SERVICE MANUAL

DATSUN 260Z
MODEL S30 SERIES

NISSAN

NISSAN MOTOR CO., LTD.
TOKYO, JAPAN

SECTION RA

REAR AXLE AND REAR SUSPENSION

RA

REAR AXLE AND REAR SUSPENSION ..... RA- 2

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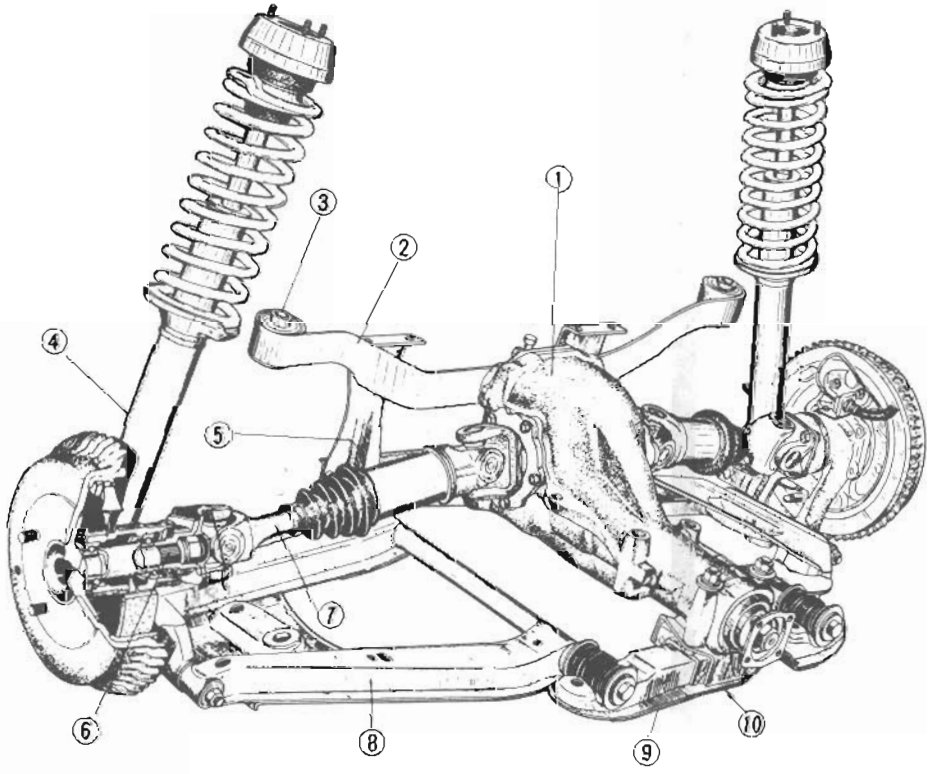
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REAR AXLE AND REAR SUSPENSION

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1 Gear carrier
2 Differential case mounting rear member
3 Differential case mounting rear insulator
4 Strut assembly
5 Link mounting brace
6 Rear axle shaft
7 Drive shaft
8 Transverse link
9 Differential case mounting front member
10 Differential case mounting front insulator

RA272

Fig. RA-1 Rear axle and rear suspension assembly

DESCRIPTION

The rear suspension is a strut type independent suspension. Briefly, this means that the rear wheel is supported by the strut and transverse link, the gear carrier is aligned independently and separately from the suspension, and the gear carrier is installed directly on the body with rubber insulators. Thus, the three major rear suspension elements supporting the left wheel, right wheel, and gear carrier, are separated, and very high suspension performance is obtained.

As regards construction, the rear axle housing is brazed on the lower end of the strut which has a self-contained shock absorber, and the lower side is connected to the transverse link through rubber bushing. On the intermediate position of the strut, the body is suspended with a coil spring, the upper end is installed on the body through a rubber cushion, and the transverse link is also directly

installed on the body with a rubber cushion.

A horizontal leaf spring is connected to the rear end of the gear carrier, and the gear carrier is installed on the body at three positions (both ends of the leaf spring and the front end of the gear carrier) through rubber cushions. Driving power is transmitted to the rear axle shaft by the freely extensible drive shaft through side flanges on both ends of the gear carrier. The rear axle shaft is supported by two ball bearings in the axle housing.

SPECIFICATIONS

Type of suspension	Strut (independent suspension)
Type of drive shaft	Ball spline
Type of shock absorber	Hydraulic cylindrical multi-motion
Spring	Coil spring

REAR WHEEL ALIGNMENT

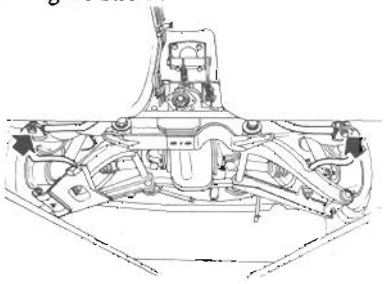
Condition	Camber degree	Tread mm (in)	Toe-in (The extreme front and rear of the tire center) mm (in)	Toe-in (The total angle of both tires) degree
Unladen	15′ ±45′	1,353.4 (53.28)	−5 to +5 (−0.197 to +0.197)	−0°26′ to +0°26′
Laden *	−52′ ±45′	1,370.0 (53.94)	−5 to +5 (−0.197 to +0.197)	−0°26′ to +0°26′

* 2 crews – 68 kg (150 lb) each

REAR SUSPENSION ASSEMBLY

REMOVAL

1. Remove strut assemblies from both sides. (See paragraphs on strut and coil spring removal.)
2. Remove main muffler. (Refer to Section FE)
3. Disconnect stabilizer from body. See Figure RA-2.

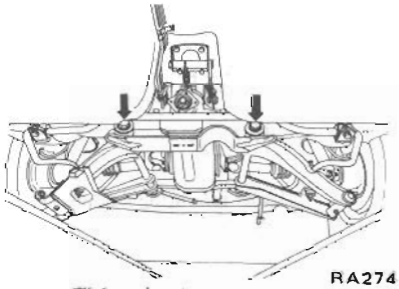


RA273

Tightening torque:
1.0 to 1.2 kg-m (7.2 to 8.7 ft-lb)

Fig. RA-2 Disconnecting stabilizer from body

4. Separate propeller shaft from final drive. (Refer to Section PD)
5. Loosen transverse link inner bolts. See Figure RA-3.

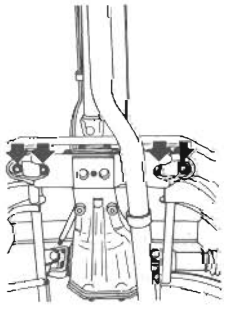


RA274

Tightening torque:
13 to 14 kg-m (94 to 101 ft-lb)

Fig. RA-3 Removing transverse link inner bolts

6. Set up a jack at the lower end of gear carrier.
7. Remove differential mounting front member and body installation bolts. See Figure RA-4.

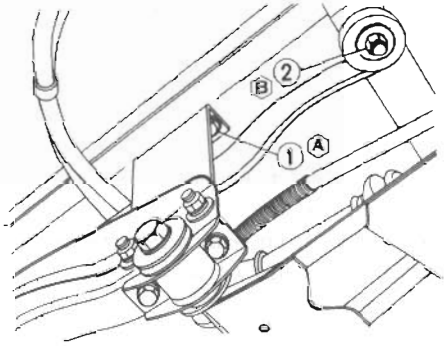


RA275

Tightening torque:
3.0 to 4.6 kg-m (22 to 33 ft-lb)

Fig. RA-4 Removing differential mounting front member

8. Remove transverse link mounting brace and body installation bolt ① and differential mounting rear insulator and body installation bolt ② . (On both sides)

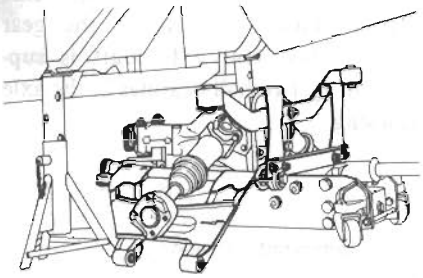


RA276

1 Transverse link mounting brace installation bolt
2 Differential mounting rear insulator installation bolt

Tightening torque:
Ⓐ : 4.6 to 6.1 kg-m (33 to 44 ft-lb)
Ⓑ : 7.5 to 9.5 kg-m (54 to 69 ft-lb)

Fig. RA-5 Removing link mounting brace and differential mounting member installation bolts



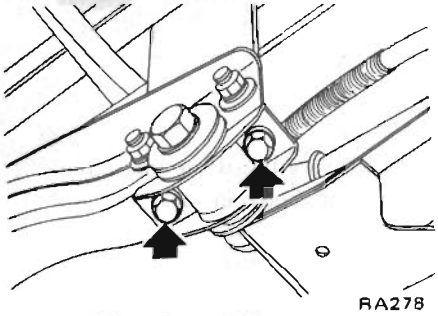
RA277

Fig. RA-6 Removing rear axle and suspension assembly

9. Lower the jack slowly, and remove rear suspension assembly slowly.

DISASSEMBLY

1. Remove transverse link mounting rear bracket, and remove transverse link. (On both sides) See Figure RA-7.

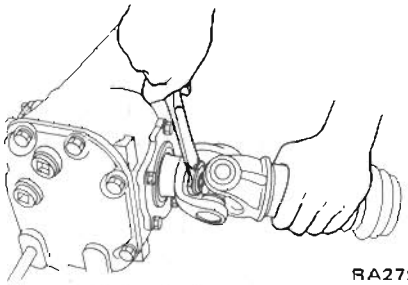


RA278

Tightening torque:
3.2 to 4.3 kg-m (23 to 31 ft-lb)

Fig. RA-7 Removing link mounting bracket installation bolts

2. Loosen drive shaft installation bolt (on gear carrier side), and separate drive shaft from gear carrier. (On both sides) See Figure RA-8.



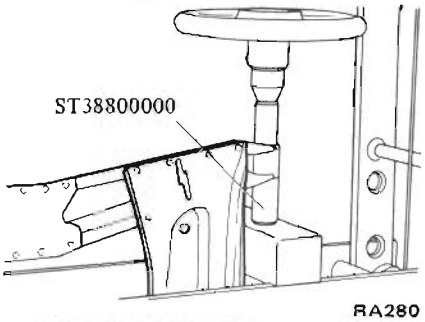
RA279

Tightening torque:
3.2 to 4.3 kg-m (23 to 31 ft-lb)

Fig. RA-8 Loosening drive shaft installation bolts (gear carrier side)

3. Remove inner bushing from transverse link.

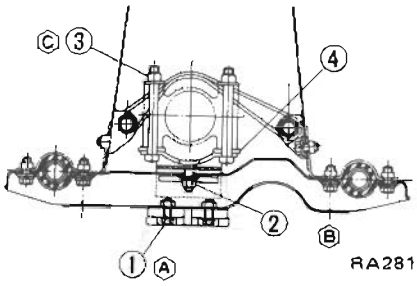
4. Remove outer bushing from transverse link with Rear Transverse Link Bushing Replacer ST38800000. See Figure RA-9.



RA280

Fig. RA-9 Removing transverse link outer bushing

5. Detach rear mounting damper plate by removing installation bolts. See Figure RA-10.



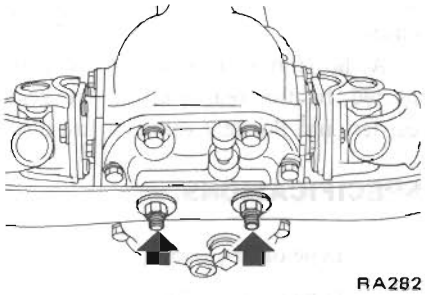
RA281

1 Rear mounting damper plate installation bolt
2 Front mounting member and front insulator installation nut
3 Gear carrier and front insulator installation nut
4 Front differential mounting spacer plate

Tightening torque:
Ⓐ : 1.6 to 2.1 kg-m (12 to 15 ft-lb)
Ⓑ : 3.2 to 4.3 kg-m (23 to 31 ft-lb)
Ⓒ : 6.0 to 8.0 kg-m (43 to 58 ft-lb)

Fig. RA-10 Removing damper plate bolts and mounting front insulator nuts

6. Detach differential mounting front insulator by removing installation bolt from gear carrier See Figure RA-10.
7. Remove differential mounting rear member from gear carrier. See Figure RA-11.

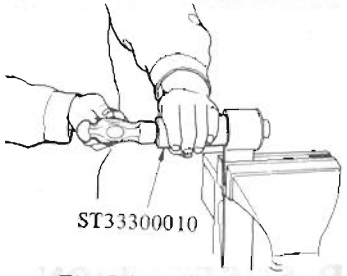


RA282

Tightening torque:
7.5 to 9.5 kg-m (54 to 69 ft-lb)

Fig. RA-11 Removing differential mounting rear member

8. Remove differential mounting rear insulator from differential mounting rear member with Drift Set ST33260000. See Figure RA-12.

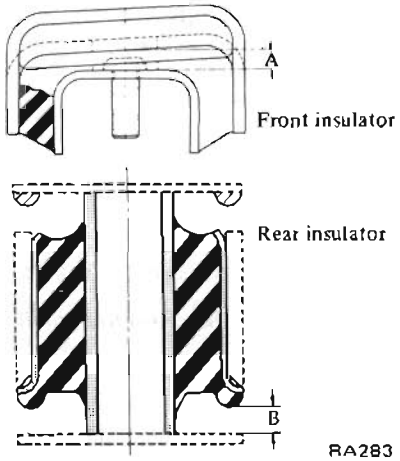


RA105

Fig. RA-12 Removing differential mounting rear insulator

INSPECTION

1. Check suspension system components such as differential mounting front and rear members, transverse link, etc. for cracks, deformation or damage. Replace as required.
2. Replace differential mounting front insulator if the dimension "A" (Figure RA-7) is 9 mm (0.354 in) or greater, 2 mm (0.079 in) or smaller (unloaded). See Figure RA-13.



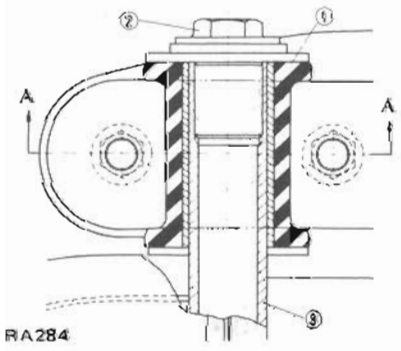
RA283

Fig. RA-13 Sectional view of differential mounting insulators

3. Replace differential mounting rear insulator, if the dimension "B" (Figure RA-13) is less than 5 mm (0.197 in) (unloaded).
4. Check other rubber parts (transverse link inner bushing and outer bushing, etc.) for cracks, deformation or damage. Replace as required.

INSTALLATION

1. Install and assemble rear suspension assembly in reverse sequence of removal and disassembly.
2. Instructions for installation of transverse link inner bushing. See Figures RA-14 and RA 15.
(1) Install inner bushing to link shaft.
(2) Align projection on bushing (directed to the axis direction) horizontally.
(3) Align the center of bushing (directed toward the axis direction) to the center of bracket.



1 Transverse link inner bush
2 Transverse link inner bolt
3 Transverse link

Fig. RA-14 Cross-sectional view of transverse link inner bushing (I)

(4) First, tighten bolts supported in the vertical direction (differential mounting front member or link mounting rear bracket).

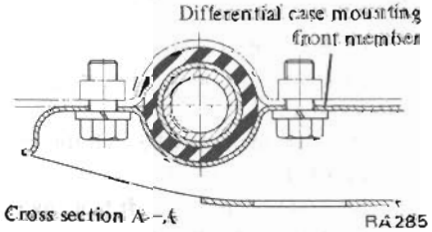


Fig. RA-15 Cross-sectional view of transverse link inner bushing (II)

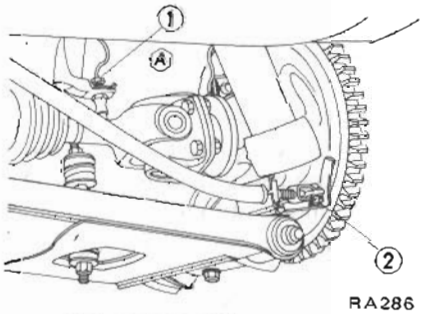
(5) Temporarily tighten transverse link inner bolts.

Notes:
a. Tighten transverse link inner bolts and outer self-lock nuts after installing wheels and placing car on ground under the standard load. (See page RA-2 Rear Wheel Alignment.)
b. Install differential carrier front insulator carefully with arrow towards the front.

STRUT AND COIL SPRING

REMOVAL

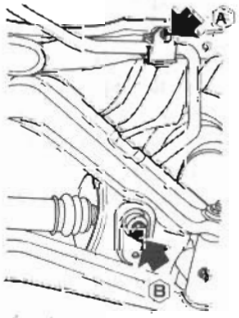
1. Chock the front wheels.
2. Loosen wheel nuts, jack up car, and support body with a stand.
3. Remove wheel nuts and remove wheels.
4. Disconnect brake line connector (body side) ① and side brake linkage ② . See Figure RA-16.



Tightening torque:
Ⓐ : 1.5 to 1.8 kg-m (11 to 13 ft-lb)

Fig. RA-16 Removing brake hose and side brake linkage

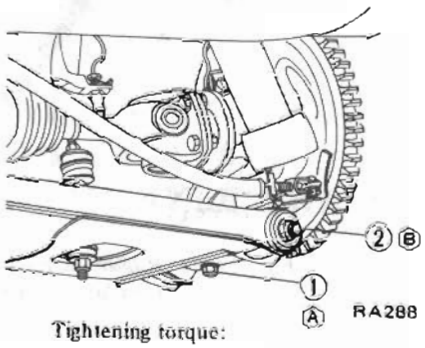
5. Remove stabilizer bar from transverse link. See Figure RA-17.



Tightening torque:
Ⓐ : 1.0 to 1.2 kg-m (7.2 to 8.7 ft-lb)
Ⓑ : 1.2 to 1.7 kg-m (8.7 to 12.3 ft-lb)

Fig. RA-17 Removing stabilizer from transverse link

6. Remove transverse link outer self-lock nuts ② and lock bolt ① of rear transverse spindle from the lower end of bearing housing. See Figure RA-18.



Tightening torque:
Ⓐ : 1.0 to 1.2 kg-m (7.2 to 8.7 ft-lb)
Ⓑ : 7.5 to 9.5 kg-m (54 to 69 ft-lb)

Fig. RA-18 Removing lock bolt and self-lock nuts

7. Withdraw spindle, and separate transverse link from strut assembly. See Figure RA-19.

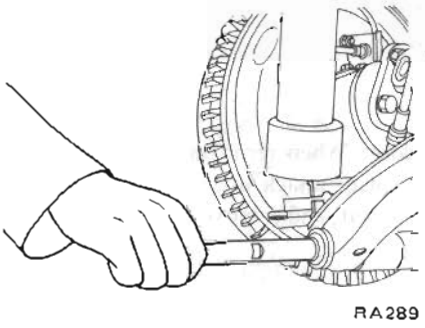
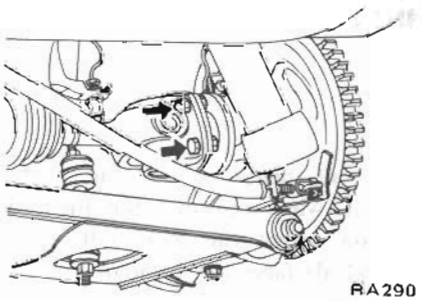


Fig. RA-19 Removing spindle

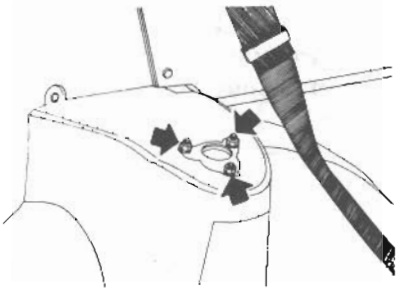
8. Disconnect drive shaft (wheel side). See Figure RA-20.



Tightening torque:
5.0 to 6.0 kg-m (36 to 43 ft-lb)

Fig. RA-20 Removing drive shaft

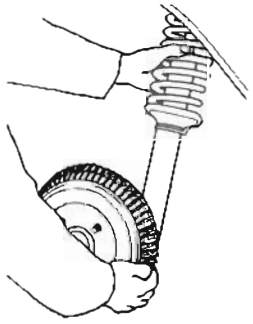
9. Remove strut installation nuts (from the passenger compartment side). The strut assembly can be removed downward. See Figures RA-21 and RA-22.



RA291

Tightening torque:
2.5 to 3.5 kg-m (18 to 25 ft-lb)

Fig. RA-21 Removing strut installation nuts



RA292

Fig. RA-22 Removing strut assembly

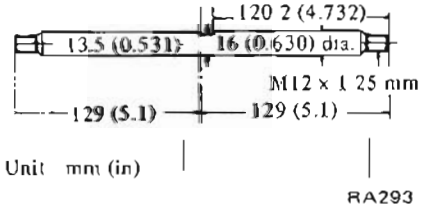
Note: When removing strut assembly, place a jack under the lower end of strut, and remove it gradually.

9. For the removal and reinstallation of spring, disassembly of strut, inspection and adjustment, the instructions for front strut assembly apply.
Refer to Section FA.

INSTALLATION

Install strut assembly in reverse sequence of removal.

Notes:
a. Install spindle so that the shorter side (when measured from the position where the lock bolt is installed) faces the front of car. See Figure RA-23.



RA293

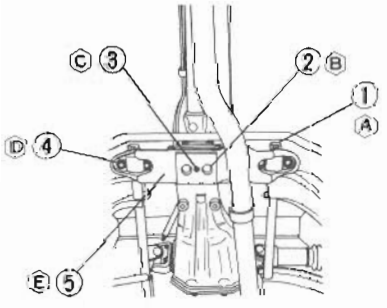
Fig. RA-23 Spindle

b. After installing wheels and placing car under the standard load, tighten transverse link outer self-lock nut completely.
c. When installing spring, make sure that it is correctly seated on spring seat.

TRANSVERSE LINK

REMOVAL

1. Chock front wheels.
2. Loosen wheel nuts, jack up car, and support body with a stand.
3. Remove wheel nuts, and remove wheels.
4. Separate transverse link from the strut. (Refer to the paragraph on Strut and Coil Spring.)
5. Place a jack beneath gear carrier, and raise it.
6. Loosen transverse link inner bolts ① and damper plate installation bolts ②. See Figure RA-24.
7. Remove the differential mount front insulator installation nut ③ See Figure RA-24.
8. Remove differential mounting front member installation nuts ④, and remove differential mounting front member ⑤. See Figure RA-24.

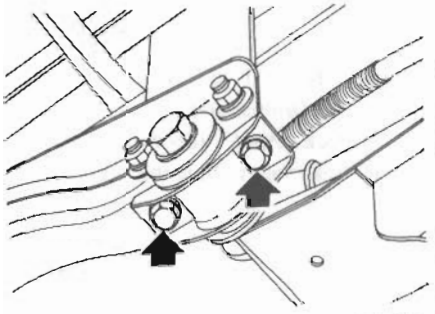


RA275

Tightening torque:
Ⓐ : 13 to 14 kg-m (94 to 101 ft-lb)
Ⓑ : 1.6 to 2.1 kg-m (12 to 15 ft-lb)
Ⓒ : 3.2 to 4.3 kg-m (23 to 31 ft-lb)
Ⓓ : 3.0 to 4.6 kg-m (22 to 33 ft-lb)

Fig. RA-24 Removing differential mounting front member

9. Remove link mounting rear bracket. Transverse link can now be removed. See Figure RA-25.



RA278

Tightening torque:
3.2 to 4.3 kg-m (23 to 31 ft-lb)

Fig. RA-25 Removing transverse link

10. Withdraw inner bushing and outer bushing from the transverse link. (Refer to paragraph on Rear Suspension Assembly.)

INSPECTION

1. Check transverse link differential mounting front member for cracks, deformation, or damage. Replace as required.
2. Check rubber bushing for decline, wear, or other faulty conditions and replace as required.

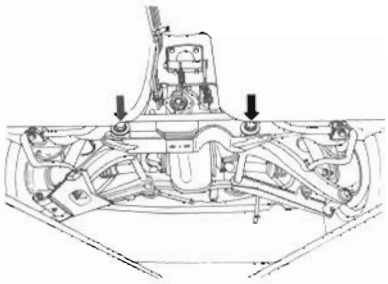
INSTALLATION

1. Install transverse link in reverse sequence of removal.
2. For the installation, refer to the precautions for installation of rear suspension assembly (page RA-4).

GEAR CARRIER

REMOVAL

1. Chock front wheels.
2. Jack up car, and support body with a stand.
3. Remove main muffler. (Refer to Section FE.)
4. Separate propeller shaft from gear carrier. Refer to Section PD.
5. Loosen front side transverse link inner bolts. See Figure RA-26.

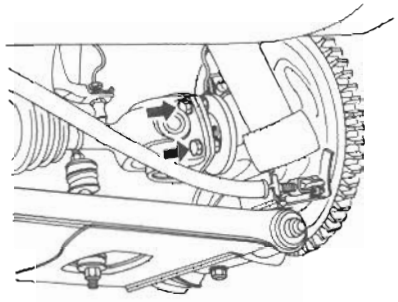


RA274

Tightening torque:
13 to 14 kg-m (94 to 101 ft-lb)

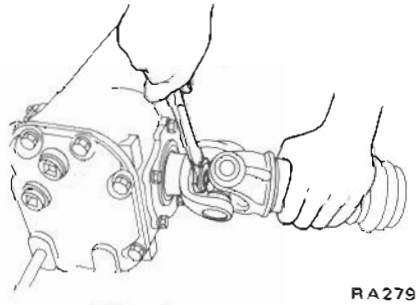
Fig. RA-26 Removing transverse link inner bolts

6. Remove drive shaft installation bolts (wheel side and gear carrier side), and separate drive shaft from the gear carrier. See Figures RA-27 and RA-28.



Tightening torque:
5.0 to 6.0 kg-m (36 to 43 ft-lb)

Fig. RA-27 Removing drive shaft installation bolts (wheel side)

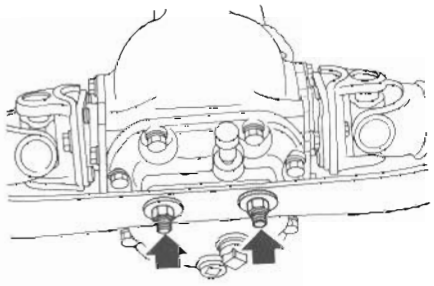


RA279

Tightening torque:
3.2 to 4.3 kg-m (23 to 31 ft-lb)

Fig. RA-28 Loosening drive shaft installation bolt (gear carrier side)

7. Place a jack beneath gear carrier and raise it.
8. Remove differential mounting rear member installation nut. See Figure RA-29.

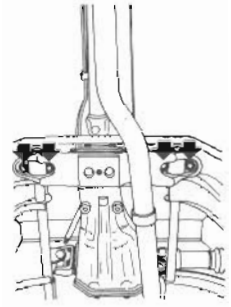


RA282

Tightening torque:
7.5 to 9.5 kg-m (54 to 69 ft-lb)

Fig. RA-29 Removing differential mounting rear member

9. Remove differential mounting front member installation bolts, lower the jack slowly, and remove gear carrier. See Figure RA-30.



RA275

Tightening torque:
3.0 to 4.6 kg-m (22 to 33 ft-lb)

Fig. RA-30 Removing differential mounting front member

10. Remove differential mounting front member and differential mounting front insulator from gear carrier. See Figure RA-31.



RA294

Tightening torque:
7.5 to 9.5 kg-m (54 to 69 ft-lb)

Fig. RA-31 Removing differential mounting front insulator

INSTALLATION

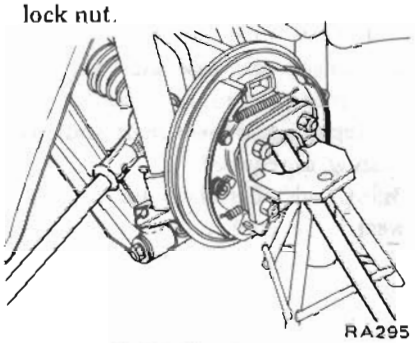
1. Install gear carrier in reverse sequence of removal.
2. When installing gear carrier, refer to precautions for installation of rear suspension assembly (page RA-0).
3. Insert a spacer plate without fail as shown in Figure RA-10.

WHEEL BEARING, OIL SEAL AND REAR AXLE SHAFT

REMOVAL

1. Chock front wheels.
2. Loosen wheel nuts, jack up the car, and support it with a stand.
3. Remove wheel nuts and wheels.
4. Remove drive shaft installation bolts (wheel side). Refer to Figure RA-20.
5. Remove the rear wheel bearing lock nut. See Figure RA-32.

Note: Do not release caulking when removing the rear wheel bearing lock nut.

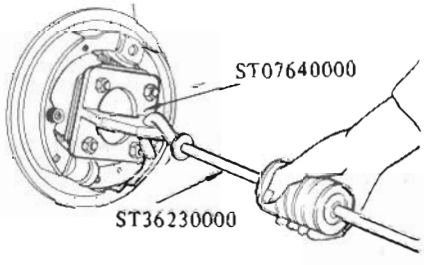


RA295

Tightening torque:
25 to 33 kg-m (181 to 239 ft-lb)

Fig. RA-32 Removing rear wheel bearing lock nut

6. Remove the rear axle shaft with Rear Axle Stand ST07640000 and Sliding Hammer ST36230000. See Figure RA-33.



RA120

Fig. RA-33 Removing rear axle shaft

7. Remove distance piece, companion flange and bearing washer.
8. Remove inner rear wheel bearing and oil seal.
9. Remove rear wheel bearing (outer side) from rear axle shaft. See Figure RA-34.

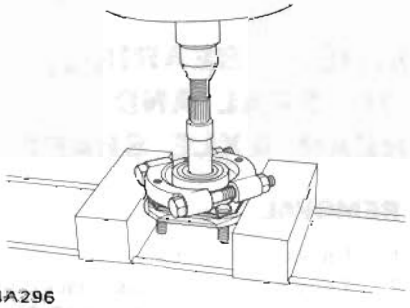

RA296

Fig. RA-34 Removing rear wheel bearing (outer side)

INSPECTION

1. Check wheel bearing for end play, the rolling surface for flaking, wear, seizure, and the oil seal for cracks or deformation.

Replace wheel bearing as required.

2. Check rear axle shaft for cracks or seizure.

Replace rear axle shaft and wheel bearing, as required.

3. Check oil seal lip for damage or wear.

INSTALLATION

Install wheel bearing, oil seal and rear axle shaft in reverse sequence of removal.

INSTRUCTIONS FOR ASSEMBLY OF REAR WHEEL BEARING

1. Outer bearing has a seal on one side. Install outer bearing to the rear axle shaft so that the side to which the seal is attached faces the wheel. See Figure RA-36.

2. Relationship between rear bearing housing and distance piece is shown in Figure RA-35.

A mark "A", "B", or "C" is stamped on housing. Select a distance piece having a mark corresponding to the mark on housing.
When a distance piece is reused, make sure that both ends are not collapsed or deformed.

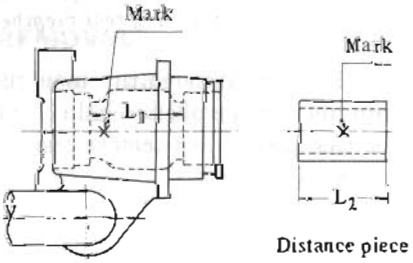
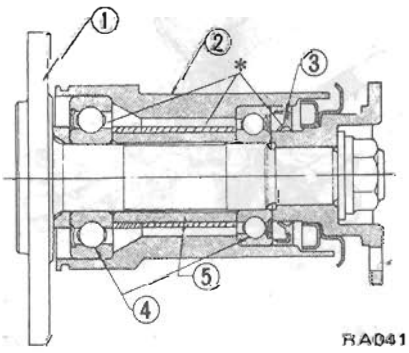


Fig. RA-35 Rear bearing housing and distance piece

3. For wheel bearing grease, use recommended multi-purpose grease.

Fill the portions indicated by asterisk (*) in Figure RA-36.



1 Rear axle shaft
2 Rear suspension arm
3 Oil seal
4 Wheel bearing
5 Distance piece

Fig. RA-36 Lubrication chart of rear axle

4. Tighten wheel bearing lock nut, and measure the preload and rear axle shaft end play. Readjust as required.

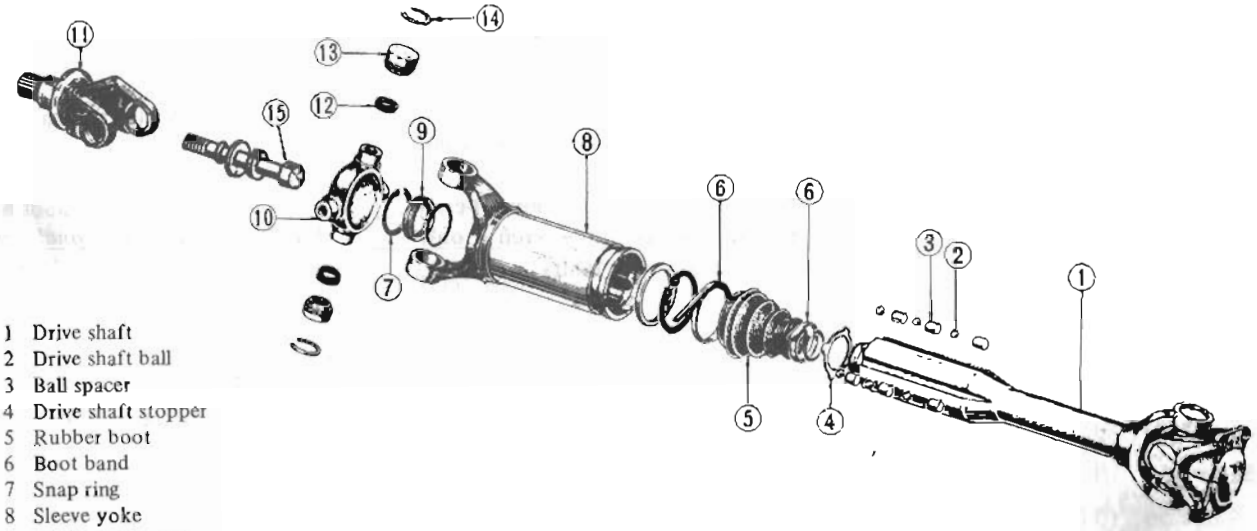
Wheel bearing preload:
4.5 kg-cm (3.9 in-lb)
At the hub bolt 790 gr (27.9 oz) or less

Rear axle shaft end play:
0 to 0.15 mm (0 to 0.0059 in)

5. Caulk wheel nuts securely after tightening.
6. When fitting side wheel bearing, use Rear Axle Shaft Outer Bearing Drift ST37780000.

Rear bearing housing		Distance piece	
Mark	Size mm (in)	Mark	Size mm (in)
A	52.63 (2.0720) or more but less than 52.73 (2.0760)	A	52.60 (2.0709) or more but less than 62.66 (2.4669)
B	52.53 (2.0681) or more but less than 52.63 (2.0720)	B	52.50 (2.0669) or more but less than 52.56 (2.0693)
C	52.43 (2.0642) or more but less than 52.53 (2.0681)	C	52.40 (2.0630) or more but less than 52.46 (2.0654)

DRIVE SHAFT



1 Drive shaft
2 Drive shaft ball
3 Ball spacer
4 Drive shaft stopper
5 Rubber boot
6 Boot band
7 Snap ring
8 Sleeve yoke
9 Sleeve yoke plug
10 Spider journal
11 Side yoke
12 Oil seal
13 Needle bearing
14 Snap ring
15 Side yoke fixing bolt

RA298

Fig. RA-37 Drive shaft components

REMOVAL

Remove drive shaft universal joint yoke flange bolts from both sides. See Figure RA-38.

Note: The drive shaft is easily damaged; handle it carefully.

1. Remove universal joint spider from the differential side. Refer to paragraph covering the propeller shaft.
2. Remove snap ring from sleeve yoke plug and remove plug. Use Drive Shaft Snap Ring Plier ST38300000.

Depress drive shaft and remove snap ring from stopper.

Remove stopper. Disconnect boot and separate drive shaft carefully so as not to lose balls and spacers.

DISASSEMBLY

Drive shaft should be disassembled only when lubricating the ball spline.

Lubrication is required at specified intervals.

INSPECTION

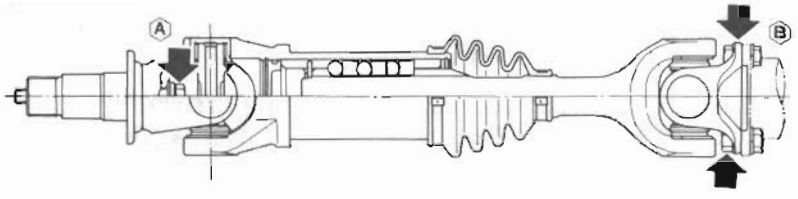
1. Replace the boot and O-ring of sleeve yoke plug, if damaged.
2. Check drive shaft for straightness, cracks, damage, wear or distortion.

Replace drive shaft assembly as required.

3. Check steel balls and sleeve yoke for damage, wear or distortion.

Replace drive shaft assembly as required.

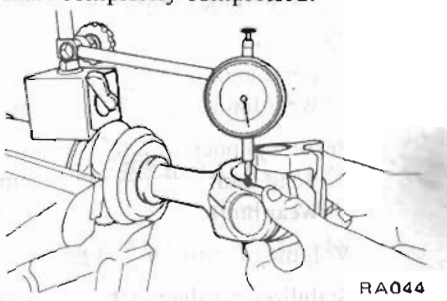
4. If faulty condition is detected, replace universal joint in accordance with the instructions described in the paragraph covering the propeller shaft.
5. Thoroughly remove grease from sleeve yoke, drive shaft ball rolling groove and oil groove, and clean them.
6. Measure the drive shaft play as shown in Figure RA-39. If play exceeds 0.1 mm (0.0039 in), replace drive shaft assembly. Be sure to measure the drive shaft play with drive shaft completely compressed.



RA299

Tightening torque:
Ⓐ : 5.0 to 6.0 kg-m (36 to 43 ft-lb)
Ⓑ : 3.2 to 4.3 kg-m (23 to 31 ft-lb)

Fig. RA-38 Removing drive shaft



RA044

Fig. RA-39 Measuring drive shaft play

ASSEMBLY

Assemble drive shaft in reverse sequence of disassembly noting the following:

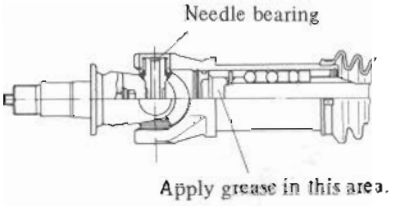
1. Correctly align yokes, and make sure that steel balls and spacers are installed in the correct order.
2. Selecting a suitable snap ring, adjust the axial play of universal joint to within 0.02 mm (0.0008 in). Snap rings of four different thicknesses are available.

Thickness mm (in)	
1.48 to 1.50	(0.0583 to 0.0591)
1.51 to 1.53	(0.0594 to 0.0602)
1.54 to 1.56	(0.0606 to 0.0614)
1.57 to 1.59	(0.0618 to 0.0626)

3. Apply an adequate amount of recommended multi-purpose grease [approximately 10 gr (0.35 oz)] to ball rolling groove and oil groove.

Moreover, apply approximately 35 gr (1.23 oz) of grease to the area shown in Figure RA-40.

Note: Drive shaft components are not available as separate parts.
Therefore, drive shaft must be replaced as an assembly, even if only one component is faulty.



BA300

Fig. RA-40 Cross-sectional view of drive shaft

SERVICE DATA AND SPECIFICATIONS

Specifications for spring

Spring wire diameter	mm (in)	11.5 (0.453)
Spring coil diameter	mm (in)	100 (3.94)
Coil turns		10.75
Coil effective turns		9.25
Free height	mm (in)	394 (15.51)
Installed height/load	mm (in)/kg (lb)	221 (8.70)/320 (705)
Spring constant	kg/mm (lb/in)	1.85 (104)

Specifications for strut

Outer diameter	mm (in)	50.8 (2.000)
Piston rod diameter	mm (in)	25 (0.98)
Piston cylinder bore	mm (in)	32 (1.26)
Damping force at v = 0.3 m/s		
Expanding/Contacting	kg (lb)/kg (lb)	100 (220)/20 (44)
Piston rod		
Bend limit	mm (in)	0.1 (0.0039)
Wear limit	mm (in)	0.05 (0.0020)
Piston cylinder		
Bend limit	mm (in)	0.2 (0.0079)
Wear limit	mm (in)	0.1 (0.0039)
Volume of strut oil	cc (cu in)	320 (19.5)
Stabilizer bar diameter	mm (in)	20 (0.79)

Rear wheel alignment

Condition	Camber degree	Tread mm (in)	Toe-in (The extreme front and rear of the tire center) mm (in)	Toe-in (The total angle of both tires) degree
Unladen	15' ±45'	1,353.4 (53.28)	−5 to +5 (−0.197 to +0.197)	−0°26' to +0°26'
Laden *	−52' ±45'	1,370.0 (53.94)	−5 to +5 (−0.197 to +0.197)	−0°26' to +0°26'

* 2 crews – 68 kg (150 lb) each

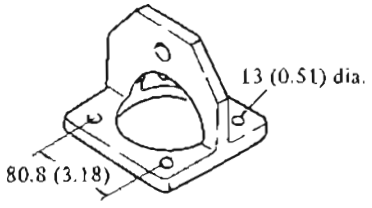
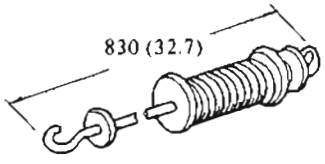
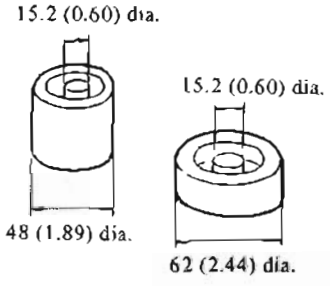
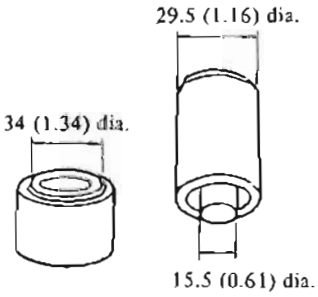
Tightening torque

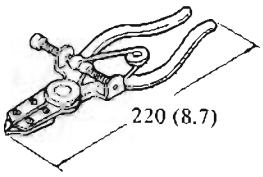
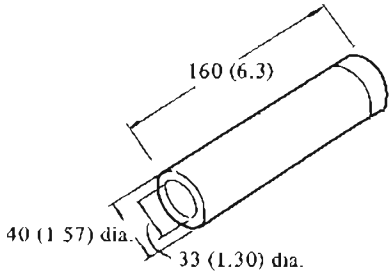
Drive shaft installation bolts		
Gear carrier side	kg-m (ft-lb)	3.2 to 4.3 (23 to 31)
Wheel side	kg-m (ft-lb)	5.0 to 6.0 (36 to 43)
Strut installation nut	kg-m (ft-lb)	2.5 to 3.5 (18 to 25)
Strut rod self-lock nut	kg-m (ft-lb)	7.5 to 9.5 (54 to 69)
Gland packing	kg-m (ft-lb)	6.0 to 6.5 (43 to 47)
Rear axle bearing lock nut	kg-m (ft-lb)	13 to 17 (94 to 123)
Brake disc installation bolt	kg-m (ft-lb)	2.7 to 3.7 (20 to 27)
Brake hose (line) clamp nut	kg-m (ft-lb)	1.5 to 1.8 (11 to 13)
Wheel nut	kg-m (ft-lb)	8 to 9 (58 to 65)
Bearing housing spindle lock bolt	kg-m (ft-lb)	1.0 to 1.2 (7.2 to 8.7)
Transverse link outer self-lock nut	kg-m (ft-lb)	7.5 to 9.5 (54 to 69)
Transverse link inner bolt	kg-m (ft-lb)	13 to 14 (94 to 101)
Rear link mounting bracket installation bolt	kg-m (ft-lb)	3.2 to 4.3 (23 to 31)
Front differential mounting member installation bolt	kg-m (ft-lb)	3.0 to 4.6 (22 to 33)
Front differential mounting member and front differential mounting insulator installation nut	kg-m (ft-lb)	3.2 to 4.3 (23 to 31)
Rear mounting damper plate installation bolt	kg-m (ft-lb)	1.6 to 2.1 (12 to 15)
Gear carrier and differential mounting front insulator installation nut	kg-m (ft-lb)	6.0 to 8.0 (43 to 58)
Belt fitting self-lock nut	kg-m (ft-lb)	11.3 to 13.8 (82 to 100)
Belt fitting bracket installation bolt	kg-m (ft-lb)	3.2 to 4.3 (23 to 31)
Rear differential mounting member installation nut	kg-m (ft-lb)	7.5 to 9.5 (54 to 69)
Rear differential mounting insulator installation nut	kg-m (ft-lb)	7.5 to 9.5 (54 to 69)
Transverse link mounting brace installation bolt	kg-m (ft-lb)	4.6 to 6.1 (33 to 44)
Propeller shaft and differential companion flange installation nut	kg-m (ft-lb)	2.5 to 3.2 (18 to 23)

TROUBLE DIAGNOSES AND CORRECTIONS

Condition	Probable cause	Corrective action
Noise (unusual sound) It is difficult to definitely distinguish noise, or unusual sounds, emanating from the rear axle from other noises (unusual sounds) generated by the differential carrier and propeller shaft. If an unusual sound is present, therefore, check closely to be sure that the noise is in fact coming from the rear axle.	1) Loose joint.	Retighten.
	2) Unbalanced tires.	Adjust.
	3) Insufficient lubrication, improper adjustment, worn, or damaged wheel bearing.	Lubricate, adjust, or replace.
	4) Damaged transverse link rubber bushing.	Replace.
	5) Faulty shock absorber (in strut).	Replace.
	6) Damaged differential mount insulator.	Replace.
	7) Damaged universal joint.	Replace.
	8) Worn or seized drive shaft ball spline.	Replace.
	9) Broken coil spring.	Replace.
Unstable running. This problem is also related to the front suspension. For trouble diagnosis, refer to the paragraph covering the front suspension, also.	1) Loose wheel nut(s).	Retighten.
	2) Damaged transverse link bushing.	Replace.
	3) Reduced shock absorber damping force.	Replace.
	4) Seized or damaged drive shaft ball spline.	Replace.
	5) Weakened spring.	Replace.
Oil leakage	1) Damaged drive shaft dust cover.	Disassemble, clean, and reassemble, or replace dust cover.
	2) Worn or damaged rear axle shaft grease seal.	Replace.

SPECIAL SERVICE TOOLS

No.	Tool number & Tool name	Description Unit: mm (in)	For use on	Reference page or Figure No.
1.	ST07640000	Rear axle stand.  SE063	S30 B110 510 W510 V510 610 W610	Fig. RA-33
2.	ST36230000	Sliding hammer.  SE059	All models	Fig. RA-33
3.	ST33260000 (ST49150000) Differential mounting member insulator drift set	For assembly and disassembly of the differential mounting member insulator. 	S30	Page RA-4
4.	ST38800000 Rear transverse link bushing replacer	For assembly and disassembly of the rear transverse link bushing 	S30	Fig. RA-9

No.	Tool number & tool name	Description Unit: mm (in)	For use on	Reference page or Figure No.
5.	ST38300000 (ST49210000) Drive shaft snap ring plier	For removal of the drive shaft snap ring  	S30 510 610	Page RA-9
6.	ST37780000 Rear axle shaft outer bearing drift	For assembly of the rear wheel bearing (outer side)  	S30	Page RA-8