

FRONT & REAR AXLE

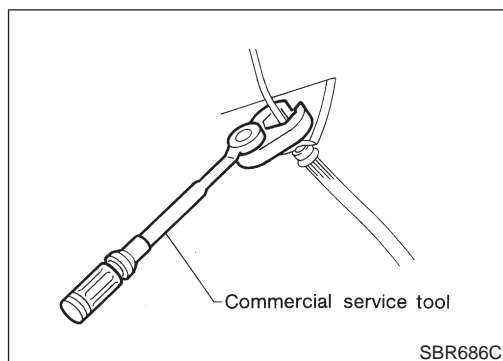
SECTION **AX**

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FRONT AXLE

Precautions



Precautions PRECAUTIONS

NJAX0001

- 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.
- After installing removed suspension parts, check wheel alignment and adjust if necessary.
- Use flare nut wrench when removing or installing brake tubes.
- Always torque brake lines when installing.

Preparation

SPECIAL SERVICE TOOLS

NJAX0002

Tool number Tool name	Description
HT72520000 Ball joint remover	<div style="text-align: center;"> </div> <p style="text-align: center;">NT146</p> <p style="text-align: right;">Removing tie-rod outer end and lower ball joint</p>
KV38106800 Differential side oil seal protector	<div style="text-align: center;"> </div> <p style="text-align: center;">NT147</p> <p style="text-align: right;">Installing drive shaft KV38106800</p>

COMMERCIAL SERVICE TOOLS

NJAX0003

Tool name	Description
1 Flare nut crowfoot 2 Torque wrench	<div style="text-align: center;"> </div> <p style="text-align: center;">NT360</p> <p style="text-align: right;">Removing and installing each brake piping a: 10 mm (0.39 in)</p>

FRONT AXLE

Noise, Vibration and Harshness (NVH) Troubleshooting

Noise, Vibration and Harshness (NVH) Troubleshooting

=NJAX0004

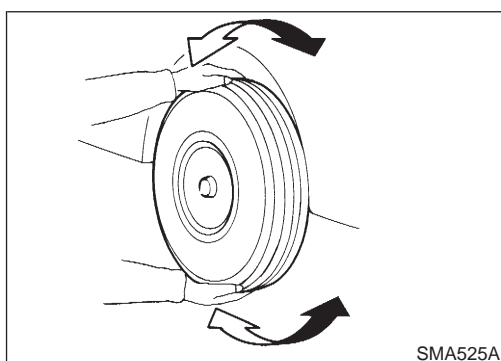
NVH TROUBLESHOOTING CHART

NJAX0004S01

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

Reference page		Possible cause and SUSPECTED PARTS												
		—	AX-15	—	AX-5, 24	—	AX-3, 23	—	—	SU-4	SU-4	SU-4	BR-6	ST-5
Symptom		Possible cause and SUSPECTED PARTS												
		Excessive joint angle	Joint sliding resistance	Imbalance	Improper installation, looseness	Parts interference	Wheel bearing damage	DRIVE SHAFT	AXLE	SUSPENSION	TIRES	ROAD WHEEL	BRAKES	STEERING
Symptom	DRIVE SHAFT	Noise, Vibration	x	x						x	x	x	x	x
		Shake	x		x					x	x	x	x	x
	AXLE	Noise				x	x		x		x	x	x	x
		Shake				x	x		x		x	x	x	x
		Vibration				x	x		x		x	x		x
		Shimmy				x	x				x	x	x	x
		Judder				x					x	x	x	x
		Poor quality ride or handling				x	x	x			x	x	x	

x: Applicable



On-vehicle Service FRONT AXLE PARTS

NJAX0005

Check front axle and front suspension parts for excessive play, cracks, wear or other damage.

- Shake each front wheel to check for excessive play.
- Make sure that cotter pin is inserted.
- Retighten all axle and suspension nuts and bolts to the specified torque.

Tightening torque:

Refer to SU-9, "FRONT SUSPENSION".

FRONT WHEEL BEARING

NJAX0006

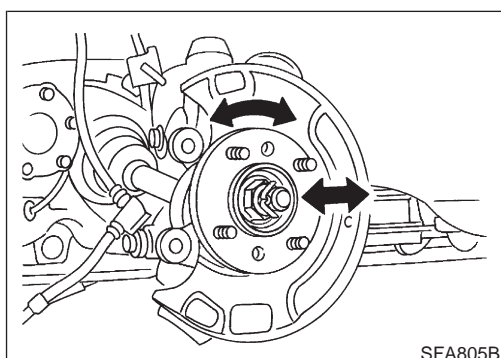
- Check that wheel bearings operate smoothly.
- Check axial end play.

Axial end play:

0.05 mm (0.0020 in)

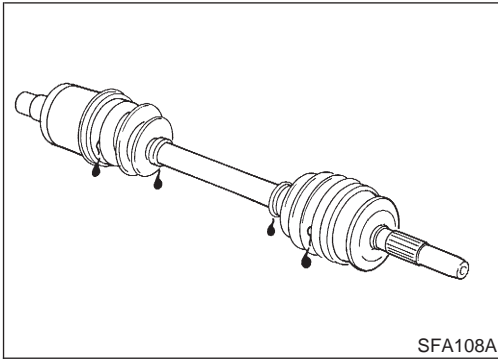
If out of specification or wheel bearing does not turn smoothly, replace wheel bearing assembly.

Refer to "Wheel Hub and Knuckle", "FRONT AXLE", AX-5.



FRONT AXLE

On-vehicle Service (Cont'd)



DRIVE SHAFT

Check for grease leakage or other damage.

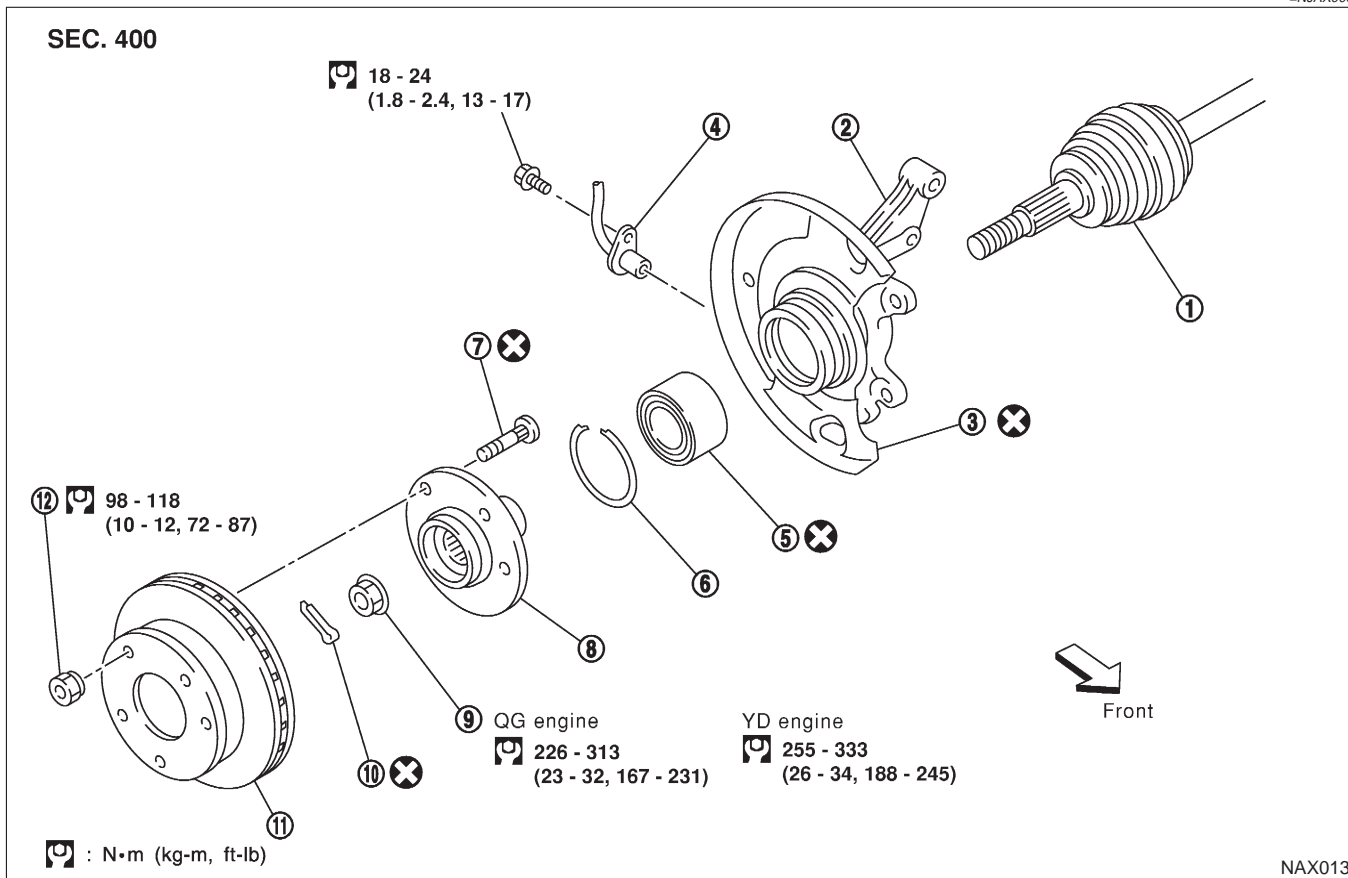
NJAX0007

FRONT AXLE

Wheel Hub and Knuckle

Wheel Hub and Knuckle COMPONENTS

=NJAX0008



- | | | |
|--------------------------------|---------------------------|---------------------------|
| 1. Drive shaft | 5. Wheel bearing assembly | 9. Wheel bearing lock nut |
| 2. Knuckle | 6. Snap ring | 10. Cotter pin |
| 3. Baffle plate (where fitted) | 7. Hub bolt | 11. Brake disc |
| 4. ABS sensor | 8. Wheel hub | 12. Wheel nut |

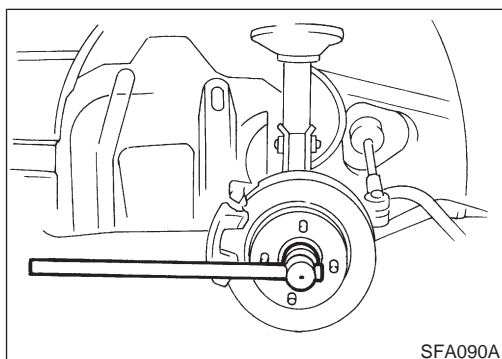
REMOVAL

NJAX0009

CAUTION:

Before removing the front axle assembly, disconnect the ABS wheel sensor from the assembly. Then move it away from the front axle assembly area.

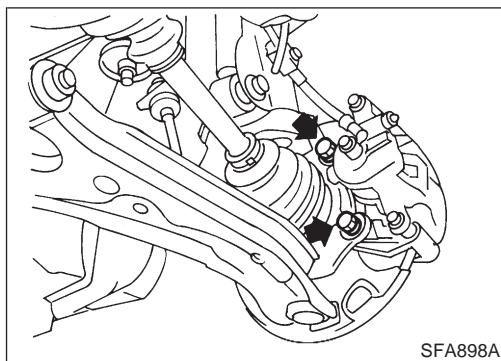
Failure to do so may result in damage to the sensor wires and the sensor becoming inoperative.



1. Remove wheel bearing lock nut.

FRONT AXLE

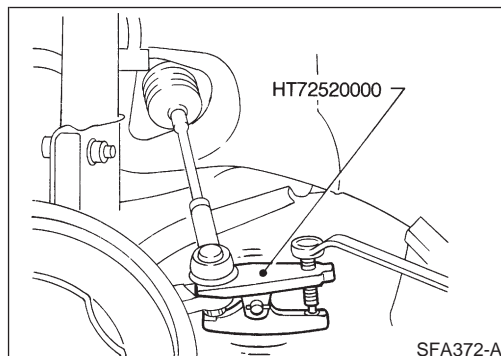
Wheel Hub and Knuckle (Cont'd)



2. Remove brake caliper assembly and rotor.

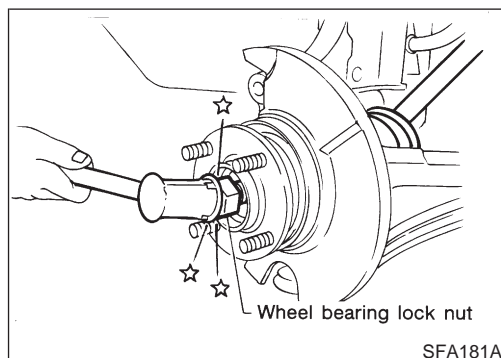
Brake hose need not be disconnected from brake caliper. In this case, suspend caliper assembly with wire so as not to stretch brake hose. Be careful not to depress brake pedal, or piston will pop out.

Make sure brake hose is not twisted.



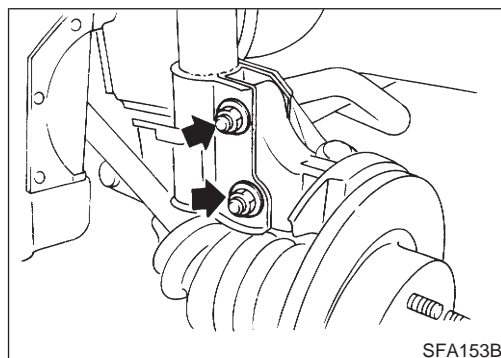
3. Separate tie-rod from knuckle with Tool.

Install stud nut on stud bolt to prevent damage to stud bolt.

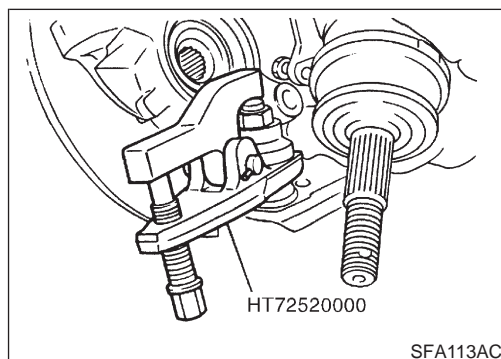


4. Separate drive shaft from knuckle by lightly tapping it. If it is hard to remove, use a puller.

Cover boots with shop towel so as not to damage them when removing drive shaft.



5. Remove strut lower mounting bolts.



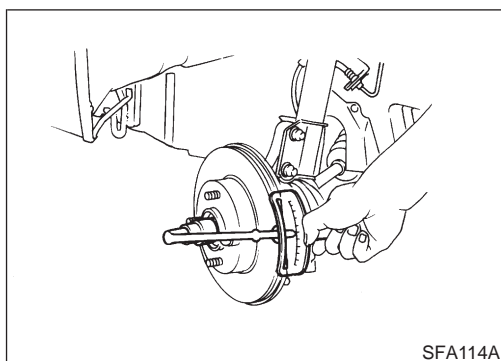
6. Loosen lower ball joint tightening nut.

7. Separate knuckle from lower ball joint stud with Tool.

8. Remove knuckle from transverse link.

FRONT AXLE

Wheel Hub and Knuckle (Cont'd)




INSTALLATION

NJAX0010

1. Install knuckle with wheel hub.


When installing knuckle to strut, be sure to hold bolts and tighten nuts.

 : 114 - 133 N·m (11.6 - 13.6 kg·m, 84 - 98 ft·lb)


Before tightening, apply oil to threaded portion of drive shaft.

2. Tighten wheel bearing lock nut.

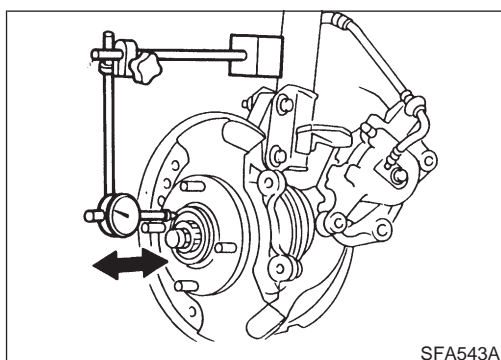
QG engine

 : 226 - 313 N·m (23 - 32 kg·m, 167 - 231 ft·lb)

YD engine

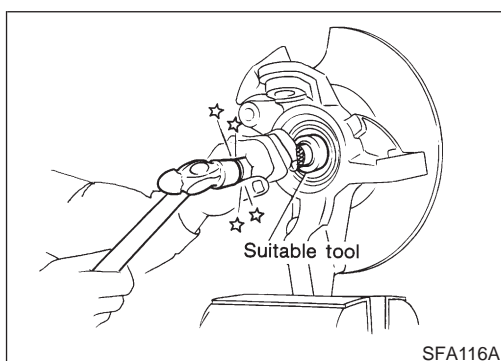
 : 255 - 333 N·m (26 - 34 kg·m, 188 - 245 ft·lb)

3. Check that wheel bearings operate smoothly.



4. Check wheel bearing axial end play.

Axial end play:
0.05 mm (0.0020 in)



DISASSEMBLY

NJAX0011

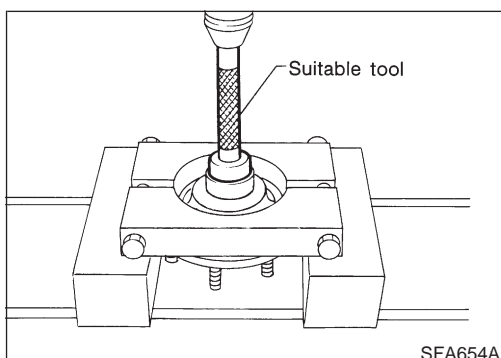
CAUTION:

When removing wheel hub or wheel bearing from knuckle, replace wheel bearing assembly (outer race and inner races) with a new one.

Wheel Hub

NJAX0011S01

Drive out hub with inner race (outside) from knuckle with a suitable tool.



Wheel Bearing

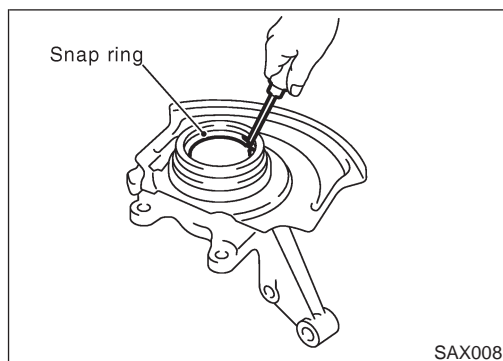
NJAX0011S02

When replacing wheel bearing, replace complete wheel bearing assembly (Inner races and outer race).

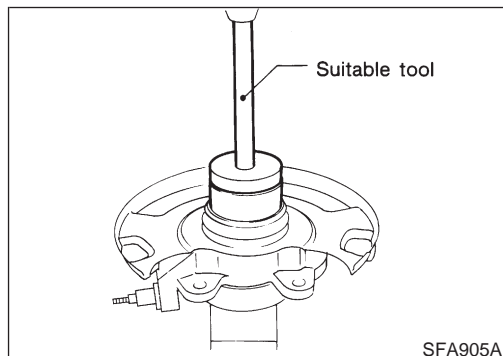
1. Remove bearing inner race (outside).

FRONT AXLE

Wheel Hub and Knuckle (Cont'd)



2. Remove snap rings.



3. Press out bearing outer race.

INSPECTION

Wheel Hub and Knuckle

NJAX0012

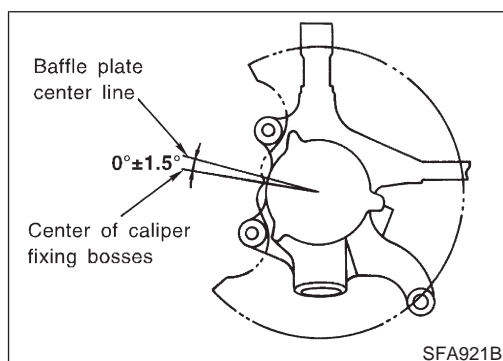
Check wheel hub and knuckle for cracks by using a magnetic exploration or dyeing test.

NJAX0012S01

Snap Ring

NJAX0012S02

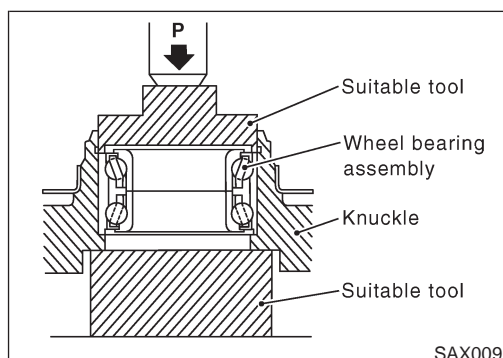
Check snap ring for wear or cracks. Replace if necessary.



ASSEMBLY

NJAX0013

- When removing baffle plate, replace it with a new one. (If baffle plate is equipped)
- When installing the baffle plate, press new plate so that it is in contact with knuckle wall. Refer to figure at left. (If baffle plate is equipped)



1. Install inner snap ring into groove of knuckle.
2. Press new wheel bearing assembly into knuckle until it contacts steering knuckle.

Maximum load P:

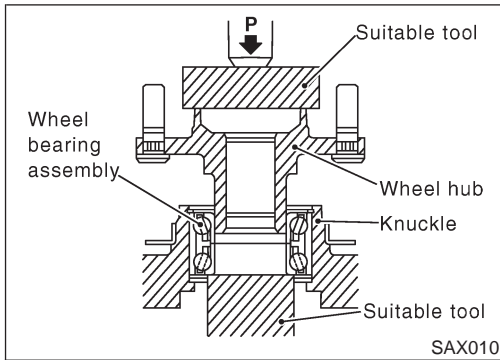
29 kN (3 ton, 3.3 US ton, 3.0 Imp ton)

CAUTION:

- Do not press inner race of wheel bearing assembly.
 - Do not apply oil or grease to mating surfaces of wheel bearing outer race and knuckle.
3. Install outer snap ring into groove of knuckle.

FRONT AXLE

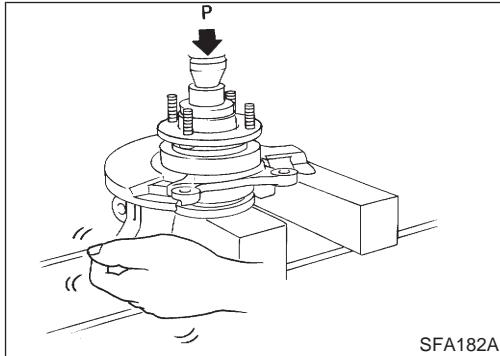
Wheel Hub and Knuckle (Cont'd)



4. Press wheel hub into knuckle until it stops when the end of the wheel bearing is hit.

Maximum load P:

29 kN (3 ton, 3.3 US ton, 3.0 Imp ton)



5. Check bearing operation.

- a. Add load P with press.

Load P:

49.0 kN

(5.0 ton, 5.5 US ton, 4.92 Imp ton)

- b. Spin knuckle several turns in both directions.
- c. Make sure that wheel bearings operate smoothly.

FRONT AXLE

Drive Shaft

Drive Shaft COMPONENTS

=NJAX0016

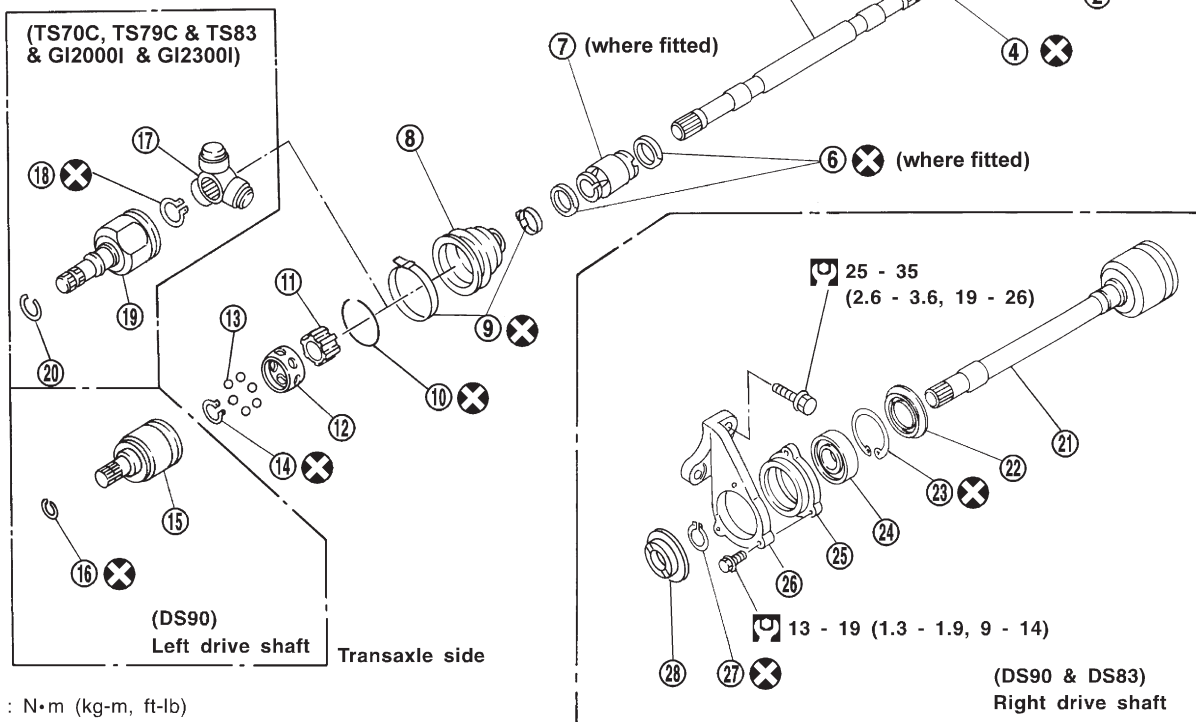
SEC. 391

Wheel side (ZF80 & ZF90★/BF90 & BF83 & AC2000I & GI2300I)

Circular clip:

Circular clips should be properly meshed with differential side gear (transaxle side) and with joint assembly (wheel side). Make sure they will not come out.

Be careful not to damage boots. Use suitable protector or cloth during removal and installation.



: N·m (kg-m, ft-lb)

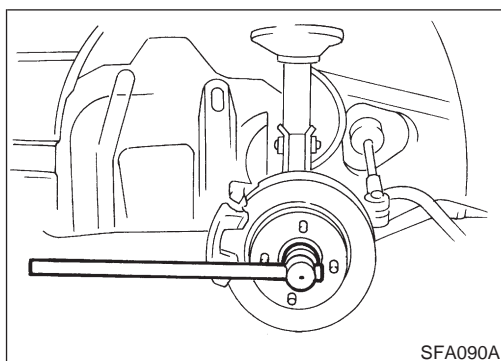
★ : ZF90 type joint assembly cannot be disassembled.

NAX018

- | | | |
|---------------------------------------|-------------------------|--|
| 1. Joint assembly | 11. Inner race | 21. Slide joint housing with extension shaft |
| 2. Boot | 12. Cage | 22. Dust shield |
| 3. Boot band | 13. Ball | 23. Snap ring |
| 4. Circular clip | 14. Snap ring | 24. Support bearing |
| 5. Drive shaft | 15. Slide joint housing | 25. Support bearing retainer |
| 6. Dynamic damper band (where fitted) | 16. Circular clip | 26. Bracket |
| 7. Dynamic damper (where fitted) | 17. Spider assembly | 27. Snap ring |
| 8. Boot | 18. Snap ring | 28. Dust shield |
| 9. Boot band | 19. Slide joint housing | |
| 10. Stopper ring | 20. Circular clip | |

FRONT AXLE

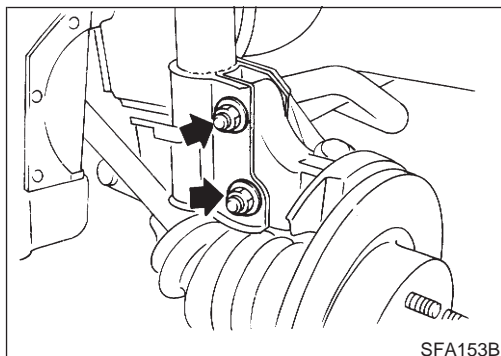
Drive Shaft (Cont'd)



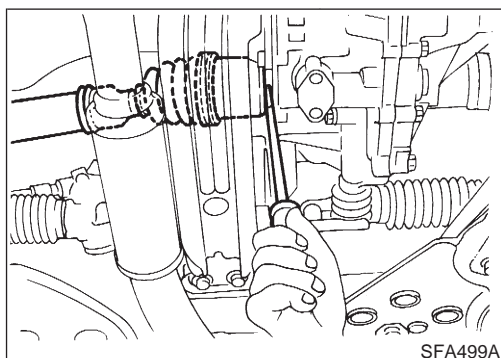
REMOVAL

NJAX0014

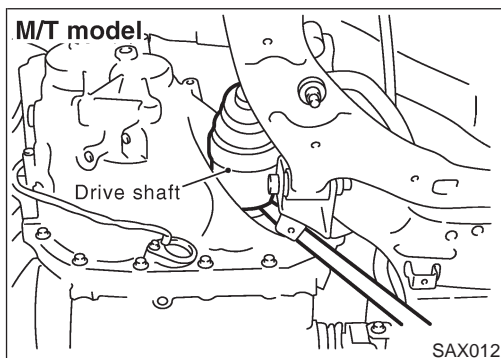
1. Remove wheel bearing lock nut.
Brake caliper need not be disconnected. Do not twist or stretch brake hose when moving components.



2. Remove strut lower mount bolts.
3. Remove brake hose clip.



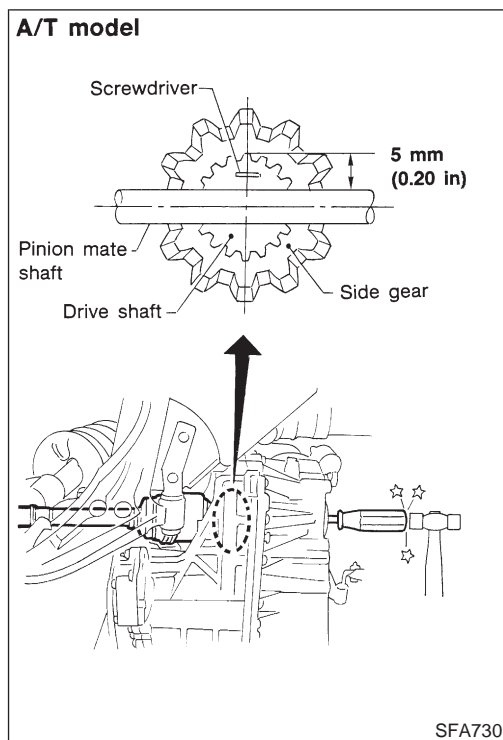
4. Separate drive shaft from knuckle by lightly tapping it. If it is hard to remove, use a puller.
Cover boots with shop towel so as not to damage them when removing drive shaft.
Refer to "Wheel Hub and Knuckle", "FRONT AXLE", AX-5.
5. Remove right drive shaft from transaxle.



6. Remove left drive shaft from transaxle.
— For M/T models —
 - Pry off drive shaft from transaxle as shown at left.

FRONT AXLE

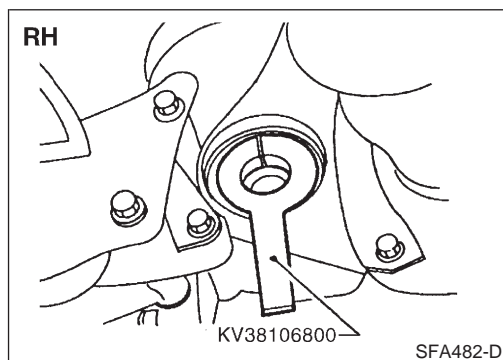
Drive Shaft (Cont'd)



— For A/T models —

- Insert screwdriver into transaxle opening for right drive shaft and strike with a hammer.

Be careful not to damage pinion mate shaft and side gear.



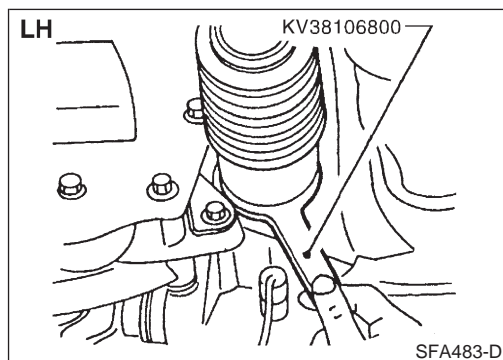
INSTALLATION

NJAX0015

Transaxle Side

NJAX0015S01

1. Drive a new oil seal to transaxle. Refer to MT-20 or AT-345, "Replacing Oil Seal" or "Differential Side Oil Seal Replacement", "ON-VEHICLE SERVICE".
2. Set Tool along the inner circumference of oil seal.



3. Insert drive shaft into transaxle. Be sure to properly align the serrations and then withdraw Tool.
4. Push the drive shaft until the circular clip on the drive shaft fits into the circular clip groove of the side gear.
5. After its insertion, try to pull the flange out of the slide joint by hand. If it pulls out, the circular clip is not properly meshed with the side gear.

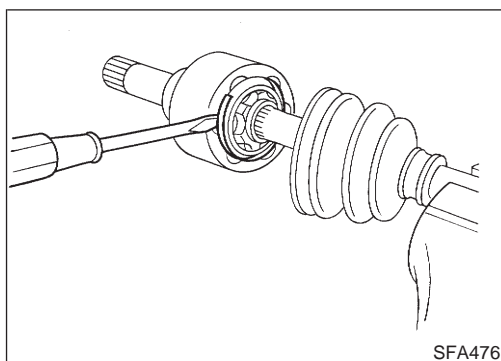
Wheel Side

NJAX0015S02

- Install drive shaft into knuckle.
- Tighten upper knuckle nut and wheel bearing lock nut. Refer to section Installation in "Wheel Hub and Knuckle", "FRONT AXLE", AX-5.

FRONT AXLE

Drive Shaft (Cont'd)



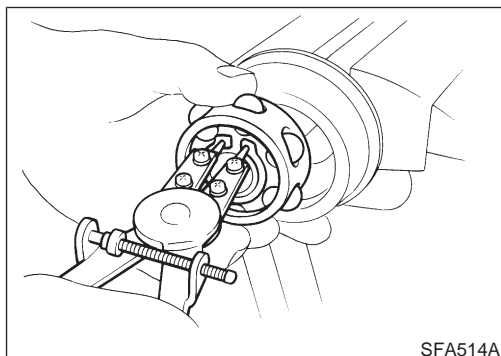
DISASSEMBLY

Transaxle Side (DS90 and DS83 types)

NJAX0017

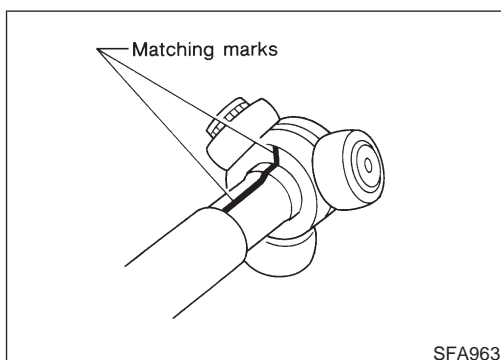
NJAX0017S01

1. Remove boot bands.
2. Put matching marks on slide joint housing and inner race, before separating joint assembly.
3. Remove stopper ring with a screwdriver, and pull out slide joint housing.



4. Put matching marks on inner race and drive shaft.
5. Remove snap ring, then remove ball cage, inner race and balls as a unit.
6. Draw out boot.

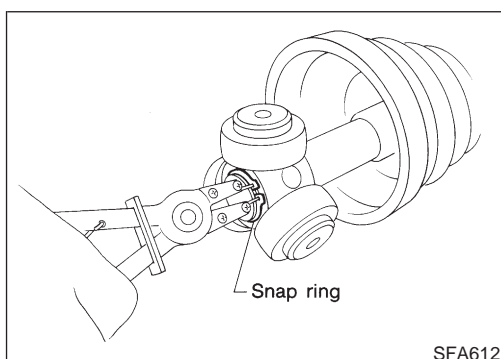
Cover drive shaft serrations with tape so as not to damage the boot.



Transaxle Side (TS70C, TS79C, TS83, GI2000I and GI2300I types)

NJAX0017S04

1. Remove boot bands.
2. Put matching marks on slide joint housing and drive shaft before separating joint assembly.
3. Put matching marks on spider assembly and drive shaft.

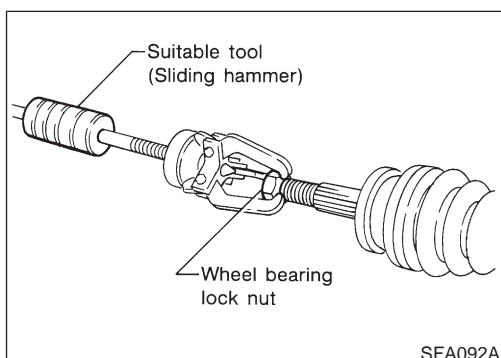


4. Pry off snap ring, then remove spider assembly.

CAUTION:
Do not disassemble spider assembly.

5. Draw out boot.

Cover drive shaft serration with tape to prevent damage to the boot.



Wheel Side

NJAX0017S02

CAUTION:
The joint on the wheel side cannot be disassembled.

ZF90F type joint assembly cannot be disassembled because a plastic boot and special boot band are used. Do not use other drive shaft boots. If the boot or joint is damaged, replace the drive shaft assembly.

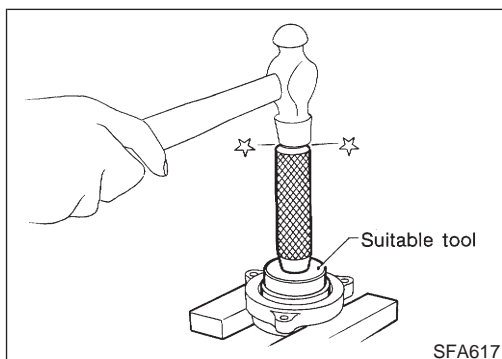
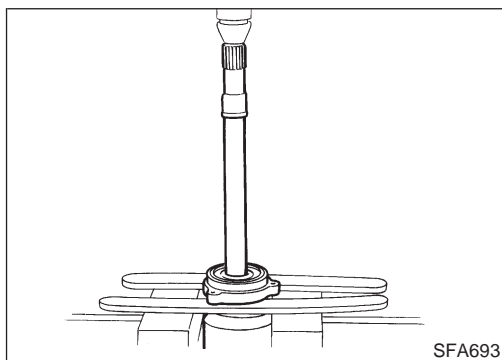
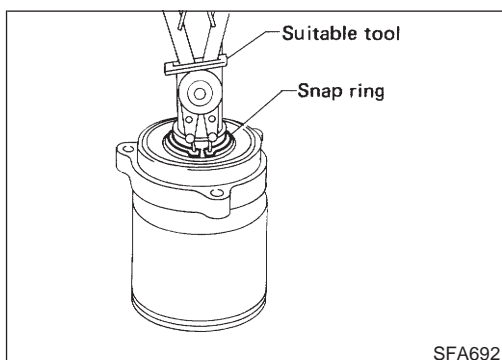
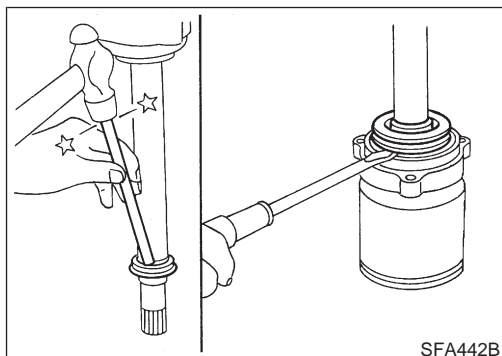
1. Before separating joint assembly, put matching marks on drive shaft and joint assembly.
2. Separate joint assembly with a suitable tool.

Be careful not to damage threads on drive shaft.

FRONT AXLE

Drive Shaft (Cont'd)

3. Remove boot bands.
4. Draw out boot.



Support Bearing

1. Remove dust shield.

NJAX0017S03

2. Remove snap ring.

3. Press support bearing assembly off of drive shaft.

4. Separate support bearing from retainer.

FRONT AXLE

Drive Shaft (Cont'd)

INSPECTION

Thoroughly clean all parts in cleaning solvent, and dry with compressed air. Check parts for evidence of deformation or other damage. NJAX0018

Drive Shaft

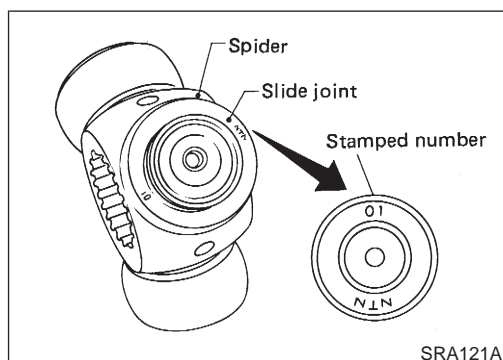
Replace drive shaft if it is twisted or cracked. NJAX0018S01

Boot

Check boot for fatigue, cracks or wear. Replace boot with new boot bands. NJAX0018S02

Joint Assembly (Transaxle side)

- Check spider assembly for needle bearing and washer damage. Replace if necessary. (Tripod type) NJAX0018S03
- Check roller surfaces for scratches, wear or other damage. Replace if necessary. (Tripod type)
- Replace any parts of double offset joint which show signs of scorching, rust, wear or excessive play. (Double offset type)
- Check serration for deformation. Replace if necessary.
- Check slide joint housing for any damage. Replace if necessary.



- When replacing only spider assembly, select a new spider assembly from among those listed in table below. Ensure the number stamped on sliding joint is the same as that stamped on new part.

Housing alone cannot be replaced. It must be replaced together with spider assembly.

TS70C

Stamped number	Part No.
00	39720-51E00
01	39720-51E01
02	39720-51E02
03	39720-51E03

TS79C

Stamped number	Part No.
01	39720-61E01
02	39720-61E02
03	39720-61E03
04	39720-61E04
05	39720-61E05
06	39720-61E06
07	39720-61E07

Joint Assembly (Wheel side)

Replace joint assembly if it is deformed or damaged. NJAX0018S04

FRONT AXLE

Drive Shaft (Cont'd)

Support Bearing

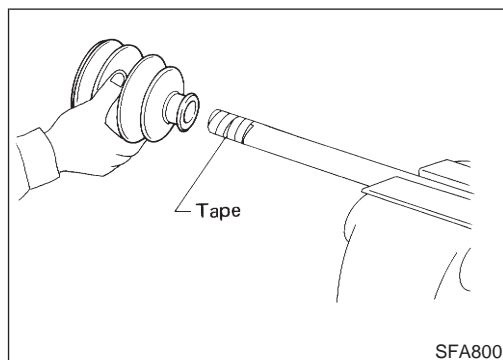
Make sure wheel bearing rolls freely and is free from noise, cracks, pitting or wear. NJAX0018S05

Support Bearing Bracket

Check support bearing bracket for cracks with a magnetic exploration or dyeing test. NJAX0018S06

ASSEMBLY

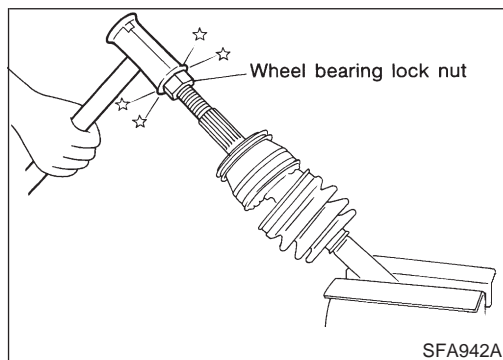
- After drive shaft has been assembled, ensure that it moves smoothly over its entire range without binding. NJAX0019
- Use NISSAN GENUINE GREASE or equivalent after every overhaul.



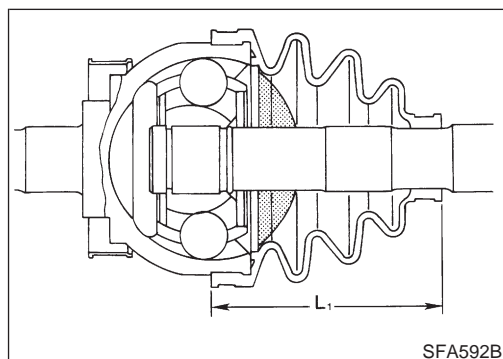
Wheel Side

1. Install boot and new small boot band on drive shaft. NJAX0019S01

Cover drive shaft serration with tape so as not to damage boot during installation.



2. Set joint assembly onto drive shaft by lightly tapping it. Install joint assembly securely, ensuring marks which were made during disassembly are properly aligned.



3. Pack drive shaft with specified amount of grease.

Specified amount of grease:

AC2300I type 40 - 50 g (1.41 - 1.76 oz)

AC2000I type 118 g (4.16 oz)

ZF80 type 75 - 85 g (2.65 - 3.00 oz)

BF83 type 80 - 100 g (2.82 - 3.53 oz)

BF90 type 100 - 120 g (3.53 - 4.23 oz)

4. Make sure that boot is properly installed on the drive shaft groove. Set boot so that it does not swell and deform when its length is "L₁".

FRONT AXLE

Drive Shaft (Cont'd)

Length "L₁":

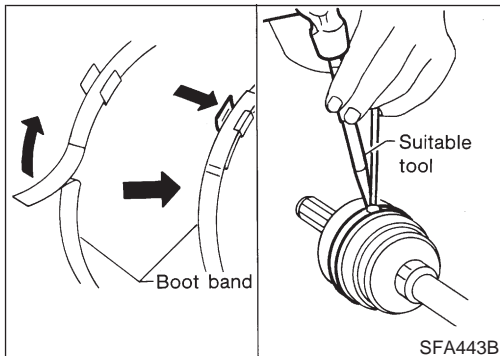
AC2300I type 94 - 96 mm (3.70 - 3.78 in)

AC2000I type 90 mm (3.54 in)

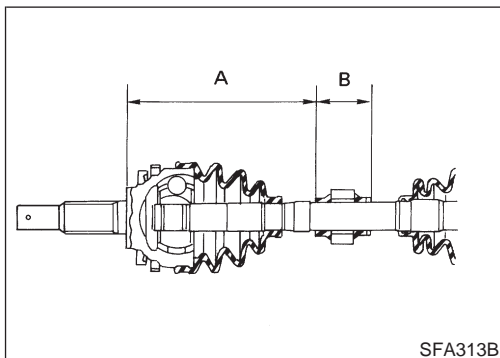
ZF80 type 91.4 - 91.6 mm (3.598 - 3.606 in)

BF83 type 95 mm (3.74 in)

BF90 type 85.5 mm (3.366 in)



5. Lock new larger and smaller boot bands securely with a suitable tool.



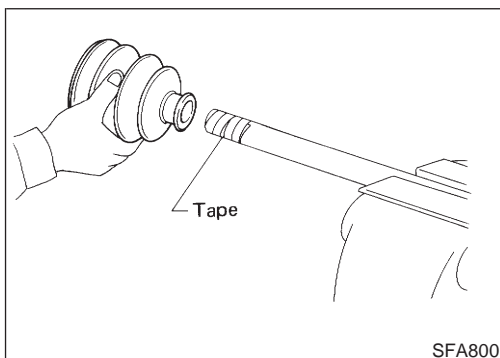
Dynamic Damper (Where Fitted)

NJAX0019S02

1. Use new damper bands when installing.
2. Install dynamic damper from stationary-joint side while holding it securely.

Length:

Refer to AX-21, SDS.

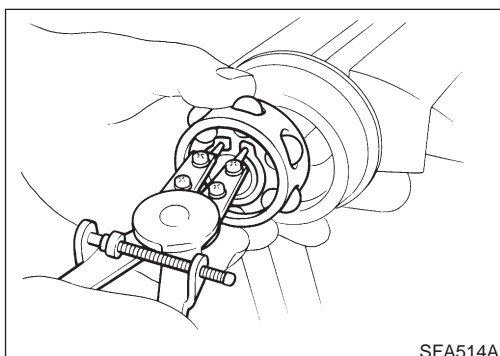


Transaxle Side (TS70C, TS79C, TS83, DS90, DS83, GI2000I and GI2300I types)

NJAX0019S03

1. Install boot and new small boot band on drive shaft.

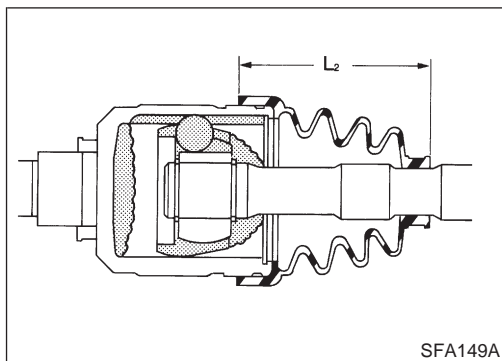
Cover drive shaft serration with tape so as not to damage boot during installation.



2. Install ball cage, inner race and balls or spider assembly as a unit, making sure the marks which were made during disassembly are properly aligned.
3. Install new snap ring.

FRONT AXLE

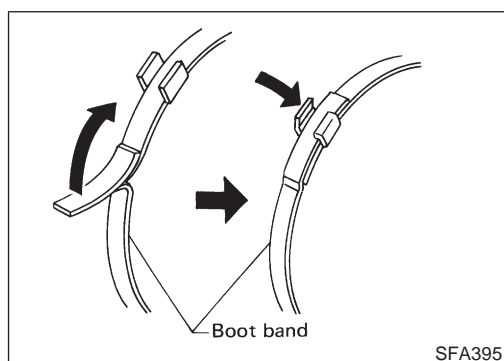
Drive Shaft (Cont'd)



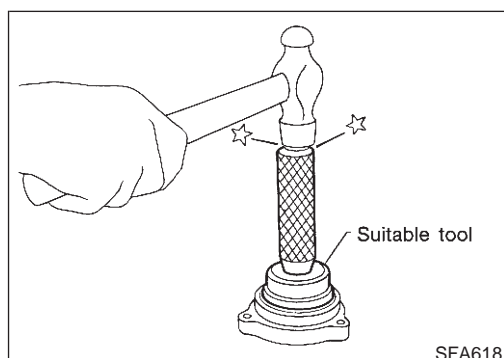
4. Pack drive shaft with specified amount of grease.
Specified amount of grease:
 - GI2300I type 125.5 - 135.5 g (4.42 - 4.77 oz)
 - GI2000I type 90 g (3.17 oz)
 - TS79C type 155 - 165 g (5.47 - 5.82 oz)
 - TS70C type 110 - 120 g (3.88 - 4.23 oz)
 - TS83 type 125 - 145 g (4.41 - 5.11 oz)
 - DS83 type 115 - 135 g (4.06 - 4.76 oz)
 - DS90 type 145 - 165 g (5.11 - 5.82 oz)
5. Install slide joint housing, then install new snap ring.
6. Make sure that boot is properly installed on the drive shaft groove.
Set boot so that it does not swell and deform when its length is "L₂".

Length "L₂":

- TS70C type
 - 96.4 - 96.6 mm (3.795 - 3.803 in)
- TS79C type
 - 101.5 - 103.5 mm (3.996 - 4.075 in)
- TS83 type
 - 99 mm (3.90 in)
- DS83 type
 - 98 mm (3.86 in)
- DS90 type
 - 98 mm (3.86 in)
- GI2000I type
 - 90 mm (3.54 in)
- GI2300I type
 - 98 - 100 mm (3.86 - 3.94 in)



7. Lock new larger and smaller boot bands securely with a suitable tool.



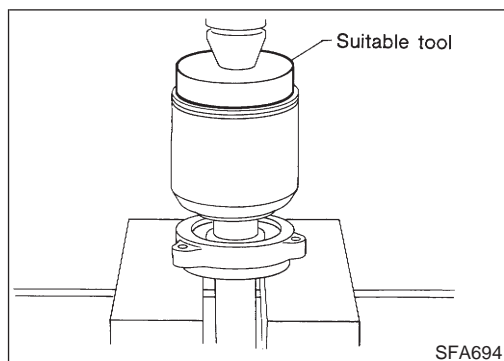
Support Bearing

- Press bearing into retainer.

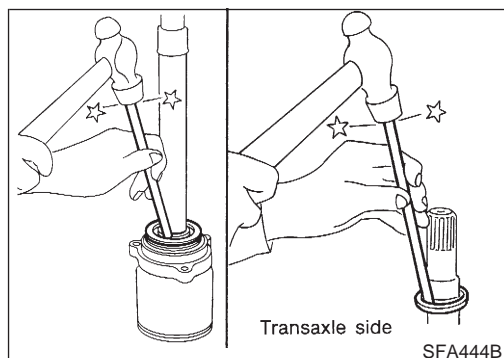
NJAX0019S04

FRONT AXLE

Drive Shaft (Cont'd)



- Press drive shaft into bearing.



- Install snap ring.
- Install new dust shield.

FRONT AXLE

Service Data and Specifications (SDS)

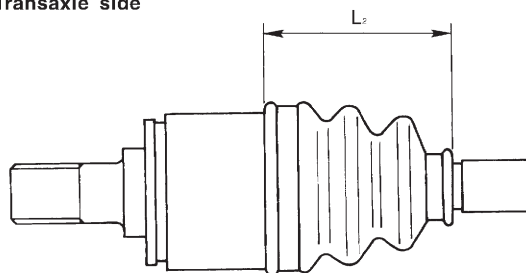
Service Data and Specifications (SDS)

DRIVE SHAFT

=NJAX0020

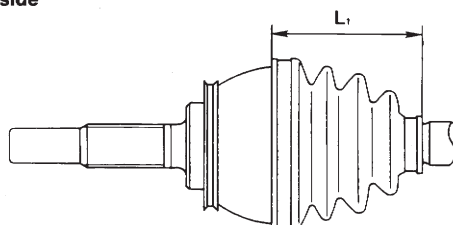
Applied model	Engine	QG		YD22T
	Transaxle	A/T	M/T	M/T
Joint type	Transaxle side	TS79C	GI2300I	DS90 + B
	Wheel side	ZF90	AC2300I	BF90
Grease	Quality	Nissan genuine grease or equivalent*2		
Capacity g (oz)	Transaxle side	155 - 165 (5.47 - 5.82)	125.5 - 135.5 (4.42 - 4.77)	145 - 165 (5.11 - 5.82)
	Wheel side	—*3	40 - 50 (1.41 - 1.76)	100 - 120 (3.53 - 4.23)
Boot length mm (in)	Transaxle side "L ₂ "	101.5 - 103.5 (3.996 - 4.075)	98 - 100 (3.86 - 3.94)*1	97 - 99 (3.82 - 3.90)
	Wheel side "L ₁ "	—*3	94 - 96 (3.70 - 3.78)*1	84.5 - 96.5 (3.327 - 3.799)

Transaxle side



SFA961AA

Wheel side



SFA962A

*1: Fit boot to boot groove in bar shaft

*2: Use grease sachet 39209 BM510 in service for wheel side and 39709 BM500 for transaxle side. (Genuine GKN grease for 20001 joints)

*3: ZF90F type joint assembly cannot be disassembled because a plastic boot and special boot band are used. Do not use other drive shaft boots. If the boot or joint is damaged, replace the drive shaft assembly.

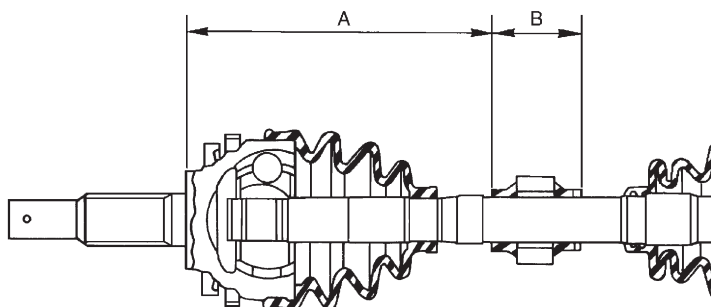
FRONT AXLE

Service Data and Specifications (SDS) (Cont'd)

DYNAMIC DAMPER (WHERE FITTED)

=NJAX0033
Unit: mm (in)

Applied model	Engine	QG15DE		QG18DE			YD22T	
	Drive shaft	LH	RH	LH	RH (TS79C & ZF90)	RH (AC/GI2300I)	LH	RH
Length	"A"	175 - 185 (6.89 - 7.28)	432 - 442 (17.01 - 17.40)	175 - 185 (6.89 - 7.28)	420 - 430 (16.54 - 16.93)	375 - 381 (14.76 - 15.00)	161 - 167 (6.34 - 6.57)	200 - 206 (7.87 - 8.11)
	"B"	62 (2.44)	62 (2.44)	70 (2.76)	64 (2.52)		70 (2.76)	70 (2.76)



SAX015

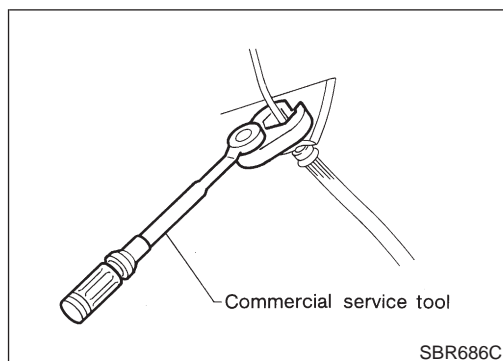
WHEEL BEARING (FRONT)

NJAX0021

Wheel bearing axial end play limit	mm (in)			0.05 (0.0020)
Wheel bearing lock nut tightening torque	N-m (kg-m, ft-lb)	QG engine	Sedan	197 - 274 (20 - 28, 145 - 202)
			Hatchback	226 - 313 (23 - 32, 167 - 231)
		YD engine	255 - 333 (26 - 34, 188 - 245)	

REAR AXLE

Precautions



Precautions PRECAUTIONS

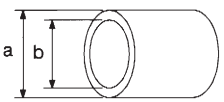
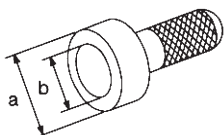
NJAX0022

- When installing each rubber part, 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.
- Use flare nut wrench when removing or installing brake tubes.
- After installing removed suspension parts, check wheel alignment.
- Do not jack up at the trailing arm and lateral link.
- Always torque brake lines when installing.

Preparation

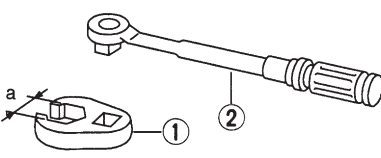
SPECIAL SERVICE TOOLS

NJAX0032

Tool number Tool name	Description	
KV40104710 Drift		Install ABS sensor rotor a: 76.3 mm (3.004 in) dia. b: 67.9 mm (2.673 in) dia.
ST3072000 Drift		Install ABS sensor rotor a: 77 mm (3.03 in) dia. b: 55.5 mm (2.185 in) dia.

COMMERCIAL SERVICE TOOLS

NJAX0024

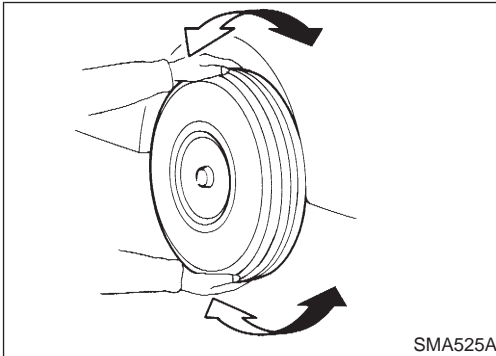
Tool name	Description	
1 Flare nut crowfoot 2 Torque wrench		Removing and installing brake piping a: 10 mm (0.39 in)

REAR AXLE

Noise, Vibration and Harshness (NVH) Troubleshooting

Noise, Vibration and Harshness (NVH) Troubleshooting

Refer to "Noise, Vibration and Harshness (NVH) Troubleshooting", "FRONT AXLE", AX-3. NJAX0025



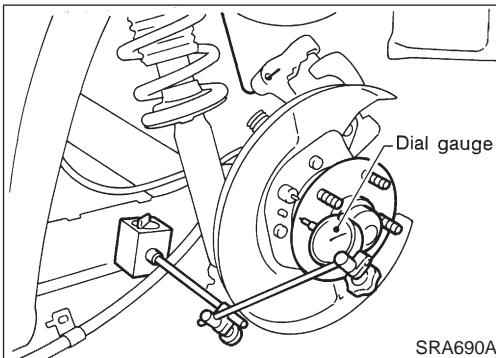
SMA525A

On-vehicle Service

REAR AXLE PARTS

Check axle and suspension parts for excessive play, wear or damage. NJAX0026

- Shake each rear wheel to check for excessive play.



SRA690A

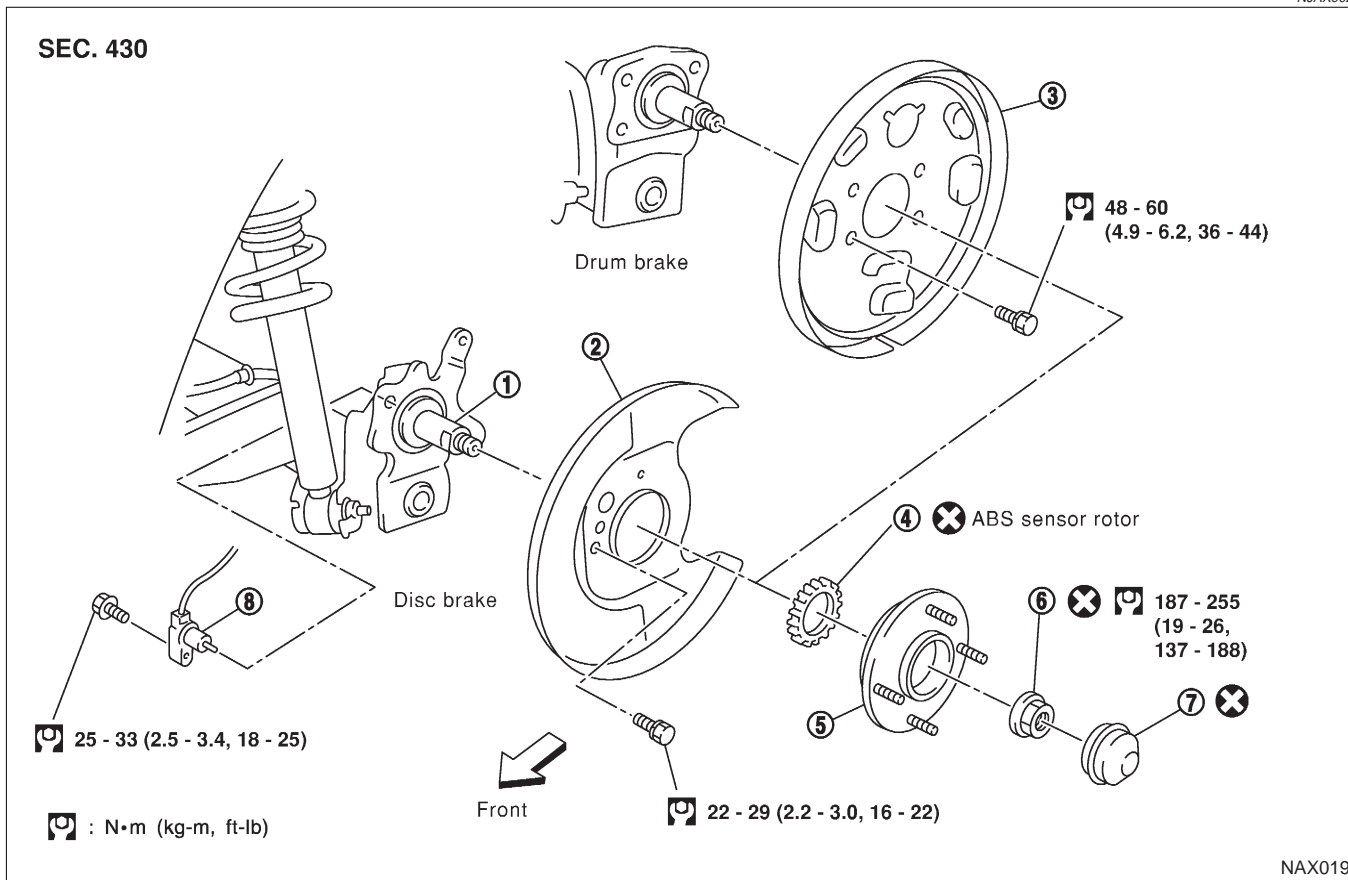
REAR WHEEL BEARING

- Check axial end play.
Axial end play:
0.05 mm (0.0020 in)
- Check that wheel hub bearings operate smoothly.
- Check tightening torque of wheel bearing lock nut.
🔧 : 187 - 254 N-m (19 - 26 kg-m, 138 - 188 ft-lb)
- Replace wheel bearing assembly if there is axial end play or wheel bearing does not turn smoothly. Refer to "Wheel Hub", "REAR AXLE", AX-24. NJAX0027

REAR AXLE

Wheel Hub COMPONENTS

NJAX0028



1. Spindle
2. Baffle plate
3. Back plate

4. ABS sensor rotor
5. Wheel hub bearing
6. Wheel bearing lock nut

7. Hub cap
8. ABS sensor

REMOVAL

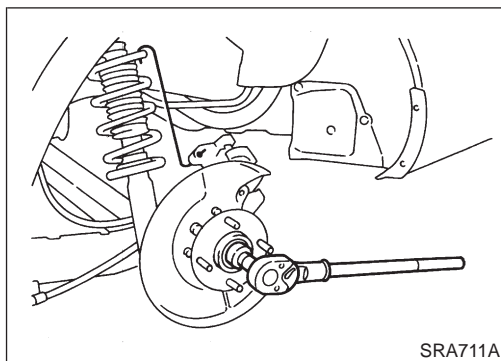
NJAX0029

CAUTION:

- Before removing the rear wheel hub assembly, disconnect the ABS wheel sensor from the assembly. Then move it away from the hub assembly. Failure to do so may result in damage to the sensor wires and the sensor becoming inoperative.
- Wheel hub bearing does not require maintenance. If any of the following symptoms are noted, replace wheel hub bearing assembly.
 - 1) Growling noise is emitted from wheel hub bearing during operation.
 - 2) Wheel hub bearing drags or turns roughly. This occurs when turning hub by hand after bearing lock nut is tightened to specified torque.

REAR AXLE

Wheel Hub (Cont'd)

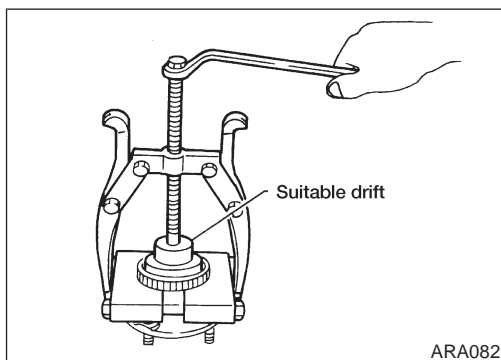


1. Remove brake caliper assembly.
2. Remove wheel bearing lock nut.
3. Remove brake rotor (models with disk brake) or brake drum (models with drum brakes).
4. Remove wheel hub bearing from spindle.

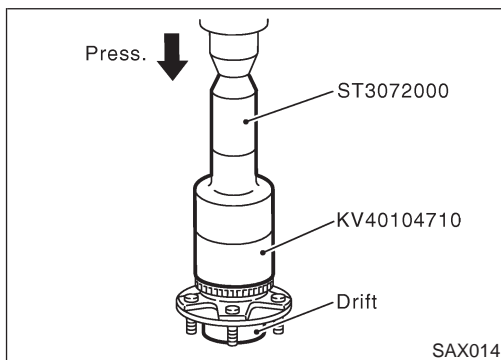
CAUTION:

Do not disconnect brake hose from caliper.

- Suspend caliper assembly with wire so as not to stretch brake hose.
 - Be careful not to depress brake pedal, or piston will pop out.
- Make sure brake hose is not twisted.



5. Remove the sensor rotor using suitable puller, drift and bearing replacer.



INSTALLATION

- With vehicles equipped with ABS, press-fit ABS sensor rotor into wheel hub bearing using a drift. NJAX0030
Do not reuse ABS sensor rotor. When installing, replace it with a new one.

- Press-fit ABS sensor rotor as far as the location shown in figure at left.

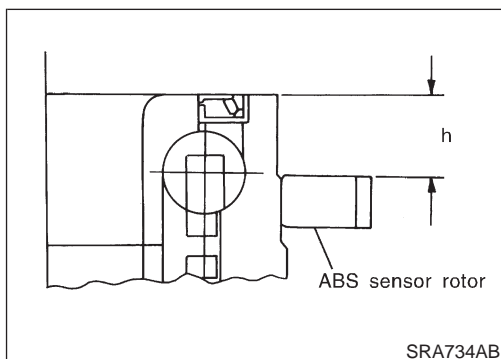
Height "h":

Models with disk brakes

1.5 - 2.5 mm (0.059 - 0.098 in)

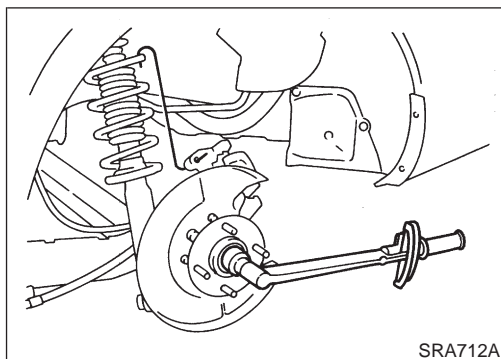
Models with drum brakes

17.7 - 18.7 mm (0.697 - 0.736 in)



REAR AXLE

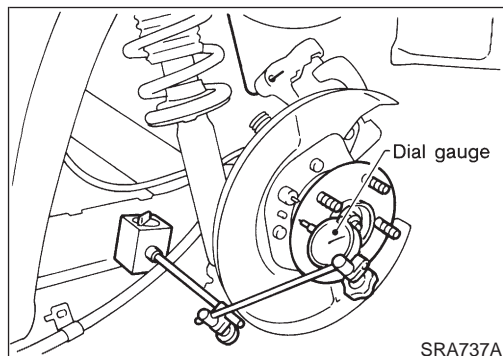
Wheel Hub (Cont'd)



- Install wheel hub bearing.
- Tighten wheel bearing lock nut.
Before tightening, apply oil to threaded portion of rear spindle.
Do not reuse wheel bearing lock nut.

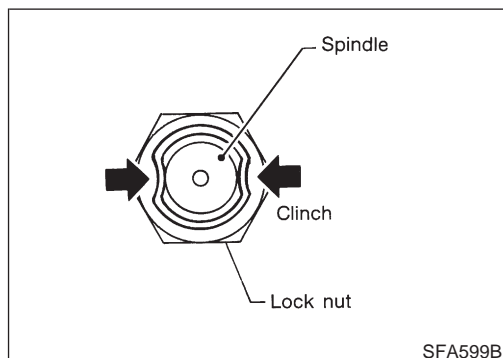
 : 187 - 254 N-m (19 - 26 kg-m, 138 - 188 ft-lb)

- Check that wheel bearings operate smoothly.

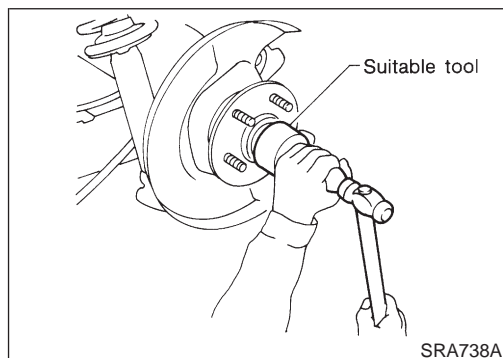


- Check wheel hub bearing axial end play.

Axial end play:
0.05 mm (0.0020 in)



- Clinch two places of lock nut.



- Install hub cap using a suitable tool.
Do not reuse hub cap. When installing, replace it with a new one.

REAR AXLE

Service Data and Specifications (SDS)

Service Data and Specifications (SDS) WHEEL BEARING (REAR)

=NJAX0031

Wheel bearing axial end play mm (in)	0.05 (0.0020)
Wheel bearing lock nut tightening torque N-m (kg-m, ft-lb)	187 - 254 (19 - 26, 138 - 188)

REAR AXLE

Service Data and Specifications (SDS) (Cont'd)
