SECTION PR
PROPELLER SHAFT

CONTENTS

REAR PROPELLER SHAFT

PFP:37000

On-Vehicle Inspection

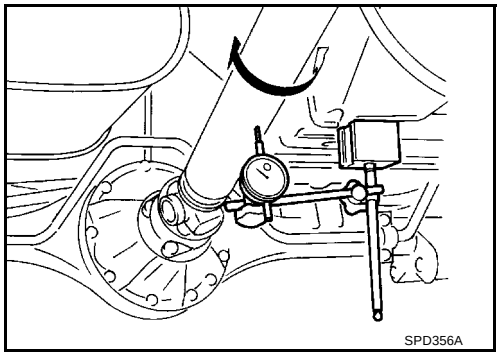
EDS000ZW

PROPELLER SHAFT RUNOUT INSPECTION

If vibration occurs during driving at high speed, check for propeller shaft runout first.

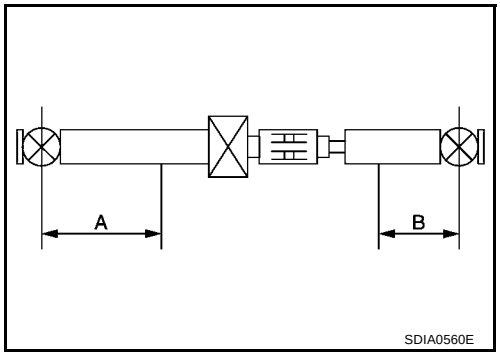
1. Lift vehicle.
2. While rotating final drive companion flange by hand, measure propeller shaft runout at 4 to 5 points.

Runout repair limit : 0.6 mm (0.024 in) or less


SPD356A

Propeller Shaft Runout Measuring Points

Distance	A	B
3F63A-DOJ87	469.5 mm (18.48 in)	414.5 mm (16.32 in)



SDIA0560E

Propeller Shaft Runout Adjustment

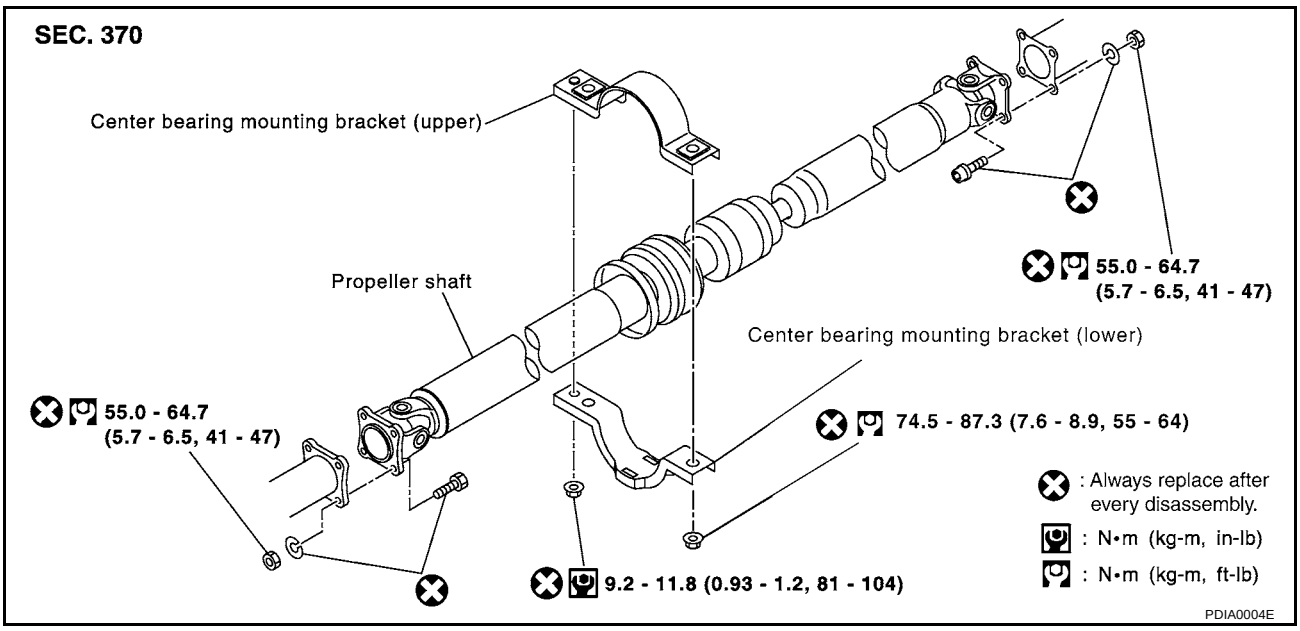
1. Reinstall companion flange after rotating it by 90°, 180°, and 270°. Then perform driving test and check propeller shaft runout again at each point.
2. If it still exceeds the limit, replace propeller shaft assembly.
3. Perform driving test to check.

APPEARANCE AND NOISE INSPECTION

- Check propeller shaft tube for dent and cracks on the surface. If necessary, replace propeller shaft assembly.
- If center bearing has abnormal noise or damage, replace propeller shaft assembly.

Removal and Installation

EDS000ZX



REMOVAL

1. Put mating marks onto propeller shaft flange yoke and final drive and transfer companion flanges.

   CAUTION:
   Use paint to avoid scratching the surface.
2. Remove mounting nuts and remove exhaust tube insulator from vehicle.
3. Loosen mounting nuts of center bearing mount brackets.

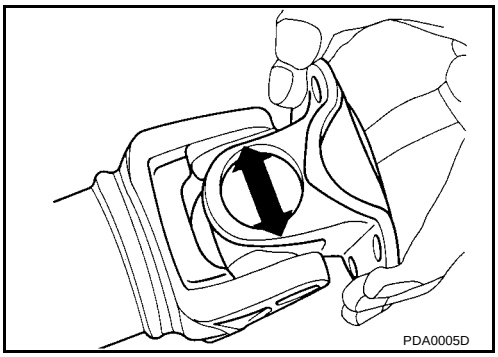
   CAUTION:
   Tighten nuts temporarily.
4. Remove mounting nuts and bolts from propeller shaft companion flanges, transfer, and final drive. Remove mounting nuts securing center bearing brackets onto vehicle. Then remove propeller shaft from vehicle.

   CAUTION:
   If constant velocity joint was bent during propeller shaft assembly removal, installation, or transportation, its boot may be damaged. Wrap boot interference area to metal part with shop cloth or rubber to protect boot from breakage.

INSPECTION AFTER REMOVAL

1. As shown in the figure, while fixing yoke on one side, check axial play of joint. If outside the standard, replace propeller shaft assembly.

   Axial play repair limit : 0 mm (0 in)



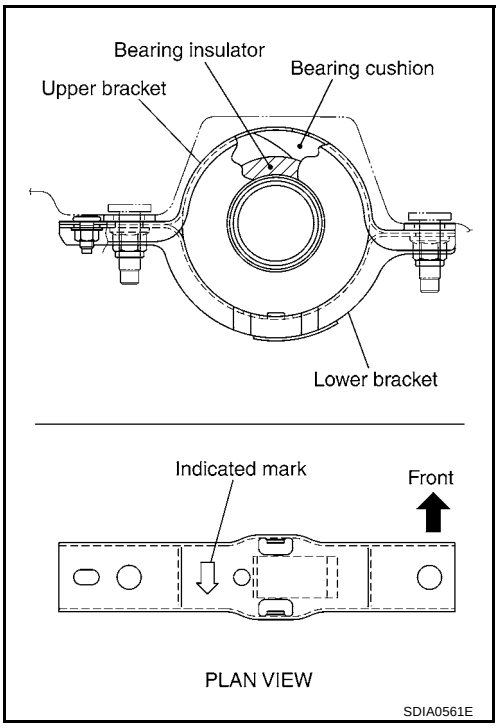
2. Check propeller shaft for bend and damage. If damage is detected, replace propeller shaft assembly.
3. Check center bearing for abnormal noise and damage. If noise or damage is detected, replace propeller shaft assembly.

   CAUTION:
   - **Center bearings (front and rear) cannot be disassembled.**
   - **Joints cannot be disassembled.**

INSTALLATION

Paying attention to following items, install in the reverse order of removal.

- Align mating marks to install propeller shaft, and tighten to specified torque.
- Adjust location of mounting bracket back and forth to prevent longitudinal give of insulator as shown. Install bracket to vehicle.
- After assembly, perform a driving test to check propeller shaft for runout. If a runout is detected, separate propeller shaft from final drive. Reinstall companion flange after rotating it by 90°, 180°, and 270°. Then perform driving test and check propeller shaft runout again at each point.



SERVICE DATA AND SPECIFICATIONS (SDS)

PFP:00030

General Specifications

EDS000ZY

Applide model		QR20DE, QR25DE, YD22DDTi
Propeller shaft model		3F63A-DOJ87
Number of joints		3
Coupling method with Transfer		Flange
Type of journal bearings		Shell type (Non-disassembly type)
Shaft length (Spider to spider)	1st	1,067 mm (42.01 in)
	2nd	908 mm (35.75 in)
Shaft outer diameter	1st	63.5 mm (2.500 in)
	2nd	63.5 mm (2.500 in)

Propeller Shaft Axial Play

EDS000ZZ

Type	3F63A-DOJ87
Axial play limit of journal bearing	0 mm (0 in)

Propeller Shaft Vibration

EDS00100

Type	3F63A-DOJ87
Runout limit	0.6 mm (0.024 in) or less