
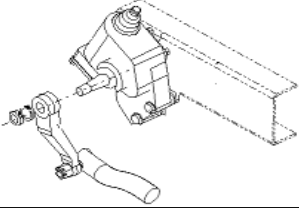
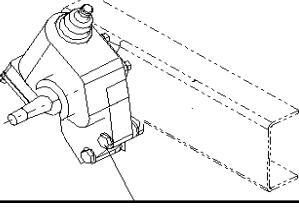
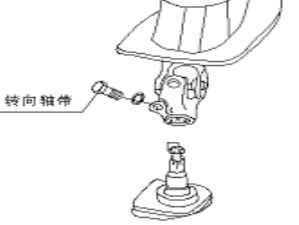
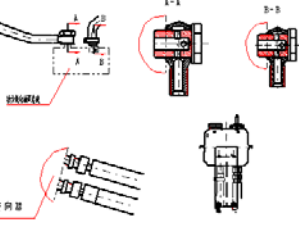
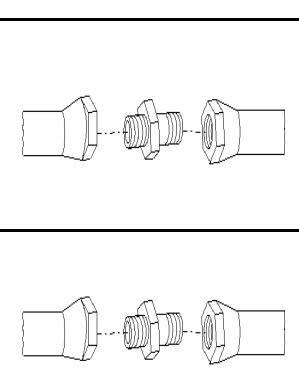
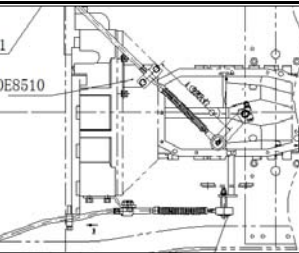
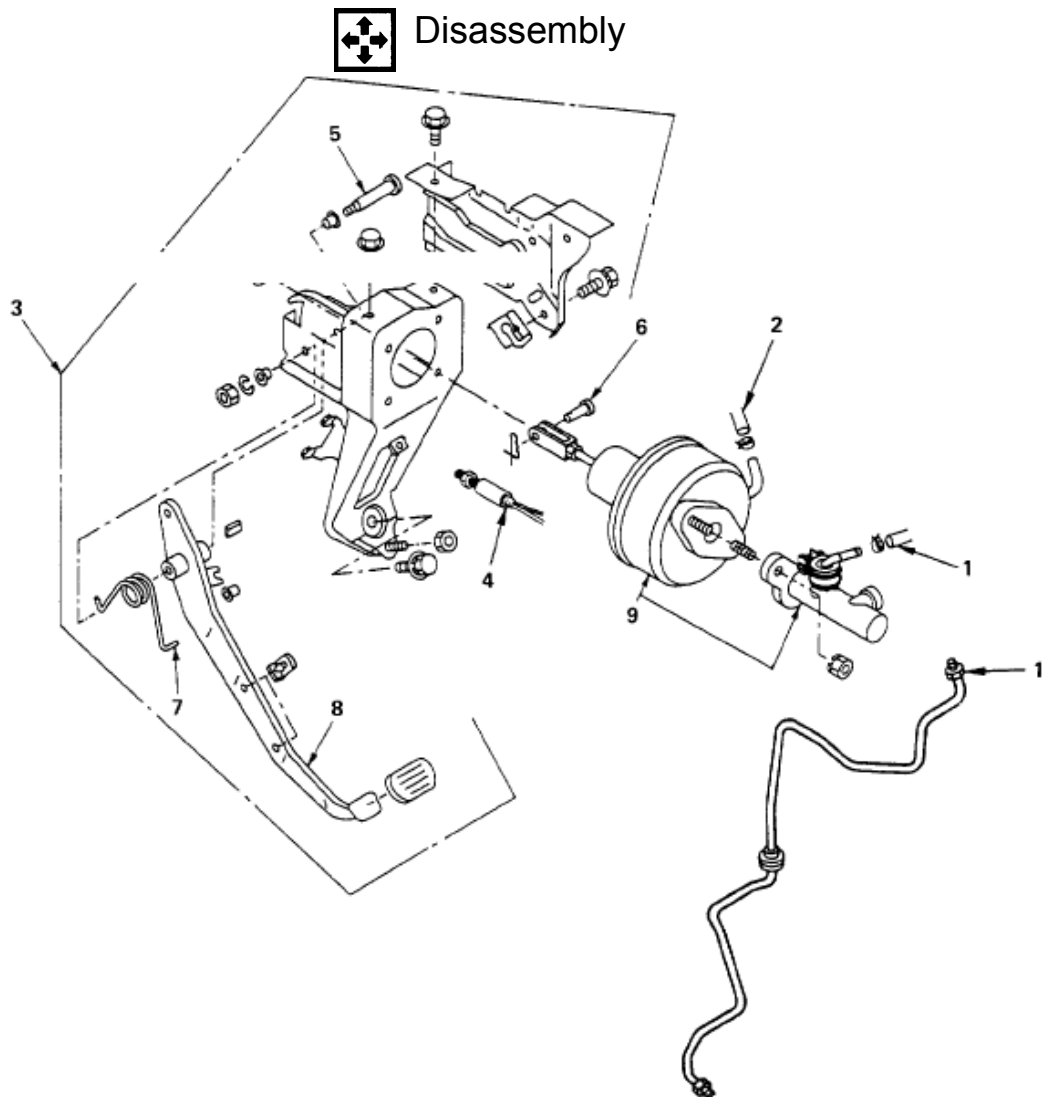


## STANDARD TORQUE TABLE (JAC - All Models)

group	code	item	picture	Standard (N·m)
Steering system	1	steering wheel tightening nut		1020: 54-69
				M20×1.5: 60-79
	2	Connection of pitman arm and steering gear box		1020: 54-69
				J1、E0、Z1、Z2: 196-250
				A1、M1、Z15、E22CH: 250-320
M15、T0、T4: 500-600				
3	connection of steering gear box, support and chassis		M10×1: 65-95	
			M12×1.25: 108-161	
			M14×1.5: 146-205	
			M16×1.5: 240-335	
			M18×1.5: 397-507	
			M20×1.5: 475-598	
4	connection of steering column steering gear box		M10: 37-75	
			M14×1.5: 50-55	
5	power steering pipe connection		Perforation bolt: according to the brake pipe system connection	
			M14: 53.9-73.5	
			M16: 88.3-118	
			M18: 100-130	
			M20: 100-130	
			M22: 130-160	
Brake system	6	Brake pipe connection		Φ4.76 pipe: 16-20
				Φ6 pipe: 23-27
				Φ8 pipe: 27-33
				Φ10 pipe: 45-53
				Φ12 pipe: 60-80
				Φ15 pipe: 70-90
				Φ6 nylonpipe: 22-25
				Φ8 nylonpipe: 25-32
	Φ10 nylonpipe: 37-42			
	Φ12 nylonpipe: 46-52			
	Φ16 nylonpipe: 59-67			
	Φ20 nylonpipe: 64-72			
	7	brake draw bench equipment		by eyes, to make the spring mat flat

# CLUTCH

## Clutch control equipment



### Disassembly sequence

1. Clutch pipe and soft pipe 2. Oil-intake soft pipe of main pump 3. Clutch panel and bracket assembly 4. Clutch switch or limit bolt 5. Shaft 6. Pin 7. Return spring 8. Clutch panel 9. Clutch main pump assembly 10. Soft pipe 11. Clutch cylinder

### Preparation

Dismantle instrument shell and instrument.

Disassembly step of clutch control equipment

Drain out brake liquid in hydraulic pressure pipeline of clutch.

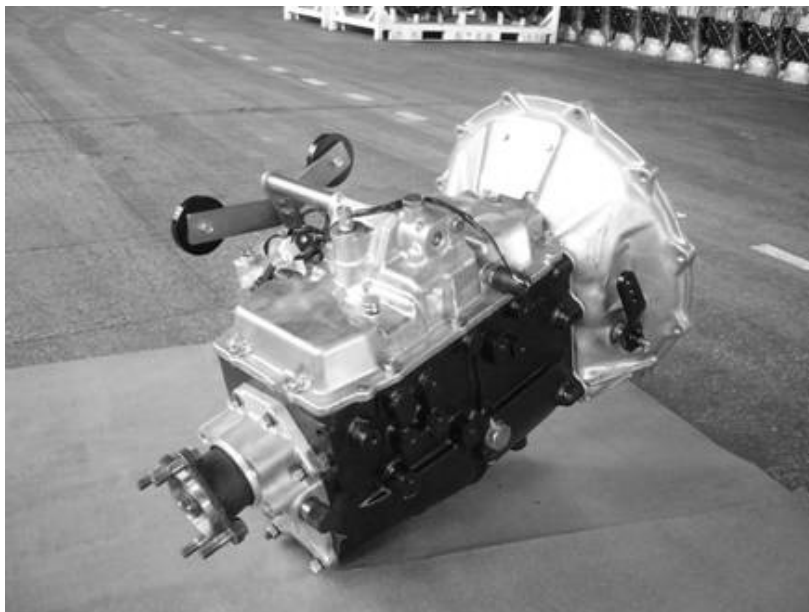
Warning: do not let brake liquid remain on the surface with paint, if having, wipe off immediately.

### Inspection and repair

If there is any excessive abrasion or damage about parts in checking process, it is necessary to adjust, repair or change those parts.

# TRANSMISSION

## Maintenance manual of Q500 automobile gearbox



### Data of maintenance

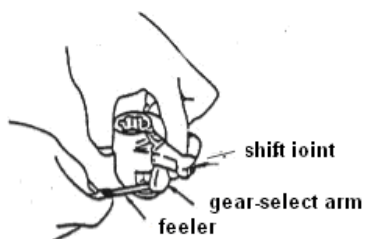
#### 1. Parameters of gear box :

Type	LC6T46							
Model	6 Forward gears, 1 Rearward gear (synchronic devices are equipped to 2-6 gears)							
Gear type	Remote control manual shift							
Shift type	1. R gear						Spur gear	
	2~6 gear						Helical gear	
Speed ratio	1st gear	2nd gear	3rd gear	4th gear	5th gear	6th gear	R gear	
	6.314	3.913	2.262	1.393	1.000	0.788	5.874	
Number of tooth (1 <sup>st</sup> shaft, main shaft / middle shaft)	1st gear	2nd gear	3rd gear	4th gear	5th gear	6th gear	R gear	Small reverse
	43/13	41/20	32/27	27/37	22/42	19/46	40/23	23/13
Dosage of lubricating oil ( L )	5.2 L							

# TRANSMISSION

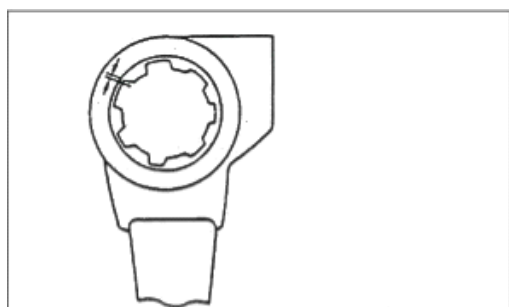
## Inspection and Maintenance

- Clean up all the removed parts, check them carefully for scratches, cracking etc., and replace all of them.
- If the component can not be maintained, repair or replace it.



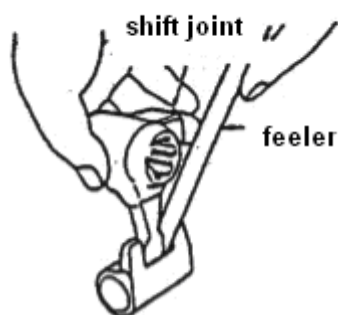
Space between gear-select and shift joint (mm)

Standard	Limit
0.1~0.4	0.8



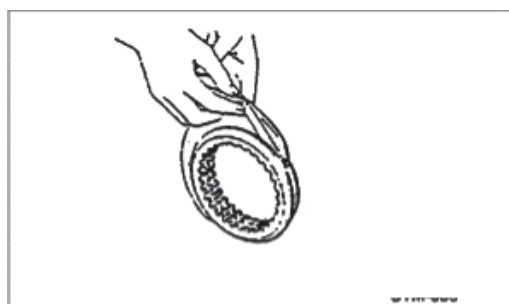
Space between shift joint and spline of gear-shift rearing (mm)

Standard	Limit
0.05~0.11	0.5



Space between shift joint and block (mm).

Standard	Limit
0.7~1.0	1.4

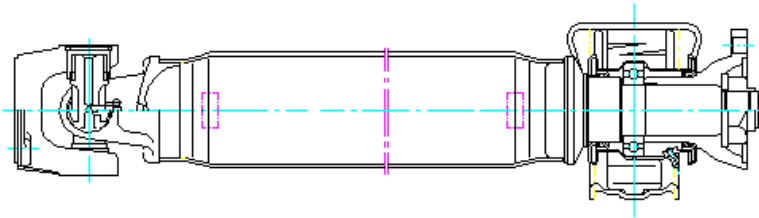


Space between gear-shift yoke and synchrotron sleeve (mm)

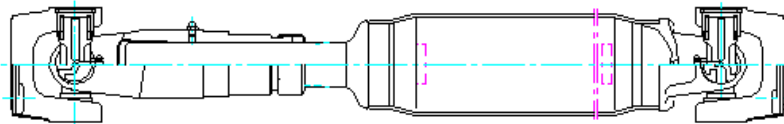
Standard	Limit
0.10~0.29	1.0

# DRIVE SHAFT

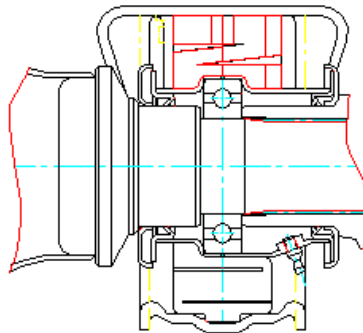
## General



Intermediate drive shaft assembly



Rear drive shaft assembly



Intermediate supporting assembly

## REAR AXLE

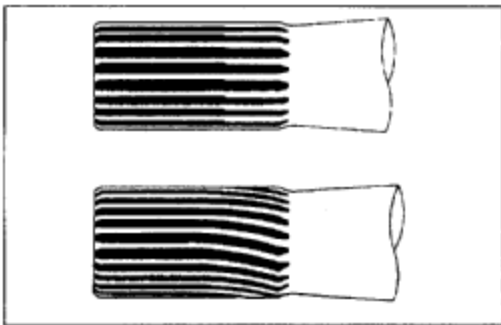
- 6. Half shaft
- 7. Wheel hub
- 8. Bearing
- 9. Lock plate
- 10. Bearing nut

Inspection and repair:

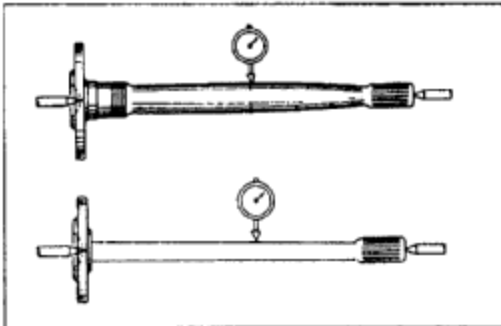
If there found abrasion, damage or any other abnormal situation in inspection, repair or replace the parts if necessary.

Visual inspection:

Check the parts listed in the left form for abrasion, damage or any other abnormal situation.

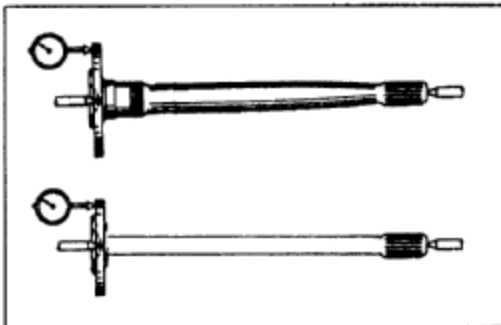


Check half shaft spline:



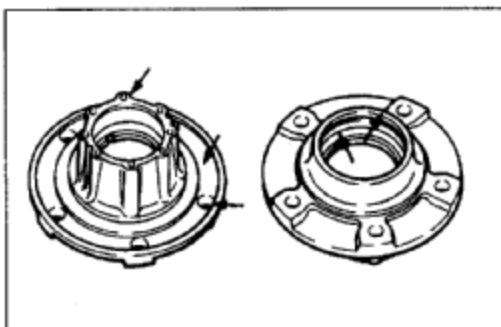
Concentricity of half shaft:

Limit point (mm)	1.0
------------------	-----



Jig degree of the half shaft flange:

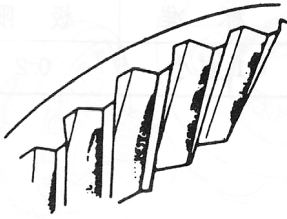



Limit (mm)	0.05
------------	------



Inspect the wheel hub:

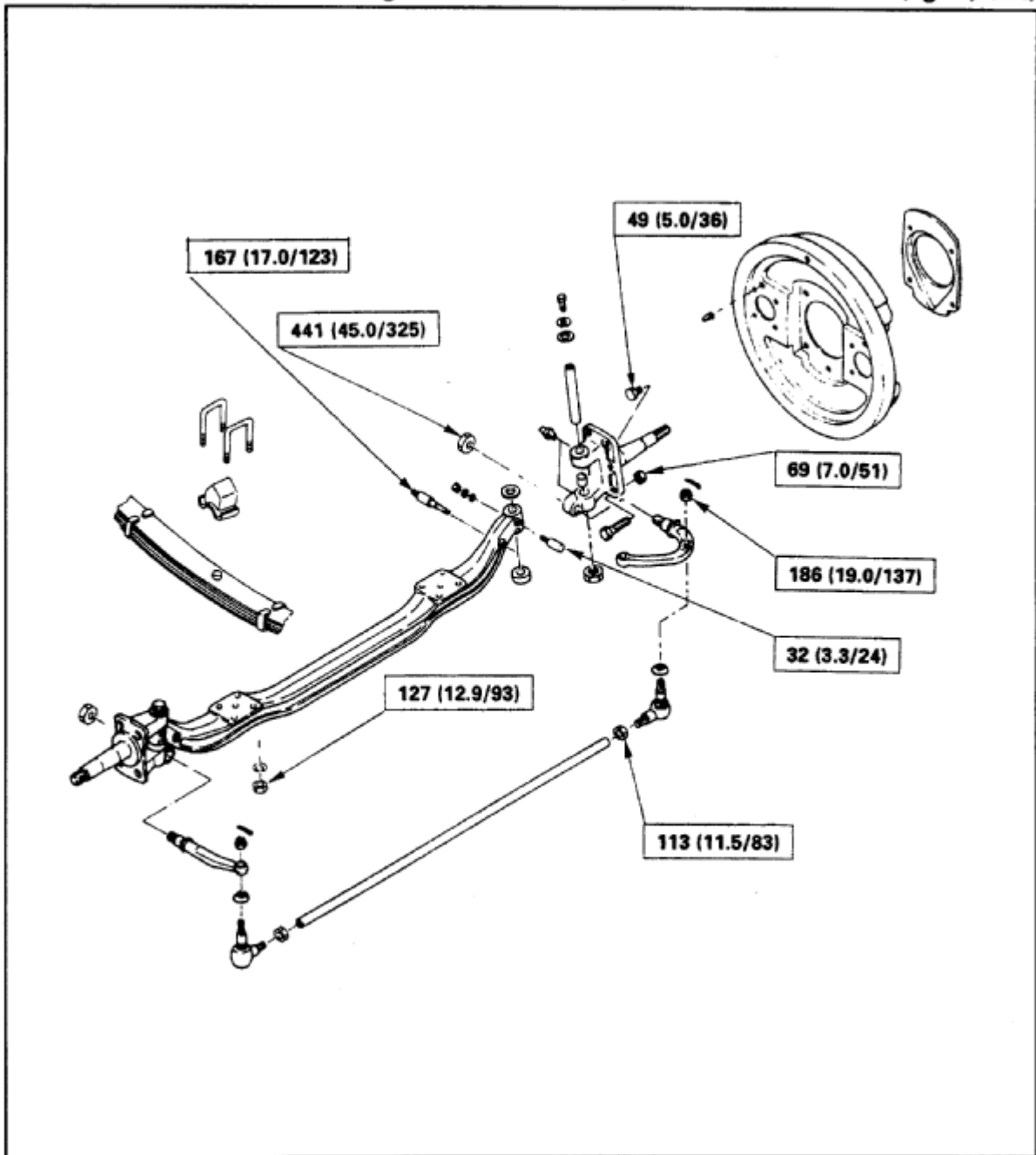
Inspect oil seal and mounting surface of bearing.  
Inspect screw thread.

## REAR AXLE

Contacting mark of driven gear	Reason	Adjusting step
 <p style="text-align: center;">Driven gear root</p>	<p>Driving gear is too close to driven gear</p>	<ol style="list-style-type: none"> <li>1. Adjust driven gear close to driving gear.</li> <li>2. Adjust driving gear apart from driven gear (increase adjusting washers)</li> </ol>
 <p style="text-align: center;">Driven gear top</p>	<p>Driving gear is too apart from driven gear</p>	<ol style="list-style-type: none"> <li>1. Adjust driven gear apart from driving gear.</li> <li>2. Adjust driving gear close to driven gear (decrease adjusting washers)</li> </ol>
 <p style="text-align: center;">Driven gear small end</p>	<p>Driven gear is too close to driving gear</p>	<ol style="list-style-type: none"> <li>1. Adjust driving gear apart from driven gear. (Increase adjusting washers)</li> <li>2. Adjust driven gear apart from driving gear.</li> </ol>
 <p style="text-align: center;">Driven gear big end</p>	<p>Driven gear is too apart from driving gear</p>	<ol style="list-style-type: none"> <li>1. Adjust driving gear close to driven gear (decrease adjusting washers).</li> <li>2. Adjust driven gear close to driving gear.</li> </ol>

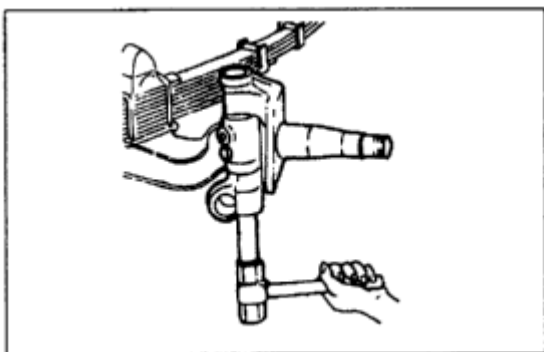
# FRONT AXLE

## Fixed torque





## FRONT AXLE

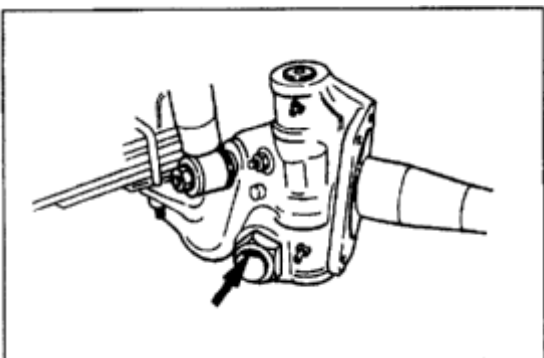


Tightening torque of the lock dowel: :

	32Nm
--	------

Specification of adjusting shim:

Thickness	0.50、0.55、0.60、0.65、0.70、0.80、0.90
-----------	------------------------------------



Installation of blocking cap:

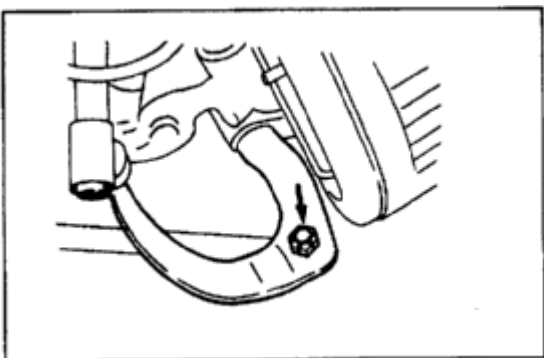
Install the blocking cap upwardly with an appropriate stick.

Installation of the drop arm and the curved arm:

Tighten the nut to specified tightening torque, caulk the nut.

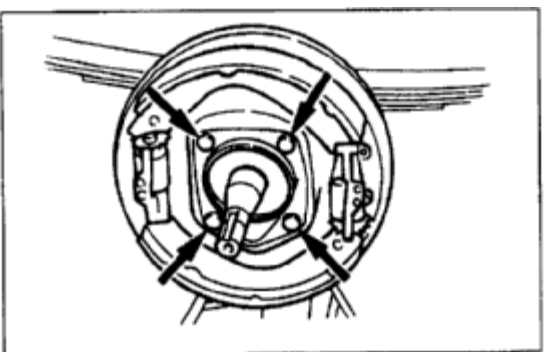
Tightening torque of the nut:

	441Nm
--	-------



Tightening torque of the tie rod jointing nut:

	186Nm
--	-------



Tightening torque of the brake shield plate bolt

	69Nm
--	------

11	Oil pipe of the power equipment is blocked or the valve is adhered	Clear
12	Parts of the power equipment are damaged (oil pressure is low or the output power is insufficient)	Replace
13	Valve spool is adhered	Clear
14	Valve spool is not adjusted suitably	Adjust

#### Steering returns hard

Num.	Reason	Measure
1	Tire pressure is too low	Adjust
2	Wheel alignment is not suitable	Adjust
3	Suspension distorts	Repair
4	King pin thrust bearing is adjusted too tighten	Adjust
5	Redirector and other connect parts are adjusted too tighten	Readjust
6	Steering drive rod pieces bend or become blocked	Repair
7	Pre-tightening force of the worm bearing is too big	Adjust
8	Valve spool is adhered	Clear
9	Valve spool is not adjusted suitably	Adjust

#### Steering wheel is too sensitive

Num.	Reason	Measure
1	Tire pressure is too high	Adjust
2	Oil pump pressure is too high	Adjust
3	Oil flux is too much	Adjust

#### Power assist effects only when the steering wheel is turned quickly

Num.	Reason	Measure
1	Hydraulic oil is insufficient	Add
2	Strap of the oil pump skids or damages	Repair
3	Interior oil leakage	Repair

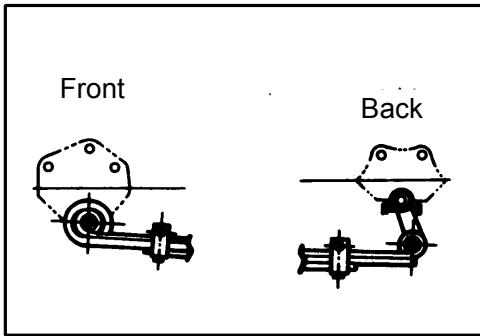
#### Abnormal noise in steering

Num.	Reason	Measure
1	Hydraulic oil is insufficient	Add
2	Strap of the oil pump is loose or damaged	Repair
3	Oil pipe is blocked	Clear
4	Pipeline connection is loose	Tighten
5	Oil seal of the pump axle is damaged	Replace
6	Oil pump is too hot	Repair
7	Vent hole of the oil can is blocked	Clear

#### Exterior oil leakage

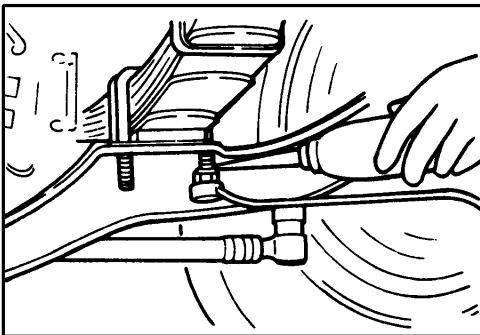
Num.	Reason	Measure
1	Pipe fitting is loose	Tighten

## SUSPENSION

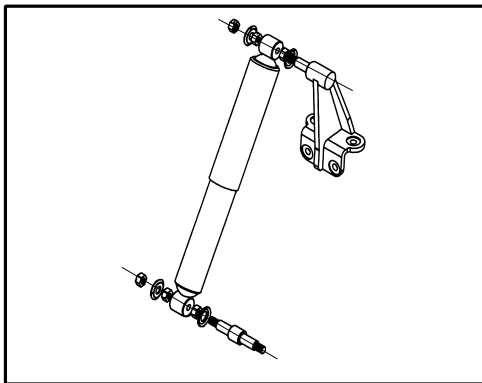


### Important -- assembly

10. Leaf spring assembly  
Install the leaf spring assembly by double wrapping end of left steering side



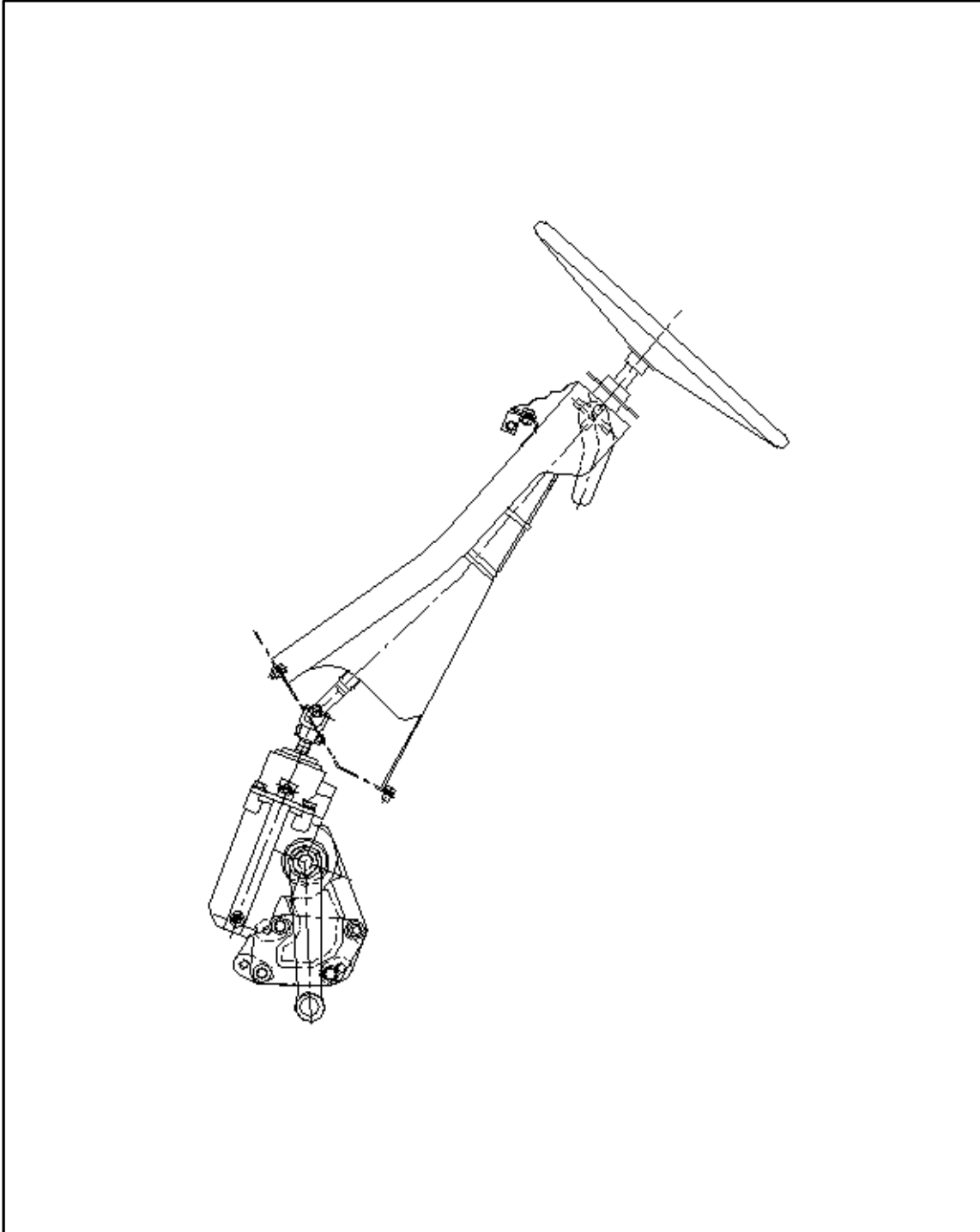
12. U-bolt  
13. Nut
- (1) Place the vehicle at a horizontal plane and install U-bolt to a corresponding position of the leaf spring.
  - (2) Lift the vehicle.
  - (3) Align with the front axle hole and U-bolt.
  - (4) Apply the engine oil on the nut before tightening them to prevent damages of thread.
  - (5) Tightening nuts.

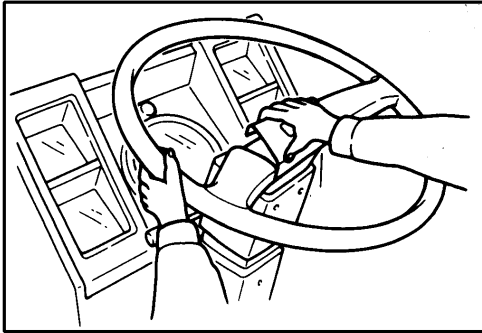


14. Nut, washer and rubber bearing shell  
15. Front vibration absorber assembly  
Disassemble the vibration absorber assembly, nut, washer and bearing shell as shown.  
Tighten the nut till the washer contacts with fitting face of bearing end.

# General

## Steering mechanism

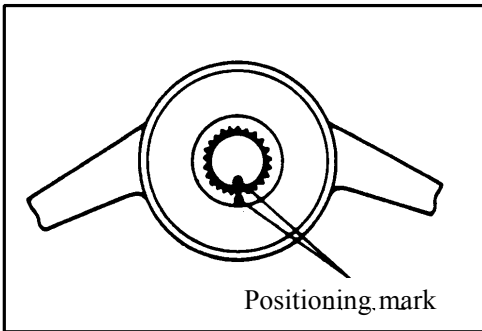




### Important – disassembly

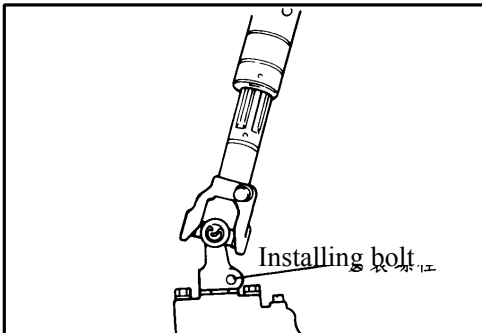
1. Horn button

Pull out the horn button by hands



3. Steering wheel

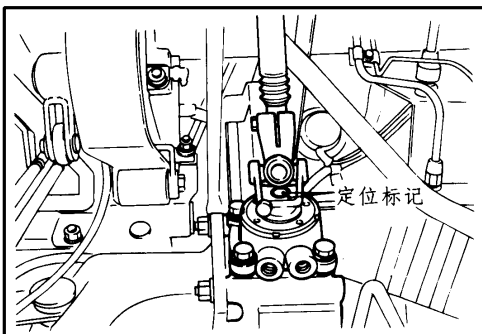
Make a mark by crossing the steering wheel and steering shaft to ensure the parts could be at the original position while assembling.



7. Bolt: fixing worm shaft and steering yoke

(1) Incline the cab upwards and support it by a supporting rod.

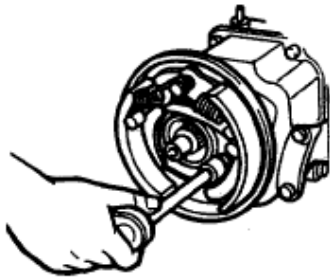
(2) Mark a positioning mark at the steering yoke and worm.



(3) Remove the installation bolt by pneumatic wrench or open-end wrench, and then pull the flange yoke out of the shaft.

(4) Put down the cab gradually.

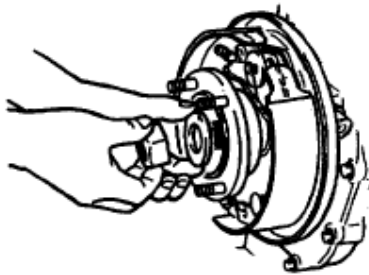
# BRAKE



Re-assembly step

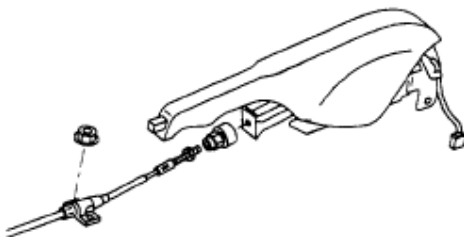
1. Parking brake assembly

Tightening torque of the nut on parking arrester is 8.5 kgf.m

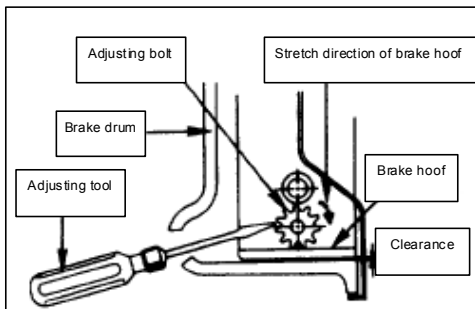


2. Flange

Tightening torque of flange nut is 23 kgf.m



3. Connect parking brake operation draw thread with handle.



4. Adjustment of parking brake

Adjustment of the clearance of brake drum

Draw back and put down parking brake handle for 3 to 4 times continually.

Dial adjusting bolt with adjusting tool (screwdriver) until brake drum has been locked.

Dial it in opposite direction for 26 gears, at this time, the clearance of brake drum is about 0.6mm.

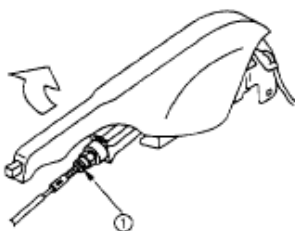
5. Adjustment of parking brake operation handle

Draw back and put down parking brake operation for several times completely.

2. Unscrew locking nut of draw thread.

Adjust the adjusting nut to following requirement:

Draw back the handle with 15 kg strength, and move the handle for 5—8 gears.



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## Introduction of composite repair

1. To ensure safety, the vehicle should be parked on flat ground. When the vehicle is jacked up, the front or rear wheel should be warded off.
2. The vehicle should be jacked up on its axle or framework and then be propped on the chassis deck for repair.
3. Ground cable of the accumulator should be cut off before repairing to prevent the cable from damage or burnout resulting from short circuit.
4. The bodywork, seats and carpets should be covered carefully to avoid damage and dirt.
5. Brake fluid and antifreeze must be managed properly, for they eroding the paint.
6. For the purpose of effective and reliable repair, it's very important to use proper tools and specified special tools.
7. Authentic parts of JAC brand should be used.
8. Used split pins, gaskets, O-rings, oil sealants, spring washers and self-locking nuts can not be used again, which should be replaced by new ones in installation. Because these used parts can not surely work normally, if used again.
9. Dismantled parts should be put away by groups for finding conveniently, which ensures the reassembly in an orderly way.
10. The parts should be cleaned before inspection or reassembly as well as the oil holes should be scavenged by compressed air and checked for cleanness.