SERVICE MANUAL

DATSUN PICK-UP

MODEL 521 SERIES

CHASSIS AND BODY

NISSAN

NISSAN MOTOR CO., LTD.
TOKYO, JAPAN

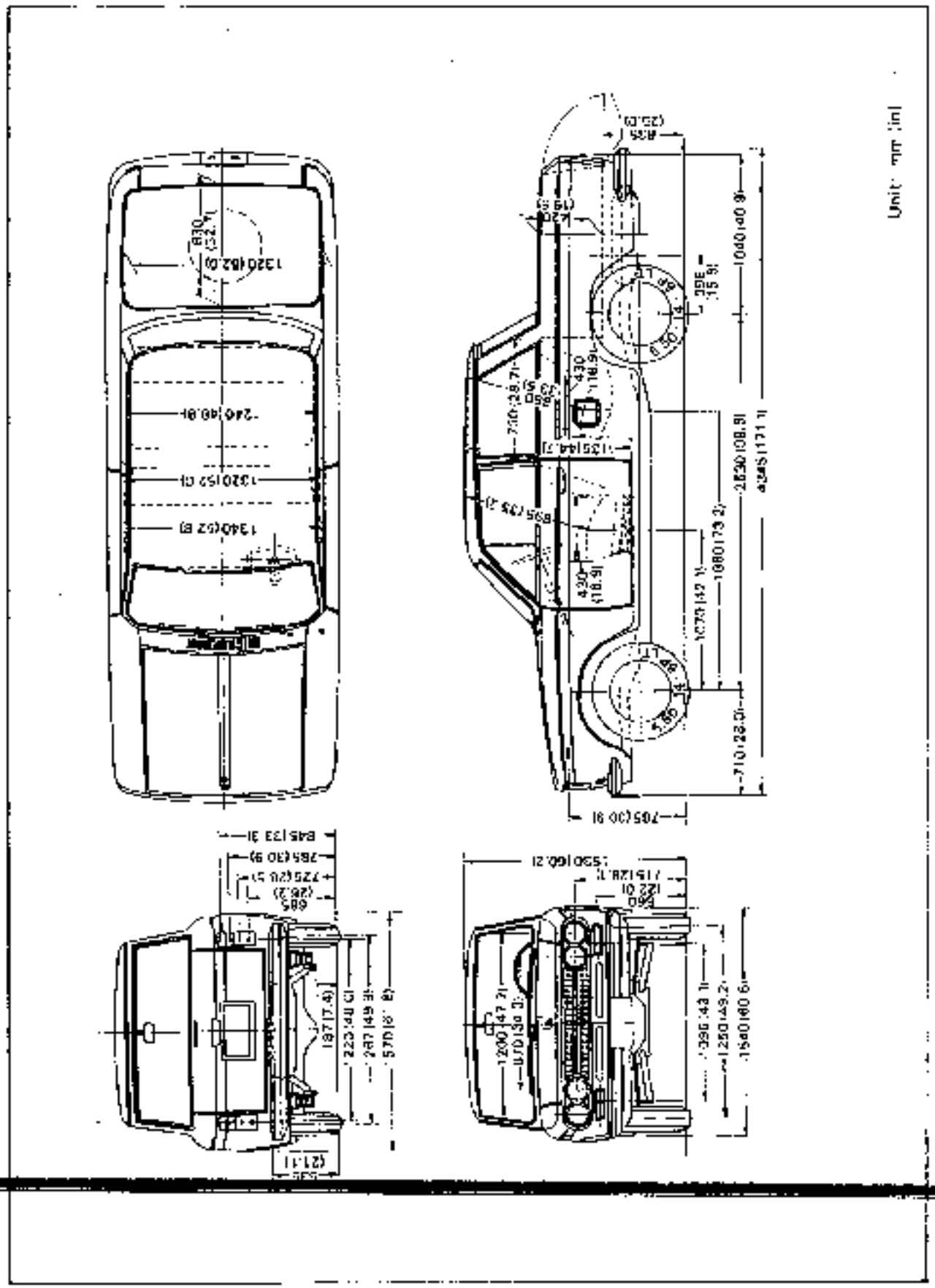


Fig. CI-10 Double pick-up

For PL521TU & PL521TN

ENGINE SERVICE POINTS Number of months or thousands of miles, whichever comes first	MAINTENANCE INTERVAL											
	0.6	3	6	9 33	12 36	15 39	18 42 54	21 45	24 48	27 51 57	30	60
Replace carburetor air cleaner element									X			
Check or replace spark plugs		X	X	X	R	X	X	X	R	X	X	R
Check or replace distributor breaker points		X	X	X	R	X	X	X	R	X	X	R
Replace oil filter		X	X		X		X		X		X	X
Replace cartridge type fuel strainer									X			
Retighten cylinder head bolts and manifold nuts	X											
Adjust valve clearance	X		X		X		X		X		X	X
Check and adjust ignition timing	X	X	X	X	X	X	X	X	X	X	X	X
Check high tension cables					X				X			X
Check fan belt tension	X		X		X		X		X		X	X
Adjust engine idling	X	X	X	X	X	X	X	X	X	X	X	X
Engine tune-up					X				X			X
Check fuel line (hoses, pipings, connections, etc.) for leaks	X	X	X	X	X	X	X	X	X	X	X	X
Check engine for oil and water leaks	X		X		X		X		X		X	X
Check battery specific gravity	X				X				X			X
Check air pump belt tension	X	X	X	X	X	X	X	X	X	X	X	X
Check hoses & piping connections for (use I.A.I.S. & P.C.V.)					X				X			X
Check air pump for operation					X				X			X
Check emission control valves for operation					X				X			X
Check for operation of electrical switches of emission control system					X				X			X

R, Replacement

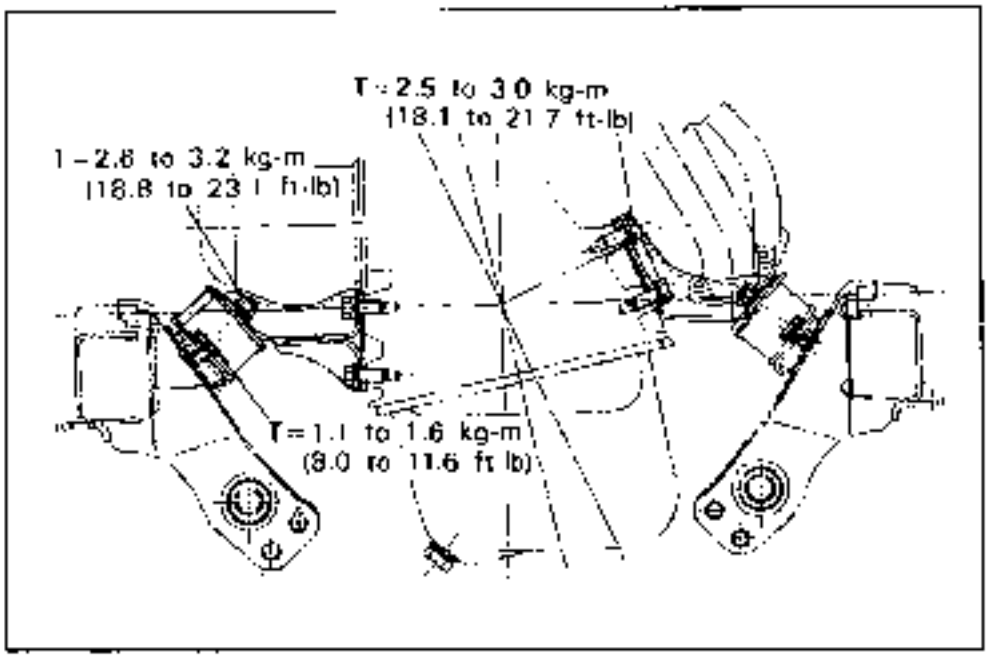


Fig. ER-6 Sectional view of front engine mounting (for the L16 engine)

REAR ENGINE MOUNTING

One type of rear engine mounting is used for engine with long extension. For engines with short extension, two types of rear engine mounting (for the J series engines and L series engines) are used.

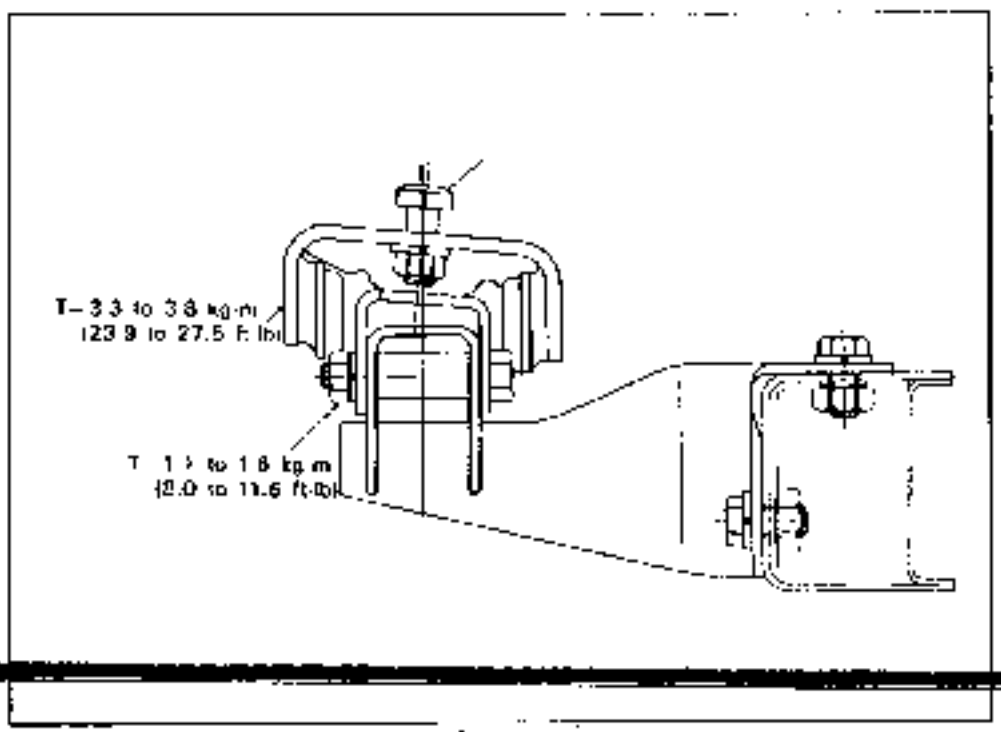


Fig. ER-7 Sectional view of rear engine mounting (for the CN521 model)

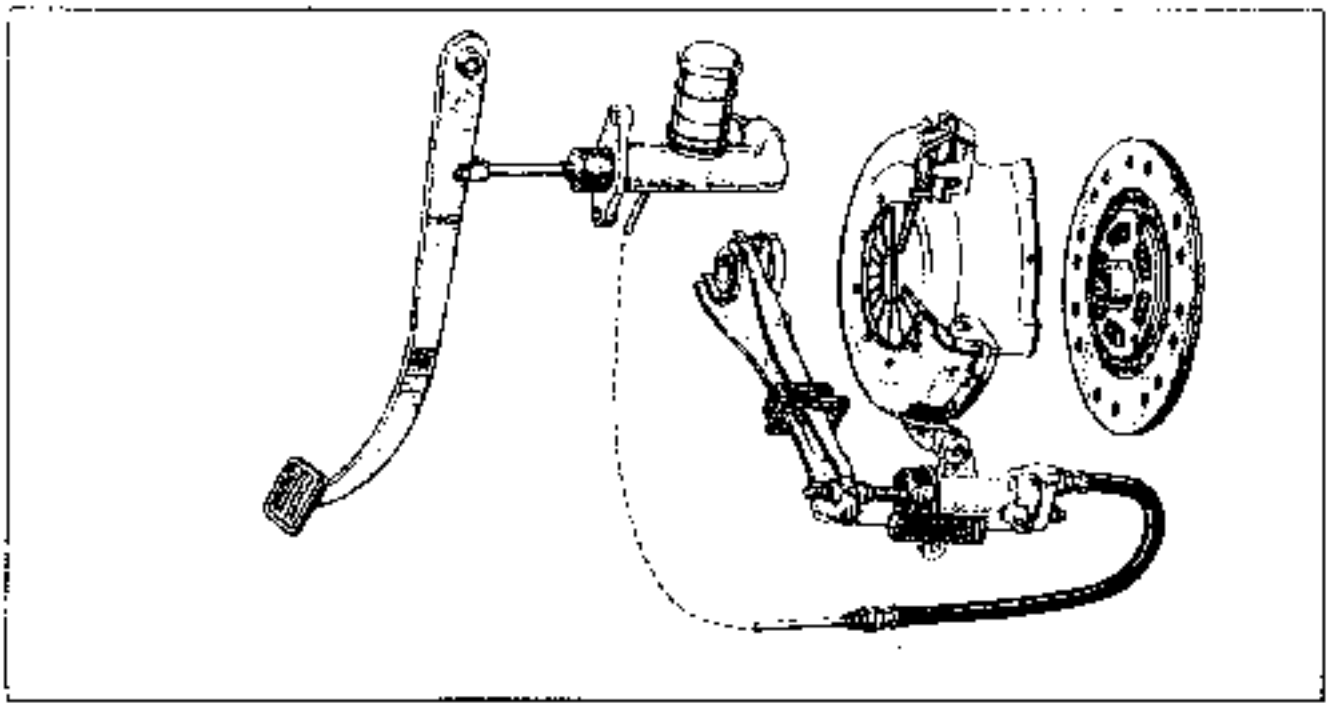


Fig. CL-16 Clutch control

CLUTCH PEDAL

Removal

1. Remove return spring.

2. Loosen lock nut of master cylinder push rod and disconnect push rod end.

3. Remove lock nut and washer of pedal shaft and remove pedal lever.

Inspection

Thoroughly clean all disassembled parts (indicated below) and carefully check them for wear, damage and other abnormal condations. Repair or replace them with new ones, if required.

1. Pedal head rubber
2. Return spring
3. Pedal lever bush
4. Fulcrum pedal pin, etc.

Reinstallation

Reinstall clutch pedal in reverse sequence of removal.

Adjustment

1. Adjust pedal pad height to *138.5 mm [(5.45 in) for R.H. drive] without stopper. The adjustment is made by selecting and applying shim(s) having adequate thickness.

Be sure to use shims having same thickness for both upper and lower.

* 153 mm [(6.02 in) for L.H. drive]

2. Next, adjust pedal stopper properly so that the pedal pad height is *135.5 mm [(5.33 in) for R.H. drive], and secure the position with lock nut.

* 150 mm [(5.91 in) for L.H. drive]

Note: a. Make sure that chassis grease has been applied to the [MG] marked portions [two places]. Grease if required.

b. When adjust the pedal height by pedal stopper, Do not screw in it more than 3 mm (0.1181 in), because it may clog the return port of master cylinder.

Gear and shaft

1. Check gear for wear, damage and/or crack, and replace as required.

2. Check shaft for crack, wear, and worn spline. Replace if required.

3. Check main shaft for straightness.

Replace main shaft with a new one if run-out at rear end exceeds maximum limit.

Maximum run-out: 0.15 mm (0.0059 in)

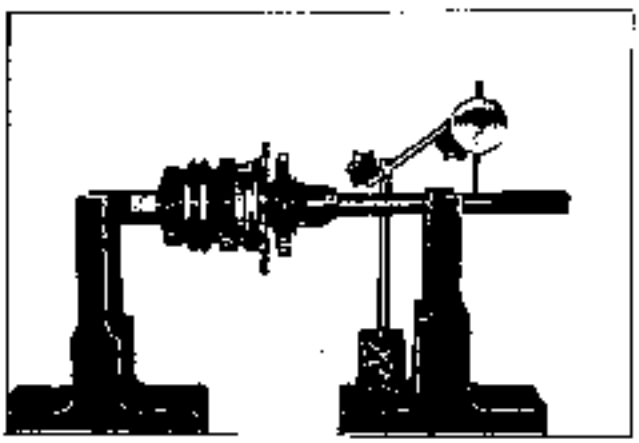


Fig. TM-23 Checking main shaft for straightness

4. Measure backlash of each gear. When gear is worn excessively beyond limit, recommend both drive and driven gears are replaced as a set.

Standard (all gears):	0.05 to 0.10 mm
	(0.0020 to 0.0039 in)
Wear limit (all gears):	0.20 mm (0.0079 in)

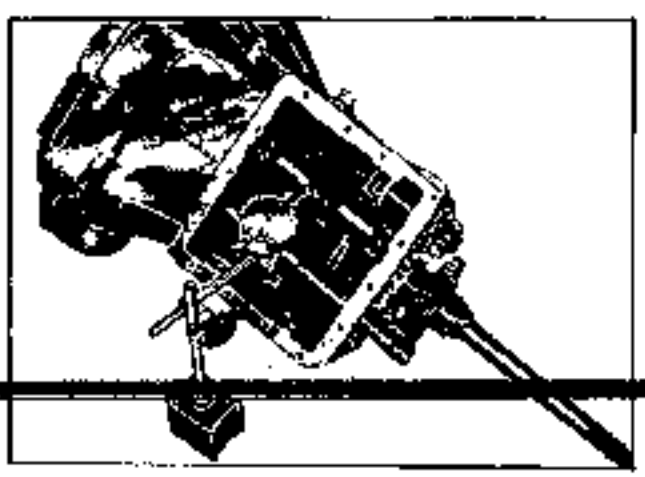


Fig. TM-24 Measuring gear backlash

5. End plays of 1st, 2nd, and 3rd gears should be in range from 0.05 to 0.15 mm (0.0020 to 0.0059 in). When the end play is deviated from this range, select proper snap ring again.

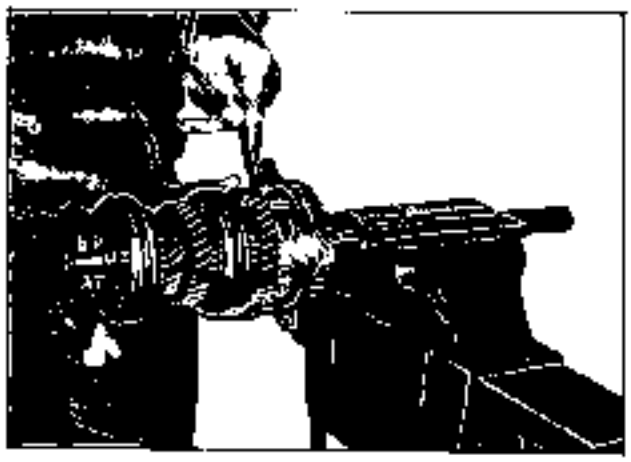


Fig. TM-25 Measuring gear end play

Balk ring

1. Check balk rings for wear, pitting, chip and/or bur. Replace as required.

2. Place balk ring in position on cone of each gear. Push ring to gear and check gap between balk ring end face and clutch tooth front face. This gap should be within 1.2 to 1.6 mm (0.047 to 0.063 in). When gap is less than 0.8 mm (0.031 in), replace balk ring with a new one. It is worn excessively.

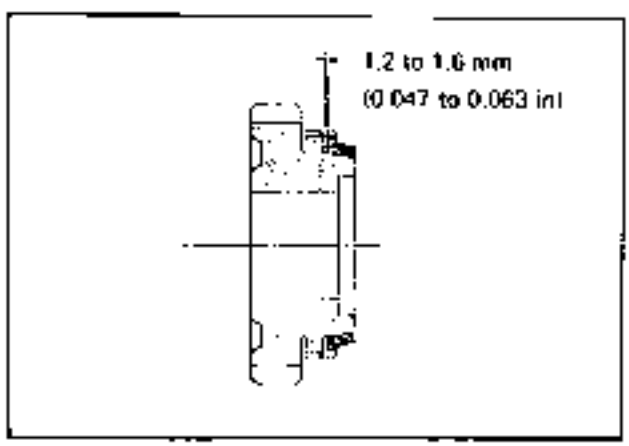


Fig. TM-26 Balk ring-to-cone installing dimension

Shifting insert

Replace, if worn excessively or unevenly, deformed, or damaged.

SERVICE DATA AND SPECIFICATIONS

CONTENTS

General specifications

Type	F4W63			R4W63			R4W63		
Control system	Floor shift			Column shift			Column shift		
Synchromesh type	Warner			Warner			Warner		
Gear ratio									
1st	3.657			4.243			5.000		
2nd	2.177			2.558			3.014		
3rd	1.419			1.587			1.685		
4th	1.000			1.000			1.000		
Rev.	3.638			4.367			5.146		
Speedometer gear ratio	19/5	18/5	17/5	18/5		17/5	19/5		18/5
Final gear ratio	4.875	4.625	4.375	4.625		4.375	4.875		4.625
*Extension housing		short		long	short	long	long	short	long
Oil capacity		1.7 ℓ		2.0 ℓ	1.7 ℓ	2.0 ℓ	2.0 ℓ	1.7 ℓ	2.0 ℓ

Note: a) *: See page TM-2 "Extension housing".

b) 1.7 ℓ (3.6 US pts, 3.0 Imp pts)
2.0 ℓ (4.2 US pts, 3.5 Imp pts)

Specifications

Item \ Model		F4W63, R4W63
Each gear backlash (For all gears)		
Standard backlash	mm (in)	0.05 to 0.10 (0.0020 to 0.0039)
Replacement standard	mm (in)	0.20 (0.0079)

4. When snap ring (1) is damaged or deformed, replace.

5. When bearing oil seal, ring (2) and/or needle roller (3) is damaged or worn, replace.

6. When sleeve yoke and main shaft splined portions are damaged or worn, replace sleeve yoke and main shaft.

7. When propeller shaft tube surface is dented or cracked, replace.

8. When center bearing is worn or damaged, replace.

ASSEMBLY

Assemble propeller shaft in reverse sequence to disassembly.

Grease is sealed in joint so that no greasing is required. Fill joint with wheel bearing grease whenever propeller shaft is overhauled.

Snap ring functions also as a shim to adjust gap. Select a proper snap ring so that slackness is 0 to 0.02 mm (0 to 0.0008 in). Moreover, when a snap ring is selected, be sure to select another snap ring having the same thickness for opposite side. Install and assemble components correctly so that joint moves under bending friction resistance of less than 10 kg/cm (56 lb/in).

Tightening torque:

Companion flange (center bearing unit) installation nut (G521 and GN521) . . 10 to 15 kg-m (74 to 111 ft-lb)

Bearing mounting bracket installation bolt (G521 and GN521) . . 2.4 to 2.7 kg-m (18 to 20 ft-lb)

Propeller shaft installation bolt 2.5 to 3.0 kg-m (18.5 to 22 ft-lb)

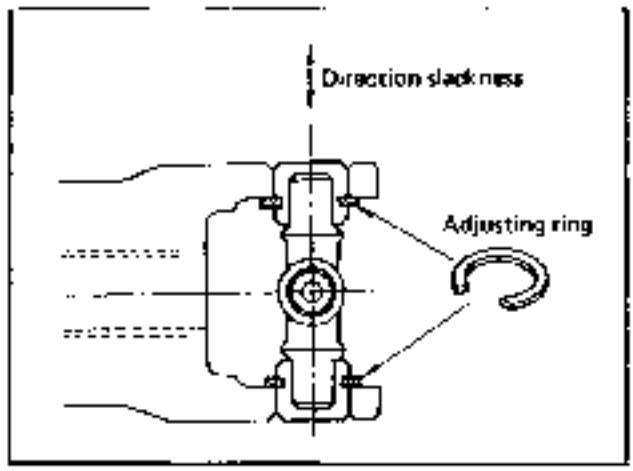


Fig. PD-7 Selection of snap ring

Snap ring over size:

Part number	Thickness mm (in)	Color identification
37146 14600	2.00 (0.0788)	White
37147 14600	2.02 (0.0795)	Yellow
37148 14600	2.04 (0.0803)	Red
37149 14600	2.06 (0.0811)	Green
37150 14600	2.08 (0.0819)	Blue
37151 14600	2.10 (0.0877)	Brown
37152 14600	2.12 (0.0834)	No paint

SERVICE DATA AND SPECIFICATIONS

		Vehicle		
		U.V.N521	521T Floor shift (Except GN521T)	GN521
Distance between joints	mm (in)	1,233 (48.5)	1st 615 (24.2) 2nd 743 (29.3)	1st 615 (24.2) 2nd 983 (38.7)
Tube outer diameter x thickness	mm (in)	69.9 x 1.6	63.5 x 1.6	63.5 x 1.6
Spline model		Involute spline	Involute spline	Involute spline
Permissible unbalance	gr-cm/rpm	15/4,000	15/4,000	15/4,000

c. Correct contact

When proper tooth contact is obtained, wipe off red lead from gear face. A correct contact pattern means that it lies in the range of 2/3 to 3/4 from tip of tooth when no load is applied.

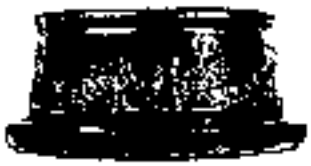
Note: Change in the thickness of adjusting washer or shim is accompanied by change in backlash. Check it when installing gear.

INSTALLATION

Install differential carrier in reverse sequence to removal. Lubricate gears with gear oil upon completion of installation.

SERVICE DATA AND SPECIFICATIONS

Final gear type			Hypoid
Final gear ratio (number of teeth)		521, G521	36/7 : 5.143
		V521	37/8 : 4.625
		N521, GN521	39/8 : 4.875
		VN521, UN521	35/8 : 4.375
		PL521	35/8 : 4.375
Drive pinion			
Preload when using new bearings (without oil seal)	kg-m (ft-lb)		7 to 10 (50.6 to 72.3)
Standard distance between drive gear center and top face of drive pinion	mm (in)		61 (2.402)
Thickness of drive pinion adjusting washers	mm (in)		2.31 to 2.59 (0.0909 to 0.1020) Spacing 0.02 (0.0079)
Length of drive pinion bearing spacer	mm (in)		67.56 to 68.00 (2.6598 to 2.6772)
Drive gear			
Backlash between drive gear and pinion	mm (in)		0.13 to 0.18 (0.0051 to 0.0071)
Runout of rear side of drive gear	mm (in)		Less than 0.05 (0.0020)
Side gear and pinion mate			
Thickness of side gear thrust washers	mm (in)		0.76 to 1.11 (0.0299 to 0.0437)
Clearance between side gear and thrust washer	mm (in)		0.02 to 0.08 (0.0008 to 0.0031)
Side bearing			
Standard width	mm (in)		20.00 (0.7874)
Thickness of side bearing adjusting shims	mm (in)		0.03 (0.0012), 0.07 (0.0028), 0.12 (0.0047), 0.25 (0.0098), 0.50 (0.0197)



Inner race

Roller flaking

Cracked inner race

Cracked roller

Recess on inner race made by bit foreign matter

Recess on outer race made by bit foreign matter

Recess on roller made by bit foreign matter

4. Spindle

Check spindle for crack by means of a magnetic exploration or dyeing test, and replace if cracked.

When bearing inner race slips against spindle, replace spindle with a new one. When thread is damaged, repair or replace.

Standard dimensions

	Outer bearing	Inner bearing
Spindle diameter mm(in)	19.972 to 19.985 (0.7863 to 0.7868)	31.967 to 31.983 (1.2585 to 1.2592)

5. Front hub

Check front hub for crack by means of a magnetic exploration or dyeing test, and replace if cracked.

Standard dimensions

	Outer bearing	Inner bearing
Wheel hub bore mm(in)	51.955 to 51.974 (2.0455 to 2.0462)	64.955 to 64.974 (2.5573 to 2.5580)

6. Thrust bearing

Check thrust bearing, and replace if damaged, rusted,

(3) Make the distance of rubber bushings to be 36.6 mm (1.441 in) by tightening nut on the front end of tension rod.

When rubber bushings are compressed unequally, adjust the position of adjusting nut.

Lock nut tightening torque	1.5 to 2.1 kg-m (10.8 to 15.2 ft-lb)
Bracket bolt tightening torque	1.5 to 2.1 kg-m (10.8 to 15.2 ft-lb)

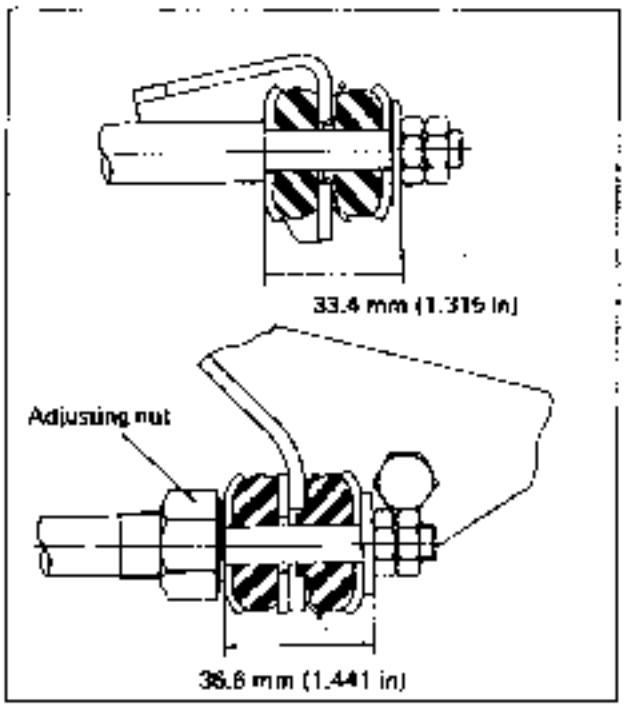


Fig. FA-31 Tension rod installation

6. Shock absorber

Turn nut fully against the threaded upper end of shock absorber, and tighten lock nut with specified tightening torque.

Note: Be sure to position suspension as shown in Figure FA-30.

Upper lock nut tightening torque:	1.5 to 2.1 kg-m (10.8 to 15.2 ft-lb)
Lower bolt tightening torque:	3.6 to 4.3 kg-m (26.0 to 31.1 ft-lb)

7. Stabilizer

Tighten nut to arrange the height between lower link and stabilizer as shown in Figure FA-32.

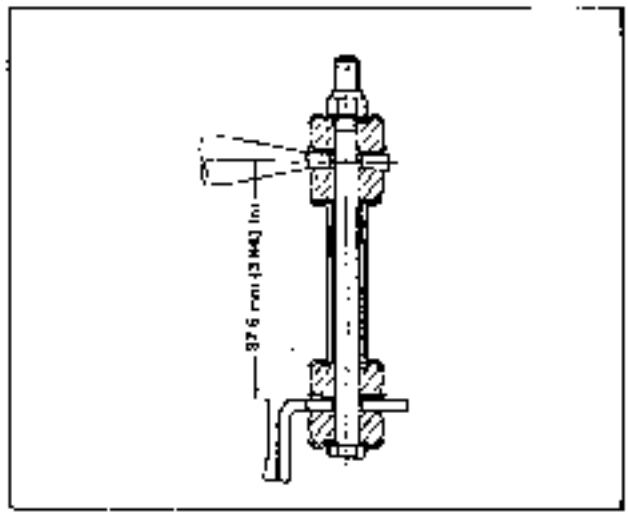


Fig. FA-32 Stabilizer installation

Bracket bolt tightening torque:
1.5 to 2.1 kg-m (10.8 to 15.2 ft-lb)

8. Torsion bar spring

(1) Grease serrations on both ends of torsion bar sufficiently, and install it on torque arm.

Note: Be careful to select left and right torsion bar springs correctly. They can be identified with "R" (Right) and "L" (Left) marked on the end surface.

(2) Position lower link so that no clearance is between lower link and bumper rubber, and install spring anchor on torsion bar to obtain "A" dimension shown in Figure FA-33.

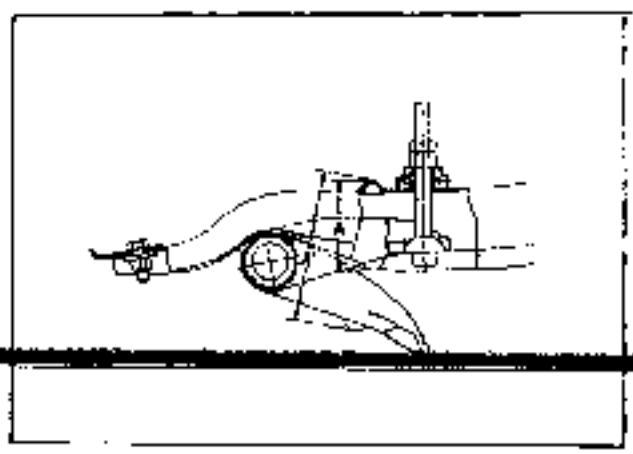


Fig. FA-33 Anchor arm installation

REAR AXLE

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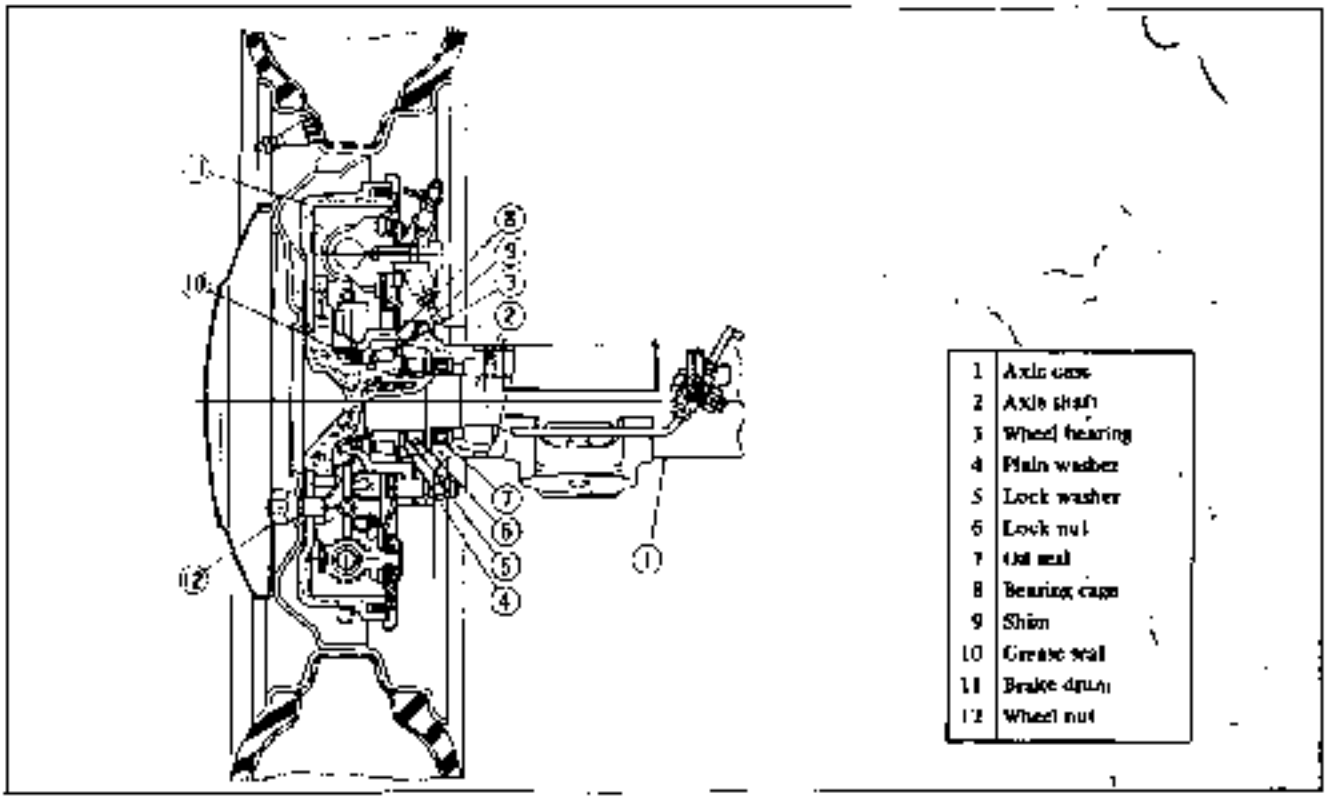


Fig. RA-1 Cross-sectional view of rear axle

DESCRIPTION

The rear axle is of a semi-floating type. The axle housing is a pressed steel "Banjo" type housing. It is light in weight and is sufficiently strong to withstand against any torsional and bending loads.

The rear wheel bearings are tapered-roller bearings. With those bearings, the rear axle supports heavy load and withstands against severe use. The rear axle receives thrust force through thrust block in the differential housing.

REMOVAL

1. Jack up vehicle and support it with stands.
2. Remove road wheel and brake drum.
3. Remove brake shoe and disconnect hand brake wire.

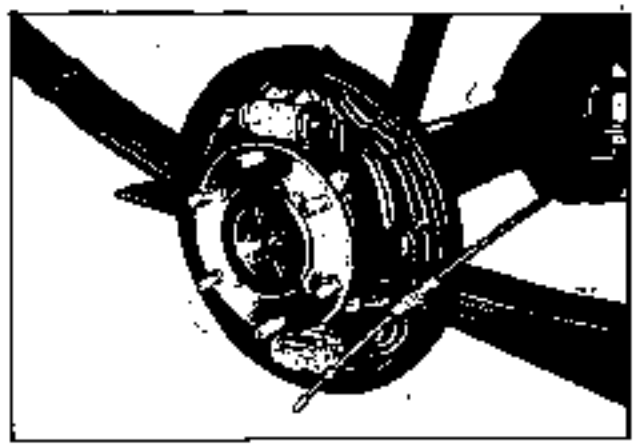


Fig. RA-2 Removing brake

BRAKE

CONTENTS

DESCRIPTION

The Datsun 521 series vehicles adopt a hydraulic brake. The front brake is of a duo servo type, and rear brake is of a duo-servo type. The master cylinder is of a single type. The hand brake is of a mechanical type, which operates the rear wheels.

BRAKE PEDAL

Fig. BR-1 Brake pedal (right hand)

Removal

1. Unhook return spring ①.

2. Remove spring pin and clevis pin ② and separate push rod from pedal arm.

3. Remove fulcrum pin ③ and remove brake pedal arm.

Inspection

1. Check sliding parts for wear and return spring for weakness.

2. Check brake pedal for bending, warping and crack.

3. Check other parts for condition.

Reinstallation

1. Reinstall brake pedal in reverse sequence of removal.

2. Slightly and evenly coat multi-purpose grease (MIL G2108 or G10924) to sliding parts of fulcrum pin and clevis pin and hook portion of return spring.

Wheel cylinder inner diameter
20.64 mm (13/16 in)

Remove dust cover, and pull out piston head and piston assembly. For inspection and reassembly, refer to "Wheel cylinder of front brake."

Reassembly and reinstallation

Reassemble and reinstall rear brake in reverse sequence of disassembly and removal, noting the following matters. Refer to the notes for front brake.

1. Rear adjuster assembly is the same as front. Refer to the paragraph covering front adjuster assembly
Adjuster sliding resistance
5 to 12 kg (11.0 to 26.5 lb)

2. When assembling toggle lever and after brake shoe assembly, adjust clearance between toggle lever and after brake shoe assembly to 0 to 0.3 mm (0 to 0.0116 in) with a properly selected toggle pin washer.

Part No.	Thickness mm (in)
44034 32200	2.0 (0.079)
44034 14800	2.3 (0.091)
44034 14801	2.6 (0.102)
44034 14802	2.9 (0.114)
44034 14803	3.2 (0.126)

3. Before installing brake shoe assemblies, apply brake grease to the following places:

(1) Brake shoe installing grooves of adjuster and wheel cylinder

(2) Extension link installing grooves

(3) Lower surface of spring seat

(4) Contact surfaces between brake disc and brake shoe assembly (Six places)

At this time, be sure not to coat brake grease to the surface of brake shoe.

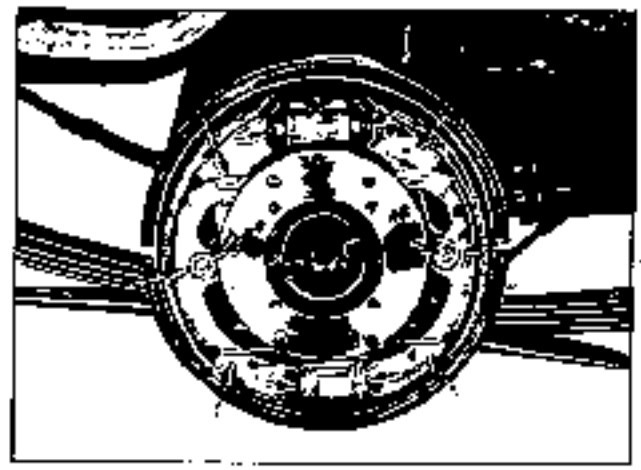


Fig. BR-18 Greasing points on rear brake

4. Tightening torque

Wheel cylinder	1.5 to 1.8 kg-m (10.8 to 13.0 ft-lb)
Connector bolt	1.7 to 2.0 kg-m (12.3 to 14.5 ft-lb)
Brake disc	4.0 to 5.4 kg-m (28.9 to 39.0 ft-lb)

5. Adjust brake shoe clearance and bleed brake system. Upon completion of the above adjustments, make sure that brake operates correctly and no brake fluid leaks.

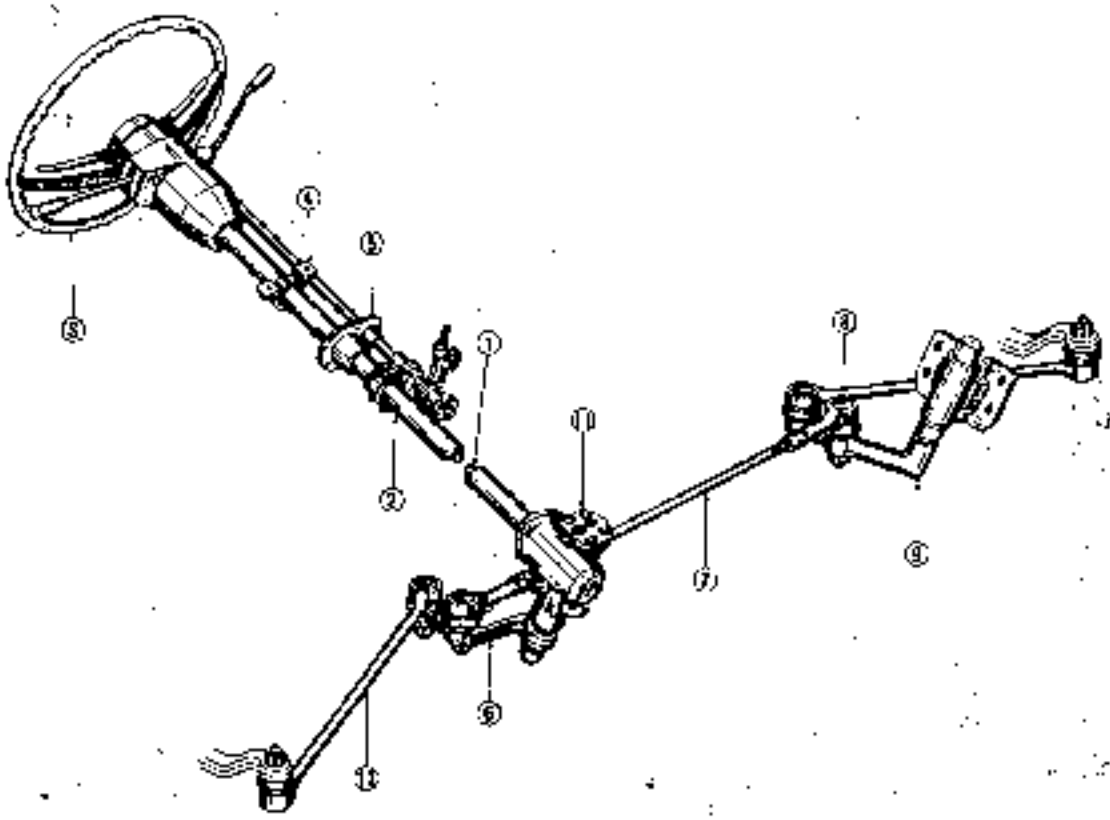
SERVICE JOURNAL OR BULLETIN REFERENCE

DATE	JOURNAL or BULLETIN No.	PAGE No.	SUBJECT

STEERING

CONTENTS

DESCRIPTION



1	Steering column	7	Cross rod
2	Steering column jacket	8	Cross rod socket
3	Steering wheel	9	Idler arm assembly
4	Column clamp	10	Side rod
5	Post grommet	11	Steering gear assembly
6	Steering gear arm		

Fig. ST-1 Structural view of steering mechanism

SERVICE MANUAL

DATSUN PICK-UP
MODEL 521 SERIES
CHASSIS & BODY

NISSAN

NISSAN MOTOR CO., LTD.
TOKYO, JAPAN

SECTION FE

ENGINE CONTROL, FUEL & EXHAUST SYSTEM

FE

Three types of fuel tank; fuel tank for the 521, G521, N521 and GN521; fuel tank for the V521, VN521 and UN521; and fuel tank for the PL521U are available

Tank capacity is 41 liters (10.8 US gal, 9.0 Imp gal) for all fuel tanks.

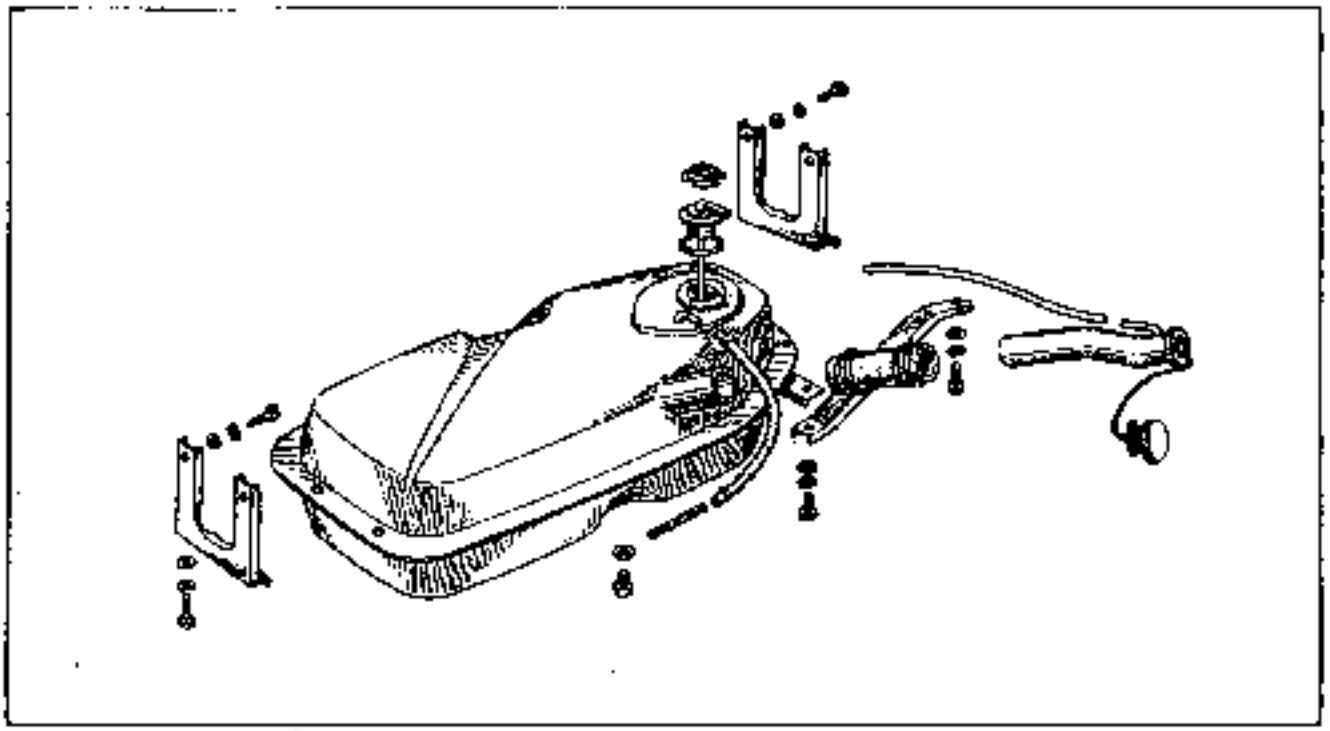


Fig. FE-18 Fuel tank (for VN521, V521 and UN521)

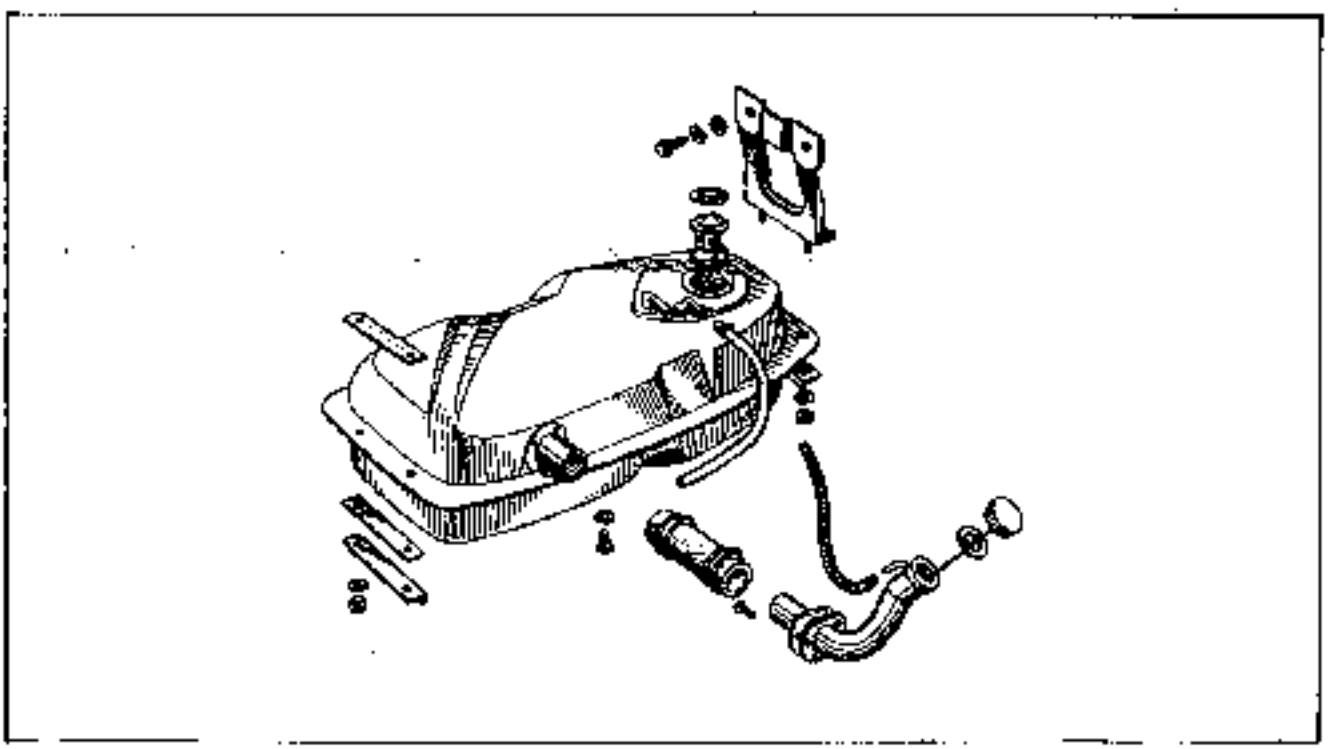


Fig. FE-19 Fuel tank (for 521, G521, GS21 and GN521)

DETACHING CAB BODY

1. Disconnect battery terminal from battery.

2. Disconnect speedometer cable.

3. Remove steering mechanism (steering wheel, steering post assembly, and remote control system.)

Fig. BF-7 Removing steering post clamp bolts

4. Disconnect front brake tube at hose and brake tube joint and rear brake tube at 4-way connector.

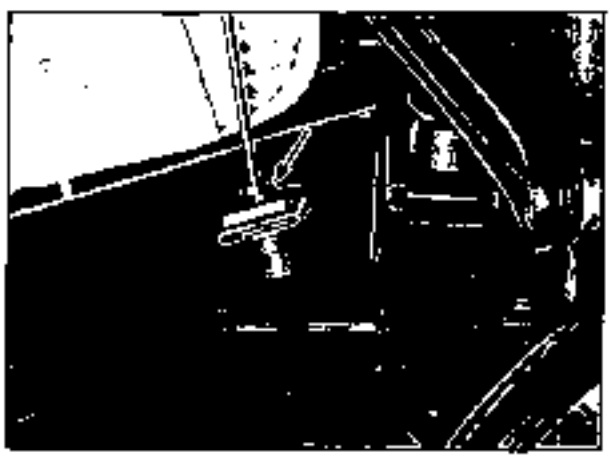


Fig. BF-8 Disconnect brake tube (front)

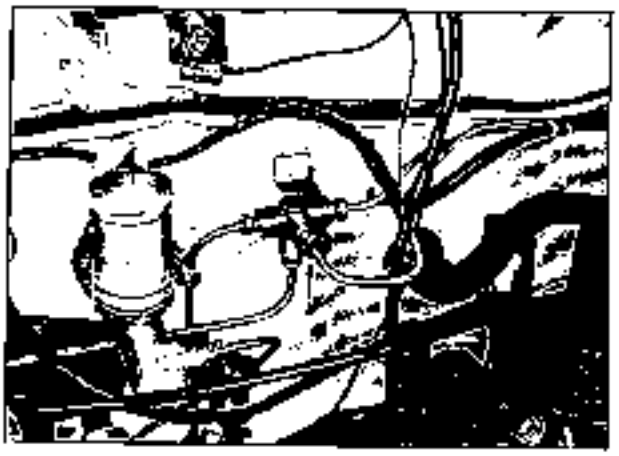


Fig. BF-9 Disconnect brake tube (rear)

5. Disconnect hand brake at front lever and cable joint.

6. Disconnect engine controls (such as choke wire, accelerator linkage, etc.), heater hose, engine compartment harness, instrument harness, and others between body and engine or chassis.

7. Remove six cab body mounting bolts.

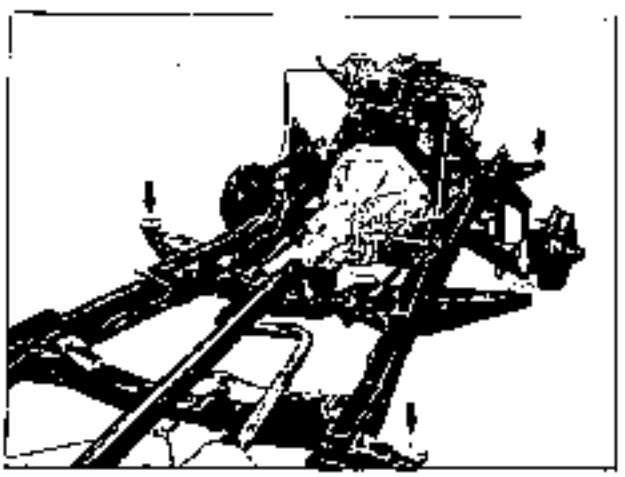
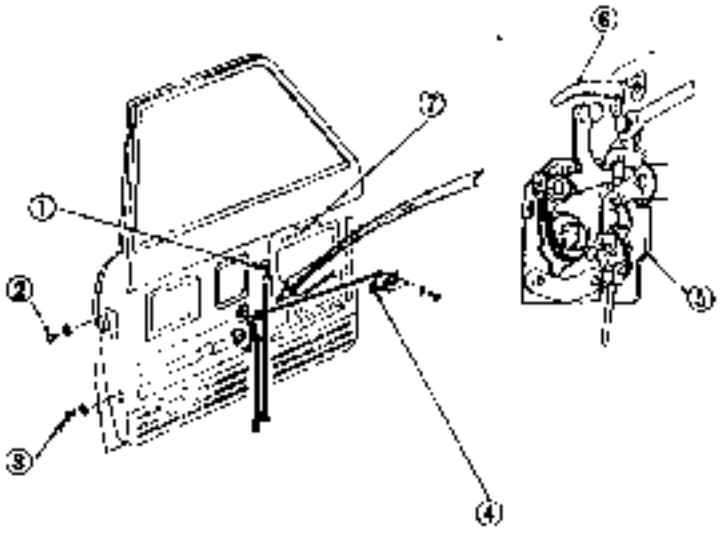


Fig. BF-10 Cab body mounting

8. Apply rope, wire or hanger to cab body, lift up cab body by the use of a hoist or chain block, and dismount cab body.

DOOR LOCK MECHANISM

Door lock is provided with a lock knob and is of an unlock type in which lock knob does not lower while door is open.



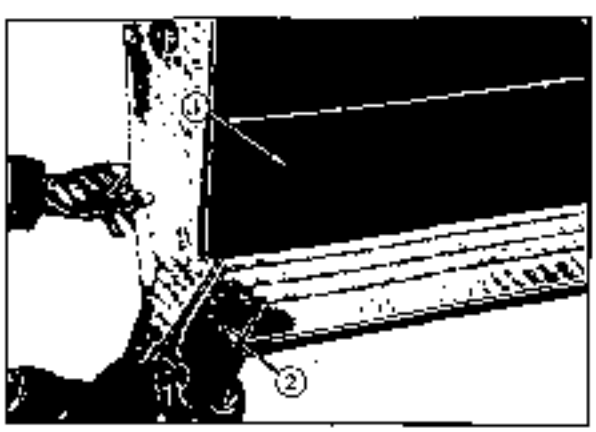
1	Lock knob
2	Lock installation bolt
3	Bell crank installation bolt
4	Door lock remote control assembly
5	Door lock assembly
6	Outside handle lever
7	Inside lock knob installation bolt

Fig. BF 36 Door lock mechanism

Removal

1. Detach inside handle and regulator handle, remove door finish installation clips with an ordinary screw driver, and separate door finish from door.

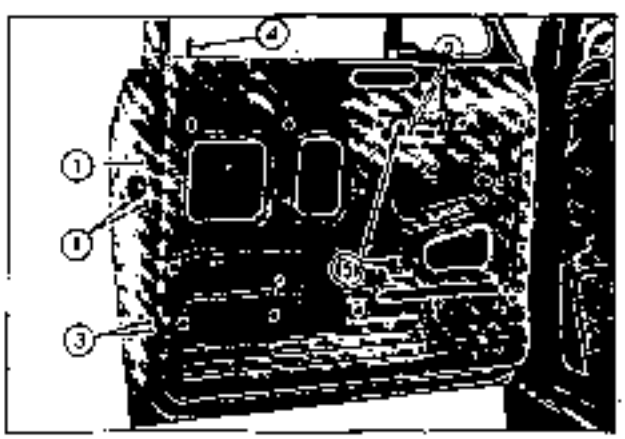
Note. Be careful not to scar or scratch panel and sealing screen.



1	Door finish	2	Cloth

Fig. BF 37 Detaching door finish

2. Detach sealing screen carefully so that it is not damaged, remove lock installation bolts, lock knob bell crank installation bolts, and inside lock knob installation bolts, and remove lock knob.



1	Lock installation bolts	4	Knob lock
2	Inside lock knob installation bolts	5	Glass run installation bolts
3	Bell crank installation bolts		

Fig. BF 38 Removing lock assembly

3. Separate key cylinder and lock joint.

SEAT

Seat uses steel pipe frame and S-shape and square-shape springs, and urethane and vinyl leather are used for seat cover.

REMOVAL

Front seat (pick-up, double pick-up, and van)

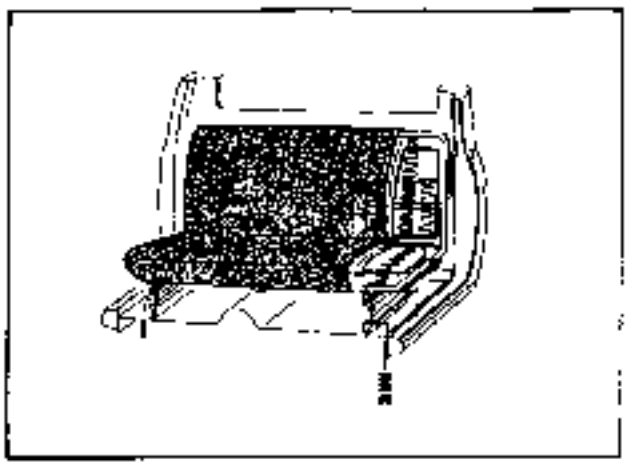
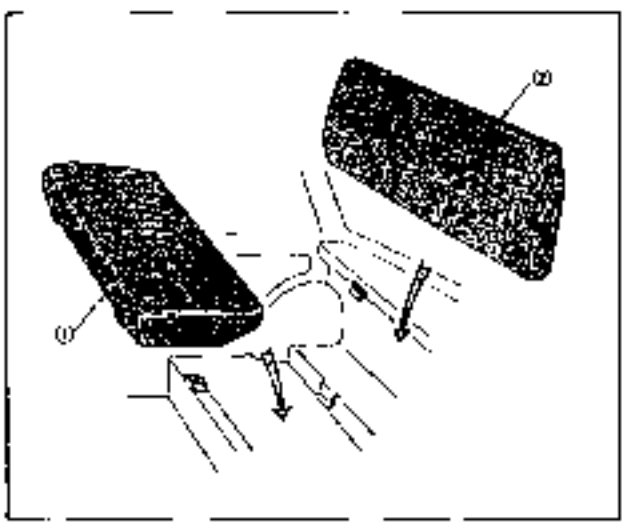


Fig. BF-64 Front seat

Remove four installation nuts screwed against seat riser. Seat can be separated.

Rear seat (double pick-up)



1	Seat cushion	2	Seat back

Fig. BF-65 Rear seat (double pick-up)

Rear seat (van)

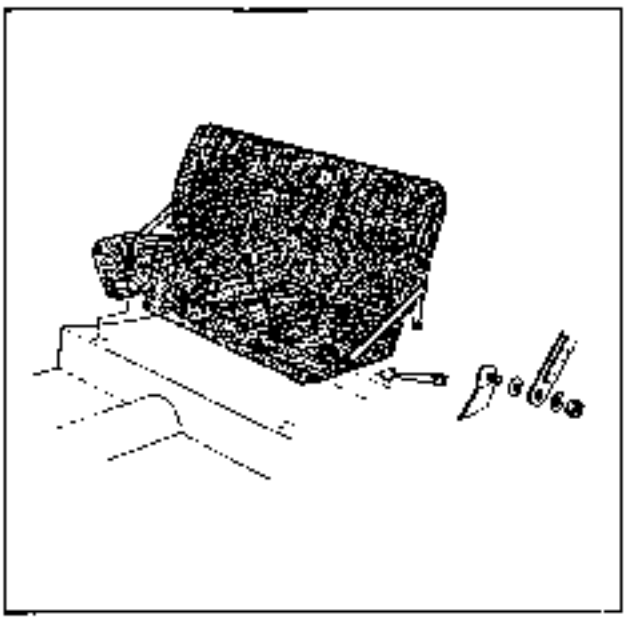


Fig. BF-66 Rear seat (van)

Remove front side hinge installation screws, separate seat back from brackets in both side wheel housing units, and remove rear seat as an assembly.

SEAT BELT (OPTION)

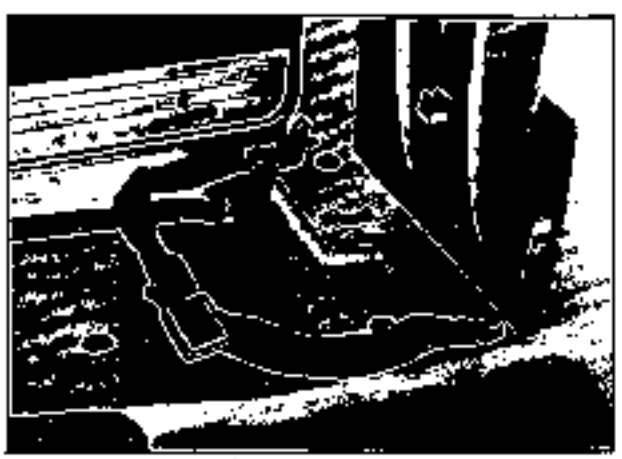


Fig. BF-67 Seat belt installing positions

LIGHTING SYSTEM

CONTENTS

HEADLAMP

Sealed beam unit replacement

1. Remove wiring socket from the back of sealed beam unit.

2 Remove head lamp finisher.

3 Remove retaining ring by unscrewing three screws.

Note: Do not disturb two aiming adjusting screws.

4. Remove sealed beam unit.

5. Reinstall sealed beam unit in reverse sequence to removal.

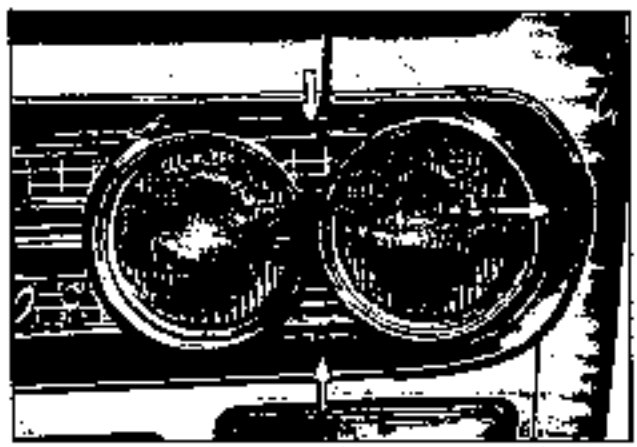


Fig. BE-10 Removing head lamp finisher

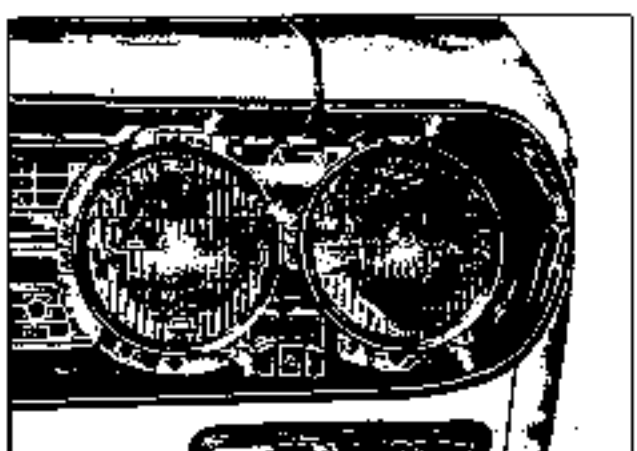


Fig. BE-11 Removing head lamp

Headlamp adjustment

For correct aiming adjustment, place vehicle to level floor, correct pressures of all tires, and remove all loads such as luggages and passengers except for standard equipment (spare tire and tools).

Adjust vertical and horizontal directions of head lamp respectively with adjusting screws located at the upper and side portions of headlight mounting ring.

METERS AND GAUGES

CONTENTS

COMBINATION METER

Description

The combination meter consists of three meters: speedometer, fuel meter, and thermometer; and five indicator lamps; oil pressure indicator lamp, ignition warning lamp, head lamp high beam pilot lamp, and turn signal pilot lamps (left and right). For illumination of the combination meter, four lamps are used. The combination meter uses a printed circuit board located behind the meter for wiring. With this construction, the combination meter can be simply connected to power supply through the 12-pole connector. See Figure BE-22.

1	Speedometer	6	Oil pressure warning lamp
2	Meter illumination lamp	7	Ignition warning lamp
3	Fuel meter	8	Head lamp upper beam pilot lamp
4	Thermometer	9	Regulator
5	Turn signal pilot lamp	10	12-pole connector

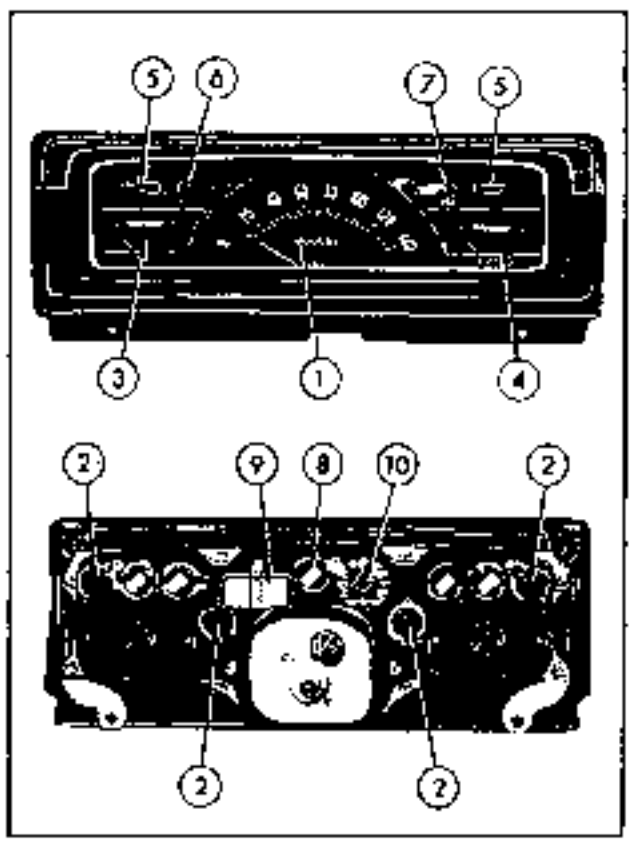


Fig. BE-22 Combination meter

3. Remove installation nut, plain washer and spacer.

4. Remove wiper switch from the back of instrument panel.

Washer nozzle adjustment

When washer nozzle is installed or when washer fluid is not sprayed properly, adjust nozzle direction so that fluid is sprayed in proper range. See Figure BE-33.

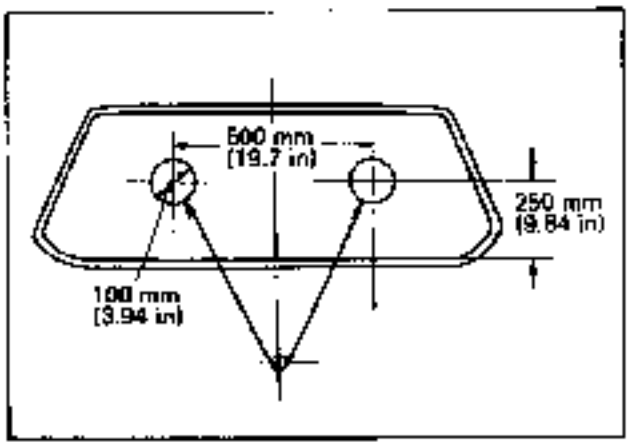


Fig. BE-33 Washer nozzle adjustment

Caution for windshield washer operation

Do not operate windshield washer continuously more than 30 seconds or without applying washer fluid. This often causes improper windshield washer operation. Normally, windshield washer should be operated 10 seconds or less at one time.

Specifications

Type	Interlocked parallel type
Angle	87 to 93° (Driver side) 96 to 102° (Assistant side)
Operating speed	High: 59 to 73 rpm Low: 41 to 51 rpm

TROUBLE DIAGNOSES AND CORRECTIONS

Condition	Probable cause		Corrective action
Windshield wiper does not operate	Motor	No current flows to motor due to	
		Broken armature	Replace motor or armature
		Worn motor brush	Replace motor brush
		Motor is overheated when 4 to 5 minutes are elapsed due to	
		Seized motor shaft	Replace motor
		Windshield wiper circuit fuse (15A) is easily fused due to	
		Short-circuit, race short-circuit, or burning of motor inside component	Replace motor or repair short-circuited part

TROUBLE DIAGNOSES AND CORRECTIONS

Condition	Probable cause	Corrective action
Hot air does not come out		
Motor does not operate	Open or short circuit of feed harness	Check and repair wiring harness
	Defective switch	Conduct continuity test and replace switch if necessary
	Defective motor	Replace motor
Fan cannot be rotated smoothly by hand	Motor journal is out of lubricant or stick	Lubricate journal Replace motor
Hot air does not come out nevertheless fan is rotating	Slow rotation of fan	Replace motor
	Loose fan installation	Repair
Air temperature is low		
Hot water does not circulate	Defective water pump	Repair water pump
	Bent or clogged of connecting hose	Repair or clean piping
	Defective hot water cock	Repair
	Air is left in hose	Purge air out of hose
Water temperature is too low	Defective thermostat	Replace thermostat
Water leakage from heater	Defective water hose	Replace water hose
	Loose clipping of water hose	Retighten clip
	Improper soldering of heater core	Solder leaking position
Defective defroster	Disconnected defroster hose	Correct connection
	Bent or broken defroster hose	Correct or replace
Vibrating noise	Loose heater support	Tighten completely
	Loose fixing screw	Retighten