

SUSPENSION

**SUBARU**

**SVX**

**1992**

**Precaution for Supplemental Restraint System "Airbag"**

The Supplemental Restraint System "Airbag" helps to reduce the risk or severity of injury to the driver in a frontal collision.

The Supplemental Restraint System consists of an airbag module (located in the center of the steering wheel), sensors, a control unit, warning light, wiring harness and spiral cable.

Information necessary to service the safety is included in the "5-5. SUPPLEMENTAL RESTRAINT SYSTEM" of this Service Manual.

**WARNING:**

- To avoid rendering the Airbag system inoperative, which could lead to personal injury or death in the event of a severe frontal collision, all maintenance must be performed by an authorized SUBARU dealer.
- Improper maintenance, including incorrect removal and installation of the Airbag system, can lead to personal injury caused by unintentional activation of the Airbag system.
- All Airbag system electrical wiring harnesses and connectors are covered with yellow outer insulation. Do not use electrical test equipment on any circuit related to the Supplemental Restraint System "Airbag".



	Page
<b>M</b> MECHANISM AND FUNCTION .....	2
1. Front Suspension .....	2
2. Rear Suspension .....	3
<b>S</b> SPECIFICATIONS AND SERVICE DATA .....	4
<b>C</b> COMPONENT PARTS .....	5
1. Front Suspension .....	5
2. Rear Suspension .....	6
<b>W</b> SERVICE PROCEDURE FOR CONVENTIONAL SUSPENSION .....	7
1. On-car Services .....	7
2. Lower Arm .....	11
3. Ball Joint .....	13
4. Front Strut .....	14
5. Front Stabilizer .....	18
6. Front Sub Frame <b>AIRBAG</b> .....	20
7. Trailing Link .....	25
8. Lateral Link .....	26
9. Rear Strut .....	31
10. Rear Stabilizer .....	33
11. Rear Sub Frame .....	35
<b>T</b> TROUBLESHOOTING .....	38

# M MECHANISM AND FUNCTION

## 1. Front Suspension

### A: OUTLINE

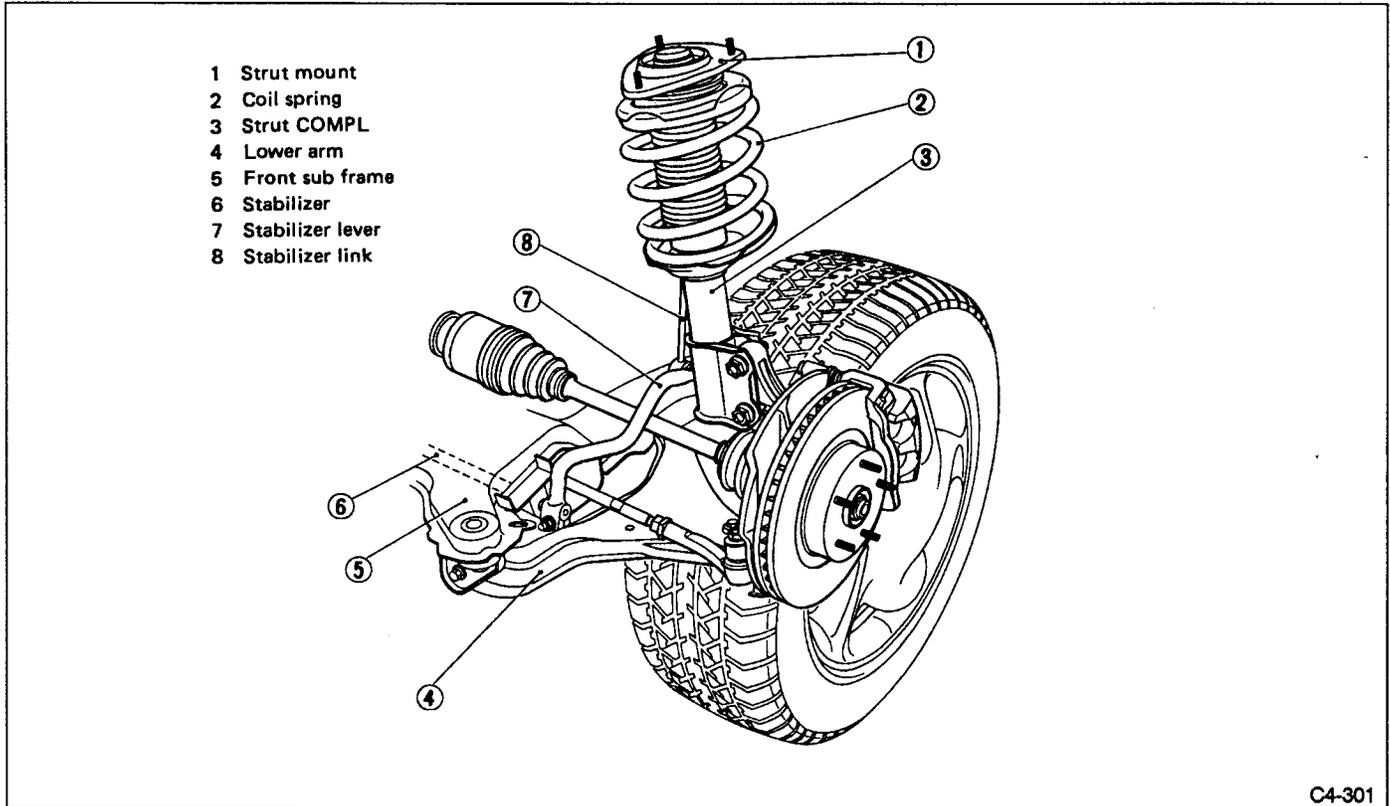


Fig. 1

The front suspension is a strut-type independent suspension, with cylindrical double-acting oil damper and coil spring.

The top of the strut CP is mounted on the body through the cushion rubber, which has resulted in elimination of any vibration by combined use of other rubbers to improve passenger comfort. This type also maintains a wide distance between the upper and lower supporting

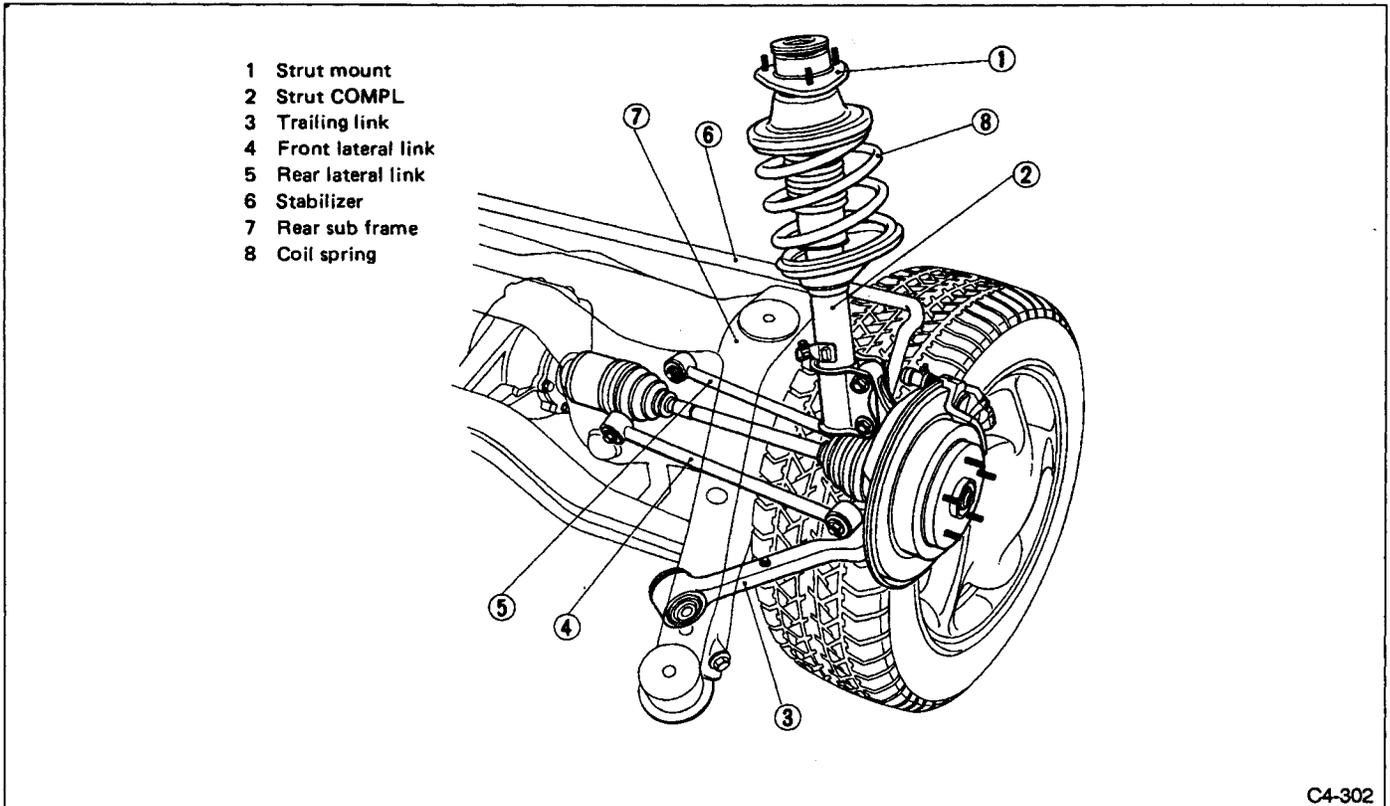
points and makes adjustment of the caster unnecessary.

- The stabilizer is mounted through the subframe. The upper and lower ends of the stabilizer are connected to the strut assembly by stabilizer links.

- The front subframe supports the lower arm and engine. It is installed on the car body via four bushings to effectively dampen vibration and noise conveyed from the engine and road surfaces.

## 2. Rear Suspension

### A: OUTLINE



C4-302

Fig. 2

The rear suspension is an independent, dual link strut type. It consists of two parallel lateral links, a trailing link which moves back and forth, and strut COMPL's. The strut COMPL is joined with a cylindrical double-acting oil damper and coil spring.

The respective component parts of this suspension are optimally designed to act in response to vertical, lateral and longitudinal loads transmitted from the tires. Thus, riding comfort and steering stability are substantially enhanced.

- Longitudinal loads act on the trailing link.

- Vertical loads act on the coil spring, rear strut and rear rubber mount (which is located on the strut).
- Lateral loads act on the two lateral links.
- The lower end of the stabilizer is installed on the housing via a stabilizer link which uses a ball joint.
- The rear subframe supports the trailing link, lateral link and rear differential. It is connected to the car body via bushings (four places) to effectively dampen vibration and noise transmitted from the drive-line system and road surfaces.

# S SPECIFICATIONS AND SERVICE DATA

## A: SPECIFICATIONS

			LS	LS-L		
Front suspension	Stabilizer	Bar diameter	mm (in)		18 (0.71)	
		Coil spring	Coil diameter	mm (in)		UPR 140 (5.51), LWR 160 (6.30)
	Coefficient of spring		N/mm (kg/mm, lb/in)		24.5 (2.50, 140.0)	
	Damper strut	Outer cylinder length		mm (in)		319 (12.56)
		Piston rod diameter		mm (in)		25 (0.98)
		Damping force [at the piston speed 0.3 m (1.0 ft)/sec]	Expansion	N (kg, lb)		1,510 (154, 340)
Compression			N (kg, lb)		343 (35, 77)	
Rear suspension	Stabilizer	Bar diameter	mm (in)		17 (0.67)	
		Coil spring	Coil diameter	mm (in)		UPR 135 (5.31), LWR 155 (6.10)
	Coefficient of spring		N/mm (kg/mm, lb/in)		19.2 (1.96, 109.8)	20.3 (2.07, 115.9)
	Damper strut	Outer cylinder length		mm (in)		372 (14.65)
		Piston rod diameter		mm (in)		25 (0.98)
		Damping force [at the piston speed 0.3 m (1.0 ft)/sec]	Expansion	N (kg, lb)		1,196 (122, 269)
Compression			N (kg, lb)		284 (29, 64)	

## B: WHEEL ALIGNMENT

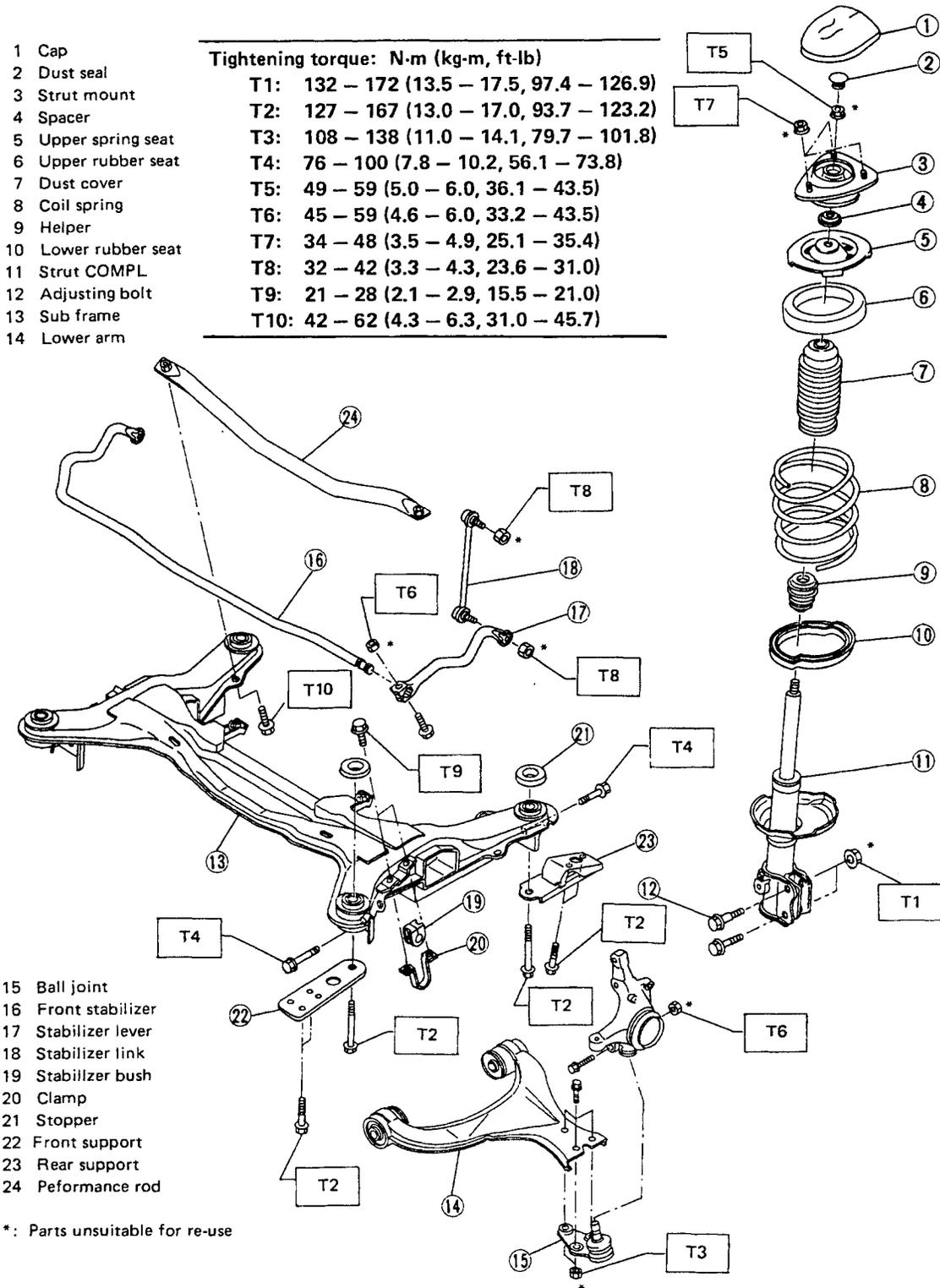
			All models
Front	Camber		- 0°25' ± 45'
	Caster		4°50' ± 45'
	Toe	mm (in)	0 ± 3 (0 ± 0.12)
	Kingpin angle		16°00'
	Wheel arch height	mm (in)	380 <sup>+10</sup> / <sub>-20</sub> (14.96 <sup>+0.39</sup> / <sub>-0.79</sub> )
Rear	Camber		- 0°40' ± 45'
	Toe	mm (in)	0 ± 3 (0 ± 0.12)
	Wheel arch height	mm (in)	335 <sup>+10</sup> / <sub>-20</sub> (13.19 <sup>+0.39</sup> / <sub>-0.79</sub> )

# C COMPONENT PARTS

## 1. Front Suspension

- 1 Cap
- 2 Dust seal
- 3 Strut mount
- 4 Spacer
- 5 Upper spring seat
- 6 Upper rubber seat
- 7 Dust cover
- 8 Coil spring
- 9 Helper
- 10 Lower rubber seat
- 11 Strut COMPL
- 12 Adjusting bolt
- 13 Sub frame
- 14 Lower arm

Tightening torque: N-m (kg-m, ft-lb)	
T1:	132 - 172 (13.5 - 17.5, 97.4 - 126.9)
T2:	127 - 167 (13.0 - 17.0, 93.7 - 123.2)
T3:	108 - 138 (11.0 - 14.1, 79.7 - 101.8)
T4:	76 - 100 (7.8 - 10.2, 56.1 - 73.8)
T5:	49 - 59 (5.0 - 6.0, 36.1 - 43.5)
T6:	45 - 59 (4.6 - 6.0, 33.2 - 43.5)
T7:	34 - 48 (3.5 - 4.9, 25.1 - 35.4)
T8:	32 - 42 (3.3 - 4.3, 23.6 - 31.0)
T9:	21 - 28 (2.1 - 2.9, 15.5 - 21.0)
T10:	42 - 62 (4.3 - 6.3, 31.0 - 45.7)



- 15 Ball joint
- 16 Front stabilizer
- 17 Stabilizer lever
- 18 Stabilizer link
- 19 Stabilizer bush
- 20 Clamp
- 21 Stopper
- 22 Front support
- 23 Rear support
- 24 Performance rod

\*: Parts unsuitable for re-use

Fig. 3

## 2. Rear Suspension

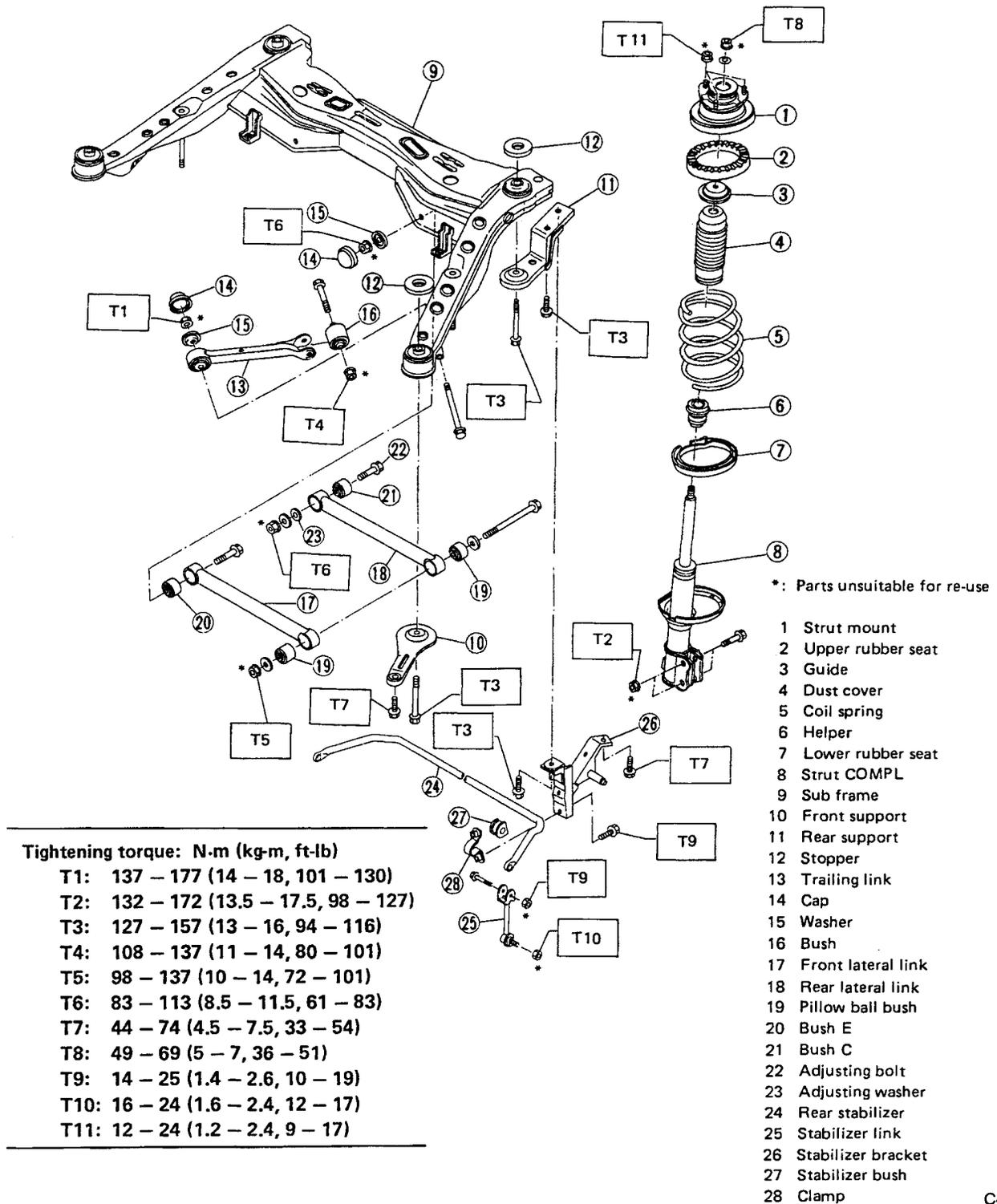


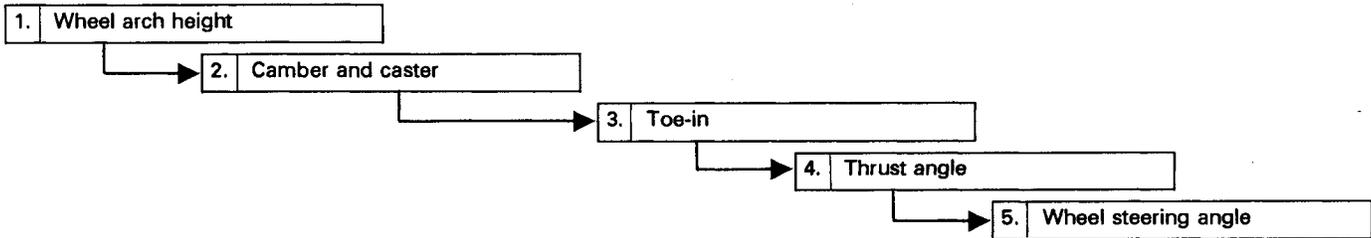
Fig. 4

# W SERVICE PROCEDURE FOR CONVENTIONAL SUSPENSION

## 1. On-car Services

Check, adjust and/or measure wheel alignment in accordance with procedures indicated below:

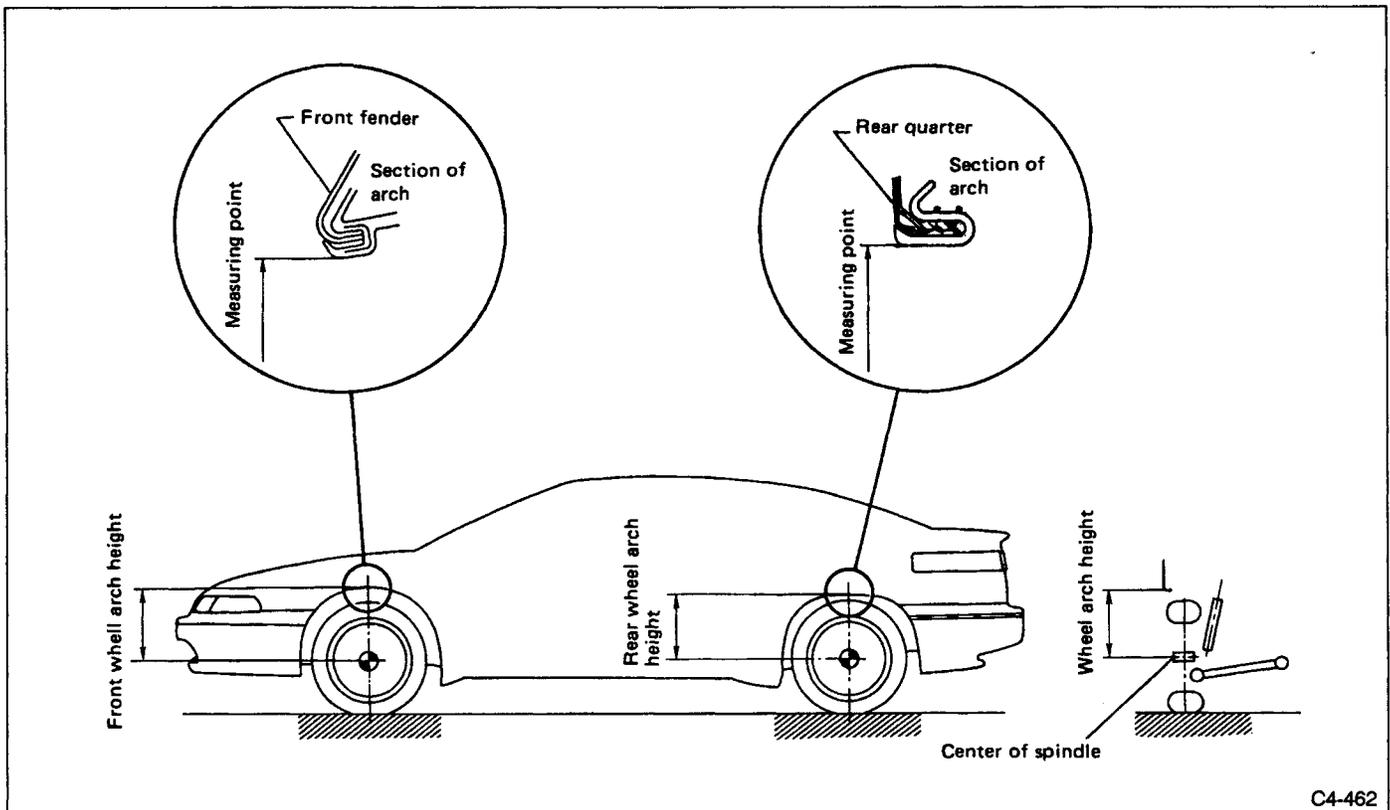
### A: WHEEL ALIGNMENT



### 1. WHEEL ARCH HEIGHT

- 1) Inflate tire pressure to specifications.
- 2) Set vehicle under "curb weight" conditions. (Empty luggage compartment, install spare tire, jack, service tools, and top up fuel tank.)

- 3) Set steering wheel in a wheel-forward position.
- 4) Suspend thread from wheel arch to determine a point directly above center of spindle.
- 5) Measure distance between measuring point and center of spindle.



C4-462

Fig. 5

		Front	Rear
Wheel arch height	mm (in)	380 <sup>+10</sup> / <sub>-20</sub> (14.96 <sup>+0.39</sup> / <sub>-0.79</sub> )	335 <sup>+10</sup> / <sub>-20</sub> (13.19 <sup>+0.39</sup> / <sub>-0.79</sub> )

**2. CAMBER AND CASTER**

● Inspection

- 1) Place the wheel to be measured on the turning radius gauge, and make sure the vehicle is level.
- 2) Set ADAPTER (927380000) into the center of the wheel, and then install the alignment gauge.

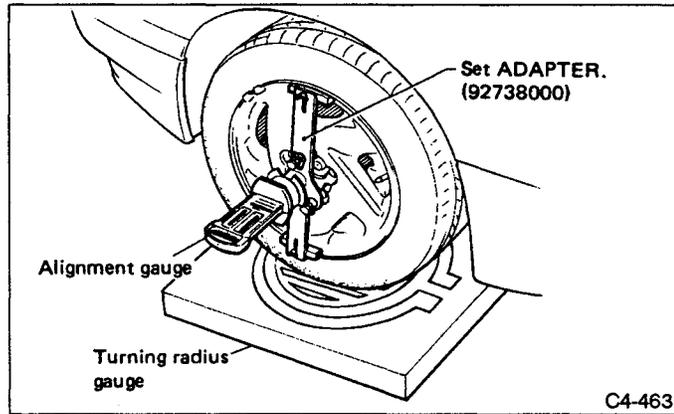


Fig. 6

	Front	Rear
Camber	0°25' ± 45'	0°40' ± 45'
Caster	4°50' ± 45'	—

● Front camber adjustment

- 1) Loosen two self-locking nuts located at lower front portion of strut.

- a. When adjustment bolt needs to be adjusted, hold its head with a wrench and turn self-locking nut.
- b. Discard old self-locking nut and replace with a new one.

- 2) While aligning scale for adjustment bolt (located at rear of vehicle) with mark on strut bracket, set camber angle within proper specifications.

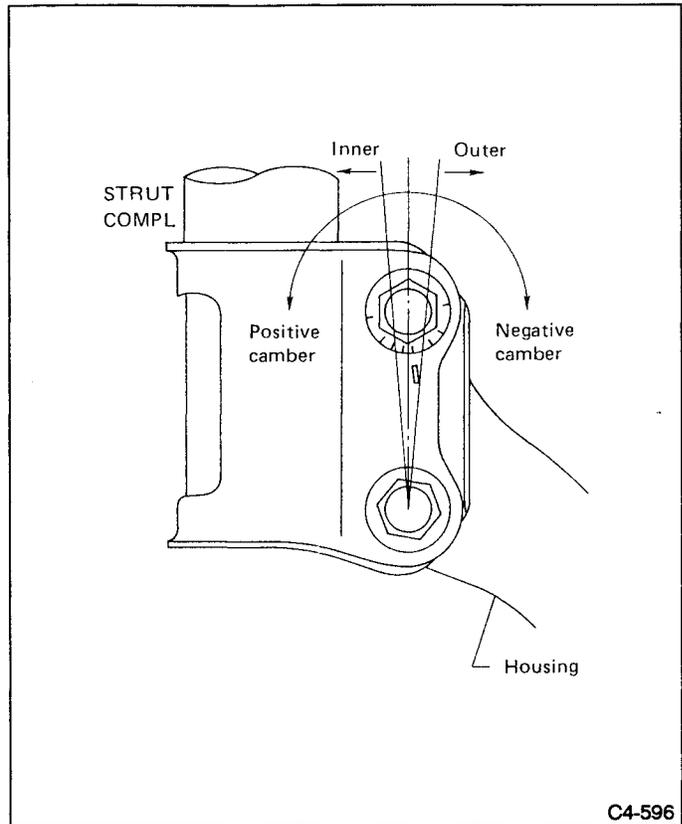


Fig. 7

	Left side	Right side
Rotate clockwise	Negative camber is increased	Positive: Same
Rotate counterclockwise	Positive camber is increased	Negative: Same

- 3) Tighten two self-locking nuts.

**Tightening torque:**

132 — 172 N•m (13.5 — 17.5 kg-m, 97.4 — 126.9 ft-lb)

**3. TOE-IN**

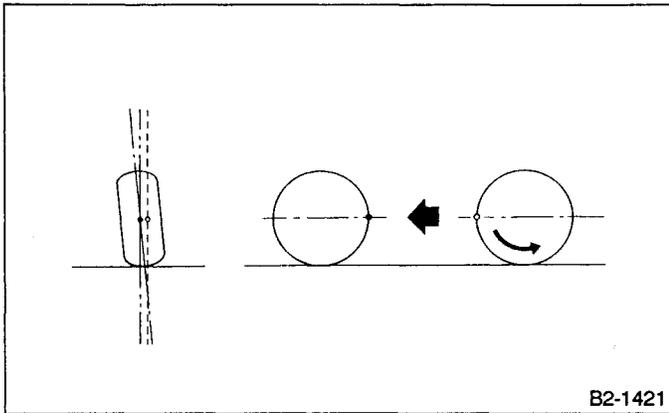
● Inspection

Measure toe-in using a toe gauge:

	Front	Rear
Toe-in mm (in)	0 ± 3 (0 ± 0.12)	

When using a toe gauge, make sure to measure as follows:

To measure toe-in, select one point on tire and move vehicle forward until the tire rotate exactly 180°.



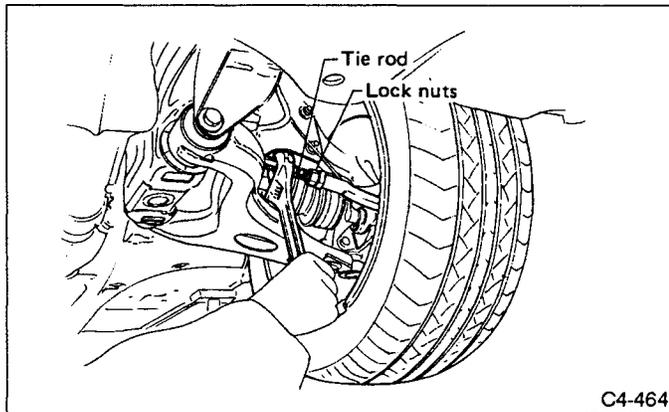
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Fig. 8

● Front toe-in adjustment

- 1) Loosen the left and right side rod lock nuts.
- 2) Turn the left and right tie rods equal amounts until the toe is within the specified range.

Both the left and right tie-rods are right-hand threaded. To increase toe-in, turn both tie-rods counterclockwise equal amounts (as viewed from the outside of the vehicle).



C4-464

Fig. 9

- 3) Tighten tie-rod lock nut.

**Tightening torque:**

78 — 88 N·m (8 — 9 kg-m, 58 — 65 ft-lb)

- a. Check that left and right wheel steering angle is within specifications.

- b. Correct tie-rod boot if twisted.

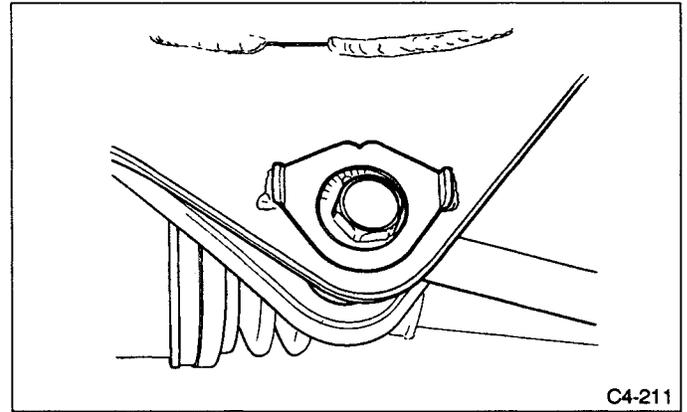
● Rear toe-in adjustment

- 1) Loosen self-locking nut on rear lateral link.

- a. When loosening or tightening adjustment bolt, hold bolt head and turn self-locking nut.

- b. Replace self-locking nut with a new one.

- 2) Turn adjustment bolt head until toe-in and -out are within specifications.



C4-211

Fig. 10

Movement of one scale graduation changes toe-in or -out by approximately 2 mm (0.08 in).

- 3) Tighten self-locking nut.

**Tightening torque:**

83 — 113 N·m (18.5 — 11.5 kg-m, 61 — 83 ft-lb)

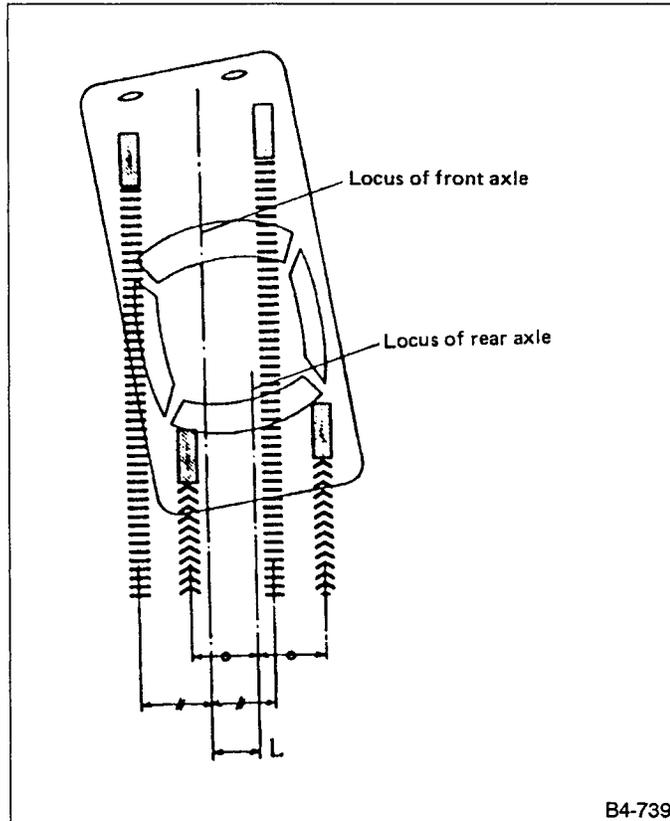
Rotation direction of adjustment bolt	Toe-in/-out of left wheel	Toe-in/-out of right wheel
	Changes for more "toe-in"	Changes for more "toe-out"
	Changes for more "toe-out"	Changes for more "toe-in"

Fig. 11

#### 4. THRUST ANGLE

- Inspection
  - 1) Position vehicle on a level surface.
  - 2) Move vehicle 3 to 4 meters directly forward.
  - 3) Determine locus of both front and rear axles.
  - 4) Measure difference "L" between locus on the axles.
 (For reference)

Thrust angle is less than 20' when "L" is equal to or less than 15 mm (0.59 in).



B4-739

Fig. 12

- Adjustment
 

Make thrust angle adjustments for left and right rear wheels by turning toe-in and -out adjustment bolts equally in the same direction. (For reference)

  - When one rear wheel is adjusted in a toe-in direction, adjust the other rear wheel equally in toe-out direction, in order to make thrust angle adjustment.
  - When left and right adjustment bolts are turned incrementally in the same direction, the thrust angle will change approximately 10' ["L" is nearly equal to 7.5 mm (0.295 in)].

#### Standard thrust angle:

Less than  $\pm 20'$

#### 5. STEERING ANGLE

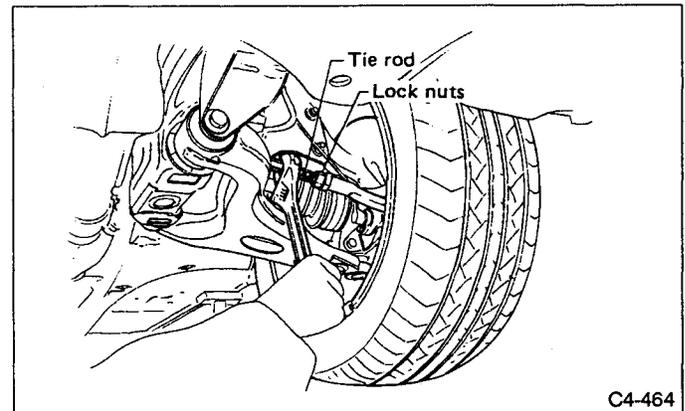
- Inspection
  - 1) Place vehicles on a turning radius gauge.
  - 2) While depressing brake pedal, turn steering wheel fully to the left and right. With steering wheel held at each fully turned position, measure both the inner and outer wheel steering angle.

Steering angle	Inner wheel	$36.2^{\circ} \pm 1.5^{\circ}$
	Outer wheel	$31.6^{\circ} \pm 1.5^{\circ}$

- Adjustment
 

Turn tie-rod to adjust steering angle of both inner and outer wheels.

  - a. Check toe-in and -out.
  - b. Correct both if twisted.



C4-464

Fig. 13

## 2. Lower Arm

### A: REMOVAL AND INSTALLATION

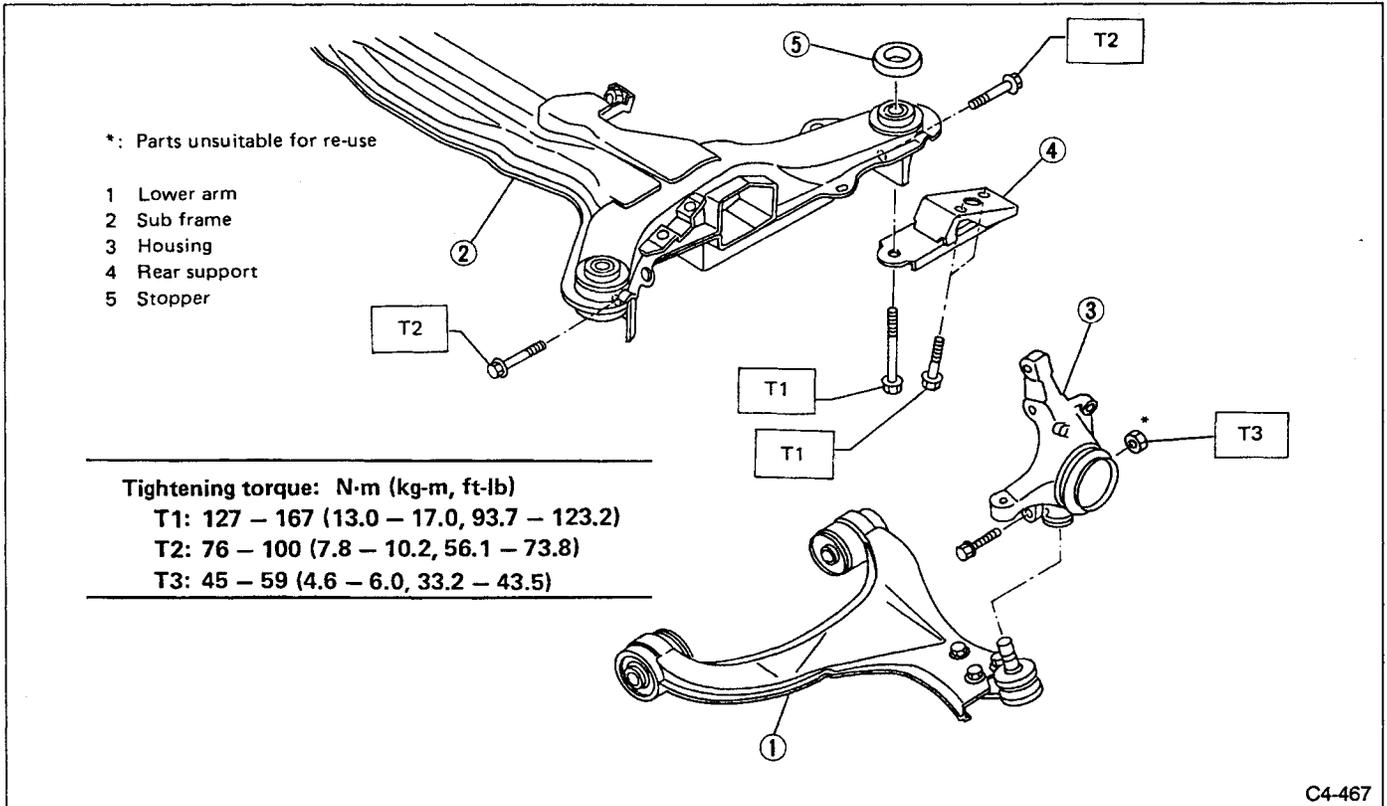


Fig. 14

- 1) Lift up vehicle and remove front wheels.
- 2) Separate housing and ball joint at connections.

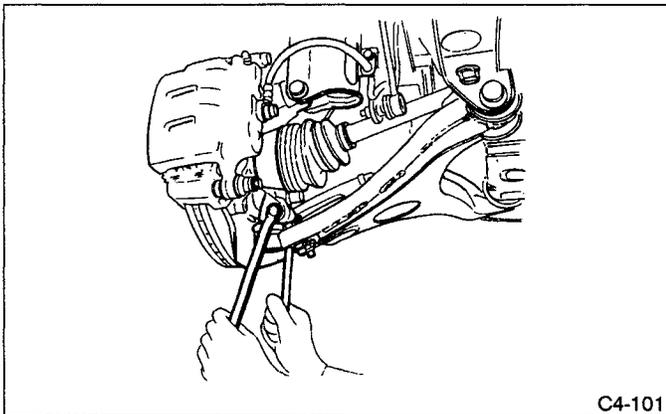


Fig. 15

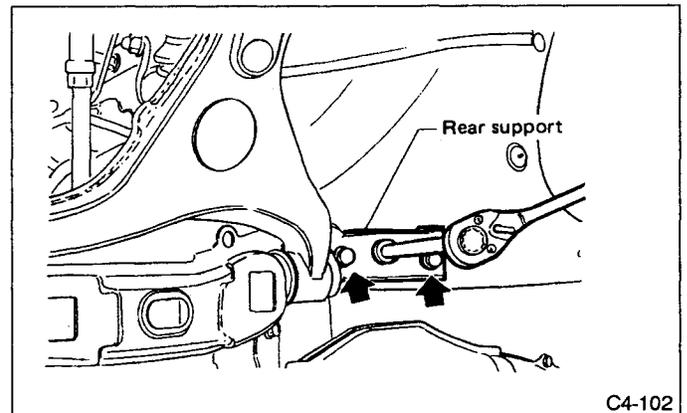


Fig. 16

- 4) Remove lower arm.

- 3) Remove rear support.  
Do not remove rear support on both sides simultaneously.

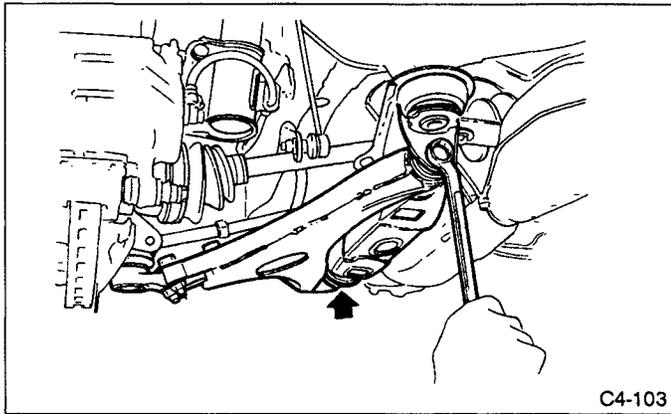


Fig. 17

5) To install, reverse above removal procedures.  
**Always install front sub frame and lower arm and tighten bolts with vehicle weight on suspension.**  
**Self-lock nut must be replaced with a new one whenever it is removed.**

### **B: INSPECTION**

- 1) Check lower arm for wear, damage and cracks, and correct or replace if defective.
- 2) Check bushings for cracks, fatigue or damage.

### 3. Ball Joint

#### A: REMOVAL AND INSTALLATION

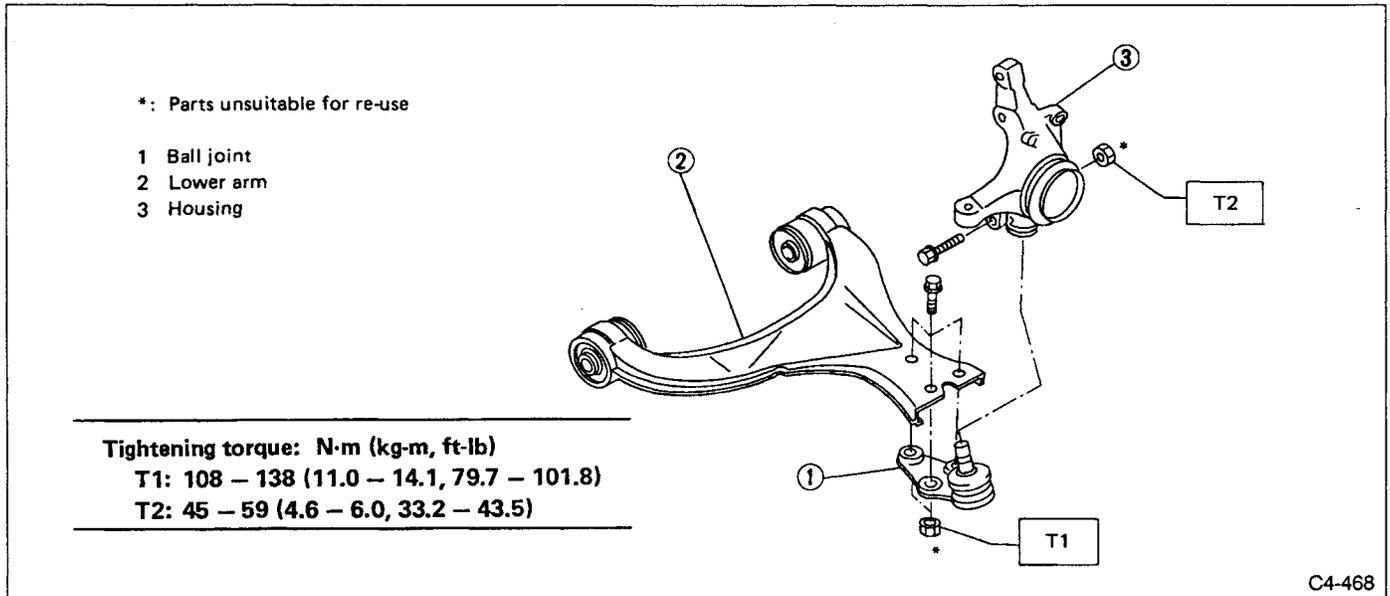


Fig. 18

- 1) Lift up vehicle and remove front wheels.
- 2) Remove four bolts, then ball joint.

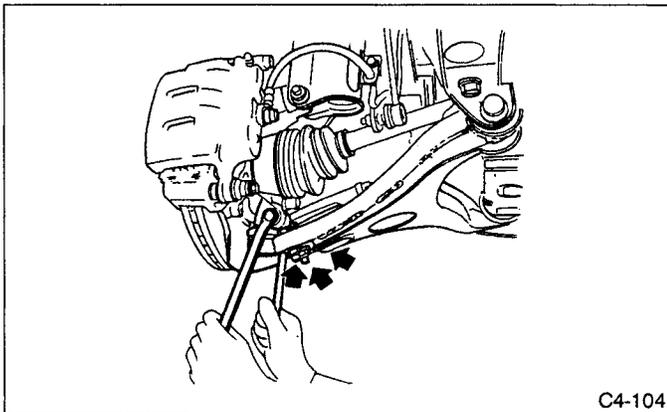


Fig. 19

- 3) To install, reverse above removal procedures.

#### B: INSPECTION

- 1) Check ball joint free play in three directions (fore-aft, lateral and vertical). Replace ball joint if necessary.
- 2) The ball joint and boot that have been removed must be checked for wear, damage or cracks and any defective part must be replaced.

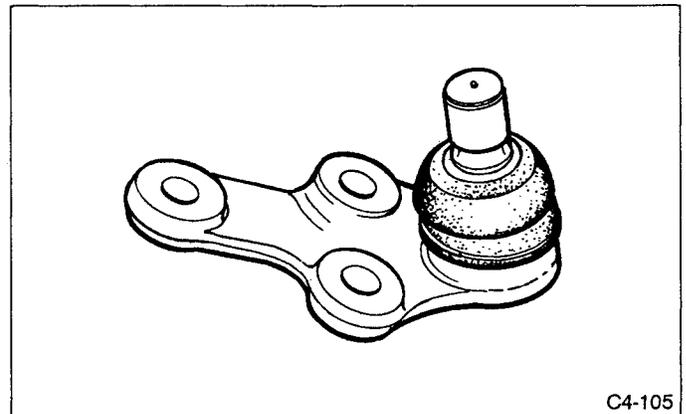
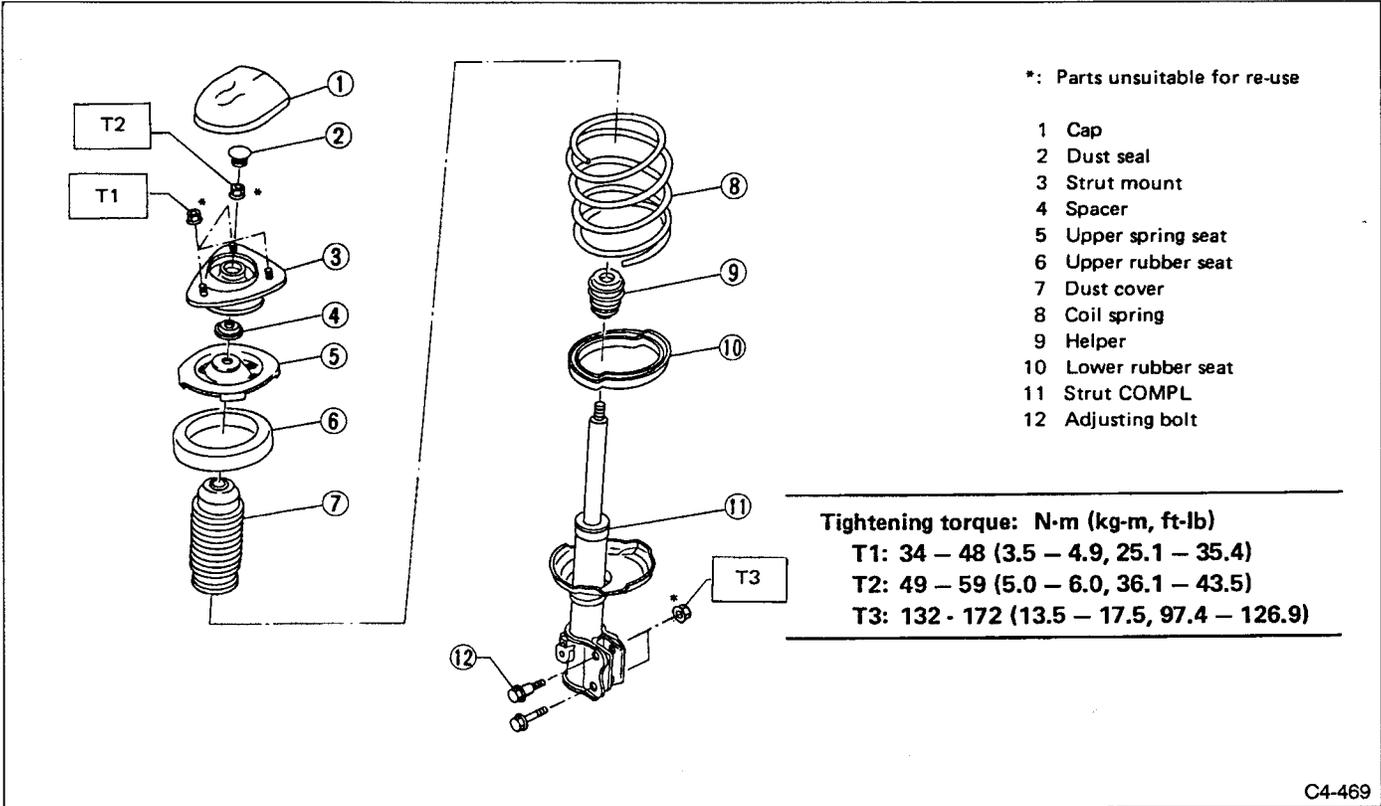


Fig. 20

# 4. Front Strut

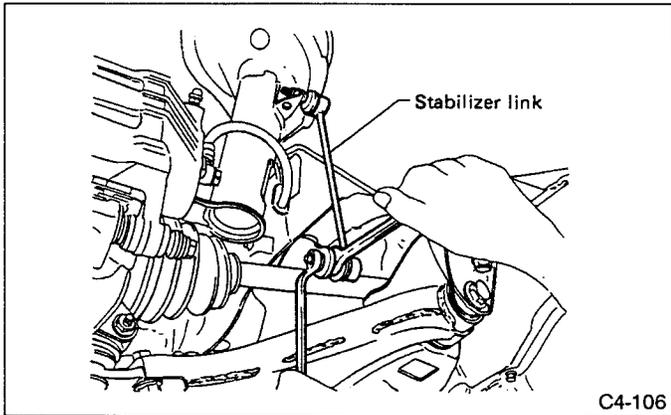
## A: REMOVAL AND INSTALLATION



C4-469

Fig. 21

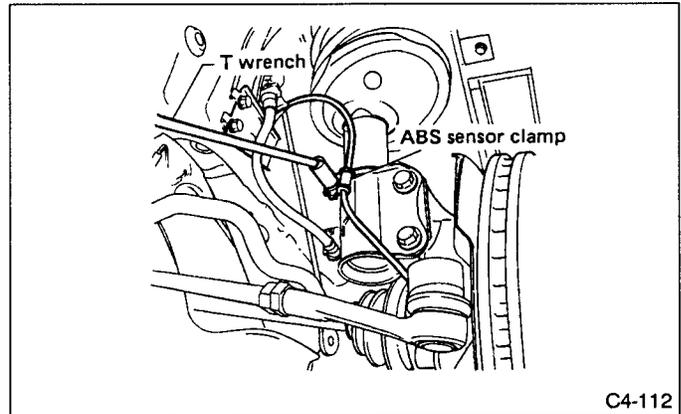
- 1) Lift up vehicle and remove front wheels.
- 2) Remove stabilizer link.



C4-106

Fig. 22

- 3) Disconnect ABS sensor clamp from strut.



C4-112

Fig. 23

4) Disconnect brake hose clamp from strut.

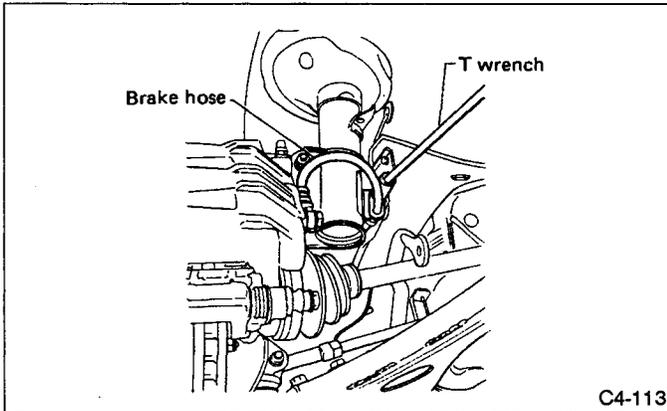


Fig. 24

5) After scribing an alignment mark on camber adjusting bolt head, remove nuts which connect housing and strut.  
Do not remove upper bolt.

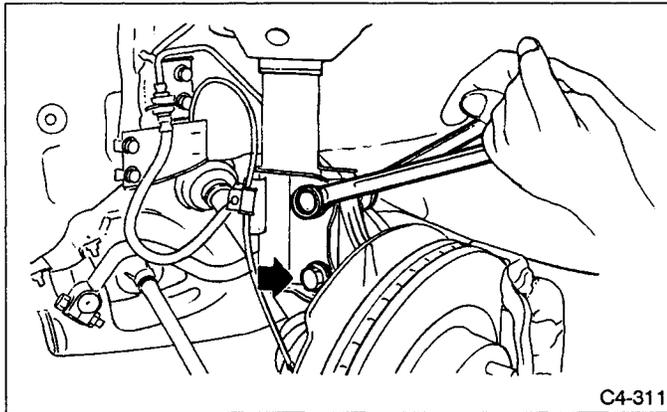


Fig. 25

6) Support housing assembly using a garage jack.

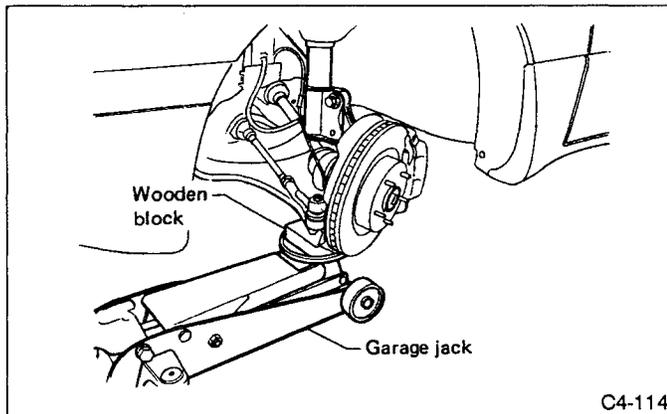


Fig. 26

7) Remove strut mount cap.

8) Remove the three nuts.

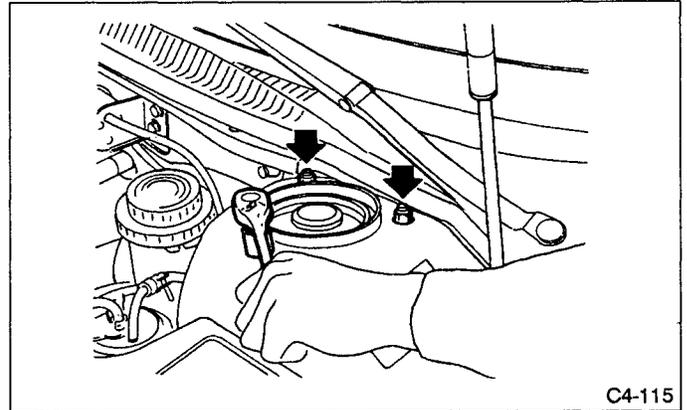


Fig. 27

9) Remove bolts from housing and remove strut.  
**Be careful not to damage ABS sensor harness and brake piping.**

10) To install, reverse above removal procedures.  
**After installation, check wheel alignment.**

**B: DISASSEMBLY**

1) Using a coil spring compressor, compress coil spring.

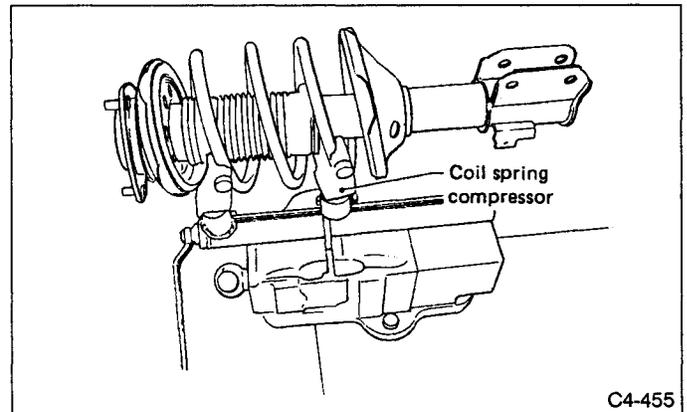


Fig. 28

2) Using STRUT MOUNT SOCKET (20099PA000), remove self-locking nut.

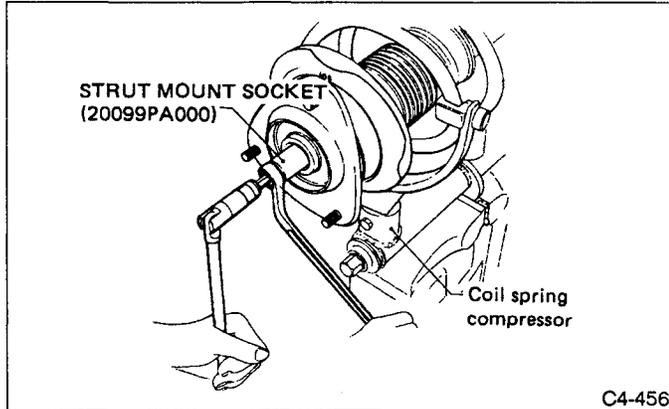


Fig. 29

- 3) Remove strut mount, upper spring seat and upper rubber seat from strut ASSY.
- 4) While gradually decreasing compression force, remove coil spring.
- 5) Remove dust cover, helper spring and lower rubber seat.

## C: INSPECTION

Check the disassembled parts for cracks, damage and wear, and replace with new parts if defective.

### 1. DAMPER STRUT

- 1) Check for oil leakage.
- 2) Move the piston rod up and down to check it operates smoothly without any binding.
- 3) Deflection of piston rod  
Measure the deflection as follows:  
Fix the outer shell and fully extend the rod. Set a dial gauge at the end of the rod, and apply a weight of  $\pm 20$  N ( $\pm 2$  kg,  $\pm 4$  lb) to the threaded portion. Read the dial gauge indication. The amplitude of the gauge needle pointer is the deflection of the rod.

#### Limit of deflection:

Less than 0.8 mm (0.031 in)

If the deflection is greater, replace the strut.

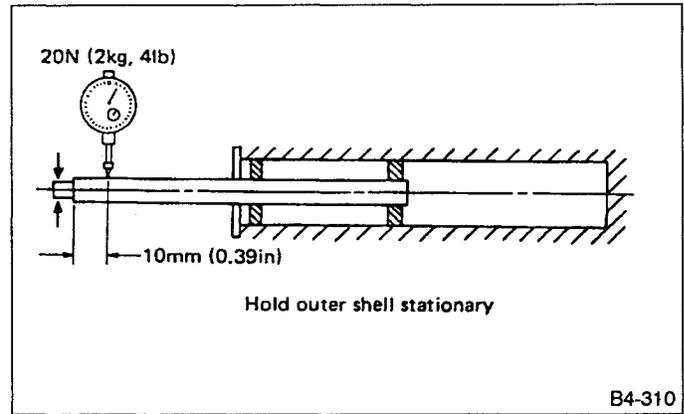


Fig. 30

### 2. STRUT MOUNT

- 1) Check rubber part for creep, cracks and deterioration, and replace it with new one if defective.
- 2) If distortion is found on its connecting surface to body, replace it with a new one.

### 3. DUST COVER

If any cracks or damage are found, replace it with a new one.

### 4. COIL SPRING

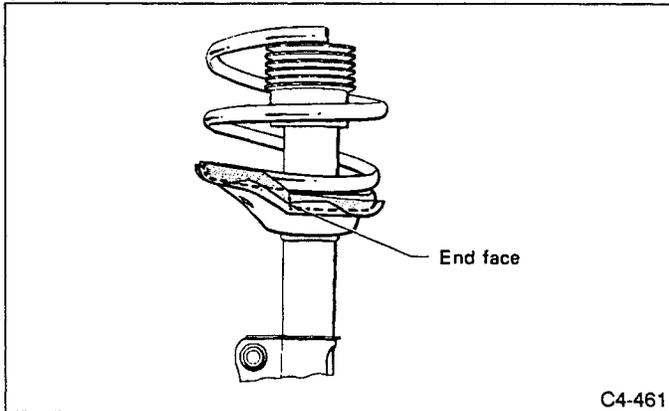
One having permanent strain should be replaced with a new one. When vehicle posture is uneven, although there are no considerable reasons like tire puncture, uneven loading, etc., check coil spring for its free length, cracks, etc. Replace it with a new one if defective.

### 5. HELPER

Replace it with new one if cracked or damaged.

**D: ASSEMBLY**

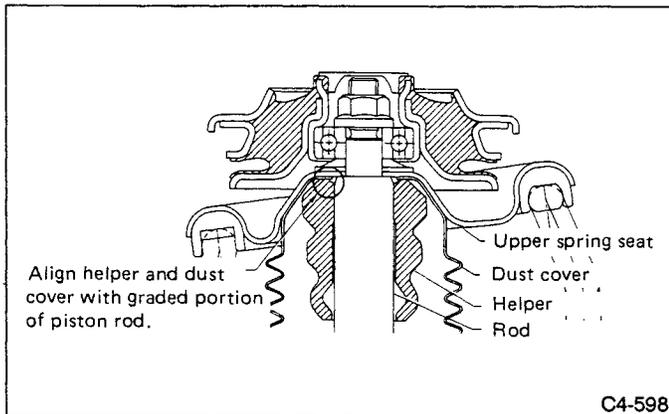
- 1) Compress the coil spring.
- 2) Install lower rubber seat to the spring seat.
- 3) Set the coil spring correctly so that its end face fits well into the spring seat as shown.



C4-461

Fig. 31

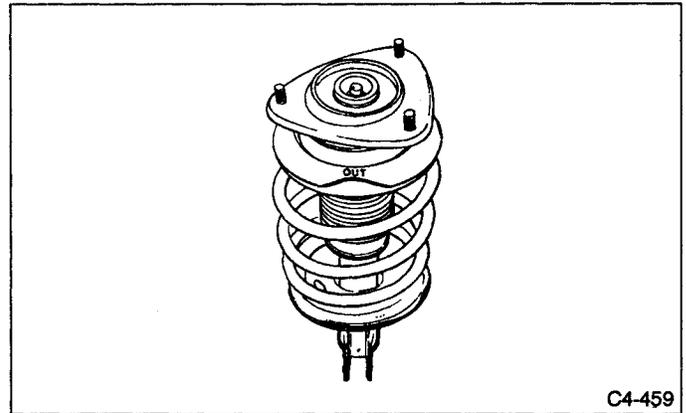
- 4) Install helper and dust cover to the piston rod. Ensure helper and dust cover are aligned with graded section of piston rod as shown in Figure 32.



C4-598

Fig. 32

- 5) Pull the piston rod fully upward, and install rubber seat and spring seat. Ensure that upper spring seat is positioned with "OUT" mark facing outward.



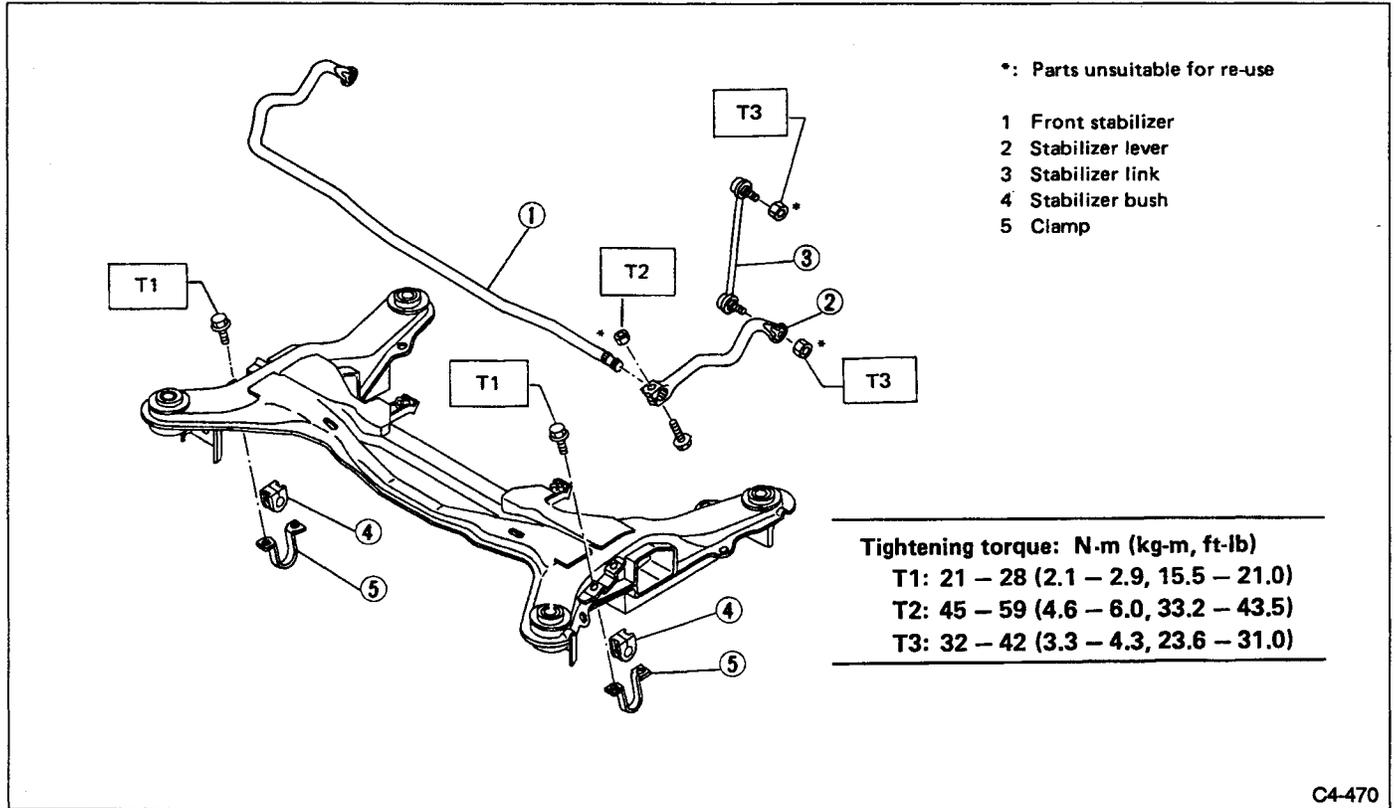
C4-459

Fig. 33

- 6) Install strut mount to the piston rod, and tighten the self-lock nut temporarily. **Be sure to use a new self-lock nut.**
- 7) Loosen the coil spring carefully.
- 8) While fixing the spring seat, tighten the self-lock nut with SOCKET (20099PA000).

# 5. Front Stabilizer

## A: REMOVAL AND INSTALLATION

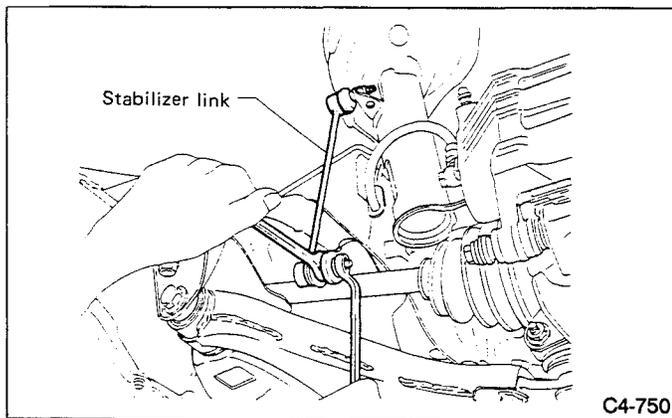


C4-470

Fig. 34

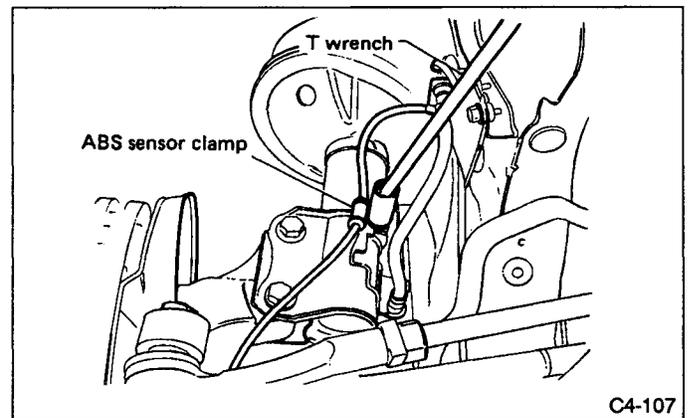
- 1) Lift up vehicle and remove front wheels.
- 2) Remove stabilizer link.

- 3) Remove right ABS sensor clamp.



C4-750

Fig. 35



C4-107

Fig. 36

4) Remove right brake hose clamp.

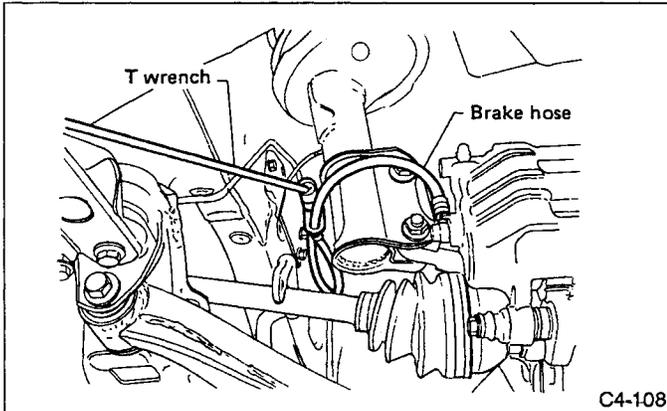


Fig. 37

5) Place alignment mark on stabilizer and stabilizer lever, and remove both parts.

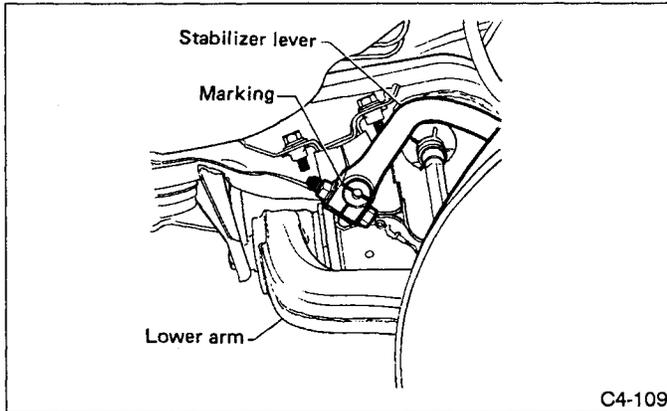


Fig. 38

6) Remove stabilizer bushing.

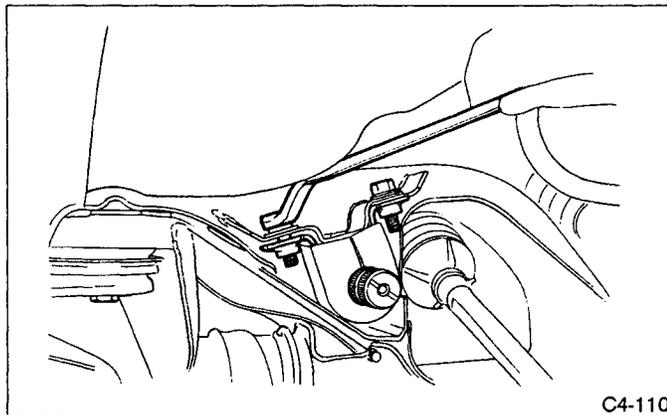


Fig. 39

7) Remove stabilizer from right side of vehicle.  
Be careful not to damage ABS sensor harness and brake piping.

8) To install, reverse above removal procedures.

a. Be sure to align paint mark on stabilizer with bushing during installation.

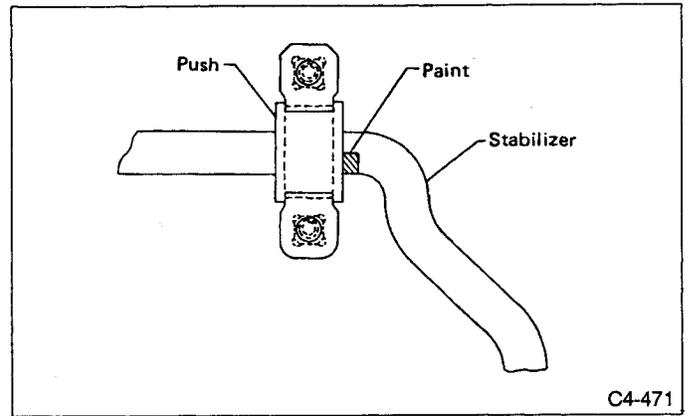


Fig. 40

b. Do not confuse front side of clamp with rear side during installation.

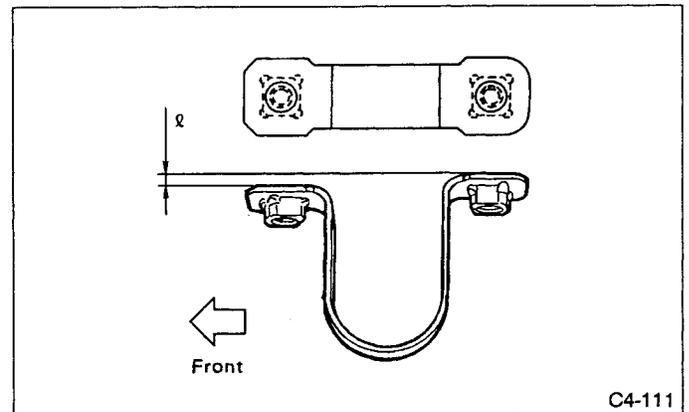


Fig. 41

c. Be sure to align alignment mark when installing stabilizer lever and stabilizer.

### B: INSPECTION

- 1) Check bushing for cracks, fatigue or damage.
- 2) Check links for deformities, cracks, or damage, and bushing for protrusions beyond clamp.

## 6. Front Sub Frame **AIRBAG**

### A: REMOVAL AND INSTALLATION

#### Supplemental Restraint System "Airbag"

Airbag system wiring harness is routed near the steering ASSY.

- a. All Airbag system wiring harness and connectors are colored yellow. Do not use electrical test equipment on these circuit.
- b. Be careful not to damage Airbag system wiring harness when servicing the steering ASSY.

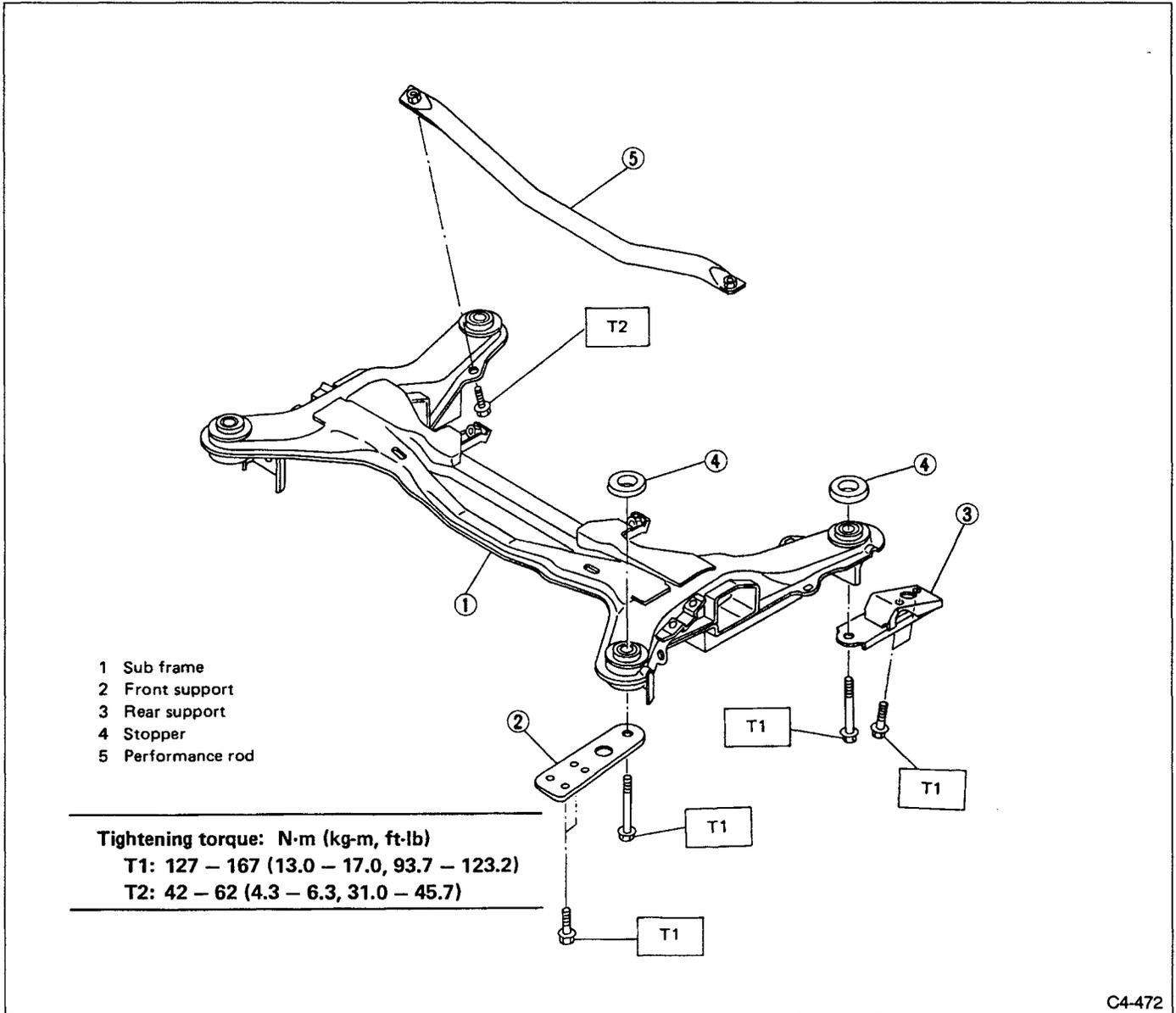


Fig. 42

- 1) Lift up vehicle and remove front wheels.
- 2) Move front hood damper stay to another hole position.

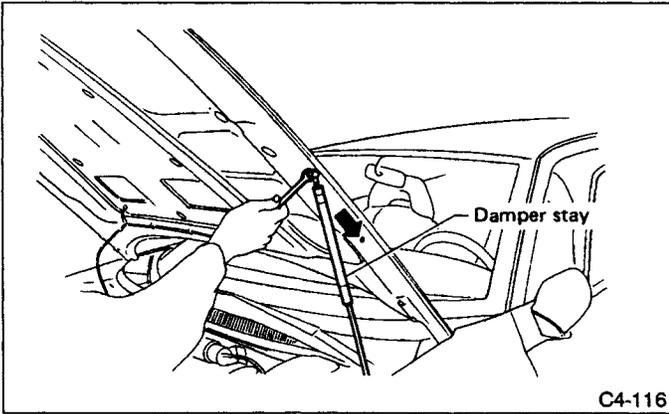


Fig. 43

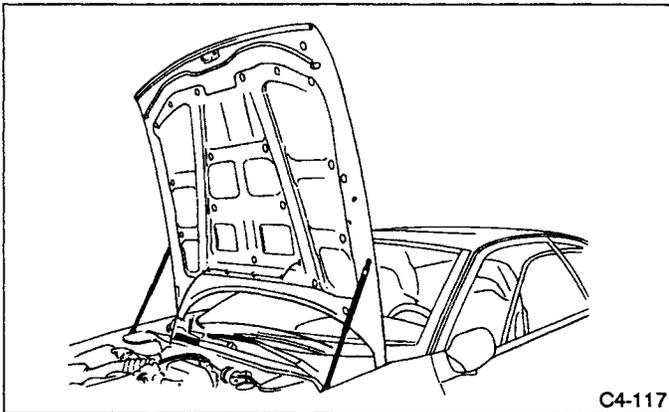


Fig. 44

- 3) Remove O<sub>2</sub> sensor connector.
- 4) Remove power steering connector.
- 5) Remove throttle cover.
- 6) Remove air intake duct.
- 7) Attach lifting wire to engine.

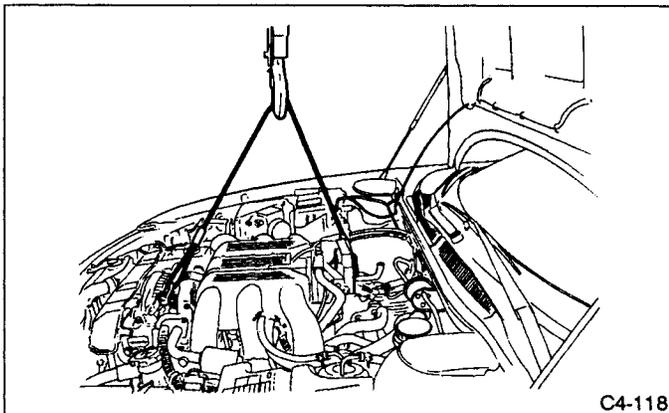


Fig. 45

- 8) Carefully lift engine.  
**Be sure to lift engine just enough to unload sub frame.**
- 9) Remove front exhaust pipe.

- 10) Remove steering universal joint. (Refer to 4-3 [W2B0].)  
**Place alignment mark before removing.**

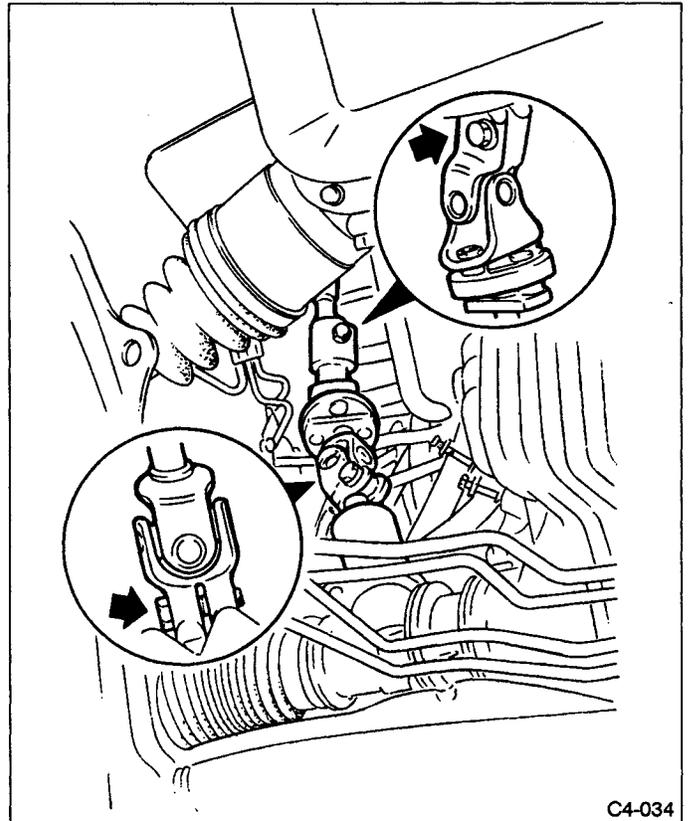


Fig. 46

- 11) Remove tie rod end from housing.

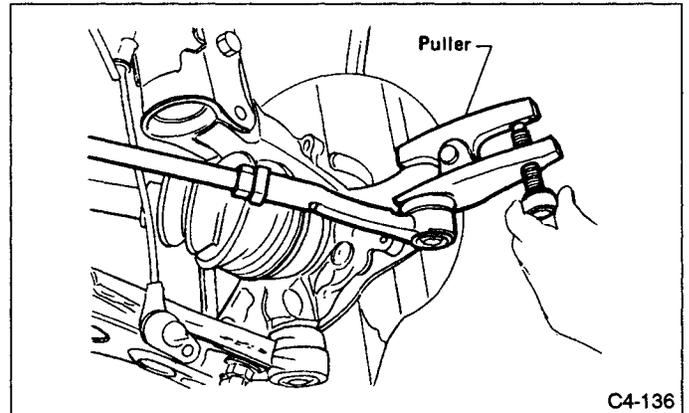
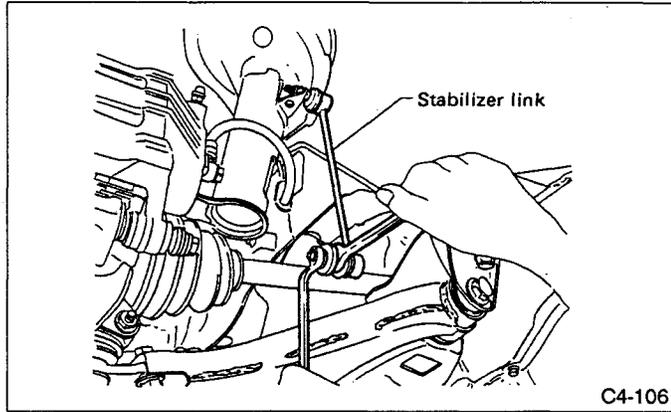


Fig. 47

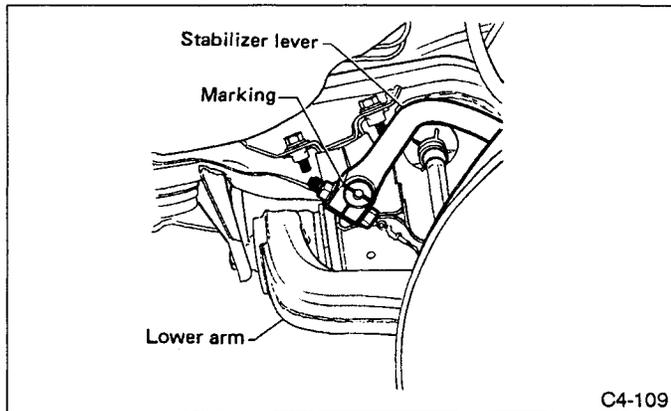
12) Remove stabilizer link.



C4-106

Fig. 48

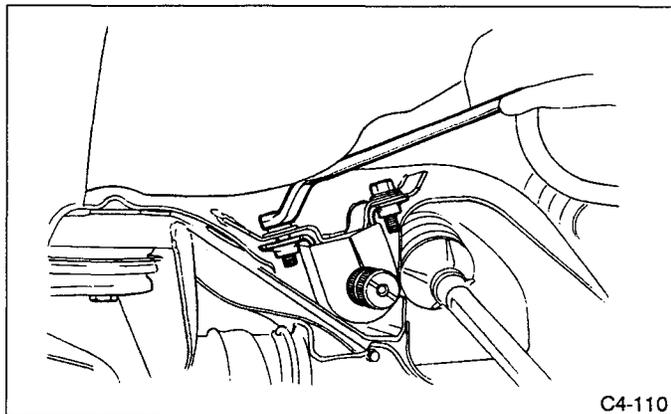
13) Place alignment mark on stabilizer and stabilizer lever before removing.



C4-109

Fig. 49

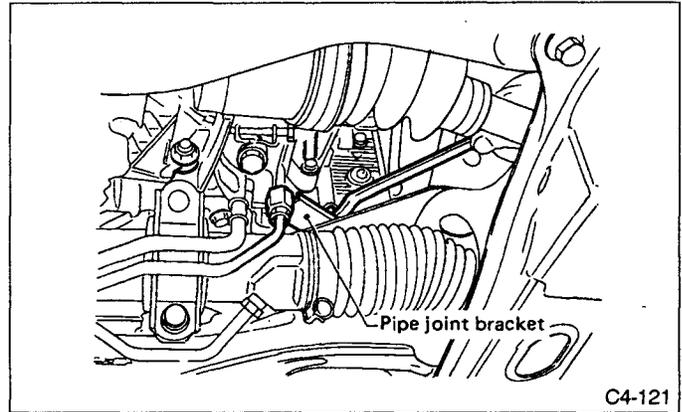
14) Remove left stabilizer clamp.



C4-110

Fig. 50

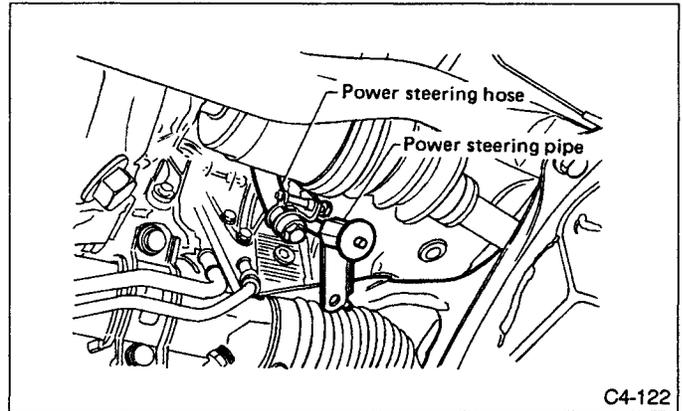
15) Disconnect hose from steering gear box pipe.  
 16) Remove pipe joint bracket from sub frame.  
 17) Remove pipe joint from steering gear box pipe.



C4-121

Fig. 51

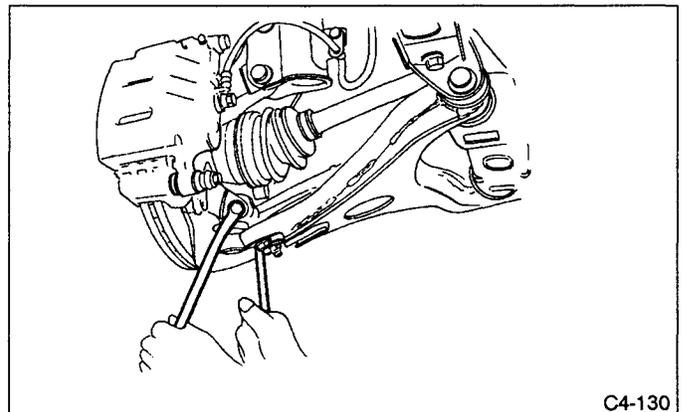
18) Plug steering hose and pipe openings to prevent entry of foreign matter.



C4-122

Fig. 52

19) Disconnect lower arm ball joint from housing.



C4-130

Fig. 53

20) Remove rear support.  
**Make sure engine is securely supported.**

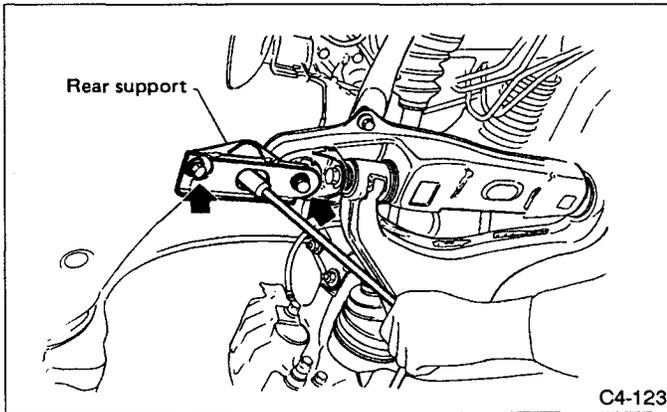


Fig. 54

21) Remove lower arm.

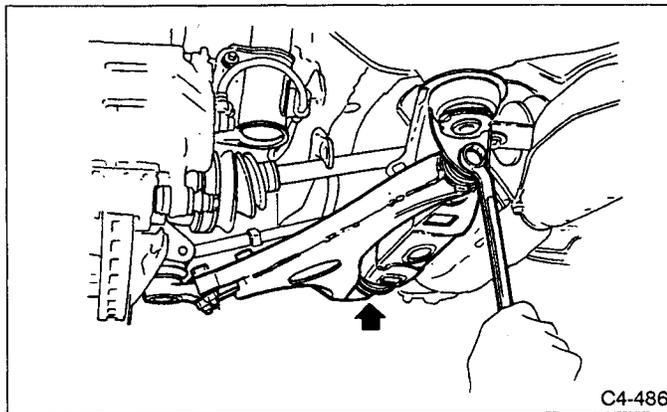


Fig. 55

22) Support sub frame with transmission jack.

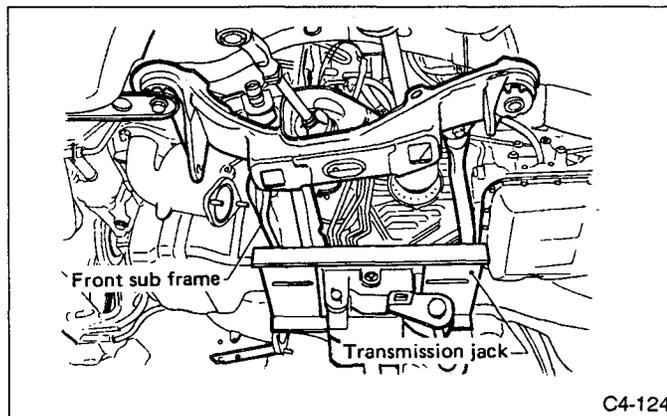


Fig. 56

23) Remove front support.

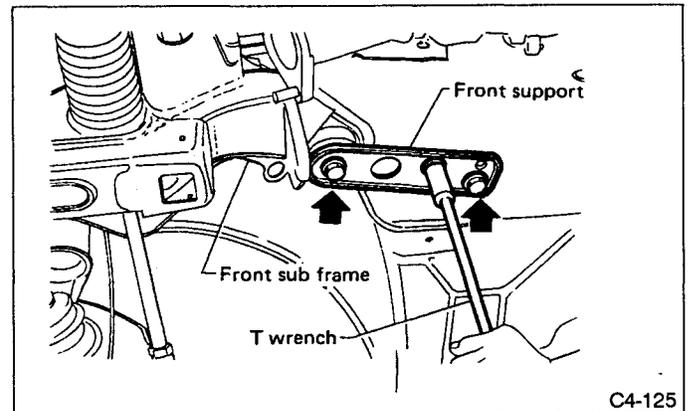


Fig. 57

24) Disconnect sub frame from front cushion rubber.

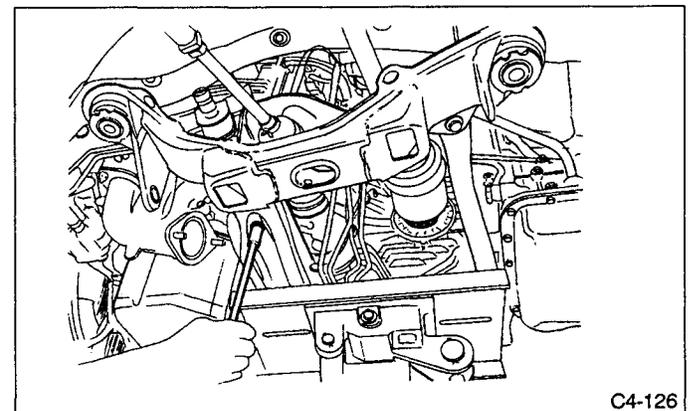


Fig. 58

25) Remove sub frame.  
**Be careful not to damage power steering solenoid harness.**

26) Remove stabilizer from sub frame.

27) Remove gear box assembly from sub frame.

28) To install, reverse above removal procedures.  
**a. Make sure sub frame stoppers are properly installed.**

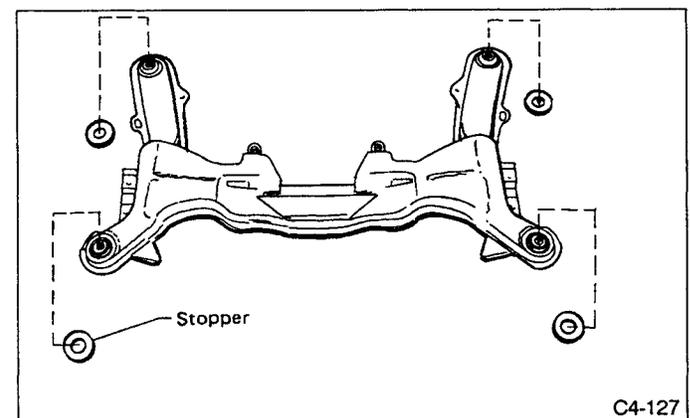


Fig. 59

b. Align locators when assembling front rubber cushions to sub frame.

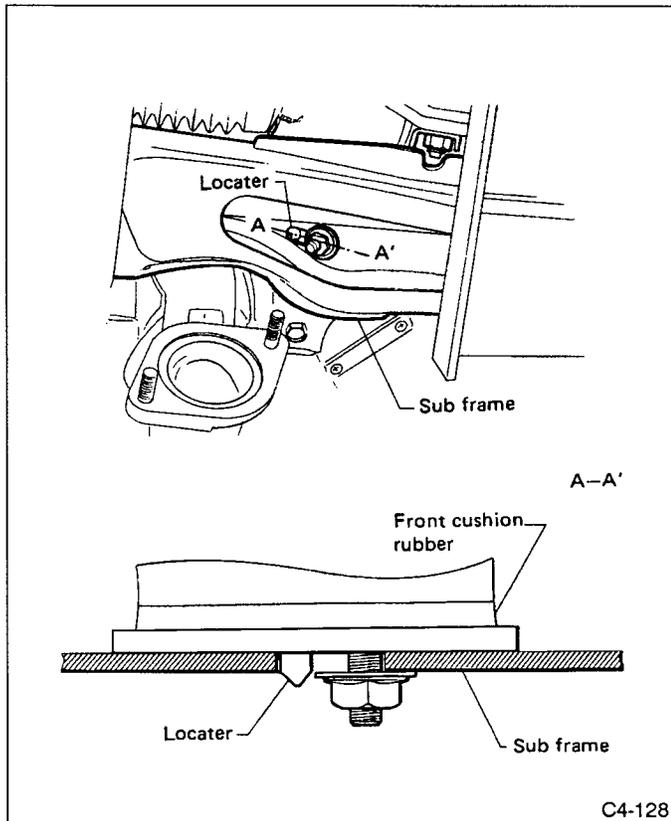


Fig. 60

- c. When installing universal joint, refer to instructions under "4-3. STEERING SYSTEM" as a guide.
- d. Center roll connector as instructed under 5-5. [W1E1].
- e. Purge air from power steering system (refer to 4-3. [W5G0]).
- f. When tightening lower arm-to-sub frame securing bolts, make sure vehicle weight is on suspension.
- g. Adjust wheel alignment.

## 7. Trailing Link

### A: REMOVAL AND INSTALLATION

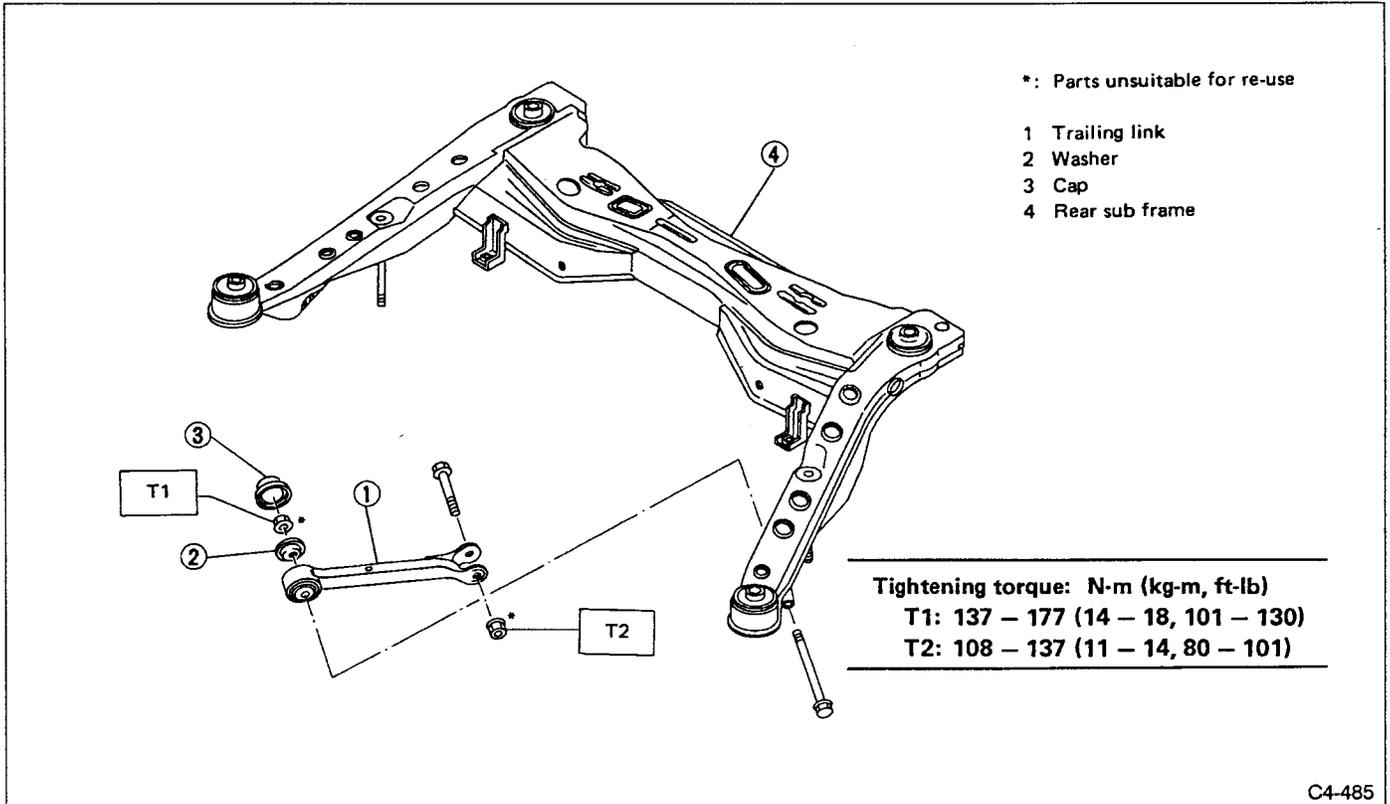


Fig. 61

- 1) Lift up vehicle and remove rear wheels.
- 2) Disconnect ABS sensor clamp and parking brake cable bracket.

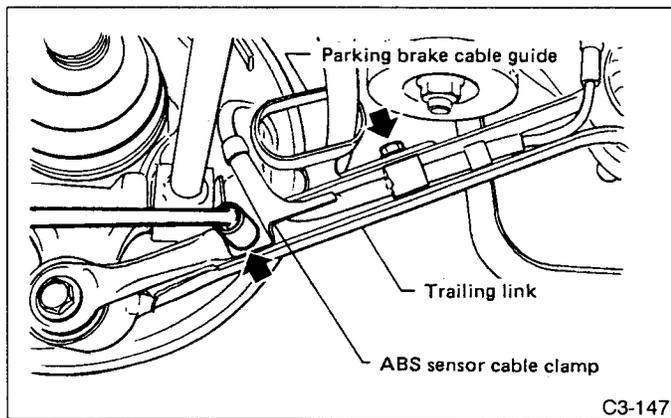


Fig. 62

- 3) Remove trailing link.

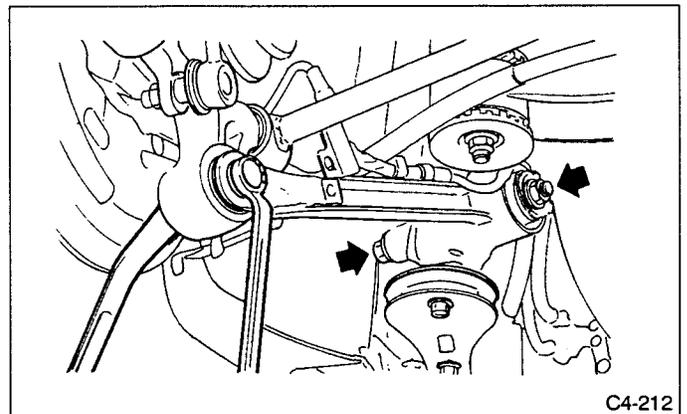


Fig. 63

- 4) To install, reverse above removal procedures. When tightening rubber bushings, make sure vehicle weight is on suspensions.

### B: INSPECTION

Check trailing link for bends, corrosion or damage.

# 8. Lateral Link

## A: REMOVAL AND INSTALLATION

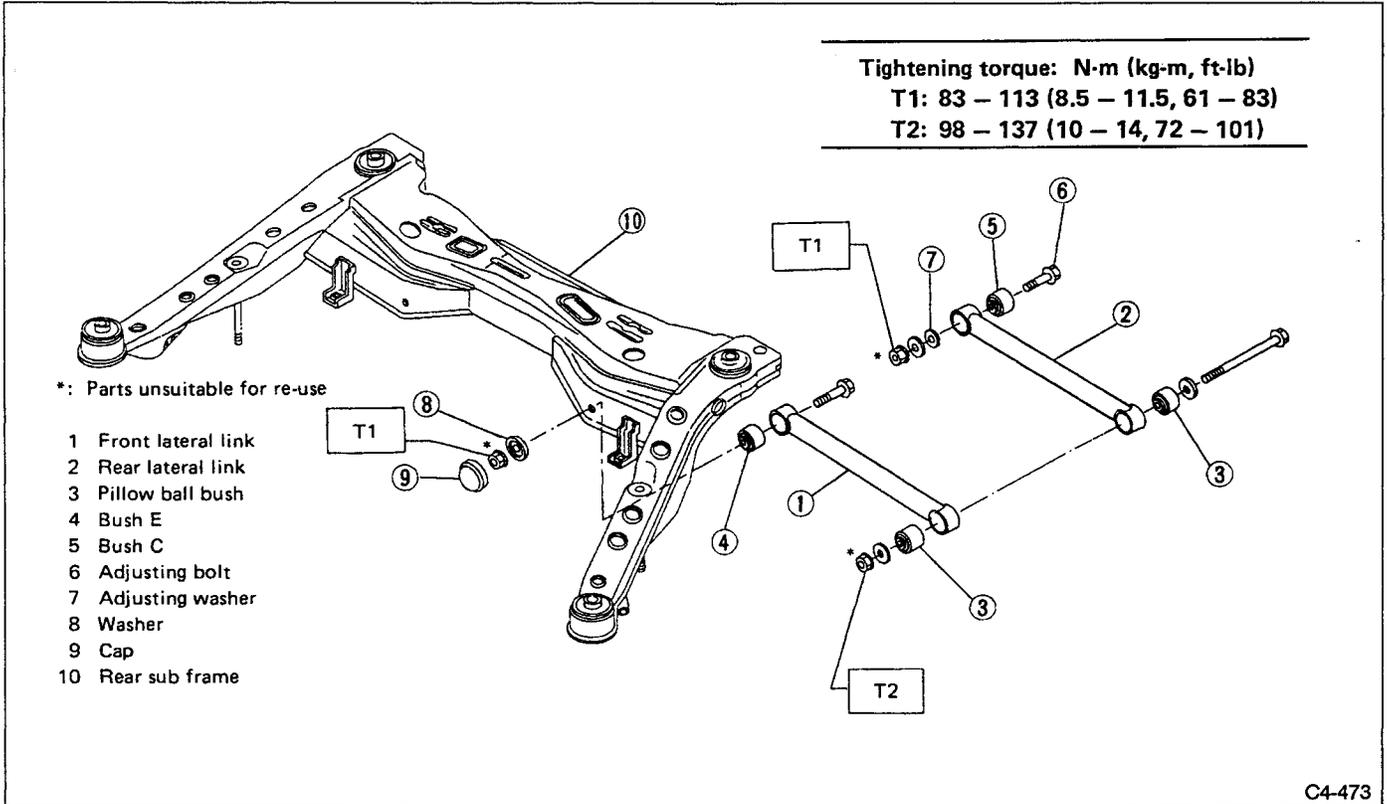


Fig. 64

- 1) Lift up vehicle and remove rear wheels.
- 2) Remove rear exhaust pipe.
- 3) Remove stabilizer link.

- 4) Remove parking brake cable and ABS sensor harness brackets.

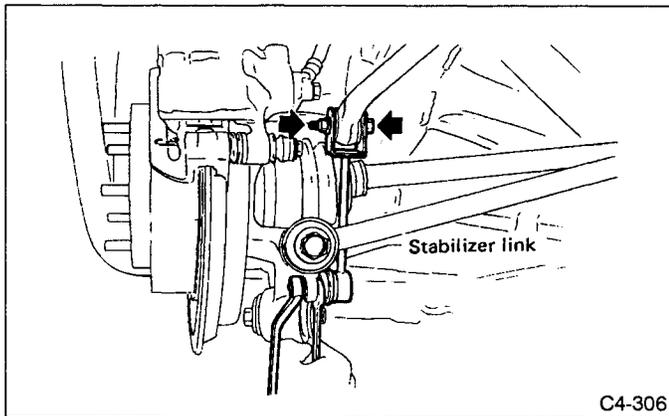


Fig. 65

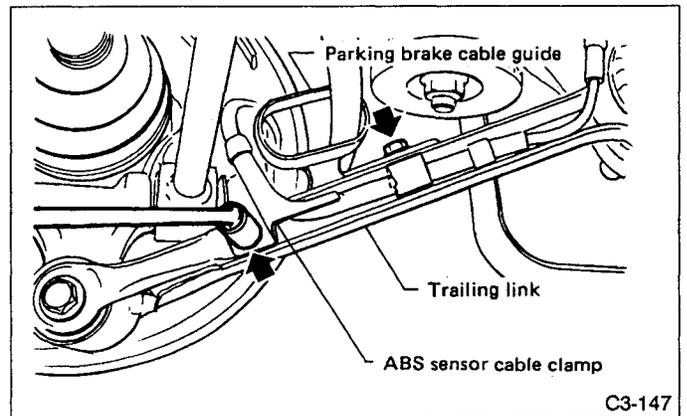


Fig. 66

5) Disconnect parking brake cable clamp.

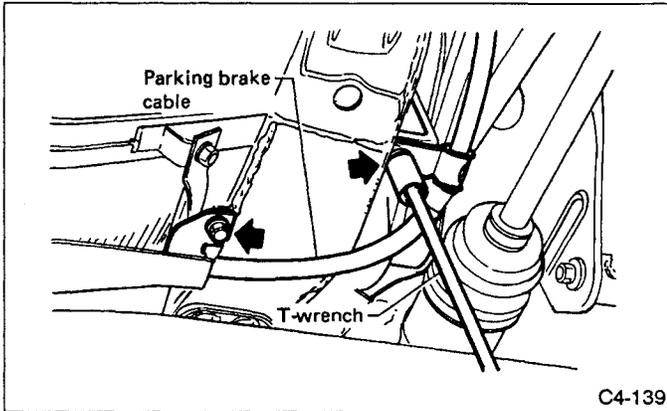


Fig. 67

6) Disconnect trailing link at housing.

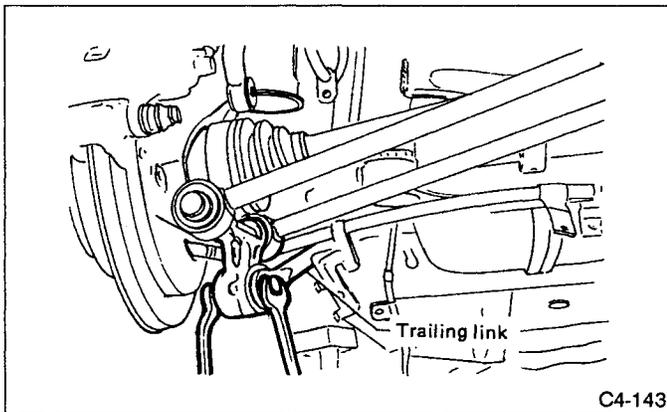


Fig. 68

7) Disconnect lateral link to housing.

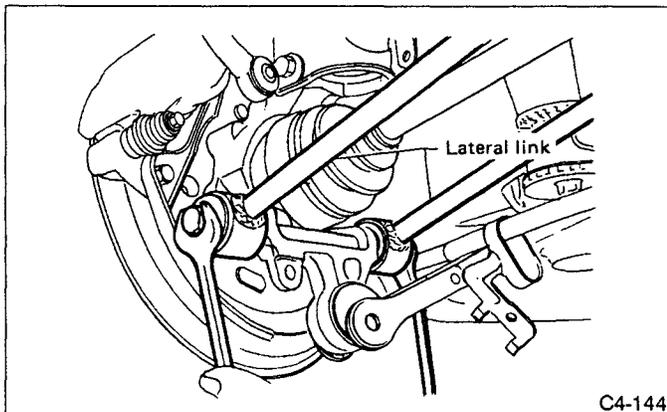


Fig. 69

8) Extract DOJ from differential using DRIVE SHAFT REMOVER (28099PA100). Use bolt (shown in Fig. 71) as a supporting point for REMOVER to prevent side bearing retainer from sustaining damage.

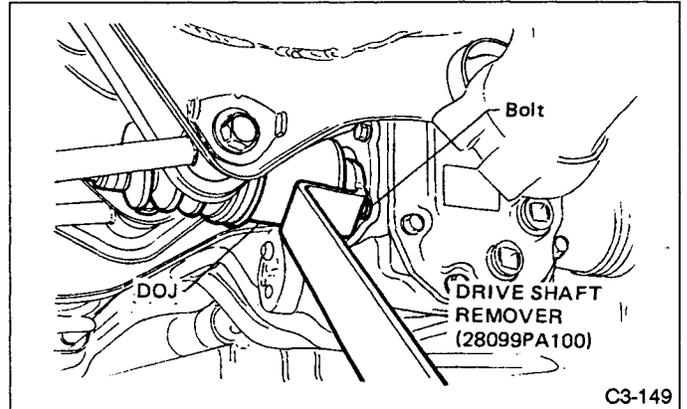


Fig. 70

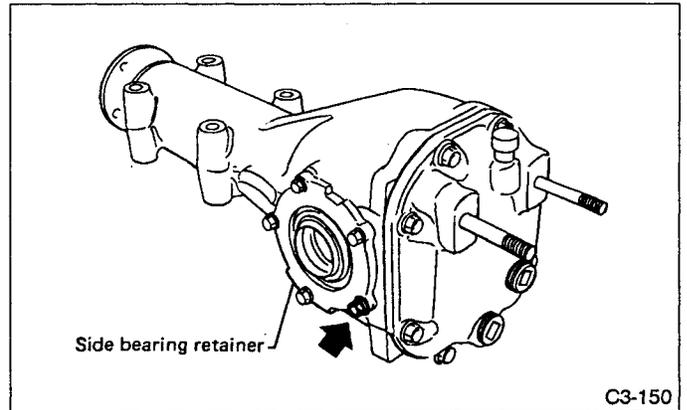


Fig. 71

9) Place alignment mark on adjustment bolt.

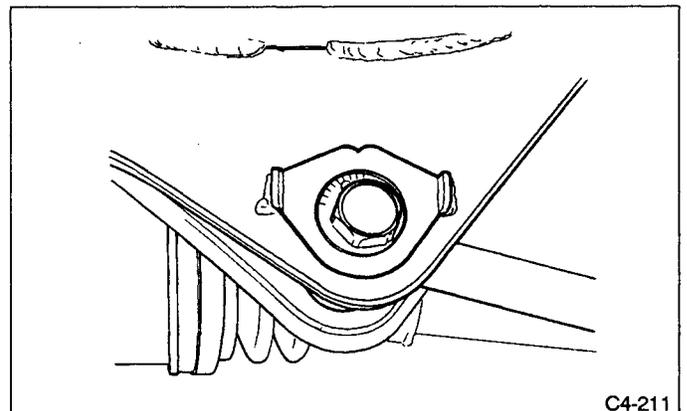


Fig. 72

10) Remove lateral link from sub frame.

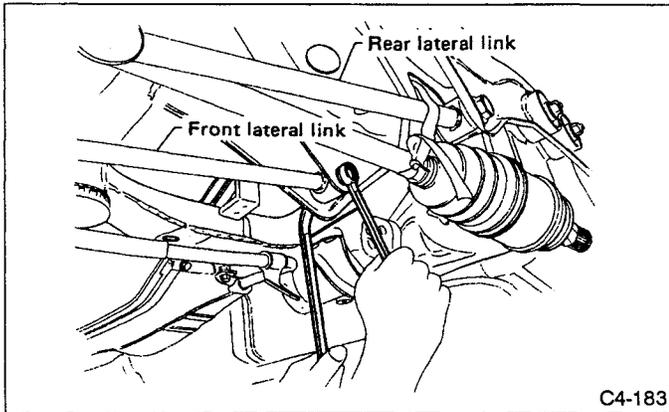


Fig. 73

11) To install, reverse above removal procedures. Replace self-locking nuts with new ones.

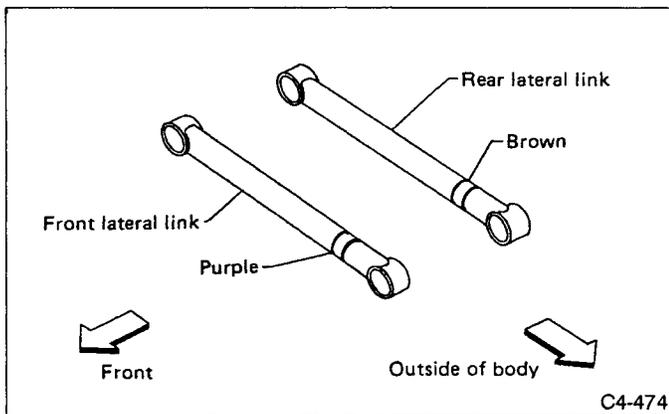


Fig. 74

- a. When tightening bushing, make sure vehicle weight is on suspension.
- b. Align alignment mark when installing adjustment bolt.

**B: INSPECTION**

Check bushing for cracks, fatigue or damage. Check lateral links for damage or bends.

**C: DISASSEMBLY**

1) Using an INSTALLER & REMOVER, press bushing C and bushing E out of place.

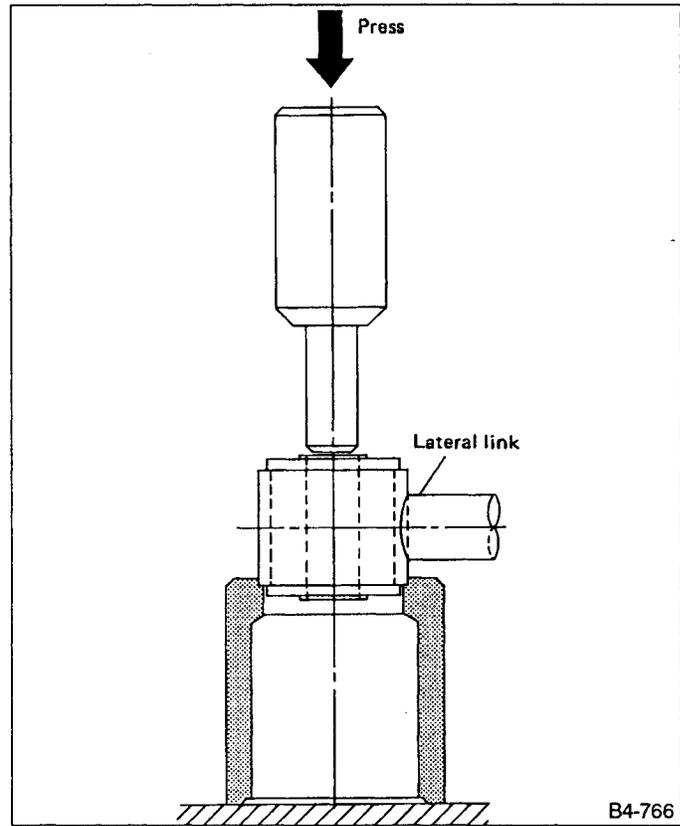


Fig. 75

2) Using an INSTALLER & REMOVER, press pillow ball bushing out of place.

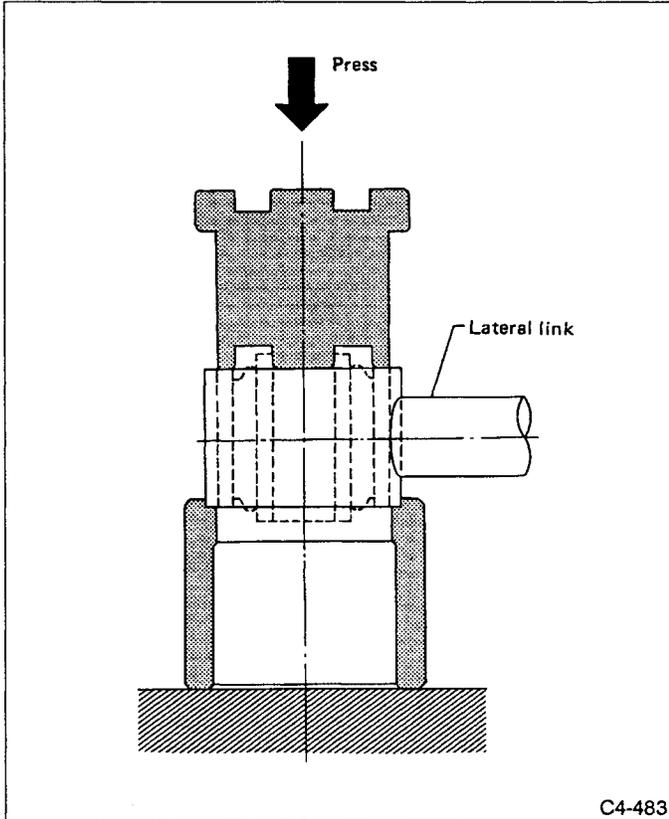


Fig. 76

- a. Using the following figure as a guide, verify the type of bushings.
- b. Select **INSTALLER & REMOVER** according to the type of bushings used.

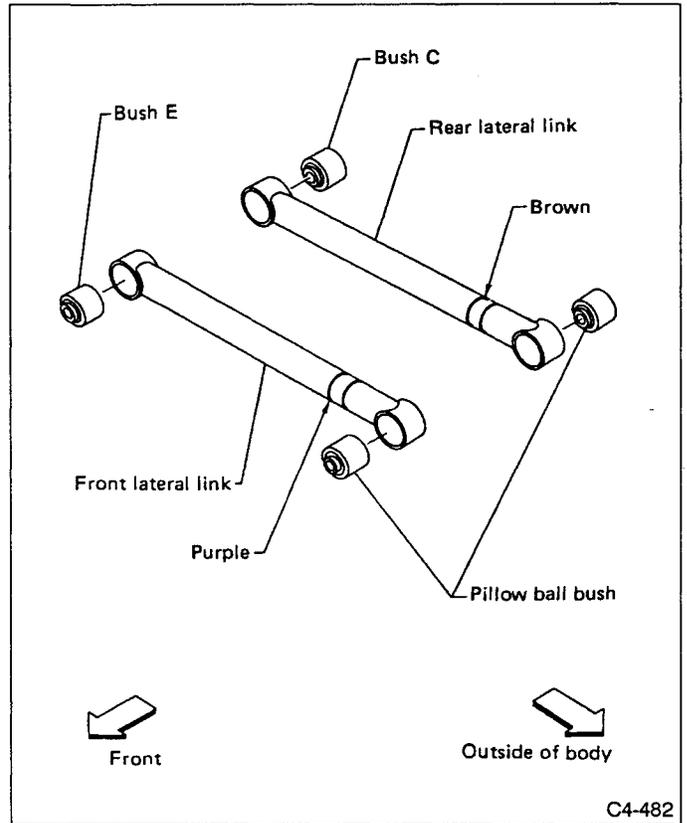


Fig. 77

Bushing	INSTALLER & REMOVER SET
Bushing C	927700000
Bushing E	927690000
Pillow ball bushing	20099PA010

**D: ASSEMBLY**

1) Using an INSTALLER & REMOVER, press bushing C and bushing E into place.

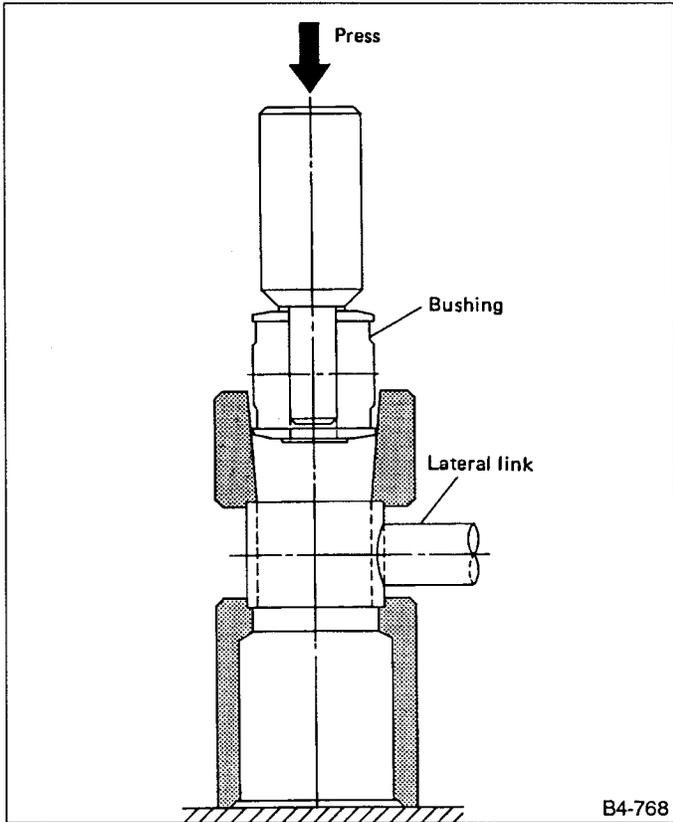


Fig. 78

2) Using an INSTALLER & REMOVER, press pillow ball bushing into place.

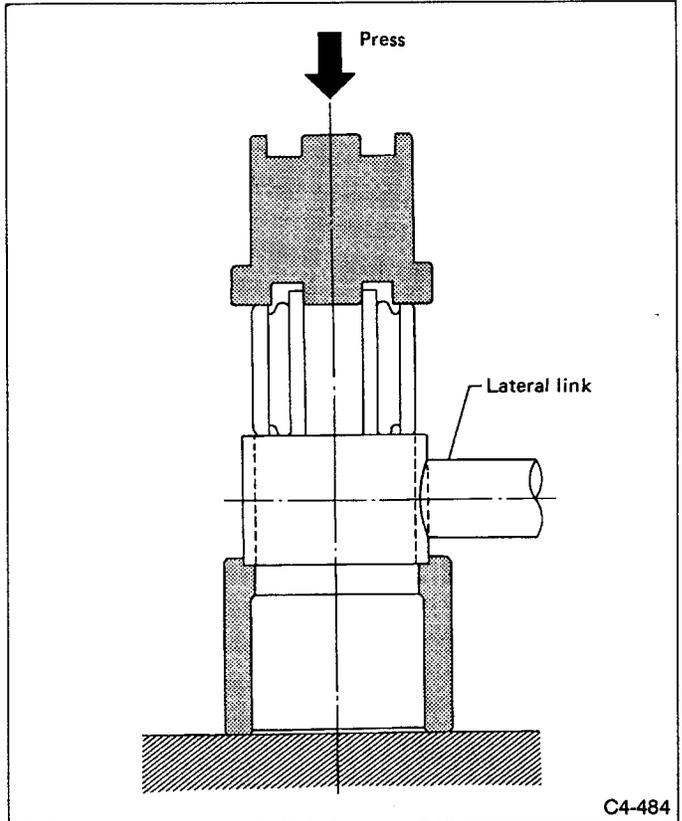
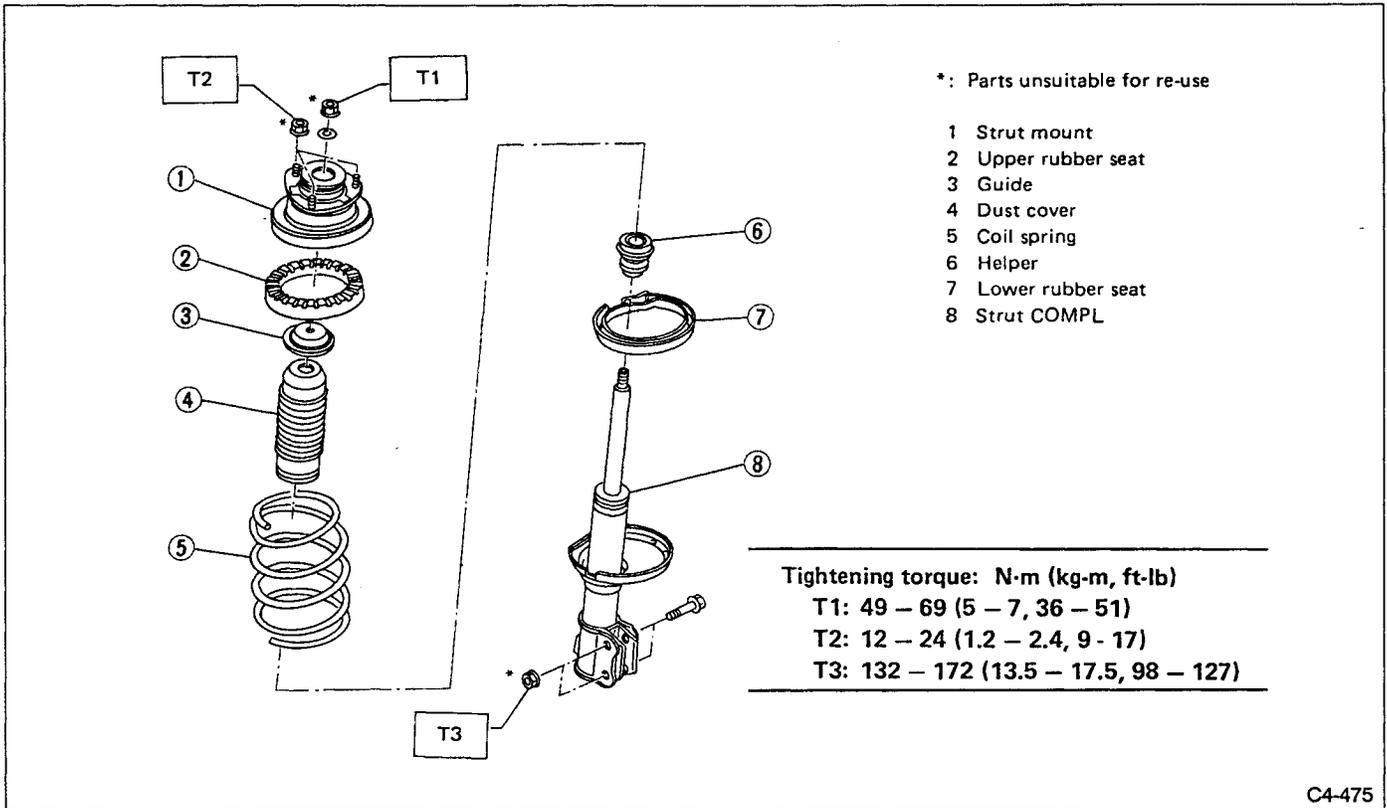


Fig. 79

a. Discard old bushing and replace with a new one.

# 9. Rear Strut

## A: REMOVAL AND INSTALLATION



C4-475

Fig. 80

- 1) Lift up vehicle and remove rear wheels.
- 2) Disconnect battery ground cable.
- 3) Remove rear quarter trim.
- 4) Separate brake hose from strut.

- 5) Remove strut-to-housing securing nuts. **Leave one bolt connected.**

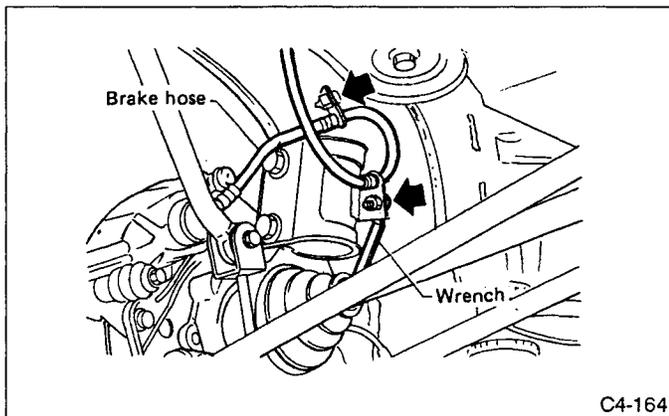


Fig. 81

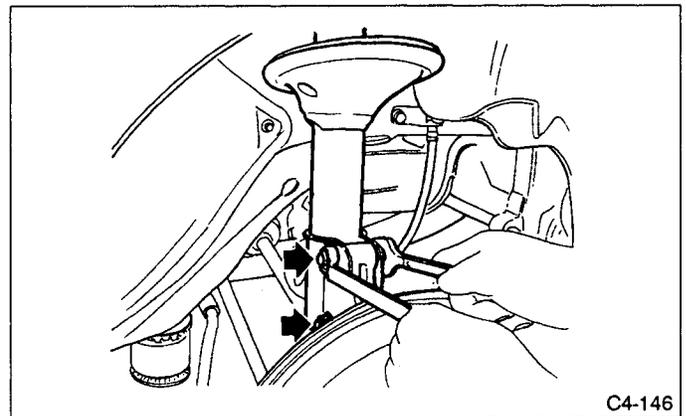


Fig. 82

6) Support housing assembly using a garage jack.

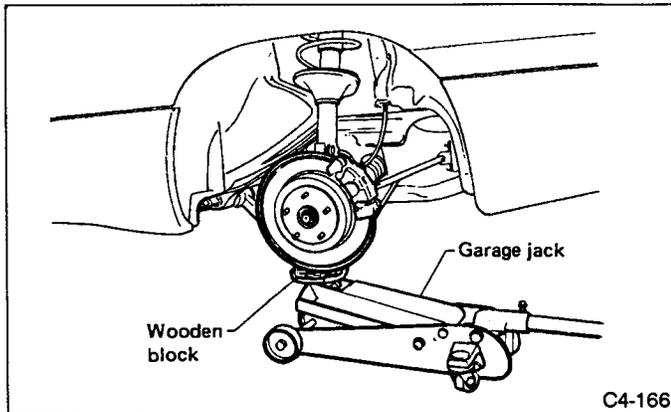


Fig. 83

7) Remove strut mount from body.

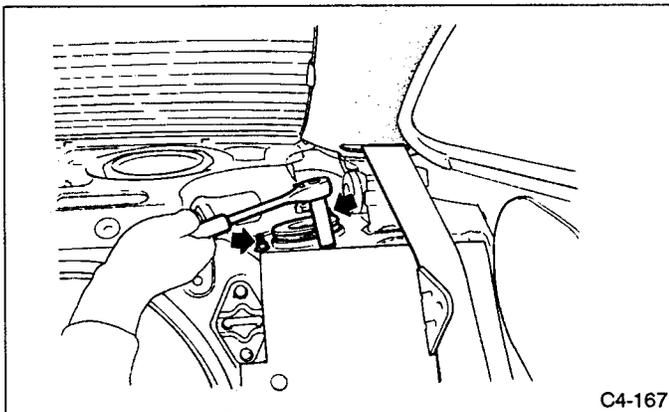


Fig. 84

8) Remove the bolt that was left connected from housing, and remove strut.

9) Installation is in the reverse order of removal.

### B: DISASSEMBLY

For disassembly of rear strut ASSY, refer to procedures outlined under front strut ASSY as a guide.

### C: INSPECTION

Refer to Front Strut ASSY as a guide for inspection procedures.

### D: ASSEMBLY

Refer to Front Strut ASSY as a guide for assembly procedures.

a. Install rear strut assembly with notch outside of vehicle body.

b. Right side of strut ASSY has white paint mark and left side yellow mark.

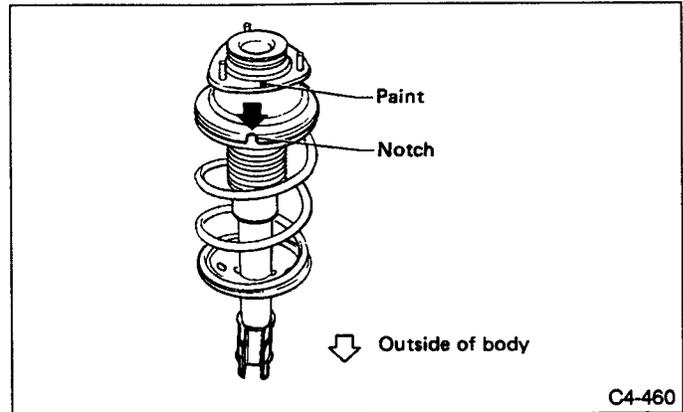


Fig. 85

Do not allow washer or strut mount to ride over graded section of piston rod during installation.

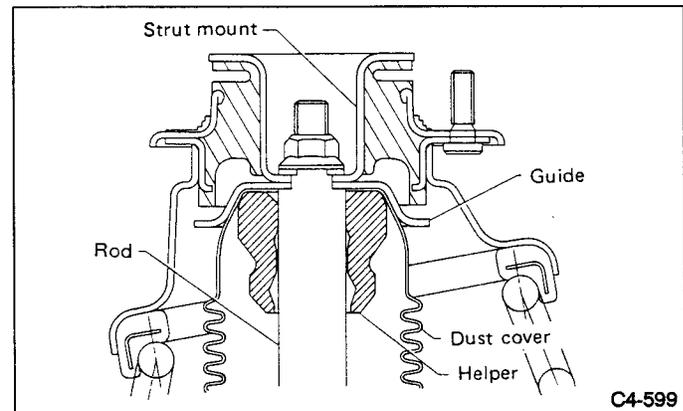


Fig. 86

# 10. Rear Stabilizer

## A: REMOVAL AND INSTALLATION

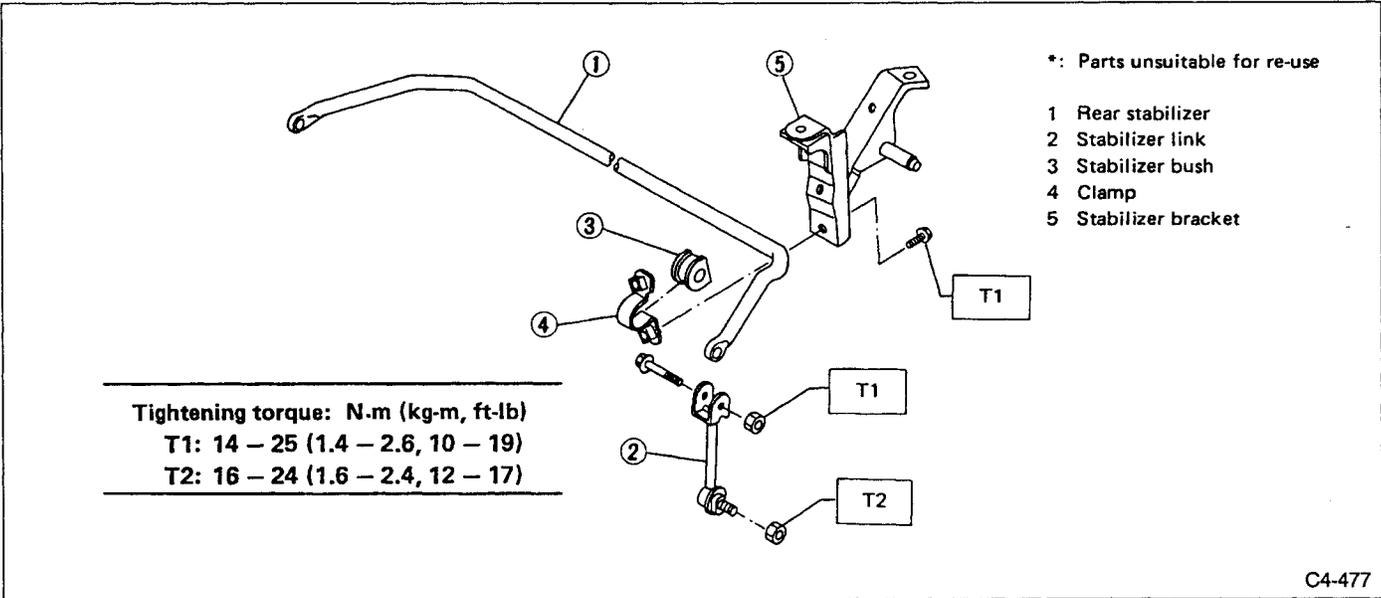


Fig. 87

- 1) Lift up vehicle.
- 2) Remove stabilizer link.

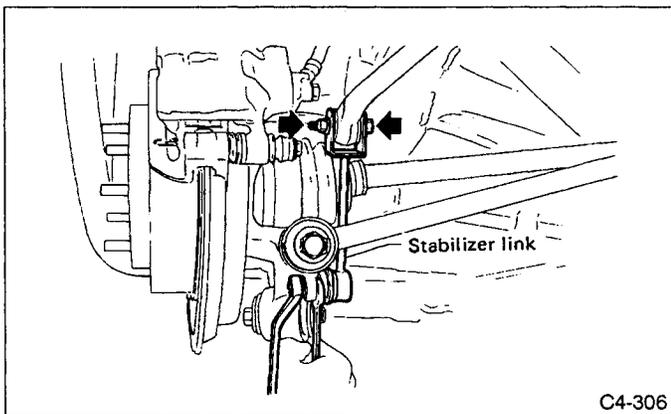


Fig. 88

- 3) Remove stabilizer clamps.

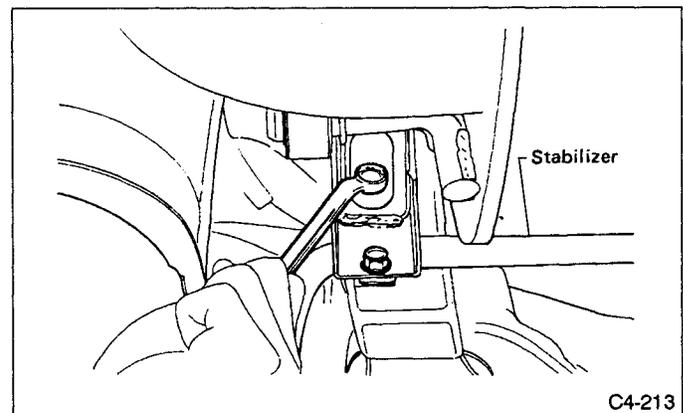


Fig. 89

- 4) Install in reverse order of removal.
- a. Do not confuse left and right stabilizers during installation.
  - b. Right stabilizer has one more bend section than left stabilizer.

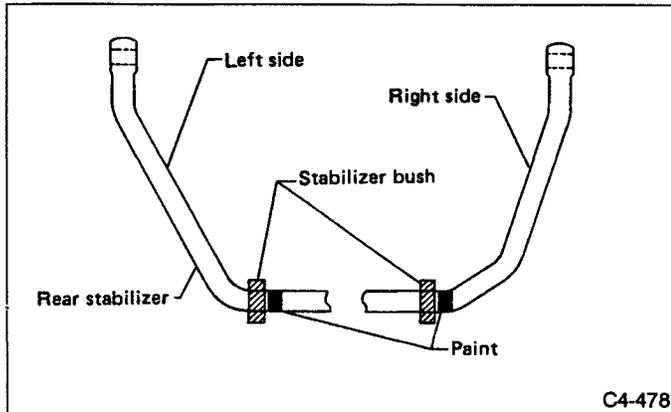


Fig. 90

- c. Do not confuse upper and lower sides of clamp during installation.

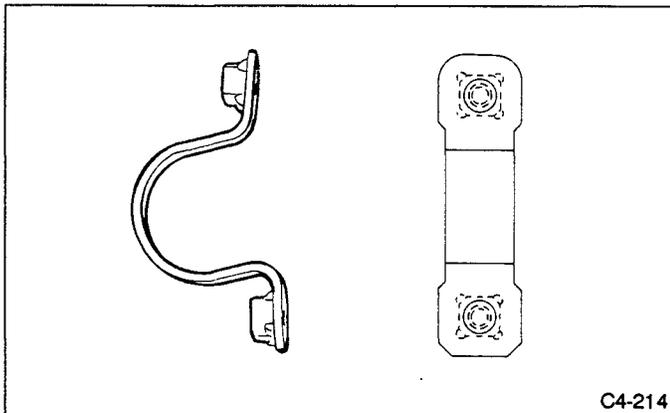


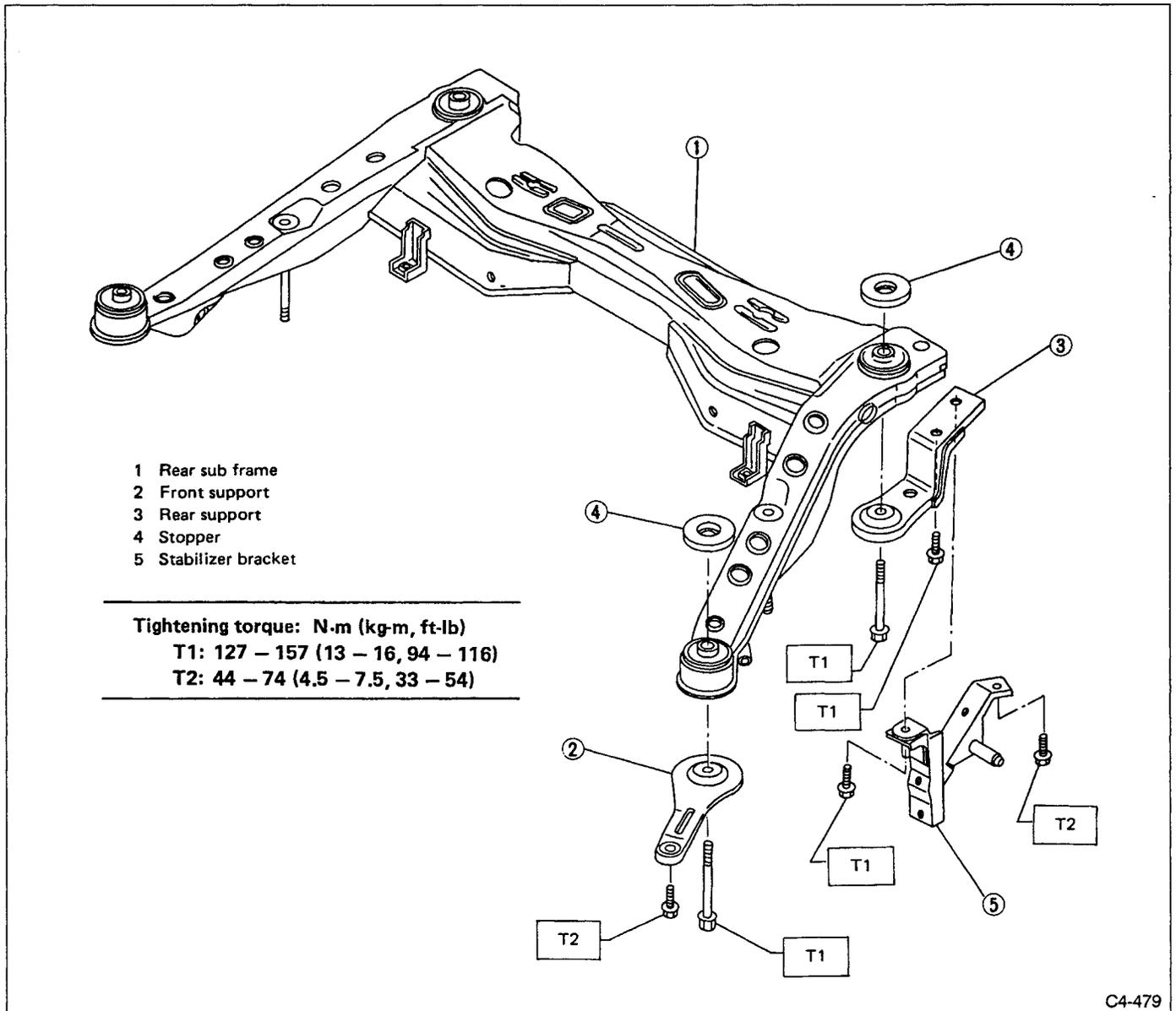
Fig. 91

### B: INSPECTION

- 1) Check bushing for cracks, fatigue or damage.
- 2) Check stabilizer and link for damage, or bends.

# 11. Rear Sub Frame

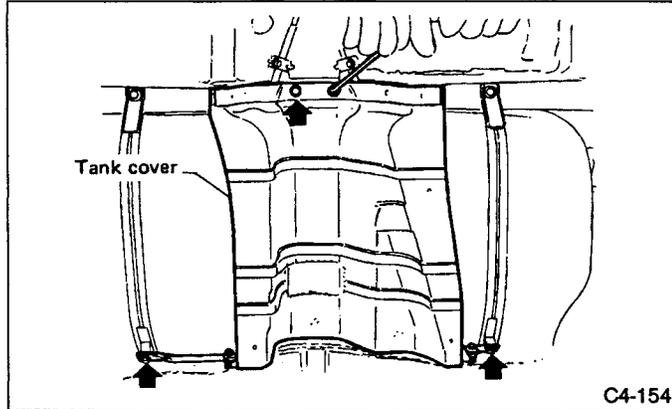
## A: REMOVAL AND INSTALLATION



C4-479

Fig. 92

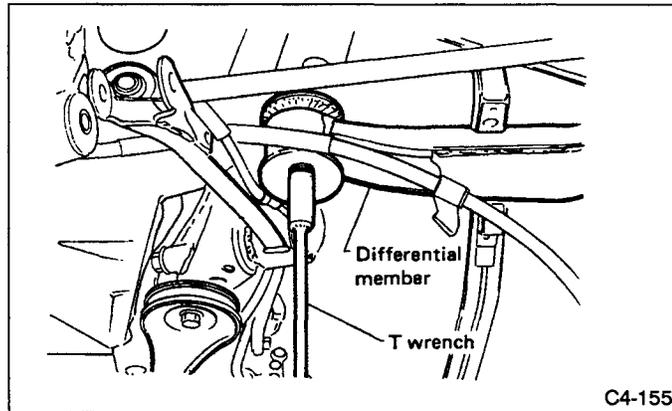
- 1) Lift up vehicle and remove rear wheels.
- 2) Set shift lever to "N" range.
- 3) Release parking brakes.
- 4) Remove rear exhaust pipe and muffler.
- 5) Remove rear differential. (refer to 3-4 [W2A0].)
- 6) Remove tank cover.



C4-154

Fig. 93

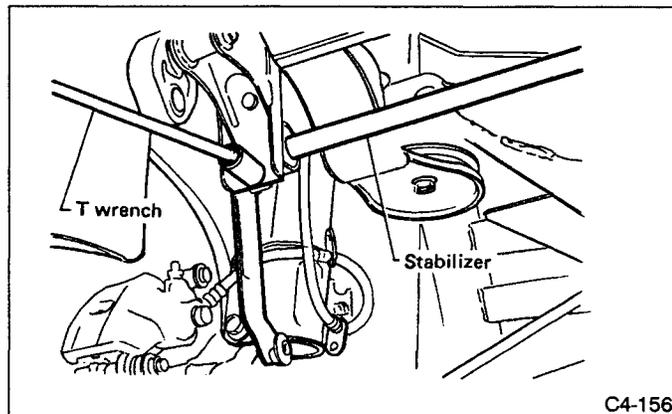
- 7) Remove differential member.



C4-155

Fig. 94

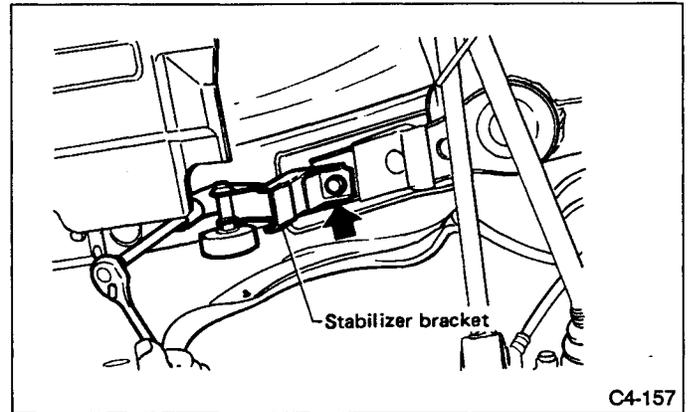
- 8) Remove stabilizers.



C4-156

Fig. 95

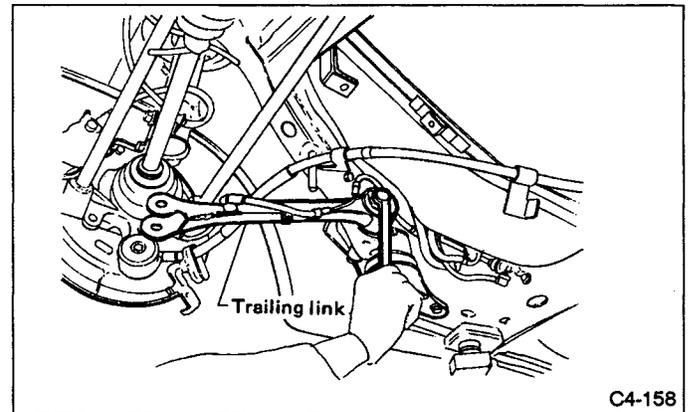
- 9) Remove stabilizer brackets.



C4-157

Fig. 96

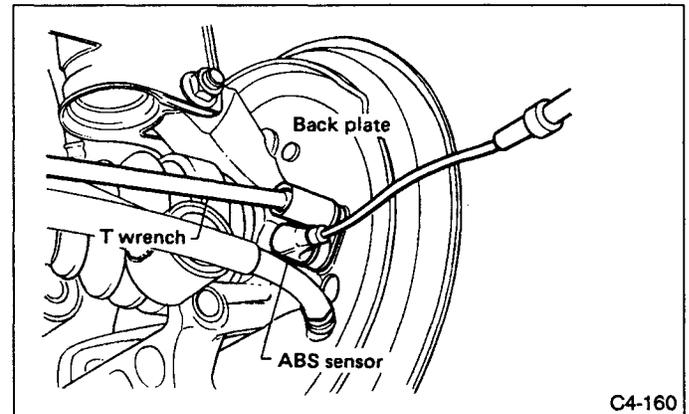
- 10) Remove trailing links.



C4-158

Fig. 97

- 11) Remove ABS sensor from back plate.



C4-160

Fig. 98

12) Remove ABS sensor harness from sub frame.

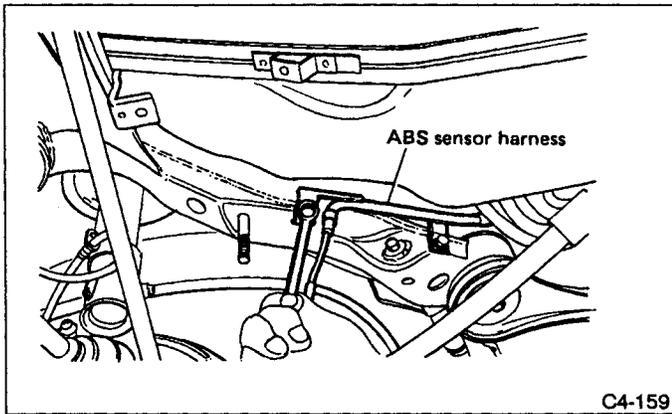


Fig. 99

13) Place transmission jack under sub frame.

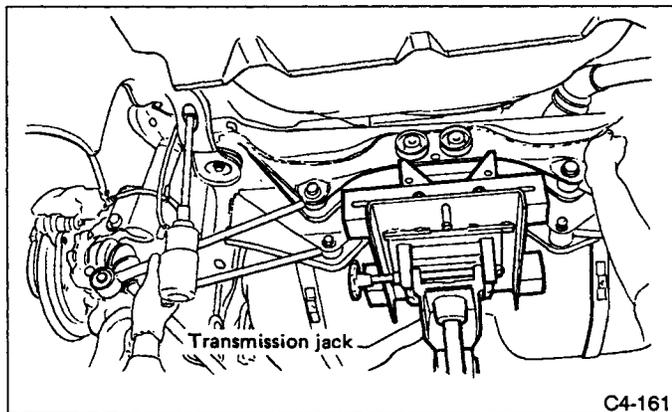


Fig. 100

14) Remove sub frame bracket.  
Get help to remove sub frame bracket.

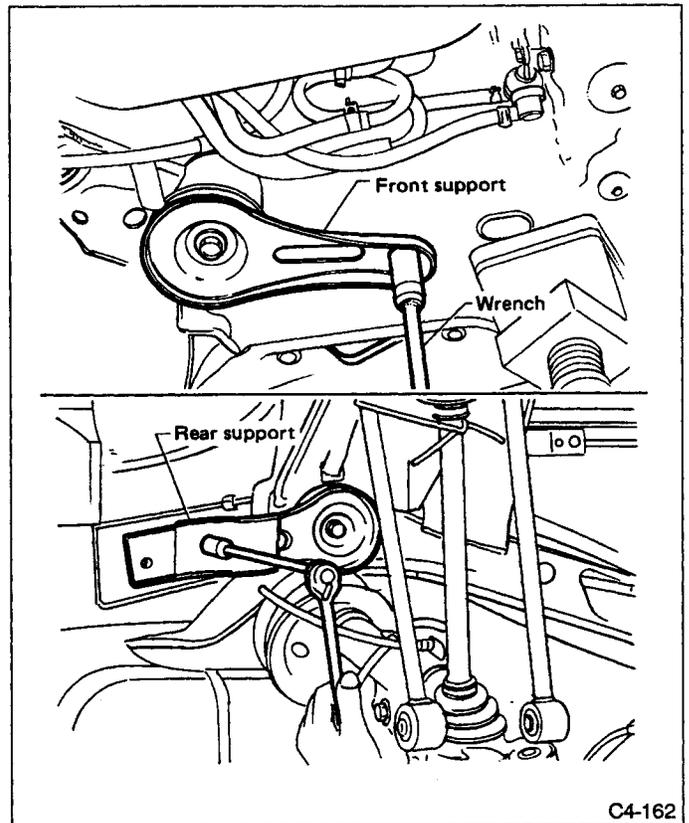


Fig. 101

15) Remove sub frame.  
**Be careful not to damage ABS harness and parking brake wire.**

16) Place alignment mark on adjustment bolt and sub frame.

17) Remove lateral links.

a. For installation and tightening torque of rear differential, refer to 3-4 [W2A0].

b. For installation and tightening torque of brake parts, refer to 4-4 [W2A1].

c. When tightening trailing and lateral links, make sure vehicle weight is on suspension.

d. When replacing rear subframe with new one, cut hanger using saw and apply Knock Thrust Paint (7703) to prevent rust formation.

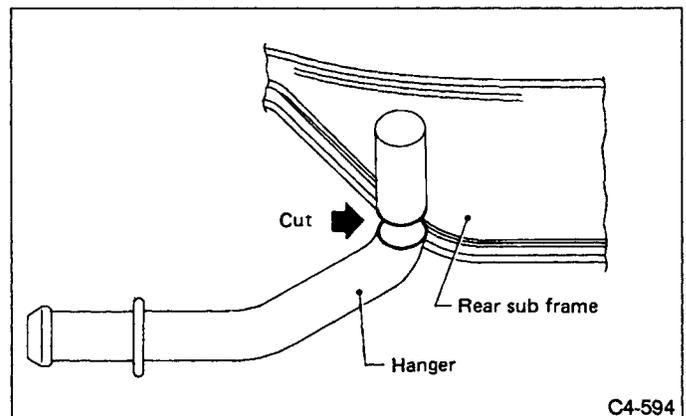


Fig. 102

# T TROUBLESHOOTING

## 1. IMPROPER VEHICLE POSTURE OR IMPROPER WHEEL ARCH HEIGHT

Possible causes	Countermeasures
(1) Permanent distortion or breakage of coil spring	Replace.
(2) Unsmooth operation of damper strut	Replace.
(3) Installation of wrong lower arm	Replace with proper parts.
(4) Deformation of lower arm	Replace.

## 2. POOR RIDE COMFORT

- 1) Large rebound shock.
- 2) Rocking of vehicle continues too long after running over bump and/or hump.
- 3) Large shock in bumping.

Possible causes	Countermeasures
(1) Breakage of coil spring	Replace.
(2) Overinflation pressure of tire	Adjust.
(3) Improper wheel arch height	Replace coil springs with new ones.
(4) Fault in operation of damper strut	Replace.
(5) Damage or deformation of damper strut lower end bushing	Replace.
(6) Unsuitability of maximum and/or minimum length of damper strut	Replace with proper parts.
(7) Deformation or loss of bushing	Replace.
(8) Deformation or damage of helper	Replace.

## 3. NOISE

Possible causes	Countermeasures
(1) Wear or damage of damper strut component parts	Replace.
(2) Damage or deformation of damper strut lower end bushing	Replace.
(3) Loosening of lower arm installing bolt	Retighten to the specified torque.
(4) Deformation or loss of bushing	Replace.
(5) Loosening of lateral link installing bolt to sub frame bracket	Retighten to the specified torque.
(6) Unsuitability of maximum and/or minimum length of damper strut	Replace with proper parts.
(7) Breakage of coil spring	Replace.
(8) Loosening of each bolt and/or nut	Retighten to the specified torque.