

SECTION **DLN**
DRIVELINE

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PRECAUTION

PRECAUTIONS

Precaution for Working Range at a Regular Dealership

INFOID:000000009190091

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"

INFOID:000000009162049

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

INFOID:000000009162050

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.

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PRECAUTIONS

< PRECAUTION >

[TRANSFER]

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.

Precaution for Battery Service

INFOID:000000009162051

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

Aluminum Die-Casting Parts Handling

INFOID:000000009162052

PROHIBITION OF WELDING OR BEATING REPAIR

- Material made of aluminum die-casting parts is heat-treated and loses strength when being exposed to welding heat. Do not perform welding repair for cracks, damage or others.
- For aluminum die-casting parts deformation, do not perform repair by beating. Always repair by replacement as an assembly.

CRACK CHECK

When the vehicle is damaged, always perform a visual deformation check and a crack check.

Crack Check Procedures

For a crack check, use dye penetrant inspection fluid (pre-cleaning fluid, penetrant fluid and developer fluid).

CAUTION:

Always perform a crack check in accordance with the procedures specified by the manufacturer of the dye penetrant inspection fluid.

1. Spray pre-cleaning fluid on the checking surface for cleaning.
2. Spray penetrant fluid on the checking surface and wait until the penetrant fluid soaks into any cracks.
3. Wipe off excessive penetrant fluid, and then also lightly wipe off penetrant fluid using a wet cloth.
4. Spray developer fluid on the checking surface.
5. Cracks, if any, are dyed red in color.

STRAY CURRENT CORROSION

- Corrosion occurs to aluminum die-casting parts by the stray current corrosion phenomenon, when directly contacting other parts made of steel. Always apply anti-stray current corrosion paint (primer) on the mounting surface.
- Clean mounting surface to prevent any foreign matter, steel powder or others from being mixed in. Always apply the specified adhesive when installing.
- Corrosion by stray current corrosion may occur when installing with any other bolts than the specified bolt. Always use the specified bolt that is surface treated.
- When loosening the specified bolt that is tightened, the treated surface may peel. Never reuse the specified bolt that is tightened once.

TIGHTENING TORQUE CONTROL

Material made of aluminum die-casting parts is soft in term of hardness. Tightening torque must be controlled exactly as specified. Always use a torque wrench to install any part to the specified tightening torque.

WARNING:

Never use a power tool to remove or tighten bolts for aluminum die-casting part to prevent damage to aluminum die-casting parts.

PRECAUTIONS

< PRECAUTION >

[TRANSFER]

Service Notice or Precautions for the Transfer

INFOID:000000009162053

- Before starting diagnosis of the vehicle, understand symptoms well. Perform correct and systematic operations.
- Replace all tires at the same time. Always use tires of the proper size and the same brand and pattern. Fitting improper size and unusually worn tires applies excessive force to vehicle mechanism and can cause longitudinal vibration.

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PERIODIC MAINTENANCE

TRANSFER FLUID

Transfer Fluid

INFOID:000000009162054

CAUTION:

Refer to [TM-10. "Inspection"](#) because the transfer is integrated with the transmission.

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[TRANSFER]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

General Specifications

INFOID:000000009162058

Refer to [TM-21, "General Specification"](#) because the transfer is integrated with the transmission.

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NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

[FRONT PROPELLER SHAFT: 3F56A-DOJ75]

x: Applicable

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PRECAUTIONS

[FRONT PROPELLER SHAFT: 3F56A-DOJ75]

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precaution for Working Range at a Regular Dealership

INFOID:000000009190092

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.

Aluminum Die-Casting Parts Handling

INFOID:000000009162060

PROHIBITION OF WELDING OR BEATING REPAIR

- Material made of aluminum die-casting parts is heat-treated and loses strength when being exposed to welding heat. Do not perform welding repair for cracks, damage or others.
- For aluminum die-casting parts deformation, do not perform repair by beating. Always repair by replacement as an assembly.

CRACK CHECK

When the vehicle is damaged, always perform a visual deformation check and a crack check.

Crack Check Procedures

For a crack check, use dye penetrant inspection fluid (pre-cleaning fluid, penetrant fluid and developer fluid).

CAUTION:

Always perform a crack check in accordance with the procedures specified by the manufacturer of the dye penetrant inspection fluid.

1. Spray pre-cleaning fluid on the checking surface for cleaning.
2. Spray penetrant fluid on the checking surface and wait until the penetrant fluid soaks into any cracks.
3. Wipe off excessive penetrant fluid, and then also lightly wipe off penetrant fluid using a wet cloth.
4. Spray developer fluid on the checking surface.
5. Cracks, if any, are dyed red in color.

STRAY CURRENT CORROSION

- Corrosion occurs to aluminum die-casting parts by the stray current corrosion phenomenon, when directly contacting other parts made of steel. Always apply anti-stray current corrosion paint (primer) on the mounting surface.
- Clean mounting surface to prevent any foreign matter, steel powder or others from being mixed in. Always apply the specified adhesive when installing.
- Corrosion by stray current corrosion may occur when installing with any other bolts than the specified bolt. Always use the specified bolt that is surface treated.
- When loosening the specified bolt that is tightened, the treated surface may peel. Never reuse the specified bolt that is tightened once.

TIGHTENING TORQUE CONTROL

Material made of aluminum die-casting parts is soft in term of hardness. Tightening torque must be controlled exactly as specified. Always use a torque wrench to install any part to the specified tightening torque.

WARNING:

Never use a power tool to remove or tighten bolts for aluminum die-casting part to prevent damage to aluminum die-casting parts.

FRONT PROPELLER SHAFT

< REMOVAL AND INSTALLATION >

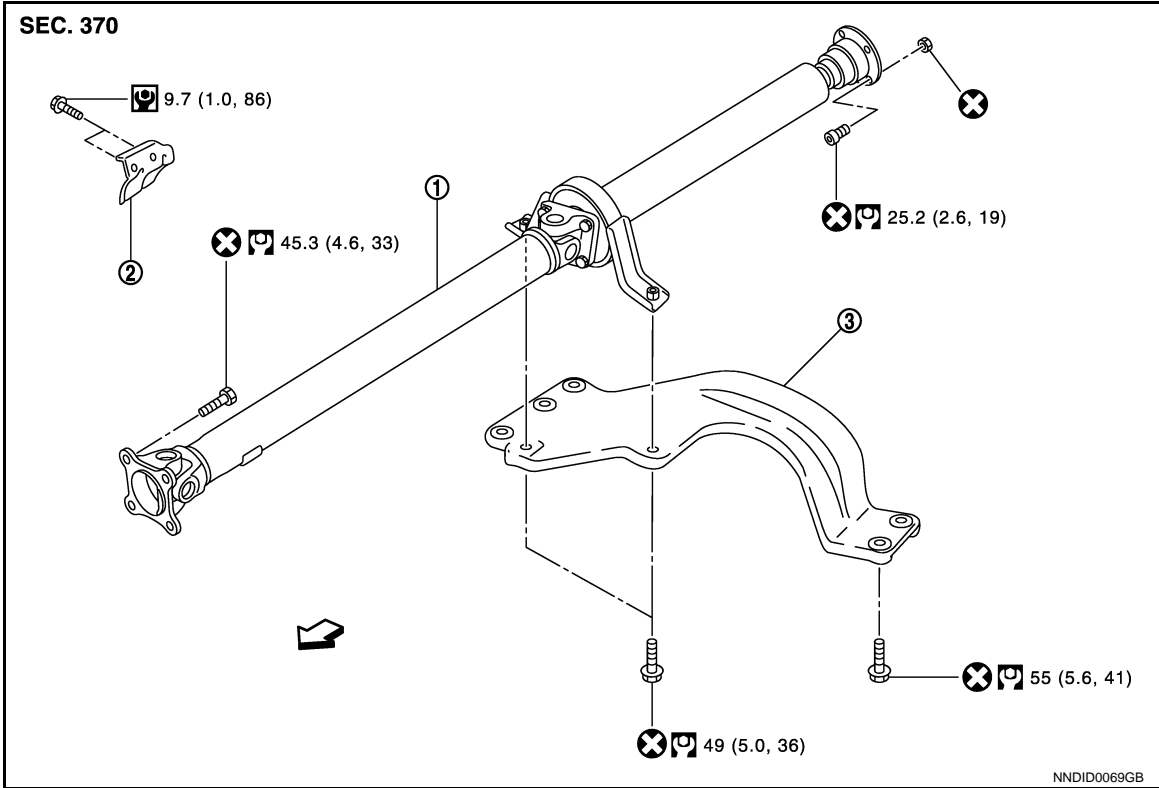
[FRONT PROPELLER SHAFT: 3F56A-DOJ75]

REMOVAL AND INSTALLATION

FRONT PROPELLER SHAFT

Exploded View

INFOID:000000009162063



1. Front propeller shaft assembly

2. Heat bracket

3. Tunnel stay

←: Vehicle front

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

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SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[FRONT PROPELLER SHAFT: 3F56A-DOJ75]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

General Specifications

INFOID:000000009162066

Drive type	AWD	
Engine	VR38DETT	
Transmission	GR6Z30A	
Propeller shaft model	3F56A-DOJ75	
Number of joints	3	
Type of journal bearings (Non-disassembly type)	1st joint	CVJ type
	2nd joint	Cardan type
	3rd joint	Cardan type
Coupling method with transmission	Flange type	
Coupling method with front final drive	Flange type	
Shaft length	1st (Spider to spider)	855 mm (33.66 in)
	2nd (Spider to spider)	750 mm (29.53 in)
Shaft outer diameter	1st	50.8 mm (2.000 in)
	2nd	42.7 mm (1.681 in)

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

[MAIN PROPELLER SHAFT: 2F71A-VL101]

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:000000009162069

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

Symptom		Possible cause and SUSPECTED PARTS														Reference
		Uneven rotating torque	Center bearing improper installation	Excessive center bearing axial end play	Center bearing mounting (insulator) cracks, damage or deterioration	Excessive joint angle	Rotation imbalance	Excessive runout	DIFFERENTIAL	AXLE AND SUSPENSION	TIRE	ROAD WHEEL	DRIVE SHAFT	BRAKE	STEERING	
	Noise	x	x	x	x	x	x	x	x	x	x	x	x	x	x	This work is recommended to be performed by GT-R certified NISSAN dealer.
	Shake		x			x				x	x	x	x	x		—
	Vibration	x	x	x	x	x	x	x		x	x					—
																This work is recommended to be performed by GT-R certified NISSAN dealer.
																This work is recommended to be performed by GT-R certified NISSAN dealer.
																This work is recommended to be performed by GT-R certified NISSAN dealer.
																NVH in DLN section.
																NVH in FAX, RAX, FSU and RSU section.
																NVH in WT section.
																NVH in WT section.
																NVH in FAX and RAX section.
																NVH in BR section.
																NVH in ST section.

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NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

[MAIN PROPELLER SHAFT: 2F71A-VL101]

×: Applicable

PRECAUTIONS

< PRECAUTION >

[MAIN PROPELLER SHAFT: 2F71A-VL101]

PRECAUTION

PRECAUTIONS

Precaution for Working Range at a Regular Dealership

INFOID:000000009190093

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.

Precautions for terminology

INFOID:000000009162070

The “Main carbon composite propeller shaft” adopted on this model is called the “Main propeller shaft” in this manual.

Aluminum Die-Casting Parts Handling

INFOID:000000009162071

PROHIBITION OF WELDING OR BEATING REPAIR

- Material made of aluminum die-casting parts is heat-treated and loses strength when being exposed to welding heat. Do not perform welding repair for cracks, damage or others.
- For aluminum die-casting parts deformation, do not perform repair by beating. Always repair by replacement as an assembly.

CRACK CHECK

When the vehicle is damaged, always perform a visual deformation check and a crack check.

Crack Check Procedures

For a crack check, use dye penetrant inspection fluid (pre-cleaning fluid, penetrant fluid and developer fluid).

CAUTION:

Always perform a crack check in accordance with the procedures specified by the manufacturer of the dye penetrant inspection fluid.

1. Spray pre-cleaning fluid on the checking surface for cleaning.
2. Spray penetrant fluid on the checking surface and wait until the penetrant fluid soaks into any cracks.
3. Wipe off excessive penetrant fluid, and then also lightly wipe off penetrant fluid using a wet cloth.
4. Spray developer fluid on the checking surface.
5. Cracks, if any, are dyed red in color.

STRAY CURRENT CORROSION

- Corrosion occurs to aluminum die-casting parts by the stray current corrosion phenomenon, when directly contacting other parts made of steel. Always apply anti-stray current corrosion paint (primer) on the mounting surface.
- Clean mounting surface to prevent any foreign matter, steel powder or others from being mixed in. Always apply the specified adhesive when installing.
- Corrosion by stray current corrosion may occur when installing with any other bolts than the specified bolt. Always use the specified bolt that is surface treated.
- When loosening the specified bolt that is tightened, the treated surface may peel. Never reuse the specified bolt that is tightened once.

TIGHTENING TORQUE CONTROL

Material made of aluminum die-casting parts is soft in term of hardness. Tightening torque must be controlled exactly as specified. Always use a torque wrench to install any part to the specified tightening torque.

WARNING:

Never use a power tool to remove or tighten bolts for aluminum die-casting part to prevent damage to aluminum die-casting parts.

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MAIN PROPELLER SHAFT

< REMOVAL AND INSTALLATION >

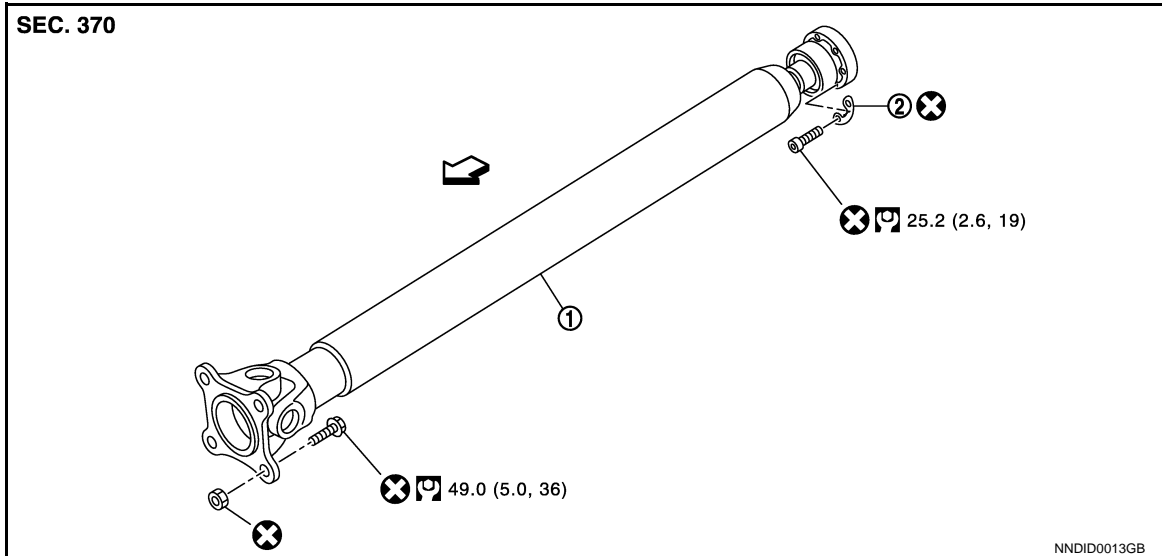
[MAIN PROPELLER SHAFT: 2F71A-VL101]

REMOVAL AND INSTALLATION

MAIN PROPELLER SHAFT

Exploded View

INFOID:000000009162075



- 1. Main propeller shaft assembly
- 2. Plain washer

↔: The front of vehicle

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

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[MAIN PROPELLER SHAFT: 2F71A-VL101]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

General Specifications

INFOID:000000009162078

Drive type	AWD	
Engine	VR38DETT	
Transmission	GR6Z30A	
Propeller shaft model	2F71A-VL101	
Number of joints	2	
Type of journal bearings (Non-disassembly type)	1st joint	Cardan type
	2nd joint	CVJ type
Coupling method with engine	Flange type	
Coupling method with transmission	Rebro joint type	
Shaft length (Spider to spider)	1117 mm (43.98 in)	
Shaft outer diameter	71 mm (2.80 in)	

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PRECAUTION

PRECAUTIONS

Precaution for Working Range at a Regular Dealership

INFOID:000000009190094

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.

Aluminum Die-Casting Parts Handling

INFOID:000000009162082

PROHIBITION OF WELDING OR BEATING REPAIR

- Material made of aluminum die-casting parts is heat-treated and loses strength when being exposed to welding heat. Do not perform welding repair for cracks, damage or others.
- For aluminum die-casting parts deformation, do not perform repair by beating. Always repair by replacement as an assembly.

CRACK CHECK

When the vehicle is damaged, always perform a visual deformation check and a crack check.

Crack Check Procedures

For a crack check, use dye penetrant inspection fluid (pre-cleaning fluid, penetrant fluid and developer fluid).

CAUTION:

Always perform a crack check in accordance with the procedures specified by the manufacturer of the dye penetrant inspection fluid.

1. Spray pre-cleaning fluid on the checking surface for cleaning.
2. Spray penetrant fluid on the checking surface and wait until the penetrant fluid soaks into any cracks.
3. Wipe off excessive penetrant fluid, and then also lightly wipe off penetrant fluid using a wet cloth.
4. Spray developer fluid on the checking surface.
5. Cracks, if any, are dyed red in color.

STRAY CURRENT CORROSION

- Corrosion occurs to aluminum die-casting parts by the stray current corrosion phenomenon, when directly contacting other parts made of steel. Always apply anti-stray current corrosion paint (primer) on the mounting surface.
- Clean mounting surface to prevent any foreign matter, steel powder or others from being mixed in. Always apply the specified adhesive when installing.
- Corrosion by stray current corrosion may occur when installing with any other bolts than the specified bolt. Always use the specified bolt that is surface treated.
- When loosening the specified bolt that is tightened, the treated surface may peel. Never reuse the specified bolt that is tightened once.

TIGHTENING TORQUE CONTROL

Material made of aluminum die-casting parts is soft in term of hardness. Tightening torque must be controlled exactly as specified. Always use a torque wrench to install any part to the specified tightening torque.

WARNING:

Never use a power tool to remove or tighten bolts for aluminum die-casting part to prevent damage to aluminum die-casting parts.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnection

INFOID:000000009162083

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.

PRECAUTIONS

< PRECAUTION >

[FRONT FINAL DRIVE: F160A]

- **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.

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

INFOID:000000009162084

CAUTION:

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

FRONT DIFFERENTIAL GEAR OIL

< PERIODIC MAINTENANCE >

[FRONT FINAL DRIVE: F160A]

PERIODIC MAINTENANCE

FRONT DIFFERENTIAL GEAR OIL

Inspection

INFOID:000000009162089

OIL LEAKAGE

Visually check final drive assembly surrounding area for smears and leakage of defferential gear oil.

Status	Parts	Required operation
Smears *1	Each part on the final drive assembly	Use part cleaner or the equivalent to wipe out smeared oil. Then, check for oil leakage.
Leakage *2	Oil seal	Check the oil seal mounting surface and sliding surface for abnormalities. If it is normal, replace only oil seal. Then, check for oil leakage.
	Filler plug	Replace the filler plug gasket. Then, check for oil leakage.
	Drain plug	Replace the drain plug gasket. Then, check for oil leakage.
	Mating surface between Gear carrier and rear cover.	Check the seal surface for abnormalities. If it is normal, replace only rear cover gasket. Then, check for oil leakage.

*1: When the oil does not drop

*2: When the oil drops

OIL LEVEL

- Remove filler plug (1) and gasket. Then check that oil is filled up (A) from mounting hole for the filler plug.

CAUTION:

Never start engine while checking oil level.

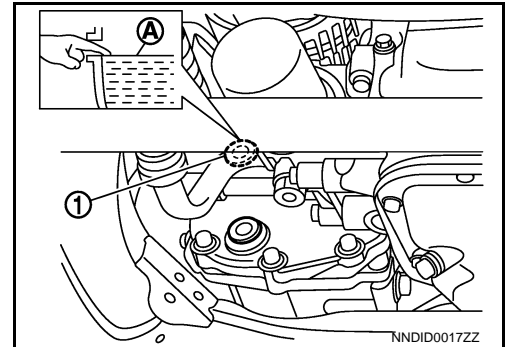
- Set a gasket on filler plug (1) and install it on final drive, and then tighten to the specified torque.

Standard

Filler plug tightening torque : 35 N·m (3.6 kg-m, 26 ft-lb)

CAUTION:

Never reuse gasket.



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SERVICE DATA AND SPECIFICATIONS (SDS)

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[FRONT FINAL DRIVE: F160A]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

General Specifications

INFOID:000000009162112

Applied model	AWD
	VR38DETT
	GR6Z30A
Final drive model	F160A
Gear ratio	2.937
Number of teeth (Drive gear/Drive pinion)	47/16
Oil capacity (Approx.) <i>ℓ</i> (US pt, Imp pt)	0.65 (1-3/8, 1-1/8)
Number of pinion gears	2
Drive pinion adjustment spacer type	Solid

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

[REAR FINAL DRIVE]

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:000000009162118

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

Reference	Possible cause and SUSPECTED PARTS	Symptom	Noise
	Gear tooth rough	×	×
This work is recommended to be performed by GT-R certified NISSAN dealer.	Gear contact improper	×	×
This work is recommended to be performed by GT-R certified NISSAN dealer.	Tooth surfaces worn	×	×
This work is recommended to be performed by GT-R certified NISSAN dealer.	Backlash incorrect	×	×
This work is recommended to be performed by GT-R certified NISSAN dealer.	Companion flange excessive runout	×	×
—	Gear oil improper	×	×
DLN-25, "Inspection"	PROPELLER SHAFT	×	×
NVH in DLN section.	AXLE AND SUSPENSION	×	×
NVH in FAX, RAX, FSU and RSU sections.	TIRE	×	×
NVH in WT section.	ROAD WHEEL	×	×
NVH in WT section.	DRIVE SHAFT	×	×
NVH in FAX and RAX section.	BRAKE	×	×
NVH in BR section.	STEERING	×	×
NVH in ST section.			

×: Applicable

NOTE:

Although operating sound may be heard from LSD while driving, this is not always a malfunction.

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PRECAUTION

PRECAUTIONS

Precaution for Working Range at a Regular Dealership

INFOID:000000009190095

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.

Aluminum Die-Casting Parts Handling

INFOID:000000009162119

PROHIBITION OF WELDING OR BEATING REPAIR

- Material made of aluminum die-casting parts is heat-treated and loses strength when being exposed to welding heat. Do not perform welding repair for cracks, damage or others.
- For aluminum die-casting parts deformation, do not perform repair by beating. Always repair by replacement as an assembly.

CRACK CHECK

When the vehicle is damaged, always perform a visual deformation check and a crack check.

Crack Check Procedures

For a crack check, use dye penetrant inspection fluid (pre-cleaning fluid, penetrant fluid and developer fluid).

CAUTION:

Always perform a crack check in accordance with the procedures specified by the manufacturer of the dye penetrant inspection fluid.

1. Spray pre-cleaning fluid on the checking surface for cleaning.
2. Spray penetrant fluid on the checking surface and wait until the penetrant fluid soaks into any cracks.
3. Wipe off excessive penetrant fluid, and then also lightly wipe off penetrant fluid using a wet cloth.
4. Spray developer fluid on the checking surface.
5. Cracks, if any, are dyed red in color.

STRAY CURRENT CORROSION

- Corrosion occurs to aluminum die-casting parts by the stray current corrosion phenomenon, when directly contacting other parts made of steel. Always apply anti-stray current corrosion paint (primer) on the mounting surface.
- Clean mounting surface to prevent any foreign matter, steel powder or others from being mixed in. Always apply the specified adhesive when installing.
- Corrosion by stray current corrosion may occur when installing with any other bolts than the specified bolt. Always use the specified bolt that is surface treated.
- When loosening the specified bolt that is tightened, the treated surface may peel. Never reuse the specified bolt that is tightened once.

TIGHTENING TORQUE CONTROL

Material made of aluminum die-casting parts is soft in term of hardness. Tightening torque must be controlled exactly as specified. Always use a torque wrench to install any part to the specified tightening torque.

WARNING:

Never use a power tool to remove or tighten bolts for aluminum die-casting part to prevent damage to aluminum die-casting parts.

PERIODIC MAINTENANCE

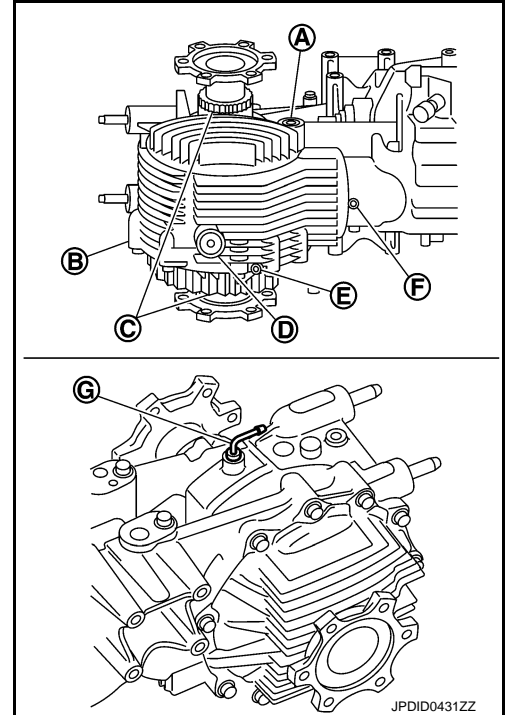
REAR DIFFERENTIAL GEAR OIL

Inspection

INFOID:000000009162124

OIL LEAKAGE

- Visually check final drive assembly surrounding area for smears and leakage of differential gear oil.



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REAR DIFFERENTIAL GEAR OIL

[REAR FINAL DRIVE]

< PERIODIC MAINTENANCE >

Status	Parts	Required operation
Leakage*1, 2	A: Filler plug	1. Replace gasket. 2. If oil leakage continues even after replace the transmission assembly. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
	B: Side cover	Replace the transmission assembly. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
	C: Oil seal	Replace side oil seal. (This work is recommended to be performed by GT-R certified NISSAN dealer.) CAUTION: Always replace side oil seal together with side flange. (If side oil seal is abnormal, then side flange may also be abnormal.)
	D: Drain plug	1. Replace gasket. 2. If oil leakage continues even after replace the transmission assembly. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
	E: Guide hole	1. Replace side oil seal (left side). (This work is recommended to be performed by GT-R certified NISSAN dealer.) CAUTION: Always replace side oil seal (left side) together with side flange (left side). [If side oil seal (left side) is abnormal, then side flange (left side) may also be abnormal.] 2. If oil leakage continues even after replacing side oil seal, check guide hole. If guide hole is abnormal, replace transmission assembly. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
	F: Air vent	Replace the transmission assembly. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
	Transmission assembly (single unit) G: Breather	Clean and wipe spouted oil with a part cleaner. Fill with oil to the specified oil level, if necessary.
Smears*3	Each part on the final drive assembly, including the parts requiring oil leakage check.	Use part cleaner or the equivalent to wipe out smeared oil. Then, check for oil leakage.

*1: When the oil drops

*2: If oil leakage is detected, perform necessary procedures, check for oil leakage, and adjust oil level to the proper level.

*3: When the oil does not drop

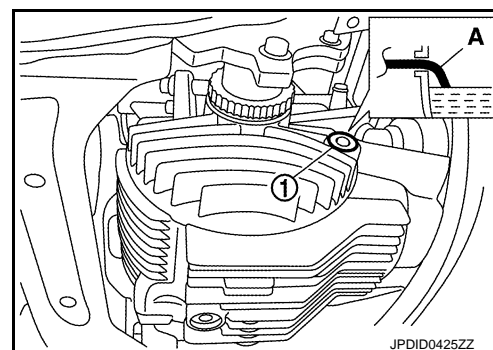
- Visually check transmission assembly surrounding area (oil seal, drain plug, filler plug, transmission case, etc.) for smears and leakage of transmission oil. Refer to [TM-10. "Inspection"](#).

OIL LEVEL

CAUTION:

Oil volume cannot be checked by oil level height.

1. Remove filler plug (1) and gasket.
CAUTION:
Never start engine while checking oil level.
2. Insert wire (A) etc. from filler plug mounting hole to confirm if the oil attaches.
 - If oil does not attach at the end of the wire, confirm that there is not leakage, then refill the oil. (This work is recommended to be performed by GT-R certified NISSAN dealer.)**CAUTION:**
Prevent foreign matter from getting into final drive.
3. Set a gasket on filler plug and install it on final drive, and then tighten to the specified torque.



Standard

Filler plug tightening torque : 34.5 N·m (3.5 kg·m, 25 ft·lb)

REAR DIFFERENTIAL GEAR OIL

< PERIODIC MAINTENANCE >

[REAR FINAL DRIVE]

CAUTION:
Never reuse gasket.

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SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[REAR FINAL DRIVE]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

General Specifications

INFOID:000000009162135

Applied model	AWD
	VR38DETT
	GR6Z30A
Final drive type	1.5 WAY mechanical LSD
Gear ratio	3.700
Number of teeth (Drive gear/Drive pinion)	37/10
Oil capacity (Approx.) <i>ℓ</i> (US pt, Imp pt)	1.35 (2-7/8, 2-3/8)
Number of pinion gears	4