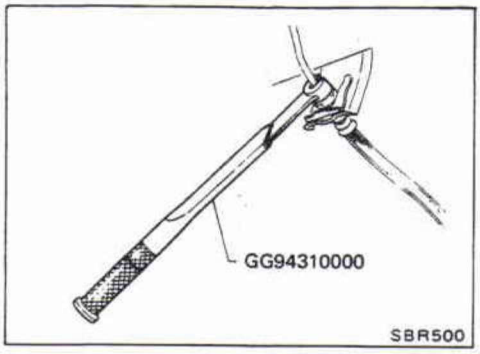
FRONT AXLE & FRONT SUSPENSION

SECTION FA

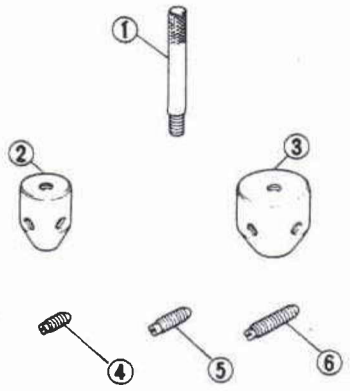
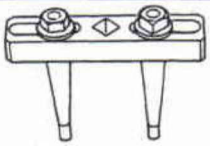
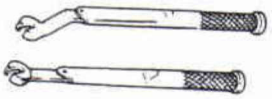
CONTENTS



- 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.
- When removing each suspension part, check wheel alignment and adjust if necessary.
- Use Tool when removing or installing brake tubes.

SPECIAL SERVICE TOOLS

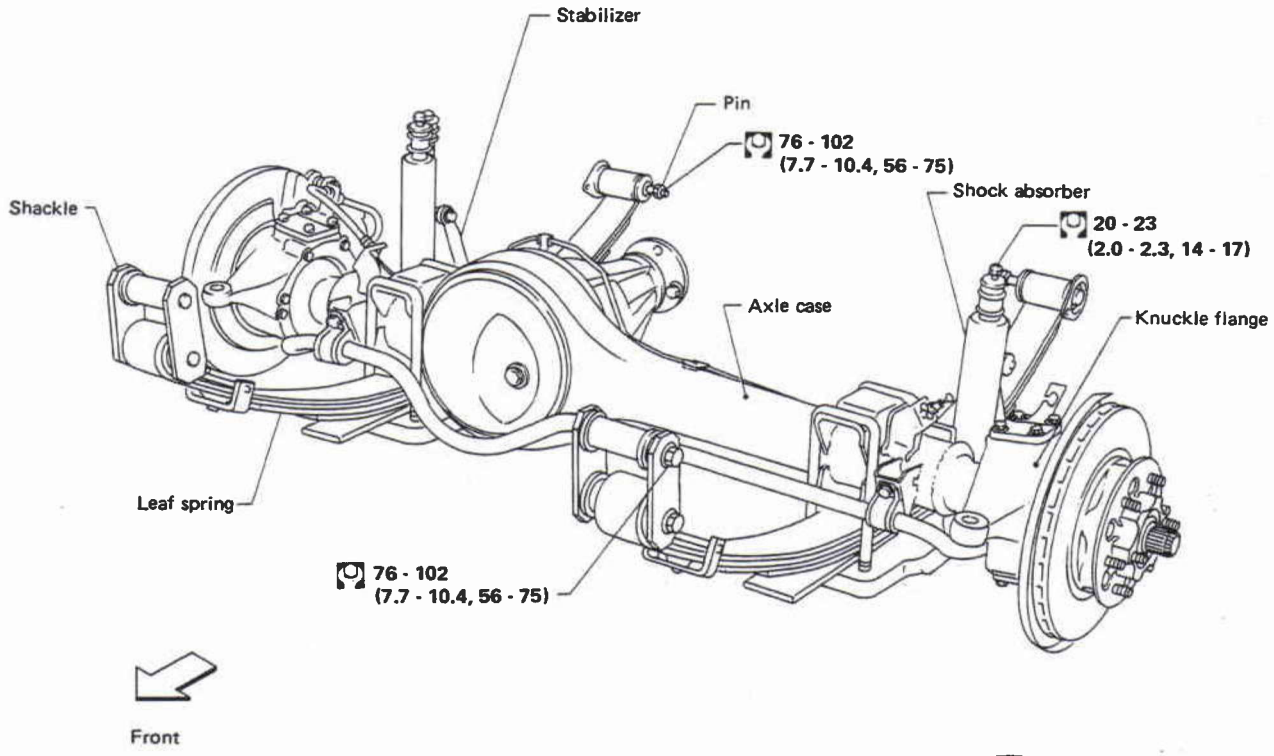
*: Special tool or commercial equivalent

Tool number Tool name	Description	
KV401021S0* Bearing outer race drift ① ST35325000* Drift bar ② KV40102110* Drift (A) ③ KV40102120* Drift (B) ④ KV40102130* Screw (A) ⑤ KV40102140* Screw (B) ⑥ KV40102150* Screw (C)		Installing wheel bearing outer race
KV40105400 Wheel bearing lock nut wrench		Removing or installing wheel bearing lock nut
GG94310000* Flare nut torque wrench		Removing and installing brake piping

LEAF SPRING TYPE

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.



: N·m (kg-m, ft-lb)

Wheel bearing

- **Axial end play:**
  0 - 0.08 mm (0 - 0.0031 in)
- **Tightening torque:**
  Refer to FA-7 and 8.
- **Wheel bearing preload**
  (As measured at wheel hub bolt):
  0 - 18.6 N (0 - 1.9 kg, 0 - 4.2 lb)
- **When measuring preload, do not include "dragging" resistance with brake pads.**
- **Wheel alignment:**
  Refer to S.D.S.

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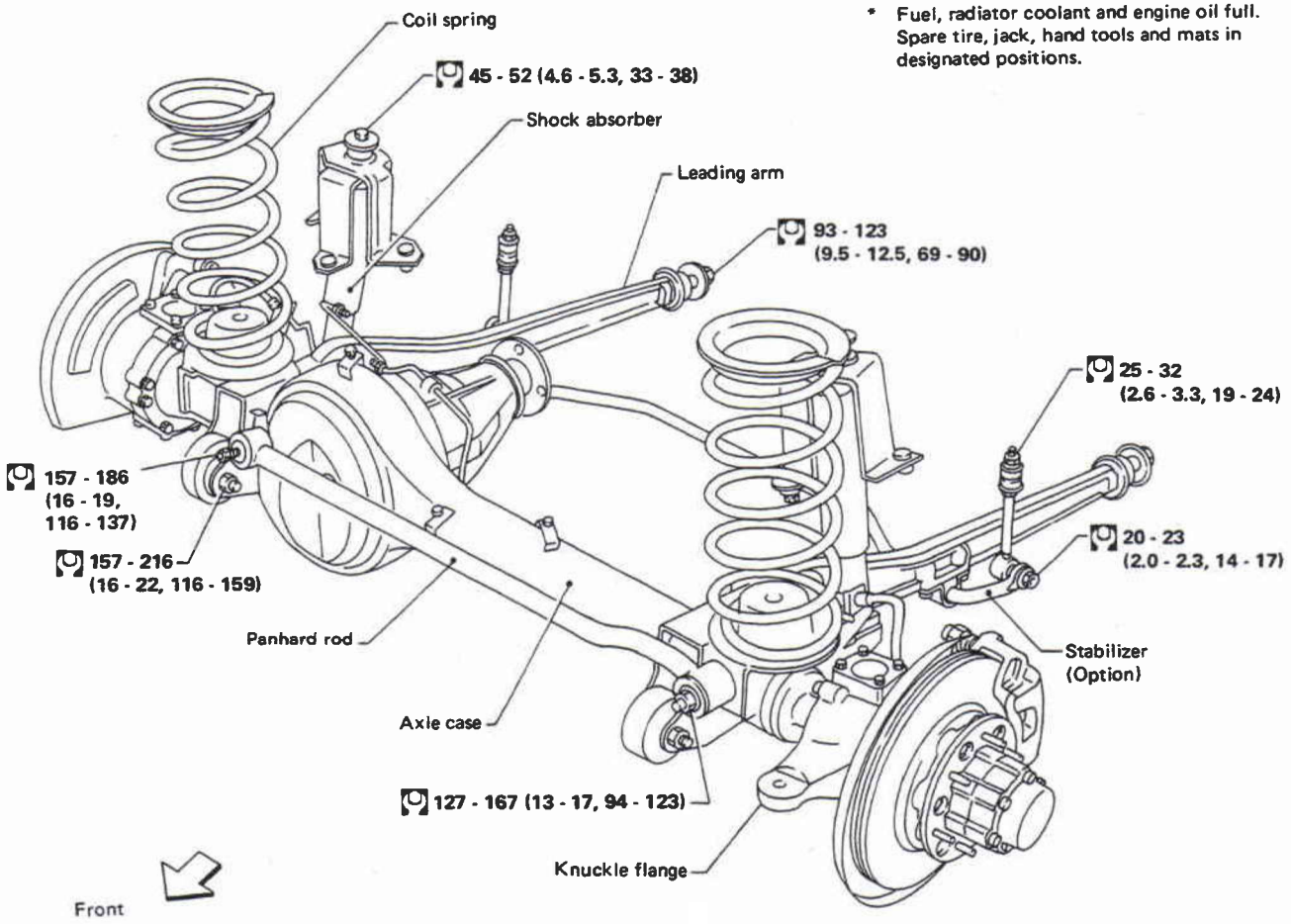
COIL SPRING TYPE

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.



: N-m (kg-m, ft-lb)

Wheel bearing
- **Axial end play:**
  0 - 0.08 mm (0 - 0.0031 in)
- **Tightening torque:**
  Refer to FA-7 and 8.
- **Wheel bearing preload**
  (As measured at wheel hub bolt):
  0 - 18.6 N (0 - 1.9 kg, 0 - 4.2 lb)
- **When measuring preload, do not include "dragging" resistance with brake pads.**
- **Wheel alignment:**
  Refer to S.D.S.

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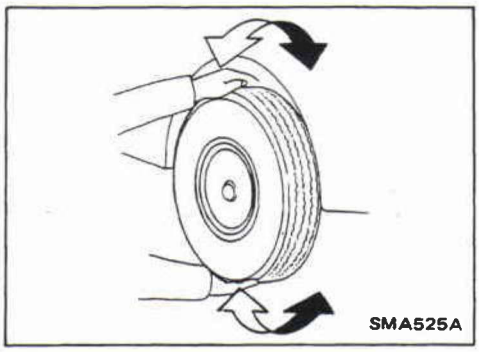
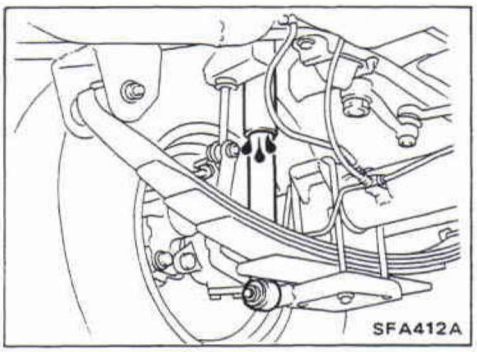


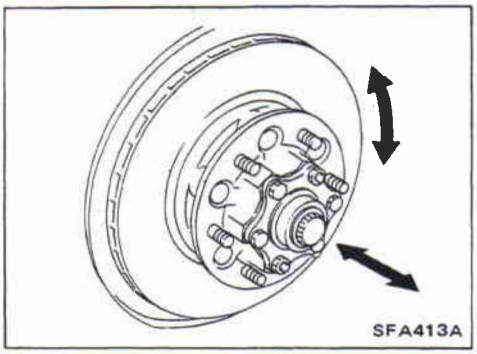
Front Axle and Front Suspension Parts

- Check front axle and front suspension parts for looseness, cracks, wear or other damage.

(1) Shake each front wheel.
(2) Make sure that cotter pin is inserted.
(3) Retighten all nuts and bolts to the specified torque.
Tightening torque: Refer to FA-28 and FA-29.
(4) Check front axle and front suspension parts for wear, cracks or other damage.



- Check shock absorber for oil leakage or other damage.

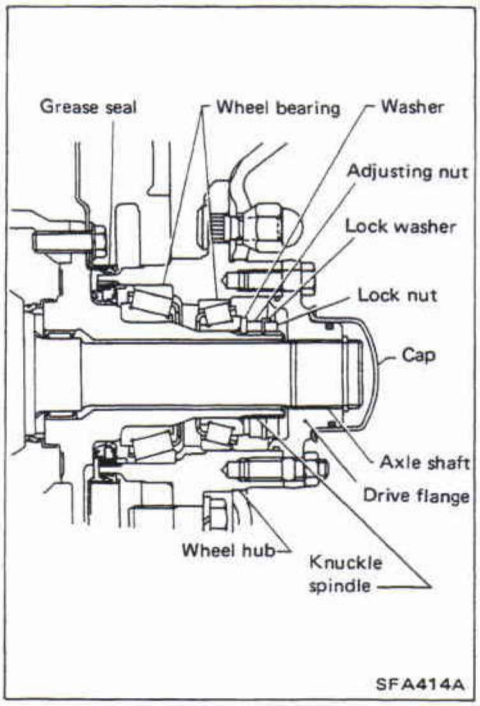


Front Wheel Bearing

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

Axial end play:
0 - 0.08 mm (0 - 0.0031 in)

- Adjust wheel bearing preload if there is any axial end play or wheel bearing does not turn smoothly.



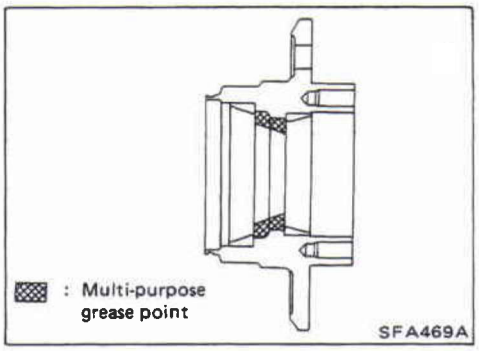
PRELOAD ADJUSTMENT

Adjust wheel bearing preload after wheel bearing has been replaced or front axle has been reassembled.

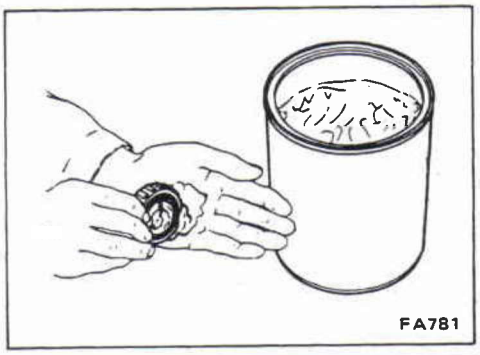
Adjust wheel bearing preload as follows:

1. Before adjustment, thoroughly clean all parts to prevent dirt entry.

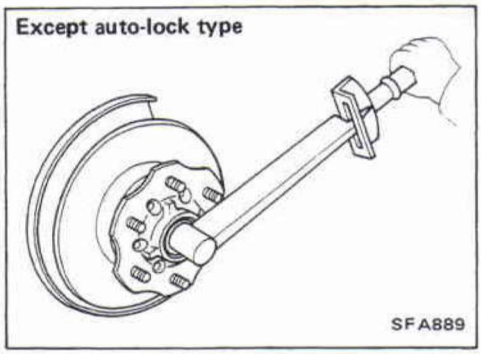
Front Wheel Bearing (Cont'd)



2. Apply multi-purpose grease sparingly to the following parts.
- Wheel hub

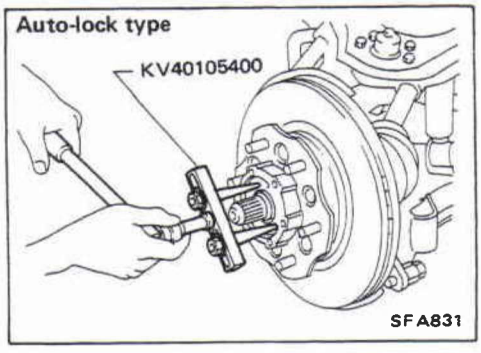


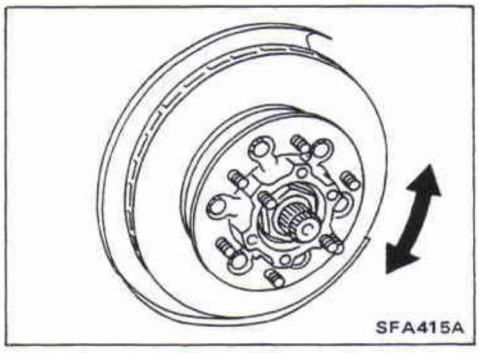
- Wheel bearing



- Grease seal lip
- Contact surface of adjusting nut

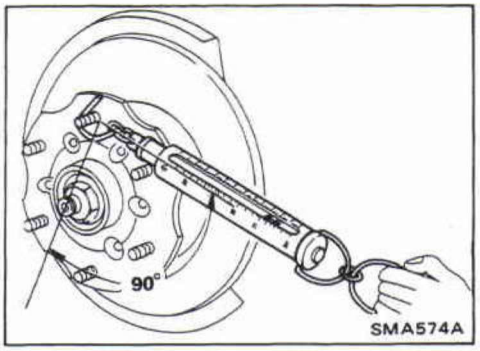
3. Tighten wheel bearing adjusting nut with tool.
   : 167 - 196 N·m
   (17 - 20 kg-m, 123 - 145 ft-lb)
4. Turn wheel hub several times in both directions.
5. Loosen wheel bearing adjusting nut so that torque becomes **0 N·m (0 kg-m, 0 ft-lb)**.
6. Retighten wheel bearing adjusting nut with tool.
   : 3 - 5 N·m
   (0.3 - 0.5 kg-m, 2.2 - 3.6 ft-lb)





7. Turn wheel hub several times in both directions.
8. Retighten wheel bearing adjusting nut with tool.
   : 3 - 5 N·m
   (0.3 - 0.5 kg-m, 2.2 - 3.6 ft-lb)
9. Again turn wheel hub several times in both directions.

Front Wheel Bearing (Cont'd)



10. Measure starting force "A" at wheel hub bolt.

11. Turn adjusting nut in tightening direction and measure starting force "B".
12. Wheel bearing preload "C" can be calculated as shown below.

$$C = B - A$$

Wheel bearing preload "C":

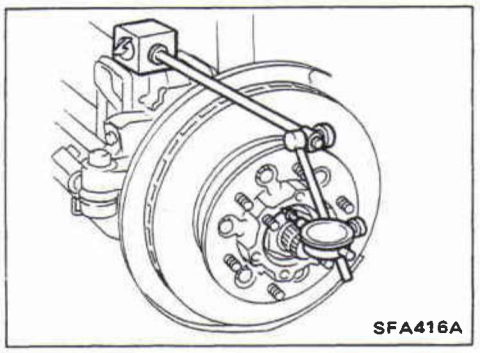
0 - 18.6 N

(0 - 1.9 kg, 0 - 4.2 lb)

13. If B – A exceeds 18.6 N (1.9 kg, 4.2 lb), loosen adjusting nut and adjust wheel bearing preload "C" to 0 to 18.6 N (0 to 1.9 kg, 0 to 4.2 lb) range.
14. Measure wheel bearing axial end play.

Axial end play:

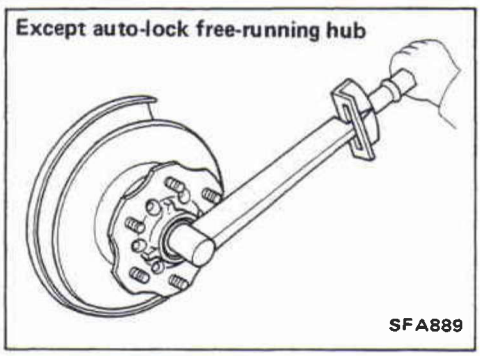
0 - 0.08 mm (0 - 0.0031 in)



Except auto-lock free-running hub type

15. Install lock washer and lock nut.

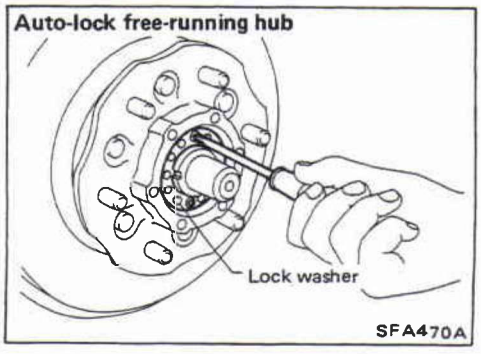
: 167 - 196 N·m (17 - 20 kg-m, 123 - 145 ft-lb)



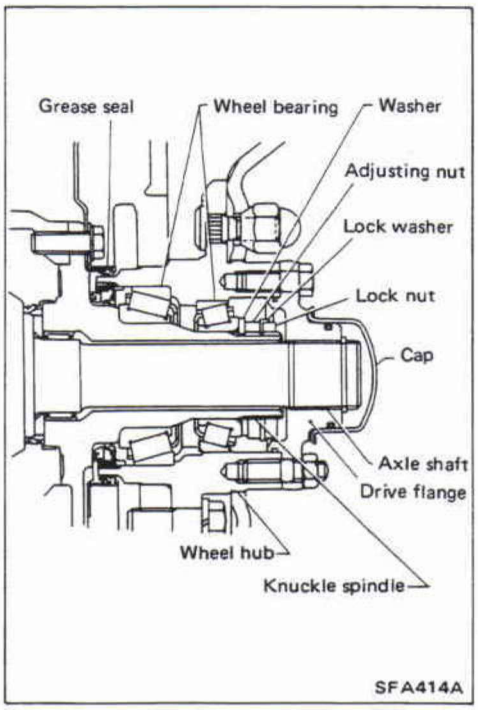
Auto-lock free-running hub

- Tighten screw.

: 1.2 - 1.6 N·m (0.12 - 0.16 kg-m, 0.9 - 1.2 ft-lb)

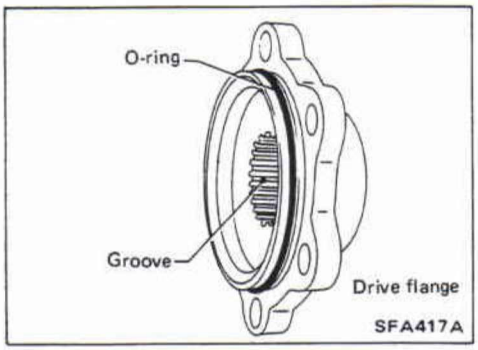


Front Wheel Bearing (Cont'd)

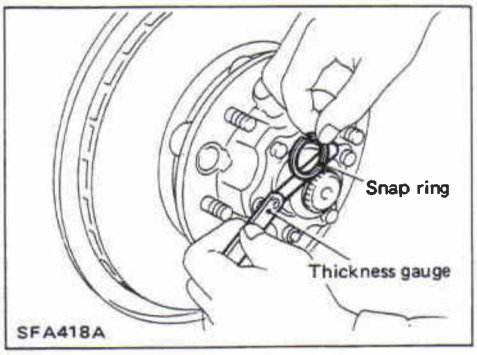


Except auto-lock free-running hub type

16. After ensuring that wheel bearing preload and axial end play are within specified ranges (see steps 12 through 14 above), firmly bend lock washers at two places (approx. 180° apart).
17. Recheck to ensure that wheel bearing preload and axial end play are within specified ranges.



18. Pack drive flange groove with grease, apply grease to O-ring and mating surface of drive flange, and install flange.



19. Place snap ring in axle shaft groove. Choose snap ring so that the gap between groove and snap ring is 0 to 0.2 mm (0 to 0.008 in).

Refer to S.D.S. for selection of snap ring.

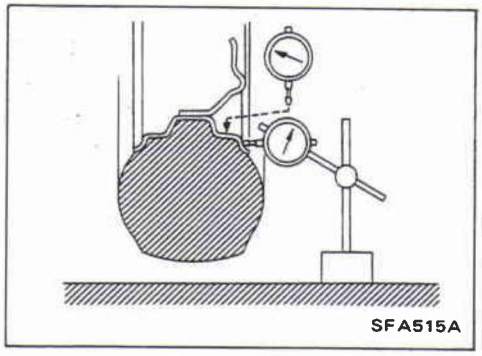
Front Wheel Alignment

Before checking front wheel alignment, be sure to make a preliminary inspection.

PRELIMINARY INSPECTION

1. Check the tires for wear and proper inflation.

Front Wheel Alignment (Cont'd)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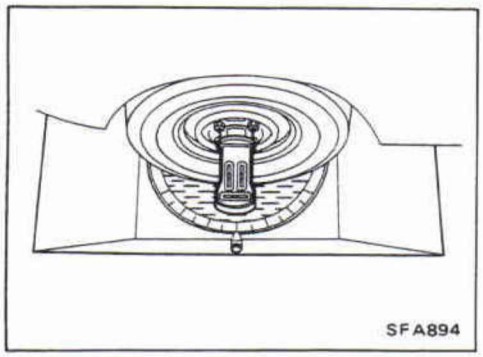
2. Check the wheel runout.
   Radial and lateral runout:
   Refer to S.D.S.
3. Check the front wheel bearings for looseness.
4. Check the front suspension for looseness.
5. Check the steering linkage for looseness.
6. Check that the front shock absorbers work properly by using the standard bounce test.

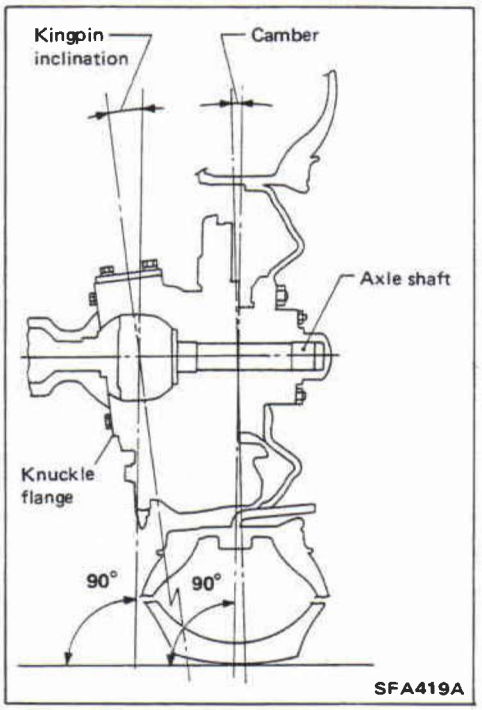

SFA894

CAMBER, CASTER AND KINGPIN INCLINATION

Before checking camber, caster or kingpin inclination, move vehicle up and down on turning radius gauge to minimize friction. Ensure that vehicle is in correct posture.

- **Measure camber, caster and kingpin inclination of both right and left wheels with a suitable alignment gauge and adjust in accordance with the following procedures.**

Camber, caster and kingpin inclination cannot be adjusted.



SFA419A

Camber (Unladen)

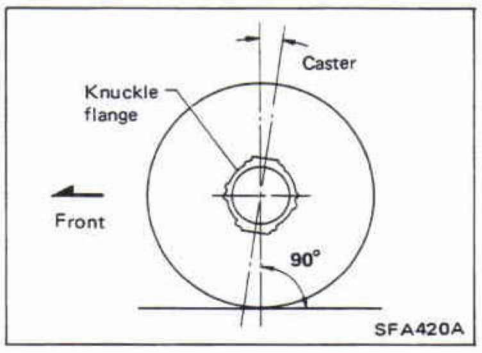
0° - 1°

- If measured value is not within above range, replace front axle case.

Kingpin inclination (Unladen)

7° - 8°

- If measured value is not within above range, replace front case, and upper and lower knuckle flange inner bearings.



SFA420A

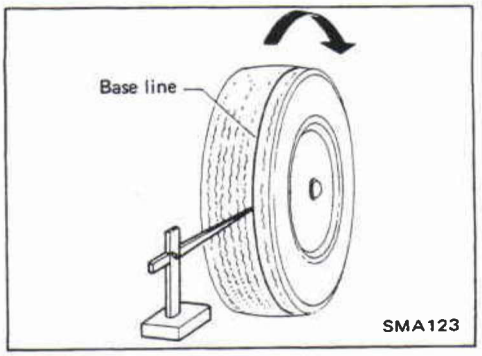
Caster (Unladen)

Pickup	2°50′ - 3°50′
Hardtop	2°20′ - 3°20′
Station Wagon	2°05′ - 3°05′

If measured values are not within specified ranges indicated above, replace parts listed in table as follows.

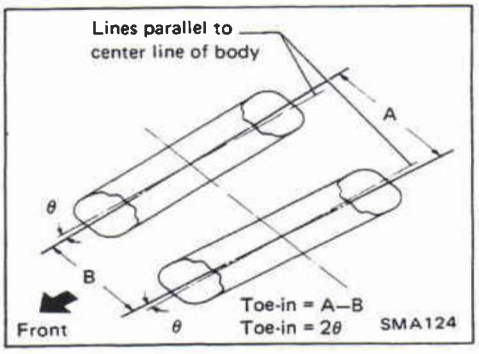
Front Wheel Alignment (Cont'd)

Suspension type	Parts to be replaced
Leaf spring	Leaf spring and upper and lower knuckle flange inner bearings
Coil spring	Leading arm and upper and lower knuckle flange inner bearings



TOE-IN

1. Mark a base line across the tread.



After lowering front of vehicle, move it up and down to eliminate friction, and set steering wheel in straight ahead position.

2. Measure toe-in.

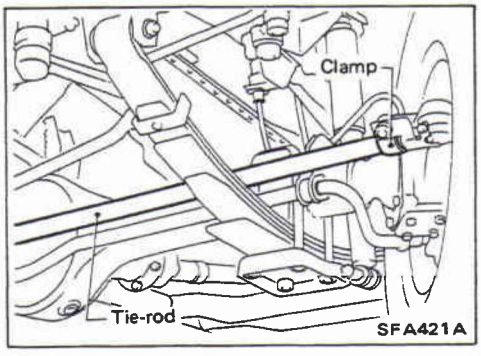
Measure distance "A" and "B" at the same height as hub center.

Toe-in (Unladen):

Toe-in is determined as shown below.

A—B mm (in)/2 θ degree

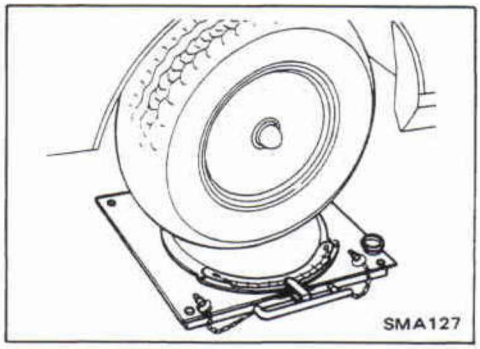
Tire type	Tire size	Pickup	Hardtop & Station Wagon
Radial	10R15 - 6PRLT	–	–2 to 0 (–0.08 to 0)/ –9′ to 0′
	215/80R16 107Q 7.50R16	0 - 2 (0 - 0.08)/0′ - 9′	
Bias	–	1 - 3 (0.04 - 0.12)/9′ - 18′	



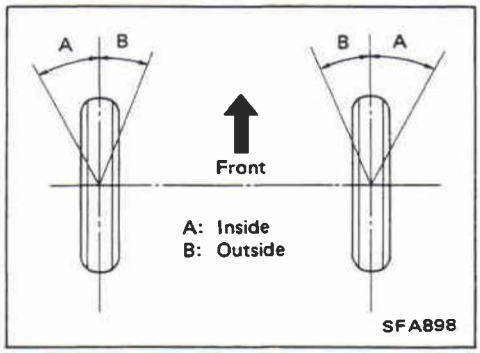
3. Adjust toe-in by varying the length of steering tie-rod.
4. Loosen clamp bolts.
5. Adjust toe-in by turning tie-rod back and forth.
6. Tighten clamp bolts and torque them.

Front Wheel Alignment (Cont'd)

WHEEL TURNING ANGLE

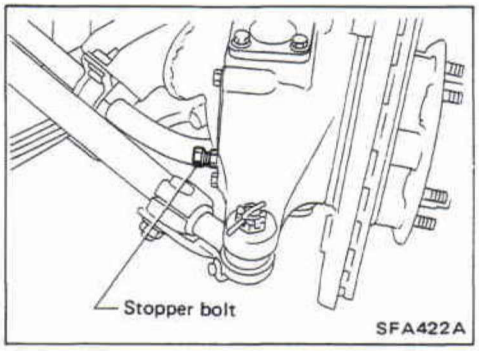


1. Set wheels in straight ahead position and then move vehicle forward until front wheels rest on turning radius gauge properly.

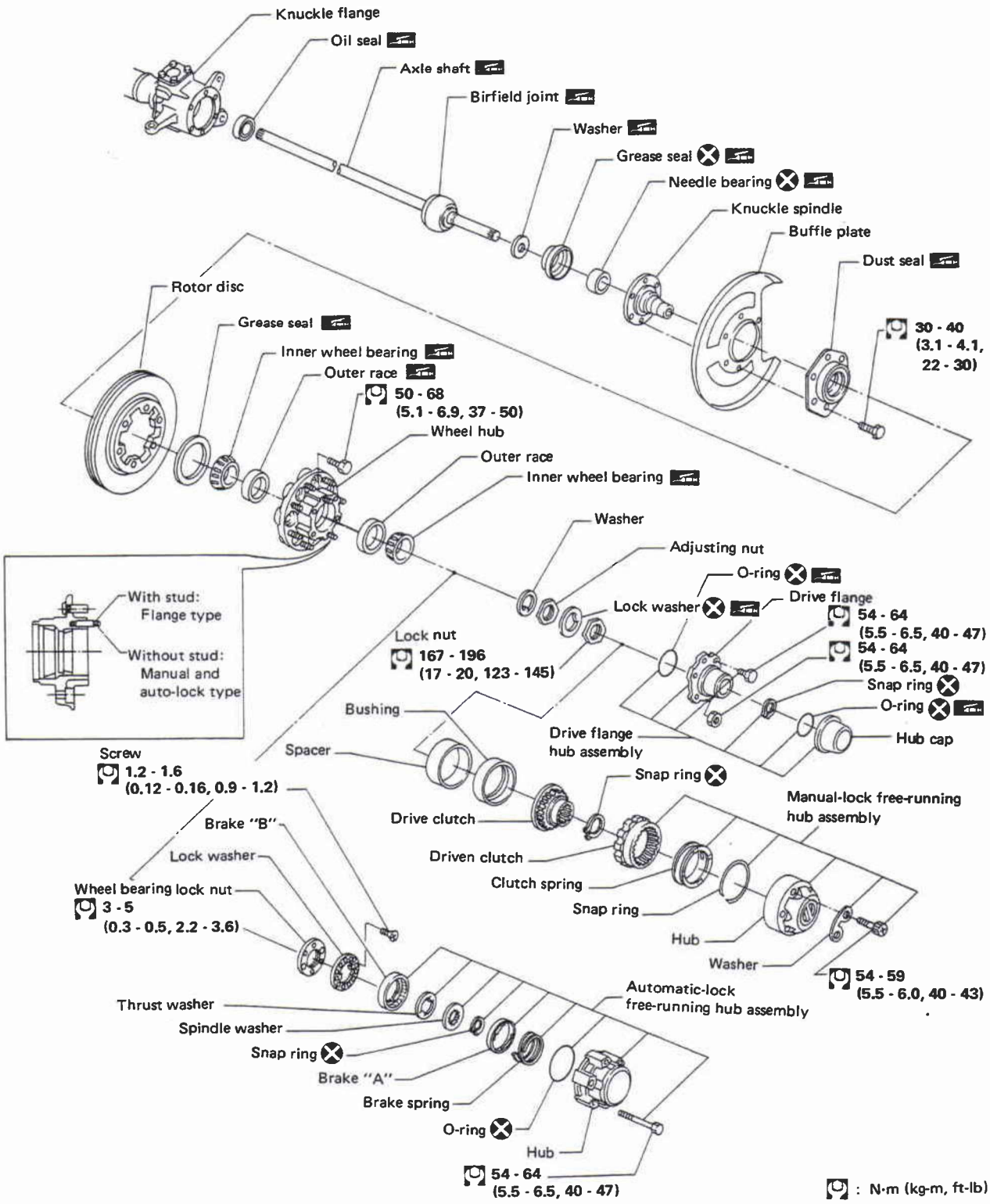


2. Rotate steering wheel all the way right and left; measure turning angle.

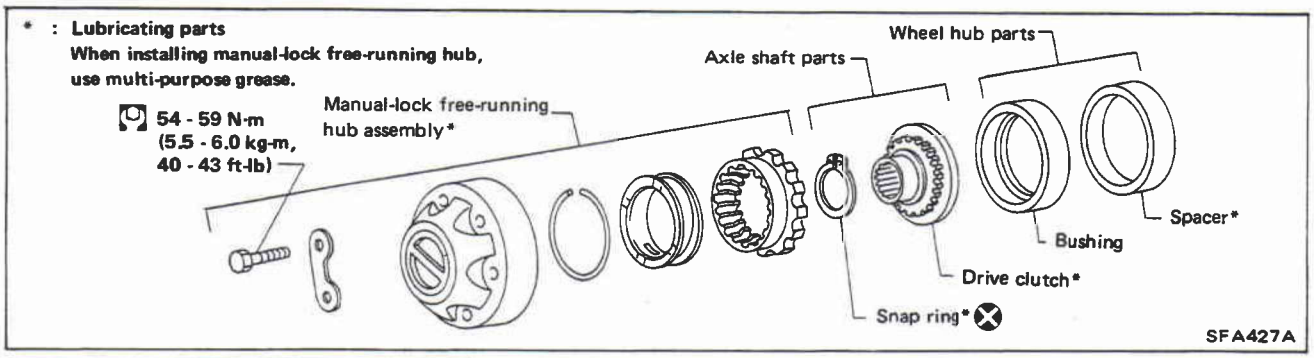
Wheel	Pickup	Hardtop & Station Wagon
Inside	28° - 30°	30° - 32°
Outside	28° - 30°	27° - 29°



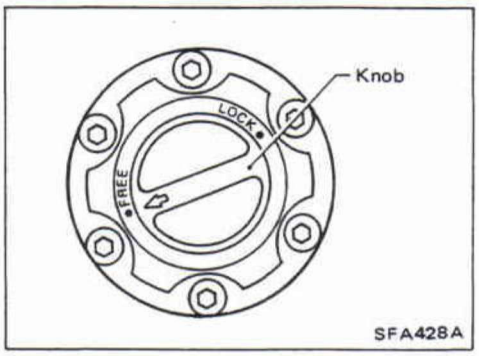
3. Adjust by stopper bolt if necessary.
   : 23 - 26 N·m
   (2.3 - 2.7 kg-m, 17 - 20 ft-lb)


Knuckle flange
Oil seal
Axle shaft
Birfield joint
Washer
Grease seal
Needle bearing
Knuckle spindle
Buffle plate
Dust seal
30 - 40 (3.1 - 4.1, 22 - 30)
Rotor disc
Grease seal
Inner wheel bearing
Outer race
50 - 68 (5.1 - 6.9, 37 - 50)
Wheel hub
Outer race
Inner wheel bearing
Washer
Adjusting nut
O-ring
Lock washer
Drive flange
54 - 64 (5.5 - 6.5, 40 - 47)
54 - 64 (5.5 - 6.5, 40 - 47)
Snap ring
O-ring
Hub cap
With stud: Flange type
Without stud: Manual and auto-lock type
Lock nut
167 - 196 (17 - 20, 123 - 145)
Bushing
Drive flange hub assembly
Spacer
Screw
1.2 - 1.6 (0.12 - 0.16, 0.9 - 1.2)
Snap ring
Drive clutch
Manual-lock free-running hub assembly
Brake "B"
Lock washer
Driven clutch
Clutch spring
Wheel bearing lock nut
3 - 5 (0.3 - 0.5, 2.2 - 3.6)
Snap ring
Hub
Washer
54 - 59 (5.5 - 6.0, 40 - 43)
Automatic-lock free-running hub assembly
Thrust washer
Spindle washer
Snap ring
Brake "A"
Brake spring
O-ring
Hub
54 - 64 (5.5 - 6.5, 40 - 47)
: N·m (kg-m, ft-lb)

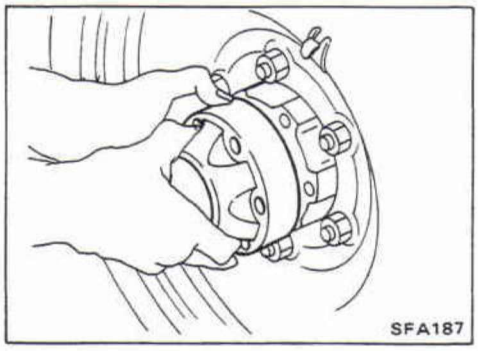
SFA423A



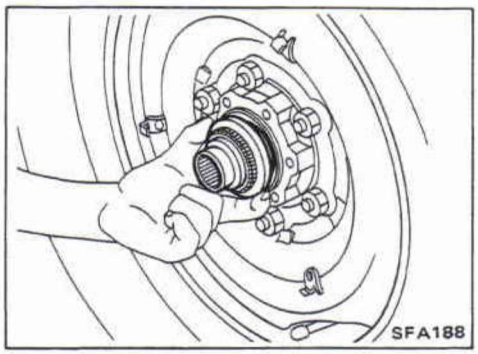
Removal and Installation



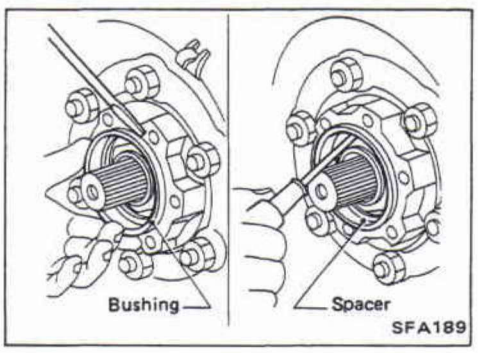
1. Set knob of manual-lock free-running hub to the "FREE" position.



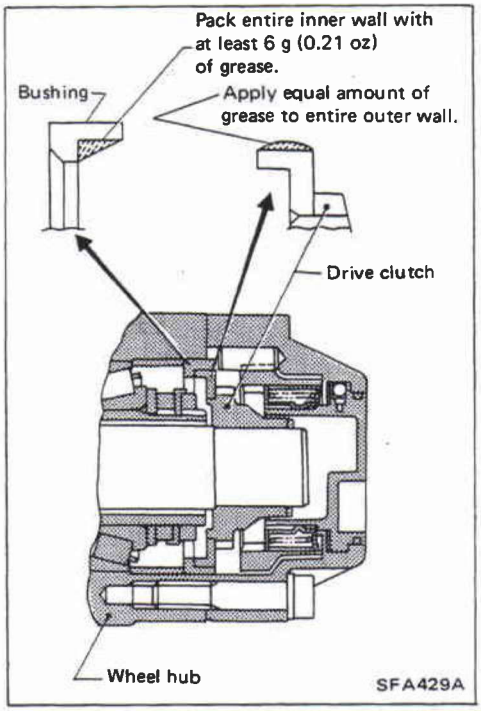
2. Loose bolts and remove free-running hub assembly.



3. Remove snap ring and take off drive clutch.

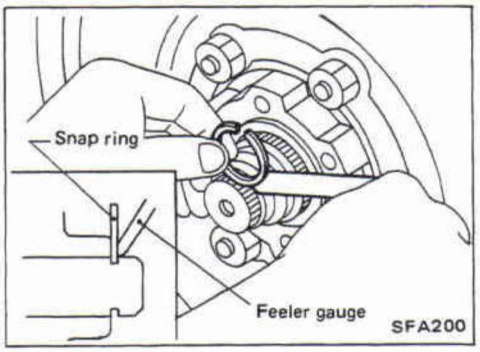


4. Take out bushing and spacer from wheel hub.



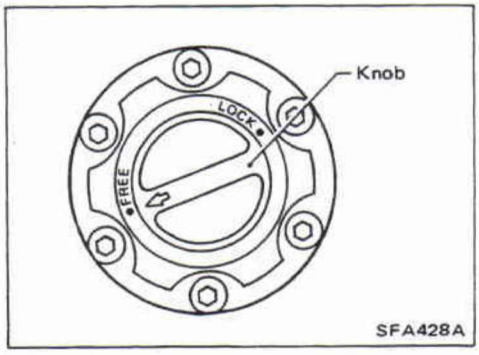
Installation

Install free-running hub in the reverse order of removal.
Apply multi-purpose grease to bushing and drive clutch before installing on wheel hub and axle shaft, respectively.



- Install drive clutch.
- Place snap ring in axle shaft groove.

Axial end play:
0 - 0.2 mm (0 - 0.008 in)
Snap ring size:
Refer to S.D.S.



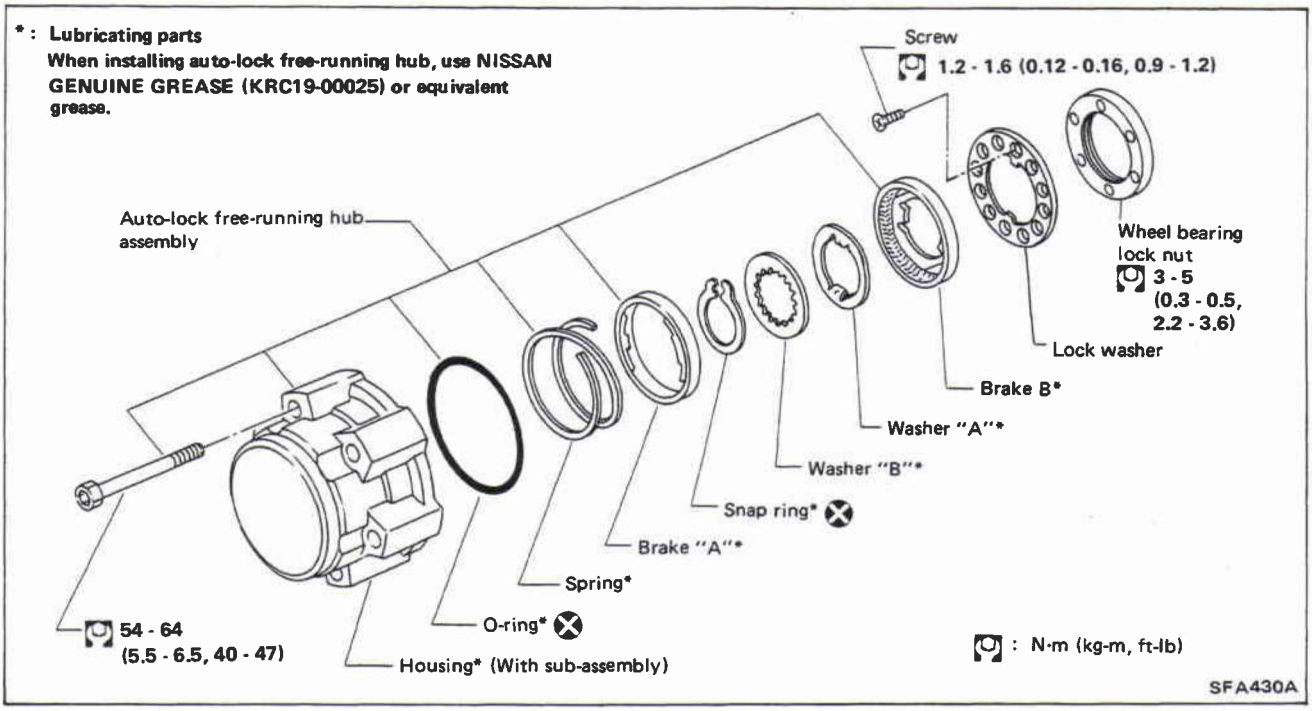
- When installing manual-lock free-running hub, make sure the position "FREE".

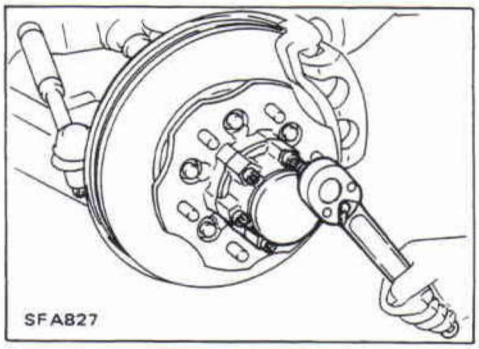
Apply multi-purpose grease to drive shaft end.

- Check operation of manual-lock free-running hub after install it.

Inspection

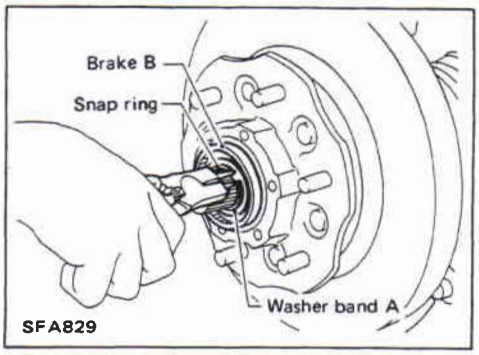
- Check that hub moves smoothly and freely.
- Check that clutch moves smoothly in the body.





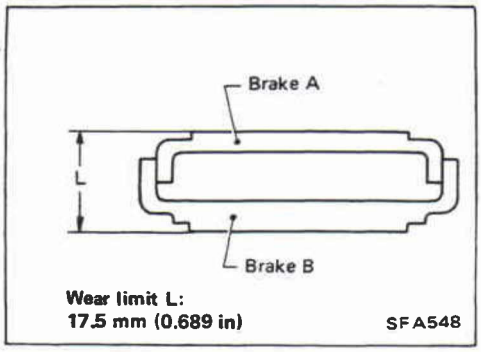
Removal and Installation

- Set the auto-lock free-running hub at the condition "FREE".



- Remove snap ring.
- Remove washer B, washer A and brake B.
- After installing auto-lock free-running hub, check operation it.

When installing it, apply recommended grease to drive shaft end.

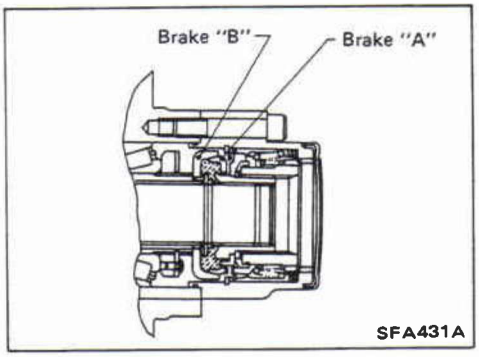


Inspection

Thoroughly clean parts and dry with compressed air.

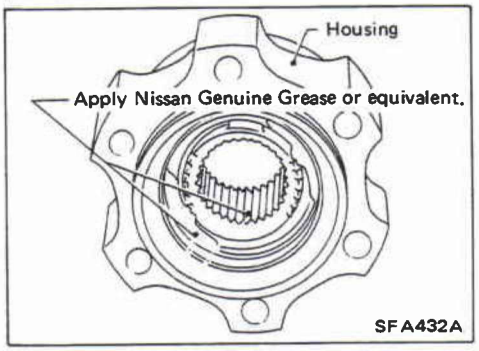
Brake "A" and "B"

Measure the thickness "L" of brake "A" and "B".
If thickness is less than the specified limit, replace brake "A" and "B" as a set.

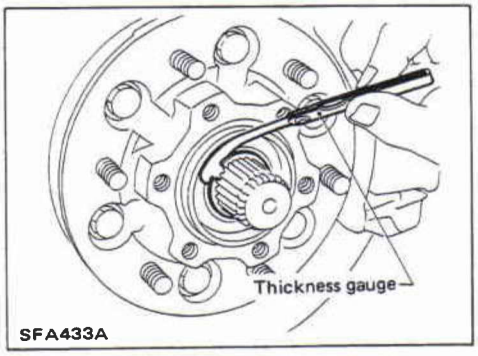


Installation

Install free-running hub in the reverse order of removal.
Pack shaded areas (shown in figure at left) with Nissan Genuine Grease or equivalent.

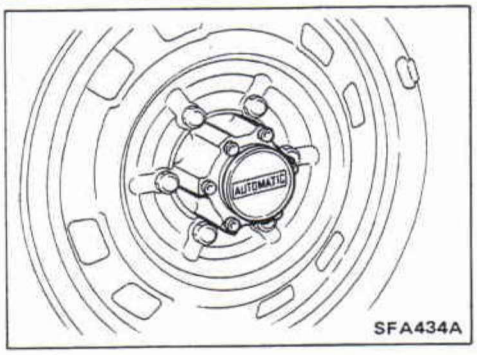


- Apply a coat of Nissan Genuine Grease or equivalent to inner wall and end face of housing.

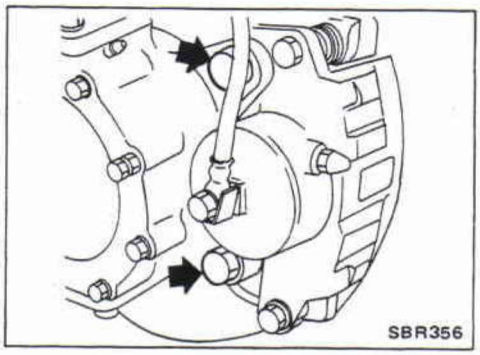


- When installing hub's mating parts (such as brake "B" and washers "A" and "B") on axle shaft, select suitable snap ring so that end play between axle shaft and its mating parts is within specifications.

  Axial end play:
  0 - 0.2 mm (0 - 0.008 in)
  Snap ring size: Refer to S.D.S.



- Install auto-lock free-running hub to wheel hub.



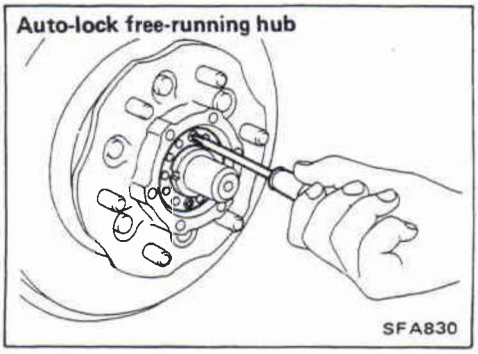
Removal and Installation

- Remove free-running hub assembly.
  Refer to FRONT AXLE Auto-lock or Manual-lock Free-running Hub.
- Remove brake caliper assembly.

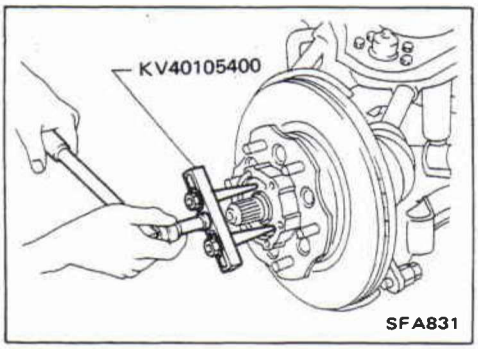
Brake hose does not need to be disconnected from brake caliper.

Be careful not to depress brake pedal, or piston will pop out.

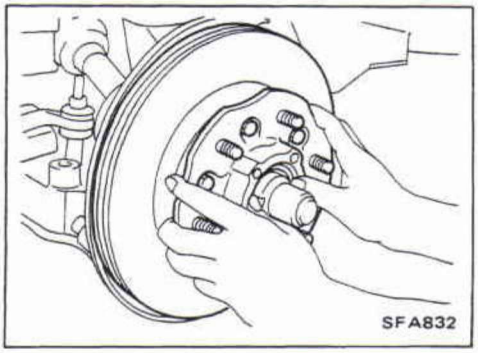
Make sure brake hose is not twisted.



- Remove lock washer.



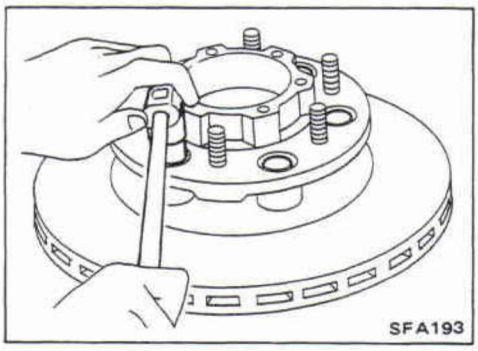
- Remove wheel bearing lock nut with Tool.



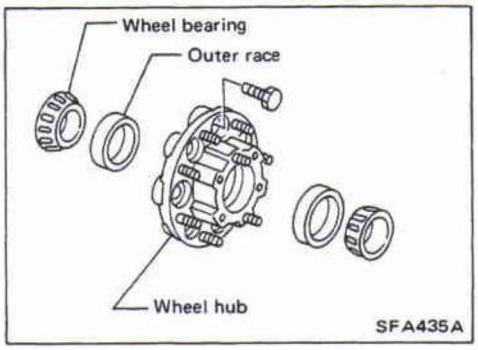
- Remove wheel hub and wheel bearing.

Be careful not to drop outer bearing.

- After installing wheel hub and wheel bearing, adjust wheel bearing preload.
  Refer to Preload Adjustment of Wheel Bearing for CHECK AND ADJUSTMENT — On-vehicle.



- Separate brake disc to hub.



Inspection

Thoroughly clean wheel bearings and wheel hub.

WHEEL BEARING

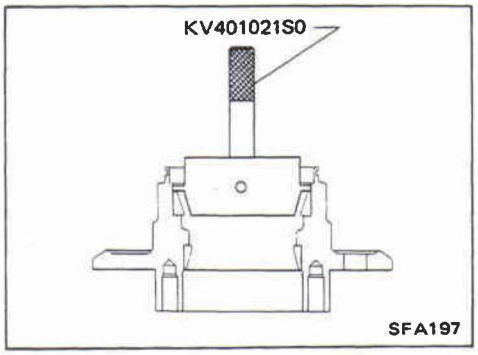
- Make sure wheel bearing rolls freely and is free from noise, crack, pitting or wear.

WHEEL HUB

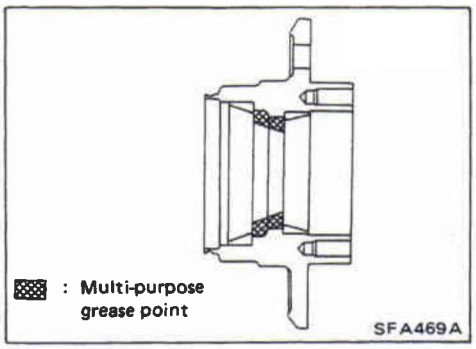
- Check wheel hub for crack by using a magnetic exploration or dyeing test.

Assembly

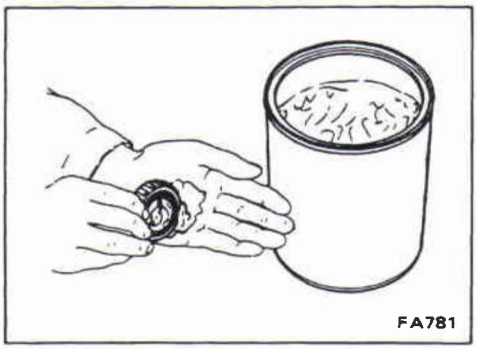
- Install bearing outer race with Tool until it seats in hub.



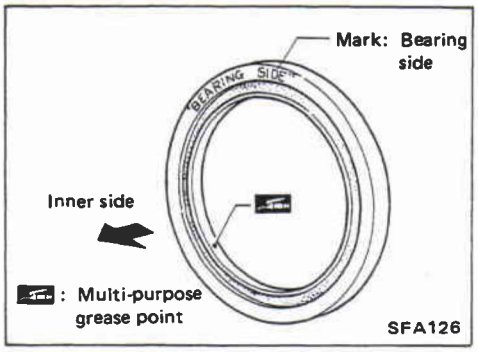
- Pack multi-purpose grease to hub and hub cap.

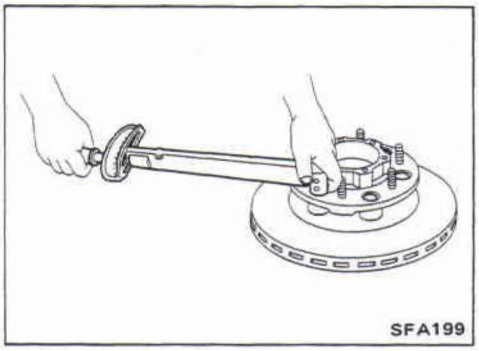


- Apply multi-purpose grease to each bearing cone.



- Pack grease seal lip with multi-purpose grease, then install it into wheel hub with suitable drift.

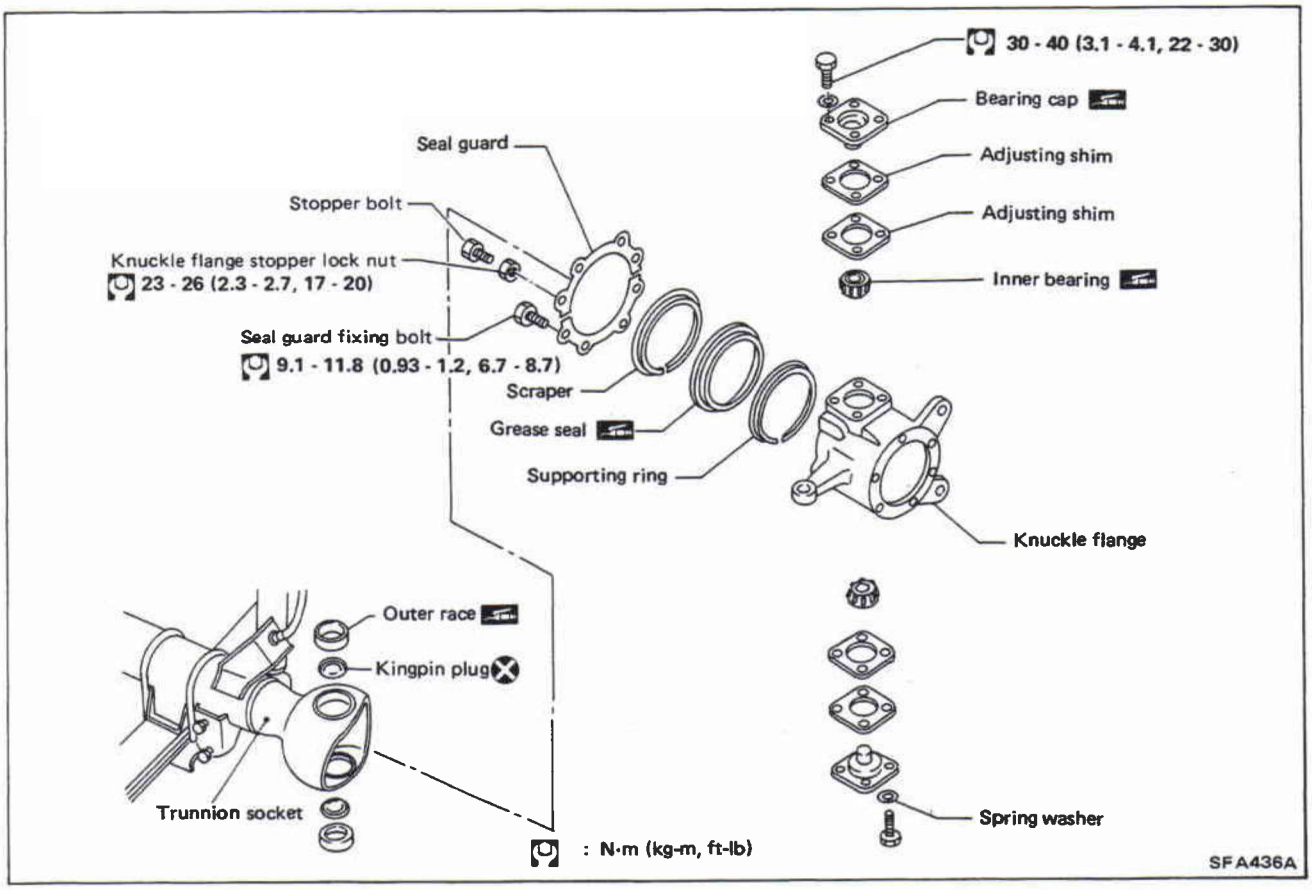


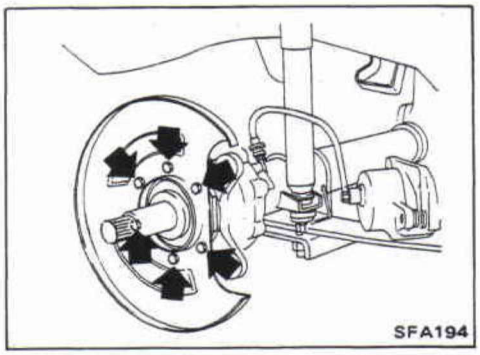


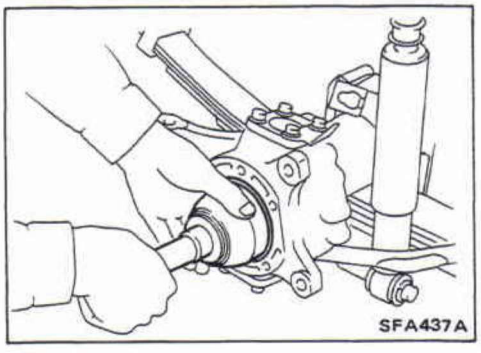
Assembly (Cont'd)

- Install hub to brake rotor.

  : 50 - 68 N·m
  (5.1 - 6.9 kg-m, 37 - 50 ft-lb)







Removal

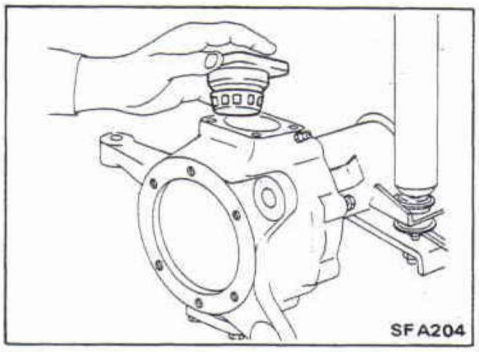
Drain differential oil completely prior to removal.

1. Remove baffle plate.

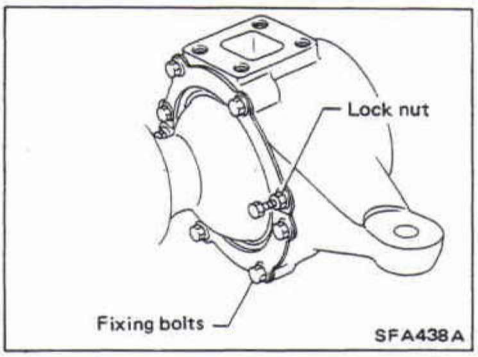
2. Draw out axle shaft.

Removal (Cont'd)

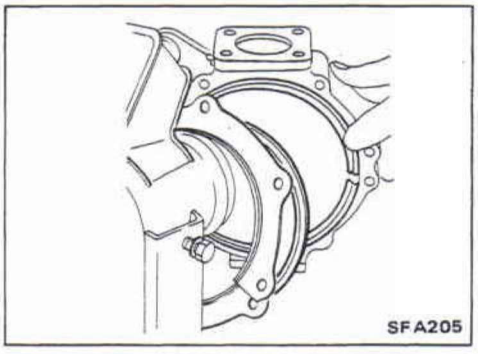
3. Disconnect tie-rod ends.
Refer to section ST.



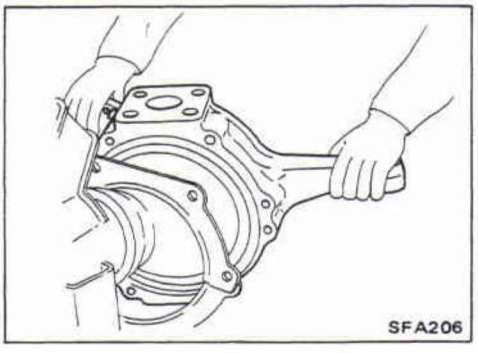
4. Remove upper and lower bearing caps with inner bearing and O-ring.



5. Remove seal guard fixing bolts.



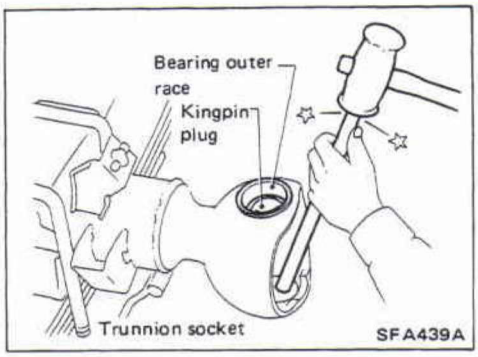
6. Separate seal guard, scraper, grease seal and supporting ring from knuckle flange.



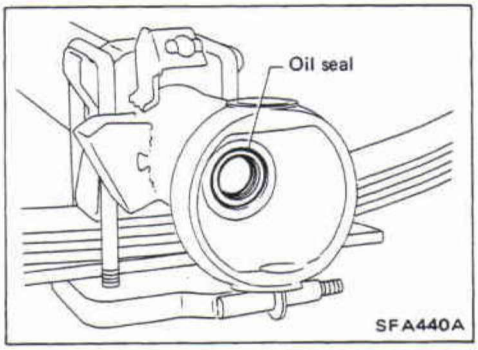
7. Remove knuckle flange, seal guard, scraper, grease seal and supporting ring from axle case.

Removal (Cont'd)

8. Remove bearing outer race and kingpin plug.



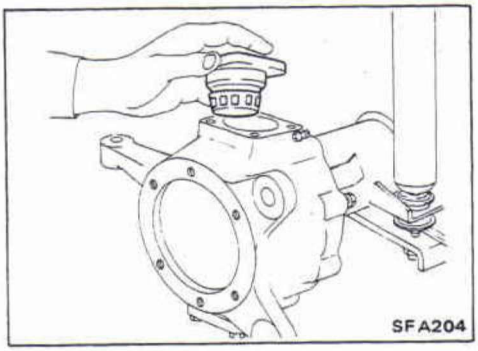
9. Remove oil seal from axle shaft.



Inspection

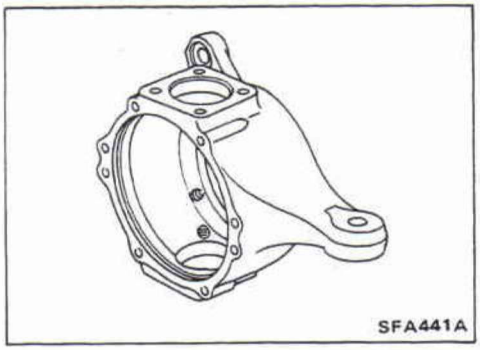
KNUCKLE FLANGE BEARING CAP

Replace knuckle flange bearing if it is worn, pitted or corroded.



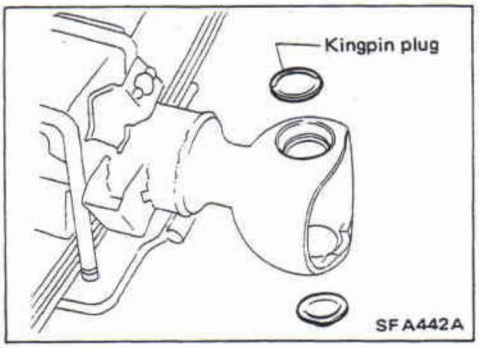
KNUCKLE FLANGE

Replace knuckle flange if it is cracked.

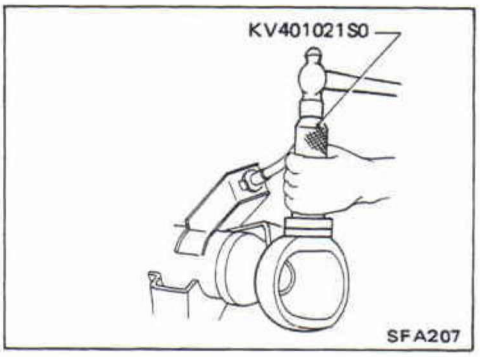


Installation

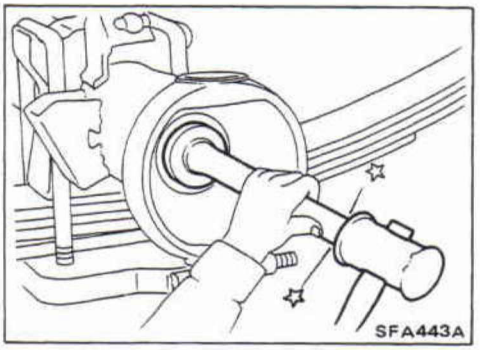
1. Check kingpin plug for damage before installing. If damaged, use a new one.



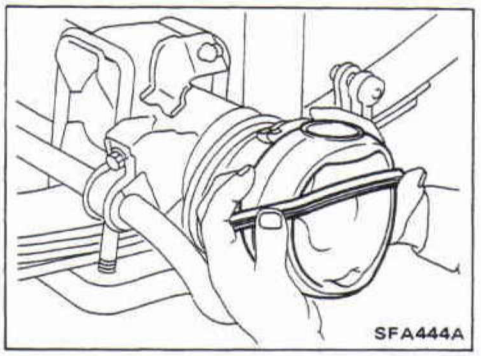
Installation (Cont'd)



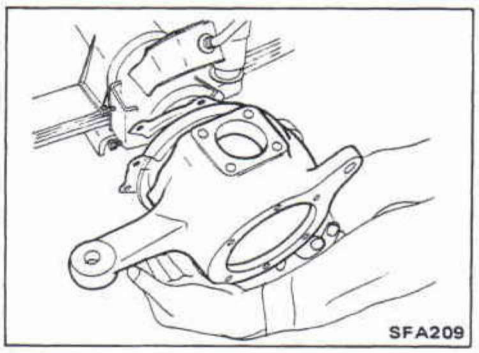
2. Using Tool, place bearing outer race in trunnion socket.



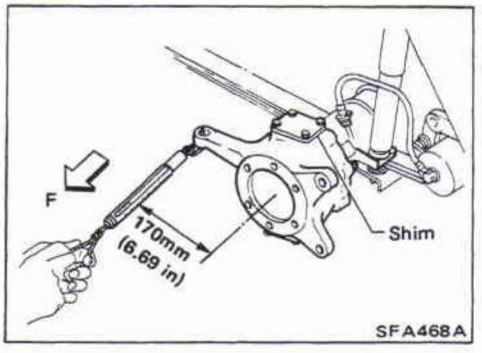
3. Install oil seal with tool.



4. Place grease seal guard, scraper and grease seal in axle case. Grease lip and circumference seals in axle case.



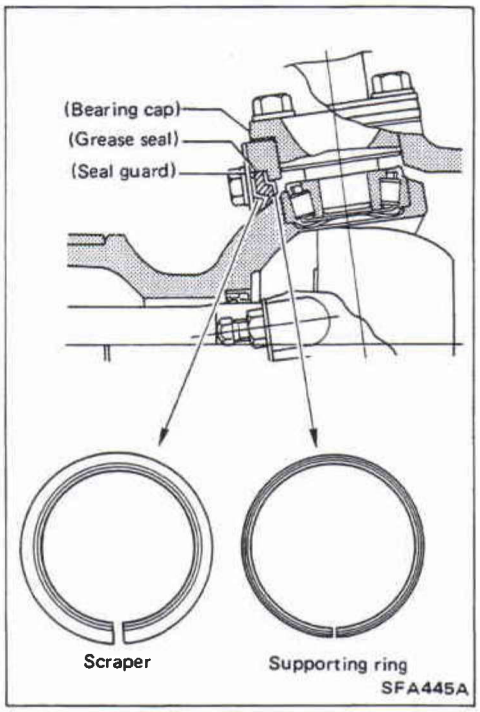
5. Apply recommended grease around trunnion socket spherical area, then place knuckle flange in trunnion socket.



6. Adjust rotating force of knuckle flange (at hinge pin) to 5.88 to 17.16 N (0.6 to 1.75 kg, 1.32 to 3.86 lb) range by adding or removing upper and lower shims of same thickness. This adjustment must be made without installing oil seal and birfield joint.

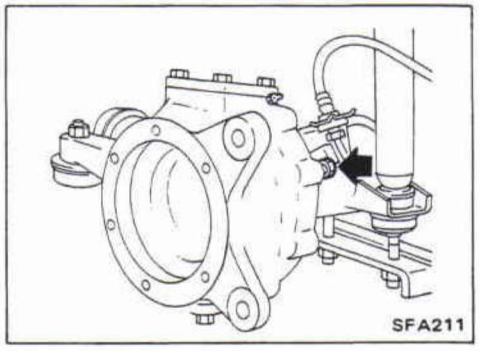
   Shim thicknesses: Refer to S.D.S.

Installation (Cont'd)



7. Install bearing cap with inner bearing and adjusting shim. Before installing seal guard, scraper, grease seal and supporting ring (as a unit), apply approx. 50 g (1.76 oz) of wheel bearing grease to perimeters shown in figure at left.

Slits located in scraper and supporting ring should point straight downward when installed.



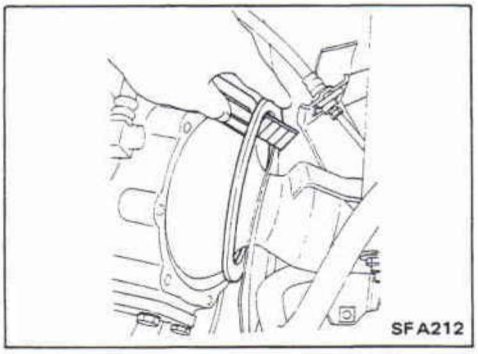
Install knuckle flange stopper bolt and nut on stopper side of axle case.

After installing tie rod, adjust it to specified steering angle using turning radius gauge, then tighten with lock nut.

Knuckle Flange Grease Seal

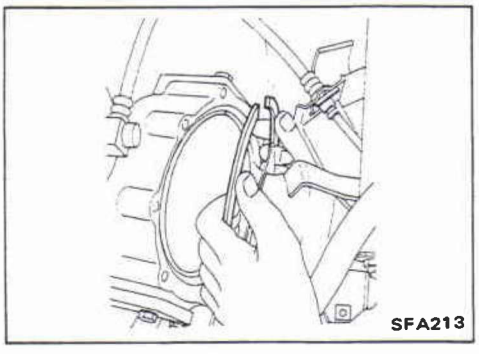
To replace only knuckle flange grease seal, proceed as follows.

REMOVAL



1. Turn steering wheel to both the extreme right and left, and remove grease seal guard from knuckle flange.
2. Extract grease seal and remove it by cutting it from axle case.

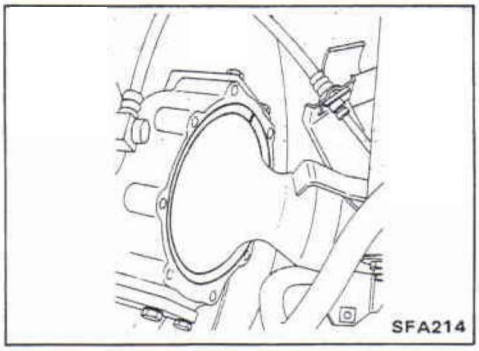
INSTALLATION



1. Cut off a part of new grease seal and fill lip portion with grease. Then insert grease seal into axle case.

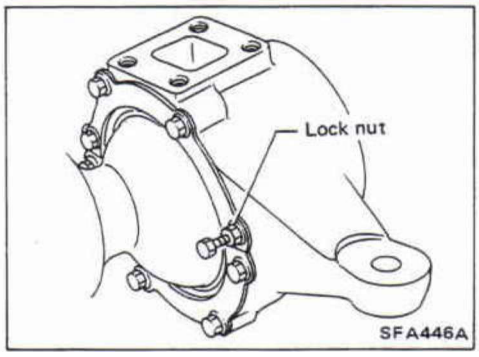
Cut grease seal so that cut surface is straight.

Knuckle Flange Grease Seal (Cont'd)



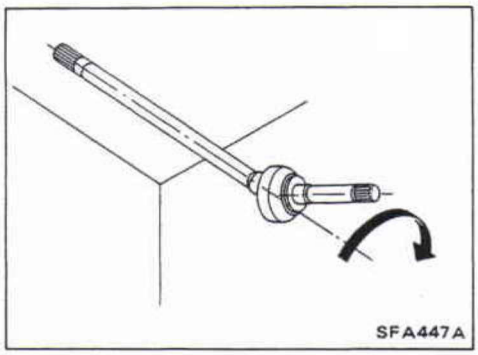
2. Apply adhesive to cut surface of grease seal.
   Install grease seal so that its cut surface is above knuckle flange.

Be sure not to allow adhesive to protrude beyond cut surface of grease seal.



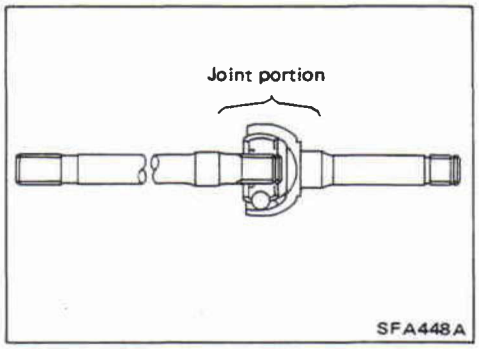
3. Install scraper and grease seal guard on knuckle flange.

After replacing grease seal, adjust steering wheel to specified turning angle with a turning radius gauge. Then tighten lock nut.



Inspection

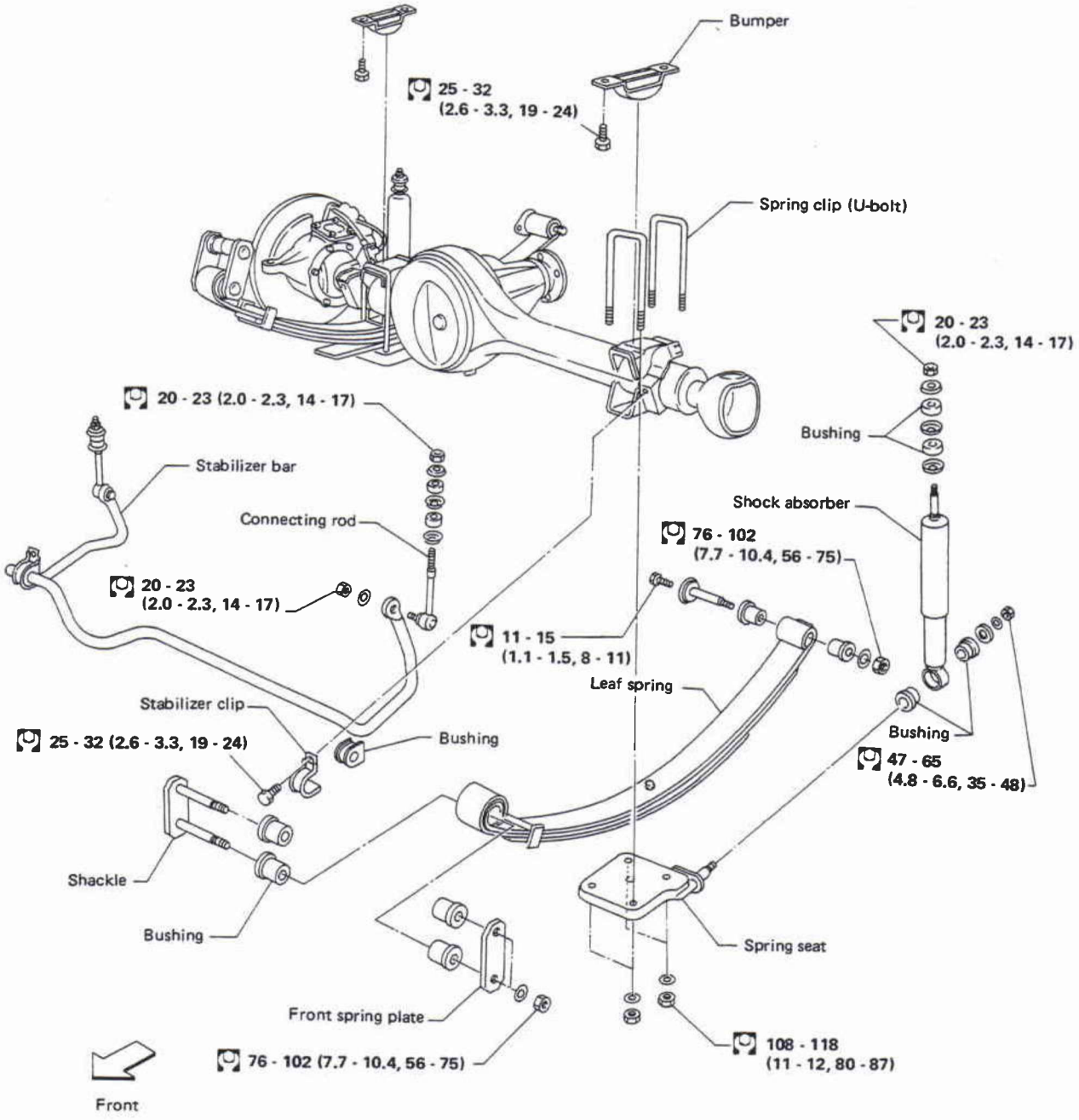
Check wheel shaft for signs of binding when turned in a twisting motion. Also check for cracks or damage.



Installation

Before positioning axle shaft in axle case, pack shaft joint with recommended grease*.

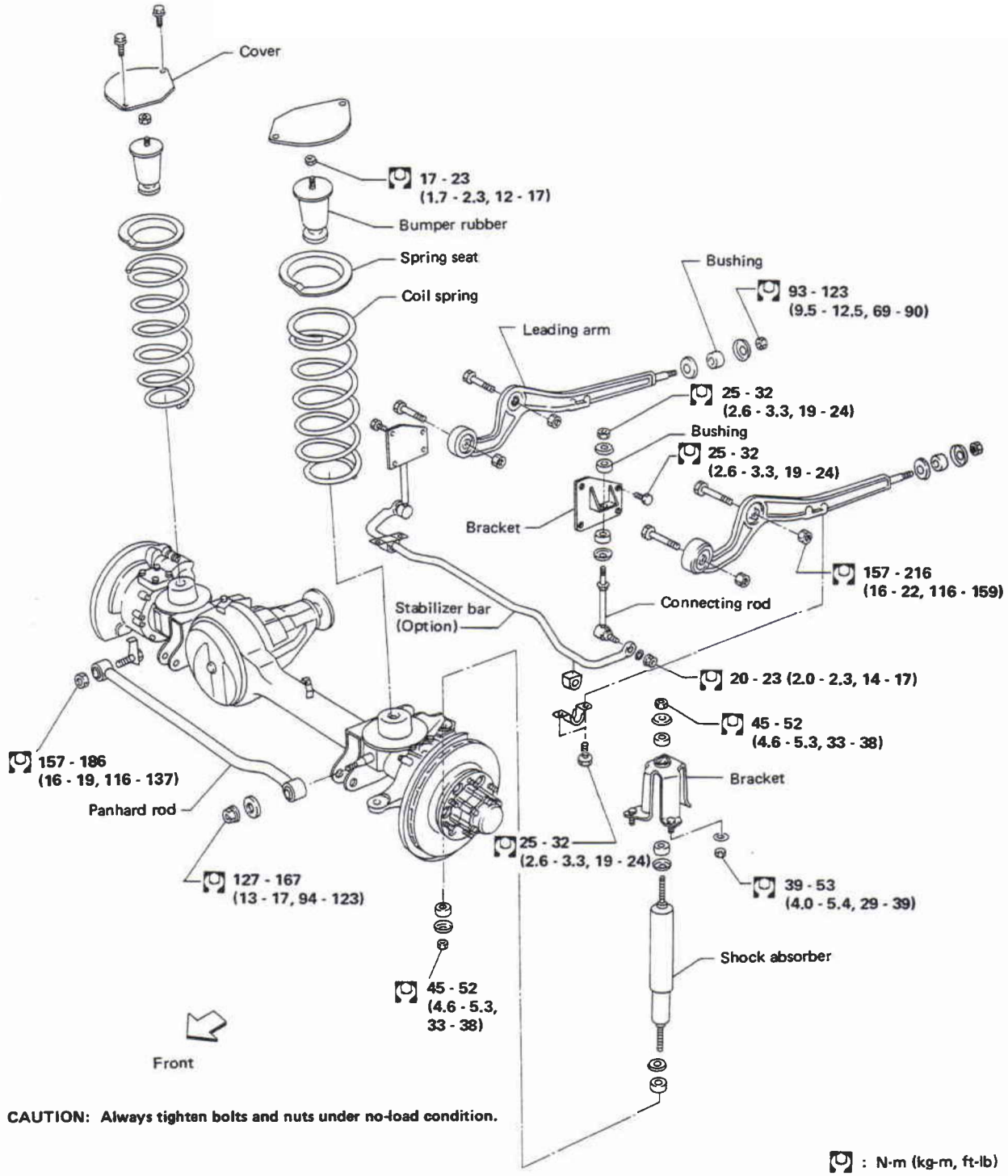
* Molybdenum disulphide lithium soap base, NLGI No. 2.
Refer to page MA-8.



CAUTION: Always tighten bolts and nuts under no-load condition.

: N·m (kg-m, ft-lb)

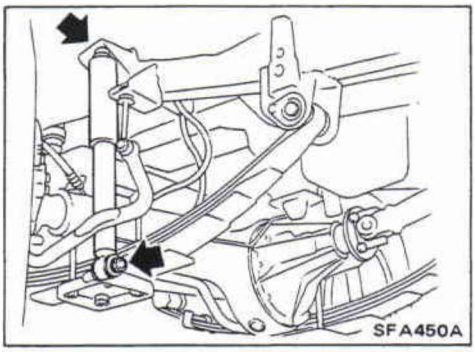
SFA449A



CAUTION: Always tighten bolts and nuts under no-load condition.

: N·m (kg-m, ft-lb)

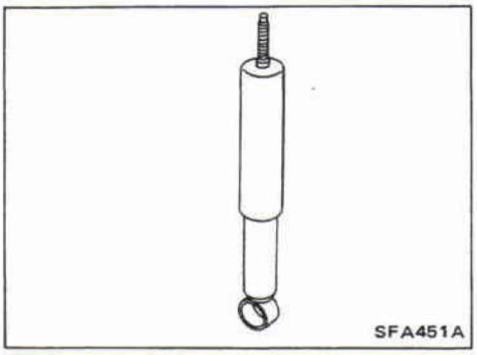
SFA456A


SFA450A

Shock Absorber

REMOVAL AND INSTALLATION

1. Disconnect both upper and lower sides fixing nuts.

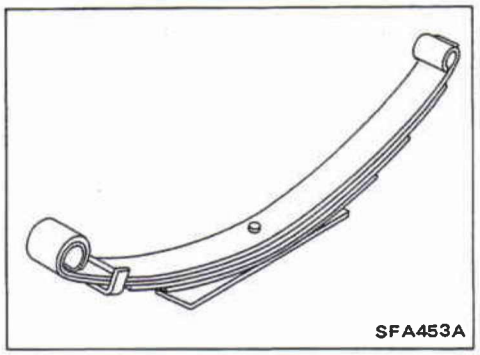

SFA451A

2. Install shock absorber.

Do not allow oil or grease to come into contact with rubber parts.

INSPECTION

- Check for oil leakage and cracks. Replace if necessary.
- Check piston rod for smooth operation. Replace if necessary.
- Check all rubber parts for wear, cracks, damage or deformation. Replace if necessary.


SFA453A

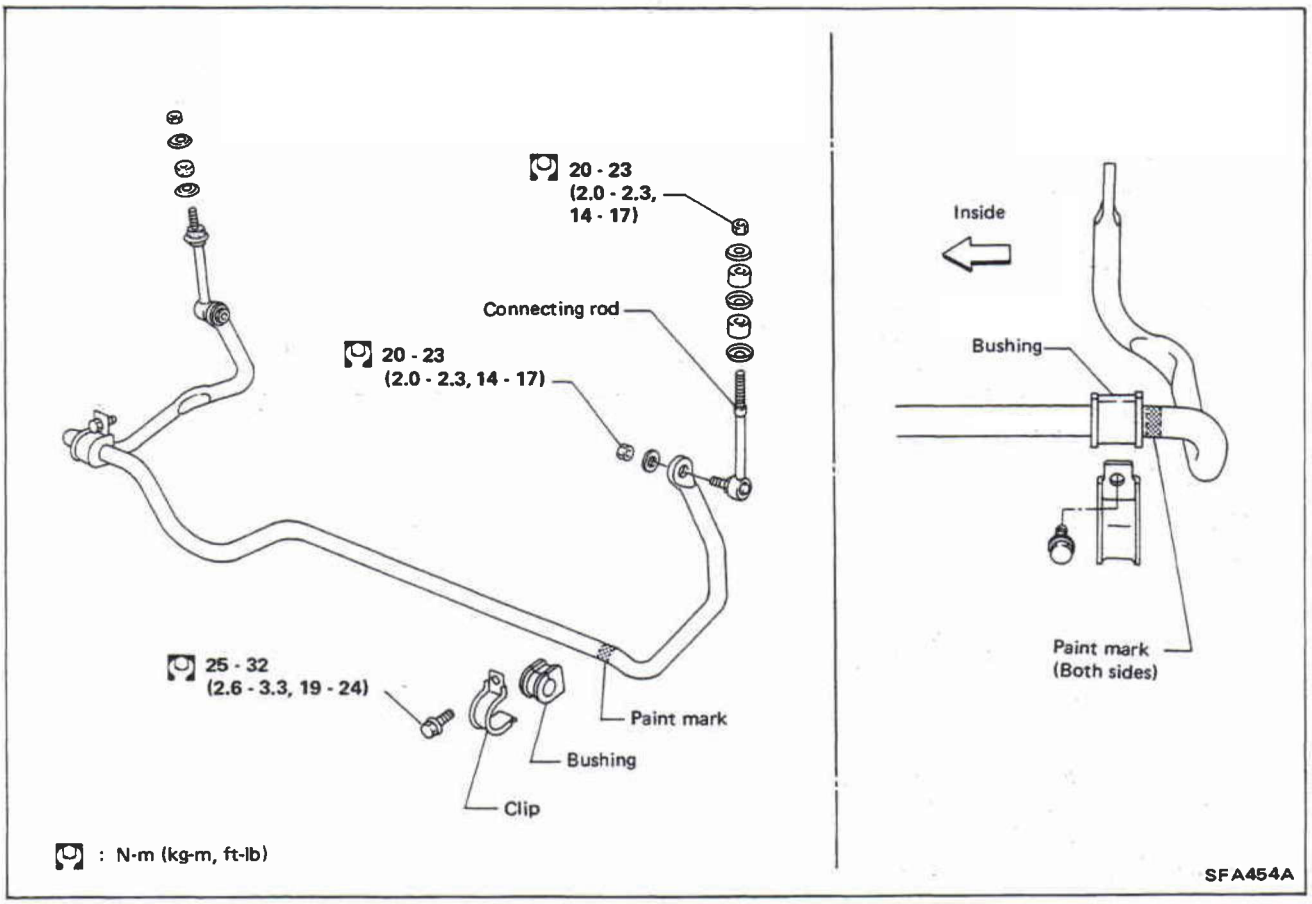
Leaf Spring

INSPECTION

Clean all rust and dirt from spring leaves, using a wire brush if necessary.

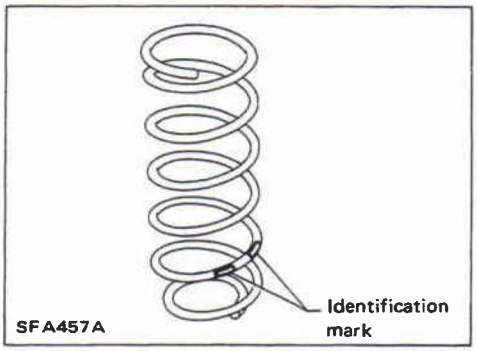
1. Examine spring leaves for fractures or cracks.
2. Check rear bracket and pin, shackle, U-bolts and spring seat for wear, cracks, straightness or damaged threads. If faulty parts are found, replace with new ones.
3. Inspect all rubber parts for wear, damage, separation or deformation. Replace if necessary.

Stabilizer Bar



INSPECTION

1. Check stabilizer for twist and deformation.
   Replace if necessary.
2. Check each rubber bushing for cracks, wear, and deterioration. Replace if necessary.

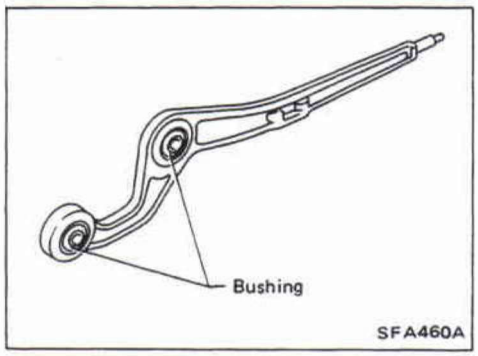


Coil Spring

INSPECTION

Visually check for cracks or damage. If faulty, replace.

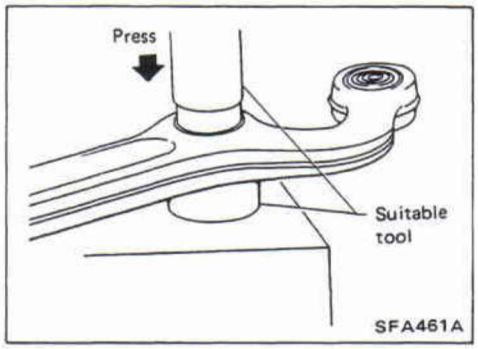
Ensure that springs are installed correctly. Incorrect installation will cause vehicle not set in horizontal posture.



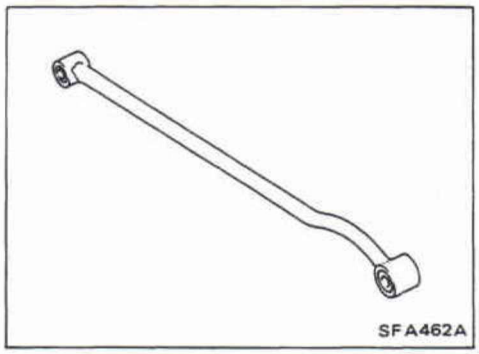
Leading Arm

INSPECTION

Check for cracks, bends or damage. Also check bushing.



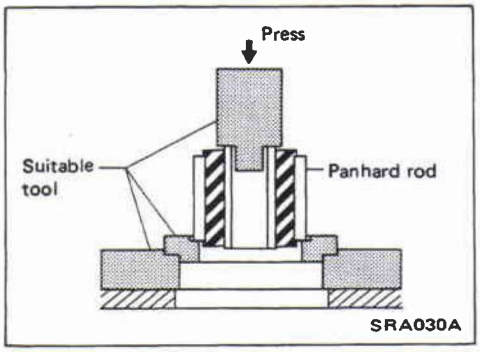
If bushing is faulty, replace it using suitable tool.



Panhard Rod

INSPECTION

- Check for cracks or other damage. Replace if necessary.

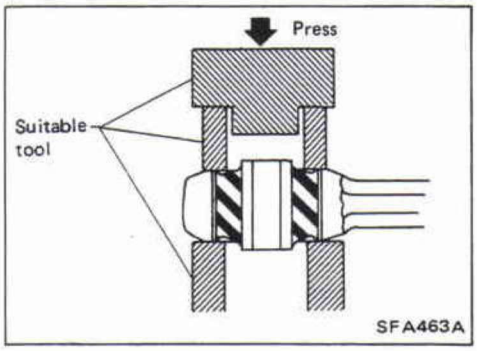


Panhard rod bushing

Removal

- Using a press and suitable tool as shown in figure at left, remove bushing from vehicle side.
- Using a flat-bladed screwdriver, pry bushing out of axle case.

Panhard Rod (Cont'd)



Installation

- Using suitable tool shown in figure at left, gradually press bushing into place.

Always install new bushing. Do not tap end face of bushing directly with a hammer. Apply soap water to outer wall of bushing before installation.

General Specifications

COIL SPRING AND STABILIZER BAR (Hardtop and Station Wagon, R.H.D.)

Applied model		Hardtop	Hardtop with winch	Station Wagon		Station Wagon with winch	
Engine		All		TB42	TD42	TB42	TD42
Wire diameter mm (in)	R.H.	14.6 (0.575)	15.3 (0.602)		15.7 (0.618)		16.0 (0.630)
	L.H.	14.3 (0.563)	15.0 (0.591)		15.3 (0.602)		15.7 (0.618)
Coil diameter mm (in)	R.H.	140.6 (5.54)	141.3 (5.56)		141.7 (5.58)		142.0 (5.59)
	L.H.	140.3 (5.52)	141.0 (5.55)		141.3 (5.56)		141.7 (5.58)
Free length mm (in)	R.H.	401.0 (15.79)	391.5 (15.41)		391.0 (15.39)		392.5 (15.45)
	L.H.	400.0 (15.75)	388.0 (15.28)		391.5 (15.41)		391.0 (15.39)
Spring constant N/mm (kg/mm, lb/in)	R.H.	28.9 (2.95, 165.2)	33.8 (3.45, 193.2)		36.3 (3.70, 207.2)		38.2 (3.90, 218.4)
	L.H.	27.0 (2.75, 154.0)	32.4 (3.30, 184.8)		33.8 (3.45, 193.2)		36.3 (3.70, 207.2)
Identification color	R.H.	White, Yellow	Purple, Pink		Yellow, Pink		Yellow, Blue
	L.H.	White, Purple	Purple, Orange		Purple, Pink		Yellow, Pink
Stabilizer bar diameter (Option) mm (in)		15 (0.59)					

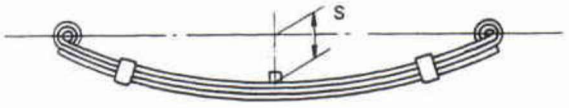
COIL SPRING AND STABILIZER BAR (Hardtop and Station Wagon, L.H.D.)

Applied model	Hardtop	Hardtop with winch and Station Wagon	Hardtop	Hardtop with winch and Station Wagon	Station Wagon with winch
Engine	TB42		TD42		All
Wire diameter mm (in)	14.3 (0.563)	15.0 (0.591)	14.6 (0.575)	15.3 (0.602)	15.7 (0.618)
Coil diameter mm (in)	140.3 (5.52)	141.0 (5.55)	140.6 (5.54)	141.3 (5.56)	141.7 (5.58)
Free length mm (in)	400.0 (15.75)	388.0 (15.28)	401.0 (15.79)	391.5 (15.41)	391.0 (15.39)
Spring constant N/mm (kg/mm, lb/in)	27.0 (2.75, 154.0)	32.4 (3.30, 184.8)	28.9 (2.95, 165.2)	33.8 (3.45, 193.2)	36.3 (3.70, 207.2)
Identification color	White, Purple	Purple, Orange	White, Yellow	Purple, Pink	Yellow, Pink
Stabilizer bar diameter (Option) mm (in)	15 (0.59)				

General Specifications (Cont'd)

LEAF SPRING

Applied model	Pickup
Suspension type	Semi-elliptic leaf spring
Spring dimension mm (in) Length x width x thickness – number of leaves	
Main	1,100 x 70 x 6 – 5 (43.31 x 2.76 x 0.24 – 5)
Helper	450 x 70 x 14 – 1 (17.72 x 2.76 x 0.55 – 1)
Free camber "S" mm (in) R.H.D.	144 (5.67)
L.H.D.	144 (5.67)
Spring constant N/mm (kg/mm, lb/in)	57.9 - 87.3 (5.9 - 8.9, 330 - 498)
Stabilizer bar diameter mm (in)	24 (0.94)



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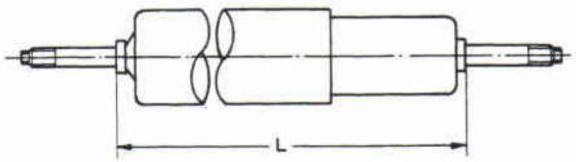
SHOCK ABSORBER

Applied model	Hardtop	Station Wagon	Pickup
Shock absorber type	Double acting hydraulic		
Piston rod diameter mm (in)	12.5 (0.492)		
Stroke mm (in)	191 (7.52)		193 (7.60)
Maximum length "L" mm (in)	480 (18.90)		495 (19.49)
Damping force N(kg, lb) [at 0.3 m (1.0 ft)/sec.]			
Expansion	2,158 - 2,844 (220 - 290, 485 - 639)	1,844 - 2,432 (188 - 248, 415 - 547)	1,500 - 1,991 (153 - 203, 337 - 448)
Compression	1,069 - 1,520 (109 - 155, 240 - 342)	853 - 1,226 (87 - 125, 192 - 276)	834 - 1,206 (85 - 123, 187 - 271)



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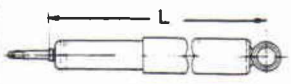

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Inspection and Adjustment

WHEEL ALIGNMENT (Unladen*1)

Applied model		Hardtop	Station Wagon	Pickup
Camber	degree	0° - 1°		
Caster	degree	2°20′ - 3°20′	2°05′ - 3°05′	2°50′ - 3°50′
Kingpin inclination	degree	7° - 8°		
Toe-in/total toe-in (angle)	mm (in)/degree			
Radial tire				
10R15LT		–2 to 0 (–0.08 to 0)/–9′ to 0′		–
215/80R16 7.50R16		0 - 2 (0 - 0.08)/0′ - 9′		
Bias tire		1 - 3 (0.04 - 0.12)/9′ - 18′		
Turning angle	degree			
Full turn				
Inside/outside		30° - 32°/27° - 29°		28° - 30°/28° - 30°

*1: Tankful of fuel, radiator coolant and engine oil full.
Spare tire, jack, hand tools and mats in designated positions.

WHEEL RUNOUT (Radial and lateral)

Wheel runout	mm (in)	2.0 (0.079)		1.5 (0.059)	
Road wheel					
Size		5.50F-16SDC	5.50F-15SDC	6JJ-16	7JJ-15
Offset	mm (in)	30 (1.18)	–5 (–0.20)	30 (1.18)	5 (0.20)
Tire size		6.50-16-6PRLT 7.00-16-6PRLT (Front) 7.00-16-10PRLT (Rear) 7.50-16-6PRLT 7.50-16-8PRLT 7.50R16-6PRLT 7.50R16-8PRLT	9.00-15-6PR	215/80R16 107Q	10R15-6PRLT

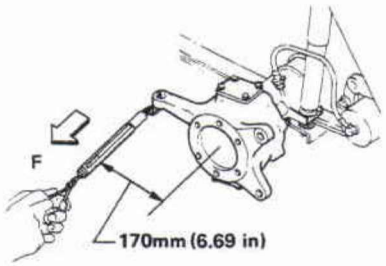
Inspection and Adjustment (Cont'd)

WHEEL BEARING

Wheel bearing axial end play mm (in)	0 - 0.08 (0 - 0.0031)
Wheel bearing lock nuts Tightening torque N-m (kg-m, ft-lb)	167 - 196 (17 - 20, 123 - 145)
Retightening torque after untightened N-m (kg-m, ft-lb)	3 - 5 (0.3 - 0.5, 2.2 - 3.6)
Measured starting force At wheel hub bolt N (kg, lb)	A
Turning adjusting nut in tightening direction and measuring staring force At wheel hub bolt N (kg, lb)	B
Calculated wheel bearing preload; B – A At wheel hub bolt N (kg, lb)	0 - 18.6 (0 - 1.9, 0 - 4.2)

KNUCKLE FLANGE BEARING

Flange turning torque (Without trunnion seal and drive shaft) N-m (kg-m, ft-lb)	1 - 3 (0.1 - 0.3, 0.7 - 2.2)	
At knuckle arm "F" N (kg, lb)	5.88 - 17.16 (0.6 - 1.75, 1.32 - 3.86)	
Adjusting shims mm (in)	Thickness	Part number
	0.075 (0.0030)	40606-44000
	0.125 (0.0050)	40605-44000
	0.254 (0.0100)	40604-44000
	0.762 (0.0300)	40603-44000



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DRIVE SHAFT

Birfield joint axial end play mm (in)	0 (0)	
Grease Type	Multi-purpose grease	
Capacity g (oz)	50 - 60 (1.76 - 2.12)	
Drive shaft axial end play mm (in)	0 - 0.2 (0 - 0.008)	
Adjusting snap rings mm (in)	Thickness	Part number
	1.1 (0.043)	39253-01J00
	1.3 (0.051)	39253-01J01
	1.5 (0.059)	39253-01J02
	1.7 (0.067)	39253-01J03
	1.9 (0.075)	39253-01J04
	2.1 (0.083)	39253-01J05