GREAT WALL

SERVICE MANUAL

DEER SAILOR SO COOL

SAFE SING PEGASUS

Troubleshooting

Trouble	Causes	Repairing approaches
Difficulty in gearshift or non-gearshift	Overlarge free stroke of clutch pedal There is air in clutch pipe Failure of clutch brake-wheel cylinder Failure of clutch master cylinder Overlarge clutch pendulum difference due to incorrect mounting, the friction liner is stained with oil or is breaking There is dirty or adhesive materials on spline of input shaft or clutch rib Failure of clutch pressure plate	Adjust the free stroke of pedal Exhaust the air in clutch pipe Change the clutch brake-wheel cylinder Change the master cylinder Check the clutch rib Repair according to requirement Change the clutch pressure plate
Disengagement of gear box or clutch slip	Abrasion of clutch guide shaft Insufficient free stroke of clutch pedal The friction liner of clutch rib is stained with oil or is worn Failure of clutch pressure plate Seize up of separation fork	Change the guide shaft Adjust the free stroke of pedal Check the clutch rib Change the clutch pressure plate Check the separation fork
Clutch seize-up or shaking	The friction liner of clutch rib is stained with oil or is worn Failure of clutch pressure plate Looseness of engine seat	Check the clutch rib Change the clutch pressure plate Repair according to requirement
Looseness of clutch pedal	There is air in clutch pipe Failure of clutch brake-wheel cylinder Failure of clutch master cylinder	Exhaust the air in clutch pipe Change the clutch brake-wheel cylinder Change the master cylinder
Over-loud clutch noise	Seize up of separation fork; Abrasion or stained spot of separation bearing Abrasion of guide bearing Parts looseness in clutch pressure plate	Repair according to requirement Change the separation bearing Change the guide bearing Change the clutch pressure plate

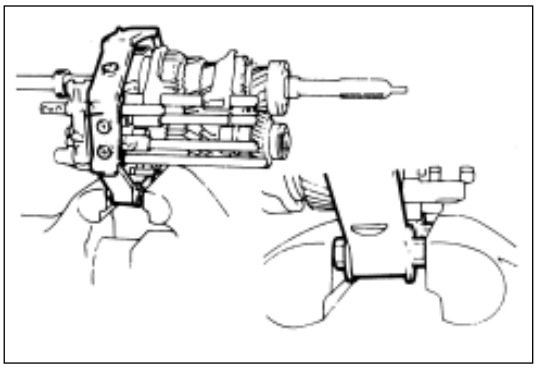
Notice

Notice for disassembly and assembly of gearbox

Notice shall be taken during the gear disassembly and assembly on the soft handle for the parts, especially for the coupling faces so as to avoid the collision; each part shall be put down in order to avoid the missing or mistaking.

Notice shall not only be taken in the aforesaid aspects, but also in the following items

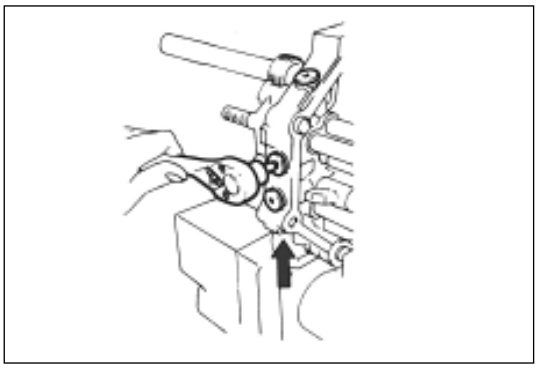
1. Wash all parts before assembly (rubber fittings and washers excluded).
2. Various oil seals, retainer rings for shafts, spring-type pins shall not be reused.
3. Lubricating oil shall be coated on the friction surfaces, and lubricating grease shall be coated on the lips of oil seals.
4. Rolling elements shall not be used to transfer the pressure during the various bearing assembly.
5. Lip-type oil seal must not be sloping when assembling it.
6. The openness at the two ends of the spring collar shall be misfit when assembling the component elements of the synchronizing instrument, and
7. No part is allowed to leak the lubricating oil when the gearbox locating at its working place.



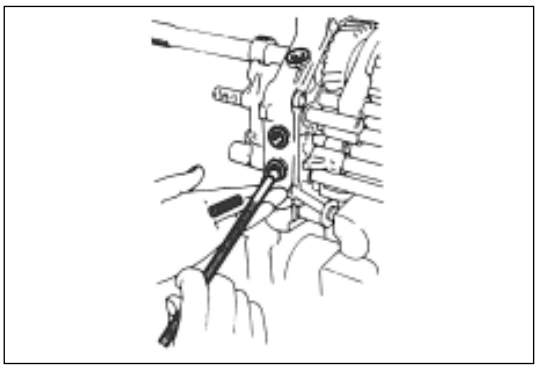
11. Grip the central link plate in the table vice,
    (a) Use two clutch bolts, washers and suitable nuts as shown in the drawing.

    Remark: mount the washer in the reverse direction, increase and decrease the washer quantity to flush the bolts terminal with the external face of the washer.

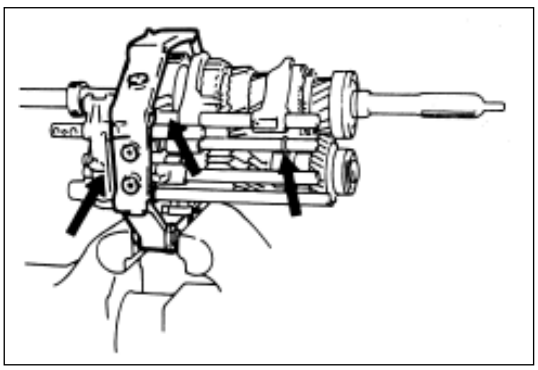
    (b) Grip the central link plate in the table vice.



12. Tear down the locating spring bolts, locating spring and locking ball,
    (a) Dismantle each locating spring bolts with the torque socket spanner.

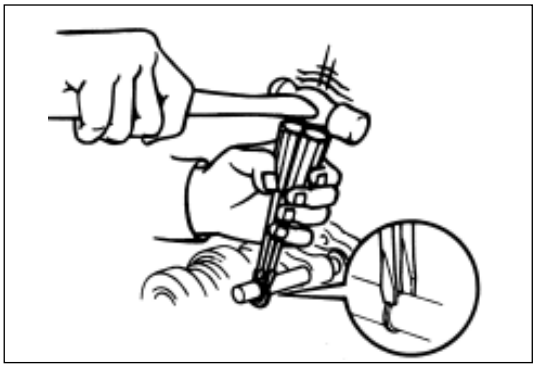


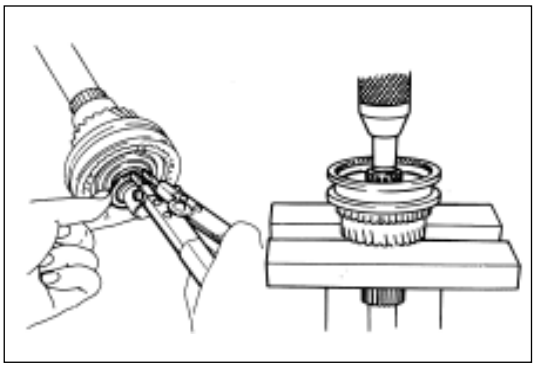
    (b) Take out the toggle fork axles of the first, second, third, fourth and reverse as well as the axial locating spring and locking ball of the fifth-gear toggle fork.



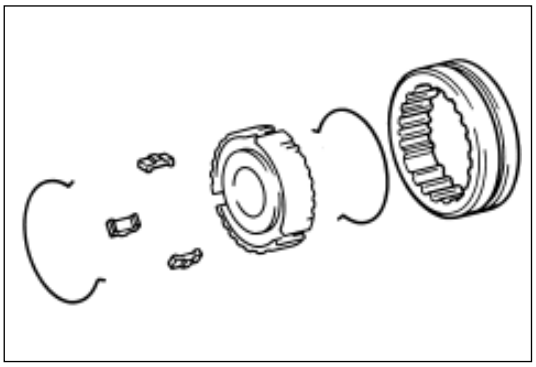
13. Tear down the axial retainer ring of the gearshift fork

    Tap the axial retainer ring of gearshift fork lightly with two screwdrivers and one hammer.

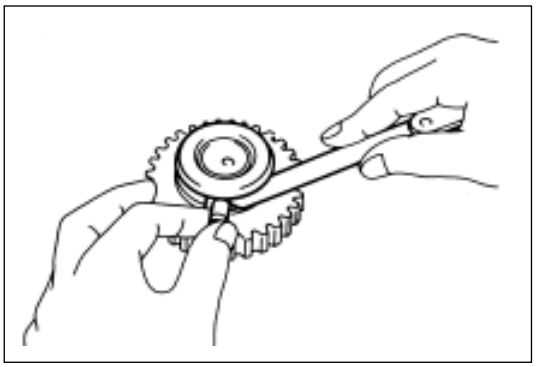




7. Take down the 3rd and 4th gear synchronizer assembly, 3rd gear and needle bearing .
   (a) Remove the snap ring with plier for snap ring.
   (b) Take down the 3rd and 4th gear synchronizer assembly and 3rd gear with press machine.
   (c) Remove the needle bearing .



8. Take off the meshing sleeve ,sliding block and spring from 3rd and 4th synchronizer.
   Remove the three sliding blocks and spring from the meshing sleeve with one screwdriver.



2. Measure the clearance between the reverse idle gear and gearshift yoke block

Measure the clearance between the reverse idle gear and the gearshift yoke block with feeler.

Standard clearance:

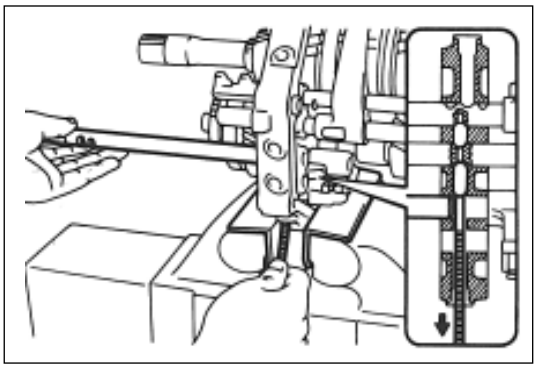
Shang Chi：0.2mm

Tang Chi：(0.05～0.27)mm

Max clearance：

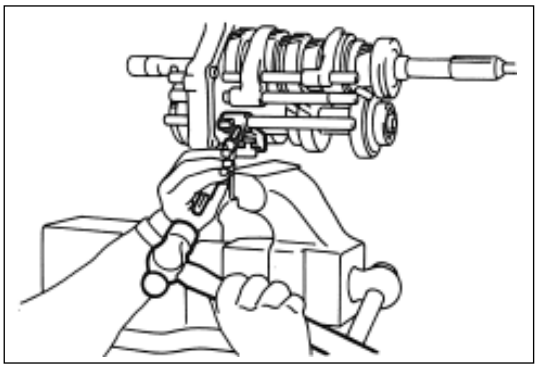
Shang Chi：0.35mm

Tang Chi：0.5mm

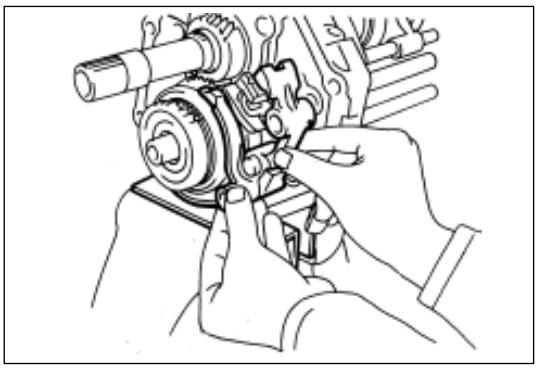


(d) Mount the interlocking pin in the central link plate with the magnetic bar.

(e) Mount the reverse gearshift fork axle in the reverse yoke rod and central link plate.



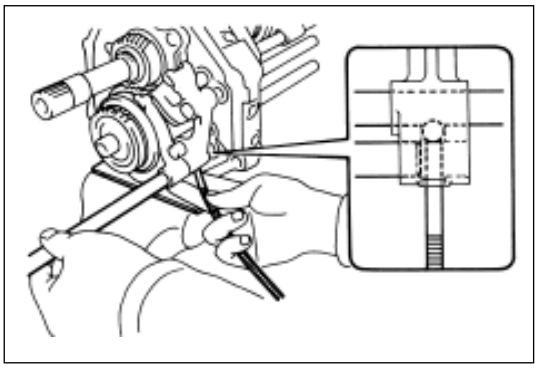
(f) Mount the spring cylindrical pin with the drift punch and hammer.



15. Mount the five-speed reverse gearshift guide block and five-speed reverse gearshift fork axis.

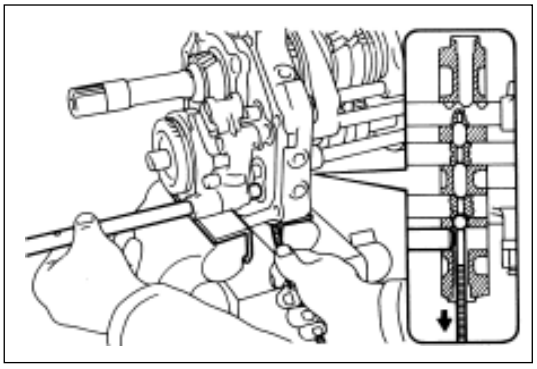
(a) Mount the five-speed reverse gearshift guide block in the five-speed reverse gearshift guide shaft.

(b) Mount the reverse gearshift fork axle in the next step.



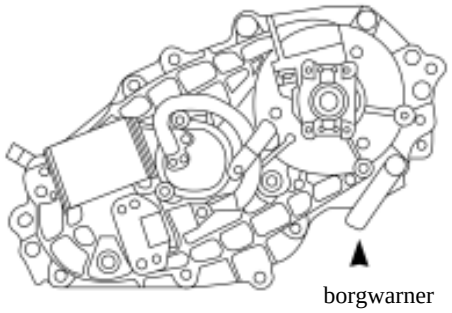
(c) Mount the steel ball in the five-speed gearshift guide block with the magnetic bar.

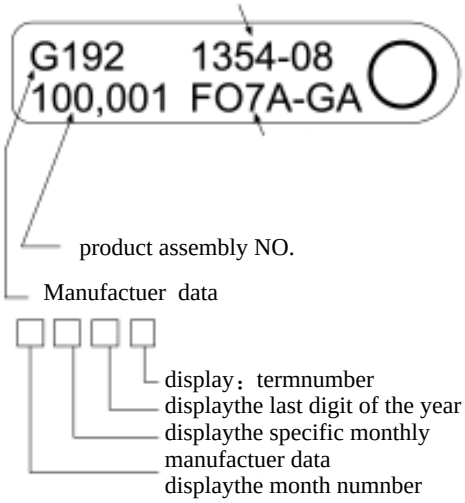
(d) Mount the five-speed gearshift fork axle as shown in the drawing.



(e) Mount the steel ball in the central link plate with magnetic bar.

(f) Mount the five-speed gearshift fork axle in the central link plate.





Example display:From January (A) to December (L)
Product instruction and simple maintenance

Product instruction and simple maintenance

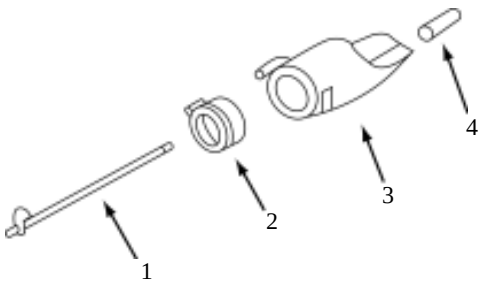
1. Product Introduction

The transfer box adapted by our company is the transfer box of 45-55 manufactured by Bogeguana, which is two-speed and time driving, a set of planetary mechanism used is to obtain the speed-reducing performance, while the driving force is transmitted to the front driving gear by a highly precise chain. The planetary gear train and rear output shaft element of transfer box is lubricated initiatively through oil bath and oil pump. This transfer box has four gears:

- 2H-stands for the two high gears，in which, only the two rear wheel are driven, and the gear ratio of the transfer box is 1:1。
- 4H-stands for the four high gears, in which , all of the four wheel are driven, and the gear ratio of the transfer box is 1:1。
- N- neutral location (this location only exists in the transfer box of manual gearshift)，No driving force is transmitted to the wheel when the input shaft and output shaft are disconnected.
- 4L-stands for low gears, the four wheels are all driven, and the gear ratio of transfer box is 2.48:1.

The gearshift of the mechanical gearshift transfer box is obtained through the shifting-cam-type guide plate that is operated by the shift rocker arm.

Sign board: which is fastened at the obvious external location of transfer box, and on which the detailed data are marked.

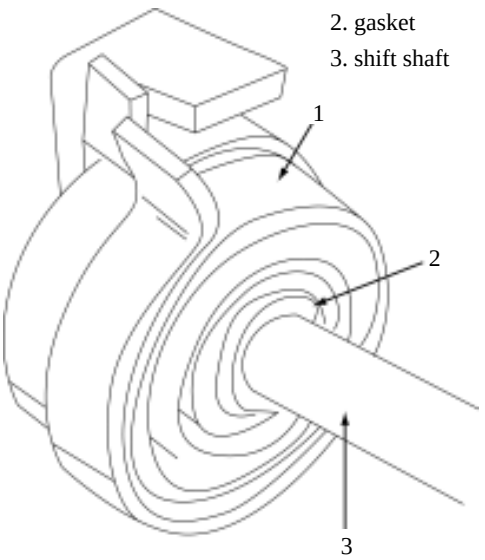


1. shift guide shaft
2. torsion spring
3. electric shift convex plate
4. gasket

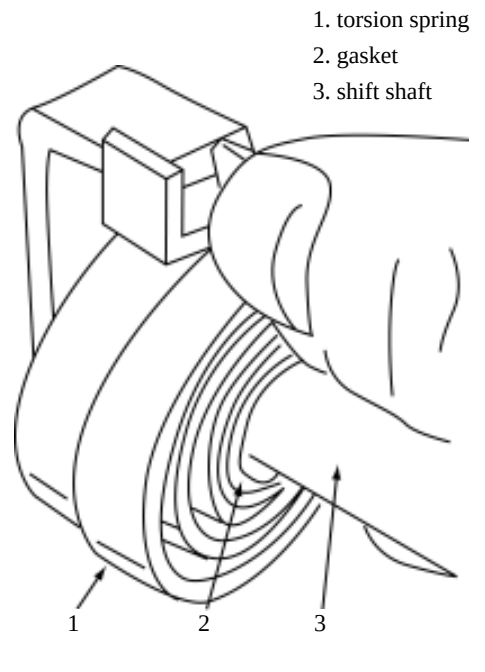
4. Mechanic shift convex plate assembly (for electric shift transfer box)

The mounting process for the electric shifting element is as follows:

(a) Insert the gasket into the inside of free end of the torsion spring.



(b) Slide the torsion spring and gasket along with the shift shaft to the driving tongue and put down the first spring ring at the left side of the driving tongue (from the direction of free end of shift shaft).



(c) Twist the second spring ring of the torsion spring on shift shaft to the right side of the driving tongue.

Checking

1. Common Checking process

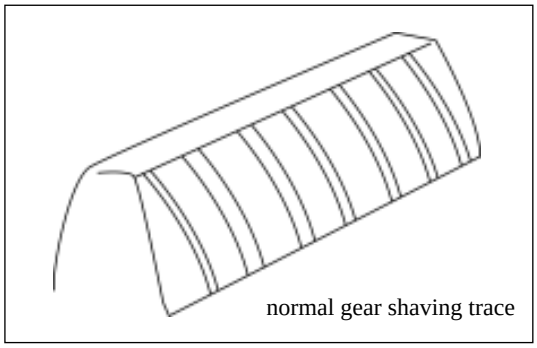
Check all parts by visual check to see whether there is damage or serious or uneven wear (parts needed be substituted by new parts such as O-ring, oil seal and etc. shall be excluded). Abandon the damaged or weary parts that will affect on their performance. The check items are as follows:

- Burr: tips protruded from the material regionally
- Rag: broken small blocks or particles
- Crack: surface thread showing the material is partly or completely separated.
- Excessive abrasion：Refer to the serious or obvious abrasion beyond of application limit.
- Reduction change：Material slip caused by the heavy pressure on part of it.
- adhesive bonding：Granules of the soft metal are dispersed and bonded on the hard metal surface.
- Ditch trance: partial crack or trough that means the material transfer instead of material loss.
- Pitting corrosion：Damages to the metal surface caused by pressure, which are displayed due to color change caused by heat generated by metal friction.
- Step wear：a weary step may be seen or felled between the neighboring interface or between the non-touching face due to the excessive wear.
- Uneven wear: Partially, unevenly distributed wear, which includes holes, bright spots, uneven polishing or other visual drawbacks.

2. Gear or Chain sprocket tooth inspection

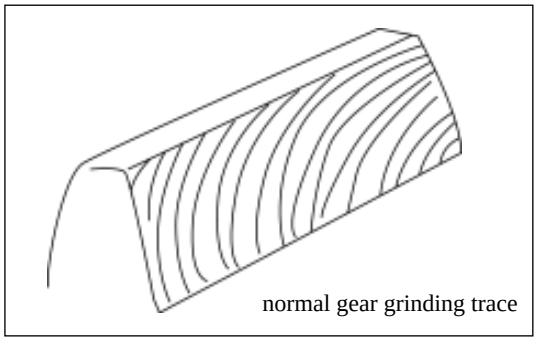
Check the gear and chain sprocket tooth according to the following process:

(a) Normal gear shaving trace.



normal gear shaving trace

(b) Normal gear grinding trace.



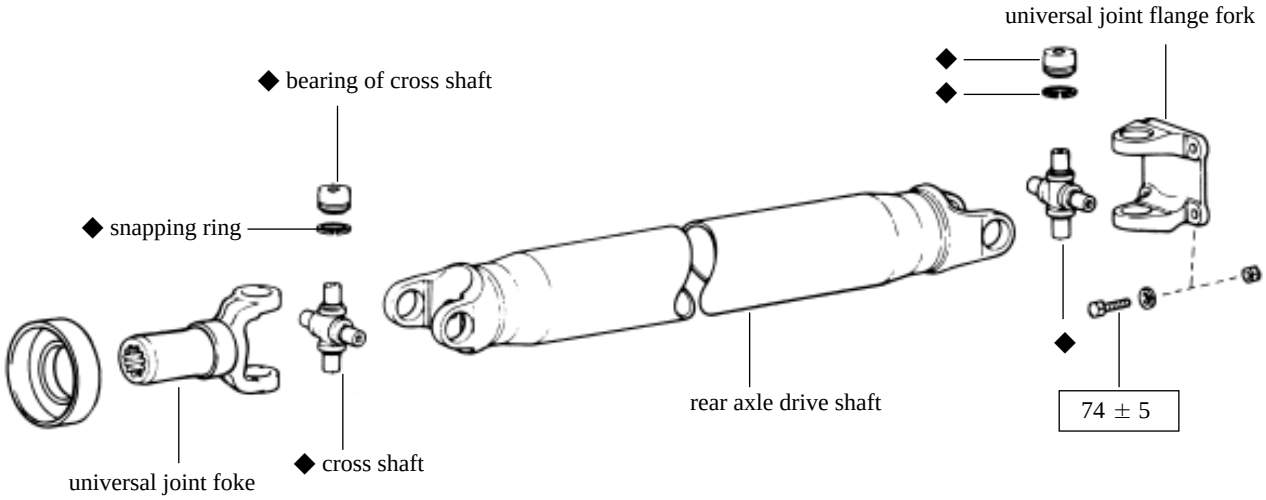
normal gear grinding trace

Drive Shaft

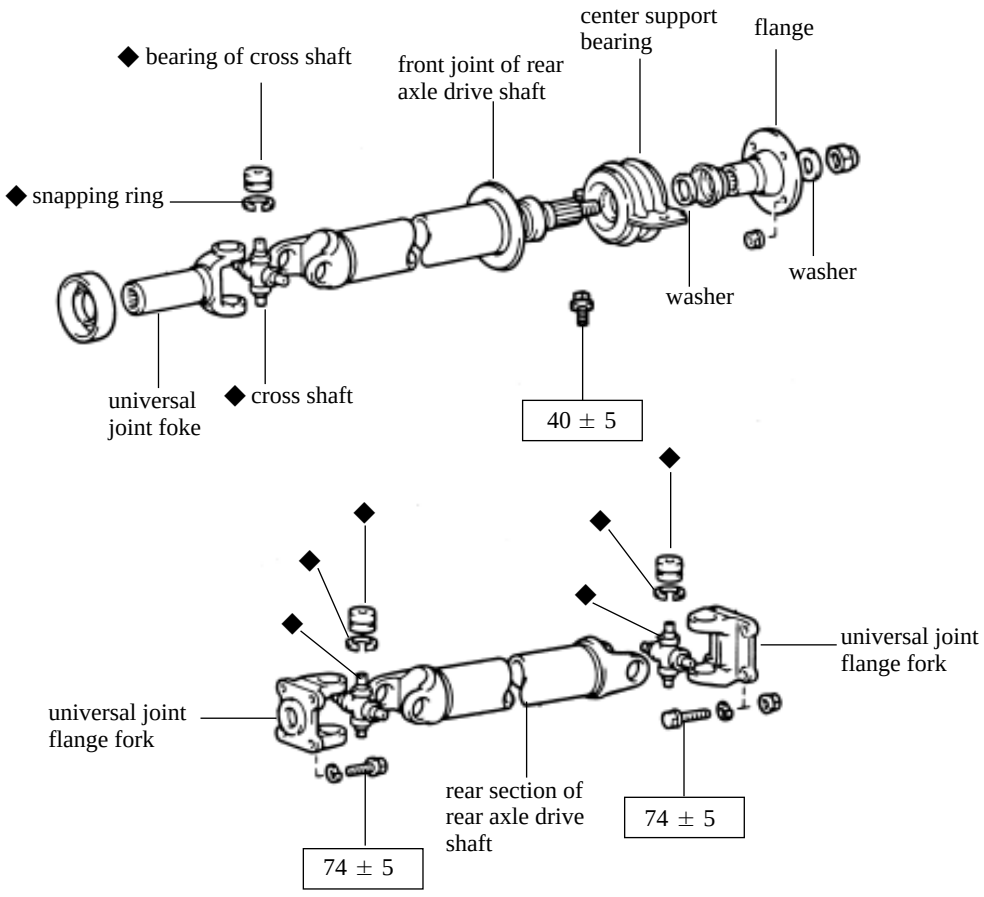
Element Drawing

2WD

two-joint type

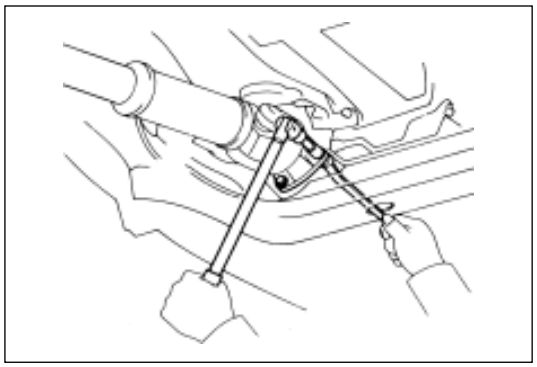


three-joint type

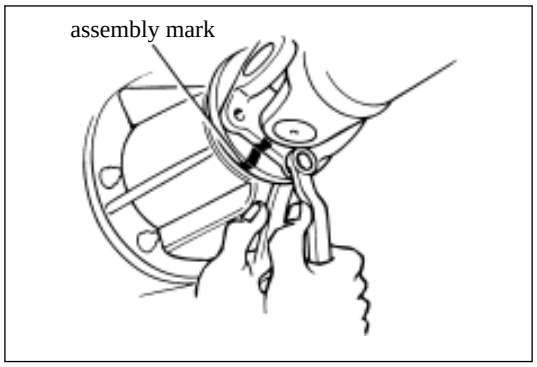


N*m : specified torque

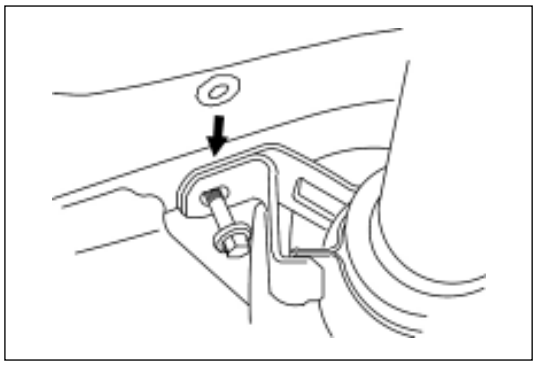
◆ Parts that cannot be reused after being used



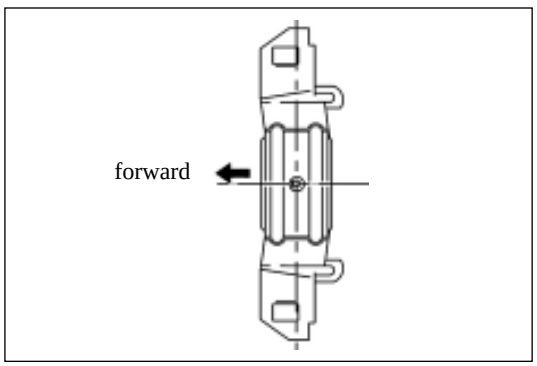
2. Mount on the front axle drive shaft.
   Mount on it and screw up the four bolts according to the specified torque.
   Fastening torque：(74 ± 5)N • m



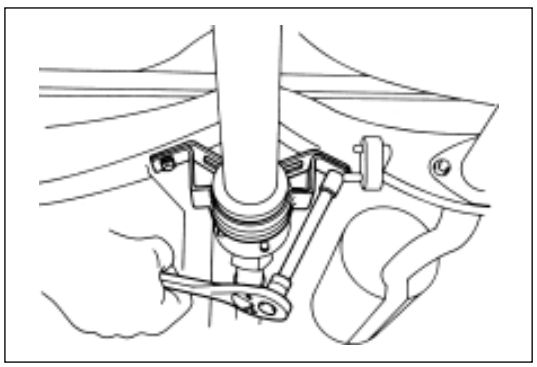
3. Connect the universal joint flange fork of the rear axle drive shaft on the relative differential flange.
   (a) Align the assembly marks on flanges and connect the flanges with four sets of bolt and nut, and
   (b) Tighten the sets of bolt and nut according to the specified torque.
   Fastening torque：(74 ± 5)N • m



4. Mount the center support bearing on the frame beam (three joint type)
   (a) Use two mounting bolts to mount the center support bearing on the frame beam and screw up them manually.



   (b) Check the bearing seat, which shall be vertical with the drive shaft, and adjust the bearing seat when necessary.
   (c) Check the central line of the central bearing. The central line of the central bearing shall be the same with that of the bearing seat when vehicle is in the non-loaded stage.
   (d) Adjust the bearing seat if necessary, and

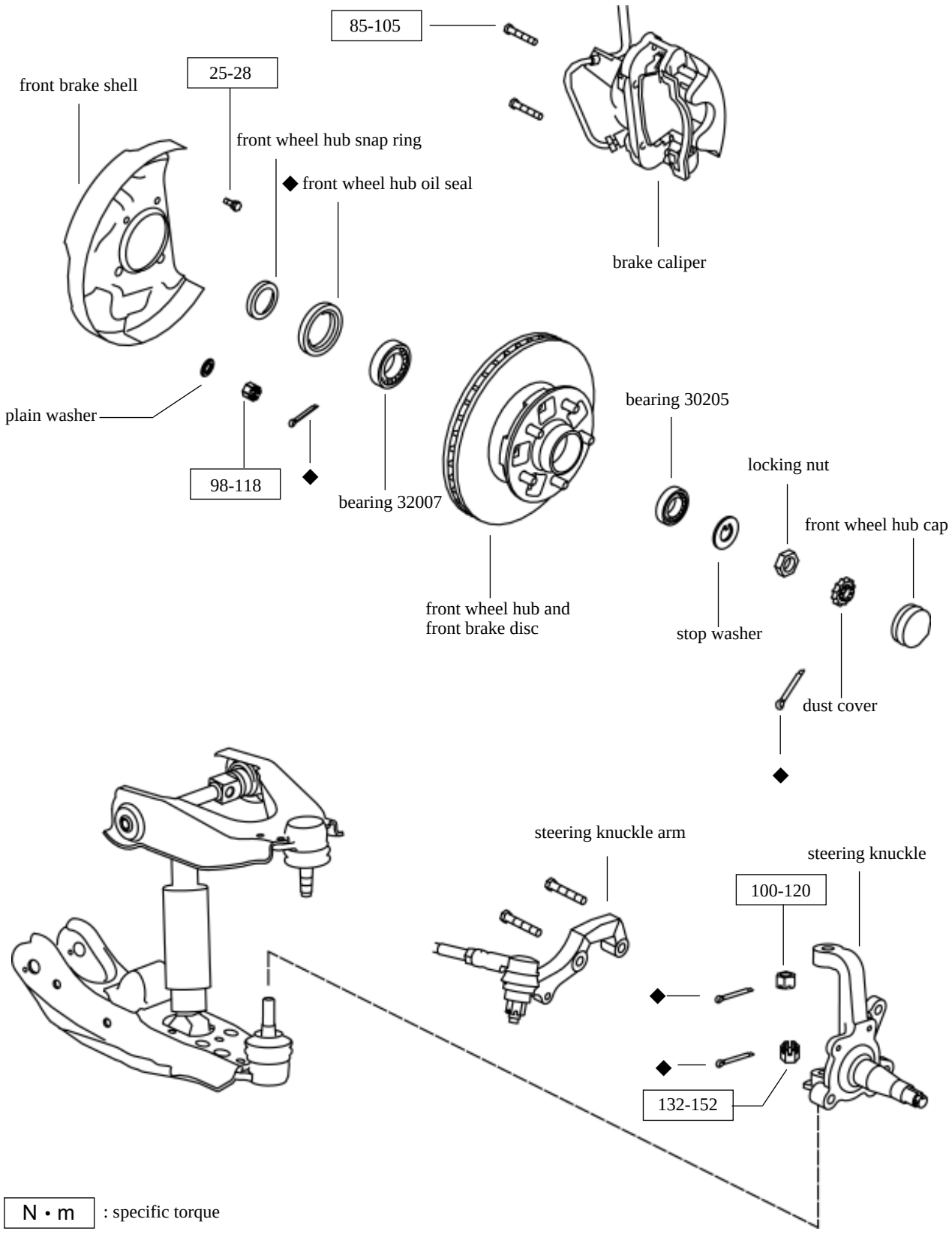


   (e) Screw up the mounting bolts according to the specified torque.
   Fastening torque：(40 ± 5)N • m

Front wheel hub and steering knuckle

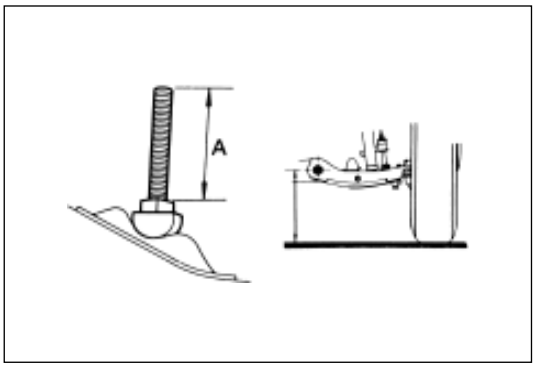
Element Drawing

Dr



N • m : specific torque

◆ Used component which can not be used any more

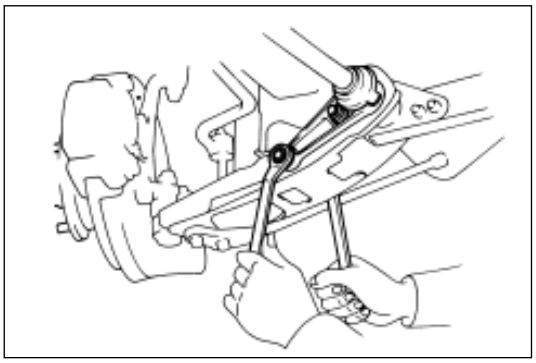


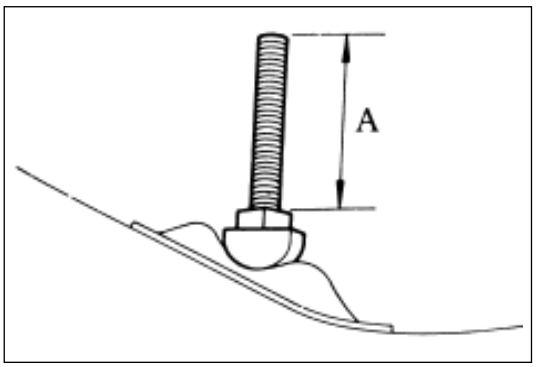
Mount of Torsion rod Spring

Notice: the torsion rod spring marked with "L"(left) or "R" (right), do not mount the springs at the incorrect location.

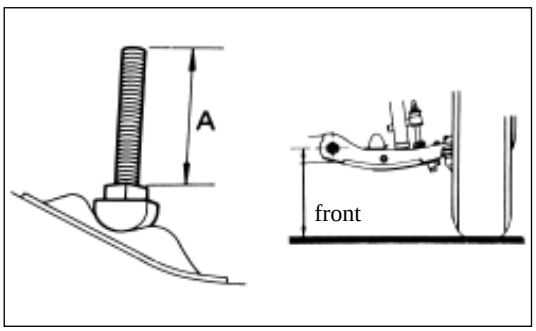
1. Mount the torsion rod spring, pedestal arm and torsion arm;
   (a) Coat the lithium base grease on the spline of torsion rod spring.
   (b) Align the wide-teeth parts and then mount the pedestal arm on the torsion rod spring.
   (c) Align the wide-teeth parts and then mount the torsion arm on the torsion rod spring.
   (d) Mount the torsion rod spring on the side of torsion arm and mount on the pedestal arm on the adjusting bolts.
   (e) Screw up the torsion arm nuts according to the specified torque.

   Fastening torque：(83)N・m

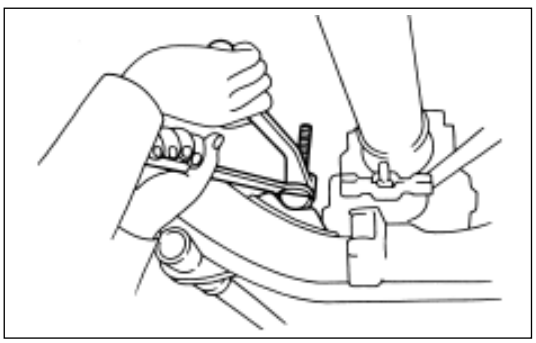




   (f) Screw up the adjustable nuts so that the protruding length of the bolt is equal to that before tearing down.

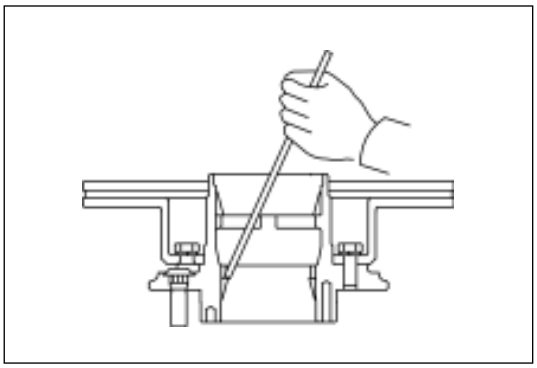


   (g) Mount on the wheel and dismantle the bracket, bounce the vehicle several times so as to make the suspension in place.
   (h) Screw up the adjustable nut to regulate the ground clearance.



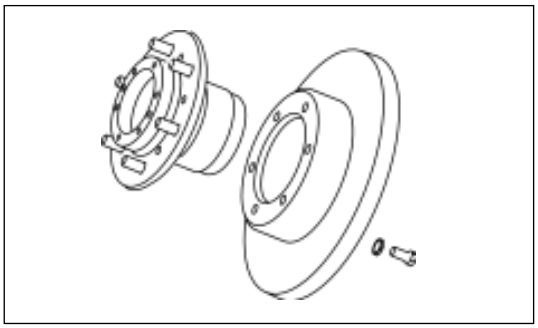
2. Tighten the locking nuts according to the specified torque.
   Tighten torque ：(83 ± 5)N・m

3. Mount on the dust cover.

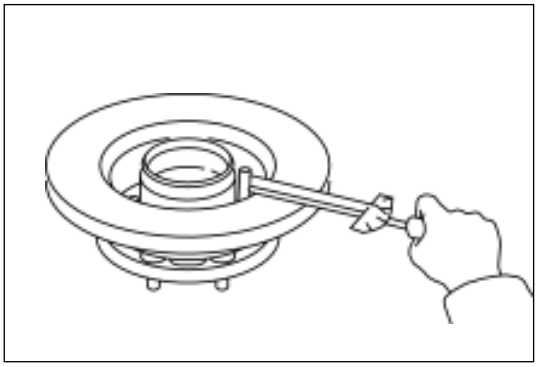


5. Front hub bearing outer race inspection and change
   (a) Check each bearing
   Wash the inner and outer races of each bearing, and check them whether they are wearied or damaged.
   (b) Tear down the outer race of each bearing.
   Tap out the bearing outer race with copper bar and hammer.

Notice: bind the dismantled inner and outer races of bearing together to prevent from mixing.



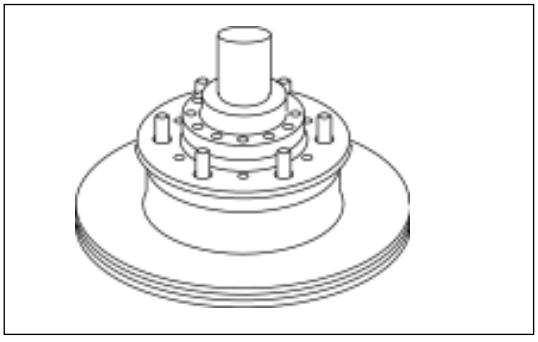
6. Front brake disc inspection and change
   (a) Check the wear situation of front brake disc.
   (b) Tear down the bolts that connect the front wheel hub and front brake disc.



   (c) Connect the front wheel hub and front brake disc and screw up the bolts with moment spanner to the specified torque diagonally

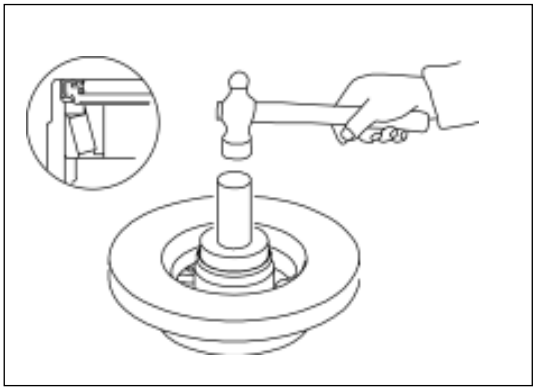
Fastening torque：(70-80)N・m

   (d) Conduct the dynamic balance test on the dynamic balancer, the amplitude value displayed should not be above 13.5g under the condition that the measuring rotating velocity is 796 r/m and the locking rotating velocity 786 r/m, otherwise, tap in the counter balanced clip, which is 4g each, at the corresponding location, the number of the clip should not be more than 4.



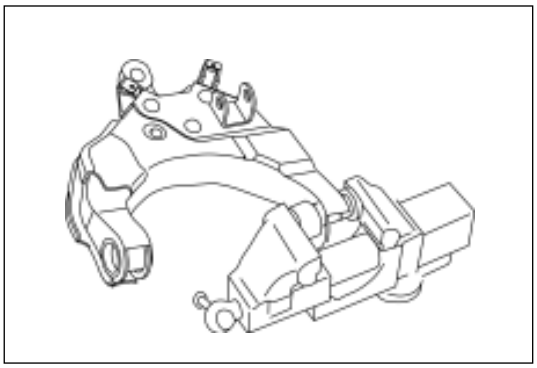
   (e) Tap in the new bearing outer race with the special service tool.

Notice: the inner and outer races of bearing should be changed in set.



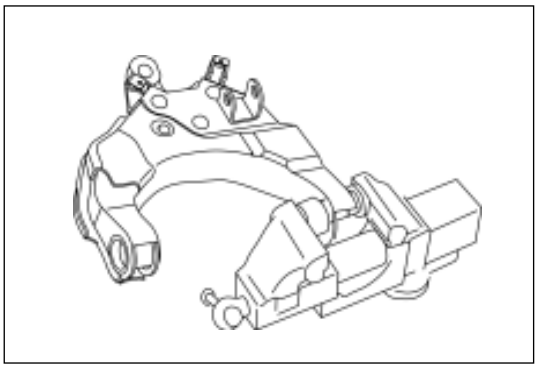
Assembly of Front Wheel Hub

1. Mount on the inner race and roller assembly of front hub bearing (inner) as well as the front hub oil seal.
   Coat the lithium base grease of 4 to 5 mm on the inside surface of the bearing outer race and front wheel hub, and plaster the lubricant in the front hub bearing (inner) and the roller assembly. Coat a little lubricant on the lips of oil seal of front wheel hub, and then tap the oil seal of front hub in place with special service tool.
   Notice: do not coat the lubricant on the front brake disc face.

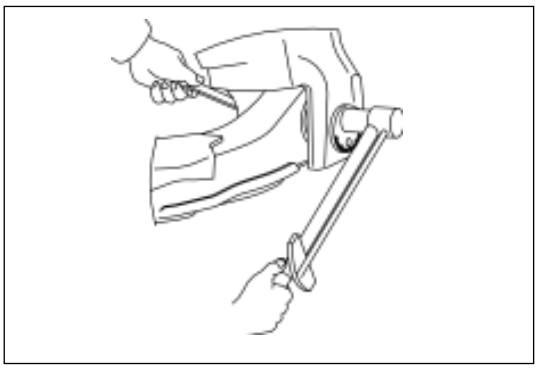


Change of Lower Arm Shaft Bush and Tube

1. Tear down the lower arm shaft bush and shaft tube:
   (a) Tear down the large and small pinch-off gaskets of the lower arm shaft bush first.
   (b) Tear down the lower arm shaft bush and tube.

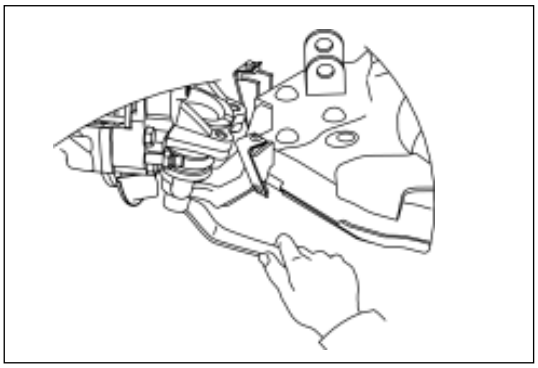


2. Mount the lower arm shaft bush and tube.
   (a) Press down the lower arm shaft bush and tube.
   (b) Press down the large and small pinch-off gaskets of the lower arm shaft bush.

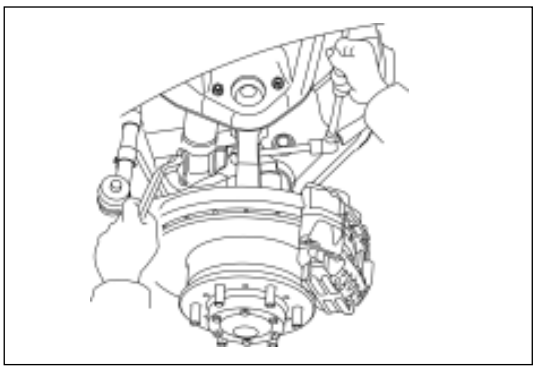


Mount of Lower Arm

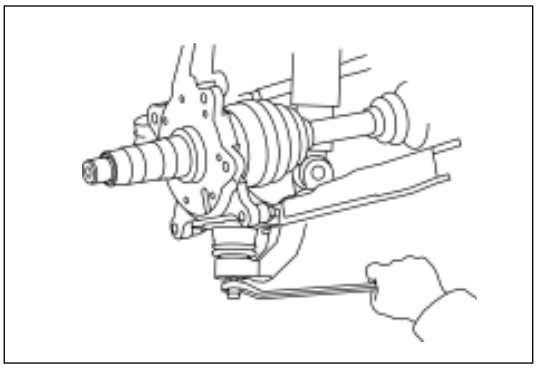
1. Mount on the lower arm
   Align the marks on the eccentric gasket and on the frame, and then screw up the lower arm bolt.



2. Connection for lower ball stud and lower arm:
   Mount the lower ball stud and the lower arm ball stud seat together.
   Fastening torque：(142 0)N・m

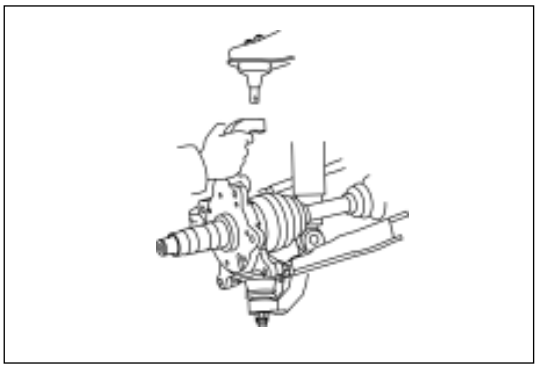


3. Vibration damper mount
   Mount the vibration damper on the lower arm bracket;
   Fastening torque：(137 0)N・m

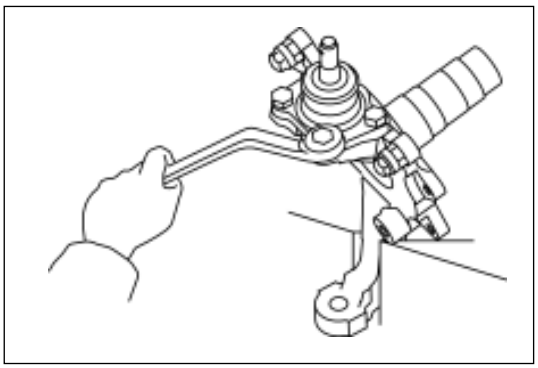


(c) Tear down the split pin and groove nut from the position where the lower ball stud.

(d) Tear down the steering knuckle from the position where the lower ball stud with the special service tool, and

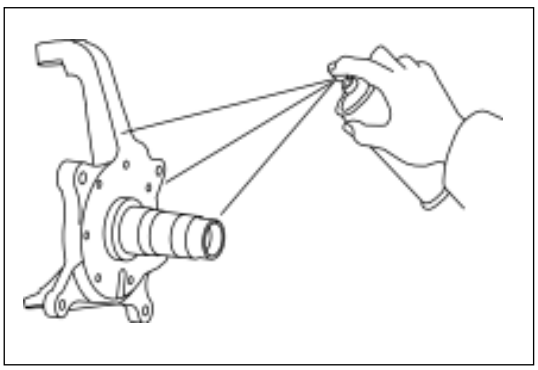


(e) Press down the lower arm to tear down the steering knuckle.



7. Tear down the Lower ball stud assembly from the position where the steering knuckle locates.

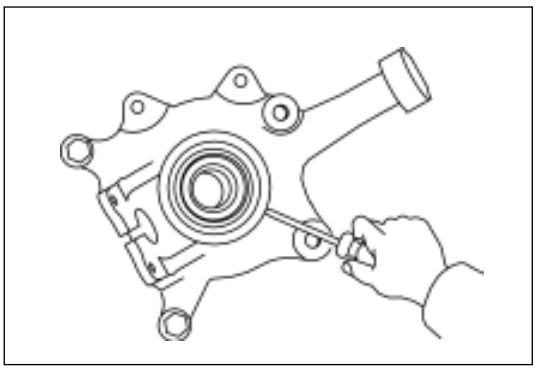
Steering knuckle inspection and change



Inspection on and Change of Steering knuckle

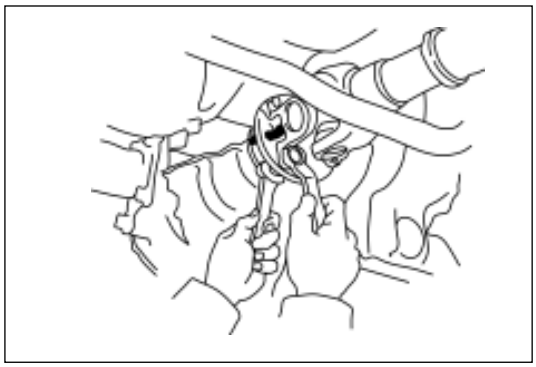
1. Check the steering knuckle

Check the steering knuckle with the dye penetration agent to see weather has crack, if any crack is found, change the steering knuckle.



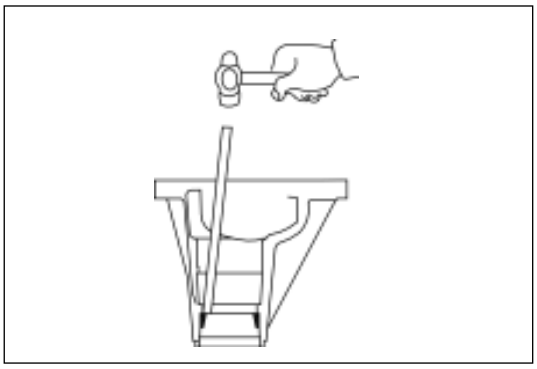
2. Tear down the inner oil seal − drive shaft and the thrust plate − steering knuckle.

Prize out the inner oil seal − drive shaft from the steering knuckle with the screwdriver to take out the thrust plate − steering knuckle.

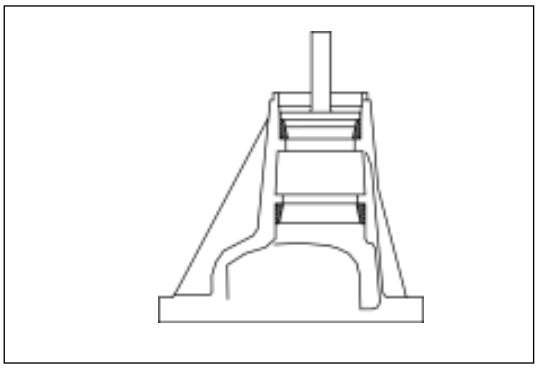


13. Mount the front speed reducer assembly on the frame.

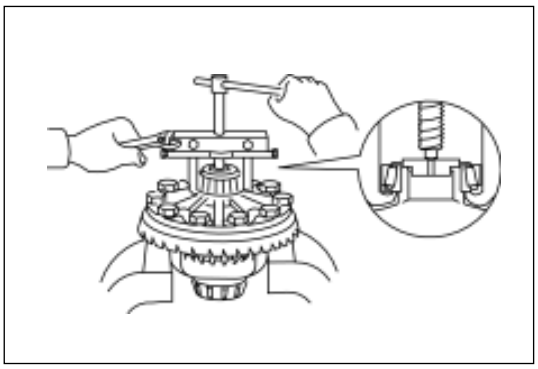
14. Connect the drive shaft to the flange:
    (a) Align the assembly mark and then connect the drive shaft and the front drive axle flange with four sets of bolt and nut.
    (b) Screw up the nuts according to the specified torque.
    Specified torque：(69-79)N・m



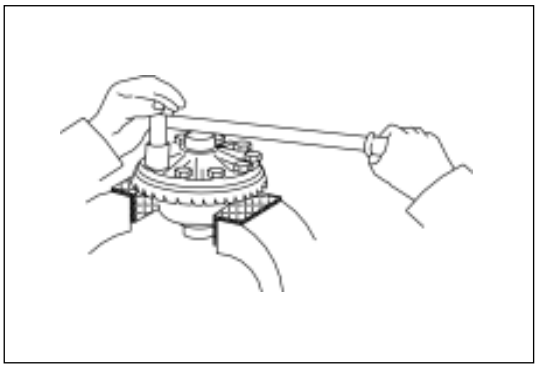
3. Change the outer race of bearing 31306:
   (a) Tap down the outer race of bearing 31306 with copper bar and hammer.



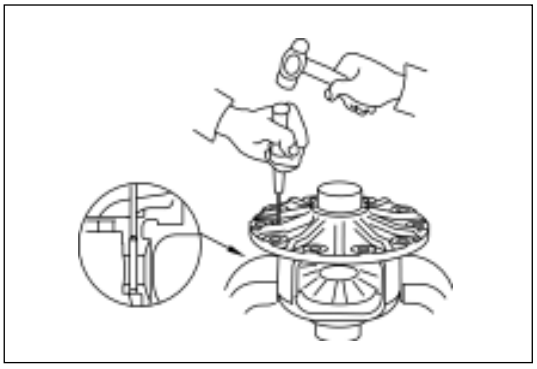
(b) Press in the new outer race of bearing 31306 with SST.
Remark: the inner race of the bearing should be changed with the outer race together.



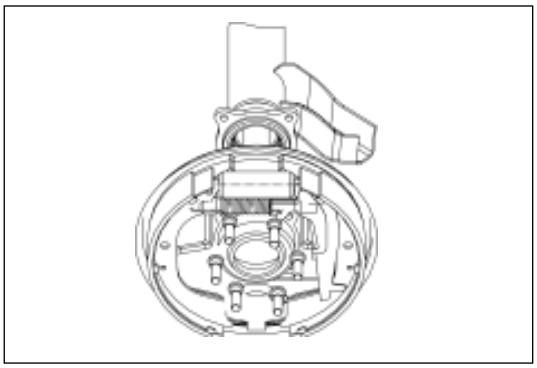
4. Tear down the inner race and roller assembly of the two bearings 50KB801 from the differential housing.
   Tear down the inner race and roller assembly of bearing 50KB801 with SST.



5. Tear down the axle driven bevel gear:
   Tear down the bolts and lock plate by tapping lightly the axle driven bevel gear with the copper until tear them down.

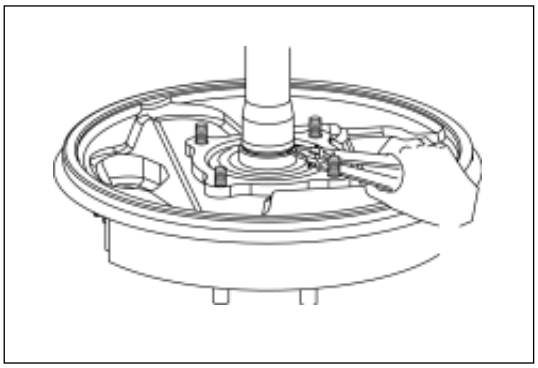


6. Differential disassembly
   (a) Tap out the pin with SST.

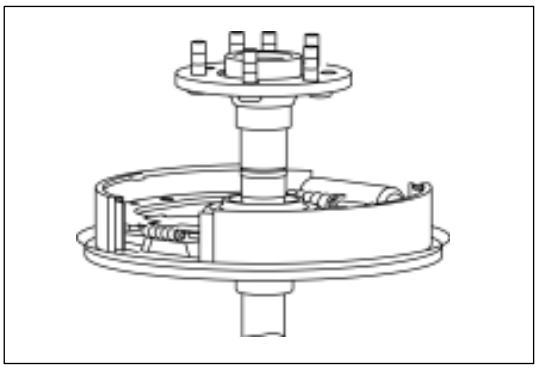


Dismantle of Rear half Axle Shaft

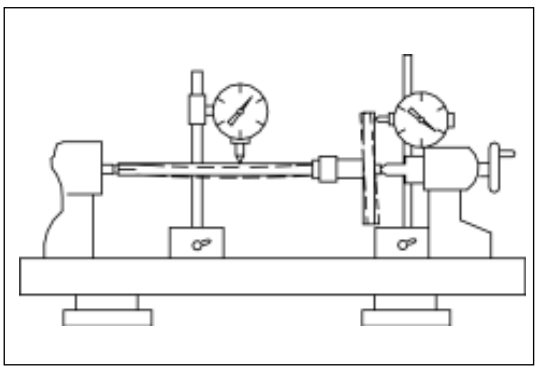
1. Tear down the wheels.
2. Tear down the rear brake drum.
3. Tear down the grab end of the bracing wire of hand brake from the rear brake.
4. Tear down the half-shaft and the rear brake assembly from the rear axle housing.



5. Tear down the flat steel retainer ring for shaft from the half-shaft;
   Tear down the flat steel retainer ring for shaft with the ring calipers.

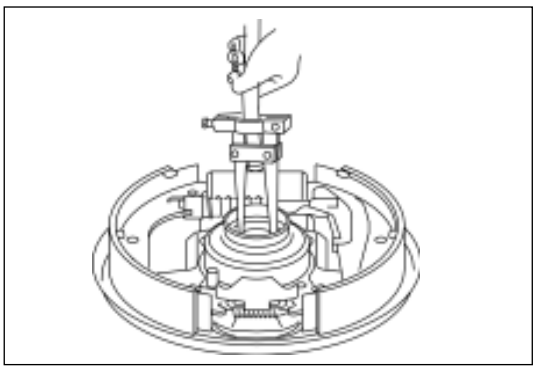


6. Tear down the half-shaft:
   Put down a wooden plate on the flat ground, and thrust the end of spline of half-shaft and rear brake assembly toward the wooden plate to separate the shaft and the rear brake assembly.



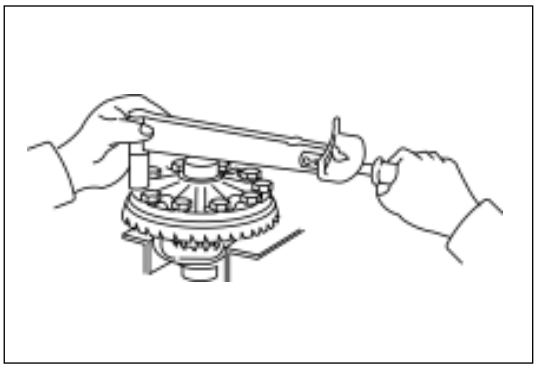
Inspection on and repairing of half-shaft parts

1. Check the wear, damage and swing difference half-shaft and the flange.
   Max shaft run-out: 2 mm
   Max flange run-out: 0.2 mm
   In case the half-shaft is damaged, or wearied or the measuring value of the swing difference is excessive, change the half-shaft.

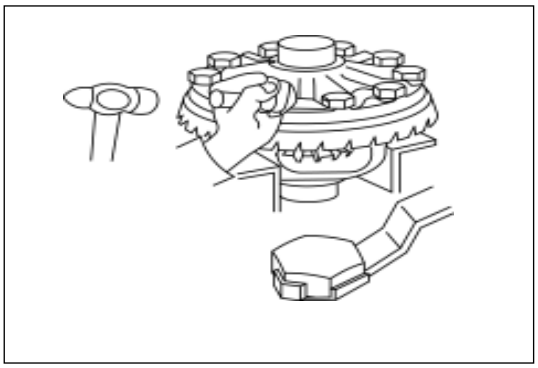


2. Check he oil seal of rear wheel bearing:
   Check to see whether there is wear or damage, and change the oil seal if necessary.

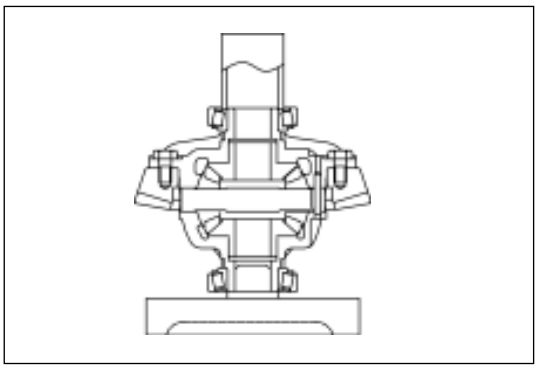
3. The disassembly of the outer oil seal of rear wheel bearing;
   Tear down the outer oil seal of rear wheel bearing with SST.



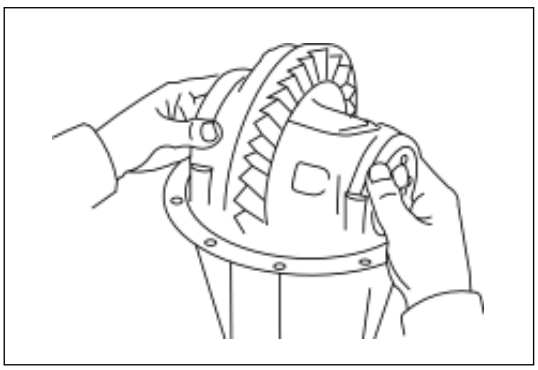
5. Mount the axle driven bevel gear on the differential housing:
   (a) Mount on the lock plate and screw up the bolts to the specified torque.
   Tightening moment：(65-95)N・m
   Notice: screw up the bolts diagonally.



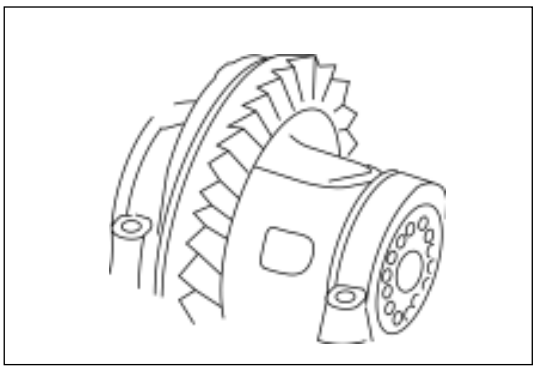
   (b) Tighten the lock plate with hand hammer and flat head pinch.



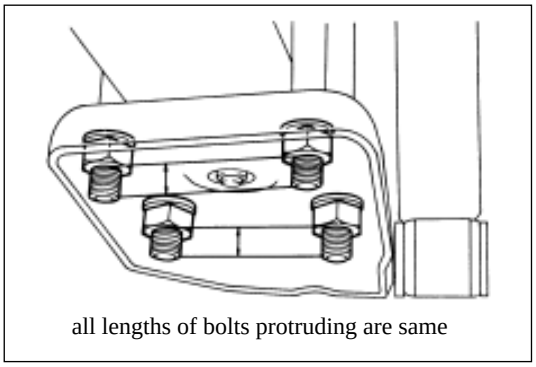
6. Mount the inner race and roller assembly of bearing 200719E;
   Mount the bearing inner race and roller assembly in differential housing with the pressure machine and SST.



7. Mount the differential assembly;
   Mount the differential in the speed reducer housing.
   When mounting the differential that hasnít changed the inner race and roller assembly of bearing 200719E, ensure the outer race of the left and the right bearings that has disassembled should match with their inner racers respectively.

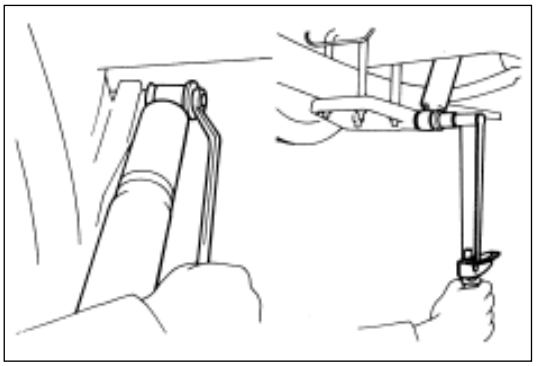


8. Mount the adjusting ring;
   Adjust the clearance between the driving bevel gear and the axle driven bevel gear to the moderate size. And press the bearing outer race to flatten it with adjusting ring, and then screw up moderately.
   Notice: the two adjusting rings should be adjusted synchronically in the movement of same direction.

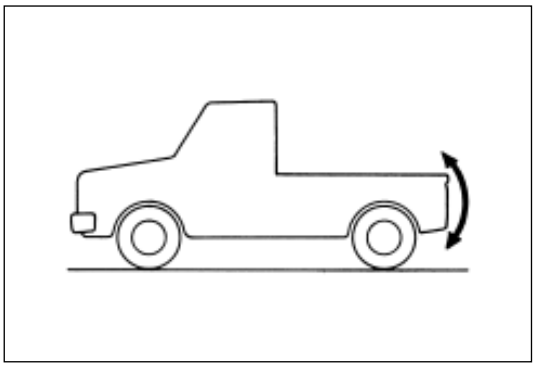


all lengths of bolts protruding are same

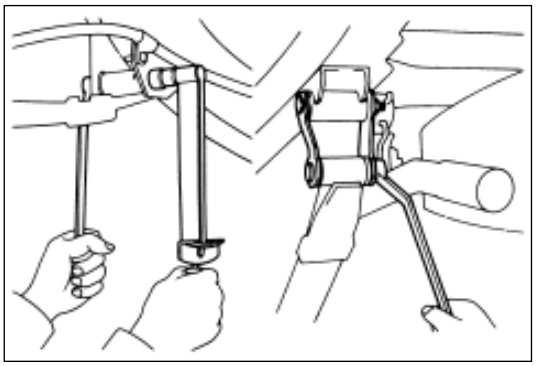
Remark: Tightening U-shaped bolt to the degree that the protruding lengths of all U-shaped bolts under the spring seat are the same.



3. Mount the rear vibration damper
   (a) Connect the vibration damper to the vehicle frame with bolts and then tighten the bolts.
   Tightening moment: (25)N • m
   (b) Connect the vibration damper to the sprint seat with bolts and tighten these bolts.
   Tightening moment: (25)N • m



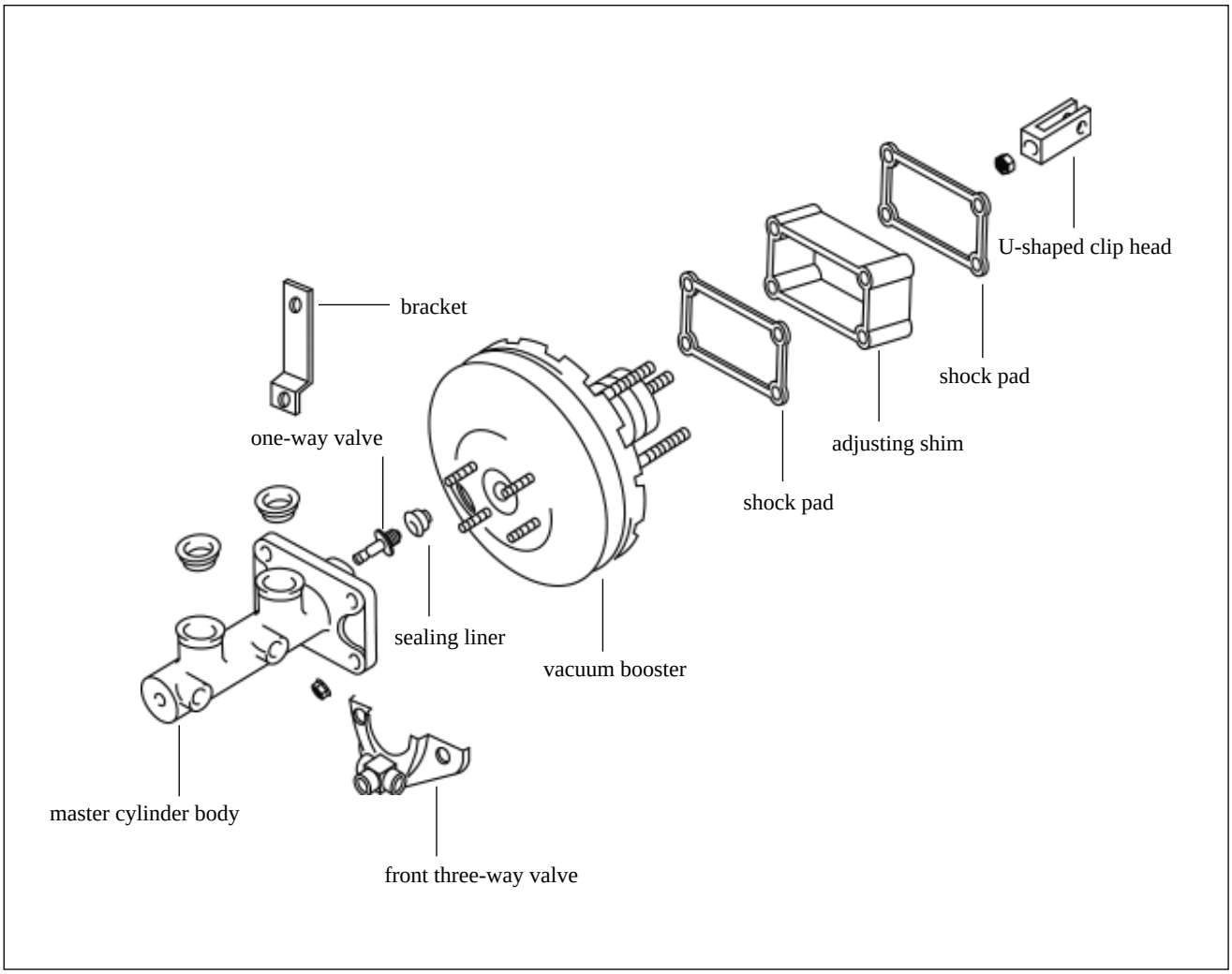
4. Keep the suspension frame in stable status;
   (a) Mount on the wheel;
   (b) Remove the bracket, and make the vehicle bounce vertically for several times so as conduce it in stable status.



5. Tighten the front ear pin and rear ear pin;
   Tighten the nuts of front ear pin;
   Tightening moment: (90 0)N • m
   Tighten the nuts of rear ear pin;
   Tightening moment: (90 0)N • m

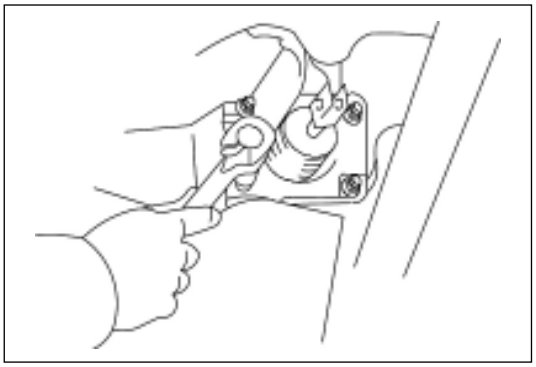
Vacuum booster

Disassembly of Vacuum Booster



Disassembly of Vacuum Booster

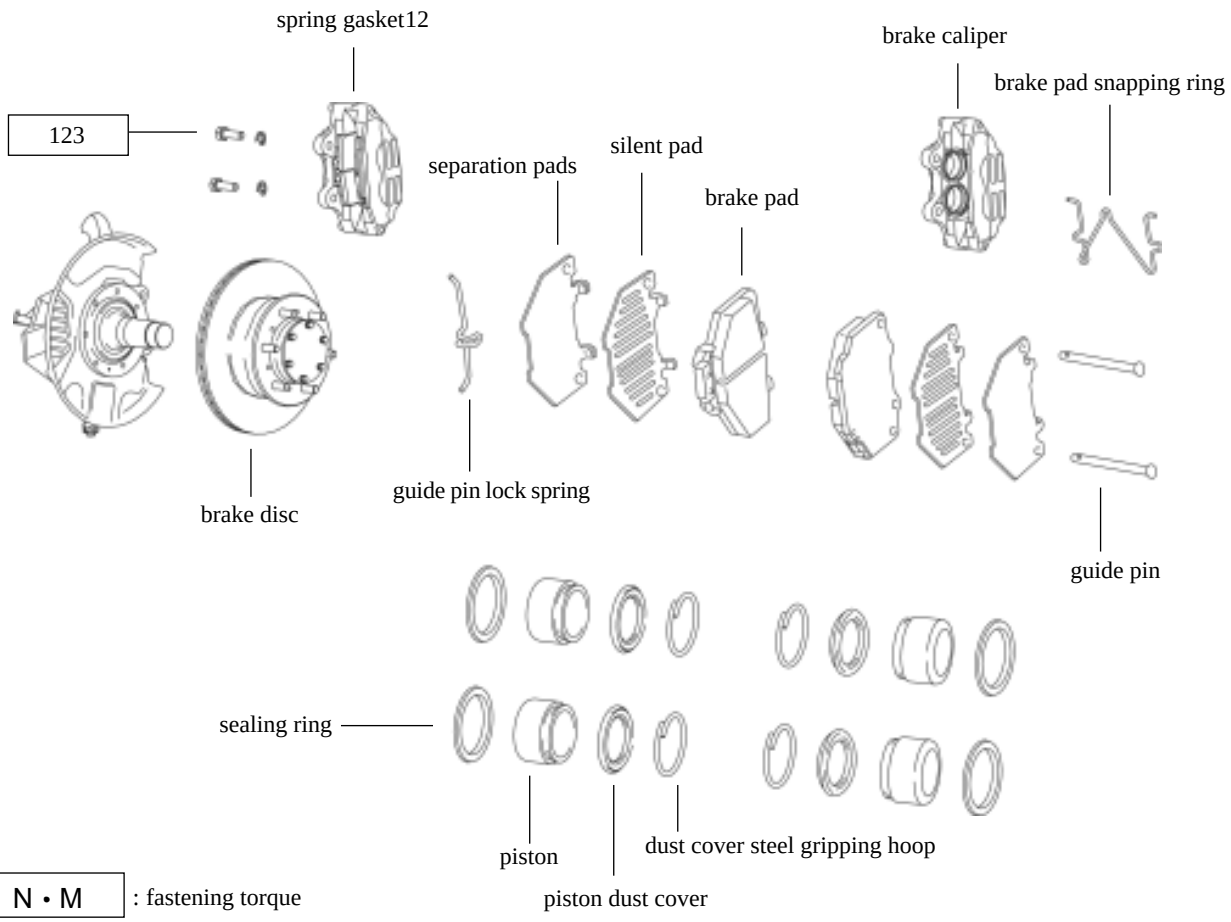
1. Take apart the master cylinder
2. Tear down the vacuum hose from the vacuum booster
3. Tear down the return spring
4. Tear down the clamping pin and U-shaped clamping pin
5. Tear down the vacuum booster, sealing washer and U-shaped clamping head

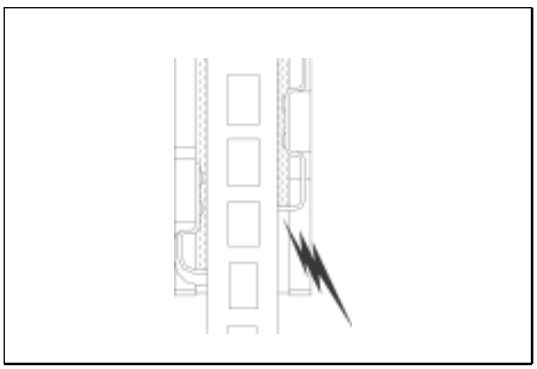


Front Brake

Element figure

SF

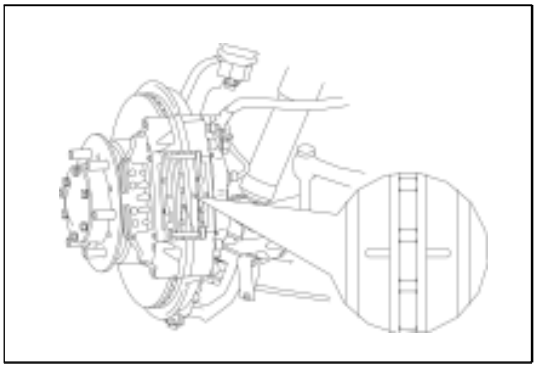




Change of Brake pad

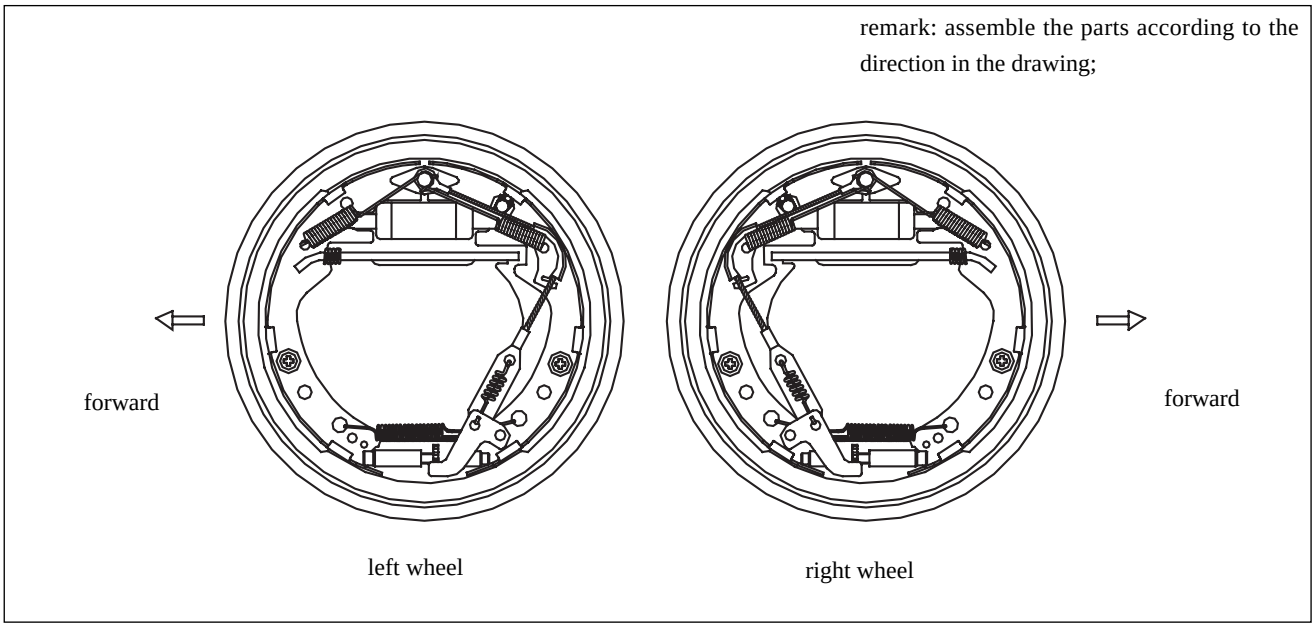
Remark: In case there is a continuous screaming from the front wheel when braking the vehicle during driving, check the alarm pad for friction limit for brake pad. If there is friction trace on the alarm pad with the brake disc, change the brake pad

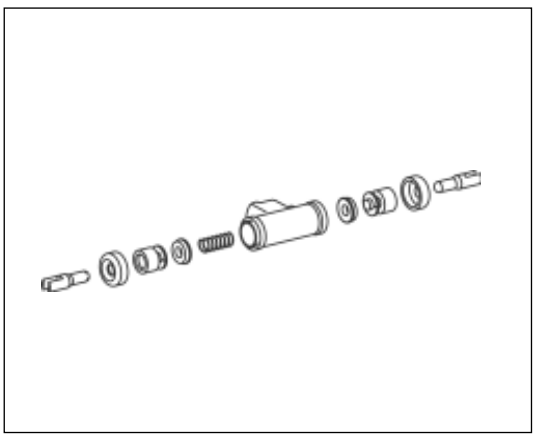
1. Disassemble the front wheel;



2. Check the thickness of friction material of brake pad.
   Check the thickness of friction material of brake pad, if it fails to be within the specified range, change the brake pad.
   Min thickness：2.0mm

Assembly of Rear Brake

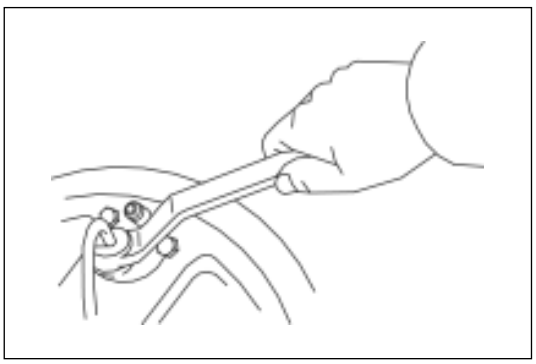




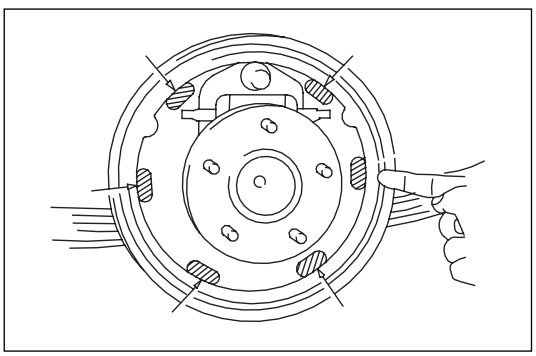
Assembly of Rear Brake

1. Assemble the wheel-brake cylinder:
   (a) Coat moderate lithium soap base glycol grease on the piston cup;
   (b) Assemble the wheel-brake cylinder:
   - Mount the two piston cups on two piston;
   - Encase the spring and two pistons in the wheel cylinder body and
   - Mount the two dust covers

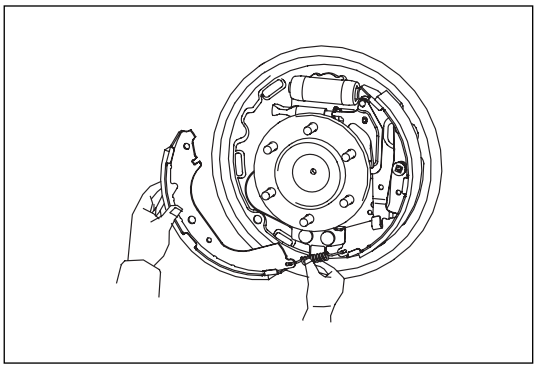
   Remark: Assembly shall be conducted correctly according to the direction shown in the drawing.



2. Mount the wheel-brake cylinder:
   (a) Use two bolts to fix the wheel-brake cylinder on the rear bottom plate.
   Coat moderate sealing glue (Glue 704) on the position where the wheel-brake cylinder connects with the bottom plate.
   Fastening torque：(16～20)N・m
   (c) Connect the brake pipeline on the wheel-brake cylinder.
   Fastening torque：18N・m



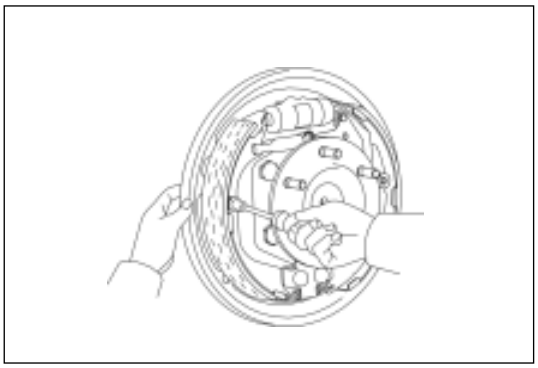
3. Coat the following parts with moderate lubricant that resistant high temperature (do not pollute the friction plates);
   (a) The upper plain of the hex convex platform where the bottom plate connects the brake shoe;
   (b) Contact face of the brake shoe and the top lever of wheel cylinder;
   (c) Contact face of the brake shoe with the support pin.



7.Mount the front brake shoe:

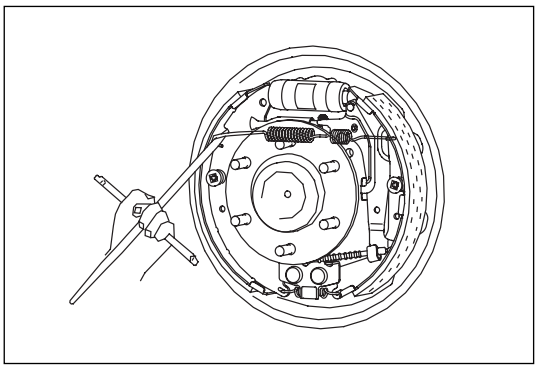
(a) Mount the lower tension spring between the front shoe and the back shoe.

(b) Mount the front brake shoe in such manner that the end shoe is inserted in the wheel-brake cylinder, and mount correctly the adjuster.

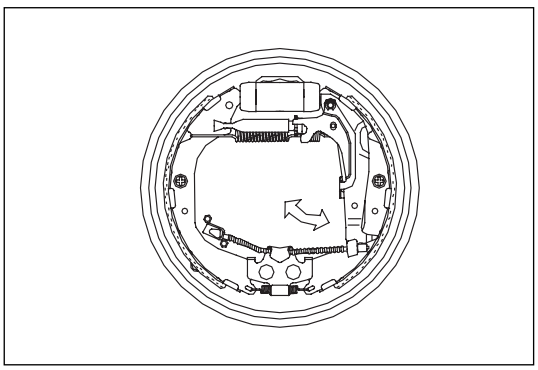


(c) Mount the pressure spring, pressure spring cap and claming pin.

Notice: Do not let the oil or lubricant touch the brake shoe.

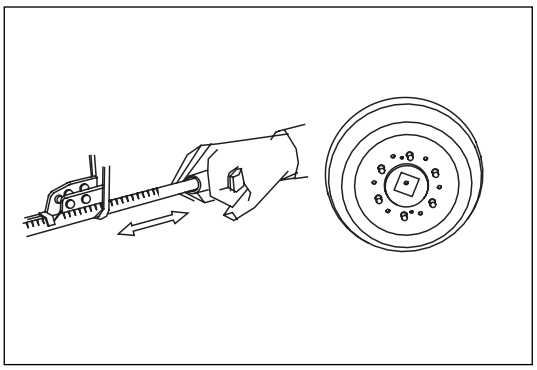


(d) Mount the upper tension spring.



8. Check the operation of self-adjusting mechanism.

(a**)** Move the parking brake lever of rear brake shoe forward and backward as shown in the drawing, check the self-adjusting screw arbor to see whether it can rotate or not, if not, check the rear brake to see which part has problem.



(b) Adjust the adjuster length and shorten it as can as possible.

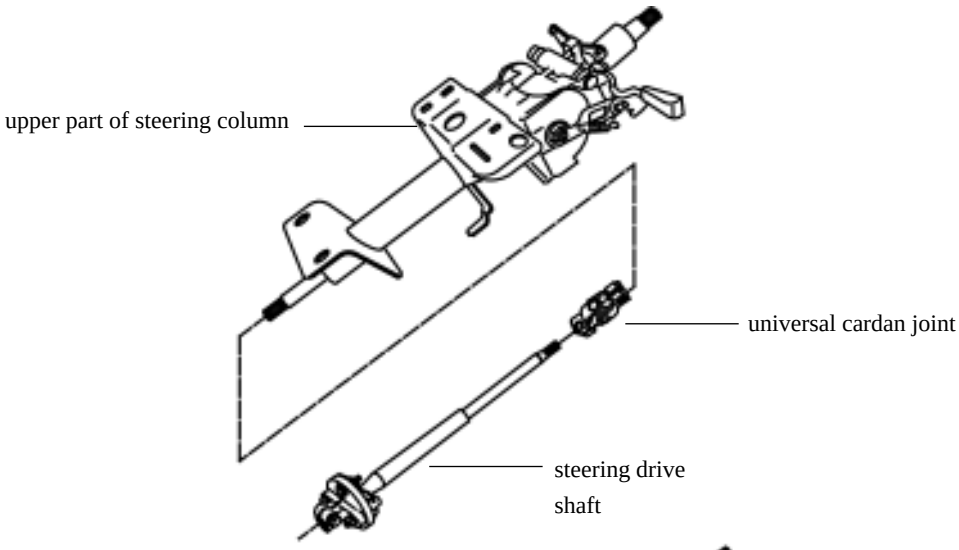
(c) Mount the brake drum.

(d) Drag the parking brake lever to the max distance until no quack-quack is heard.

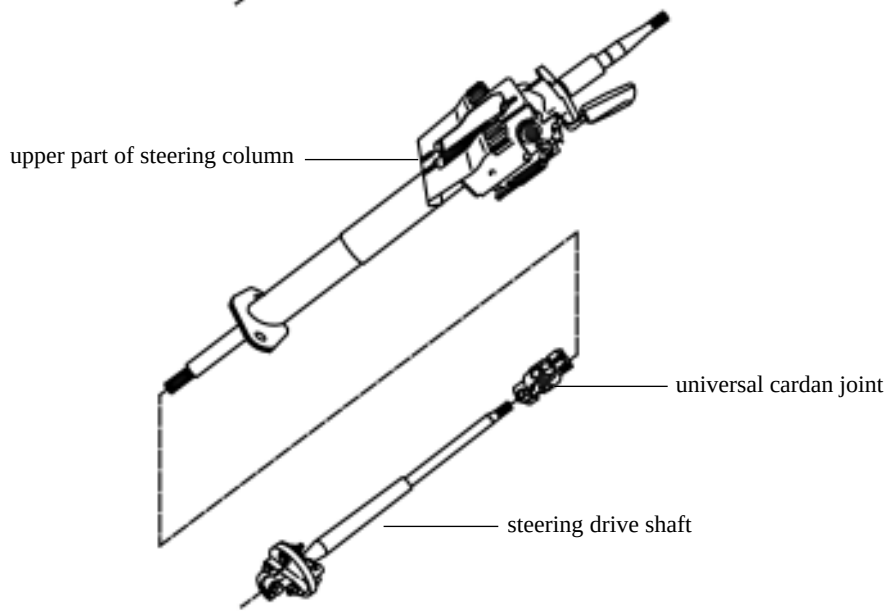
Steering Column

Element figure of adjustable steering column

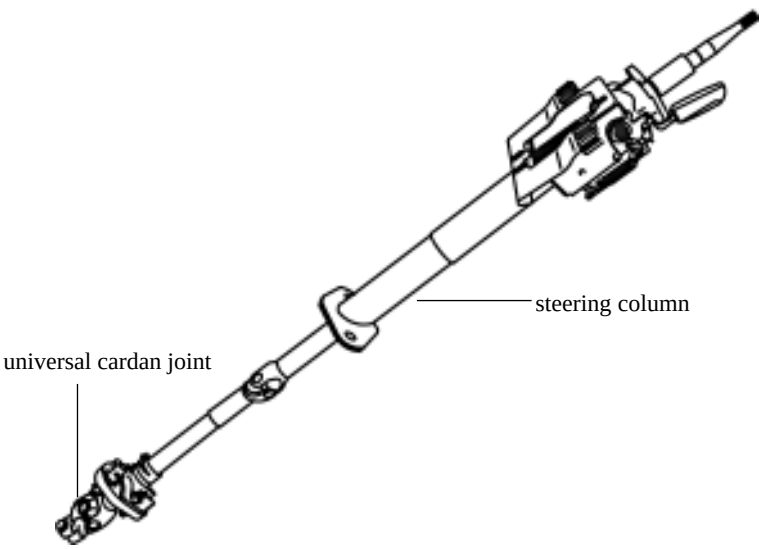
Dr SF

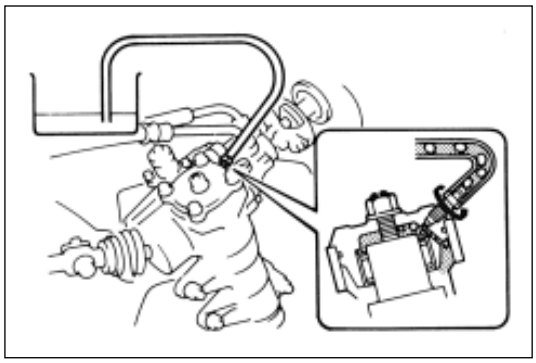


SL SK SY



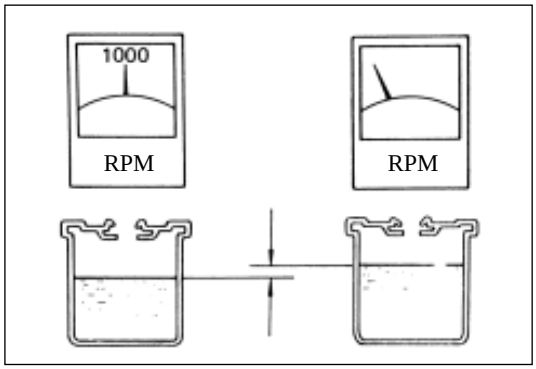
SJ





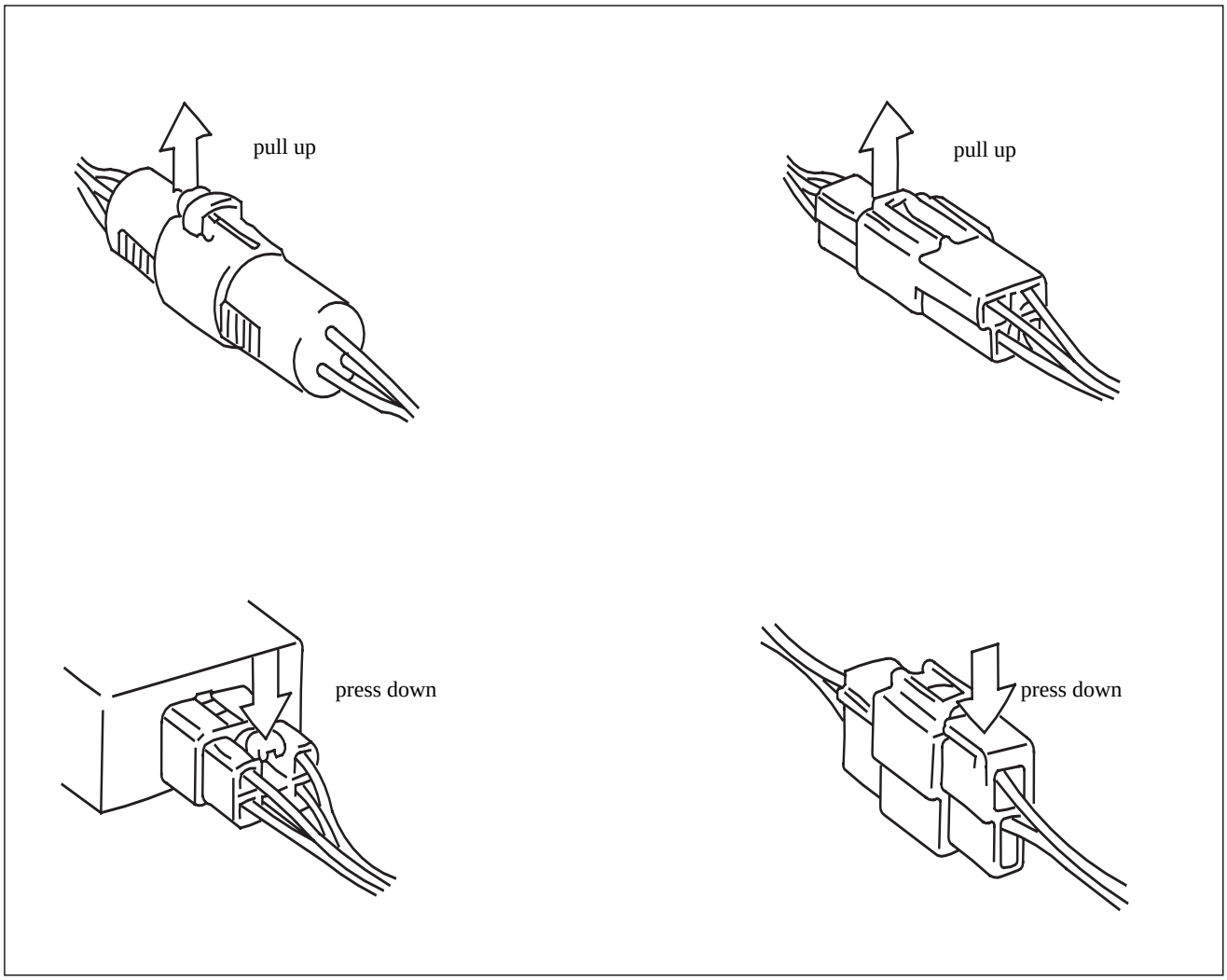
6. Exhaust the air in steering system:
   (a) Loosen the bleeding plug;
   (b) Screw up the bleeding plug when there is no air bubble exhausted from the pipeline.

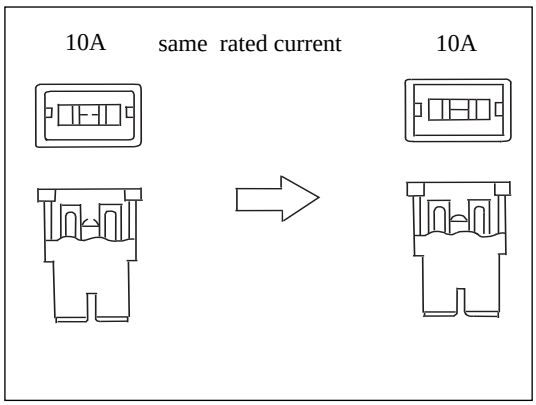
   Notice: take care not let the ethane pipe slide from the bleeding plug, because the liquid is high in temperature and pressure.

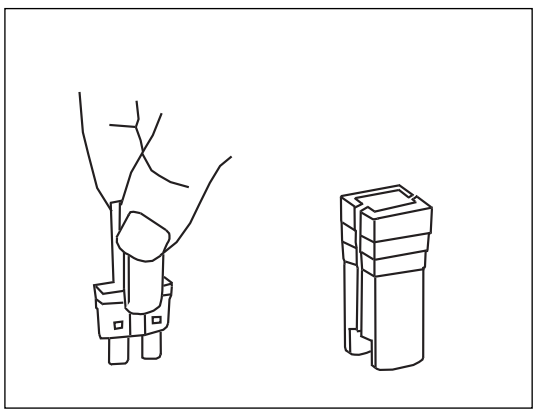


7. Check to see whether there is air bubble or turbidities in the oil cup, and ensure the liquid level will not exceed the max value when the engine stops,

   Measure the liquid height under the condition of engine running, then turn off the engine and measure the liquid height again. In case any problem is found, repeat the approaches of (5) and (6) in *Power Steering Liquid Change*. If the problem still exists, repair the power steering oil pump.







Change of fuse and maxi-fuse

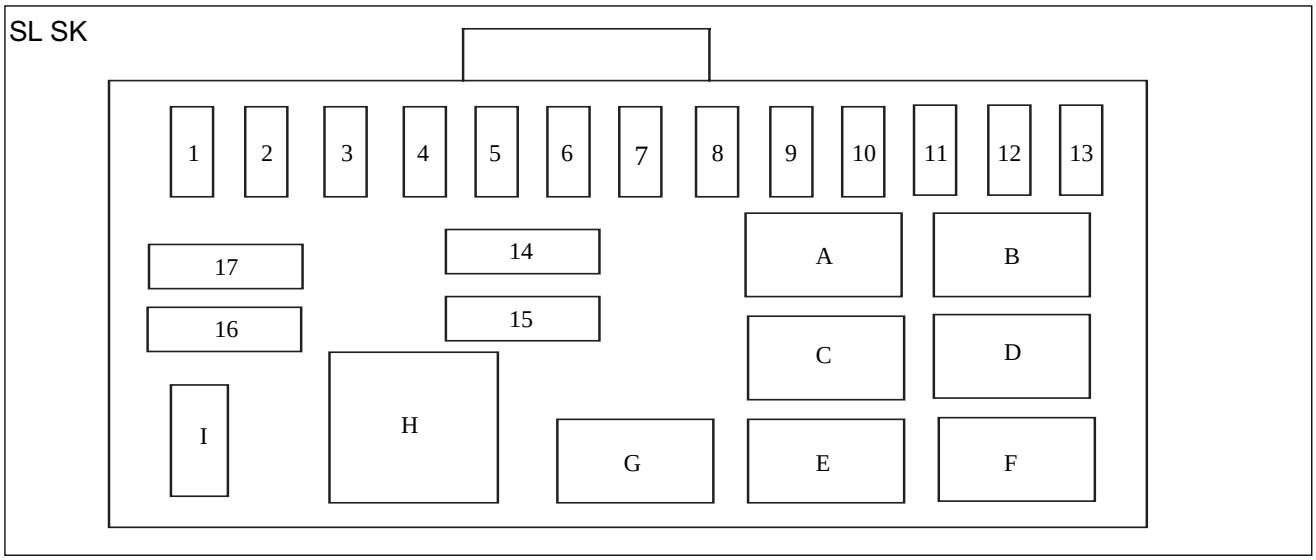
Remark: in case of exchanging the fuse or maxi-fuse, the fuse or maxi-fuse with same rated current should be used.

Notice:

1. Before exchanging the fuse or maxi-fuse, all electric appliances and ignition switches should be turned off firstly. And the rated current of fuse or maxi-fuse should not be exceeded.
2. When disassembling or assembling the fuse, the disassembly and assembly tools must be used. And they must be pulled out or plugged in vertically. No bend is allowed because the bend will make the connecting terminals depart away, and thus poor connection will occur. In case the fuse or maxi-fuse is burned, it shows there is short circuit. In such situation, the systematic inspection should be conducted by the qualified technician.

   Remark: the disassembly and assembly tools are put on the protective box cover.

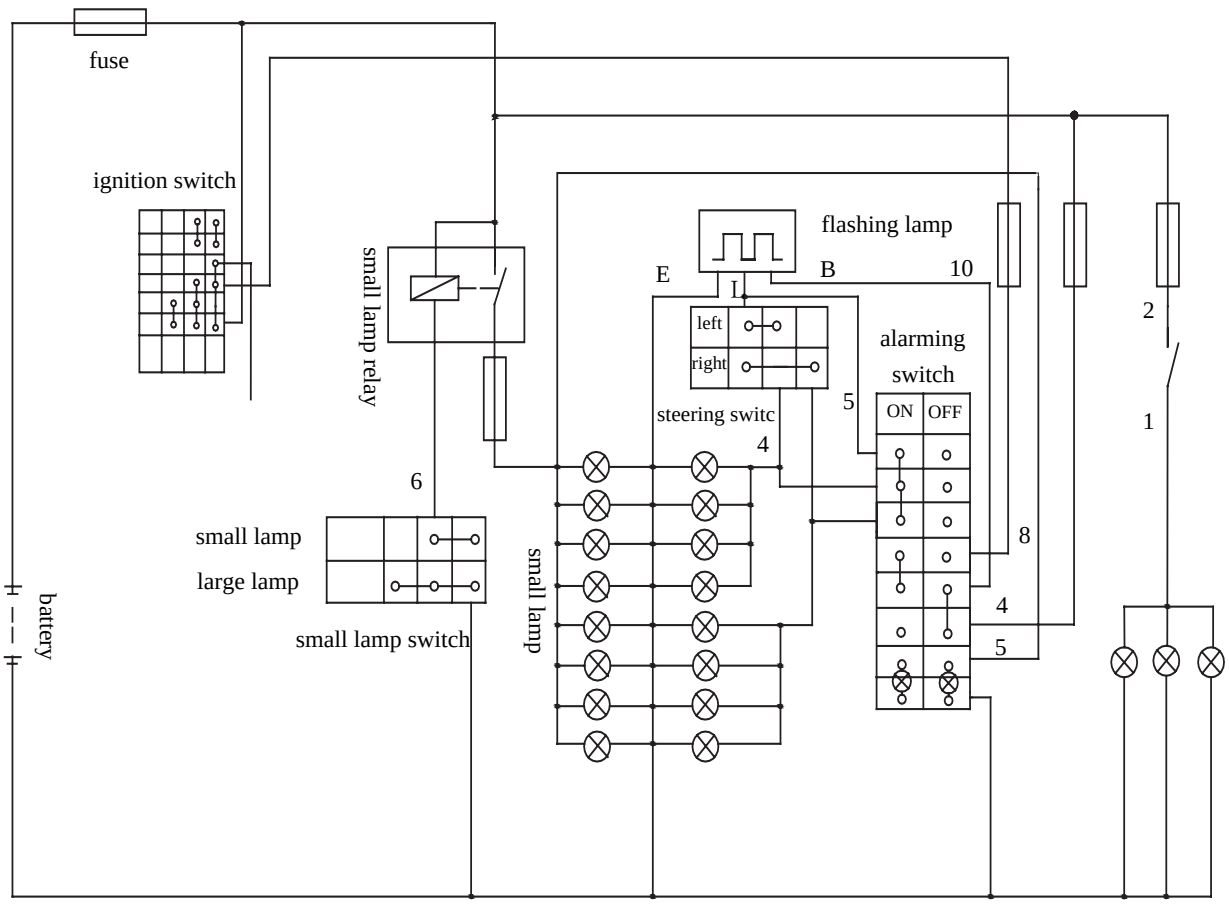
Protective box II (continued)



Fuse		Vehicle	Relay	Vehicle
1. Standby	10A	SL SK	A.electromagnetic fan relay	SL SK
2. Standby	10A	SL SK	small lamp relay	(SL diesel)
3. Standby	30A	SL SK	B.electric window relay	SL SK
	20A	(SL diesel)	cold start relay	(SL diesel)
4. Rear fog lamp	10A	SL SK	C.frost relay	SL SKLeft
large lamp	10A	(SL diesel)	charging relay)	(SL diesel)
5. Front fog lamp	10A	SL SK	D.blower relay)	SL SK
Right large lamp	10A	(SL diesel)	thermostatic relay	(SL diesel)
6. Small lamp	10A	SL SK	E.small lamp relay	SL SK
Air-conditioner	10A	(SL diesel)	heating relay	(SL diesel)
7. Electric horn	10A	SL SK	F.large lamp relay	SL SK
Warm air	20A	(SL diesel)	G.air-conditioner relay	SL SK
8. Electric window	30A	SL SK	frost relay	(SL diesel)
Unloa		(SL diesel)	H.rain-brusher intermissive relay	SL SK
9. A/C	10A	SL SK	I.diod	SL SK
Charging	10A	(SL diesel)		
10. Air blower	30A	SL SK		
Electric horn	10A	(SL diesel)		
11. Electronic fan	10A	SL SK		
Dual flasher	10A	(SL diesel)		
12. Right large lamp	10A	SL SK		
Unload		(SL diesel)		
13. Left large lamp	10A	SL SK		
Fog lamp	10A	(SL diesel)		
14. 60A fuse		SL SK		
15. 60A fuse		SL SK		
16. 30A fuse		SL SK		
17. 30A fuse		SL SK		
Unload		SL diesel		

Small lamp steering system

SL SK SY SJ



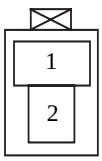
combined switch

8	7	6	5		4	3	2	1
	16	15	14	13	12	11	10	9

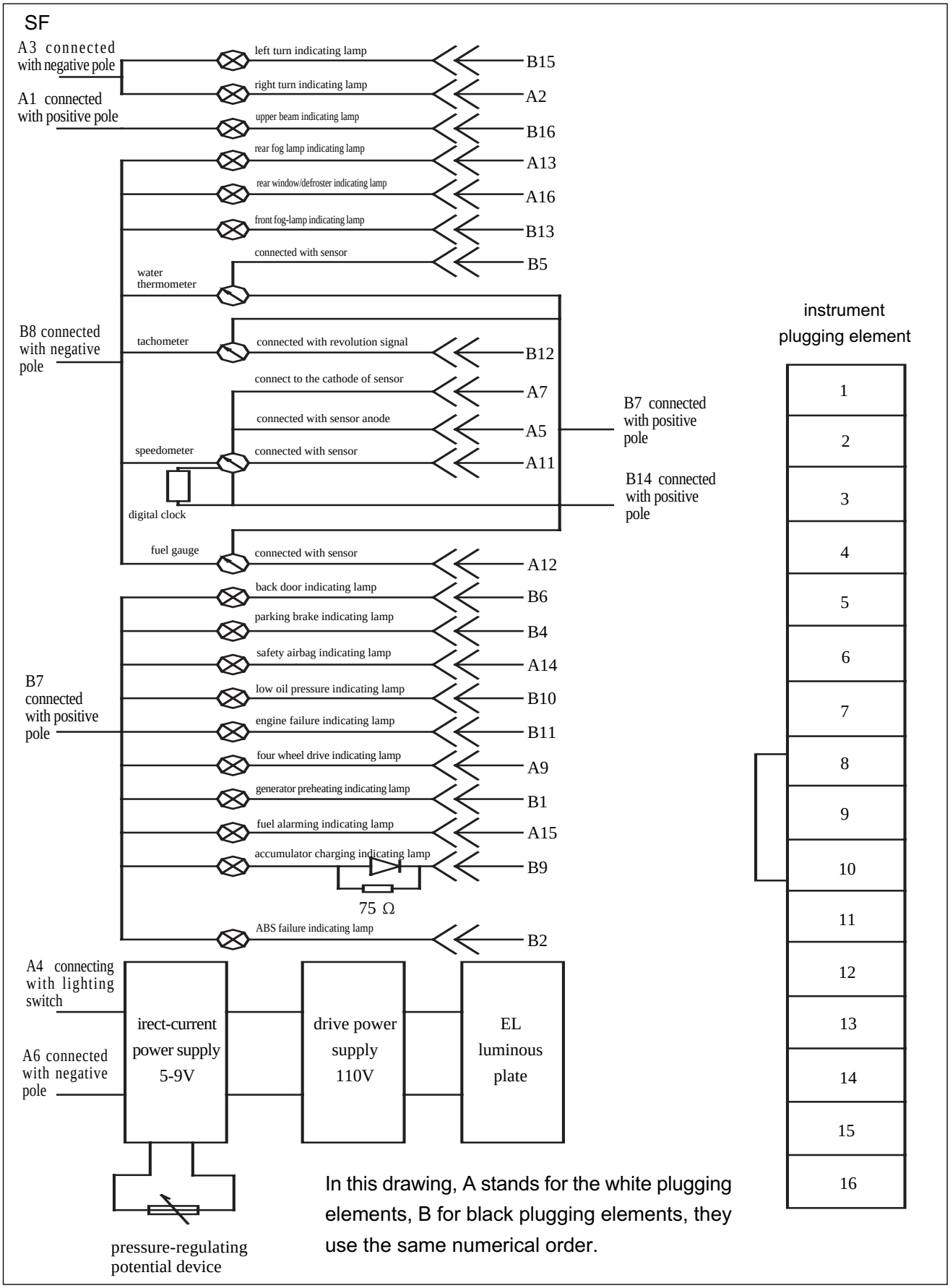
alarming switch lamp

4	3	2	1
8	7	6	5

stop lamp switch

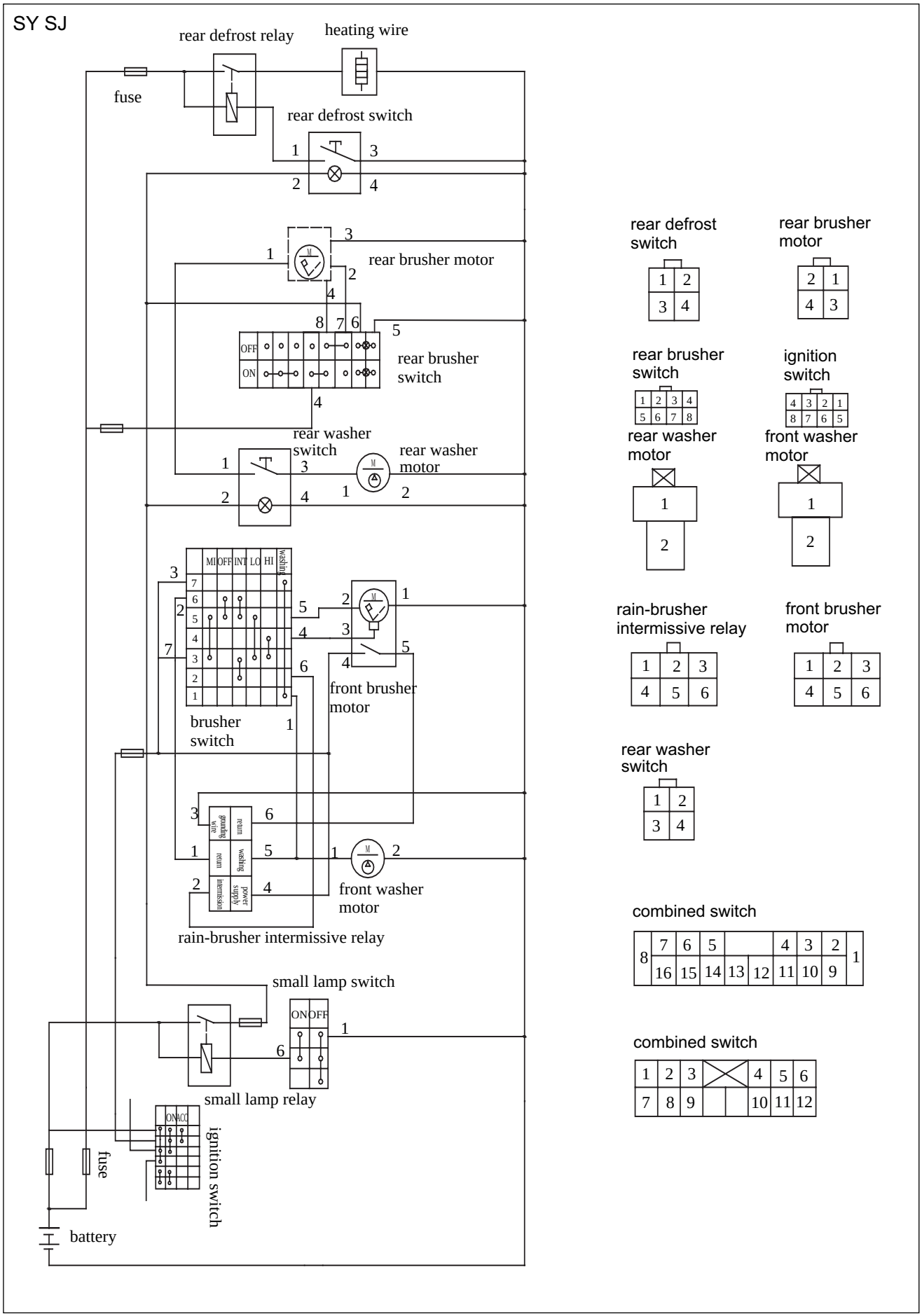


Electric circuit diagram (continued)



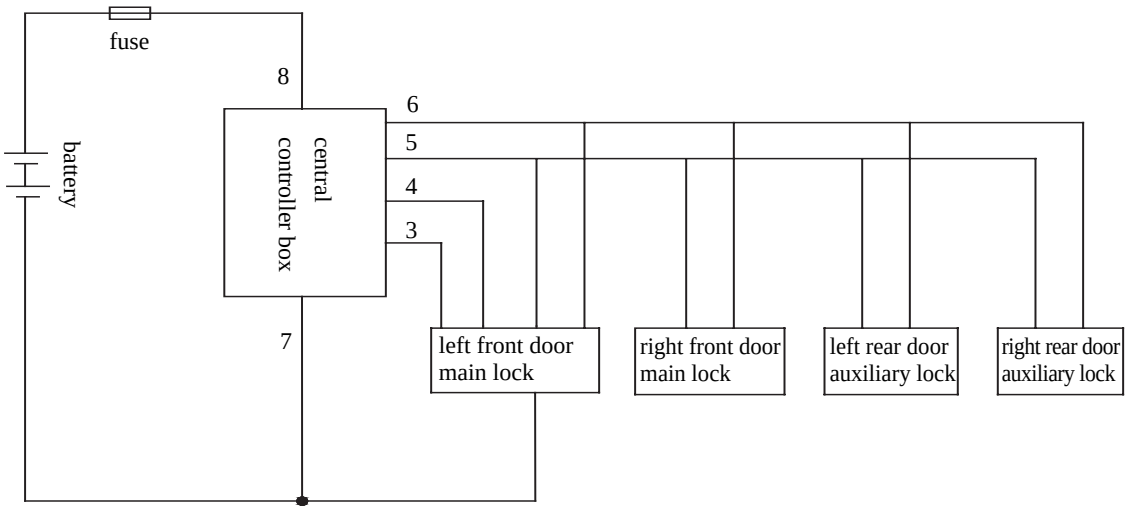
In this drawing, A stands for the white plugging elements, B for black plugging elements, they use the same numerical order.

Electric circuit diagram of front and rear brusher and washing system



Electric circuit diagram of central control lock (continued)

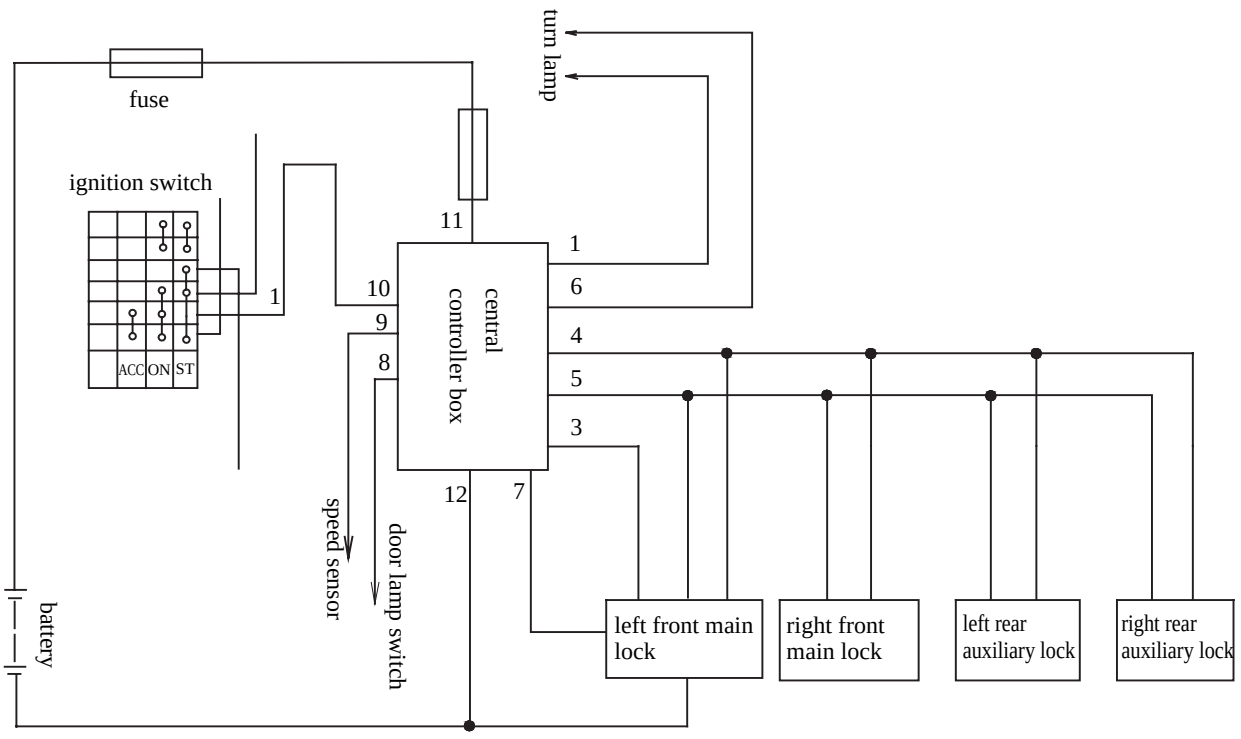
SL SK



control case of central control lock

1	2	3	4	5	6	7	8

SY



control case of central control lock

1	2	3			4	5
6	7	8	9	10	11	12

ignition switch

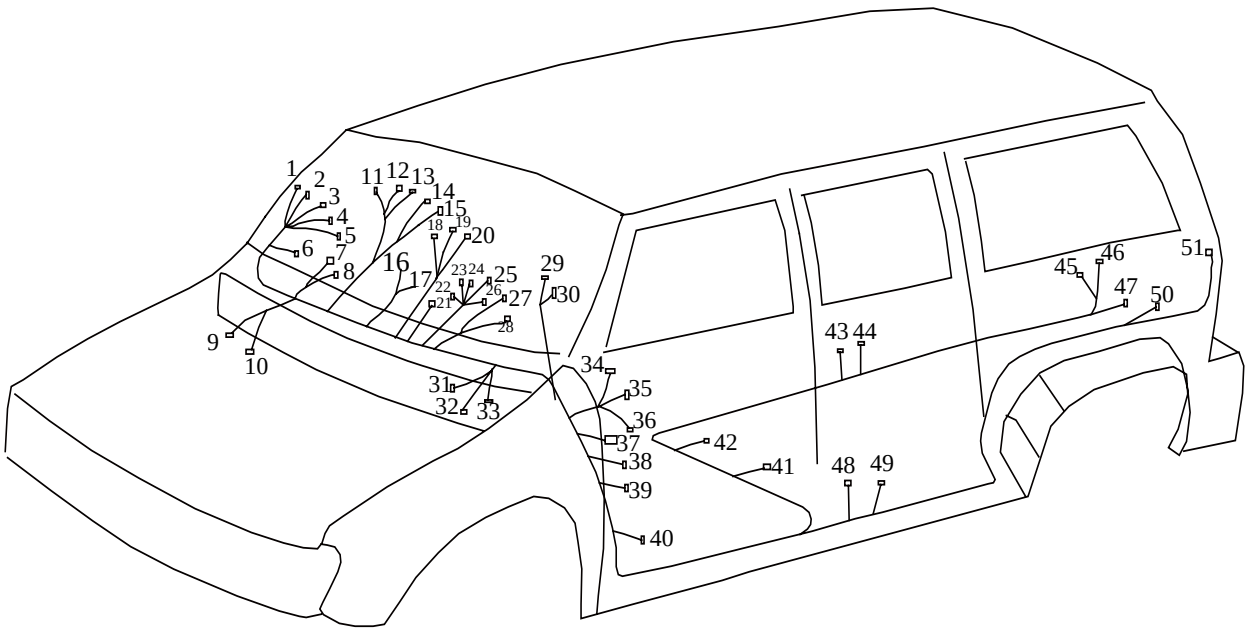
4	3	2	1
8	7	6	5

Inspection on Common Trouble

	Trouble	Possible causes	Repairing approaches	Page
Receiver CD recorder	Lack of power supply	Burned out fuse Wiring failure	Change the fuse and check whether there is short circuit; Make reparation as required	
	Loudspeaker doesn't work	Faalure of loudspeaker Wiring failure	Chaange the loudspeaker; Make reparation as required.	
	Do not read the tape or disc	Receiver failure or CD recorder failure	Change the receiver or CD recorder	
	AM or FM doesn't work	Receiver or CD recorder failure	Change the receiver or CD recorder	
VCD	Non-opening of devices	Aerial failure Wiring failure Main machine failure	Change or repair it as required; Make reparation as required. Change the main device	BE-64
	Neither image nor sound is broadcasted	Failure of main device; converter box failure plus disc box failure	Make inspection as required and change the parts with failure	BE-64
	No image when backing up	Wiring failure Failure of video camera	Conduct an inspection as required and change the parts with failure	BE-64
	FM/TV failure	Failure of aerial amplifier Weak signal from TV station	Make an inspection as required and change the parts with failure	BE-65
	Screen cannot be turned over	Unsuitable main device adjustment Failure of main device	Adjust according to the application instruction;change the main device	BE-65
	Disc box cannot be pushed outside	Failure of disc box	Make an inspection as required	
	Bass speaker doesn't work	Wiring failure Failure of bass speaker	Make reparation as required. Change the bass speaker.	
Electric aerial	Non-raising when receiver is opened	Wiring failure Failure of electric aerial	Make reparation as required. Change the electric aerial	
	Falling seize-up	Wiring failure Failure of electric aerial.	Make an inspection as required and change the parts with failure.	

Cab wire harness (continued)

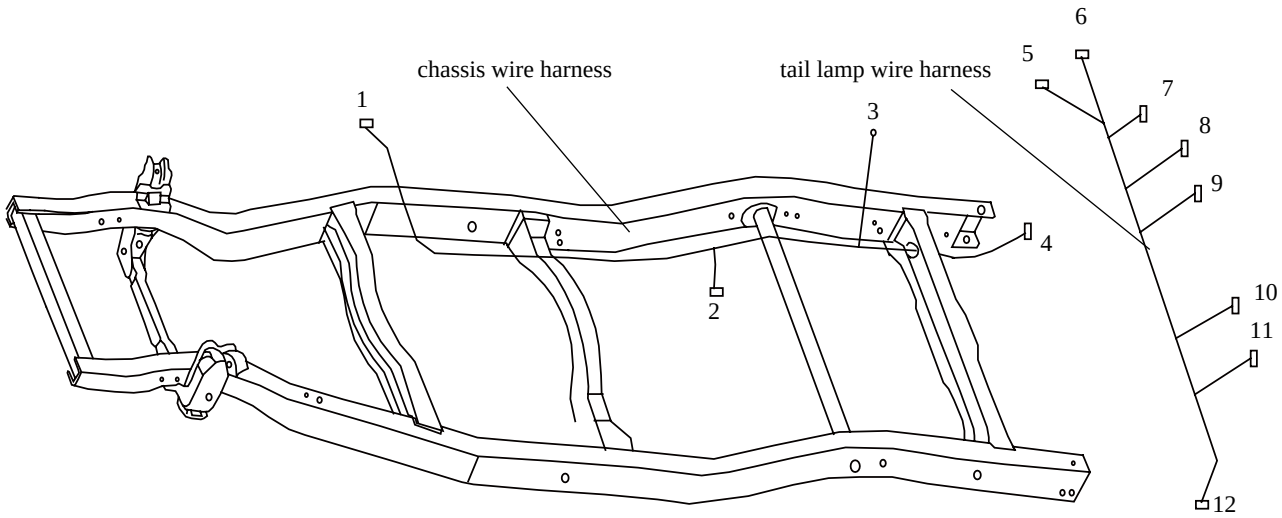
SY SJ



1 grounding wire
2 wire harness at right front door
3 warm air motor
4 connected to wire harness at right front door
5 control case of central control lock
6 electric aerial
7 heat-sensitive resistance
8 speed-adjusting resistance
9 connected to housing wire harness
10 connected to housing wire harness
11 A/C switch
12 air-volume switch
13 ashtray luminous lamp
14 grounding wire
15 ECU
16 CD device
17 CD device
18 cigarette lighter
19 cigarette lighter grounding wire
20 cigarette lighter luminous lamp
21 combined switch
22 fog lamp switch
23 dual flasher switch
24 rear defroster switch
25 rear brush switch
26 rear washer switch
27 combination instrument
28 combination instrument
29 stop lamp switch
30 roof wire harness
31 connected to housing wire harness
32 connected to housing wire harness
33 connected to housing wire harness
34 connected to wire harness at left front door
35 connected to wire harness at left front door
36 connected to wire harness at left front door
37 protective box
38 rear defrost relay
39 connected to wire harness of rear air-conditioner
40 grounding wire
41 parking brake switch
42 connected to chassis wire harness
43 wire harness at right rear door
44 right front door lamp switch
45 right rear loudspeaker
46 rear washer motor
47 connected to wire harness at tail door
48 left front door lamp switch
49 wire harness at left rear door
50 left rear loudspeaker
51 standby power seat

Chassis wire harness (continued)

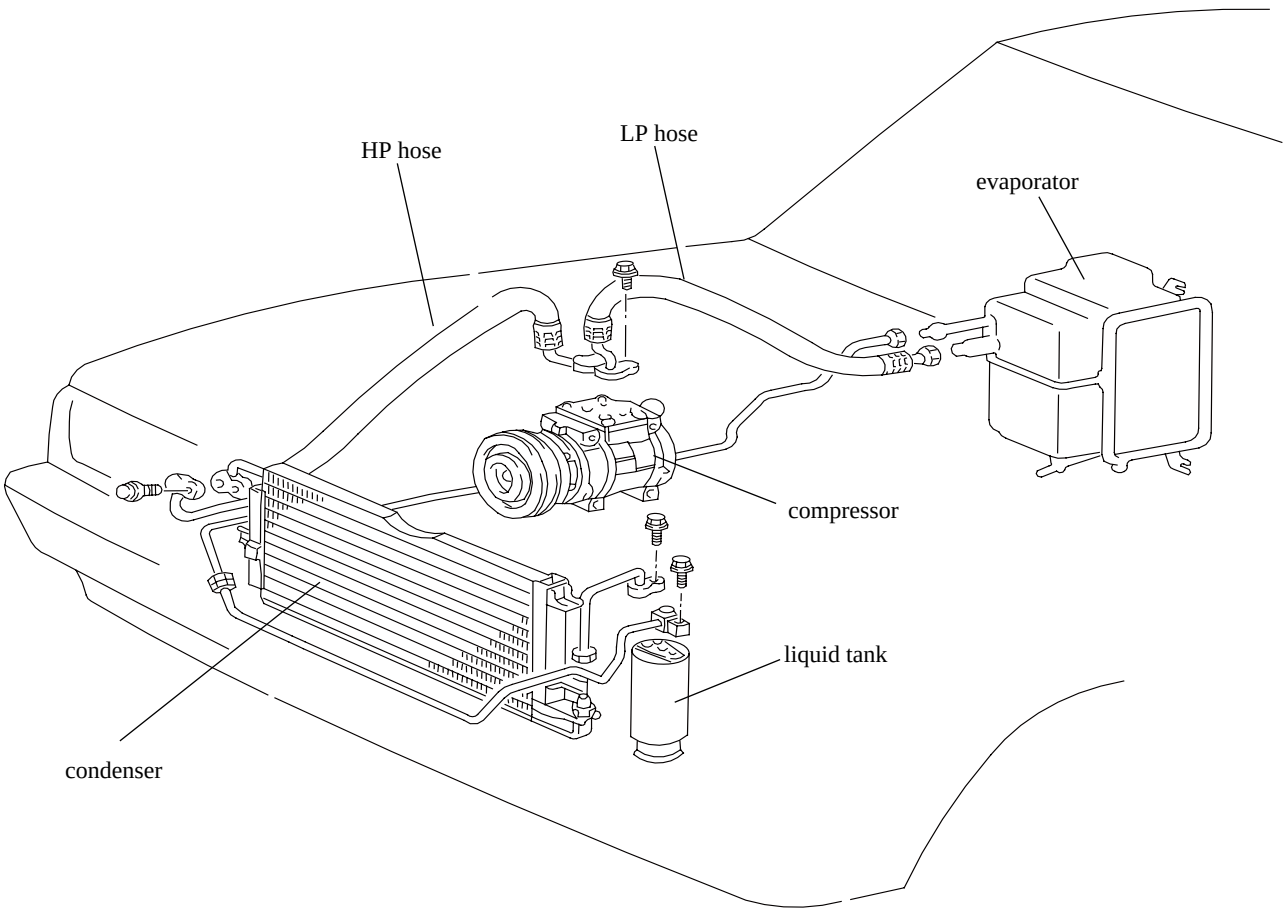
SL SK



Tail lamp wire harness should be fixed at the inner side of the rear baffle of load-compartment.

1 connected to cab wire harness
2 fuel pump
3 grounding wire
4 connected to wire harness
5 connected to chassis wire harness
6 right rear combination lamp
7 right rear fog lamp
8 back up radar control box
9 right license lamp
10 left license lamp
11 left rear fog lamp
12 left rear combination lamp

system component



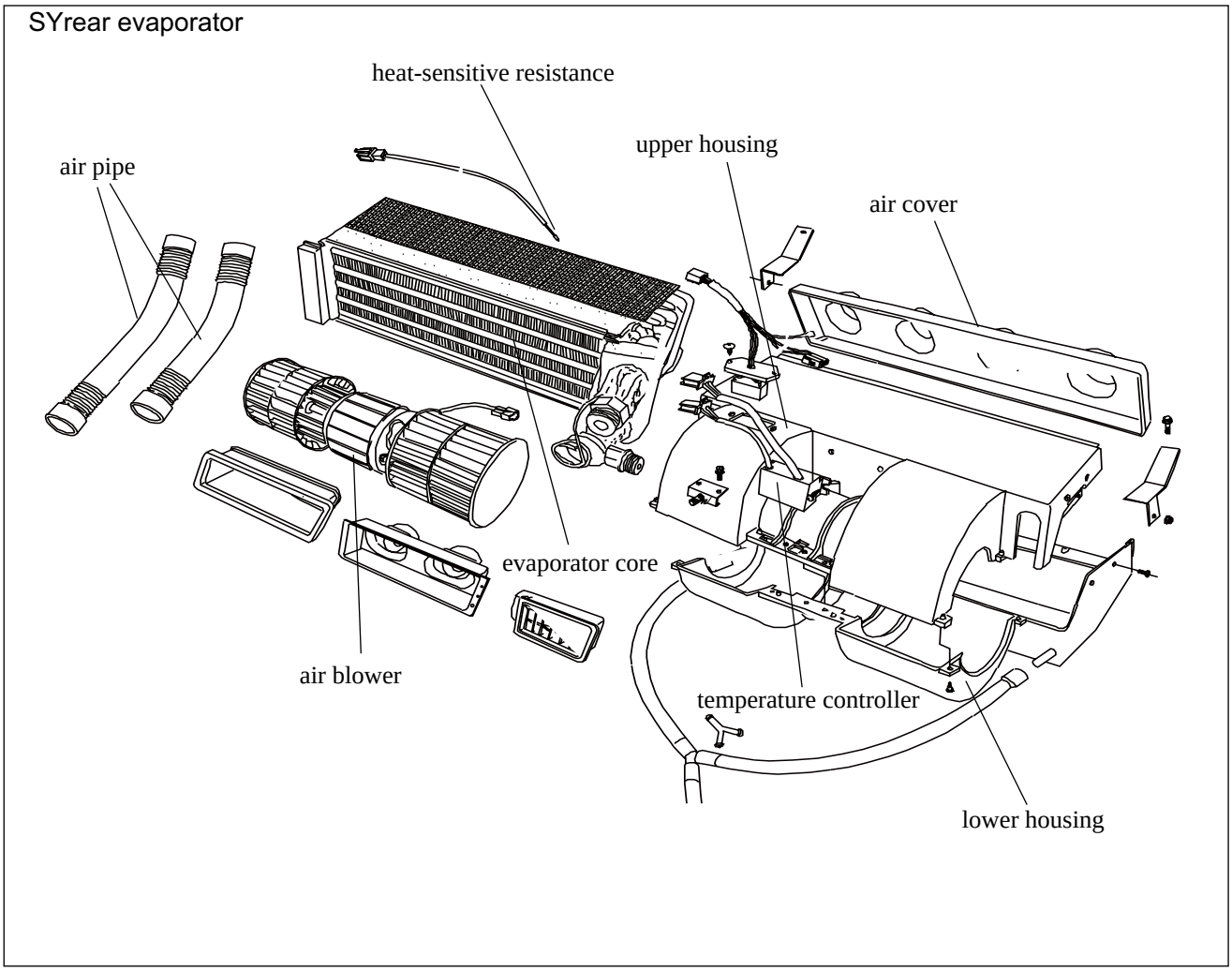
Tightening moment for air-conditioning pipeline：

SL SK SY SJ

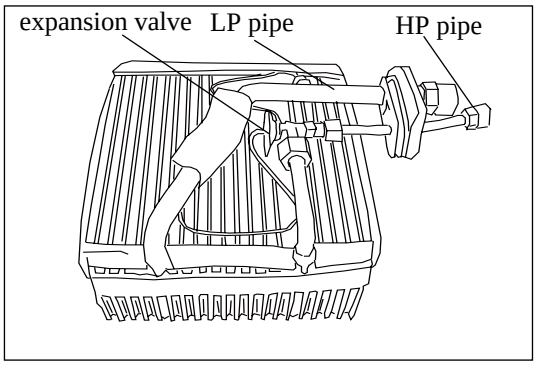
Threaded joint	Open-wrench spanner (mm)	Tightening moment(N · m)
	14、17	15 ± 3
	17、19	15 ± 3
	19、19	15 ± 3
	22、24	25~30
	24、27	30~35
	27、27	30~35
Pressing plate bolt	Threaded head (mm)	Tightening moment(N · m)
	10	8~12
	14	21~25
Threaded joint of com-pressor	Open-wrench spanner (mm)	Tightening moment(N · m)
	24	25~30
	14	30~35

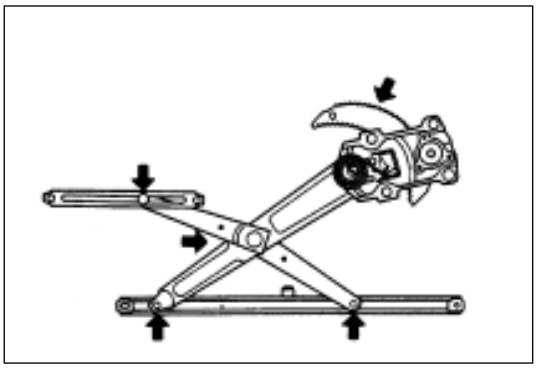
Dr SF

Air-conditioning pipe-line	Tightening moment(N · m)
LP hose interface	35 ± 3
HP hose interface	25 ± 2
HP hose interface	18 ± 1.5



1. Tear down the evaporator housing:
   (a) Disconnect the plugging element;
   (b) Tear down the two clipes;
   (c) Tear down the four screws;
   (d) Tear down the upper cluster housing;
   (e) Tear down the HP/LP pressure pipe rubber washers; and
   (f) Tear down the lower cluster housing.
2. Tear down the expansion valve:
   (a) Tear down the liquid pipe from the entrance joint of expansion valve;
   (b) Tear down the sealing washer and thermal bulb from the suction pipe of evaporator;
   (c) Tear down the expansion valve.



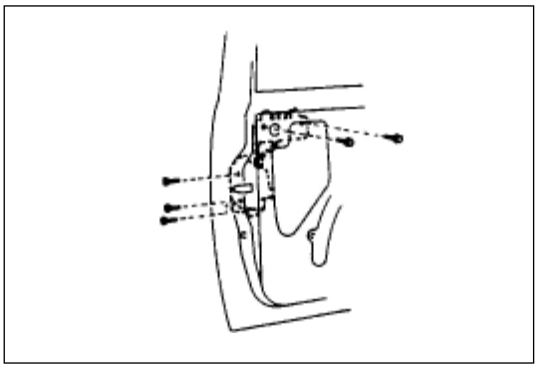


Assembly of Front Door

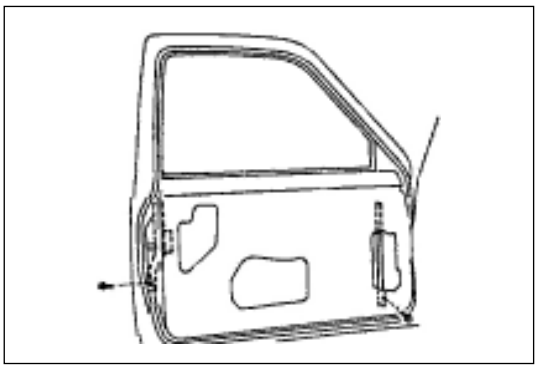
1. Coat the MP lubricant on the parts before mounting.
   (a) Coat the MP lubricant on the sliding face and the gear of glass elevator.

   Notice: Do not plaster the MP lubricant on the spring of glass elevator.

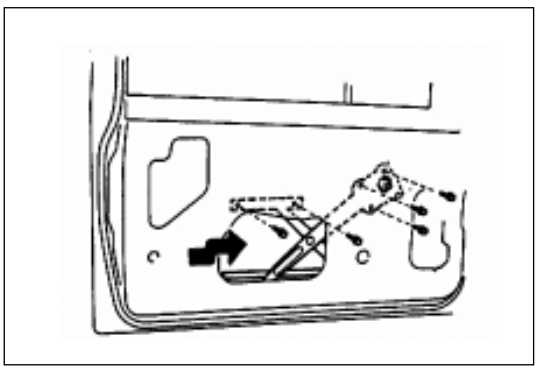
   (b) Plaster the MP lubricant on the sliding face of door lock.



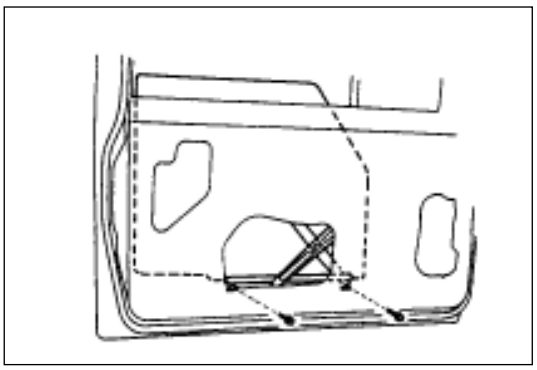
2. Mount the outdoor handle with lock barrel and the door lock;
   (a) Mount the lock barrel on the outdoor handle with spring snapping ring;
   (b) Use two bolts to mount the outdoor handle and the lock barrel;
   (c) Mount the door lock with three screws;
   (d) Connect the outdoor handle to the control lever.



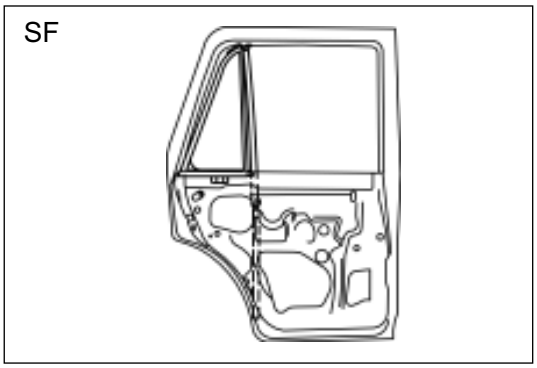
3. Mount the lock ring inside vehicle
   Mount the lock ring inside of vehicle and connect the control lever.
4. Mount the lower rear glass guide track,
5. Mount the lower front glass guide track;



6. Mount the glass elevator:
   (a) Put in the elevator through the auxiliary hole;
   (b) Mount on the three fixing bolts of elevator. (manually operated)
   Mount on the four fixing bolts of elevator (electric)
   (c) Mount the small sliding track, and screw up the bolts of small sliding track temporarily.
7. Mount the glass groove on car door;



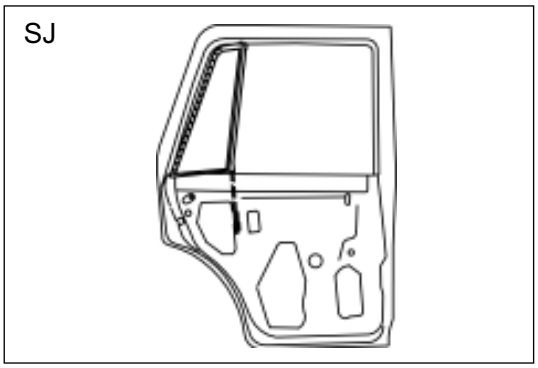
8. Mount the car door and window glass;
   Put the glass in the car door cavity, and then use two bolts to fix the glass on the elevator.

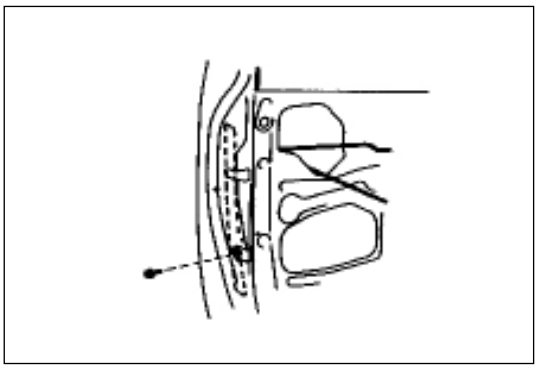


5. Mount the door glass channel;

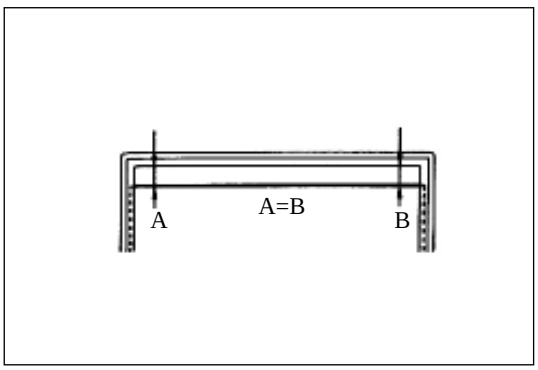
6. Mount on the quarter window glass (SF SJ)

7. Mount the upper glass guide track (SF)
   Mount the bolts and guide track.



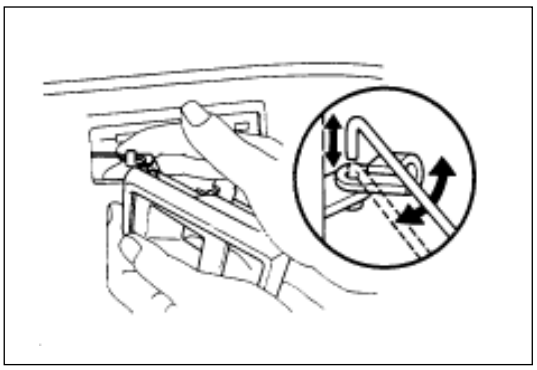


8. Mount lower rear glass guide track (Dr SF)
   Mount the bolts and guide track.
9. Mount the door window glass;
   (Dr SF SL SK SY SJ)
   Put the glass in the door cavity and then fix the glass on the glass elevator with two bolts.
   Mount on the tailgate baffle and lower dust strip (Dr)



10. Adjust the door window glass
    Adjust the balance arm upwardly or downwardly until the dimensions A and B shown in the drawing are equal, and then fix the balance arm.

11. Mount the outerauchi



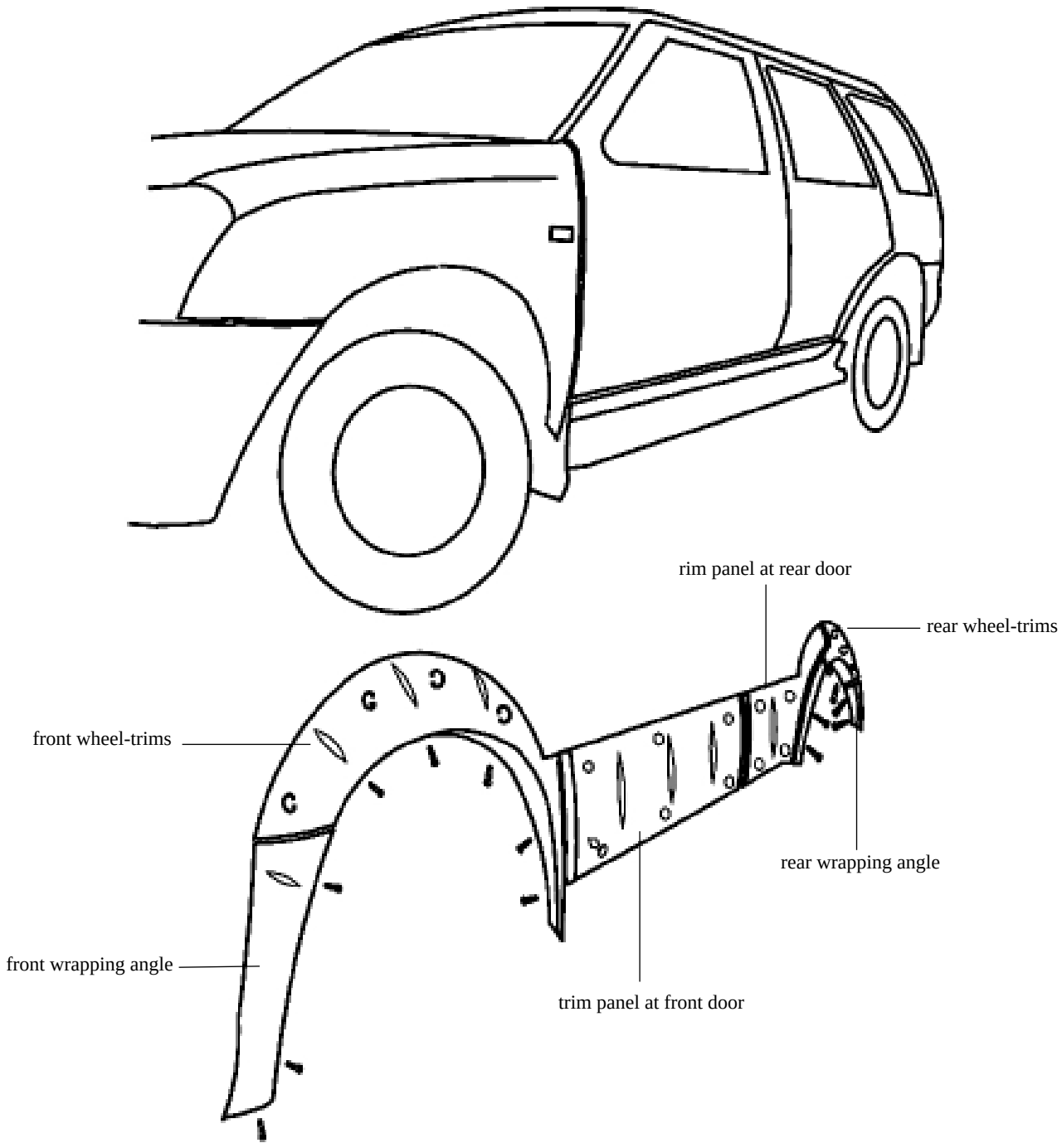
12. Mount the door interior trim panel;

13. Mount the indoor handle:
    (a) Push the indoor handle in the door paneling and slide it backwardly.
    (b) Tighten the screws.

Wheel-trims wrapping angle and exterior trim panel (III)

Element mounting position

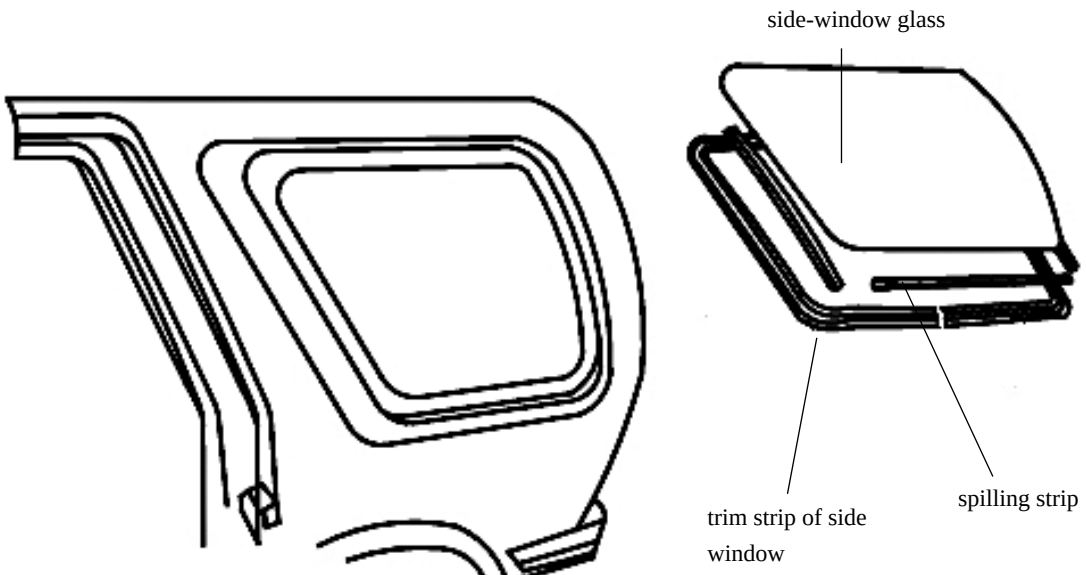
SJ



Side window glass (II)

Element mounting position

SJ



Dismantle of side window glass

1. Tear down the following parts:
   (a) Lower trim panel of rear column;
   (b) Rear side-panel trim
   (c) Roof
2. Tear down the side window glass
   (a) Tear down the three hex nuts and eight nuts on flange (SF)
   (b) Cut a small open in the sealing glue between the glass and body with knife, then insert the steel wire into the small open and pull it fro and to slowly until the sealing glue between the glass and body separate completely, and pull the glass out to take it down.

   Notice: be careful not damage the body and glass.

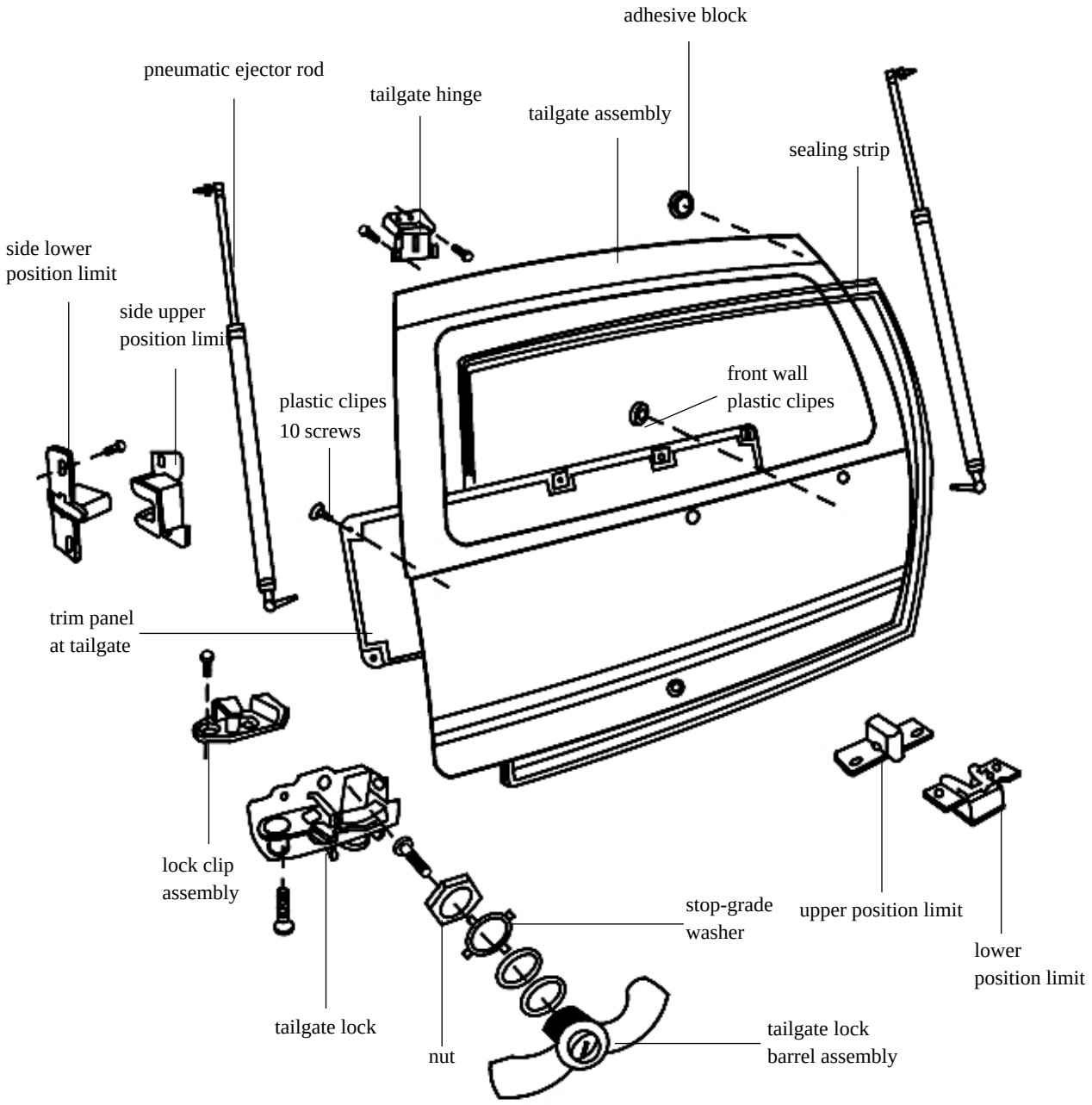
Mount of side window glass

1. Clean the body and glass;
   Clean the contacting face of body and glass completely with cleaning materials.
2. Cleaning the sealing strip;
   Clean the sealing strip surface with cleaning materials.

Tailgate (II)

Element figure

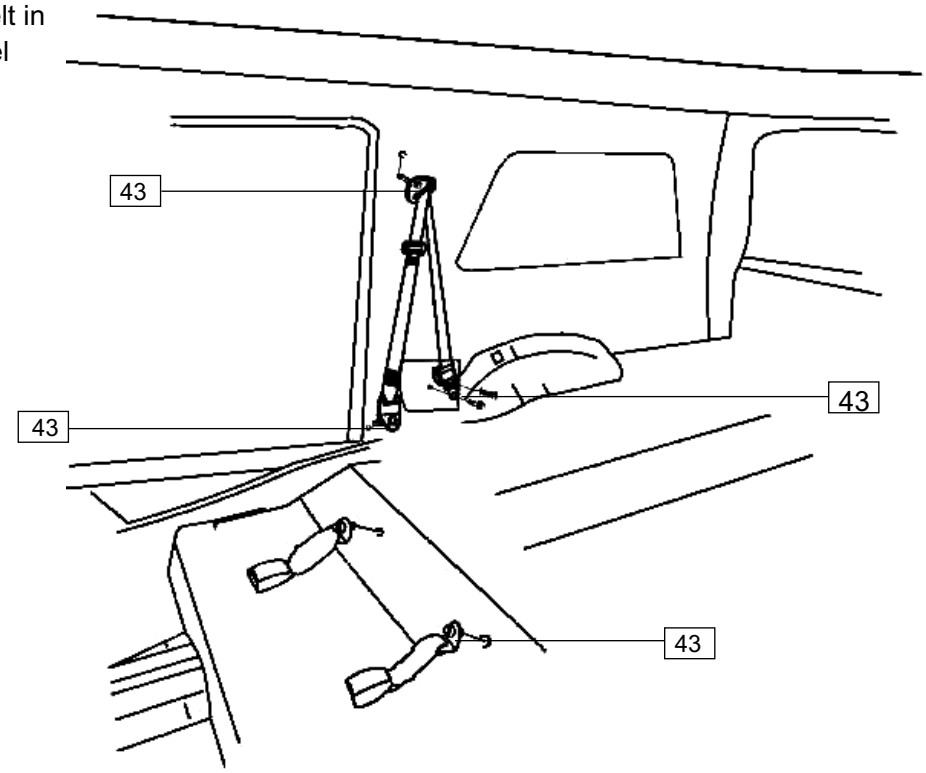
SY SJ



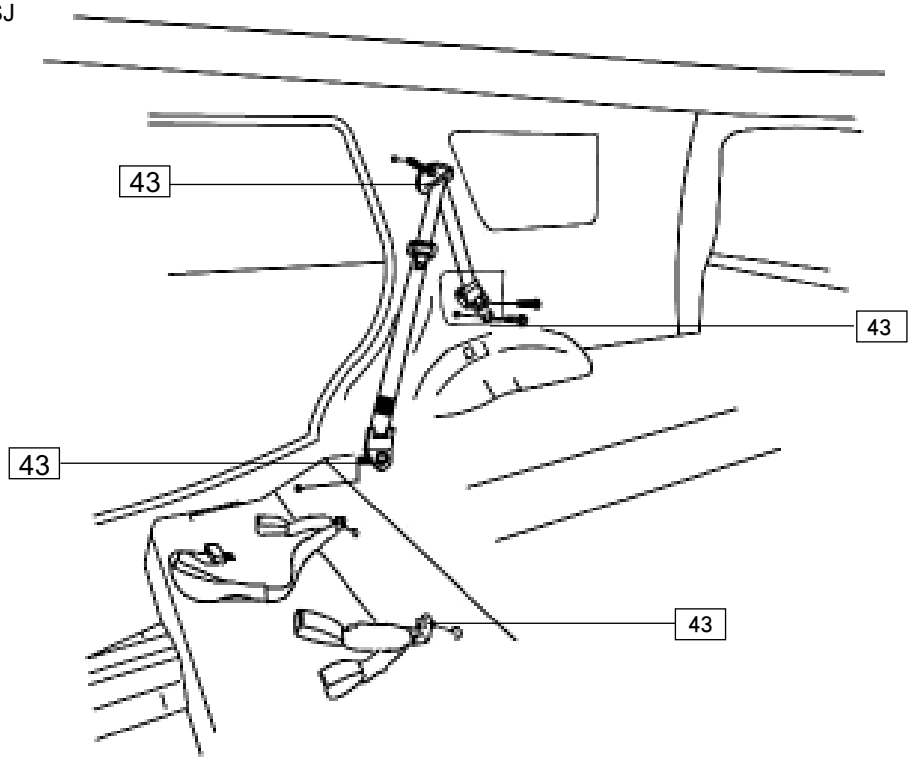
Safety belt (Ⅱ)

Element figure

safety belt in SY model vehicle



safety belt in SJ model vehicle

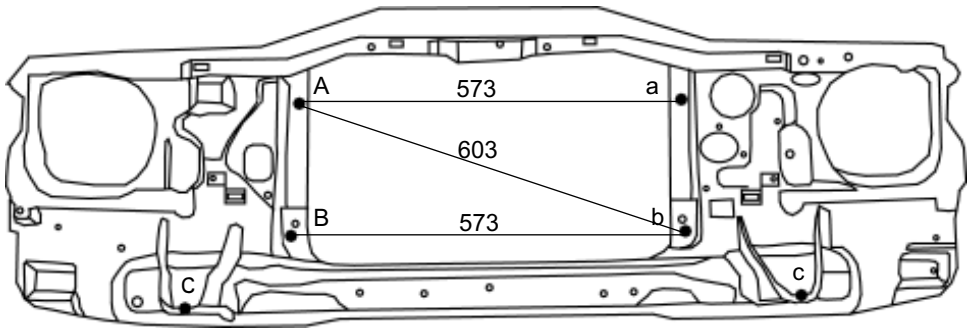


N • m ：specified torque

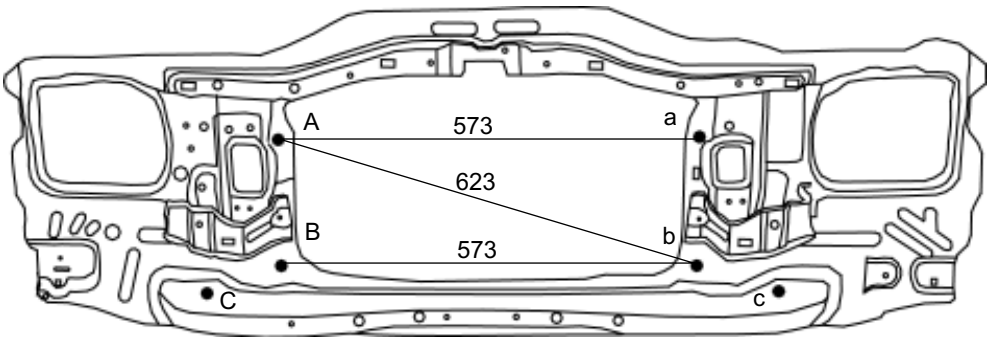
Body Dimension

Large lamp seat (Ⅰ)

Dr
(point Size in 3D)



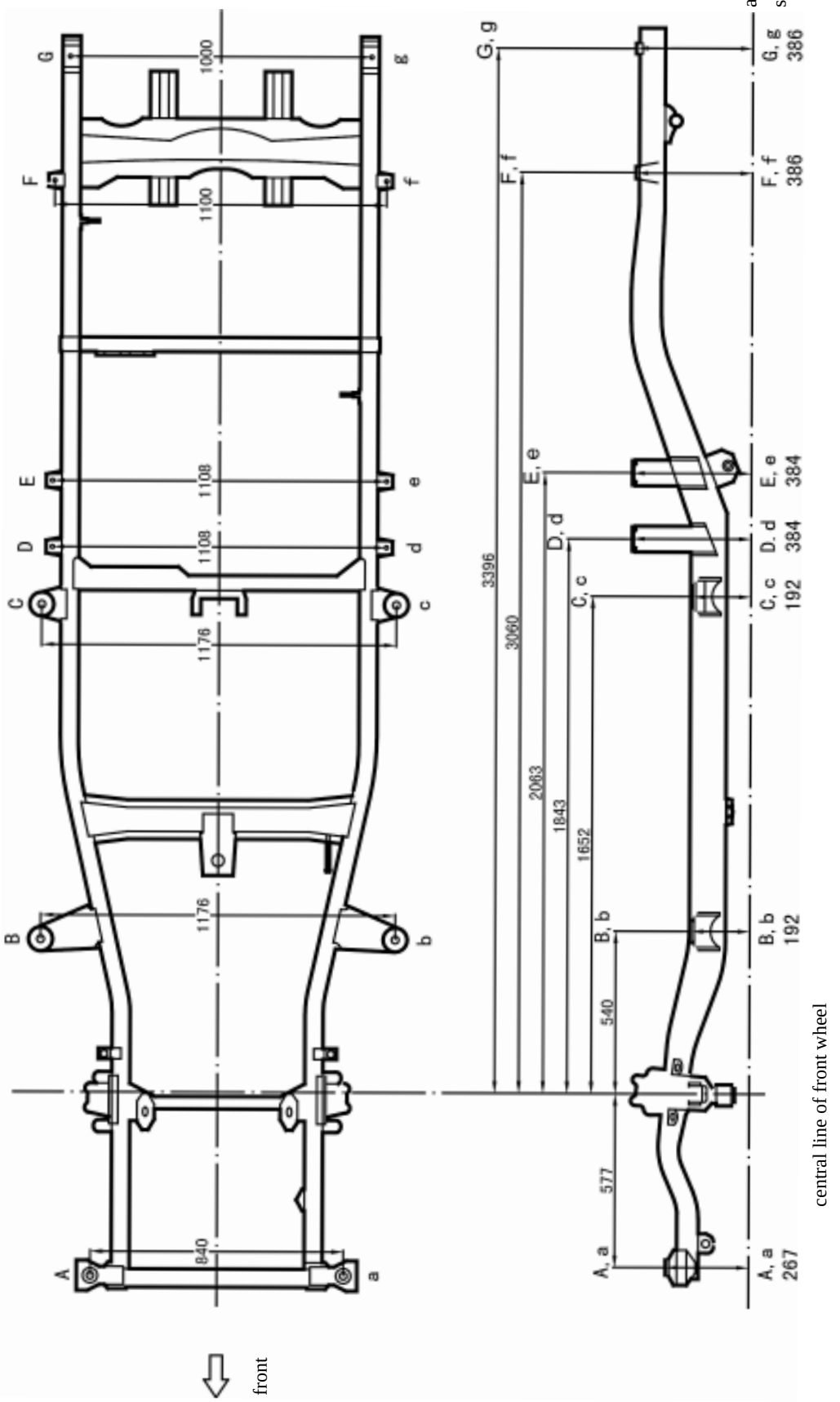
SF
(point Size in 3D)



Mark	Name	Bore diameter	Mark	Name	Bore diameter
A,a	Radiator mounting hole	M8			
B,b	Radiator mounting hole	M8			
C,c	Cab mounting hole	ϕ 10 ϕ 20			

Small single-row Deer

(size in 2D)

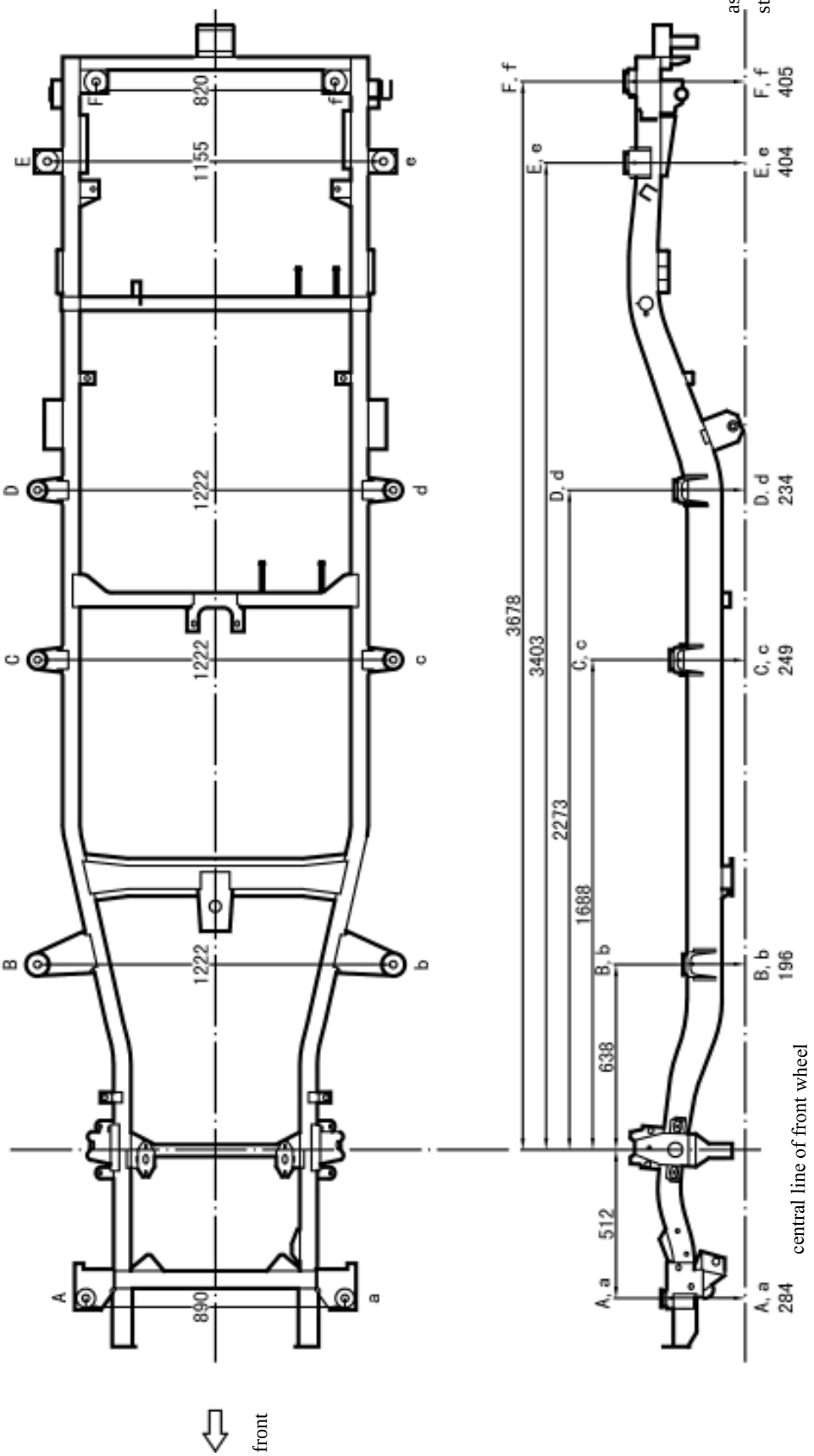


Mark	Name	Bore diameter
A,a	Cab mounting hole	——
B,b	Cab mounting hole	——
C,c	Cab mounting hole	——
D,d	Mounting hole of cargo passage	——

Mark	Name	——
E,e	Cab mounting hole	——
F,f	Cab mounting hole	——
G,g	Cab mounting hole	——
——	——	——

Sing

(size in 2D)



Axial spacing：3025 Unit：mm

Mark	Name	Bore diameter
A,a	Cab mounting hole	——
B,b	Cab mounting hole	——
C,c	Cab mounting hole	——
D,d	Cab mounting hole	——

Mark	Name	Bore diameter
E,e	Cab mounting hole	——
F,f	Cab mounting hole	——
	——	——
	——	——