Chapter One Brake System

Ⅰ. System overhaul parameters

1. Brake disk surface check

The friction surface of brake disk shall be smooth, without conspicuous pits or groove. Otherwise, replace it.

2. Brake disk thickness check

Use caliper to check the thickness of brake disk:

Standard thickness of front disk（ventilation disk）shall be 22mm, application limit shall be 19mm, otherwise replace it.

Standard thickness of rear disk（solid disk）shall be 10mm, application limit shall be 8mm, otherwise replace it.

3. Brake disk runout check

Use dial gauge to check the face runout of brake disk, the application limit of front disk shall be 0.03mm, the application limit of rear disk shall be 0.03mm, otherwise replace it.

4. Brake lining thickness check

Standard thickness of front brake lining shall be 19.3mm, application limit shall be 9mm, and the remaining thickness of limit brake pad thickness shall be not less than 1mm.

Standard thickness of rear brake lining shall be 16mm, application limit shall be 8mm, and the remaining thickness of limit brake pad thickness shall be not less than 1mm.

Important notice：

After completion of replacing friction lining or brake disk, apply the brake for several times to enable breaking-in between brake lining and brake disk. Always ensure safety!

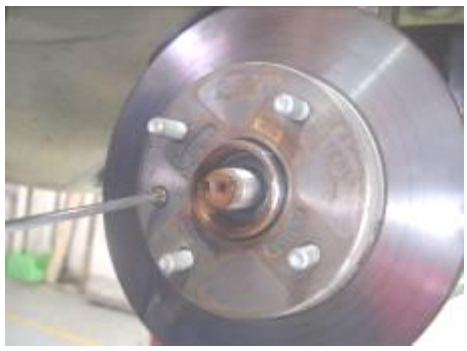
After replacing brake lining, check brake fluid level to ensure it is between MIN and MAX.

4.4 Remove the brake caliper from steering knuckle, then separate brake caliper and brake hose.

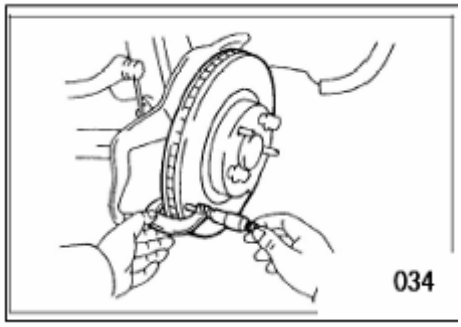
4.5 Use punch to drift the lock trough, which drives nut shim from semi-axle head, until it is able to turn.

4.6Remove the driving nut using 32# sleeve and torque spanner. Torque: 180±10 N.m

4.7 Use cross screwdriver to unscrew the fastening screw of brake disk, and then remove the brake disk. Torque: 7-9 N.m

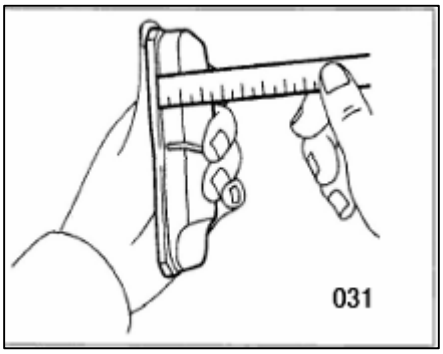


4.8 Check the thickness of brake disk, if it is less than minimum thickness, replace accordingly. Caution: replace the two brake disks of the same vehicle axles together, and when using new brake disks, the replace friction lining at the same time.

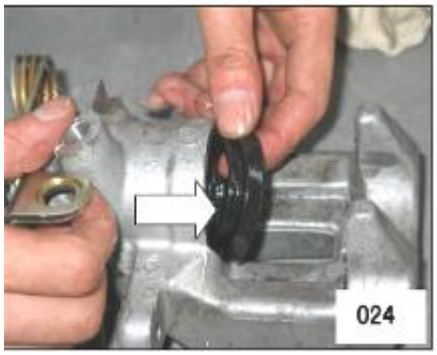


4.14.2 Lift the fixing bracket of brake caliper, and then takes out brake lining.

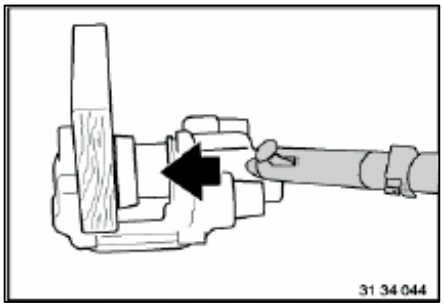
4.14.3 Measure the thickness of friction lining, if less than 10mm, please replace in pairs timely.



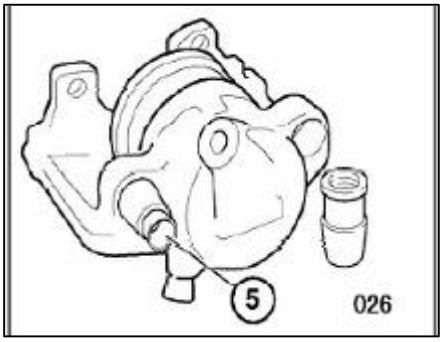
4.14.4 Remove the dust seal, check its damage condition, and replace if necessary. Clean the contact surface of brake piston and then coat with a thin noise silencing paste. Caution: due to noise silencing paste may cause expansion of dust seal, it is prohibited to contact with each other.



4.14.5 Remove the piston. Place a piece of board between piston and brake caliper wall to block the piston. Carefully squeeze out the piston via compressed air through attachment hole. Place a plate guard (hardwood, etc.) at the notch of brake caliper to protect the piston.
Caution: never hold the piston using fingers-watch clamping!
It is prohibited to dismantle brake caliper piston other then professionals or with the help of professionals.



4.14.6 Check the guide sleeve. The guide sleeve shall be flexible and smooth when pushing by hand, if stagnation or heaviness occurs, replace accordingly.
Caution: when assembly, grease shall be applied on the guide sleeve.



3.4 When carrying out disassembly and assembly, never step on the brake pedal nor move the vehicle.
3.5 Keep oil or liquid away from friction lining or friction disk, it may affect brake performance.

4. Disassembly procedures

4.1 Remove the rear wheel (refer to the disassembly procedures for front wheel).

4.2 Unscrew the connecting nut of brake oil pipe and brake caliper via 13# box end wrench, then discharge the brake fluid (if only friction disk is replaced, it is unnecessary to remove the brake line).
Torque: 16～18Nm

4.3 Loosen the connecting screw rods (2 pieces) of brake caliper and brake backing plate via 13# box end wrench, and then remove the rear-brake caliper assembly.
Torque: 70±5N.m

4.4 Remove the fixing bolts of brake disk, then dismount brake disk.
Torque: 7-9 N.m

4.5 Pull out the plug of ABS sensor, remove four connecting bolts of hub bearing and rear axle via 13# sleeve and torque spanner.
Torque: 70±5 N.m

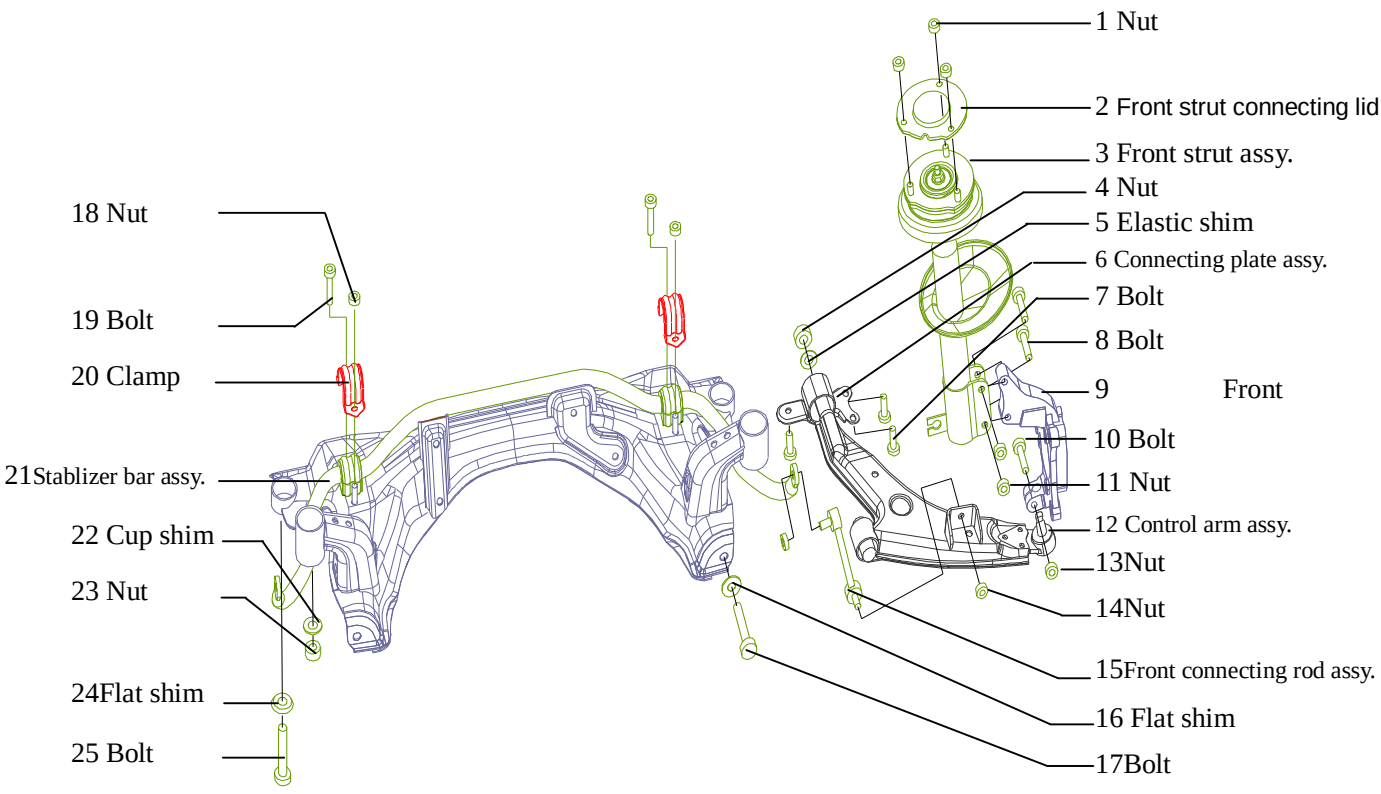
4.6 Remove hub-bearing assembly.

Chapter Two Adjustment to Suspension System and Four-wheel Alignment

Ⅰ. Disassembly, assembly and overhaul of front axle and suspension

1. System constructional drawing

The front axle of Chery V325 car is a kind of disconnection turning and driving axle, it uses McPherson independent suspension, whose front suspension has driving and turning dual functions. The upper end of the suspension connects with vehicle body; lower end connects with steering knuckle. Subframe connects with vehicle body via elastic element, which improves diving stability and ride comfort.



Structural diagram of Front Axle and Suspension System

3. Precautions

3.1Please wear necessary labor protection supplies to avoid accidents.
3.2When carry out maintenance and repair to chassis, please note that whether the safety lock of lifting machine is locked.
3.3When carry out disassembly and assembly to shock absorber spring, prevent spring ejection from being injured.

4. Disassembly and assembly procedures

4.1. Removal of shock absorber assembly

4.1.1 Unscrew tire clamp nut clockwise using 19# torque spanner or driver's spanner, and then remove the tire (take the left side tire for example).
Torque: 110N.m

4.1.2 Remove the fixing bolt fastening hand brake control cable and rear axle via 10# sleeve.
Torque: 9-12N.m

4.1.3Remove the connecting bolts of shock absorber assembly and rear axle via 19# sleeve.
Torque: 110±10N.m

4.1.4Remove the two fixing bolts of the luggage compartment via 7# sleeve.
Torque: 7±1N.m

4.5 Remove two clamp screws of steering wheel plate guard via cross screwdriver.
Torque: 1.5±0.5N.m

4. 6Remove four fixing bolts of screw cable via cross screwdriver. Then remove screw cable.
Torque: 1.5±0.5N.m

4.7 It should be noted that when fitting the screw cable, turn the inner disk to one direction until unable to be turned further, and then turn about 3.2 circles at a reverse direction, after aligning the mark, and confirm the steering wheel is in horizontal position, and then carry out assembly.

4.8 Remove the clip of combination switch via flat-tip screwdriver, then pull out ignition switch and the plug of combination switch.

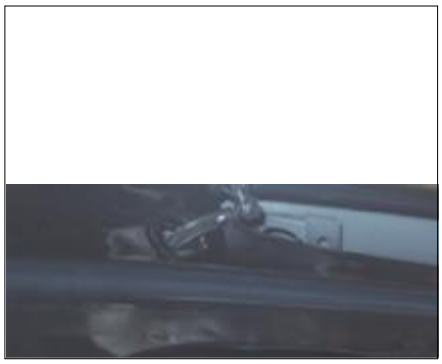
4.9 Remove the fixing handle of engine hood via 8# sleeve.

5 Disassembly of rear wiper water nozzle

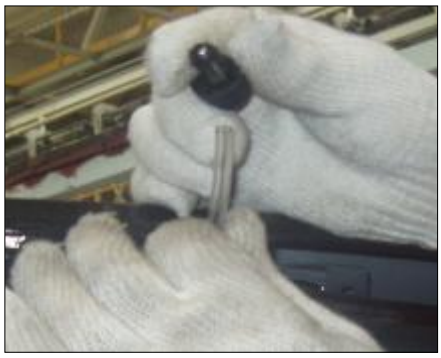
Tool: flat head screwdriver

5.1 Disassembly steps

5.1.1 Take out the rear water injection nozzle
(Prize it by flat head screwdriver but avoid to damage the surface paint)



5.1.2 Enhance the nozzle and expose the water injection hose



5.1.3 Take out the water injection hose

5.2 Assembly steps

The installing steps are reverse to those for removal.
Note：Water injection opening should be opposite to wiper motor steering shaft.

6 Disassembly of rear wiper motor

6.1 Disassembly steps

Tool: No. 10 socket spanner
6.1.1 Take away the rear wiper protecting cover by hand

3.4 Disassemble rear door opening weather strip

3.5 Disassemble the seat belt lower trim cover

3.6 Loose the fixing nut, take out B pillar lower protecting panel. Installation torque is 50±5Nm

3.7 Prize seat belt adjuster trim cover by flat head screwdriver and make sure do not damage the inside clip

3.8 Loose the fixing nut by No. 17 spanner and take off the seat belt.
Installation torque is 50±5Nm

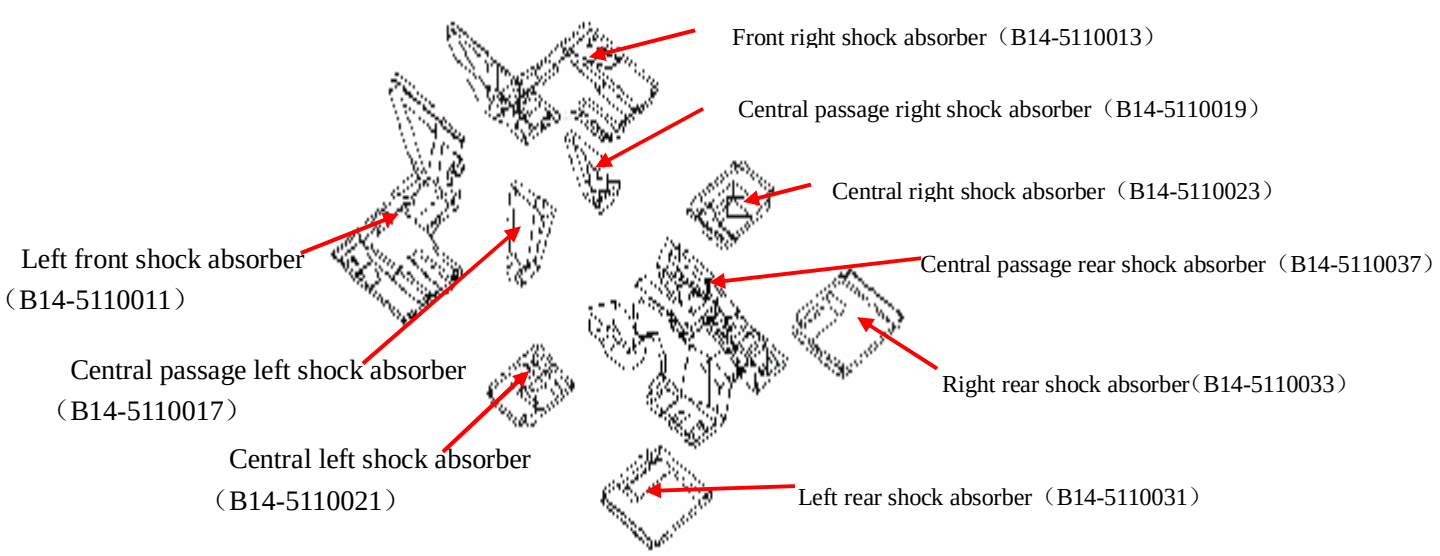
V. Disassembly of Shock Absorber

1 Disassembly steps

1.1 Disassemble the carpet (See disassembly of carpet)

1.2 Take off all the shock absorbers

The positions of shock absorber are shown as below chart



2 Assembly steps

2.1 The installing steps are reverse to those for removal.

2.2 Note of installation：

2.2.1 Tidy up the seat and rear oxygen sensor connecting cable before installing the shock absorber.

2.2.2 Make the shock absorber lower surface joint tightly with plate work.

5.1.8 Insert handle pull rod connection pin into handle.

5.1.9 Insert lock core.

5.1.10 Fasten lock core fixing bolt.

Installation torque is 9±1 **Nm**

5.1.11 Insert lock core pull rod into lock.

5.1.12 Insert handle pull rod into lock.

4.1 Unscrew four fixing bolts for grille web cover water tank cross beam by No. 10 sleeve.（See right figure）

4.2 Loose fixing bolts of bumper on water tank cross beam by No. 10 sleeve.
Torque is 11N·m

4.3 Unscrew bumper two fixing screws at lower cross beam by flat head screwdriver.

4.4 Unscrew mudguard two fixing bolts under bumper by No.7 sleeve.
Installation torque is 2±0.5 **Nm**

4.5 Unscrew mudguard fixing bolt beside the bumper by No. 7 sleeve.
Installation torque is 2±0.5N.m

4.6 Pull out bumper by hand from fender fixing base.

4.8 Press bulb fixing clip by hand and turn it upward, take the bulb out.

4.9 Rotate the headlamp motor of 30 degrees clockwise, and take out the motor and cable plug.

Note: The motor can not be maintained, if make sure there is problem on the motor, open the motor cover to see if there is gear falling down or block phenomenon. Replace with a new headlamp assembly if the problem can not be solved by adjustment.

4.10 Screw off low beam bulb cover by hand.

4.11 Press the bulb fixing clip by hand and take out bulb assembly.

5 Disassembly of fog lamp

5.1 Disassemble bumper assembly.（Refer to disassembly of bumper）

5.2 Prize fog trim cover assembly by hand.

9.1.6 Take off rear door opening rubber seal by hand.

9.1.7 Prize C/D pillar lower protecting board by screwdriver, take off C/D pillar protecting board.

9.1.8 Prize D pillar upper protecting board and take off D pillar upper protecting board.

9.1.9 Prize C pillar upper protecting board and take off C pillar upper protecting board.

9.2 Assembly steps

The installing steps are reverse to those for removal.

10 Disassembly/assembly of the roof

10.1 Disassembly steps

10.1.1 Disassemble left and right sunvisors.
(Refer to disassembly/assembly of sunvisors)

2.1.4 Take off central control panel.

2.2 Assembly steps：

The installing steps are reverse to those for removal.

3 Disassembly/assembly of AC control panel

3.1 Disassembly steps

3.1.1 Disassemble central control panel
（Refer to disassembly steps of central control panel）

3.1.2 Unscrew 4 AC control panel fixing screws by cross head screwdriver and take off rear plug, take off AC control panel.
Installation torque: 1.5±0.5 **Nm**

3.2 Assembly steps

The installing steps are reverse to those for removal.

4 Disassembly/assembly of audio

4.1 Disassembly steps

4.1.1 Disassemble central control panel
(Refer to disassembly steps for central control panel)

4.1.2 Disassemble 4 audio fixing bolts by No.10 socket spanner. Unplug rear plug and antenna, take off audio control panel.
Installation torque: 9±3 **Nm**

4.2 Assembly steps

The installing steps are reverse to those for removal.