly.

: Apply anti-corrosion.

Refer to [GI-4. "Components"](#) for the symbols in the figure.

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