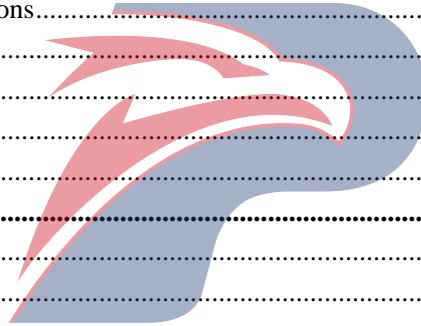


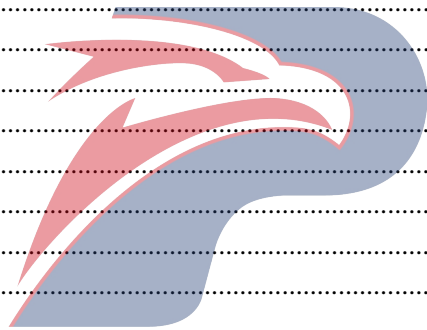
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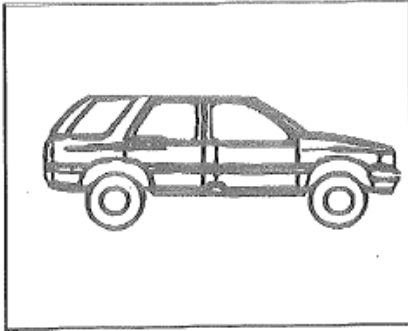


POWER STAR



Important information

The following items are extremely important to correctly manage and economically use a QingLing vehicle. Therefore, please thoroughly understand them before the vehicle maintenance.

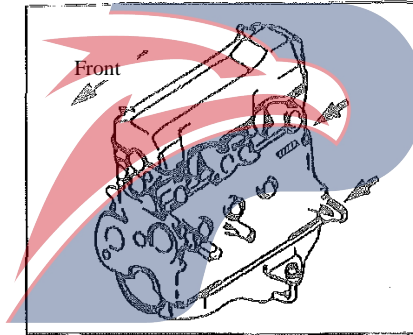


Chassis number and engine number positions

Please record the chassis number and the engine number, which is necessary to contact QingLing Motors for repairs.

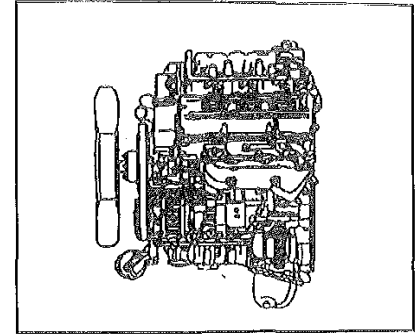
Chassis number

The chassis number is marked on the right side of the chassis frame below the right front door.



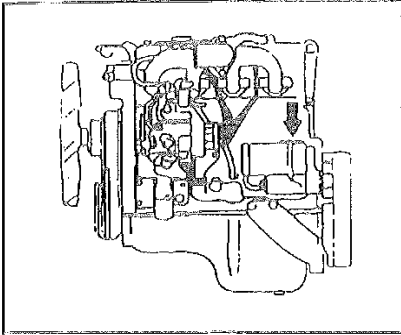
Engine Number: 4z Series

The engine model number and number are marked on the projection at left rear of the cylinder and on the exhaust heat shield panel.



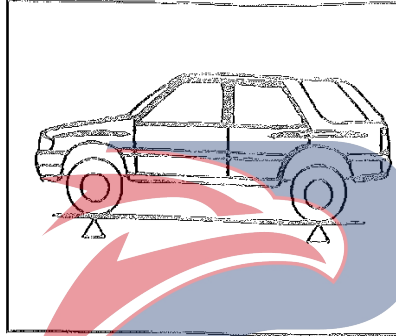
Engine Number: 6V Series

The engine mark is engraved on the left side of the engine body.



Engine Number: 4J Series

The engine number mark is engraved on the left side of the cylinder.

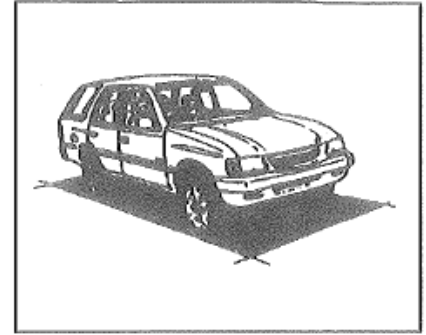


Overloading

Overload will not only shorten the service life of the vehicle, but also cause serious failure and even accident.

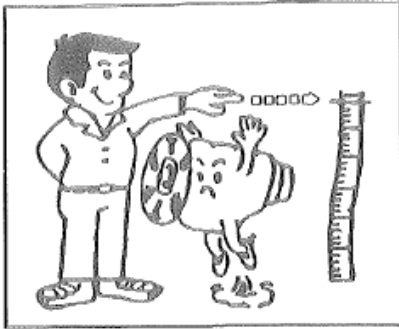
The load must be controlled within the total mass rating of the vehicle. At the same time, the load should be evenly distributed between the front and rear axles of the vehicle and the allowable carrying capacity cannot be exceeded.

Refer to “Main Data and Specifications” for the gross mass rating of vehicle.

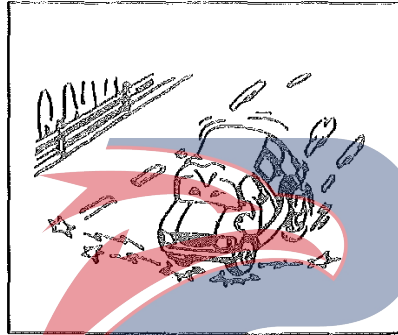


Operation of new vehicle

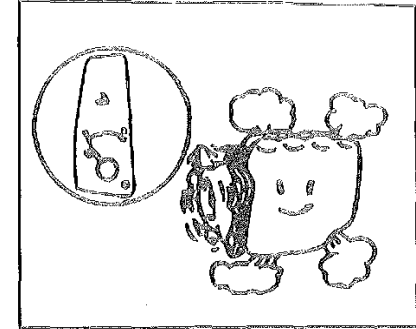
The good running-in and maintenance for a new vehicle have a great influence on its performances and service life. Therefore, the following precautions must be strictly observed during the initial run-in of 1,000 kilometers:



1. During the initial run-in period of 1,000 km, the engine speed should be limited to 4,000 rpm. Check the tachometer when the vehicle is running to prevent the engine from overspeeding. After the running-in period, the engine speed is gradually increased. It will allow all major parts for complete running-in.

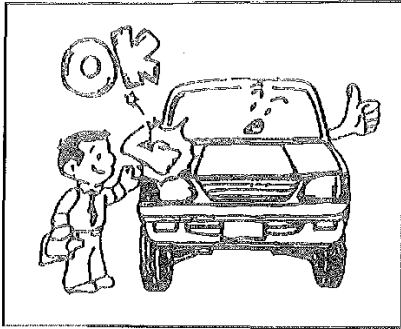


2. Avoid high-speed operation of the engine, sudden start-ups and unnecessary sudden braking and other driving operations.



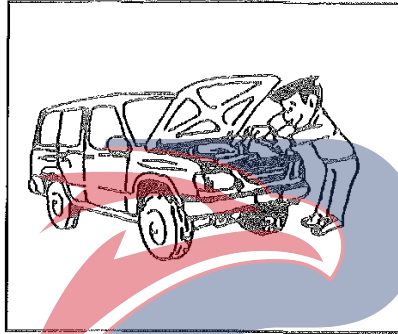
3. Run the engine at idle until the engine is warmed up.

POWERSTAR



Vehicle use and precautions

All parts and systems of the vehicle must be inspected. Please refer to “Control Devices and Instruments”, “Before Vehicle Driving” and “Driving” sections for inspection.



Service and maintenance

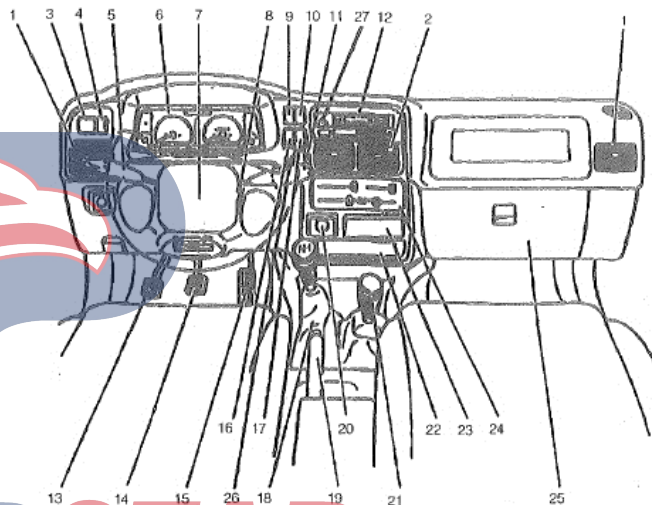
In order to maintain the safe and reliable operation of the vehicle, the inspection and adjustment of the vehicle should be carried out according to the contents of the section “Service and Maintenance”. QingLing dealers are happy to provide the specified maintenances for your vehicle.

POWERSTAR



II. Control device and instrument

1. Side vent hood grille
2. Central ventilation grille
3. 9 power mirror switch
4. Hatchback open switch
5. Combination switch
6. Dashboard
7. Steering wheel and horn button
8. Start switch
9. Rear window defroster switch
10. Hazard warning flash switch
11. Front window wiper and flush switch
12. Audio
13. Clutch pedal
14. Brake pedal
15. Accelerator pedal
16. Rear window flush switch
17. Rear window wiper switch
18. Shift lever
19. Parking brake lever
20. Ashtray
21. Transfer case control lever
22. Digital clock
23. Cigarette lighter
24. Heater and air conditioning controller
25. Glove box
26. Front fog light switch (reserved)
27. Power antenna and audio switch

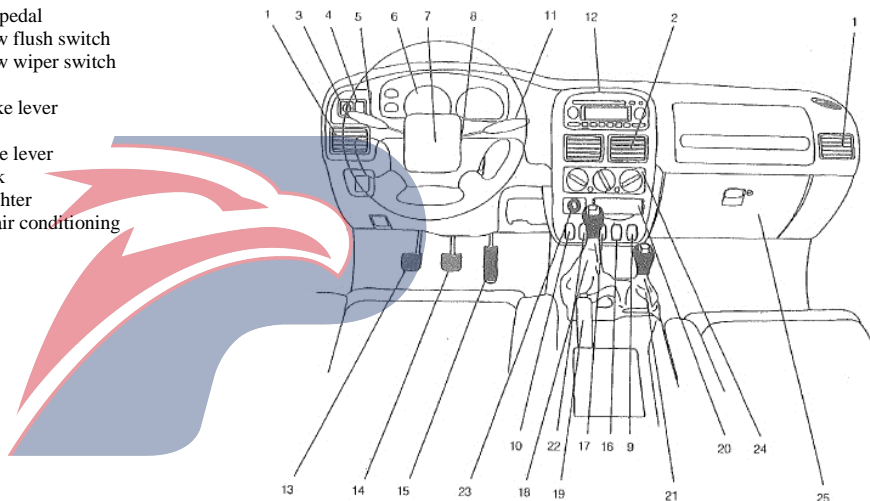


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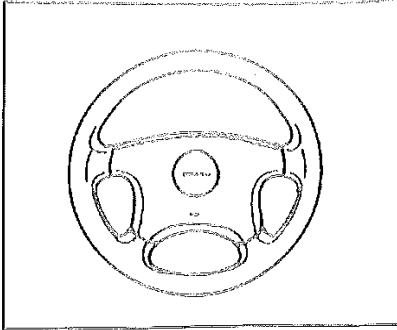


1. Side vent hood grille
2. Central ventilation grille
3. Power mirror switch
4. Hatchback open switch
5. Combination switch
6. Dashboard
7. Steering wheel and horn button
8. Start switch
9. Rear window defroster switch
10. Danger warning flash switch
11. Front window wiper and flush switch
12. CD player
13. Clutch pedal
14. Brake pedal

15. Accelerator pedal
16. Rear window flush switch
17. Rear window wiper switch
18. Shift lever
19. Parking brake lever
20. Ashtray
21. Transfer case lever
22. Digital clock
23. Cigarette lighter
24. Heater and air conditioning controller
25. Glove box



POWERSTAR

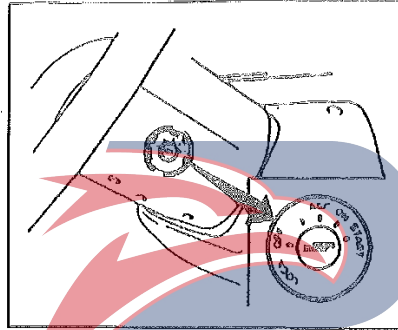


Steering column controls

Steering wheel and horn button

The horn button is mounted on the steering wheel; the horn will sound when the button is pressed.

The steering wheel shall not be turned while the vehicle is stopped. After the steering wheel is locked, do not move the vehicle; otherwise, the steering mechanism may be damaged.



Toggle switch

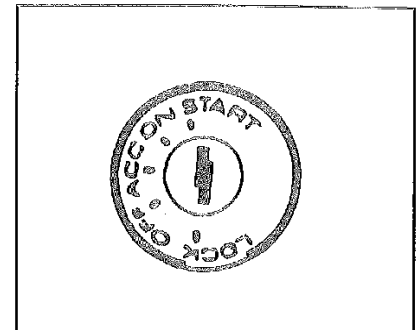
As shown in the figure, there are 5 positions on the switch.

“LOCK”: the key can only be inserted or removed when the switch is in this position.

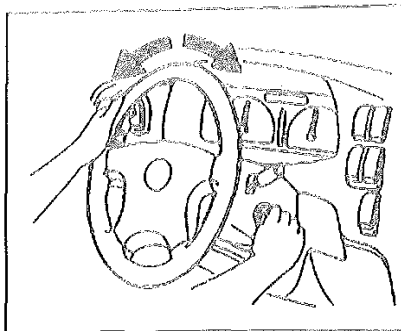
“OFF”: the engine stops when the key is turned to this position.

“ACC” (accessory): in this position, the accessory circuit is switched on.

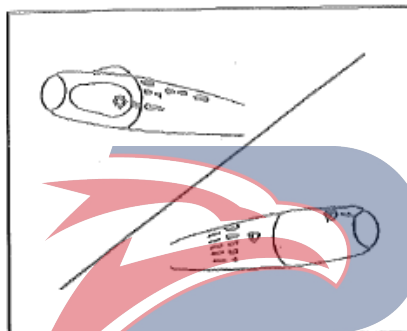
“ON”: the position of the key while the vehicle is running.



“START”: the engine starts when the key is turned to this position. When the key is released, it will be automatically returned to “ON” position.

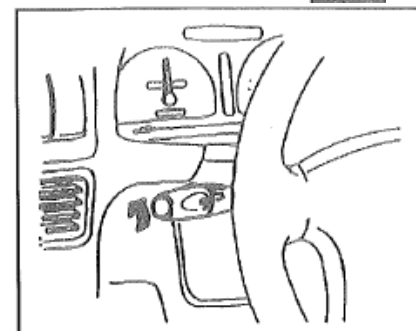


Do not turn the start switch to the "LOCK" position while the vehicle is running, otherwise the steering wheel will be locked, which is very dangerous. If it is difficult to turn the key from "LOCK" position to "OFF" position, the steering wheel should be rotated slightly in either direction when turning the key.



Combination switch

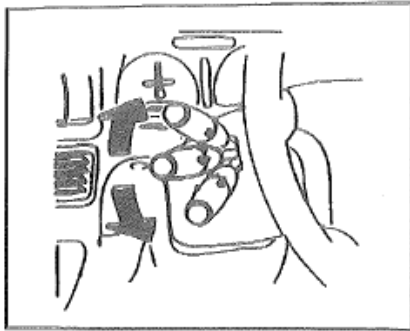
The combination switch handle is used to control the rear fog lamps, turn signals, headlight dimming device, overtaking lights, windshield wipers and scrubbers.



Light switch

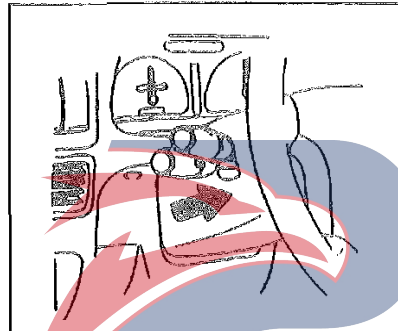
Rotate the light switch knob counterclockwise to operate the front position light, tail light, license plate light and instrument panel light, and turn the light switch knob counterclockwise to the limit position to illuminate the rear fog light and other lights.

POWERSTAR



Turn signal switch

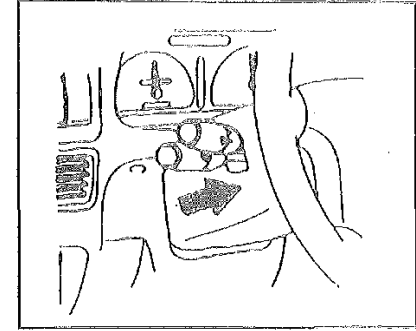
Move the turn signal switch handle in the turning direction, to turn on the turn signals, and make the turn signal indicator on the dashboard flash. When the steering wheel is in the forward driving direction, the switch handle will automatically return to its original position.



Changing switch

When the turn signal switch handle is pulled upward, the headlight will be changed from high beam to low beam or from low beam to high beam.

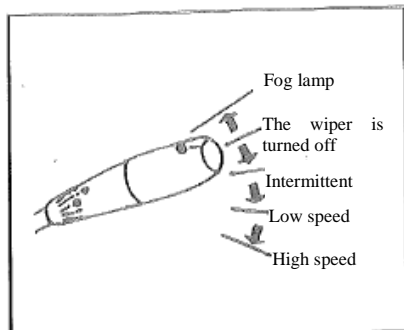
When the high beam of headlight is turned on, the high beam indicator on the dashboard should also be turned on.



Passing light switch

The light switch is in the "OFF" or first gear position. Whenever the elbow of the turn signal switch handle is raised and lowered, the headlight high beam will be on and off.

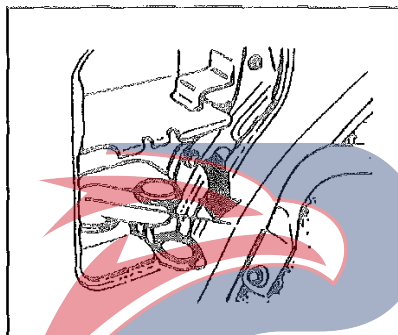
To send an overtaking signal, the handle must be operated repeatedly. During the day, the light flashes, and at night, the overtaking signals are sent out by the low beam and high beam switching alternatively.



Windshield wiper and scrubber switch

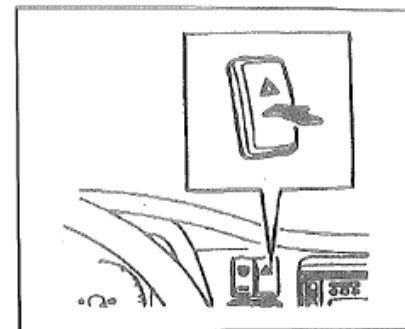
When the windshield wiper switch handle is moved to LO (low speed) position, the wipers will be operated at low speed. When the handle is moved to the “HI” (high speed) position, the wiper is moving quickly to remove water.

When the switch handle is turned to “OFF” position, the wiper will not be operated. When the switch handle is turned to “Intermittent” position, the wiper will be operated intermittently at interval of 3-4s. Move the handle up to the “MIST” position and the wiper continues to operate when the handle is pulled up.



Do not operate the wiper when the windshield is dry; otherwise it may scratch the windshield. Before the wipers are operated, must remove the ice and snow from the wiper blades. If the windshield is frozen, it should be carefully removed or allowed to melt down.

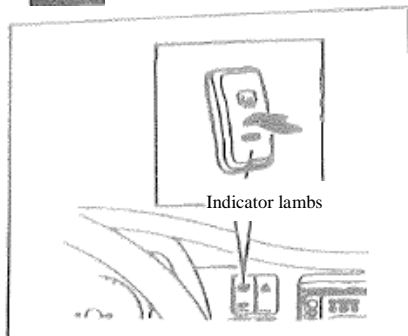
- The washer tank for rear window glass is installed in the side storage box at the rear luggage compartment behind the driver's side. When filling the washing liquid tank of rear window glass with washing liquid, remove the cover on the left corner trim panel first, turn the nozzle of the nozzle cover 90 degrees before filling.



Danger warning flash switch

If pressing the hazard warning flash switch, all turn signals will flash regardless of the turn signal switch position. When you press the switch again, hazard warning flash stops working.

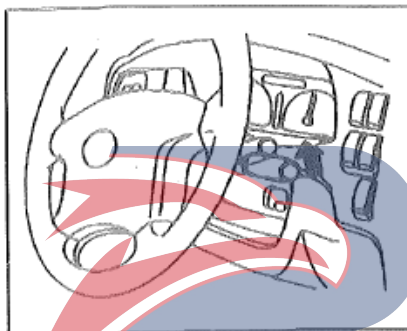
Turn on the warning flash in case of a day or night traffic danger.



Rear window defogger switch

When the start switch key is turned on, if pressing the rear window defrosting switch, the rear window defroster will be operated and the operation indicator will be turned on. Put the rear window glass clean and then press the switch, then the switch is disconnected and stops working.

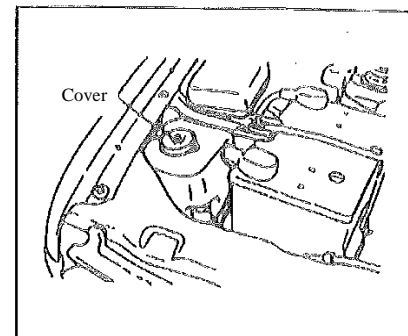
If the switch is remained in "ON" position, the battery energy will be reduced.



Windshield washer switch

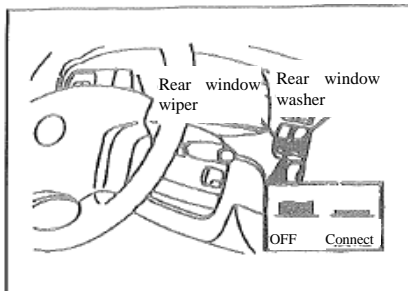
Pull the windshield wiper switch handle to operate the scrubber.

Even if the handle does not move, the wiper will work as long as the handle button is held down. If an intermittent wiper is fitted, it will be continuously operated in a short time after the handle is released.



Windshield washer tank

The tank can only be filled with clean water or genuine washing liquid from QingLing Motors Co., Ltd.



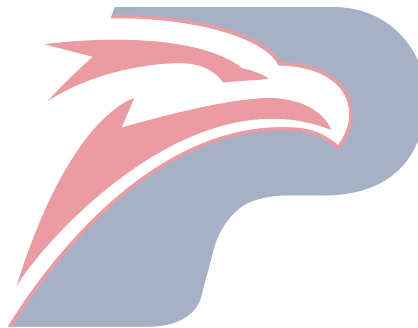
V Instrument cluster

Rear window wiper/ washer

The rear window wiper/washer is operated as follows.

- Press the wiper switch and the wiper will operate intermittently. Press the switch again to stop the wiper operation.
- The washer and wiper will operate simultaneously as long as the washer switch is held down.

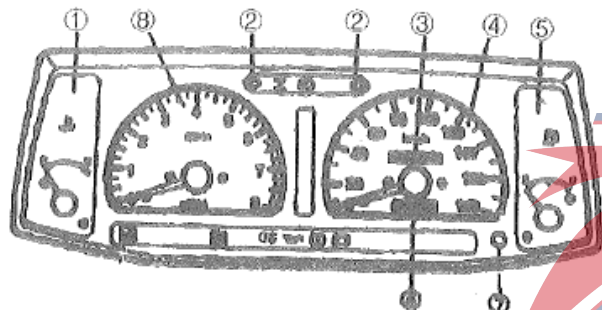
When the rear window is not locked, the rear window wiper is inoperable.



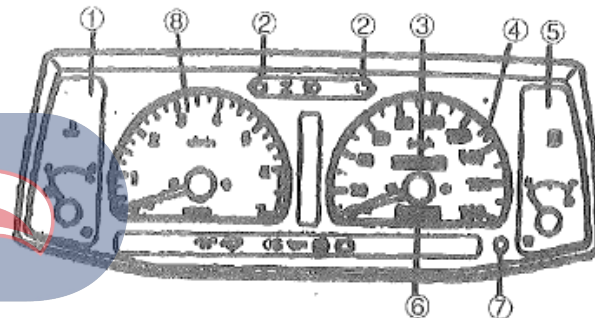
POWERSTAR



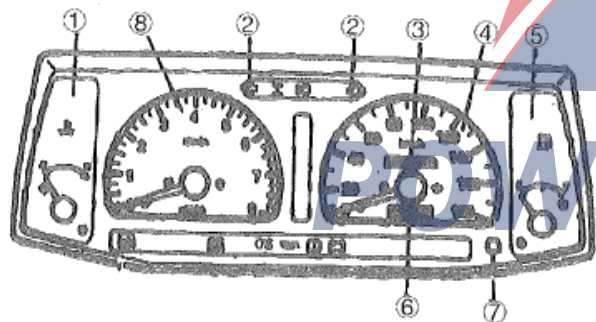
Instruments and indicators




4Z series of gasoline engines



4J series of diesel engines



6V Series symmetrical Engine

- ① Temperature gauge
- ② Turn signal indicator
- ③ Odometer
- ④ Speedometer
- ⑤ Fuel gauge
- ⑥ Mileage Meter
- ⑦ Reset button
- ⑧  Engine tachometer



Indicator lamps

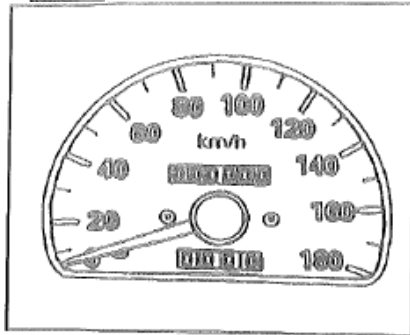


- ① Oil pressure indicator lamp
- ② Generator indicator lamp
- ③ Braking system indicator lamp
- ④ **4WD** 4WD indicator lamp

- ⑤ High beam indicator lamp
- ⑥ **4WD** 4WD engine inspection indicator lamp
- ⑦ Low fuel level indicator lamp
- ⑧ Fog light indicator lamp

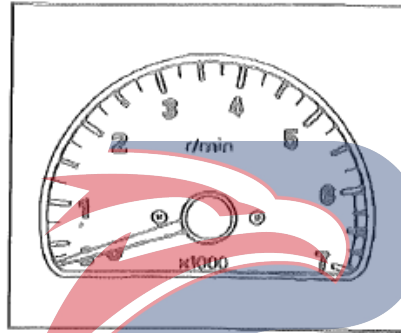
- ⑨ Fuel filter water indicator lamp (gasoline models)
- ⑩ Preheating Indicator lamp
- ⑪ EOBD indicator lamp



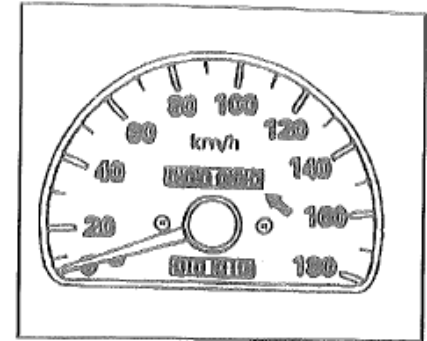
**Speedometer**

Speed (km/h)

The speedometer is used to indicate the speed in km/h.

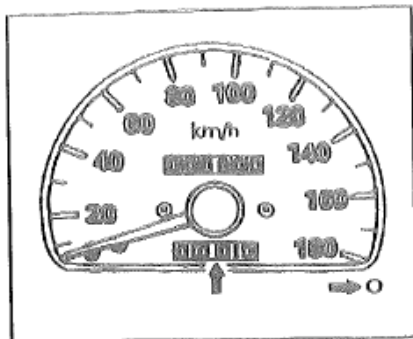
**Engine tachometer**

The tachometer is used to indicate the engine speed per minute. The red zone represents the critical speed of the engine.

**Odometer**

The odometer can be used to record the cumulative driving mileages (km).

POWERSTAR

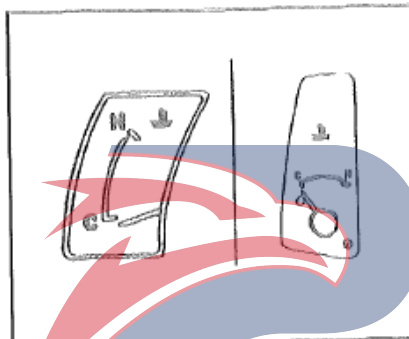


Mileage register and reset button

The reset button of the mileage register is mounted at the lower right part of the speedometer.

To reset the counter, press this button.

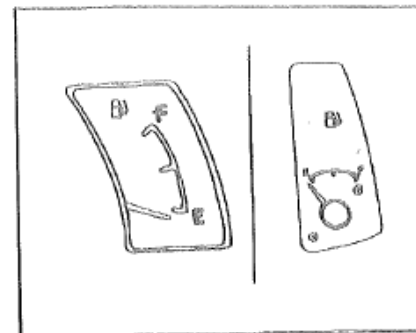
The rightmost black figure indicates 0.1 km.



Temperature gauge

The water temperature gauge is used to indicate the temperature of engine coolant when the start switch is in the "ON" position. When the pointer on the coolant temperature gauge is in the middle of the thick line on the dial, the coolant temperature should be normal.

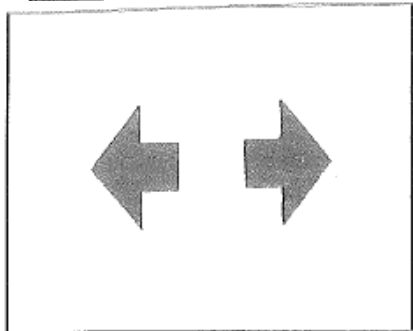
If the coolant temperature gauge indicates that the engine is overheated, must park the vehicle and keep the engine at idle speed until the coolant temperature is decreased within the normal range.



Fuel gauge

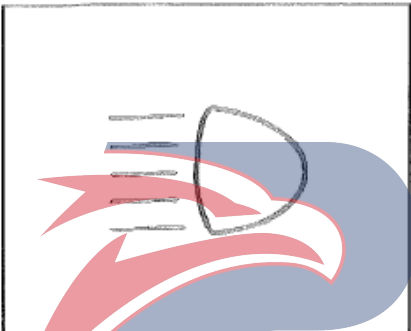
When the start switch is in the "ON" position, the fuel gauge indicates the level in the fuel tank. The letters "F" and "E" respectively indicate "Full" and "Empty" oil level in the tank.

For models with a tachometer, when the start switch is turned to the "OFF" position, the pointer do not return to the "E" (empty) mark position, but remain at the approximate position of the indicated fuel.



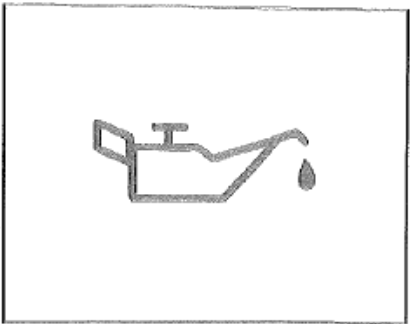
Turn signal indicator lamp

When the turn signal switch or the hazard warning flasher switch is turned on, the turn signal indicator lamp will flash, to indicate that the turn signal or the hazard warning indicator is in operation.



High beam indicator lamp

When the high beam of headlight is turned on, the high beam indicator lamp should be turned on.

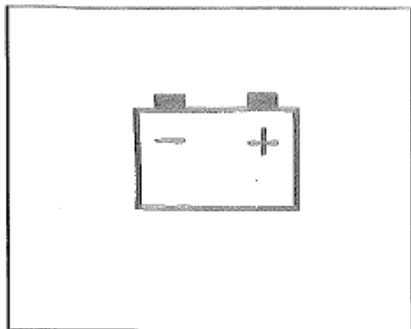


Oil pressure indicator lamp

The oil pressure indicator will be turned on when the start switch is in "ON" position but the engine is not yet started.

If the lamp comes on during driving, the oil pressure is too low. At the time, stop the engine immediately and check the oil level in the engine crankcase. If the oil level is normal, please check the lubrication system at the nearest QingLing Motors service station. When it is turned on, the engine cannot be operated.





Motor indicator lamp

When the start switch is turned to “ON” position, the generator indicator lamp will be turned on; when the engine is started, the indicator lamp will be turned off.

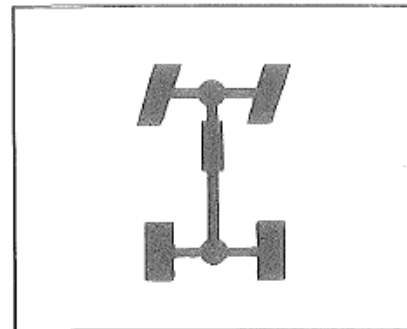
If the indicator lamp is on, please go to the nearest QingLing special service station to check the generator circuit.



Braking system indicator lamp

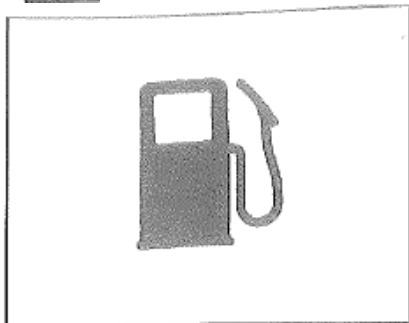
When the start switch is in the “ON” position, the indicator lamps light up when the parking brake lever is pulled up.

If the indicator lamp is turned on while driving, must park the vehicle and check the brake fluid level in the brake fluid tank immediately. If the fluid level is too low, must drag the vehicle to a service station for repair.



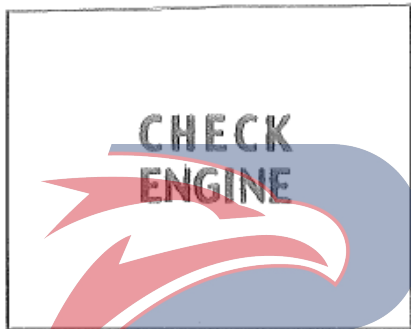
4WD indicator lamp

4WD indicator lamp will be turned on when the transfer case lever is engaged in “4H” or “4L” position.

**Low fuel level indicator lamp**

When the fuel tank is emptied nearly, the low fuel level indicator lamp will be turned on, to indicate that the fuel should be filled as soon as possible.

The low fuel level indicator may flash when the vehicle jumps up and down during driving process, which is normal.

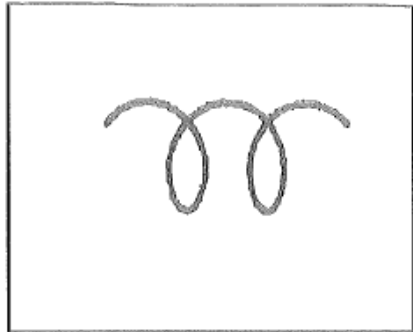
**“Engine check” indicator lamp**

“CHECKENGINE” indicator on the dashboard is designed to show whether the system should be maintained. When the start switch is set to the “ON” position before the engine is not started, the indicator lamps light up to indicate that the indicator is operating normally (the indicator lamp will go off shortly after the engine is started). If the indicator lamp does not illuminate when the start switch is set to the “ON” position before the engine is started, a system repair should be performed.

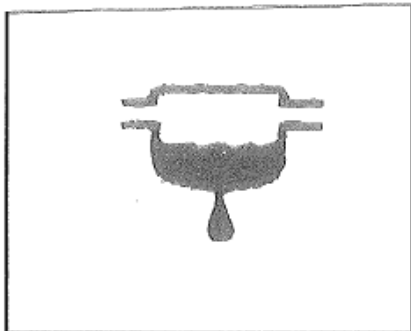
If the indicator lamp is turned on intermittently or continuously, it should be repaired.

Even if the vehicle can still be driven without traction at the time, it should also be driven to a QingLing special repair station for system maintenance as soon as possible. Failure to perform system maintenance for continuing

driving may result in damage to the exhaust system and may also have an impact on fuel economy and driving performance.

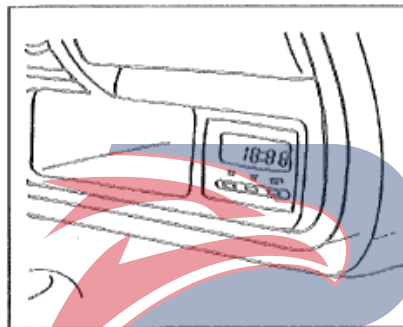
**Thermal indicator lamp (diesel models)**

The preheating indicator lamp will be turned on and held for a while or turned off immediately. The duration of waiting varies according to the temperature of the engine and the coolant. When the glow plug is fully heated and can be started with a cold machine, the lamp goes out. This means that the engine is ready to start.



Fuel filter water indicator lamp D

When the water in the water separator also reaches a dangerous water level, the fuel filter water indicator lamp lights up. If the lamp comes on and it is still on during the engine running, it means that the water in the water separator should be drained.



Electronic digital clock

The time is displayed when the start switch is in the "ON" position. Press each button to set a new time if necessary.

The key functions are as follows:

M button: Press the button to rapidly increase the displayed number of minutes.

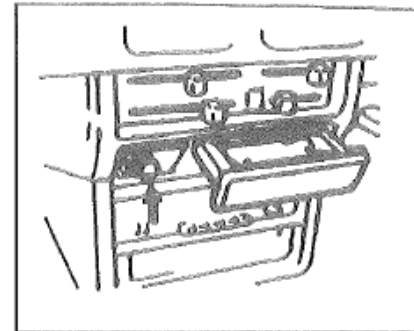
H button: When this key is pressed, the display of hours increases rapidly.

SET button: Press the key to reset the display number of minutes to "00".

When the clock displays 1:01-1:29, if pressing the reset button, the clock will be reset to 1:00. When the display is between 1:30-1:59, if you press the reset button, the clock will be reset to 2:00.

The clock does not display the seconds, but

when the "SET" button is pressed, it starts running from 0 seconds.



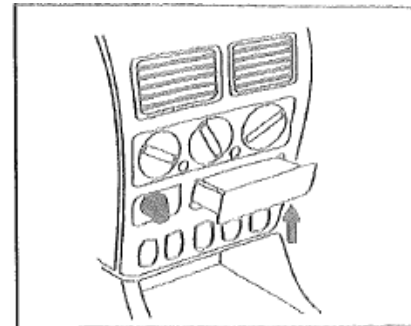
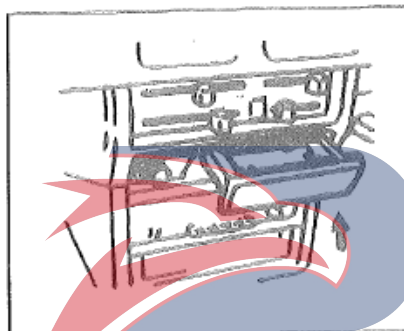
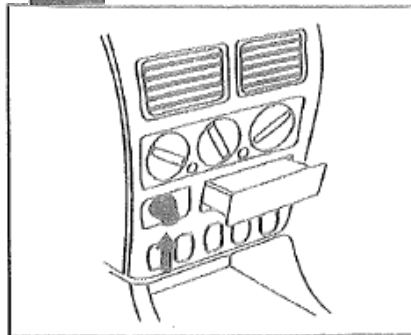
Cigarette lighter

When in use, press the pinch hand down and it will heat up immediately within a few seconds.

The cigarette lighter will be automatically returned to its original position after it is heated.

If, after 18 seconds, the cigarette lighter does not return to its original position: it means there was a problem. At this time, it must be hand-pulled to its normal position.

The cigarette lighter socket cannot be used as a power outlet.

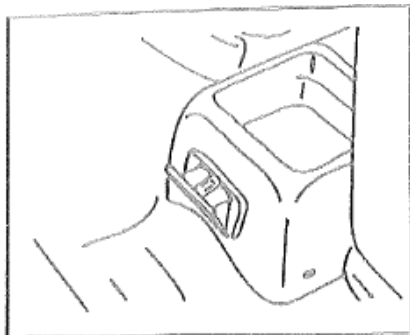


Ashtray

After using the ashtray, be sure to push it back to the original place. Otherwise, the remaining fire will ignite other cigarette butts and cause fire.

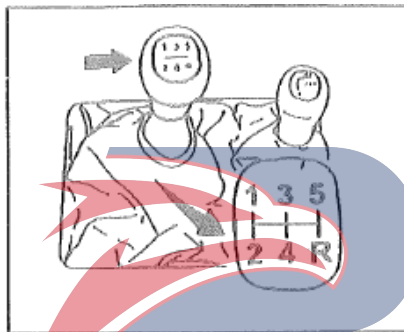
When using, pull the ashtray out of the outside. When cleaning, pull the entire ashtray down and pull it out to remove it.

POWER STAR



Ashtray (rear side)

The rear ashtray is mounted on the rear side of the center bracket. The ashtray should be removed by pressing the fastening reed and pulling it out.

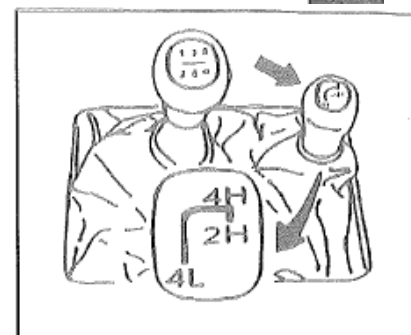


Floor controls

Shift lever

The shift lever is used to control the fully synchronous transmission. The gear position mark is indicated on the shift lever handle.

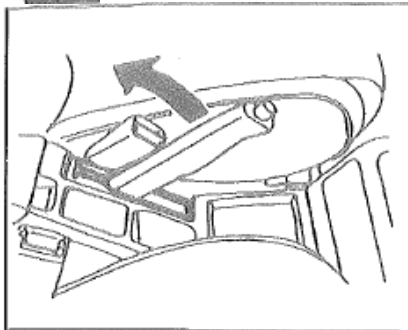
Before engaging the reverse gear, stop the vehicle completely. The start switch is set to the “ON” position and the backup lamp illuminates when the reverse gear is engaged.



4WD Transfer case joystick

A common (partial time) 4WD transfer case can be used to select 2WD or 4WD mode. The gear position mark is indicated on the control lever handle.

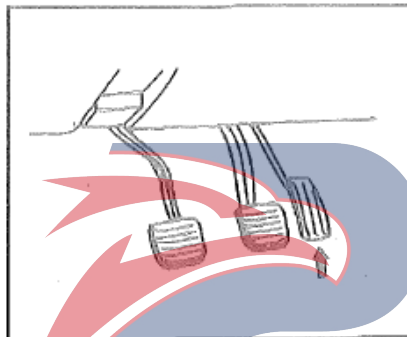
POWERSTAR



Parking brake

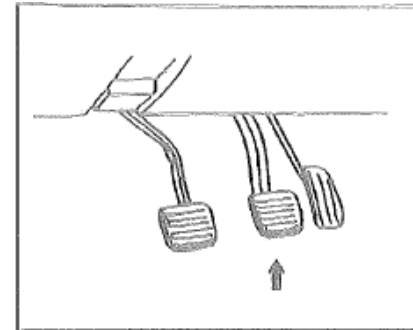
When applying the parking brake, must fully pull up the brake handle between the seats; when releasing the parking brake, must pull up the brake handle and push down the button and push the brake handle to the end.

When the start switch is turned to "ON" position, if the parking brake is not fully released, the brake system warning indicator will be turned on. **In the case, any continuous driving may cause overheating of the parking brake or other mechanical damage.**



Accelerator pedal

To prevent unnecessary fuel consumption, the operation of the accelerator pedal must be smooth and appropriate.

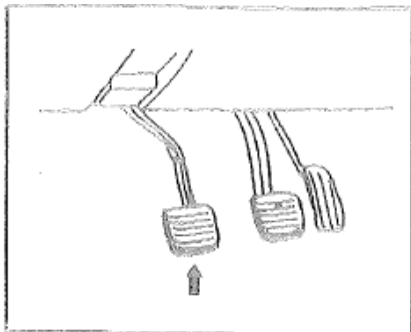


Brake pedal

Gently depress the brake pedal to avoid sudden braking. On a downhill, it is best to apply the foot brake and the engine brake at the same time.

Brake wear indicator:

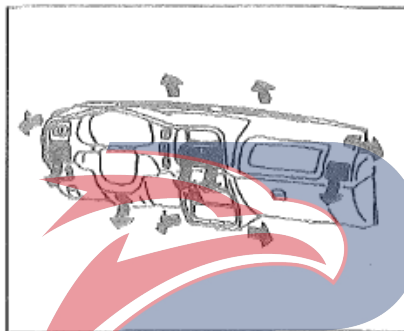
The front disc brakes and the rear drum brakes are internally equipped with the wear indicators. When any brake lining is worn to the point required for replacement, it will send a scream or squeak. The sound is intermittent, or can be heard when the wheels are turned, but when only the pedal is pressed, the sound can disappear, if the friction lining cannot be changed when it needs for replacement, it may cause a greater damage.



Clutch pedal

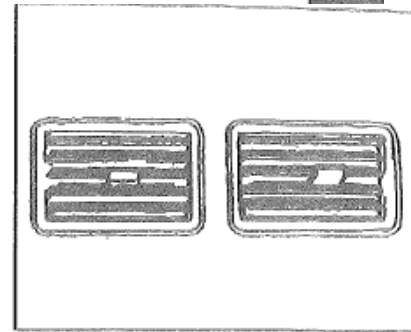
When disengaged, the clutch pedal must be fully depressed. If this is not done, the transmission gear will buzz.

When the clutch is not operated, do not rest your feet on the clutch pedal.



Vent

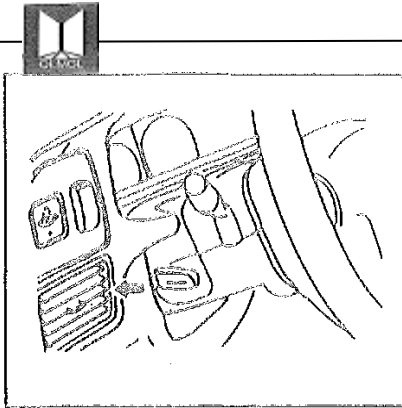
A pair of central vents is located in the center of the dashboard. Side vents are provided at both ends of the instrument panel.



Central vent

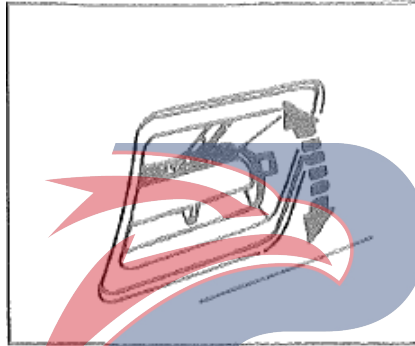
There are two central vents on the instrument panel. The knobs on the ventilation grilles control the horizontal and vertical air flow.

POWERSTAR



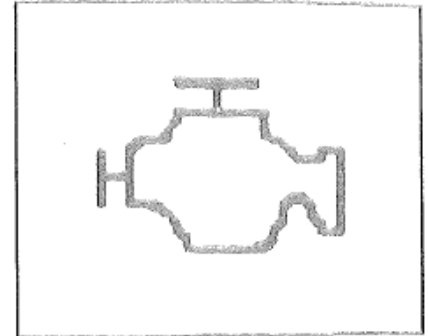
Side vents

Side vents are provided at both ends of the instrument panel. The knobs at the center of the ventilation grilles control the horizontal and vertical air flow.



Knee vents

The vertical direction of air at knee can be controlled by turning the grille on the vent.



EOBD indicator

The indicator will be turned on when any component connected or related to OBD system or OBD system itself has a failure.

When the start switch is set to the "ON" position before the engine is not started, the indicator lamps on to indicate that the indicator lamp is operating normally (the indicator will go off shortly after the engine is started).

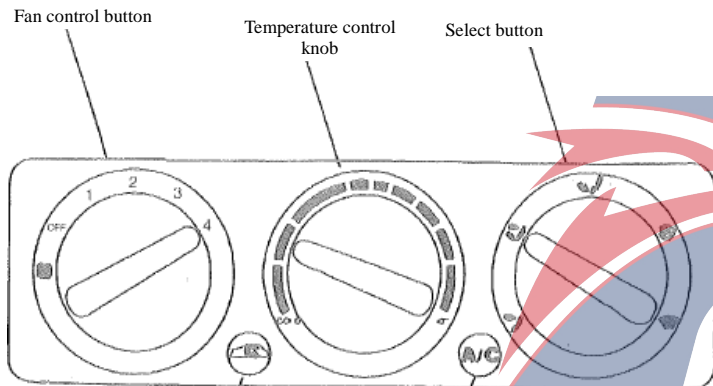
Warning

If the indicator is turned on while driving, must park the vehicle immediately and drag it to a QingLing Motors special service station for system maintenance. Failure to perform system maintenance for continuing driving may result in damage to the exhaust system and may also have an impact on fuel economy and driving performance.

POWERSTAR

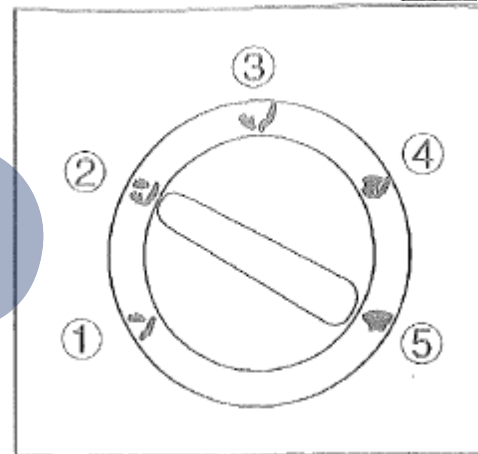


Heating - defrosters and air conditioners



Air source selection key

Air-conditioning switch



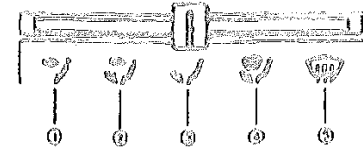
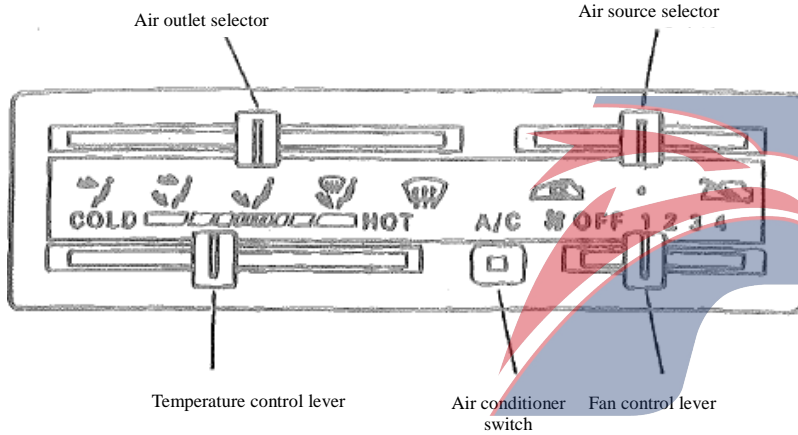
Air inlet and outlet selection knob

The selector lever adjusts the air flow from the heating device, the defroster and the air conditioner or the vent.

- ① Face (air blown to the face)
- ② Double planes (air blown to face and feet)
- ③ Bottom outlet (air blown to the feet)
- ④ Bottom outlet and defroster (air blown to feet and windshield)
- ⑤ Defroster (air blown to windshield)



V Heating - defrosters and air conditioners

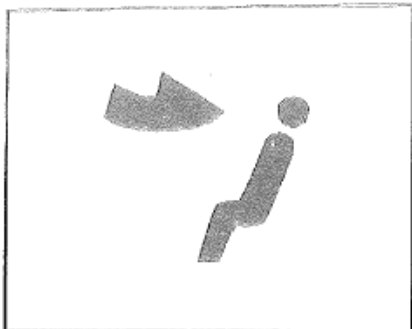


Air outlet selector

The selector lever adjusts the air flow from the heating device, the defroster and the air conditioner or the vent.

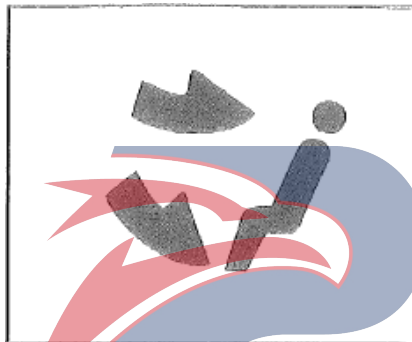
- ① Face (air blown to the face)
- ② Double planes (air blown to face and feet)
- ③ Bottom outlet (air blown to the feet)
- ④ Bottom outlet and defroster (air blown to feet and windshield)
- ⑤ Defroster (air blown to windshield)

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Facial outlet

The air will be conditioned through the system and exhausted from the upper outlet. The position is used for air conditioning in general cases.



Double plane

The air is regulated and discharged from the upper outlet and the lower outlet. In the double plane position, the air from the bottom outlet is hotter than the air from the upper outlet. However, when the temperature control knob is turned to the hottest or coldest position, the air from the bottom outlet has the same temperature with the air from the upper outlet.



Bottom vent

The air is discharged from the bottom outlet.

POWER STAR



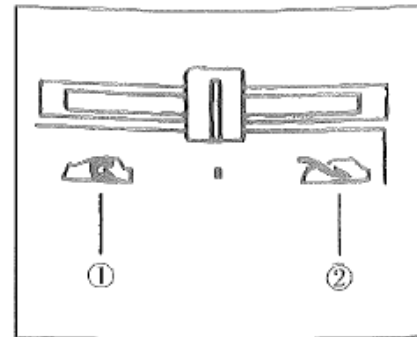
Bottom outlet and defroster

When the air is exhausted from the bottom outlet, a small amount of air will be exhausted from the defroster outlet and the side window defroster outlet.



Defroster

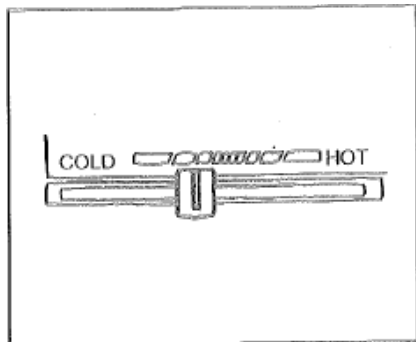
When the air is conditioned and exhausted from the defroster outlet, a small amount of air will be exhausted from the side window defroster outlet. This position is only recommended for severe fog and icing conditions.



Air source selector

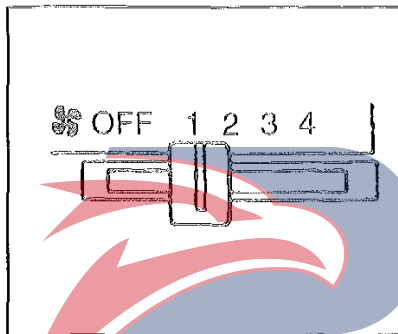
By moving this selector lever leftward or rightward, the intake air of the outside air ② and the circulation of the inside air ① can be controlled.

If the internal air is circulated only for a long time, the windshields may be blurred. In order to achieve good ventilation, switch quickly to the outside air position.



V **Temperature control lever**

Moving the lever in the horizontal direction controls the room temperature according to the temperature range indicated on the instrument panel.



Fan control lever

Moving the fan lever horizontally controls the amount of air flow as described below.

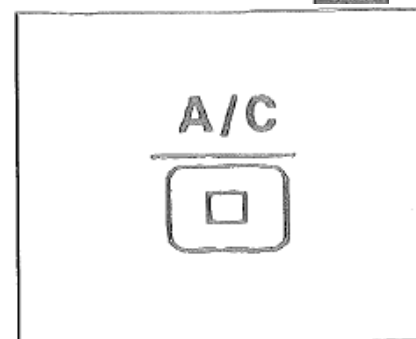
OFF.....The fan does not turn on.

1.....The fan speed is low.

2.....The fan speed is slightly low.

3.....The fan speed is slightly high.

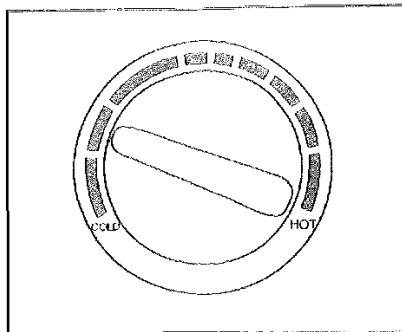
4.....The fan speed is too high.



V **Air conditioner switch**

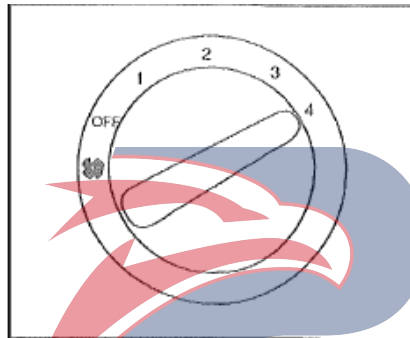
Press this switch to operate the air conditioning system. When the system is operated, LED indicator in the switch will be turned on. Press the switch again to turn off the air conditioning.

POWERSTAR



Temperature control knob

The rotary temperature control lever is used to control the temperature indicated on the dashboard within the room temperature range.



Fan control knob

Turn the fan control knob to control the fan speed and then the air flow as described below.

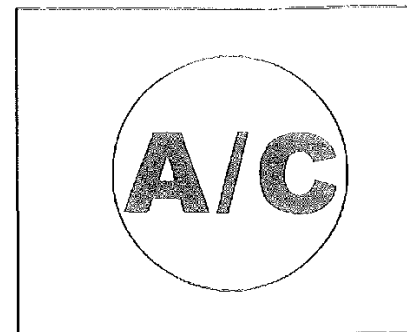
OFF..... The fan does not turn on.

1..... The fan speed is low.

2..... The fan speed is slightly low.

3..... The fan speed is slightly high.

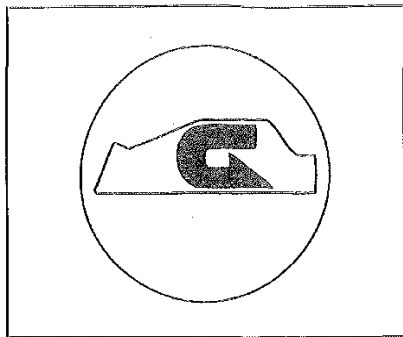
4..... The fan speed is slightly high.



Air conditioner switch

Press this switch to operate the air conditioning system. When the system is operated, LED indicator in the switch will be turned on. Press the switch again to turn off the air conditioning.

POWERSTAR



Air source selection key

Luxury configuration instructions

Luggage rack

The main function of the luggage rack is a decorative, not a support. When it is really required for loading, the vehicle must be equipped with a beam to evenly distribute the load and the maximum load should be less than 30kg.

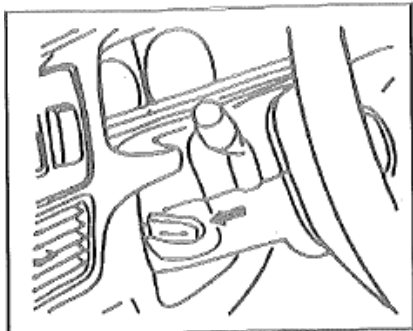
Hard spare tire cover

When replacing the spare tire or opening the hard spare tire cover and reinstalling in other cases, the lock position should be within $\pm 30^\circ$ directly below to prevent the mud and water from damaging the lock.

Pedals

The design bearing capacity of footboard is 100kg, and the left and right decorative cover can not bear the burden, and it is not allowed to trample on the decorative covers when loading and unloading.

POWERSTAR

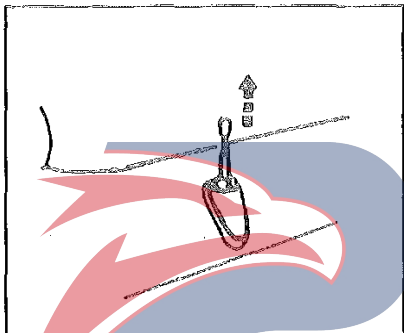


V Removable steering wheel

The movable operating lever of the steering wheel is located below the steering column.

To adjust the height of the steering wheel, pull the joystick in the direction of the arrow to unlock it and move it to the upper position. Pull the steering wheel down to the desired position and lock the operation lever. The movable adjusting lever for steering wheel has 8 adjusting positions.

After adjusting the steering wheel, move up and down to confirm that it is locked.



Manual antenna

Pull out the antenna for good sensitivity.

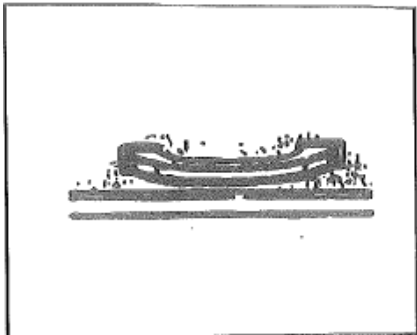
Power antenna

The power antenna and audio share a switch. When the audio switch is turned on, the power antenna is automatically extended. When the audio switch is turned off, the power antenna is automatically recovered.

Hidden antenna

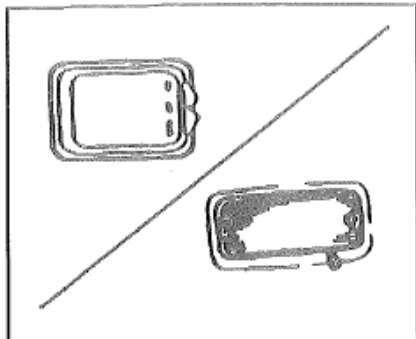
The hidden antenna shares a switch with the audio device. When the volume switch is turned on, the good audio effect can be achieved.

Get a good effect.



Auxiliary armrest

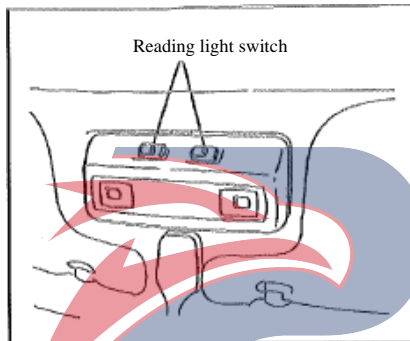
Each auxiliary armrest is mounted on the top beam above the side window.



Roof light

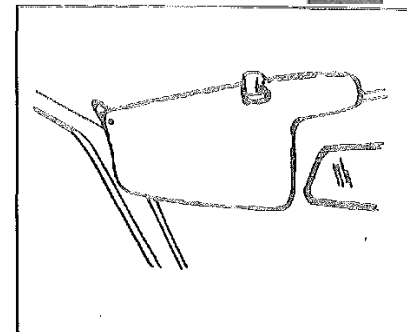
Regardless of start switch position, the dome light will be turned on in the following conditions.

- ① “OFF”: the dome light stays off.
- ② “DOOR”: the dome light illuminates when either front door is open.
- ③ “ON”: the dome light illuminates regardless of the position of the door.



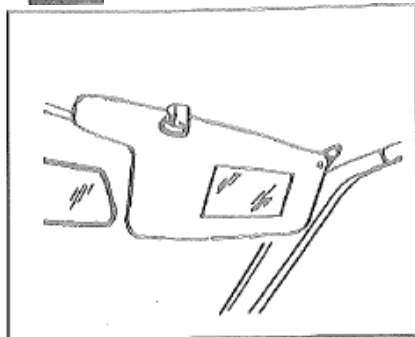
Reading light switch

The reading light switch is on the upper part of the interior rear view mirror. When the button light is pressed, it lights up. Press the light again to turn it off.

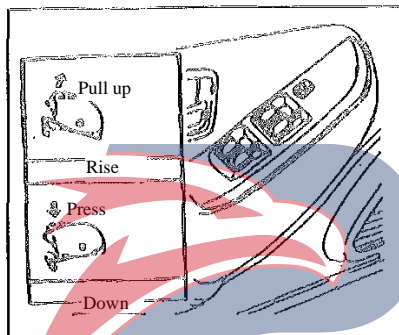


Shade light

The visor can be lowered to shade the sunlight.

**Vanity mirror**

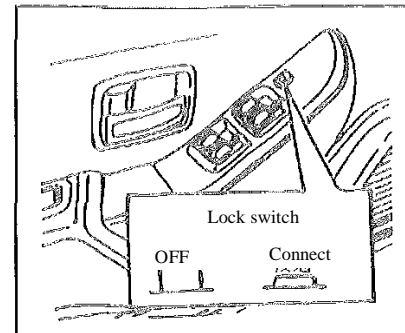
The vanity mirror is located behind the sun visor.

**Electric window**

The lift of any window on the vehicle can be operated with a switch on the driver's door. The power window only works when the start switch is in the "ON" position.

To open any window on the passenger side, press and hold the switch and release it when the window drops to the desired position.

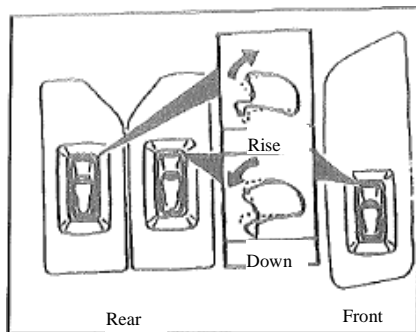
The window can be closed by pulling up the switch and release when the window is raised to the desired position.



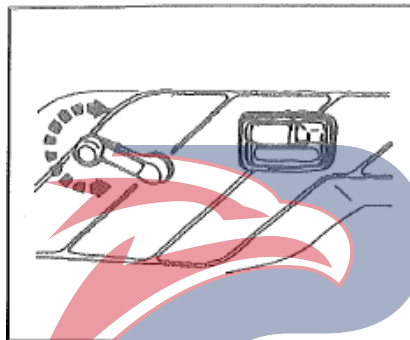
Press the switch by hand and let go. The window on the driver's side will automatically open fully.

When the driver's lock switch is in the "ON" position, the passenger's control switch will not function.

Press the lock switch again and the power window will be unlocked and functional.

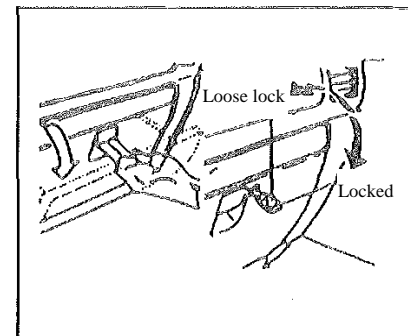


The passenger side window can be controlled by a switch on each passenger's side door.



Adjustment handle

Turn the window adjustment handle to raise or lower the window glass.

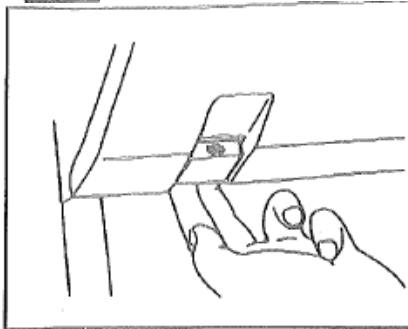


Hand toolbox

Pull out the handle to open the hand toolbox.

Also, lock and unlock the toolbox with the start switch key.

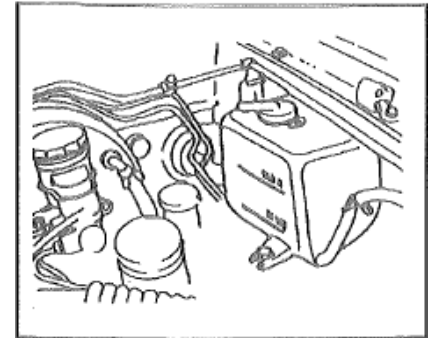
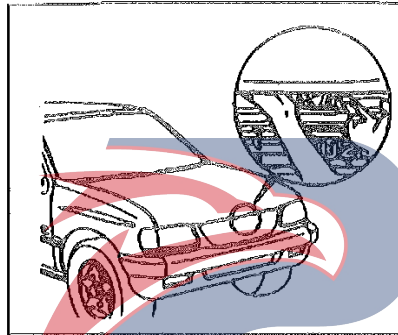
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Hood release lever

To lift the hood, first pull out the release lever under the instrument panel on the driver's side to unlock the hood, then release the safety catch under the hood, and then lift the hood completely to support the hood.

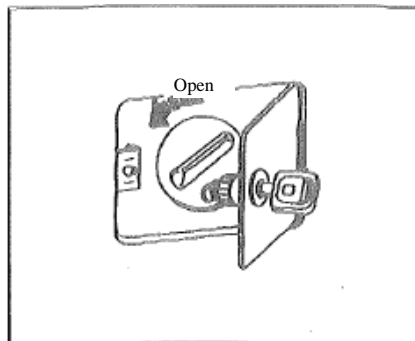
Be sure to engage the end of the strut rod with the hole in the reinforcement in the hood to support the hood. To close the hood, remove the support rod from the hole in the reinforcement and fold it and return it into the clip on the panel. Drop the hood freely when it is 300mm away from the locked position. Until locked.



Radiator backup water tank

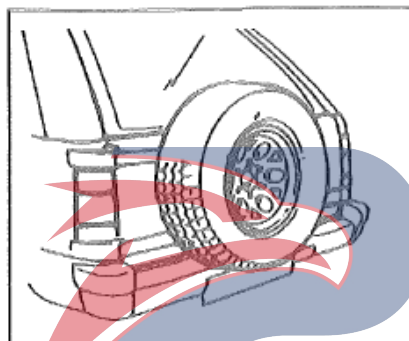
The radiator tank is mounted on the left front of the engine compartment.

The coolant level check or the coolant refilling should be performed at the reserve radiator tank, and the radiator filler cap cannot be removed unless necessary. See “Services and Maintenance” section for more details.



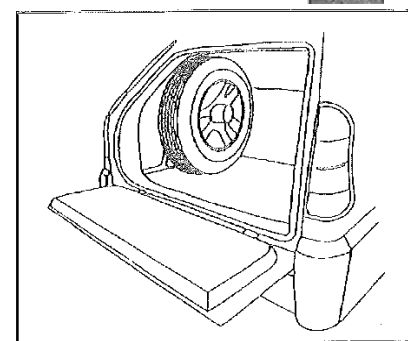
Fuel tank filler cap

The vehicle is equipped with a small door that can lock the fuel injection nozzle. This small door can be opened with the key of the start switch. After refilling, tighten the fuel tank filler cap clockwise until you hear three clicks.



Spare tire carrier

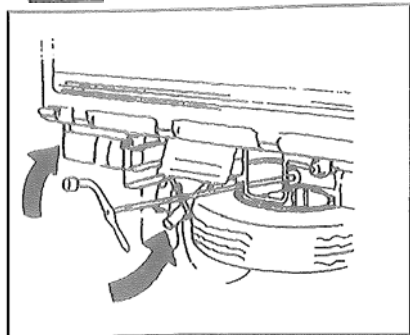
A spare tire is fitted outside the rear door.



Tyre rack

A spare tire is installed in the rear door.

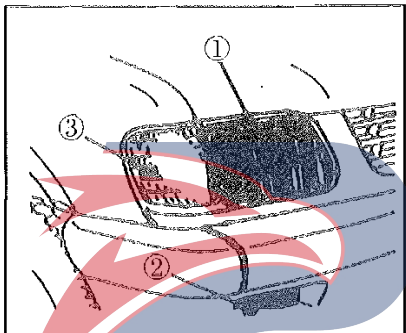
POWERSTAR



Tyre rack

The spare tire is fastened to the rear of the frame with a chain. To lower the spare tire, you must insert the handle into the hole in the back of the vehicle so that it engages with the catch and turn the handle counterclockwise.

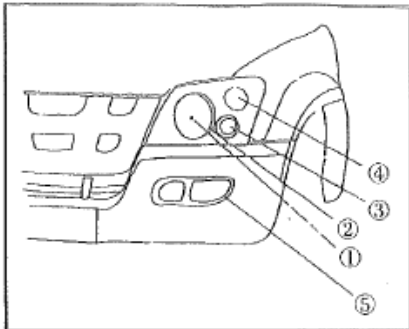
To lift it, turn the handle clockwise until it stops, then make another extra turn to secure the spare tire in the storage position.



External lights

Front side

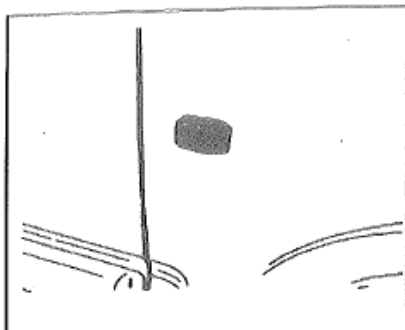
- ① Headlights
- ② Front turn signal light
- ③ Front position light



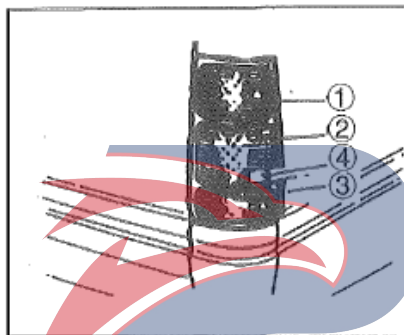
External lights

Front side

- ① High light
- ② Front position light
- ③ Low light
- ④ Front turn signal light
- ⑤ Front fog lights

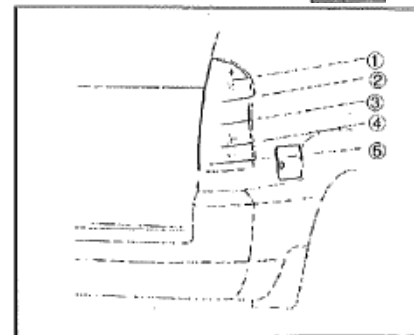


Side turn signal



Rear side

- ① Turn signal
- ② Tail light and parking light
- ③ Reversing lights
- ④ Reflex reflector



Rear side

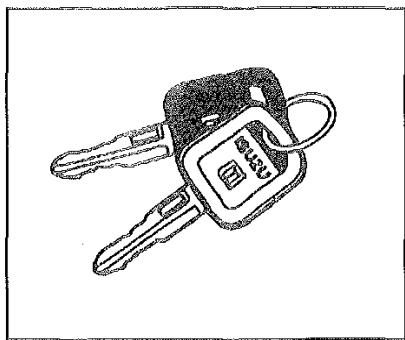
- ② Tail light and parking light
- ② Turn signal light
- ③ Reversing lights
- ④ Rear fog lamps
- ⑤ Reflex reflector

POWERSTAR



Before driving your vehicle

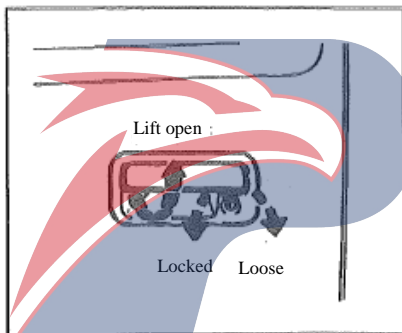
Proper management and driving can not only prolong the life of the vehicle, but also save fuel and grease. Be careful to drive safely.



Operation control

Key

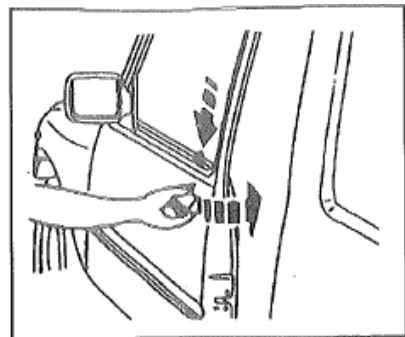
Each key is marked with a key number, the key label must be remembered, it must be kept securely, and it should be kept in a wallet and must not be placed in the vehicle.



Outside door handle

Lift the door handle and the door opens.

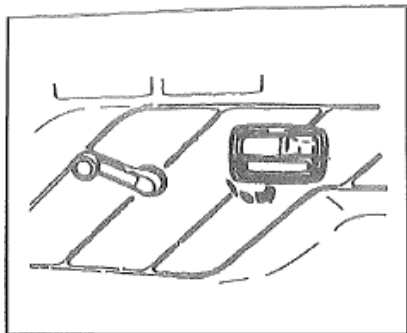
Insert the start switch key into the door lock and rotate it to lock the door.



Door lock (outside)

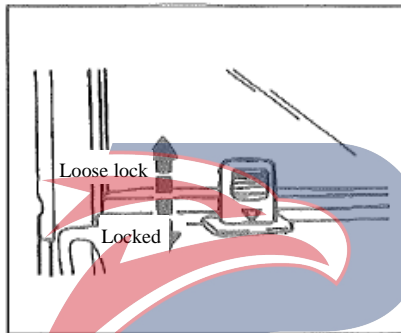
The door lock can be locked from the outside without the key. Just press the door lock button on the inside of the door and pull out the door handle to close the door.

Be careful not to lock the key in the vehicle.



Inside door handle

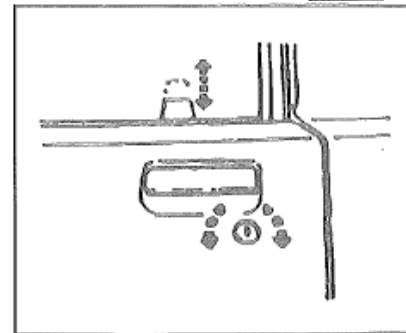
Pull the handle inside the door to open the door.



Door lock button (inside)

After closing the door, press the door lock button to lock the door.

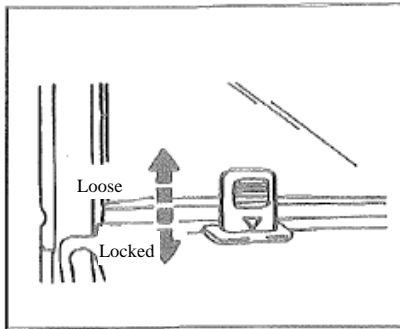
Before driving, make sure that all doors are closed and locked. Especially when children are in the vehicle.



Locking and unlocking of the electric door locks outside the vehicle

Insert the key into the door lock on the driver side, clockwise rotate it to lock all doors, and counterclockwise rotate it to unlock all doors.

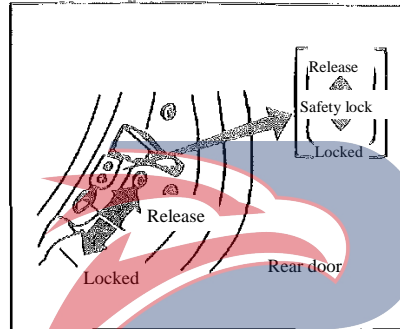
POWERSTAR



Locking and unlocking of electric door locks in the vehicle

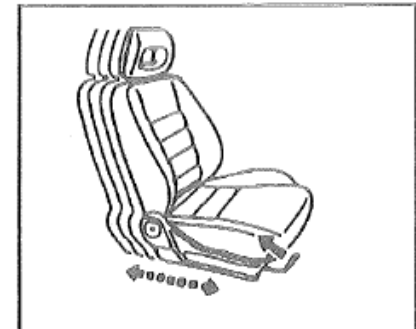
Press the door lock button on the driver side to lock all doors and lift it to unlock all doors.

Each door on passenger side can also be locked and unlocked with the corresponding door lock button.



Children safety door lock

Close the door and press the lock lever of the safety lock to lock the rear door. At this time, the door cannot be opened regardless of the position of the door lock button. Lifting the lock lever releases the safety lock function.

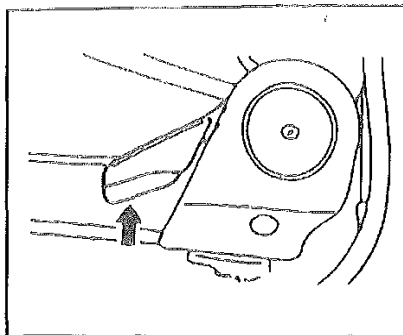


Driver's seat

Seat adjuster

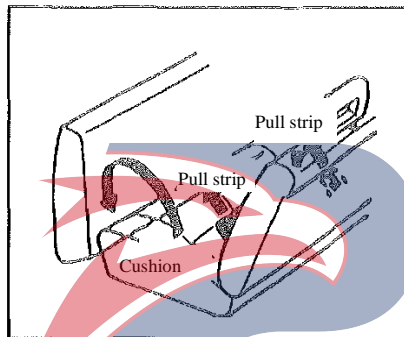
The driver seat can be moved back and forth to the most comfortable position. Pulling up the seat adjuster at the front and bottom of the seat can move the seat back and forth to the desired position. After adjusting the seat, be sure to push the seat back and forth to ensure that the seat adjuster is locked.

Do not adjust the driver's seat while the vehicle is in motion.



Seat back

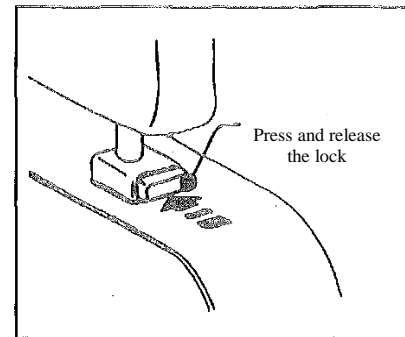
Lift the adjustment lever on the door side of the seat to adjust the inclination of the front seat back.



Rear seat

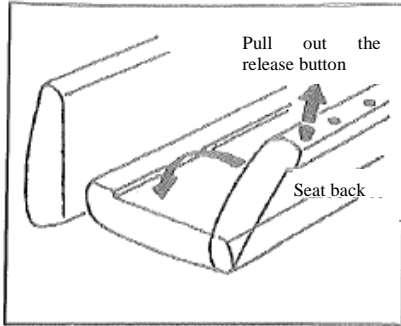
Fold

1. Pull up the straps at an angle of 450° towards the center of the vehicle at the same time, to fold up the seat cushion.

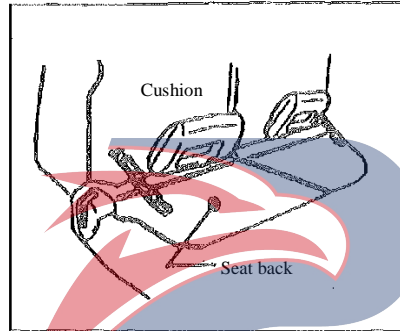


2. Press the release button and pull the headrest up to remove the headrest.

POWERSTAR

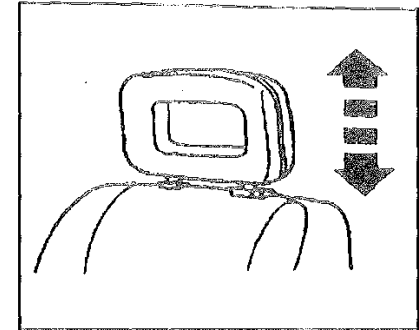


3. Pull the left and right release buttons and fold the seat back forward.



4. Attach the buckle on the bottom of the seat cushion to the buckle on the back of the seat back.

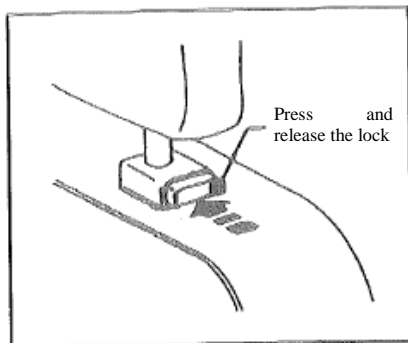
5. Insert the headrest between the seat back and the seat cushion.



Headrest

Using a head restraint helps reduce the risk of neck injuries. Adjust the headrest so that the top of the headrest near the top of your ear.

POWERSTAR



Press the lock knob to release the head restraint and move the head restraint up or down to the desired position.

Release the folding

1. Pull the seat into the locked upright position.
2. When locking the rear seat cushion to the floor mount, apply sufficient force to the seat cushion to push it into the lock. After locking in, pull the seatbelt pull ring up to make sure the seat cushion is firmly locked.
3. Make sure the head restraint is refitted in place on the seat back.

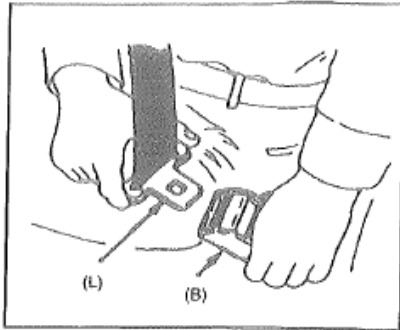


Front and rear seatbelt/safety strap

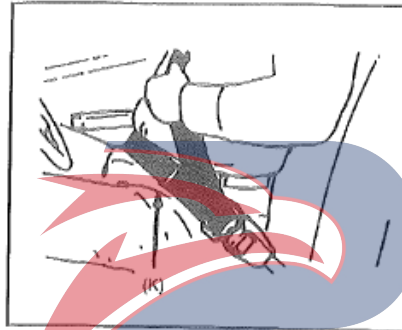
Your vehicle may be equipped with a three-point seat belt with lap belt and shoulder strap buckles as an option.

For the usage of the belt, refer to the technical information on the operation method of the following items.

1. Adjust the front seat as needed, sit with the upper body upright and lean against the backrest.
2. Hold the seat belt's tabs (L) and pull the belt and straps so that they cross over the body. At this time, the buckle tab should be pulled to the position of the buckle (B) along with the seat belt, and it should be inserted into the open end of the buckle until it is buckled with a click sound.



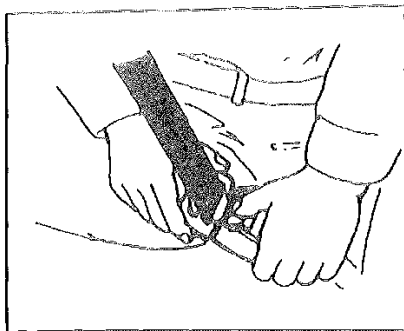
It is important to make the seatbelt in close contact with the body and lower its position, because the force generated from the seatbelt can be distributed on the stronger pelvis, other than on the abdomen in case of a collision. Otherwise, in case of an accident, it may cause serious injuries and even death.



The belt across the waist should be pressed down so that it is as close as possible to the pelvic part. Then, pull the shoulder portion of the front seatbelt that passes through the fastener tongue hole so that the seatbelt is in tight contact with the waist. In this way, the risk of the body slipping from the seatbelt can be reduced in case of an accident. If the buckle (K) is pressed against the tab when the seatbelt is tightened, the buckle should be moved toward the door.



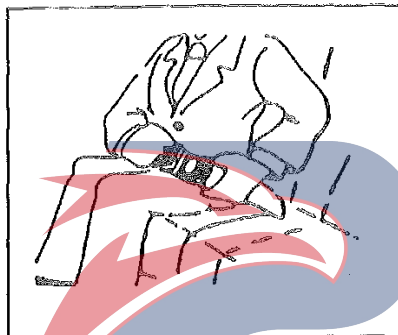
In order to avoid injury in case of an accident, a seatbelt cannot be used for more than two persons at the same time, and the seatbelt should not be twisted to prevent wear. Be careful not to trap the seatbelt clamp between the seat parts (metal parts) or catch it in the door.



The shoulder safety of the front seat is provided with a " vehicle - sensitive retraction device" which is used for locking only when an emergency brake is applied to an impact. In general case, it can be moved freely with passenger.

To unlock the seatbelt, must press the center position of the buckle.

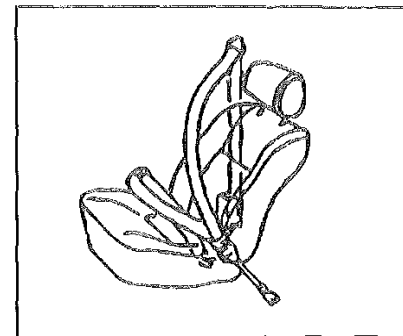
When the seatbelt is not in use, it can be retracted into the retraction device for storage. If necessary, move the collet along the front seatbelt to retract the seatbelt securely. In doing so, you can place the tab on the easy-to-reach door post.



Belt

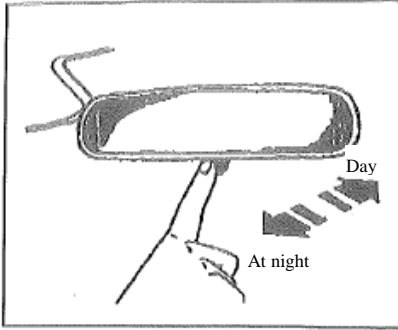
Hold the seatbelt buckle tab adjuster, pass it around your body, and insert it into the buckle.

When this is done correctly, you will hear a click sound. Make sure this seatbelt fits snugly by your hip bone and not cross over your waist.



Inspection and maintenance of the seat belt

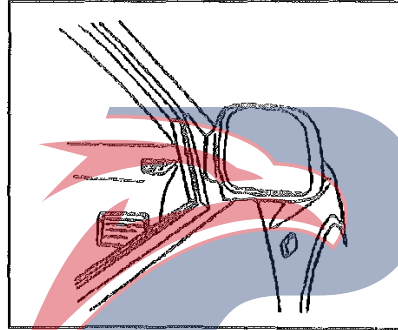
- Check the seat belts, buckles, tabs, retractors, and fasteners regularly to see if they are damaged, so as not to reduce the effectiveness of the fastening device.
- Do not allow sharp or destructive things near the seat belt.
- Should the seat belt be replaced if it is cut, weak, worn, or cannot withstand an impact load.
- Check that the set bolts are fastened to the floor.
- The defective parts should be replaced.
- Keep the seat belt clean and dry.
- Wash the seatbelt only with soft soap solution and warm water.
- The seat belt must not be bleached or dyed to avoid weakening it.



Interior rearview mirror: daytime and nighttime

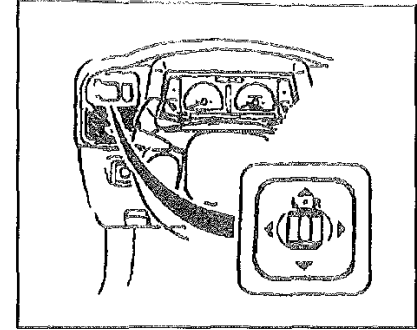
Push the rearview mirror up and down and left and right for adjustment.

Switch the rearview mirrors to nighttime mode, to avoid the glares caused by the headlights of the rear vehicles.



Outside rearview mirror

Adjust the outside mirror to see not only the scenes on both sides of the road behind you, but also the conditions on both sides of the vehicle. This can help you determine the relative position of the object placed behind.



Outside electric rearview mirror

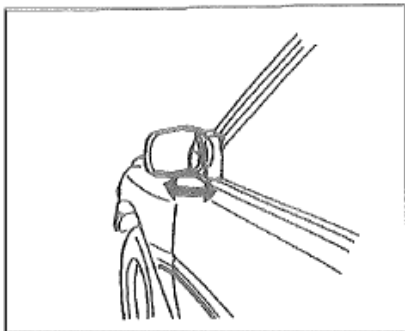
The rearview mirror adjustment switch on the console is used to control the electric rear-view mirrors.

When the central part of the adjustment switch is turned to the left, the left rearview mirror can be moved in up and down or left and right directions.

When adjusting the central part of the switch to the right, it is used to adjust the right side mirror.

Do not adjust the mirror when the vehicle is driving

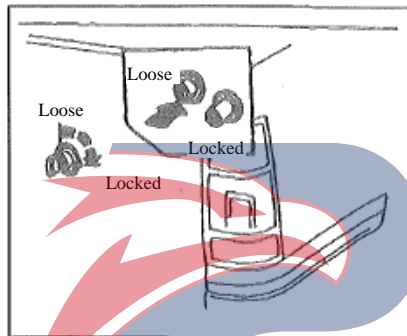
Forced moving by hand will damage the power mirror.



If necessary, the rear view mirror can be folded back.

Move the rear view mirror in the direction as shown to fold the rear view mirror.

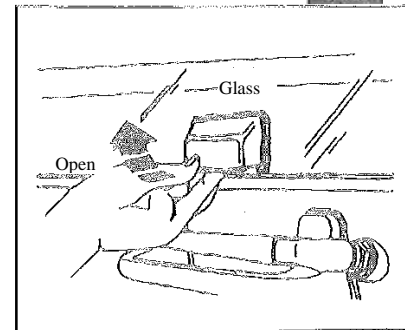
Pull it out until a "Click" sound is sent, which indicates it is returned in original position.



Rear door operation

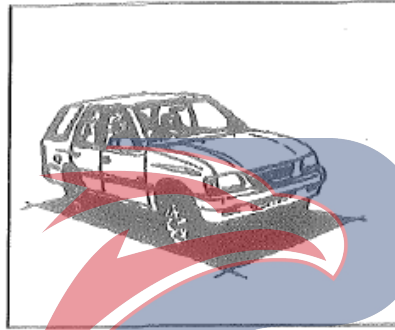
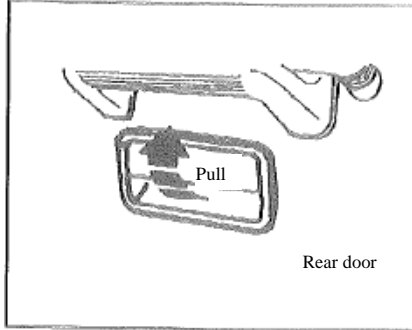
There is a liftable glass and a liftable door on the rear door. When the lock on the outside of the rear door is opened with the start switch key, the rear door can be opened and the rear door glass can be unlocked.

Turn the key counterclockwise and push the lock to unlock the glass.



Lift the glass and pull up the door handle to open the door. (There is a support tube on each side of the glass to hold the open glass).

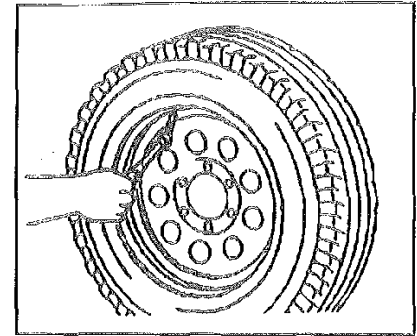
POWER STAR



Driver Checklist (Regular inspection)

To ensure safe and reliable driving, the following items should be checked.

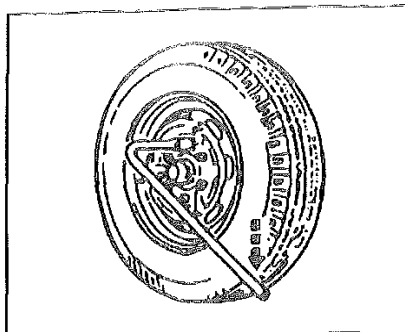
Refer to the Service Guide for the correct inspection procedure.



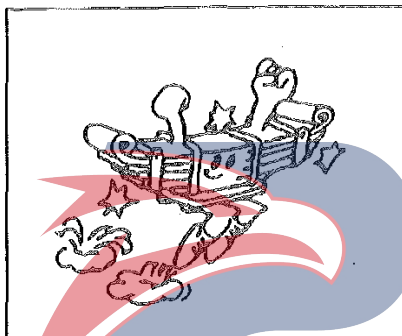
Outside

1. Check tires for inflation pressure and damage.

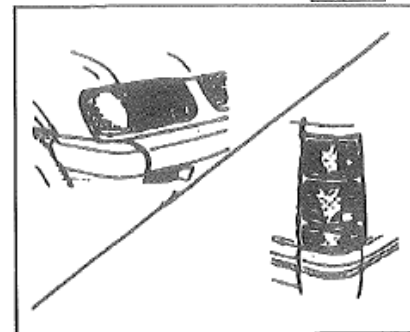
POWERSTAR



2. Check whether the wheel nuts are loosened.

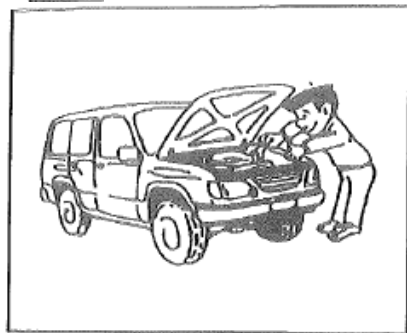


3. Check whether the chassis springs are damaged.

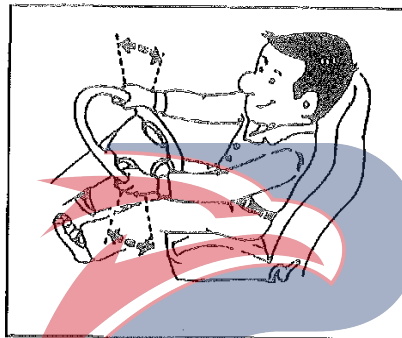


4. Check the lights for normal operation.

POWERSTAR

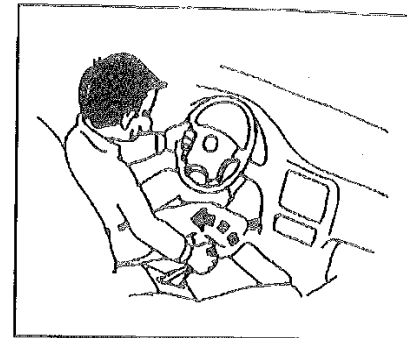


5. Before each driving, check oil, coolant, fuel, and brake fluid for leakage.



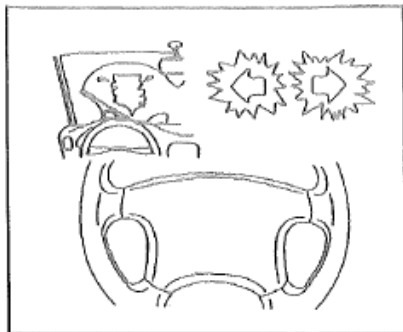
Inside the cab

1. Check the steering wheel for free stroke and stability.

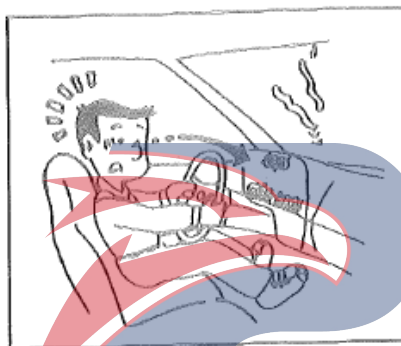


2. Check the parking brake lever and stroke.

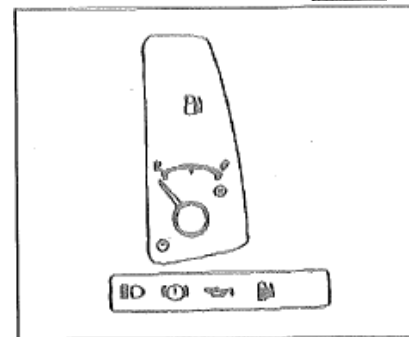
POWERSTAR



3. Check the horn, windshield wiper and turn signal for normal operation.

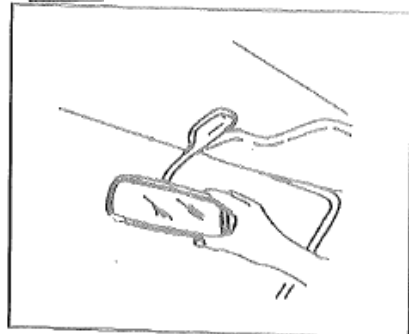


4. Check if the meter and indicator can be used.

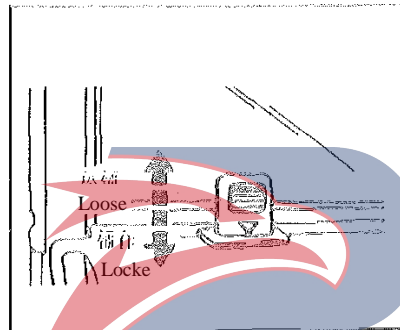


5. Check the fuel level in the fuel tank.

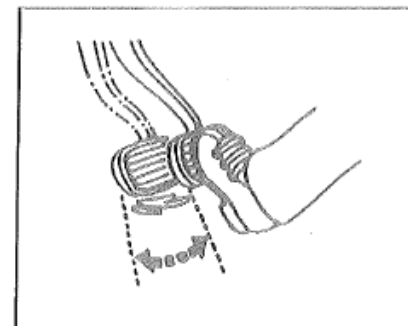
POWERSTAR



6. Check the setting angle of the rear view mirror.

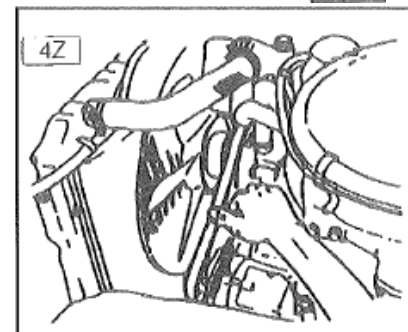
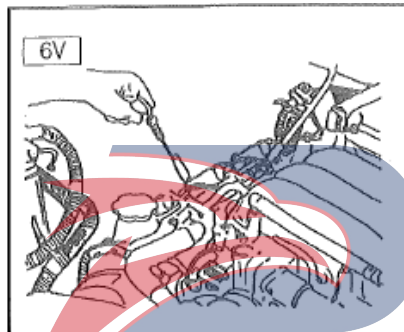
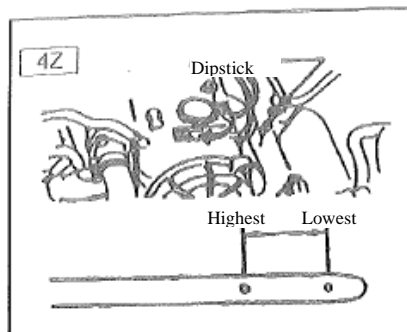


7. Check the actions of the door lock mechanism.



8. Check the free stroke, height and other functions of the clutch pedal.

POWERSTAR

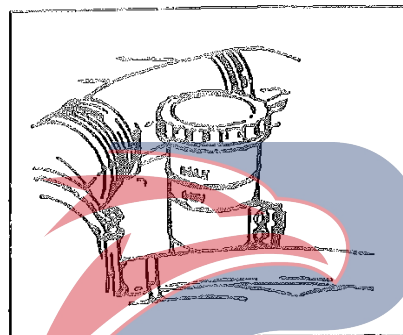
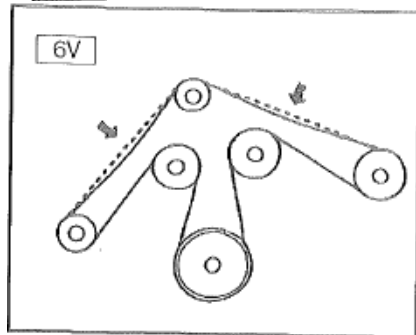


Inside the engine compartment

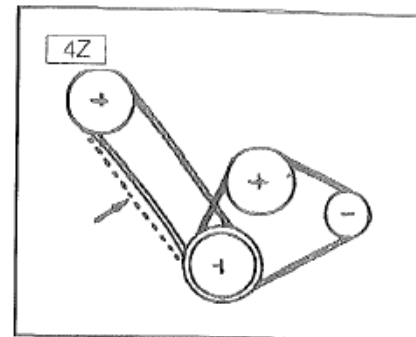
1. Before driving a vehicle each day, check the engine oil level, keep the liquid level between maximum and minimum, and refill the specified oil at any time.

2. Check the tension of the fan belt.

POWERSTAR

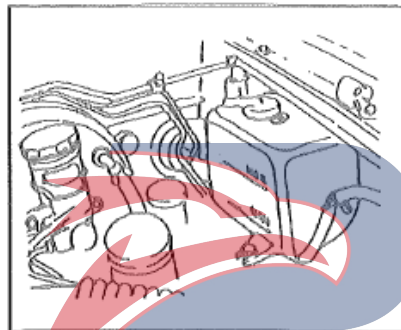
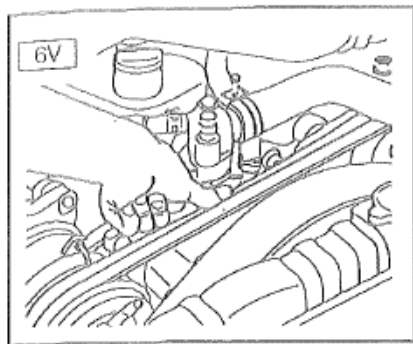


3. Check the level of power steering fluid.

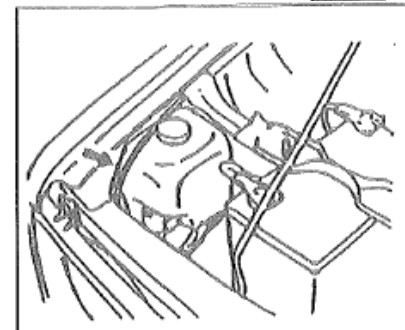


4. Check the tension of the drive belt of power steering oil pump.

POWERSTAR

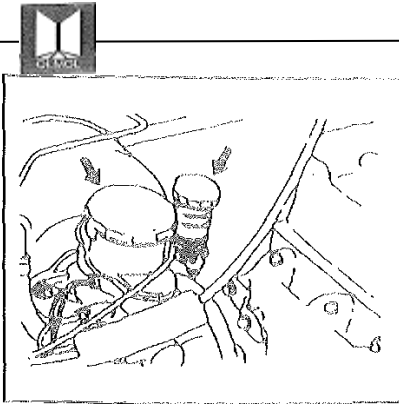


5. Check whether the engine coolant level and radiator cap are loose.

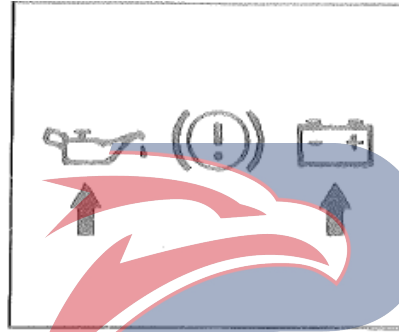


6. Check the level of windshield washer fluid in the washer tank.

POWERSTAR

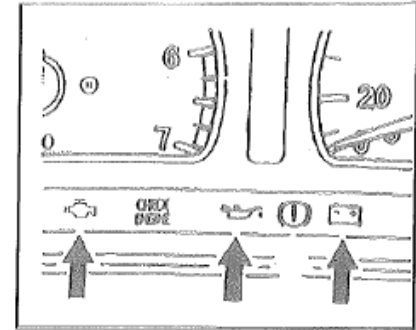


7. Check the brake fluid level for the brake and clutch in the reservoir.



After the engine is started

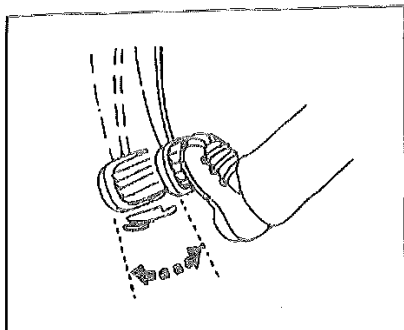
1. With the engine running, check that the engine indicator and oil pressure indicator are turned off and continue to be off.



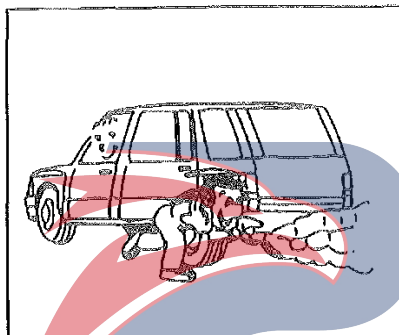
After the engine is started (EFI engine)

1. With the engine running, check that the engine indicator, oil pressure indicator, engine check indicator, and EOBD indicator are turned off and continue to be off.

POWERSTAR



2. Check the free play, height and other functions of the brake pedal.



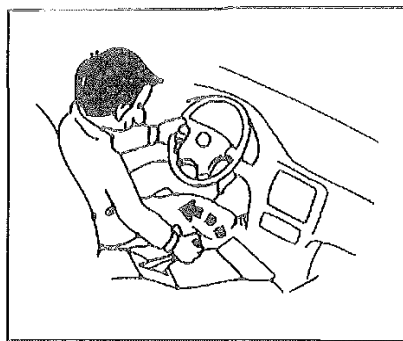
3. Check the abnormal engine noise and the exhaust color.

POWERSTAR



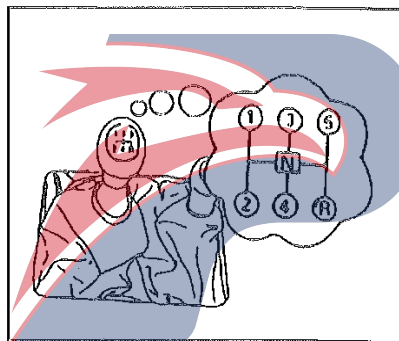
Driving

Proper maintenance and driving not only extends the life of the vehicle, but also helps to improve the economics of oil and fuel.



Preparation before engine overspending

1. Pull up the parking brake lever.



2. Place the transmission in neutral.

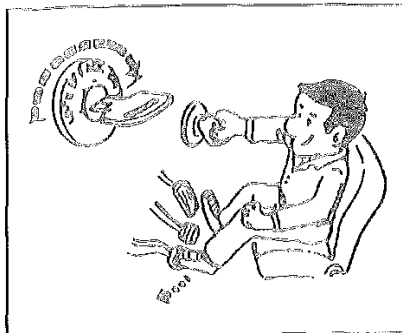


Start the engine

Under warm climate - above 0°C

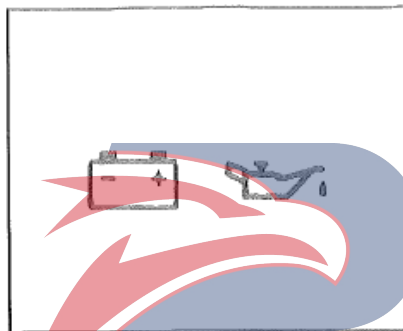
1. Depress the accelerator pedal half or more then release it.

POWERSTAR



2. Depress the clutch pedal to the end and turn the start switch fully clockwise to the "START" position to start the engine. When the engine is started, release the key. The key will automatically return to the "ON" position.

Do not operate the starter continuously for more than 15s.

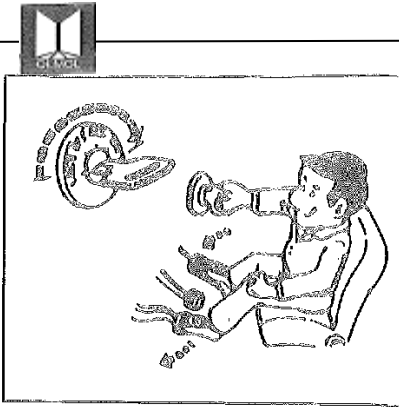


3. After the engine is started, let it warm up without depressing the accelerator pedal. Make sure that the oil pressure and the generator indicator should be off.



4. When the engine is running smoothly (for about 30 seconds), idle speed will slow down by gently pressing the accelerator pedal and slowly releasing it.

If the starter is used repeatedly but the engine cannot be started, must check the fuel system and the electrical system. During repeated start-ups, a short period (approximately 30 seconds) of recovery time is absolutely necessary in order to protect the battery.



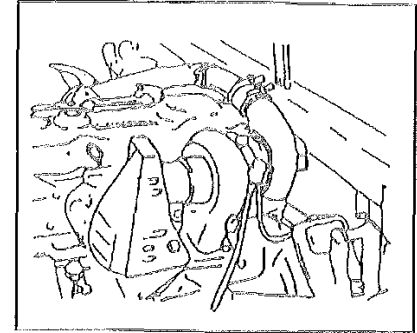
Hot engine

1. Slowly depress the accelerator pedal down to the floor and keep it there. Rotate the key clockwise.
2. Immediately after starting the engine, release the accelerator pedal.



Cold climate - below 0°C or when the vehicle is left unused for days

Before starting the engine, fully depress the accelerator pedal 2 or 3 times and slowly release it. Then go to Items 2~4 of “Warm Ambient”.

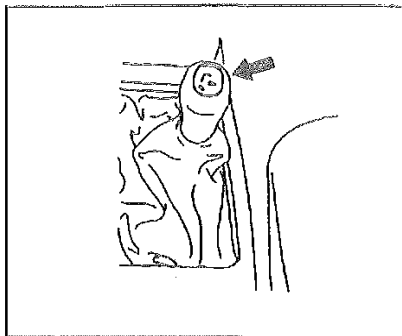


Precautions for Turbocharged Engine Operation Engine Startup

The turbocharged engine is started to ensure adequate lubrication of the rotating parts of the turbocharger bearing support. The vehicle cannot be driven at high speed under the cold engine status.

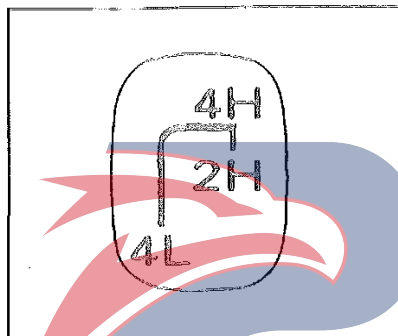
Caution

After driving at a high speed, idle for at least 3 minutes to allow it to cool down, which allows the turbocharger to return to idle while still being lubricated with engine oil, which will extend the life of the turbocharger bearing unit.



4WD Part-time 4WD

To run-in the front axle parts on the regular [partial time] four-wheel driven device well, the vehicle should be driven 300 km in the rear wheel driven (2H) gear.



Operation of transfer

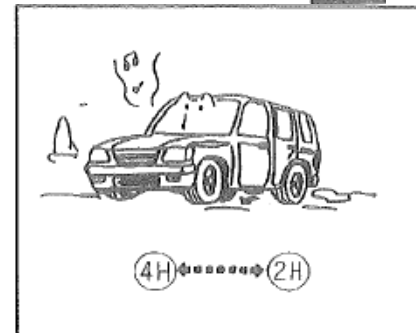
A common (partial time) 4WD transfer case allows the driver to choose 2WD or 4WD mode.

The shift pattern is indicated on the operating lever handle.

2H: 4WD, high speed ratio

4H: 4WD, high speed ratio

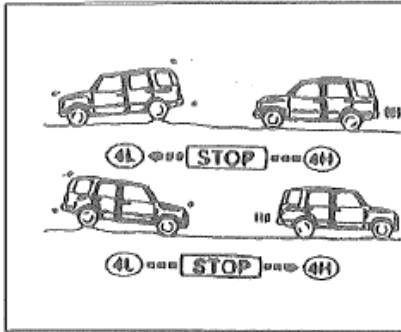
4L: 4WD, low speed ratio



* There is no neutral position in the transfer case. Therefore, during operation, the operating lever is reliably engaged in the "2H", "4H" to "4L" positions.

* The transfer lever should be engaged into the "2H" position during normal driving.

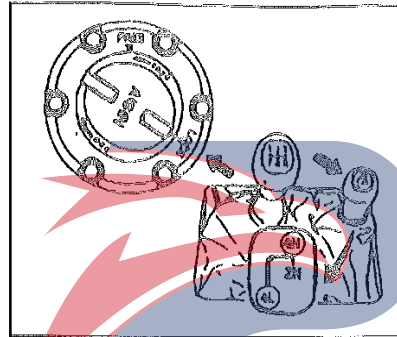
POWER STAR



Manually rotate the hub

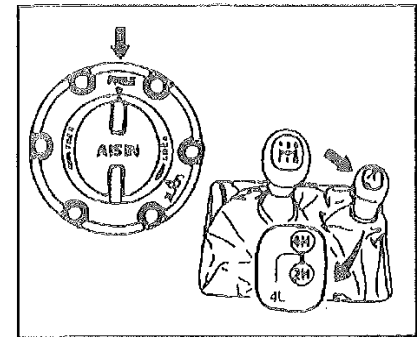
2H ⇌ 4H: It is possible to shift gear while driving.

4H ⇌ 4L: Do not shift the gear while driving.



Manually lock the hub locking

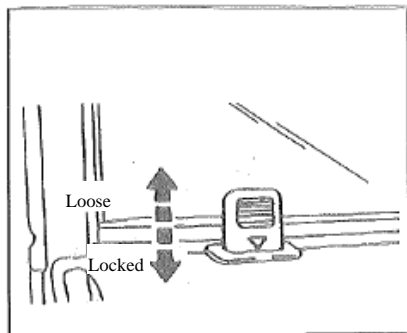
1. Stop the vehicle.
2. Place the knob in the "LOCK" position.
3. Put the transfer lever into the "4H" or "4L" position.



Unlock

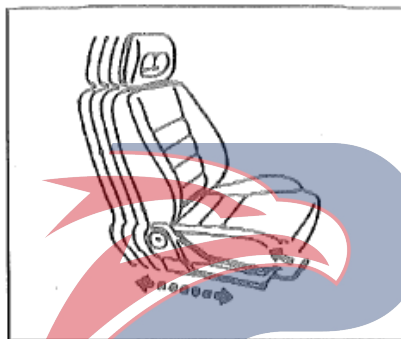
1. Stop the vehicle.
 2. Put the transfer lever into the "2H" position.
 3. Place the knob in the "FREE" position.
- When operating the vehicle, the left and right hubs must be set in the same position ("LOCK" or "FREE").

POWERSTAR

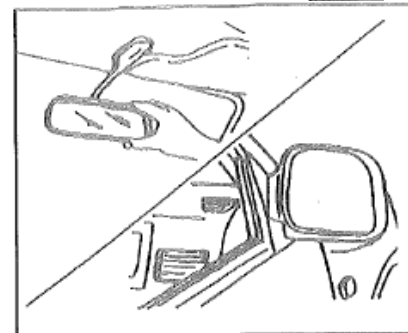


Before driving

1. Lock the doors.



2. Adjust the seat position.

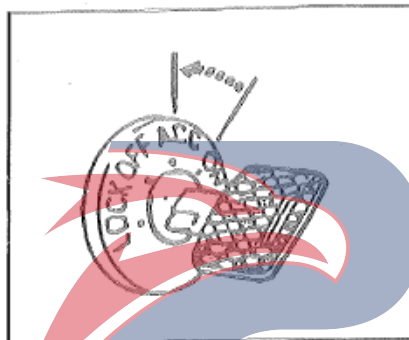


3. Adjust the rear-view mirror inside and outside the cab.

POWERSTAR

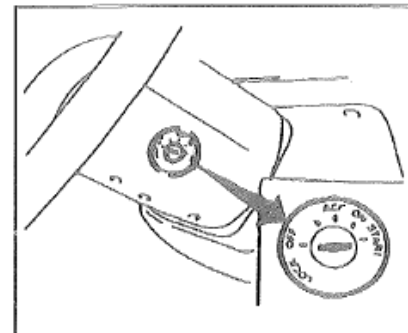


4. Fasten your seat belts.



Stopping engine

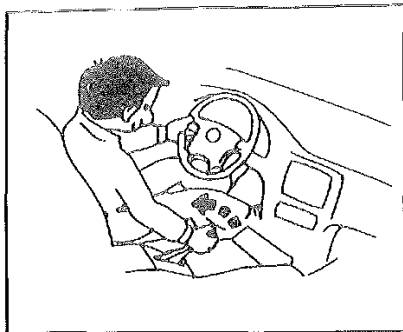
Turn the starter switch to the “ACC” (accessory) or “OFF” position.



Parking

1. Check that the light and turn signal switches are turned off. Even if the start switch is turned OFF, the headlights and the turn signals can be operated as usual.

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2. Tighten the parking brake. When the vehicle is parked on an unattended slope, the wheels must be blocked with wheel stops.



Driving precautions

1. Avoid the engine over speed.

Especially when switching to low gear, the engine can easily overspeed.

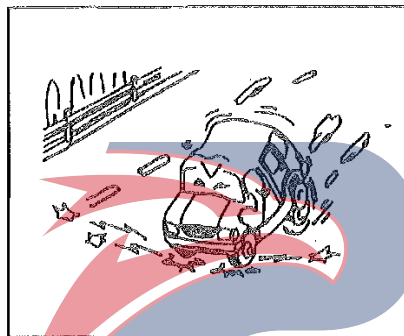


2. When driving, if abnormal sound or odor is found, stop and check to find out the cause of the problem.

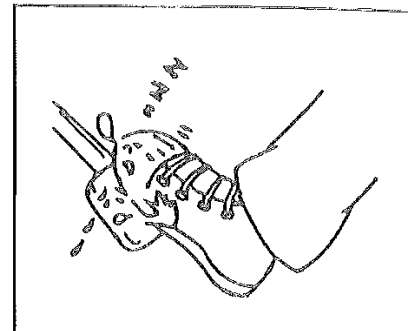
POWERSTAR



3. When driving, if it is found that the indicator lamp or the instrument has a normal phenomenon, stop for inspection and find out the cause of the malfunction.

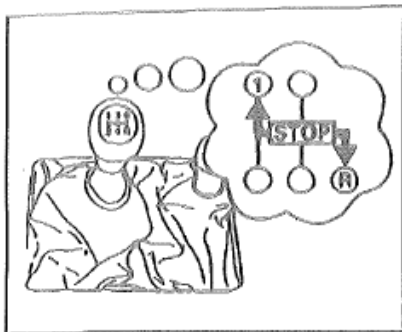


4. Avoid unnecessary sudden acceleration and sudden braking.



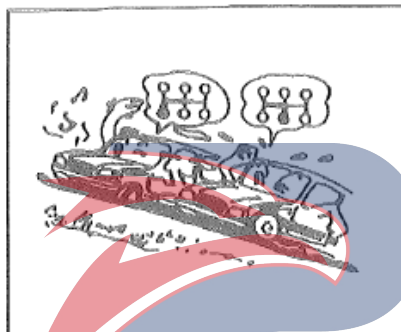
5. When driving, do not rest your feet on the clutch pedal. If this is done, a partial separation condition may occur which may cause premature wear of the clutch lining.

POWERSTAR

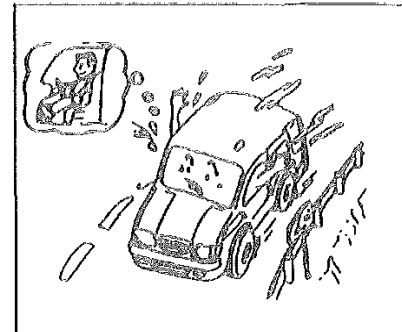


6. Before the reverse gear is engaged or the first gear is engaged after reversing, stop the vehicle completely.

It is best to start the vehicle at 1st gear on a bad road or a pavement surface.

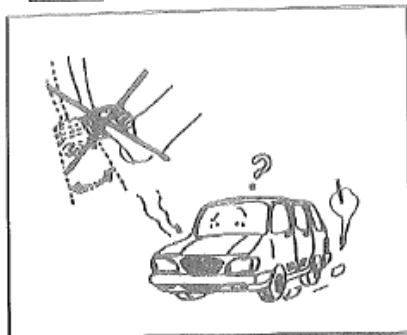


7. When climbing a slope, engage into the low gear before the engine starts to be dragged to avoid overloading the engine.

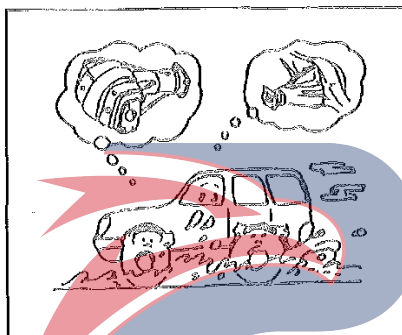


8. When driving downhill, put in low gear to increase the performance of engine to decelerate.

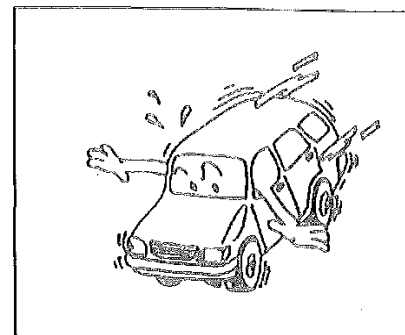
POWERSTAR



9. Repeatedly apply the foot brake on a long downhill road may reduce the braking effect.

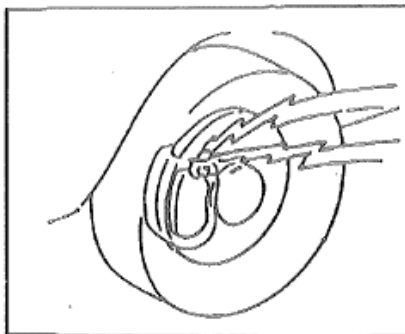


10. Be careful when driving through shallow rivers or deep water pits, otherwise water may enter the airway and cause serious damage to the engine. After driving over water, check for water droplets on the rear axle, 4WD front axle, and gearbox. If there are any drops of water, drain the lubricant and refill with specified one.



11. When driving in heavy rain or driving through shallow rivers, special care must be taken because dampened brakes would weaken the braking force temporarily.

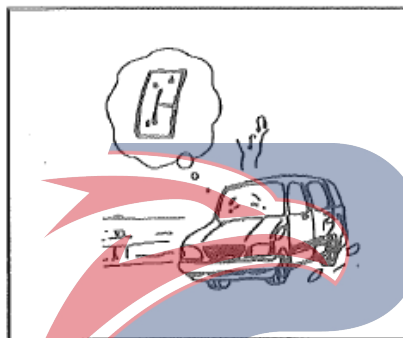
POWERSTAR



12. Brake wear indicator

The brake is equipped with a wear level indicator, which makes a metallic friction (squeal) when the brake friction block wears out to the limit of replacement.

If such a sound is sent, must replace the friction block at QingLing special service station.



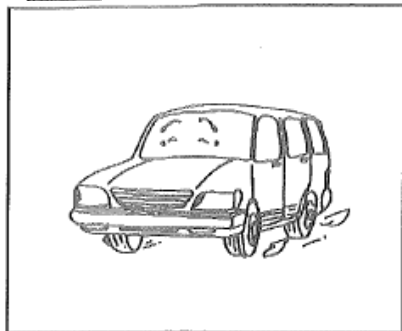
Driving for economy

1. Unnecessary high-speed driving and low-speed driving in high-gear positions will increase fuel consumption.

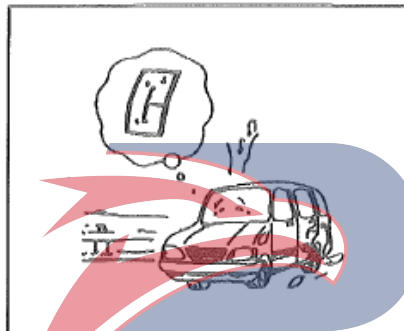


2. After acceleration, shift to a high gear and let the clutch engage smoothly.

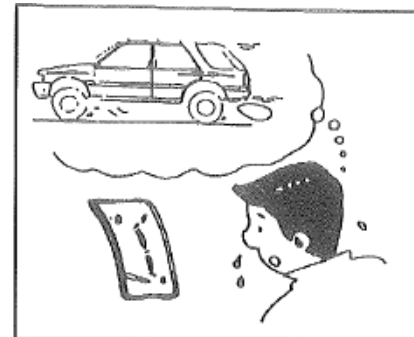
POWERSTAR



3. After shift to the top gear or overdrive, keep the speed as far as possible.

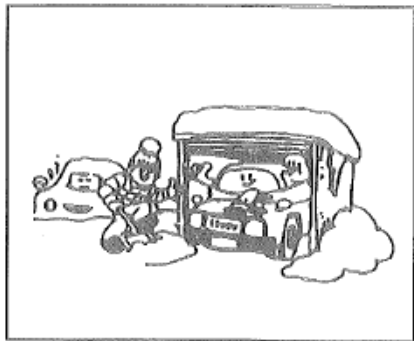


4. When driving, the coolant temperature should be kept within the normal range.



5. Inflated tires will reduce the fuel efficiency.

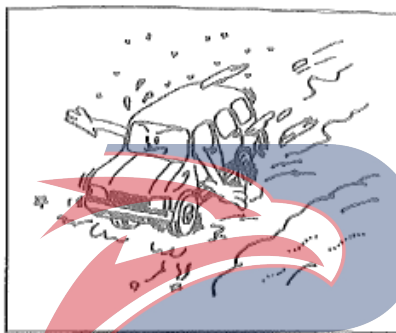
POWERSTAR



Winter driving

If no multi-grade oil is available, the oil recommended for use at low temperature should be filled. Check the antifreeze measures for the cooling system regularly. Add detergent to the windshield washer tank.

The battery's capacity will decrease as the ambient temperature decreases. However, even if the ambient temperature is low, the battery can ensure that the engine can start normally as long as the battery is fully charged.

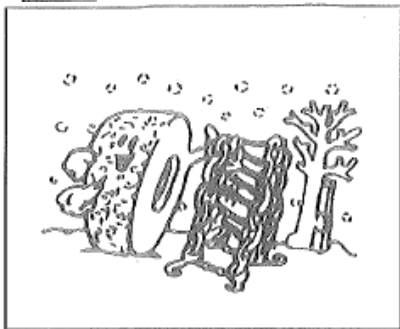


Driving on snowy or frozen roads

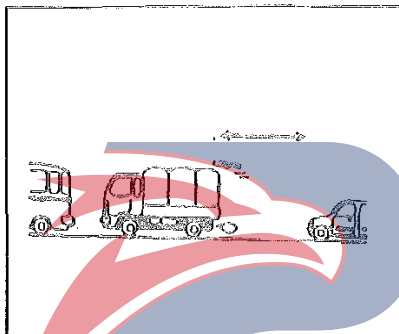
It is most important to avoid sudden acceleration, sudden braking, and sharp turns when driving on a snowy or frozen road.

When the vehicle slips, the clutch should be disengaged and the vehicle must be controlled with a corrective steering action without relying on the brakes.

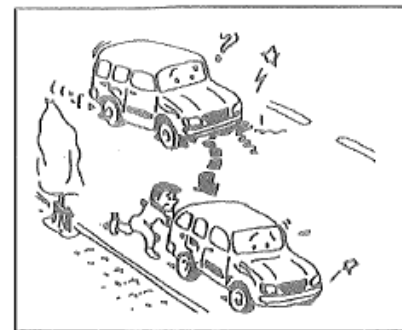
The melted salt and water have a bad effect on the braking effect. When there is salt water, in order to obtain the common braking effect, the brake pedal must be applied with more pressure. Therefore, after driving on a salty road, must repeatedly apply the brake to test its effect. Of course, when doing so, make sure that there is no danger to others. If the braking effect is severely reduced, depress the brake several times to recover it.



It is best to use snow chains or snow tires. Use snow chains only on the drive wheels. The speed should not exceed 70 km/h. If the speed limit of the snow chains is lower, the regulations should be complied. Newly installed snow chains should be re-tightened after a few kilometers of driving. Once driving on a road without snow and ice, remove the snow chains as soon as possible. In addition, must follow the manufacturer's installation instructions.



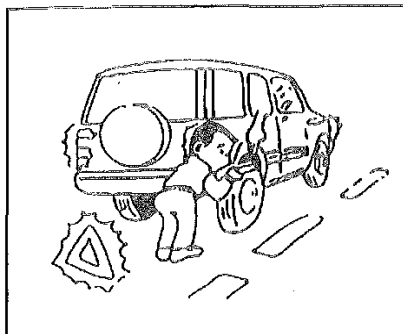
Keep the proper driving distance from the front vehicle.



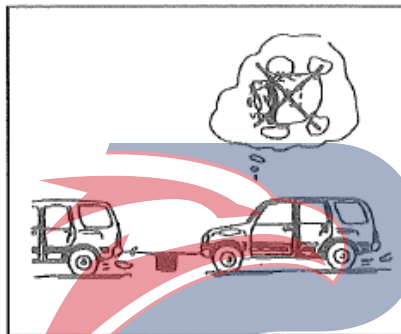
In case of an emergency

Emergency stop

For some reasons, if necessary, the vehicle should be kept on the right away from the traffic lane and should not be parked on the traffic lane.



2. Use the hazard warning flash light regardless of day or night after the parking brake is in effect.

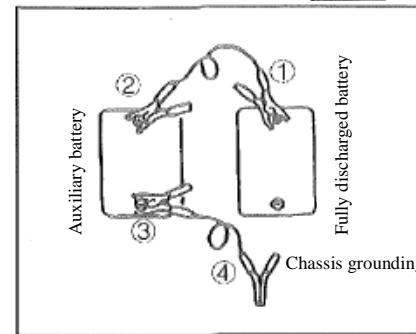


Emergency starting

Do not start the vehicle when dragging a trailer, so as not to collide with the tractor when the engine is started.

When the battery is discharged completely, the vehicle can be started with an auxiliary battery that has the same voltage (such as, 12V) as the discharged battery.

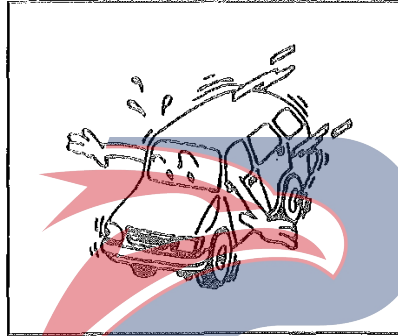
Pay attention to the use of batteries to avoid serious injury to the human body and damage to your vehicle due to battery explosion, acid corrosion, electrical burnout, or damage of electrical components.



Connection procedure

Using a jumper cable, another vehicle's battery can be used to start the engine.

1. Use a vehicle with the batteries with the same voltage.
2. Connect jumper cables in the following order.
 - ① Positive terminal of fully discharged battery
 - ② Positive terminal of auxiliary battery
 - ③ Negative terminal of the auxiliary battery
 - ④ Ensure that the chassis of the vehicle with the fully discharged batteries is grounded as far as possible from the fully discharged batteries.
3. After connecting the cables, start the engine on the vehicle with the auxiliary battery.



4. Slightly increase the engine speed of the vehicle with the auxiliary battery and then start the engine with fully discharged battery.

5. After starting the engine, remove the cable in the reverse order of connection.

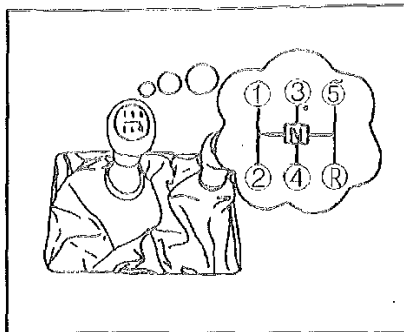
Do not connect the positive and negative wiring terminals

Do not remove the battery cable from the terminal block while the engine is running. It may cause any failure of the electrical system.

Power braking system

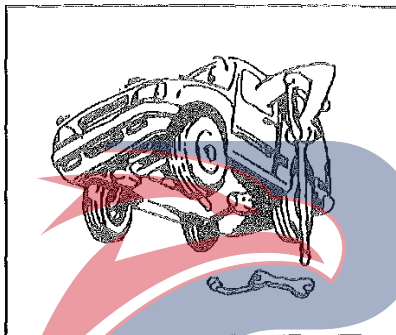
- Redundant vacuum can be used if the brake assists the engine to stall or is otherwise lost. The use of backup vacuum can still make the brake booster to be effective once more.
- The system is designed so that as long as the brake pedal is depressed and kept depressed, the vehicle can be stopped completely with redundant vacuum. However, the redundant vacuum is partially exhausted each time the brake pedal is depressed and released. **When the assistance is lost, do not apply the brake repeatedly unless the steering control must be operated on a slippery surface.**

Even without an assist, the vehicle can be stopped by depressing the brake pedal forcibly. However, even if the brake is fully functional, the stopping distance may be longer.



Towing

When towing, be sure to use proper equipment to avoid damage to the vehicle. When towing the vehicle, the drive train, shaft, transmission, and steering system must be in operation. Use only towing equipment designed specifically for this purpose, as directed by the equipment manufacturer. You must use a separate security chain. When towing a vehicle, must release the parking brake, place the transmission in neutral position, and turn the start switch key to “OFF” position.



Towing equipment must be fixed to the main component of the vehicle and must not be attached to a bumper or related bracket. When the engine is not operated, the power braking booster should not be operated.

Front wheels off the ground

1. **4WD** transfer is engaged in the 2H gear.
2. Place the transmission in neutral position.
3. Maximum speed: 50 km/h.
4. The longest distance: 80 kilometers

When driving over 80 km, must disconnect the rear drive shaft from the rear axle bracket and secure it in a safe position.



Rear wheels off the ground

1. **4WD** transfer is engaged in the 2H gear and the front hub is unlocked.
2. Place the transmission in neutral position.
3. Maximum speed: 50 km/h.
4. The longest distance: 80 kilometers

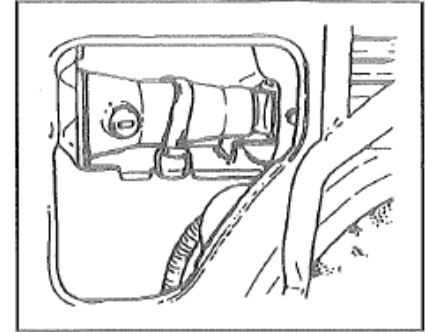
• When towing a vehicle in this position, the steering wheel must be fastened to keep the front wheels in a straight forward position.

• The start switch key should be set to the "OFF" position.

Four wheels are grounded

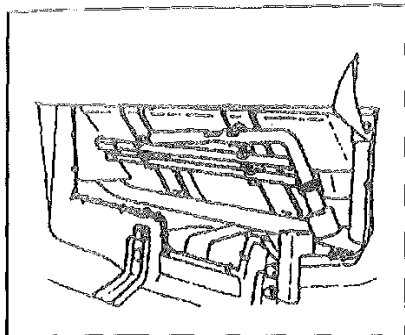
1. **4WD** transfer is engaged in the 2H gear and the front hub is unlocked.
2. Place the transmission in neutral position.
3. Maximum speed: 50 km/h.
4. The longest distance: 80 kilometers

When the distance or vehicle speed is greater than the above, the front and rear drive shafts on the rear axle and front and rear axle brackets should be disconnected to secure them in a safe position.

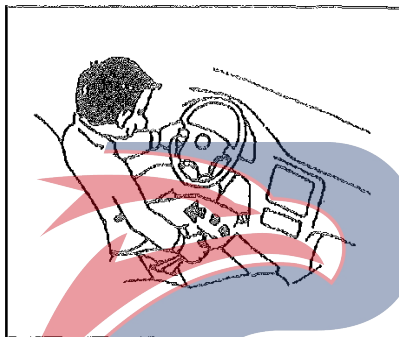


Storage of tools and jack

Jacks and common tools are stored in the side storage box behind the driver's side.



Wheel wrenches and jack handles are stored under the seat cushions in the rear seats.

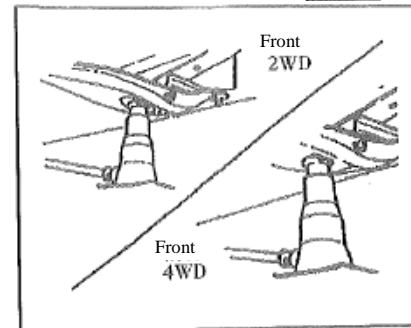


Preparation

1. Park the vehicle on a flat surface and apply the parking brake lever.
2. Engage the shift lever of the transmission into the reverse gear (REVERSE).
3. Turn on the hazard warning indicator.
4. Block the wheel on the diagonal side of the jacking position.
5. Loosen the wheel nuts but do not remove them.

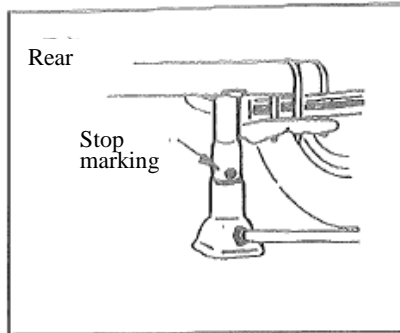
The wheel nut should be provided with right-hand thread.

6. Place the jack under the specified fulcrum.



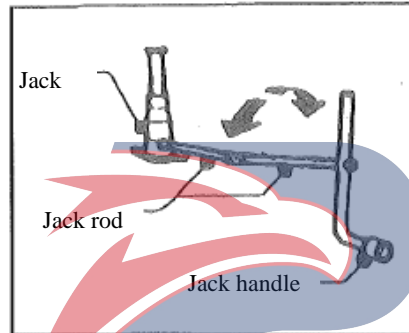
Front wheels: place the jack on the concave position in bottom surface of the crossbeam.

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Rear wheel: Jacks are located below the rear axle housing near the wheel end.

- **The jack arm is of two-stage type. When the stop sign of the upper arm of the two-stage arm is visible, the lifting operation should be stopped immediately, and if it continues to rise, the jack may be damaged.**
- **When using the jack to jack up the vehicle, people must not go under the vehicle.**
- **Do not start or run the engine while the vehicle is on the jack.**

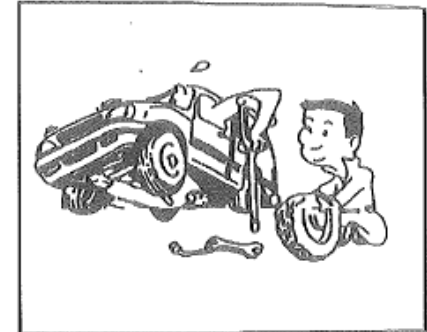


How to use the jack

Insert the jack handle into the jack hole as shown in the figure. Turn the handle to the right to raise the jack and turn the handle to the left to lower the jack.

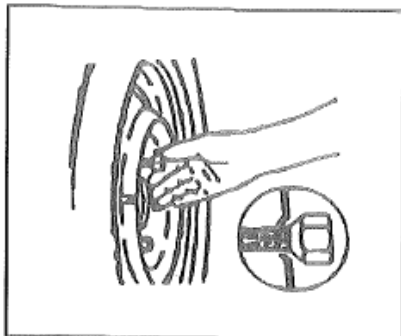
Do not jack the vehicle on a slope or on a soft surface, otherwise it is very dangerous.

The jack cannot be supported on the positions other than the specified position.



Wheel replacement

1. Lift the vehicle so that the tires to be replaced leave the ground slightly, remove the wheel nuts, and then install the spare wheels.

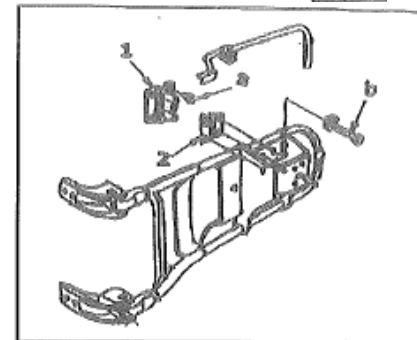


2. Install the wheel nut with the tapered surface facing the wheel. Temporarily tighten each wheel nuts with a wheel wrench, so that the wheel is seated on the hub. Turn the jack handle counterclockwise to lower the vehicle onto the ground.



3 As shown in the figure, tighten the wheel nuts in a fixed sequence with a wheel wrench. Apply a 450N force onto both ends of the handle of the wheel wrench to tighten the wheel nuts securely.

Wheel nut torque	N.m
120	



Spare wheel carrier adjustment

If abnormal sound occurs at the spare tire frame during driving, check or adjust according to the following steps:

1. If you find serious wear and dislocation on the lock tab and the lock buckle, replace the parts.
2. Loosen the four bolts (a) of the impact block assembly (1) and adjust the position of the impact block assembly properly;
3. Loosen the four bolts (b) of the lock assembly (2) and adjust the lock assembly position properly.



Services and Maintenance

In order to maintain safety and economical efficiency of driving, regular inspections and repairs should be carried out in accordance with the recommendations presented in this chapter.

Maintenance schedule

In order to ensure the safety and economy of driving, it is necessary to carry out regular inspections and repairs in accordance with the maintenance schedule.

If you need special tools for repair, please consult with Isuzu Motor Vehicles.

Maintenance work

I: Check and correct or replace it as required.

A: Adjust.

R: Replace.

T: Tighten to the specified torque.

L: Lubrication

When checking the following items, check the regular items together.

* Symbol: Driving under harsh and difficult conditions requires regular maintenance. Refer to the “Maintenance schedule for driving under harsh conditions”.



Maintenance schedule: 4Z inline engine

I: Check and correct as needed or replace A: Adjustment

R: Replace T: Tighten to the specified torque L: Lubrication

Inspection Interval×1000km Or months	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
	-	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	
Engine																						
Idle	-																					
* Air cleaner element	-	-							R	-		-		-		-	R	-		-		
* Engine oil	-	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Oil leakage and pollution	-																					
* Oil filter	-	R	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-
Fuel leakage	-																					
Cylinder head bolt	-	T	-	-	T	-	-	-	T	-	-	-	T	-	-	-	T	-	-	-	T	-
Valve clearance(cold)	-	A	-	-	A	-	-	-	A	-	-	-	A	-	-	-	A	-	-	-	A	-
Fuel filter	-	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-
Fuel tank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Compression pressure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
* Spark plug	-	-	-	-	R				R				R				R				R	
Ignition timing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water leakage of cooling system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The fan belt is damaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
* Damage or looseness in the exhaust pipe and mounting area	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oxygen Sensor																						
Blockage or damage of all piping in the engine compartment	-	-		-		-		-		-		-		-		-		-		-		-

POWER STAR

Replace every 15,000km

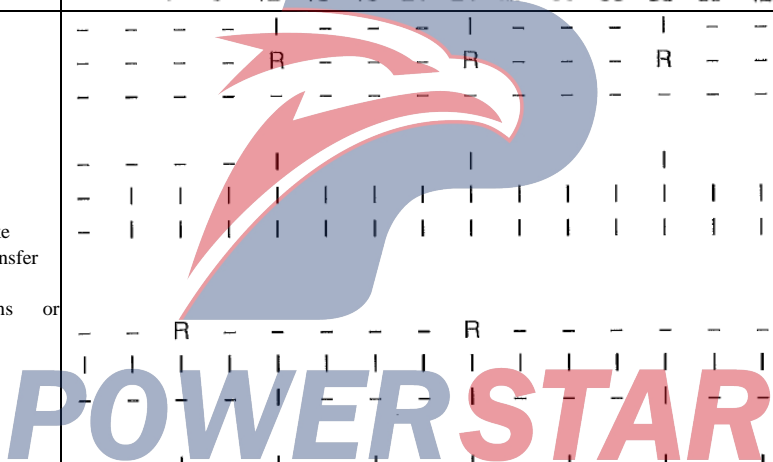


Maintenance schedule: 4Z inline engine

I: Check and correct as needed or replace A: Adjustment

R: Replace T: Tighten to the specified torque L: Lubrication

Inspection Interval×1000km Or months	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
	-	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	
Fuel hose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	R	
Radiator coolant	-	-	-	-	R	-	-	-	R	-	-	-	-	R	-	-	-	R	-	-	-	R
Timing belt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R
Clutch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clutch hydraulic oil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clutch function	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clutch pedal free play and pedal stroke	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transmission or transmission with transfer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
* Lubricants for transmissions or transmissions with transfer	-	-	R	-	-	-	-	-	R	-	-	-	-	-	-	-	-	R	-	-	-	-
Leakage of lubricant	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loosen of gear control mechanism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transmission shaft	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loose connection	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
* The knuckle and spline are worn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Universal joints and splines	-	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Front and rear axles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
* Differential gear oil (front and rear)	-	-	R	-	-	-	-	-	R	-	-	-	-	-	-	-	-	R	-	-	-	-





Maintenance schedule: 4Z inline engine

I: Check and correct as needed or replace A: Adjustment

R: Replace T: Tighten to the specified torque L: Lubrication

Inspection Interval×1000km Or months	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	-	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Gear oil leakage																					
Drive shaft deformation or damage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Axle housing deformation and damage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Steering system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Steering gear oil	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-	-	R
Power steering hydraulic oil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil leak of Steering system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
* Loose or damaged steering system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-
Hose of power steering system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Power disc free stroke	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Steering Function	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Left and right turning radius	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Front wheel positioning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ball joint	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Service brake	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brake fluid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brake fluid leakage in the brake system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Braking function	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Maintenance schedule: 4Z inline engine

I: Check and correct as needed or replace A: Adjustment

R: Replace T: Tighten to the specified torque L: Lubrication

Inspection Interval×1000km Or months	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	-	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
* Wear of rear brake lining and brake drum	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
* Wear of front brake pad and brake disc	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brake pedal stroke and free stroke	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loose or damaged brake pipe and hose connections																					
Parking brake	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parking brake function	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parking brake lever travel	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loose or damaged wire cables and damaged rails	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Suspensions	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Damage to the spring of the steel plate	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The mounting bracket is damaged	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loose or damaged mounting bracket	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil leakage of shock absorber	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Loose mount of the shock absorber	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wear or damage of suspended cushions	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The spring is unbalanced due to the weakened elasticity	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheel	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wheel nut	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T

POWERSTAR



Maintenance schedule: 4Z inline engine

I: Check and correct as needed or replace A: Adjustment

R: Replace T: Tighten to the specified torque L: Lubrication

Inspection Interval×1000km Or months	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	-	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Wheel hub damage	-																				
Hub bearing grease	-	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R
The front , rear hub bearings are loosened	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tire pressure and damage	-																				
Tire transposition	-	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R
Electrical devices	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Starter function	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Battery electrolyte specific gravity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Any wire or terminal is loosened or damaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Starter brush wear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wear of alternator brush	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vehicle height	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bolts and nuts on the chassis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clips and hinges on the hood	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Body lubrication	-	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L
Lock	-	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L
	-	-	-	-	L	-	-	-	L	-	-	-	L	-	-	-	L	-	-	-	L

POWERSTAR



Maintenance schedule: 6V symmetrical engine

I: Check and correct as needed or replace A: Adjustment

R: Replace T: Tighten them to the specified torque L: Lubrication

Inspection Interval×1000km Or months	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	-	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Engine	-																				
Idle	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-
Air cleaner element	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Air purification device	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
* Engine oil	-	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R
Oil leakage and pollution	-																				
Oil filter	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-	-
Fuel leakage	-																				
Fuel filter	-	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R
Fuel tank	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Spark plug	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water leakage of cooling system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
The fan belt is damaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
* Damage or looseness in the exhaust pipe and mounting area	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oxygen Sensor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ignition timing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Replace every 165,000km

Replace every 150,000km



Maintenance schedule: 6V symmetrical engine

I: Check and correct as needed or replace A: Adjustment

R: Replace T: Tighten them to the specified torque L: Lubrication

Inspection Interval×1000km Or months	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	-	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
All pipes in the engine compartment are clogged or damaged	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
Radiator coolant	-	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R	-	-	-	R
Timing belt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clutch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clutch hydraulic oil	-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Clutch function	-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Clutch pedal free play and pedal stroke	-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Transmission or transmission with transfer																					
* Lubricants for transmissions or transmissions with transfer	-	-	R	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-
Leakage of lubricant	-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Loosen of gear control mechanism	-	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
Transmission shaft																					
Loose connection	-	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I	-	I
* The knuckle and spline are worn	-	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I	-	-	-	I
Universal joints and splines	-	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Front and rear axles																					
* Differential gear oil (front and rear)	-	-	R	-	-	-	-	-	R	-	-	-	-	-	-	-	R	-	-	-	-



Maintenance schedule: 6V symmetrical engine

I: Check and correct as needed or replace A: Adjustment

R: Replace T: Tighten them to the specified torque L: Lubrication

Inspection Interval×1000km Or months	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	-	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Gear oil leakage																					
Drive shaft deformation or damage																					
Axle housing deformation and damage																					
Steering system																					
Power steering hydraulic oil	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-	-	R
Oil leak of Steering system	-																				
* Loose or damaged steering system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hose of power steering system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-
Power disc free stroke	-																				
Steering Function	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Left and right turning radius	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Front wheel positioning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ball joint	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Service brake																					
Brake fluid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brake fluid leakage in the brake system	-																				
Braking function	-																				



Maintenance schedule: 6V symmetrical engine

I: Check and correct as needed or replace A: Adjustment

R: Replace T: Tighten them to the specified torque L: Lubrication

Inspection Interval×1000km Or months	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	-	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Gear oil leakage																					
Drive shaft deformation or damage																					
Axle housing deformation and damage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Steering system																					
Power steering hydraulic oil	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-	-	-	-	R
Oil leak of Steering system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
* Loose or damaged steering system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hose of power steering system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	R	-	-	-	-	-	-
Power disc free stroke	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Steering Function	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Left and right turning radius	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Front wheel positioning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ball joint	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Service brake																					
Brake fluid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Brake fluid leakage in the brake system	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Braking function	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Maintenance schedule: 6V symmetrical engine

I: Check and correct as needed or replace A: Adjustment

R: Replace T: Tighten them to the specified torque L: Lubrication

Inspection Interval×1000km Or months	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
	-	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Wheel hub damage	-																				
Hub bearing grease	-	-	-	-	R	-	-	-	R	-	-	R	-	-	-	R	-	-	-	R	-
The front , rear hub bearings are loosened	-	-																			
Tire pressure and damage	-	-																			
Tire transposition	-	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R	-	R
Electrical equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Starter function	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Battery electrolyte specific gravity	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Any wire or terminal is loosened or damaged	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Starter brush wear	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wear of alternator brush	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vehicle height	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bolts and nuts on the chassis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Clips and hinges on the hood	-	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L
Body lubrication	-	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L	-	L
Lock	-	-	-	-	L	-	-	-	L	-	-	-	L	-	-	-	L	-	-	-	L



Maintenance schedule when driving under harsh conditions

Severe driving conditions

A: Frequent short-distance round trip

B: Driving on rough roads

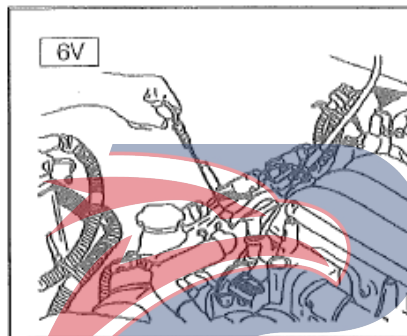
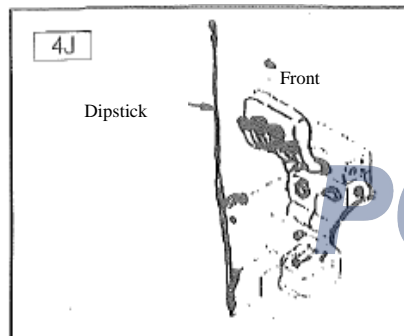
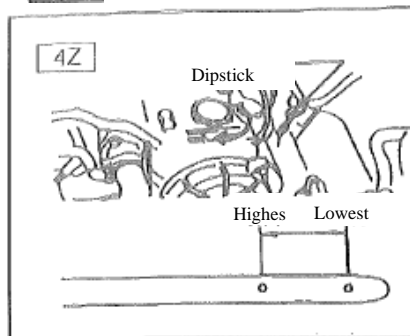
C: Driving on a dusty road

D: When driving in the cold season and/or on a salty road

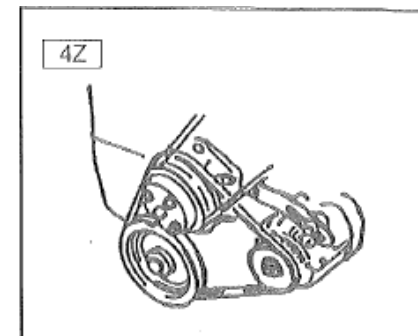
G4 4Z inline engine

G6 6VV engine

Item	Cycle	A	B	C	D	A+D
		Engine oil	G4 replace every 2500 kilometers G6 Replace once every 5,000km			•
Oil filter	G4 replace every 2500 kilometers G6 Replace once every 10,000km			•		•
Exhaust manifold and arrangement	Check once every 10,000km	•	•		•	
Air cleaner element	Check once every 20,000km			•		
Loose or damaged steering system	Check once every 50,000km		•			
Wear of universal joint and sliding sleeve	Check once every 10,000km		•			
Transmission oil	The first replacement occurs at the first 10,000 km		•			
	Replace once every 20,000km		•			
Differential oil	The first replacement occurs at the first 10,000 km	•	•			
	Replace once every 20,000km	•	•			
Rear brake lining and brake drum	Check once every 50,000km	•	•	•		
Brake pad and brake disc	Check once every 50,000km	•	•	•		



oil level before the oil level check.



Maintenance guide

Regular inspection

Oil level

Pull out the oil dipstick (Dipstick), clean it and insert it in place.

Pull out the oil gauge again to check the oil, but check whether the oil level is between the high and low oil level marks. Also, check the oil contamination on the oil gauge.

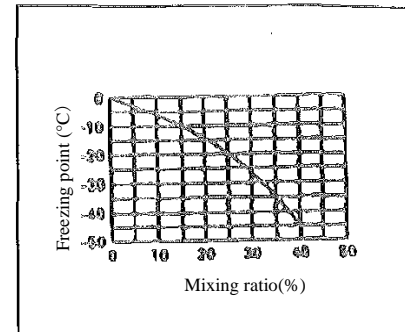
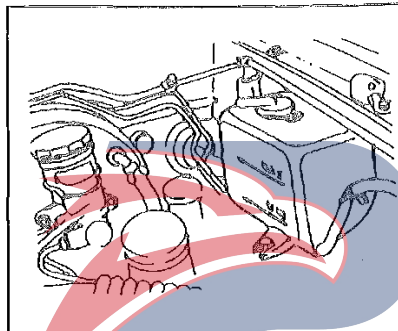
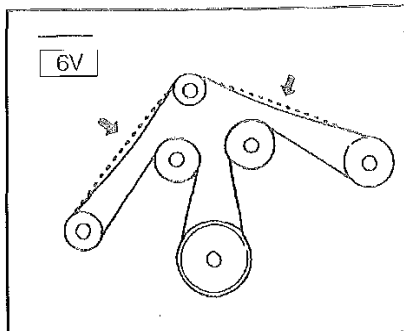
When checking the level of engine oil, the vehicle should be parked on a flat surface (before the engine inspection).

If the engine is operated, must maintain the engine stop for 5min to stabilize the

Fan belt

Press the middle of the belt with a pressure of 98N, to check whether that the belt deflection is about 10 mm.

At the same time, check the belt for cracks and damage.



Coolant level

Check the coolant level and add it from the spare tank of radiator if necessary. If the coolant level in the reserve tank is lower than the "MIN" line, check the cooling system for leaks, and then refill the coolant to the "MAX" line.

Do not allow the reserve tank to overflow. Do not remove the radiator filler cap unless necessary. The level of the coolant should be checked when the engine is cold. Without the approval of QingLing Company, it is not allowed to add rust inhibitors or additives for improving the cooling capacity to the cooling system.

It is the owner's responsibility to take effective anti-freezing measures based on the temperature of the area that a vehicle is been used.

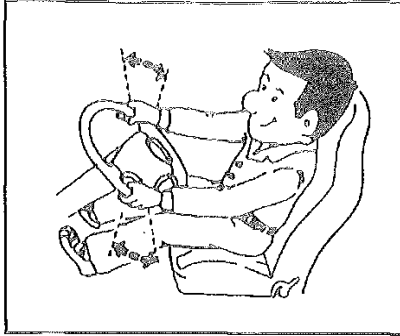
Do not use well water or river water when refilling and replacing coolant. Pure tap water can be used if it is not possible to purchase the coolant of the specified grade.

When refilling and replacing the coolant, genuine Isuzu engine coolant should be used. Other brands of coolants tend to be free of corrosion inhibitor and may cause corrosion to the engine and the radiator.

If the concentration of genuine Isuzu engine coolant exceeds 60%. Its specific heat characteristics will be reduced, which may cause the engine to overheat. In addition, if the concentration drops below 20%, its corrosion resistance will be decreased. Therefore, the coolant concentration should be adjusted within the range of 20% to 60% according to the conditions in the upper left table.

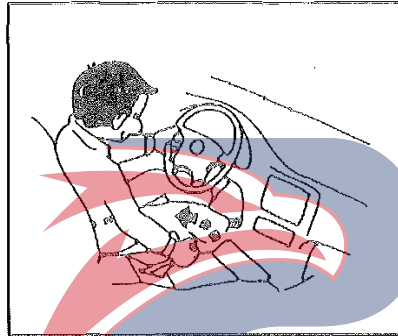
Do not step on the radiator filler cap.

POCA



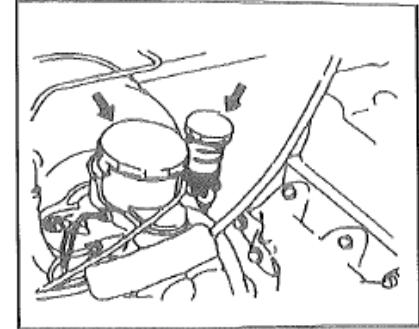
Steering wheel

Check if the steering wheel is loose and if the free play is too large. The standard for the free play of the steering wheel is 10-30 mm. Check the steering mechanism for any abnormal phenomena such as sway, deviation, heavy steering, etc. **If the steering wheel has excessive free stroke, looseness and other abnormalities, please go to the nearest QingLing Motors special service station for repair.**



Parking brake lever stroke

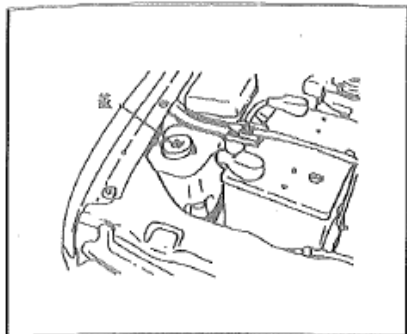
When the parking brake lever is pulled with a force of 294 Newtons, the normal stroke of the parking brake lever is 6 to 7 teeth.



Brake fluid and clutch fluid levels

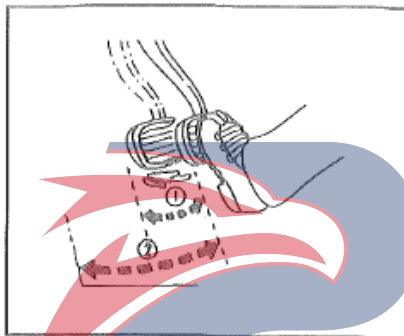
Check whether the brake fluid level and the clutch fluid level are between “MAX” (upper limit) and “MIN” (lower eye) level marks in the tanks. If the level is below “MIN” mark, must add the recommended brake fluid.

If the brake indicator lamps light up while driving, the recommended hydraulic brake fluid should be used to refill the reservoir to the specified level.



Windshield washer fluid level

Make sure there is enough scrubber liquid in the scrubber tank. In addition, check the operation of the windshield washer.

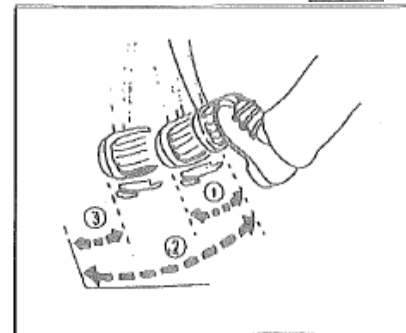


Free stroke and height of clutch pedal

Standard value: mm

- ① Free stroke: 5-15
- ② Height: 178-188

Free stroke of clutch pedal is automatically adjusted.



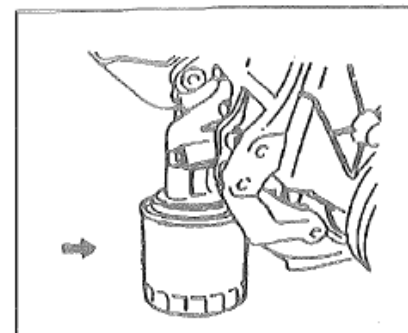
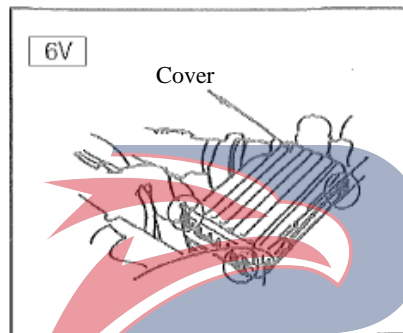
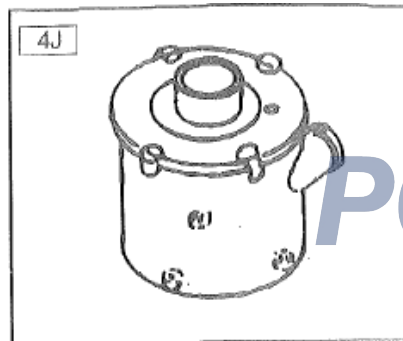
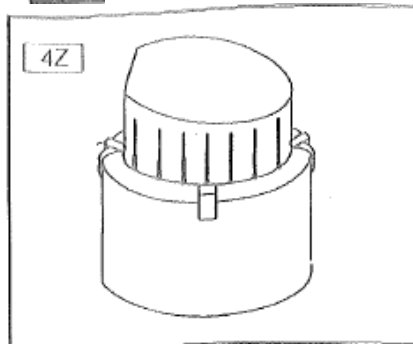
Free stroke, height and brake margin of the brake pedal

Standard value: mm

- ① Free stroke: 6-10
- ② Height: 174-184

③ Brake margin: greater than 75
(When depressing the pedal with a force of 490 Newtons)

POWERSTAR



Regular maintenance

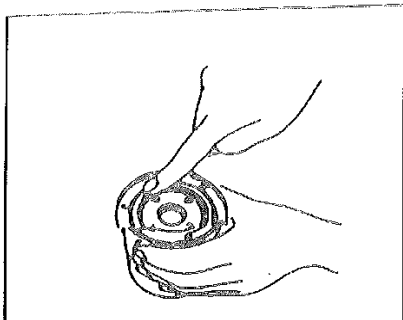
Air filter (cleanable type)

It is recommended to clean the air cleaner element only when there is soot or oil on the air filter element. It is difficult to remove these deposits by air blowing.

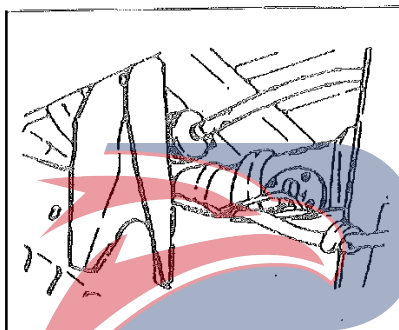
A new air filter element should be replaced after every 2-3 filter cleanings.

Oil filter

1. Use an oil filter wrench to turn the oil filter counterclockwise to loosen it.
2. Wipe the mating surface of the top cover of the oil filter with a cloth to make the new oil filter fit well on the mating surface.
3. Apply a light coat of oil to the surface of the O-ring and slowly rotate the oil filter until the O-ring fits snugly against the sealing surface. Then, tighten the oil filter one more revolution with the oil filter wrench.

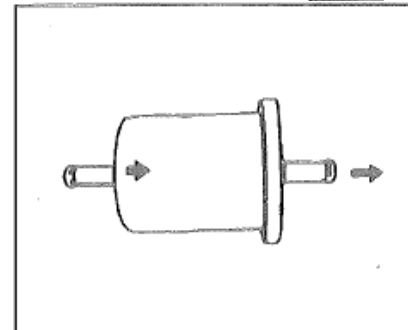


Check the oil level in the engine, if necessary, fill it to the specified oil level. Start the engine and check the oil filter for leakage. When replacing, be sure to use genuine Isuzu oil filter assembly.



Fuel filter

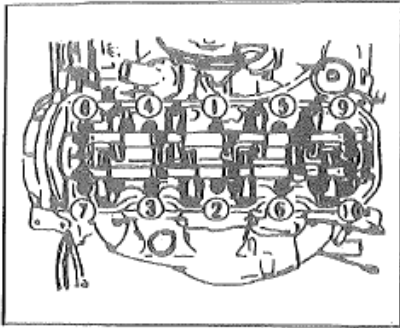
1. Remove the fuel filter core assembly from the filter housing, slide the fuel hose clamp to the hose side, disconnect the hoses on the inlet and outlet side of the filter, and then remove the fuel filter assembly.
2. Install a new fuel filter assembly, connect the hoses on the inlet side and outlet side of the fuel filter, and install the fuel filter in the filter housing.



The fuel filter has the specified inlet and outlet sides. Do not connect the hoses incorrectly.

When replacing, be sure to use genuine Isuzu oil filter assembly.

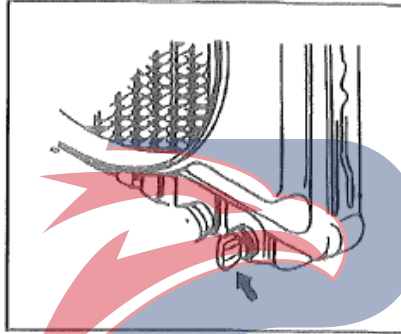
POWER STAR



Cylinder head bolt

Tighten the cylinder head bolts in the order shown.

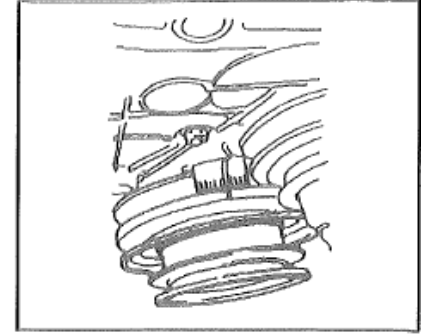
Torque: 98 N • m



Engine coolant

To replace the engine coolant, must remove the drain valve on the radiator and on the cylinder block to drain the liquid from the cooling system.

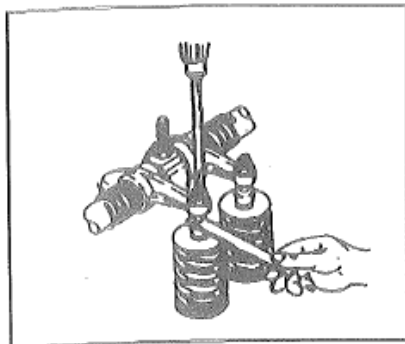
The engine cooling system should be flushed at least once overnight to ensure the optimal cooling effect.



Valve clearance adjustment

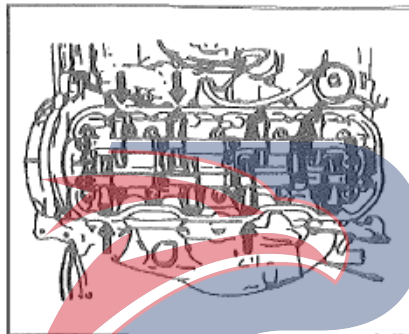
1. Turn the crankshaft until the top dead center mark on the crankshaft attenuation pulley aligns with the timing mark, and move the piston of the first cylinder to the top dead center of the compression stroke.

Check the rocker shaft bearing nuts for tightening and retighten them if necessary before adjusting the valve gap.

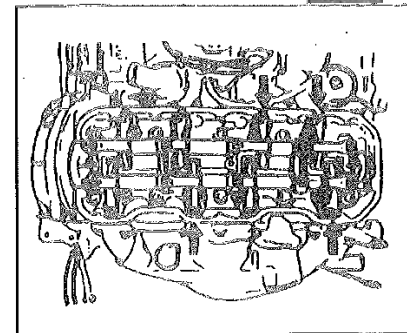


2. Adjust the valve clearance with a thickness gauge as follows:

Valve clearance	mm
Intake valve	0.15
Outlet	0.25

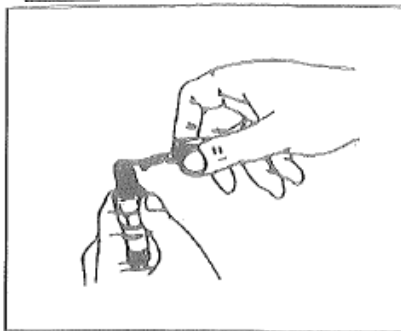


3. Adjust the valve clearance (pointed by the arrow in the figure).



4. Turn the crankshaft one revolution (360°) to adjust the valve clearance of the remaining valves (referred to in the figure).

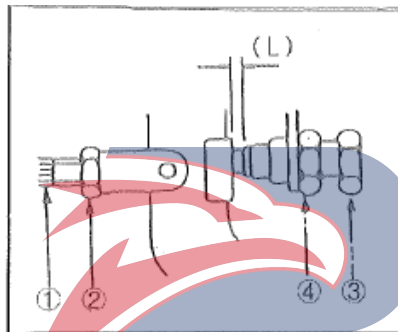
POWERSTAR



Spark plug

Insert the thickness gauge between the electrodes on the spark plug to check the spark plug gap. If the gap is correct, a slight drag should be felt.

Clearance of spark plug: 1.0-1.1 mm



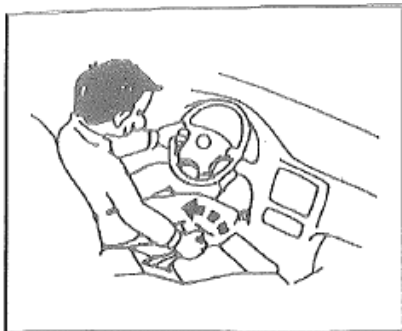
Clutch pedal gap

- 1 Tighten the nut ② and turn the push rod ① to adjust the free play of the pedal.
2. After adjustment, tighten lock nut ②.
3. Screw in ③ so that (L) is 0.5 to 1.5 mm and then tighten ④.

Clutch hydraulic circuit ventilation

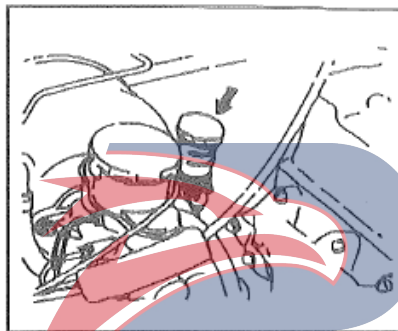
If air is mixed into the clutch hydraulic circuit, clutch slip may occur due to incomplete clutch separation. Therefore, if the clutch fluid is used up due to insufficient fluid volume in the clutch fluid reservoir not found in time, or if the hydraulic circuit is removed, the exhaustion must be carried out.

Bleeding operation calls for cooperative action of two men.



The exhaust operation should be implemented with the steps below:

1. Apply the parking brake.



2. Check the level of clutch fluid in the clutch reservoir and refill if necessary.

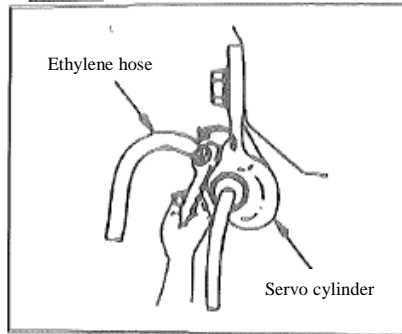


5. Remove the rubber cap from the bleeder screw and wipe clean the bleeder screw. Connect a vinyl tube to the bleeder screw and insert the other end of the vinyl tube into a transparent container.

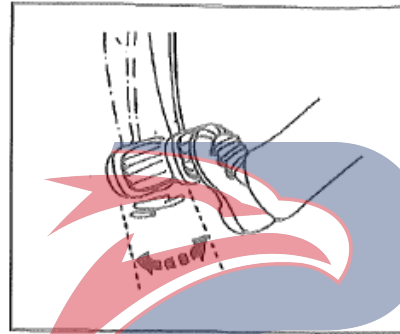
4. Depress the clutch pedal repeatedly and keep it depressed.

5. Loosen the vent plug screw on the clutch slave cylinder, drain the clutch fluid with air bubbles into a container, and immediately tighten the venting plug screw.

POWERSTAR



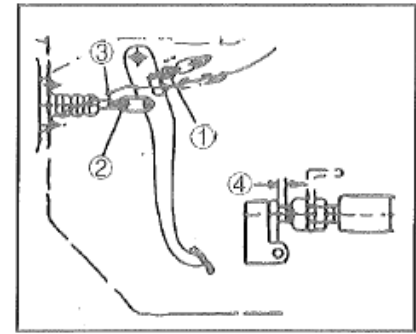
6. Release the clutch pedal slowly. The above operation is repeated until bubbles in the clutch fluid pumped into the container disappear. During the exhaust process, the clutch fluid in the clutch reservoir must be maintained at the specified fluid level. After exhausting, re-install the rubber cover.



Brake pedal adjustment

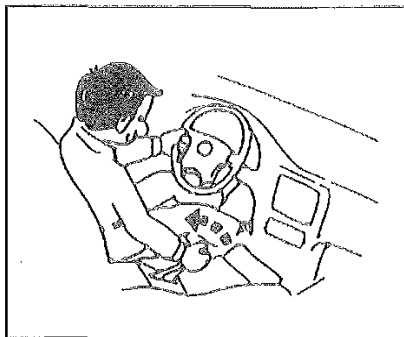
When the pedal is fully released, the push rod is used as a brake pedal stopper. The height adjustment of brake pedal should be carried out as follows:

1. After confirming that the pedal is fully pulled back by the pedal return spring, measure the brake pedal height.
2. If the measured value does not meet the specified pedal height, the brake pedal should be adjusted as follows:



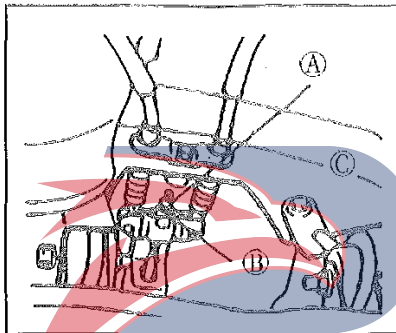
- ① Release the parking light switch.
- ② Loosen the push rod lock nut.
- ③ Rotate the lever in the appropriate direction to adjust the brake pedal to the specified height.
- ④ Adjust the parking switch to get the proper gap.

Gap: 0.5-1.0 mm (gap between the switch case and the brake pedal)



Parking brake and main brake adjustment

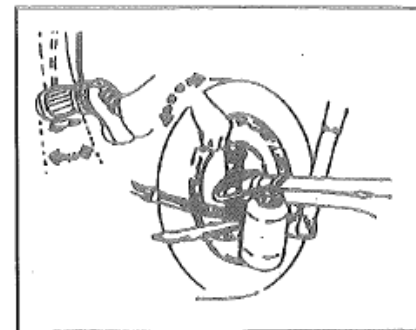
All brakes are auto-adjusting type and can be adjusted by repeatedly depressing the brake pedal.



The parking brake should be adjusted as follows:

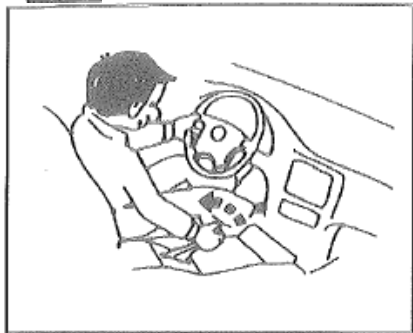
- ① Fully release the parking brake lever.
- ② Loosen the lock nut (A).
- ③ Press the brake pedal down again and release it until the auto-adjuster of rear brake has completed its function.
- ④ Rotate the adjusting nut (B) until all slack cables are tensioned.
- ⑤ Install the lock nut.

When the parking brake lever is applied with 294N, the normal stroke of the parking brake lever should be 6-7 teeth.



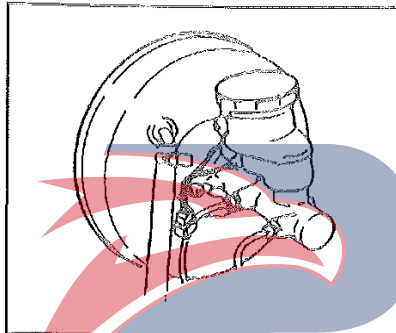
Bleeding of brake hydraulic circuit

If air is mixed into the brake hydraulic circuit, the braking effect will be reduced. Therefore, if the brake liquid level in the brake fluid tank is too low or the hydraulic circuit is disassembled during the brake repair process, must perform the ventilation operation. Bleeding operation calls for cooperative action of two men.



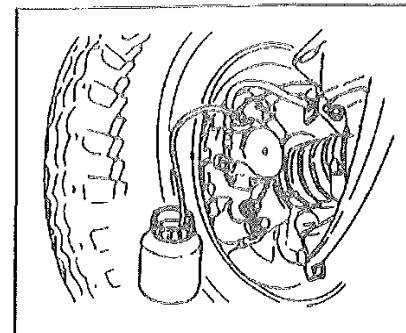
Follow the steps below to exhaust:

1. Start the engine and apply the parking brake.



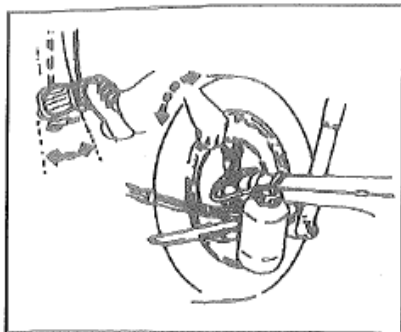
2. Check the fluid level in the brake fluid reservoir and refill if necessary.

Exhaust the brake hydraulic circuit according to the following procedure.

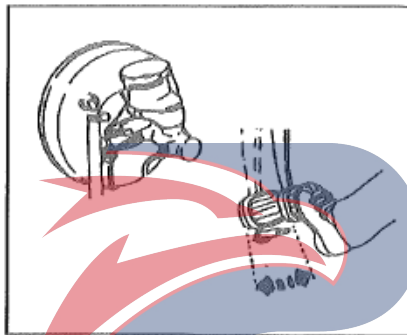


3. Remove the rubber cap from the bleeder screw and wipe clean the bleeder screw. Connect a vinyl tube to the bleeder screw and insert the other end of the vinyl tube into a transparent container.

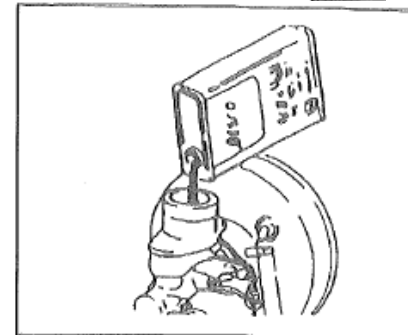
POWERSTAR



4. Depress the brake pedal repeatedly and keep it depressed.
5. Loosen the vent plug screw, drain the brake fluid with air bubbles into the container, and immediately tighten the vent plug screw.



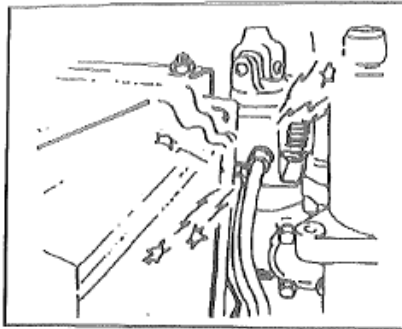
6. Release the brake pedal carefully. Repeat the above operation until the air bubbles disappear from the brake fluid by being pumped out into the container. During the exhaust process, the brake fluid in the brake fluid reservoir must be maintained at the specified fluid level. After exhausting, re-install the rubber cover.



7. After exhausting each wheel, check the fluid level in the brake fluid reservoir and refill if necessary.

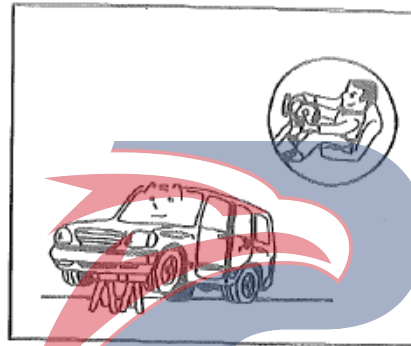
Exhausting the engine while the engine is not in operation can adversely affect the vacuum brake booster (master-vac).

POWERSTAR



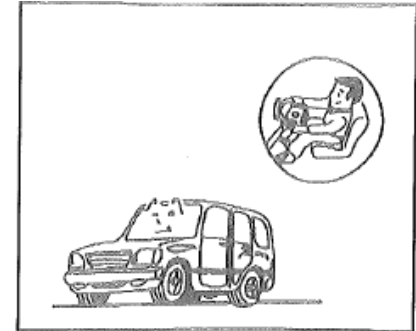
V Exhaustion of power steering hydraulic circuit

When the steering wheel turns, if abnormal noise is heard, it means there is air in the hydraulic system. At the time, the ventilation should be performed as follows.



1. Raise the front wheel until it is off the ground.
2. With the engine stationary, turn the steering wheel all the way to the left and right several times.

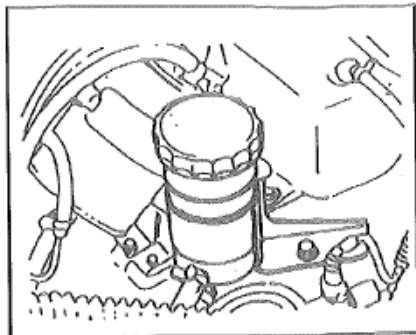
When venting, the level should be checked and, if necessary, refill.



3. With the engine idling, turn the steering wheel all the way to the left and right several times.

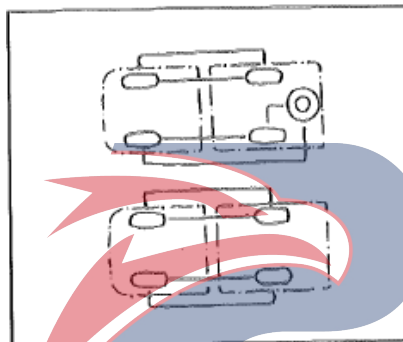
Do not turn the steering wheel to the locked position and hold it more than 5s; otherwise the liquid level will be increased sharply.

4. When the engine is operated at idling speed, drop the vehicle on the ground and turn the steering wheel fully to the left and right several times.



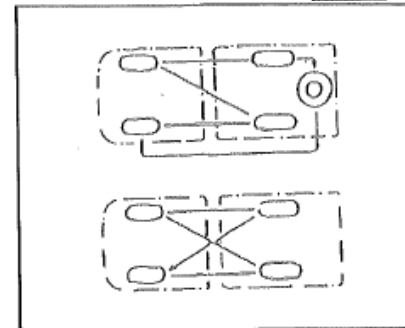
5. Turn the steering wheel to the straight driving position, stop the engine, and make sure that the liquid level in the liquid storage tank does not rise. If the liquid level rises sharply, it means that air is not completely removed from the system, and it should be re-operated as described in step 4.

6. Check the fluid level in the reservoir and check for leaks at the connection.



Tire transposition

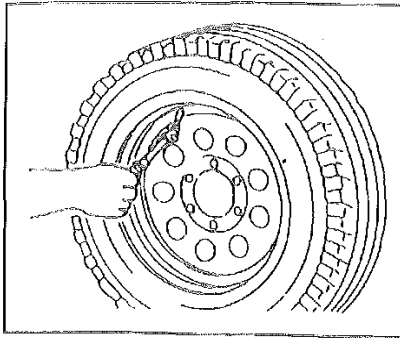
If it is a radial tire, exchange the front and rear wheels on the same side as shown.



If the radial tires are worn on one side, they can be displaced as shown in the figure.

After the wheels are displaced, the front and rear tire pressures should be adjusted and the wheel nuts be tightened.

POWERSTAR

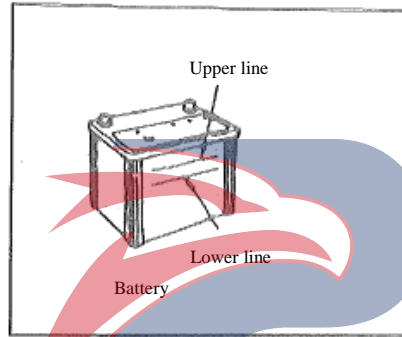


Tire pressure

The standard tire pressure is listed in the table below.

The tire pressure should be checked under cold condition (the vehicle should be stored for more than 3h or driven less than 1.6km).

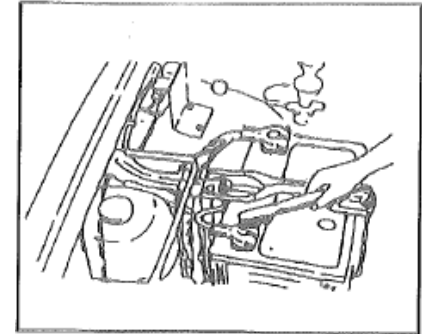
Tires	Tire pressure (megapascals)	
	Front wheel	Rear wheel
P215/75R15	0.2	0.2
LT245/75R16	0.18	0.18
LT245/75R16 (6V engine mounted models)	0.25	0.25



Battery electrolyte specific gravity

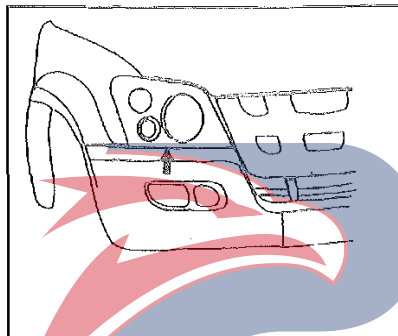
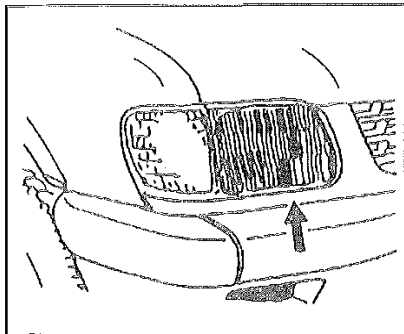
If the new vehicle is equipped with maintenance-free batteries, the distilled water should not be added and a new one should be replaced if necessary.

Do not start the engine or connect or check the battery if the electrolyte level is lower than the lower limit mark on the side of the battery.



Clean the battery

If the external parts of the battery are dirty, it can be cleaned with slightly warm water. The battery terminals should be coated thinly with petroleum jelly or grease to prevent corrosion.



Headlights

Properly align the headlights to ensure adequate lighting on the road without causing glare to other drivers, which is the most important work. The headlights should be adjusted at a QingLing Motors dealer (service station) with special equipment.

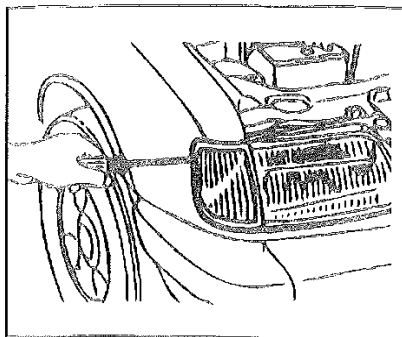
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Replacing light bulbs

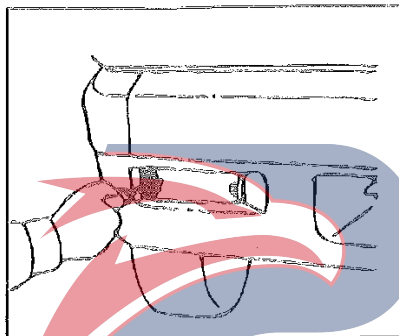
The method of removing the bulb is shown in the figure. **When replacing the light, make sure that the light switch is set to the “OFF” (switch off) position.** The bulb should be replaced with a new one with same capacity. Standard ratings of lamp wattage are listed below.

Position		Power (W)	Number of bulbs	Model	
				QL6470 Series	QL6471 Series
Headlights		60/55	2	☆	—
Front combination lamp	High light	55	2	—	☆
	Low light	55	2	—	☆
	Front position light	5	2	—	☆
	Turn signal	21	2	—	☆
Front turn signal light		21	2	☆	—
Front position light		5	2	☆	—
Front fog lights		55	2	—	☆
Side turn signal		5	2	☆	☆
Rear combination lamp	Turn signal	21	2	☆	☆
	Tail light and parking light	5/21	2	☆	☆
	Reversing lights	21	2	☆	☆
	Rear fog lamps	21	2	—	☆
Rear fog lamps		≤6	2	☆	—
License plate light		5	2	☆	☆
Indoor ceiling light		8	1	☆	☆
Luggage compartment lights		10	1	☆	☆
Reading lamp		5	2	☆	☆
High-position brake light		5	4	☆	☆



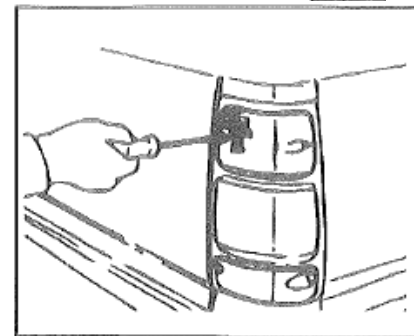
Front position light

Remove the radiator grille and remove the 3 screws that secure the glass.



Front turn signal light

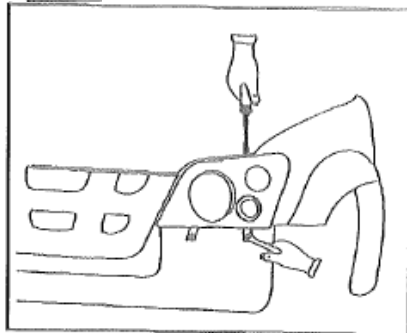
Remove the 2 screws that fasten the glass.



Rear combination lamp

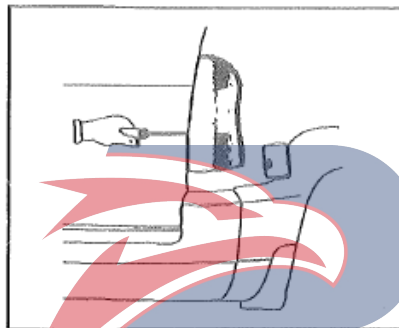
Remove 4 or 6 screws that fasten the glass.

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Headlights

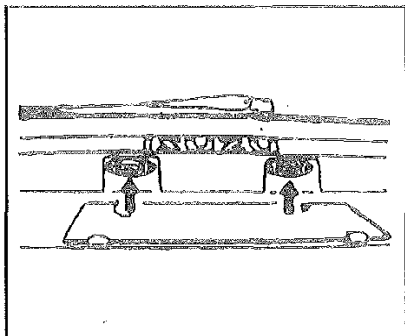
Remove the front bumper, lift the hood, and remove the four fastening screws.



Rear combination lamp

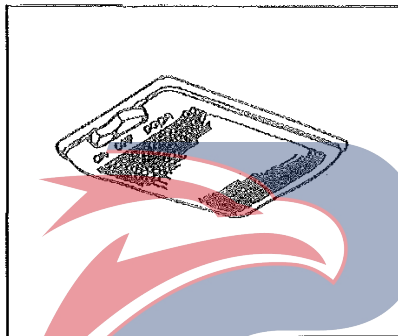
Remove the 2 fastening screws.

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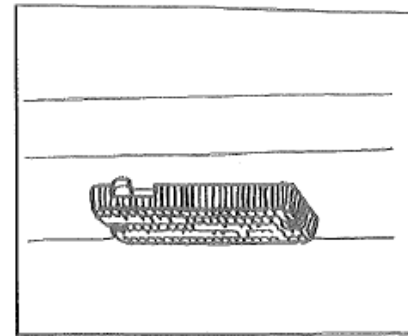
License plate light

Remove the 2 screws that fasten the glass.



Indoor ceiling light

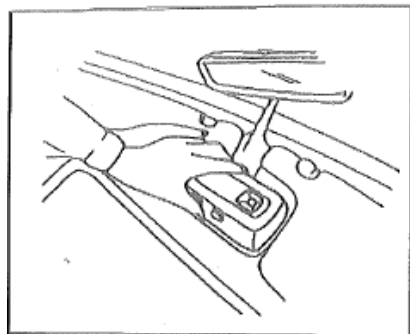
It is easy to remove the glass by hand, and then pull the bulb out of the holder.



Luggage compartment lights

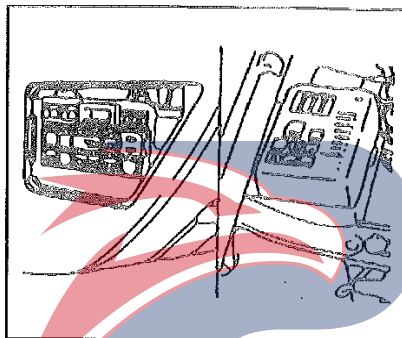
It is easy to remove the glass by hand, and then pull the bulb out of the holder.

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Reading lamp

The bulb cover can be easily removed by hand, and then rotated counterclockwise to pull the bulb out of the holder.

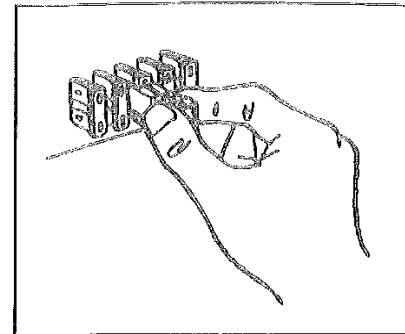


Fuse box

The fuse box is mounted under the dashboard on the driver side and inside the engine compartment.

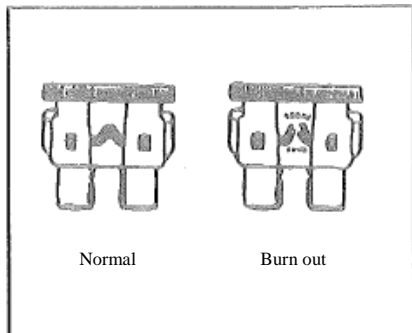
The box lid can be easily removed manually.

There are 3 fuses (20A, 12A and 10A) for main fuse circuit, fuse circuit and those listed in the list.



If a fuse is needed to be replaced, the supplied fuse remover should be used.

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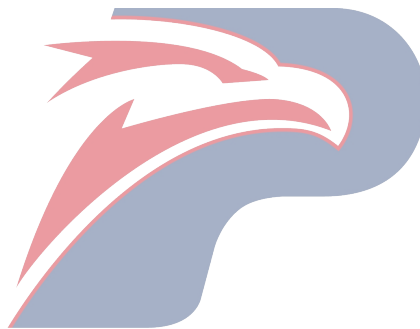


The right part of the figure is a blown fuse.

When replacing the fuse, use a spare fuse with the same amperage.

*** If necessary, the fuse must be replaced with the spare fuse with the capacity marked on the fuse box.**

*** If the spare fuse is also blown, go to the nearest QingLing dealer (service station) for circuit inspection.**



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**Fused box: Engine compartment**

Ampere	Scope of application	
1	15A	Hazard warning lamp
2	10A	Horn
3	—	—
4	20A	Blower
5	10A	A/C
6	—	—
7	—	—
8	10A	Headlights(Left)
9	10A	Headlights(Right)
10	—	—
11	10A	Parking light
12	15A	Tail light
13	—	—
14	10A	Automatic choke

Fuse box: dashboard

Ampere	Scope of application	
1	15A	Starter
2	—	—
3	15A	Ignition coil
4	10A	Engine - 2
5	—	—
6	—	—
7	15A	Meter
8	—	—
9	15A	Rear wiper
10	—	—
11	20A	Front wiper
12	15A	Reversing /turn signal
13	10A	Indoor lights
14	20A	Door lock

Ampere	Scope of application	
15	—	—
16	—	—
17	—	—
18	—	—
19	15	Sound
20	15	Cigarette lighter
21	15	Rear window defogger (1)
22	15	Rear window defogger (2)
23	—	—
24	—	—
25	30	Electric window

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Recommended grease and oil grades

In order to maximize the performance and longevity of your Isuzu vehicle, it is of utmost importance to select the right lubricant and diesel fuel according to the relevant chart. The lubrication cycle warranty period of new vehicle in the regular maintenance schedule must be based on the use of the recommended grease. The recommended greases are shown in the table below and should be used as a guide for selecting the appropriate grade and brand.

Grease

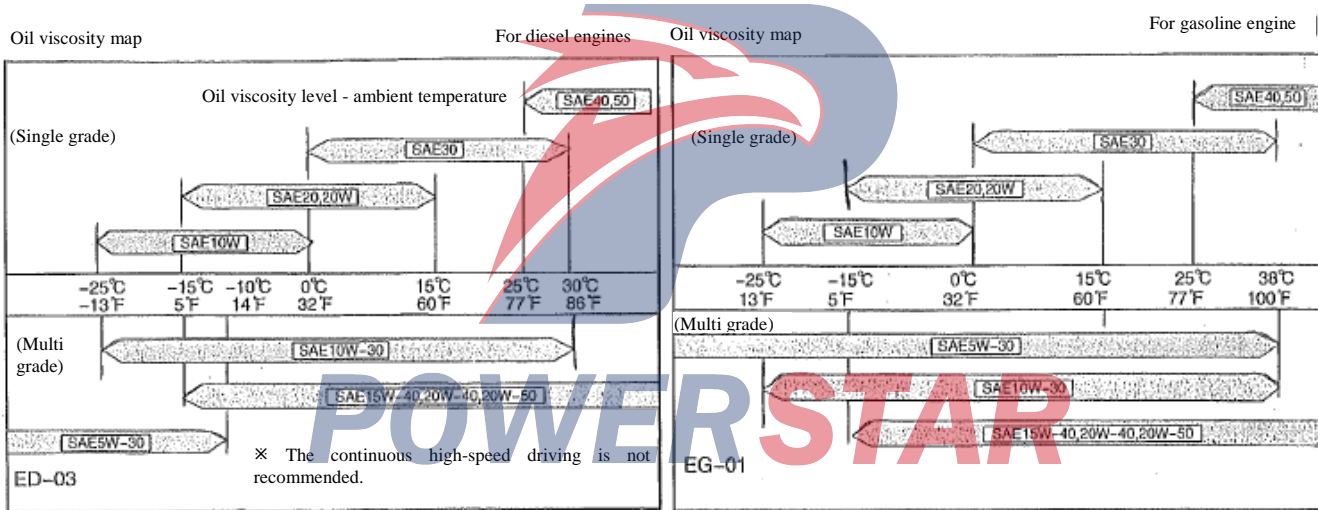
Greasing points		Grease and oil grades	
Engine crankcase		Gasoline engine oil SH, SG, SF, Diesel booster oil CF-4	
Manual Transmission	Ambient temperature	Below 30°C	Engine oil SAE5W-30
		Others	Engine oil SAE40
		Or for the same oil in the engine crankcase	
Power steering		Dexron®-II E or automatic transmission fluid Dexron®-III	
Differential gear		Teeth: wheel GA-5 level	
Hydraulic brake system and clutch system		Dexron SAEJ1703, FMVSS 116DOT.3 or DOT.4 hydraulic brake fluid	
Wheel bearing		Wheel bearing grease or multi-purpose grease NLGI No.2 or 3No.3	
Lubrication injection nozzle		Multi-purpose grease NLGI NO.1 or NO.2	
Knuckle		Grease with molybdenum disulfide	
Engine cooling system		High quality ethylene glycol coolant	

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Lubrication

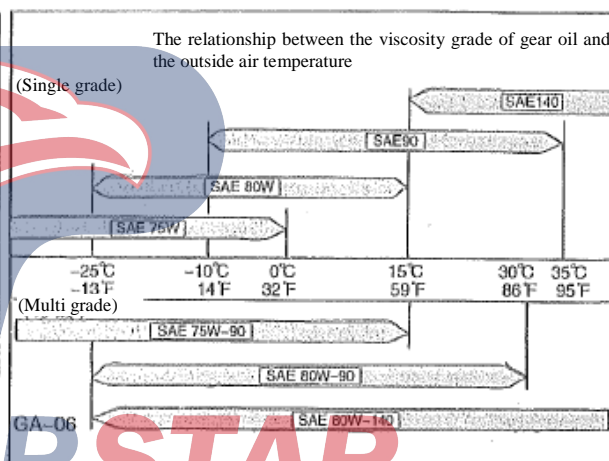
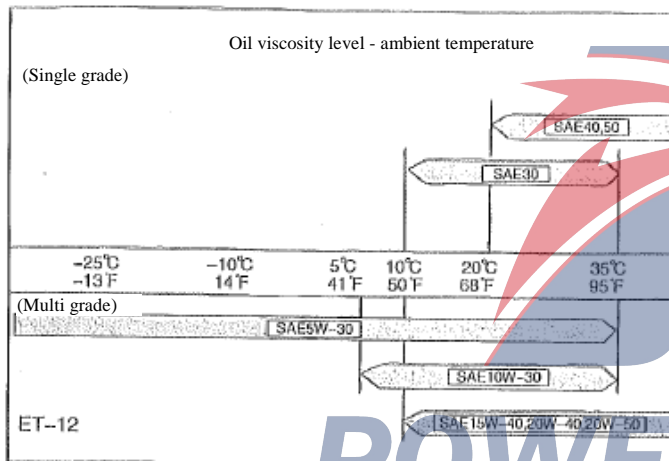
Lubricants should be carefully selected according to the lubrication chart. It is important to select the oil viscosity based on the ambient temperature and the following map.



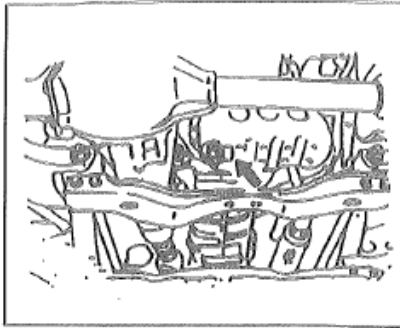


Oil Viscosity Diagrams for Transmissions and Transfer

Gear oil viscosity figure for front and rear axles



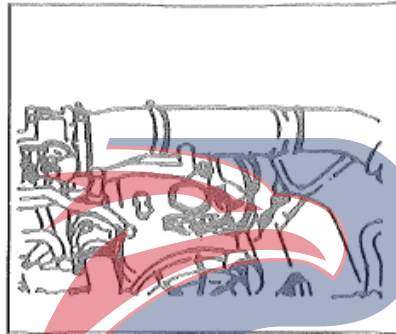
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Lubrication guide

Engine oil replacement

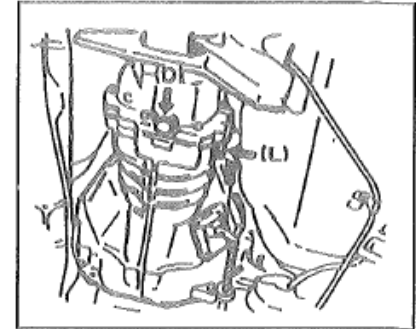
When the engine is hot, remove the drain plug on the bottom of the oil pan, drain the oil from the engine crankcase, and then install the drain plug.



Then fill a specified level of new oil from the filler port to the engine crankcase.

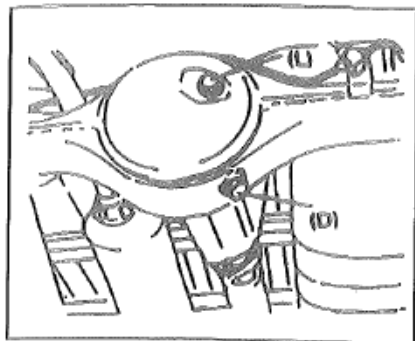
SH, SG or SF grade oil used for gasoline engine: (See “Recommended Grease Grades” section)

When the engine crankcase is refueled to the high oil mark of the dipstick, start the engine, idle for a few minutes, then stop operation, recheck the oil level, and refill if necessary.



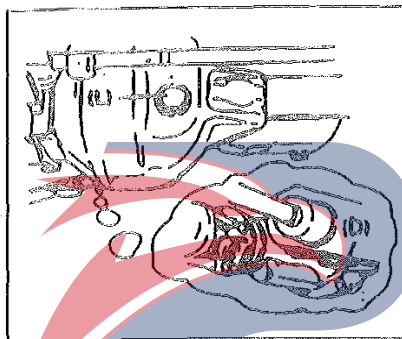
Transmission oil replacement

Remove the drain plug (D) on the bottom of the transmission and drain the oil from the transmission. Inject the specified oil into the transfer gear transmission through the oil level check plug hole until the oil level check plug (L).



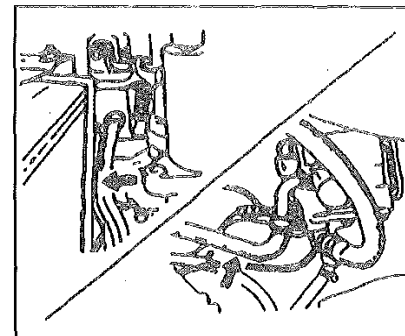
Main reducer oil replacement

Remove the drain plug (D) and drain the inner gear oil in the rear axle housing. Fill the specified oil into the transmission through the level inspection screw plug hole to the oil level inspection plug (L).



4WD replacement of main reducer oil (front axle)

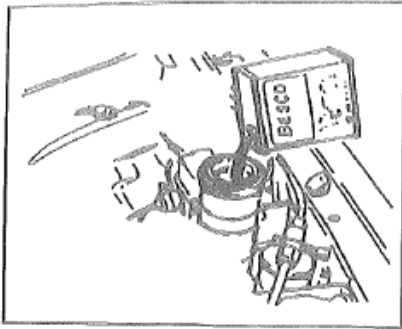
Remove the drain plug (D) and drain the gear oil inside the front axle housing. Fill the specified gear oil into the front axle housing through the oil level inspection plug hole, to the oil level inspection plug (L).



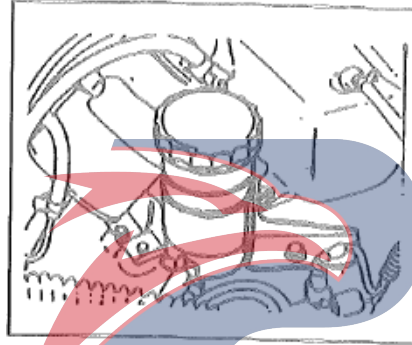
Replacement of power steering fluid

Vent

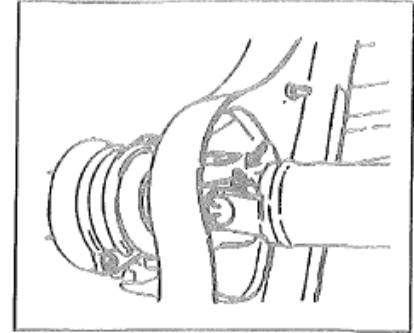
1. Jack up the front wheel and lift it off the floor.
2. Remove the hose between the steering mechanism and the reservoir and the hose between the pump and the reservoir.
3. After the bleeding is completed, rotate the steering wheel all the way to the left and right several times to remove the residual liquid in the hydraulic system.

**Refuel**

1. Install and tighten the hydraulic hoses and hoses and fill the specified automatic transmission fluid into the reservoir.
2. After the liquid tank is filled to the specified level, wait for 2-3min. The liquid tank should be filled in a timely manner if necessary to prevent air from entering the hydraulic system.



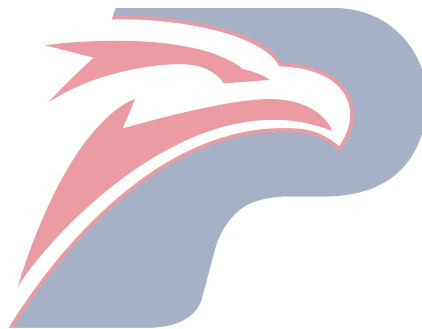
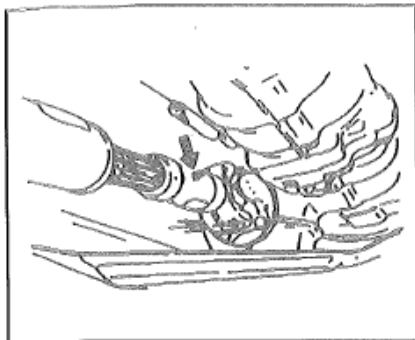
3. Ensure that the front wheels are on the ground. Start the engine and operate it at idling for a few minutes. Check the fluid level again and fill if necessary.

**4WD** Lubricating positions

Lubricate the following positions with MoS2 grease:

Drive shaft knuckle and sliding sleeve

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Main parameters and specifications

Vehicle model	QL6470D11	QL6470DY11	QL5470DY611ZH	QL5470DY611	QL6470DJ	QL6470DYJ	QL6471DJ	QL6471DYJ
Manufacturer	QingLing Motors Co., Ltd.							
Drive type	4×2	4×4	4×4	4×4	4×2	4×2	4×2	4×4
Size (mm)								
Total length	4740±50						4710±50	
Total width	1795±15						1865±20	
Total height	1750±15 (when 215/75R15 tires are installed)/1770±15 (when 245/75R16 tires are installed), QL5470DY11ZH when the warning lamb is installed, the vehicle height increases by 130.						1835±10	
Wheelbase	2760±30							
Tread front wheel	1425±15			1440±5		1425±15		
Rear	1440±15			1445±15		1440±15		
Minimum ground clearance	≥190(when 215/75R15 tires are installed)≥225(when 245/75R16 tires are installed)							
Number of occupants	5 persons (including driver)							
Quality (kg)								
Total vehicle mass (rating)	2200±50	2250±50	2260±50	2320±50	2510±50	2600±50	2510±50	2600±50
Kerb mass	1720±50	1770±50	1780±50	1840±50	1725±50	1825±50	1725±50	1825±50
Allowable front suspension bearing value	925±25	985±25	995±25	1050±25	920±25	1000±25	1725±5	1000±25
Permitted value of rear axle loading	1275±25	1265±25	1265±25	1270±25	1590±25	1600±5	1590±25	1600±5
Engine								
Model and type	4ZE1-MPI, 4-stroke, water-cooled, single-overhead-camshaft, EFI gasoline engine			6VD1, 4-stroke, water-cooled, single-overhead-camshaft, EFI gasoline engine		4JB1-T1 4-stroke overhead-valve, water-cooled turbocharged diesel engine		
Power kW/(r/min)	89/4600			140/5400		70/3800		
Torque N·m/(r/min)	203/2600			265/4600		220/1800		
Compression ratio	8.6			8.6		18.3		
Displacement(ml)	2559			3265		2771		



Main parameters and specifications

Vehicle model	QL6470D11	QL6470DY11	QL5470DY611ZH	QL5470DY611	QL6470DJ	QL6470DYJ	QL6471DJ	QL6471DYJ
Valve clearances(Cold)								
Intake (mm)	0.15±0.03		0.28±0.05		0.4±0.15		0.4±0.15	
Exhaust (mm)	0.25±0.03		0.3±0.05		0.4±0.15		0.4±0.15	
Fuel injection timing angle / (r/min)	12°/800		12°/800					
Idle speed/minute	900±50		850±50		750±25		750±25	
Firing order	1-3-4-2		1-4-2-5-3-6		1-3-4-2		1-3-4-2	
Fan belt slack, mm	10±2							
Engine oil capacity (liters)	6		10		6.5		6.5	
Coolant capacity (liters)	7		10		7		7	
Fuel tank capacity (liters)	83.3		83		44.1		44.1	
Tightening torque of oil sump screw plug (N·m)	83.3		78		44.1		44.1	
Fuel type	93# unleaded gasoline				Diesel		Diesel	
Clutch								
Type	Hydraulically operated, diaphragm spring, dry one-piece							
Diameter mm	240		260		240		240	
Pedal free stroke, mm	5.0~15.0							
Transmission with transfer case								
Model and Type	MUA-5C 5-speed fully synchronized meshing transmission, with high and low speed manual switching device				MUA-5CS 5-speed fully synchronized meshing transmission, with high and low speed manual switching device			
Transmission ratio (more than 1) gear position	I gear II gear III gear IV gear V gear Reverse gear				I gear II gear III gear IV gear V gear Reverse gear			
MUA5C	3.767 2.248 1.404 1.000 0.809 3.873				3.676 2.248 1.501 1.000 0.809 3.873			
Transfer case	High speed: 1.000; Low speed: 2.283				High speed: 1.000; Low speed: 2.501			
Lubricant capacity (liters)	2.95		4.4 (Including transfer case)		2.95		4.4 (Including transfer case)	



Main parameters and specifications

Vehicle model	QL6470D11	QL6470DY11	QL5470DY611ZH	QL5470DY611	QL6470DJ	QL6470DYJ	QL6471DJ	QL6471DYJ	
Tightening torque of filler plug and drain plug	19.6								
N·m									
Front axle (only for 4WD models)									
Type	—	Nodular cast iron housing and axle bushing, full floating type with CVJ and DOJ		—	Malleable cast iron housing and half-axle tube, full floating type with CVJ and DOJ		—	Malleable cast iron housing and half-axle tube, full floating type with CVJ and DOJ	
Transmission ratio (ratio 1)	—	4.777(43/9)	4.555(41/9)	—	4.555(41/9)		—	4.555(41/9)	
Oil capacity (liters)	—			—	1.4		—	1.4	
Filling plug tightening torque, N • m	—			—	68.6		—	68.6	
Tightening torque of drain plug N·m	—			—	25.48		—	25.48	
Rear axle									
Type	Small spiral bevel gear and quasi-hyperbolic gear semi-floating type								
Transmission ratio (ratio 1)	4.777							4.555	
Lubricant capacity (liters)	1.8								
Tightening torque of filler plug and drain plug	7.84								
N·m									
Number of leaf springs	4							5	
Steering system									
Type	Circulation ball-type power steering								
Steering wheel free stroke(mm)	10-30								
Oil capacity(liters)	1								
Front wheel positioning									
Front wheel toe-in millimeter	2±2								
Camber angle	0°30' ±60'								
Kingpin Caster angle	2°20' ±45'								



Main parameters and specifications

Vehicle model	QL6470D11	QL6470DY11	QL5470DY611ZH	QL5470DY611	QL6470DJ	QL6470DYJ	QL6471DJ	QL6471DYJ												
King pin angle	10°±60'																			
Service brake																				
Type	The front plate is a hydraulic disc type, and the rear wheel is a self-adjusting drum brake with vacuum booster																			
Pedal free stroke, mm	6 ~ 10																			
Parking brake																				
Type	Mechanical inner expansion, acting on the rear wheel																			
Brake lever stroke teeth	6-7 (When a 294N of force is applied)																			
Suspensions																				
Type	Front	Independent torsion bar spring with stabilizer bar and two-way shock absorber						Rear	Ellipse leaf spring with bidirectional shock absorber											
Electrical device																				
Type	12V system with negative ground																			
Battery capacity, VAh	12/60		12/70		12/80															
Starter volts/kW	12/1.2		12/1.4		12/2.8															
Alternator capacity, VAh	12/60		12/75		12/50															
Wheel																				
Tire size	P215/75R15 VLT245/75R16	LT245/75R16	LT245/75R16	LT245/75R16	P215/75R15 VLT245/75R16	LT245/75R16	P215/75R15 VLT245/75R16	LT245/75R16												
Tire inflation pressure MPa	Tire inflation pressure (reference value)																			
	<table border="1" style="width: 100%; text-align: center;"> <tr> <td></td> <td>Front wheel</td> <td>Rear wheel</td> </tr> <tr> <td>P215/75R15</td> <td>0.18</td> <td>0.18</td> </tr> <tr> <td>LT45/75R15</td> <td>0.2</td> <td>0.2</td> </tr> <tr> <td>LT45/75R16</td> <td>0.25 (6V engine mounted models)</td> <td>0.25 (6V engine mounted models)</td> </tr> </table>									Front wheel	Rear wheel	P215/75R15	0.18	0.18	LT45/75R15	0.2	0.2	LT45/75R16	0.25 (6V engine mounted models)	0.25 (6V engine mounted models)
	Front wheel	Rear wheel																		
P215/75R15	0.18	0.18																		
LT45/75R15	0.2	0.2																		
LT45/75R16	0.25 (6V engine mounted models)	0.25 (6V engine mounted models)																		



Main parameters and specifications

Vehicle model	QL6470D12	QL6470DY12	QL6471D12	QL6471DY12	QL6471D11	QL6471DY11	QL6471DY611
Manufacturer							
Drive type	4×2	4×4	4×2	4×4	4×2	4×4	4×4
Size (mm)							
Total length	4740±50			4710±50			
Total width	1795±5			1865±20			
Total height	1750±15(215/75R15 Tires) 1750±15 (215/75R16 tire)			1835±0			
Wheelbase	2760±0						
Tread front wheel				1425±5			1440±15
Rear wheel				1440±15			1445±15
Minimum ground clearance	≥190 (when 215/75R15 tires are installed)/≥225(when 215/75R16 tires are installed)						
Number of occupants	5 persons (including driver)						
Quality(kg)							
Total vehicle mass (rating)	2200±50	2250±50	2200±50	2250±50	2200±50	2250±50	2320±50
Kerb mass	1720±50	1770±50	1720±50	1770±50	1720±50	1770±50	1840±0
Allowable front suspension bearing value	925±25	985±25	925±5	985±25	925±25	985±25	1050±25
Permitted value of rear axle loading	1275±25	1265±25	1275±25	1265±25	1275±25	1265±25	1270±25
Engine							
Model and type	4ZE1-MPI, 4-stroke single, water-cooled, single over head camshaft, EFI gasoline engine			4ZE1-MPI, 4-stroke single, water-cooled, single over head camshaft, EFI gasoline engine		6VD1, 4-stroke single, water-cooled, single over head camshaft, EFI gasoline engine	
Power kW/(r/min)	85/4600			89/4600		140/5400	
Torque N·m/(r/min)	200/2600			203/2600		265/4600	
Compression ratio	8.3			8.6		8.6	
Displacement (ml)	2499			2359		3165	



Main parameters and specifications

Vehicle model	QL6470D12	QL6470DY12	QL6471D12	QL6471DY12	QL6471D11	QL6471DY11	QL6471DY611
Valve clearances(Cold)							
Intake (mm)	0.15±0.03						0.28±0.05
Exhaust (mm)	0.25±0.03						0.3±0.05
Fuel injection timing angle / (r/min)	12°/800						10°/800
Idle speed/minute	900±50						850±50
Firing order	1-3-4-2						1-4-2-5-3-6
Fan belt slack, mm							10±2
Engine oil capacity (liters)							6
Coolant capacity (liters)	7						10
Fuel tank capacity (liters)	83						
Tightening torque of oil sump screw plug (N·m)	83.3						78
Fuel type	93# unleaded gasoline						
Clutch							
Type	Hydraulically operated, diaphragm spring, dry one-piece						
Diameter mm	240						260
Pedal free stroke, mm	5.0~15.0						
Transmission with transfer case							
Model and Type	MUA-5C 5-speed fully synchronized meshing transmission, with high and low speed manual switching device						
Transmission ratio (more than 1) gear position	I gear II gear III gear IV gear V reverse gear						
MUA5C	3.67 2.248 1.404 1.000 0.809 3.873						
Transfer case		High speed: 1.000; Low speed: 2.283		High speed: 1.000; Low speed: 2.283		High speed: 1.000; Low speed: 2.283	
Lubricant capacity (liters)	2.95	4.4 (Including transfer case)	2.95	4.4 (Including transfer case)	2.95	4.4 (Including transfer case)	



Main parameters and specifications

Vehicle model	QL6470D12	QL6470DY12	QL6471D12	QL6471DY12	QL6471D11	QL6471DY11	QL6471DY611
Tightening torque of filler plug and drain plug							
	N·m						
Front axle (only for 4WD models)							
Type	—	Nodular cast iron housing and axle bushing, full floating type with CVJ and DOJ	—	Nodular cast iron housing and axle bushing, full floating type with CVJ and DOJ	—	Nodular cast iron housing and axle bushing, full floating type with CVJ and DOJ	
Transmission ratio (ratio 1)	—	4.777/43/9)	—	4.777/43/9)	—	4.777/43/9)	4.555(41/9)
Oil capacity litre	—	1.4	—	1.4	—	1.4	
Filling plug tightening torque, N • m	—	68.6	—	68.6	—	68.6	
Tightening torque of drain plug N·m	—	25.48	—	25.48	—	25.48	
Rear axle							
Type	Small spiral bevel gear and quasi-hyperbolic gear semi-floating type						
Transmission ratio (ratio 1)	4.777						4.555
Lubricant capacity (liters)	1.8						
Tightening torque of filler plug and drain plug							
	N·m						
Number of leaf springs	78.4 4						
Steering system							
Type	Circulation ball-type power steering						
Steering wheel free stroke(mm)	10-30						
Oil capacity(liters)	1						
Front wheel positioning							
Front wheel toe-in millimeter	2±2						
Camber angle	0°30' ±60'						
Kingpin Caster angle	2°20' ±45'						





Main parameters and specifications

Vehicle model	QL6470D12	QL6470DY12	QL6471D12	QL6471DY12	QL6471D11	QL6471DY11	QL6471DY611												
King pin angle	10° ±60'																		
Service brake																			
Type	The front plate is a hydraulic disc type, and the rear wheel is a self-adjusting drum brake with vacuum booster																		
Pedal free stroke, mm	6 ~ 10																		
Parking brake																			
Type	Mechanical inner expansion, acting on the rear wheel																		
Brake lever stroke teeth	6-7 (When a 294N of force is applied)																		
Suspensions																			
Type	Front	Independent torsion bar spring, with stabilizer bar, with two-way shock absorber																	
	Rear	Ellipse leaf spring with bidirectional shock absorber																	
Electrical device																			
Type	12V system with negative ground																		
Battery capacity, VAh	12/60						12/70												
Starter volts/kW	12/1.2						12/1.4												
Alternator capacity, VAh	12/60						12/75												
Wheel																			
Tire size	P215/75R15 LT245/75R16	LT245/75R16	P215/75R15 VLT245/75R16	LF245/75R16	P215/75R15 VLT245/75R16	LF245/75R16													
Tire inflation pressure MPa	Tire inflation pressure (reference value)																		
	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Front wheel</th> <th>Rear wheel</th> </tr> </thead> <tbody> <tr> <td>P215/75R15</td> <td>0.18</td> <td>0.18</td> </tr> <tr> <td>LT45/75R15</td> <td>0.2</td> <td>0.2</td> </tr> <tr> <td>LT45/75R16</td> <td>0.25 (6V engine mounted models)</td> <td>0.25 (6V engine mounted models)</td> </tr> </tbody> </table>								Front wheel	Rear wheel	P215/75R15	0.18	0.18	LT45/75R15	0.2	0.2	LT45/75R16	0.25 (6V engine mounted models)	0.25 (6V engine mounted models)
	Front wheel	Rear wheel																	
P215/75R15	0.18	0.18																	
LT45/75R15	0.2	0.2																	
LT45/75R16	0.25 (6V engine mounted models)	0.25 (6V engine mounted models)																	



Main parameters and specifications

Vehicle model	QL64702R	QL64702S
Drive type	4x2	4x4
Size (mm)		
Total length	4740	4740
Total width	1795	1795
Total height	1770	1770
Wheelbase		2760
Tread front wheel		1425
Rear wheel		1440
Minimum ground clearance		≥220
Number of occupants		5
Quality (kg)		
Kerb mass	1790	1850
Total vehicle mass (rating)	1575	2635
Allowable front suspension bearing value	955	1005
Permitted value of rear axle loading	1620	1630
Engine		
Model and type	4JB1CT, 4-stroke, overhead-valve, water-cooled, intercooled and turbocharged high-pressure common-rail diesel engine	
Power kW/(r/min)	72/3600	
Torque N·m/(r/min)	220/1800	
Compression ratio	17.5	
Displacement (ml)	2771	





Main parameters and specifications

Vehicle model	QL64702R	QL64702S
Valve clearances(Cold)		
Intake (mm)		0.4±0.15
Exhaust (mm)		0.4±0.15
Fuel injection timing angle / (r/min)		5
Idle speed/minute		770
Firing order		1-3-4-2
Fan belt slack, mm		10±2
Engine oil capacity (liters)		6.5
Coolant capacity (liters)		7
Fuel tank capacity (liters)		83
Tightening torque of oil sump screw plug (N·m)		44.1
Fuel type		Diesel
Clutch		
Type	Hydraulically operated, diaphragm spring, dry one-piece	
Diameter mm	240	
Pedal free stroke, mm	5.0~15.0	
Transmission with transfer case		
Model and Type	MUA-5CS 5-speed fully synchronized meshing transmission, with high and low speed manual switching device	
Transmission ratio (more than 1) gear position	I gear II gear III gear IV gear V gear reverse gear	
	MUA5C	3.767 2.248 1.501 1.000 0.809 3.873
Transfer case		High speed: 1.000; Low speed: 2.501
Lubricant capacity (liters)	2.95	4.4 (Including transfer case)



Main parameters and specifications

Vehicle model	QL64702R	QL64702S
Tightening torque of filler plug and drain plug		
N·m	19.6	
Front axle (only for 4WD models)		
Type	Malleable cast iron housing and half-axle tube, full floating type with CVJ and DOJ	
Transmission ratio (ratio 1)	4.1	
Oil capacity litre	1.4	
Filling plug tightening torque, N·m	68.6	
Tightening torque of drain plug N·m	25.48	
Rear axle		
Type	Small spiral bevel gear and quasi-hyperbolic gear semi-floating type	
Transmission ratio (ratio 1)	4.1	
Lubricant capacity (liters)	1.8	
Tightening torque of filler plug and drain plug		
N·m	78.4	
Number of leaf springs	4 or 5	
Steering system		
Type	Circulation ball-type power steering	
Steering wheel free stroke(mm)	10 ~ 30	
Oil capacity(liters)	1	
Front wheel positioning		
Front wheel toe-in millimeter	2±2	
Camber angle	0°30' ±60'	
Kingpin Caster angle	2°20' ±45'	



Main parameters and specifications

Vehicle model	QL64702R		QL64702S				
King pin angle	10°±60'						
Service brake							
Type	The front plate is a hydraulic disc type, and the rear wheel is a self-adjusting drum brake with vacuum booster						
Pedal free stroke, mm	6 ~ 10						
Parking brake							
Type	Mechanical inner expansion, acting on the rear wheel						
Brake lever stroke teeth	9 to 11 (pulled with 294 Newtons)						
Suspensions							
Type	Front	Independent torsion bar spring with stabilizer bar and two-way shock absorber					
	Rear	Ellipse leaf spring with bidirectional shock absorber					
Electrical device							
Type	12V system with negative ground						
Battery capacity, VAh	12/80						
Starter volts/kW	12/2.8						
Alternator capacity, VAh	12/60						
Wheel							
Tire specification and pressure	Tire size		Drive type		Tire pressure (MPa)		Aluminum alloy tire
	Front wheel	Rear wheel	4×2	4×4	Front wheel	Rear wheel	
	LT235/75R15	LT235/75R15		∅	0.2	0.2	
	LR245/75R16	LR245/75R16	∅		0.25	0.25	16×7JJ-12/16×7J-12



Main parameters and specifications

Vehicle model	QL6470PFUR	QL6470PFUS	QL5020THPFUSF	QL6471PFUR	QL6471PFUS	
Manufacturer	QingLing Motors Co., Ltd.					
Drive type	4×2	4×4	4×4	44×2	4×4	
Size (mm)						
Total length	4740±50 (including spare tire)			4710±50		
Total width	1795±15			1865±0		
Total height	1795±15		1900±20	1880±20		
Wheelbase	2760±0					
Tread	front wheel	1425±15				
	Rear wheel	1440±15				
Minimum ground clearance	≥220					
Number of occupants	5 persons (including driver)					
Quality(kg)						
Kerb mass	2200±70	2250±70	2260±70	2200±70	2250±70	
Total vehicle mass (rating)	1720±50	1770±50	1780±50	1720±50	1770±50	
Allowable front suspension bearing value	940±30	985±30	995±30	940±30	985±30	
Permitted value of rear axle loading	1260±40	1265±40	1265±40	1260±40	1265±40	
Engine						
Model and type	4ZF3-MPI, 4-stroke, water-cooled, single-overhead-camshaft, EFI gasoline engine					
Power kW/(r/min)	85/4600					
Torque N·m/(r/min)	200/2600					
Compression ratio	9.2					
Displacement (ml)	2499					

POWER STAR



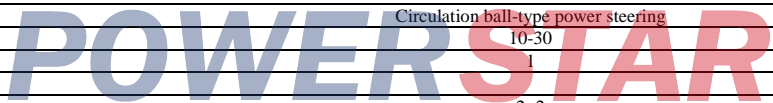
Main parameters and specifications

Vehicle model	QL6470PFUR	QL6470PFUS	QL5020THPFUSF	QL6471PFUR	QL6471PFUS	
Valve clearances(Cold)						
Intake (mm)	0.15±0.03					
Exhaust(mm)	0.25±0.03					
Fuel injection timing angle / (r/min)	12°/800					
Idle speed/minute	800±0					
Firing order	1-3-4-2					
Fan belt slack, mm	10±2					
Engine oil capacity (liters)	6					
Coolant capacity (liters)	7					
Fuel tank capacity (liters)	83					
Tightening torque of oil sump screw plug (N·m)	83.3					
Fuel type	93# unleaded gasoline					
Clutch						
Type	Hydraulically operated, diaphragm spring, dry one-piece					
Diameter mm	240					
Pedal free stroke, mm	5.0~15.0					
Transmission with transfer case						
Model and Type	MUA-5CS 5-speed fully synchronized meshing transmission, with high and low speed manual switching device					
Transmission ratio (more than 1) gear position	I gear	II gear	III gear	IV gear	V gear	Reverse gear
MUA5C	3.767	2.248	1.404	1.000	0.809	3.873
Transfer case	High speed: 1.000; Low speed: 2.283					High speed: 1.000; Low speed: 2.283
Lubricant capacity (liters)	2.95	4.4 (Including transfer case)		2.95	4.4 (Including transfer case)	



Main parameters and specifications

Vehicle model	QL6470PFUR	QL6470PFUS	QL5020THPFUSF	QL6471PFUR	QL6471PFUS
Tightening torque of filler plug and drain plug					
N·m					
Front axle (only for 4WD models)					
Type	—	Nodular cast iron housing and axle bushing, full floating type with CVJ and DOJ		—	Nodular cast iron housing and axle bushing, full floating type with CVJ and DOJ
Transmission ratio (ratio 1)	—	4.1 Optional 4.555		—	4.1 Optional 4.555
Oil capacity litre	—	1.4		—	1.4
Filling plug tightening torque, N·m	—	68.6		—	68.6
Tightening torque of drain plug N·m	—	25.48		—	25.48
Rear axle					
Type	Small spiral bevel gear and quasi-hyperbolic gear semi-floating type				
Transmission ratio (ratio 1)	4.1 Optional 4.556				
Lubricant capacity (liters)	1.8				
Tightening torque of filler plug and drain plug					
N·m	78.4				
Number of leaf springs	4				
Steering system					
Type	Circulation ball-type power steering				
Steering wheel free stroke (mm)	10-30				
Oil capacity(liters)	1				
Front wheel positioning					
Front wheel toe-in millimeter	2±2				
Camber angle	0°30' ±60'				
Kingpin Caster angle	2°20' ±45'				





Main parameters and specifications

Vehicle model	QL6470PFUR	QL6470PFUS	QL5020THPFUSF	QL6471PFUR	QL6471PFUS																
King pin angle	10° ±60'																				
Service brake	The front plate is a hydraulic disc type, and the rear wheel is a self-adjusting drum brake with vacuum booster																				
Pedal free stroke, mm	6-10																				
Parking brake	Mechanical inner expansion, acting on the rear wheel																				
Type	6-7 (When a 294N of force is applied)																				
Brake lever stroke teeth	Independent torsion bar spring, with stabilizer bar, with two-way shock absorber																				
Suspensions	Ellipse leaf spring with bidirectional shock absorber																				
Type	Front																				
	Rear																				
Electrical device	12V system with negative ground																				
Type																					
Battery capacity, VAh	12/60																				
Starter volts/kW	12/1.2																				
Alternator capacity, VAh	12/60																				
Wheel																					
Tire specification and pressure	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2">Tire size</th> <th colspan="2">Tire pressure (MPa)</th> </tr> <tr> <th>Front wheel</th> <th>Rear wheel</th> <th>Front wheel</th> <th>Rear wheel</th> </tr> </thead> <tbody> <tr> <td>▣ LR245/75R16</td> <td>▣ LR245/75R16</td> <td>0.2</td> <td>0.2</td> </tr> <tr> <td>▣ LT235/75R15</td> <td>▣ LT235/75R15</td> <td>0.25</td> <td>0.25</td> </tr> </tbody> </table>					Tire size		Tire pressure (MPa)		Front wheel	Rear wheel	Front wheel	Rear wheel	▣ LR245/75R16	▣ LR245/75R16	0.2	0.2	▣ LT235/75R15	▣ LT235/75R15	0.25	0.25
Tire size		Tire pressure (MPa)																			
Front wheel	Rear wheel	Front wheel	Rear wheel																		
▣ LR245/75R16	▣ LR245/75R16	0.2	0.2																		
▣ LT235/75R15	▣ LT235/75R15	0.25	0.25																		



Main parameters and specifications

Vehicle model	QL6490PGLR	QL6490PGCR	QL6490PGLS	QL6490PGCS
Manufacturer	QingLing Motors Co., Ltd.			
Drive type	4×2	4×2	4×4	4×4
Size (mm)				
Total length	5015/4976±50 (when no rear bumper is installed)			
Total width	1690±15			
Total height	1795±15		1840±20	
Wheelbase	2760±0			
Tread	Front wheel	1460±15	Rear wheel	1425±15
Minimum ground clearance	Quality (kg) ≥190 (for 215/75R151 tires)/≥225 (for 215/75R15 tires)			
Number of occupants	5 persons (including driver)			
Quality (kg)				
Kerb mass	2410±70	2410±70	2490±70	2490±70
Total vehicle mass (rating)	1590±50	1610±50	1610±50	1630±50
Allowable front suspension bearing value	870±25	870±25	930±30	930±30
Permitted value of rear axle loading	1540±40	1540±40	1560±40	1560±40
Engine				
Model and type	4ZF3-MPI, 4-stroke, water-cooled, single-overhead-camshaft, EFI gasoline engine			
Power kW/(r/min)	85/4600			
Torque N·m/(r/min)	200/2600			
Compression ratio	9.2			
Displacement(ml)	2499			



Main parameters and specifications

Vehicle model	QL6490PGLR	QL6490PGCR	QL6490PGLS	QL6490PGCS		
Valve clearances(Cold)						
Intake (mm)	0.15±0.03					
Exhaust(mm)	0.25±0.03					
Fuel injection timing angle / (r/min)	12°/800					
Idle speed/minute	800±0					
Firing order	1-3-4-2					
Fan belt slack, mm	10±2					
Engine oil capacity (liters)	6					
Coolant capacity (liters)	7					
Fuel tank capacity (liters)	83					
Tightening torque of oil sump screw plug (N·m)	83.3					
Fuel type	93# unleaded gasoline					
Clutch						
Type	Hydraulically operated, diaphragm spring, dry one-piece					
Diameter mm	240					
Pedal free stroke, mm	5.0~15.0					
Transmission with transfer case						
Model and Type	MUA-5CS 5-speed fully synchronized meshing transmission, with high and low speed manual switching device					
Transmission ratio (more than 1) gear position	I gear	II gear	III gear	IV gear	V gear	Reverse gear
MUA5C	3.76	2.248	1.404	1.000	0.809	3.873
Transfer case					High speed: 1.000; Low speed: 2.283	
Lubricant capacity (liters)	2.95				4.4 (Including transfer case)	



Main parameters and specifications

Vehicle model	QL6490PGLR	QL6490PGCR	QL6490PGLS	QL6490PGCS
Tightening torque of filler plug and drain plug				
N·m	19.6			
Front axle (only for 4WD models)				
Type	Nodular cast iron housing and axle bushing, full floating type with CVJ and DOJ			
Transmission ratio (ratio 1)	4.1 Optional 4.555			
Oil capacity(liters)	1.4			
Filling plug tightening torque, N·m	68.6			
Tightening torque of drain plug N·m	25.48			
Rear axle				
Type	Small spiral bevel gear and quasi-hyperbolic gear semi-floating type			
Transmission ratio (ratio 1)	4.1			
Lubricant capacity (liters)	1.8			
Tightening torque of filler plug and drain plug				
N·m	78.4			
Number of leaf springs	6			
Steering system				
Type	Circulation ball-type power steering			
Steering wheel free stroke(mm)	10-30			
Oil capacity(liters)	1			
Front wheel positioning				
Front wheel toe-in millimeter	2±2			
Camber angle	0°30' ±60'			
Kingpin Caster angle	1°50' ±45' (left and right difference ≤35°)		2°20' ±45'	





Main parameters and specifications

Vehicle model	QL6490PGLR	QL6490PGCR	QL6490PGLS	QL6490PGCS																				
King pin angle	10° ±60'																							
Service brake																								
Type	The front plate is a hydraulic disc type, and the rear wheel is a self-adjusting drum brake with vacuum booster																							
Pedal free stroke, mm	6-10																							
Parking brake																								
Type	Mechanical inner expansion, acting on the rear wheel																							
Brake lever stroke teeth	6-7 (When a 294N of force is applied)																							
Suspensions																								
Type	Front	Independent torsion bar spring, with stabilizer bar, with two-way shock absorber																						
	Rear	Ellipse leaf spring with bidirectional shock absorber																						
Electrical device																								
Type	12V system with negative ground																							
Battery capacity, VAh	12/60																							
Starter volts/kW	12/1.2																							
Alternator capacity, VAh	12/60																							
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Tire size		Tire pressure (MPa)																						
Front wheel	Rear wheel	Front wheel	Rear wheel																					
P215/75R15	P215/75R15	0.2	0.2																					
☒ LR245/75R16	☒ LR245/75R16	0.25	0.25																					
☒ LT235/75R15	☒ LT235/75R15	0.25	0.25																					



Tools with vehicle

SN	Tool name	Specifications	Quantity
1	Tool bag	—	1
2	Double-ended wrench	17×12	1
3	Double-ended wrench	12×4	1
4	Double-ended wrench	8×10	1
5	Jaws	150	1
6	"+" "-" Combined driver	—	1
7	Wheel nut wrench	—	1
8	Spark plug wrench	—	1
9	Oil pressure Jack	QLS1.5G	1
10	Rocker - jack and spare tire	—	1

POWERSTAR