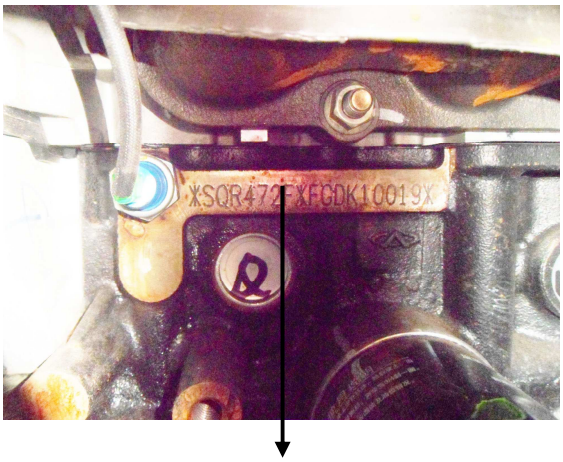
# ***VEHICLE***
# *INFORMATION*

*25/01/2017*

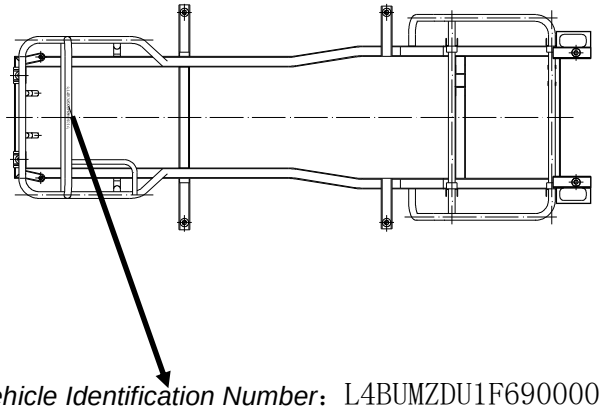
# HOW TO IDENTIFY YOUR XYUTV1000

The main components of your vehicle (engine and frame) are identified by different serial numbers. It may sometimes become necessary to locate these numbers for warranty purposes or to trace your vehicle in the event of loss. These numbers are required by the authorized Discovery UTV dealer to complete warranty claims properly. No warranty will be allowed by Discovery UTV,. if the engine identification number (EIN) or vehicle identification number (VIN) is removed or mutilated in any way. We strongly recommend that you take note of all the serial numbers on your vehicle and supply them to your insurance company.

## Engine and Vehicle Identification Number Location




*Engine Identification Number*



*Vehicle Identification Number*：L4BUMZDU1F6900001

# CONTROLS/INSTRUMENTS/EQUIPMENTS

While reading this *Operator's Guide*, remember that:

| **WARNING** |
| --- |
| Indicates a potential hazard that could result in serious injury or death. |

NOTE: This section gives basic functions of the various controls of your XYUTV1000. For more details of how to operate one control in conjunction with some others, refer to OPERATING INSTRUCTIONS further in this section."

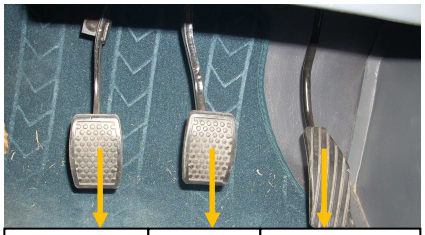
### 1）**parking brake lever( foot parking pedal)**

2WD:
Parking brake lever

4WD:
Parking brake lever

See picture，when the vehicle is fully stopped，press the parking brake handle to a certain position，it would park the car；release the pedal, press it again will release the parking.

### 2) Clutch Pedal, Brake Pedal, Throttle Pedal



| Clutch Pedal | Brake Pedal | Throttle Pedal |
|---|---|---|

Make sure the gear is in neutral, gently press the throttle pedal by right foot, turn the key on and start the engine.

When the engine started, press the clutch pedal by left foot and then shift gear to the 1st position, release the clutch slowly, press the throttle pedal gently, then the car will start to run.

Leaving the left foot from the clutch pedal, when press the throttle by right foot harder, it will speedup the engine to make the car go faster.

When released, the engine speed should return automatically to idle and the vehicle will gradually slow down.

Brake pedal located as picture. When the brake pedal is compressed, the front and rear brakes are applied. When released, the brake lever should automatically return to its original position. Braking effect is proportional to the force applied on the lever and to the type and condition of the terrain.

NOTE: As on other wheeled vehicles, the vehicle weight is transferred to the front wheels when braking. To obtain greater stopping efficiency, the brake system distributes more braking force to the front wheels. This will affect vehicle handling and steering control when braking vigorously. Take it into account when braking. When you ride the vehicle, brakes that are caused to drag by a continuous pressure on the lever may cause damage to the brake system and cause loss of braking capacity and/or fire.

### 3) **Transmission Lever**

Located between two seats. A 6-

position lever: 1, 2, 3, 4,5 and R.

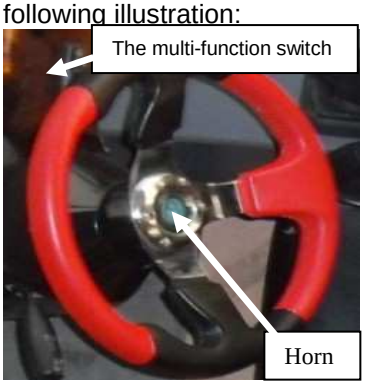
2WD（5position lever）
4WD（6position lever）

When started the vehicle, put the gear in neutral, when the engine started, press clutch pedal by left foot, then move transmission lever into desired position, Do not force lever. The gear has 1,2,3,4 ,5and R, Gear1 is for starting, 2,3,4,5 is for running, shift gears according to the vehicle speed requirements.
R: Reverse
This allows the vehicle to go backward.
The reverse speed is limited.

Before moving vehicle in reverse, ensure the path behind is clear of obstacles or bystanders.

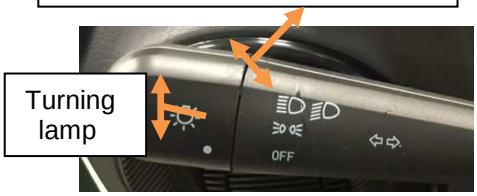
## 4）Multi-Function Switch

The multi-function switch is located under the steering wheel as the following illustration:

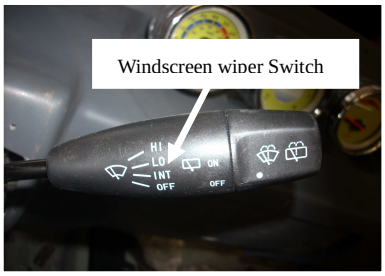



The functions located on this multifunction switch are:
**High/low beams of Headlamp Switch, Turning Lamp, Overtake Lamp and windscreen wiper.**

High /low beams of headlamp




When the Headlamp Switch is “ON”,you can change High /low beams of headlamp.
Make Turning signal or Overtake signal.
When it is dark, or raining/flog/bad visibility, you can use this switch to remind others your position.




Tail Lamp

Front Switch



3 level of the windscreen wiper, adjust the different frequency of the windscreen wiper

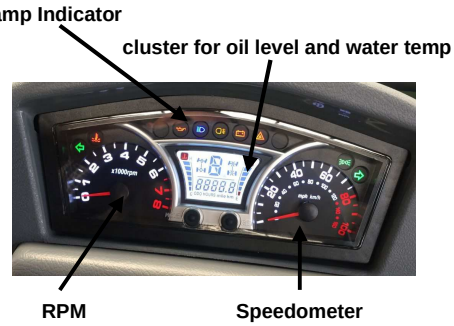
HI LO INT IS High Low Intermission

OFF is off of windscreen wiper.

Press the horn will make the sound. it will return automatically when released.

## Indicator Assembly

Located as following illustration:





Press this button can stop engine in emergency.

NOTE: While engine can be stopped by turning ignition key OFF, we recommend the engine be stopped by the engine stop switch.

Always turn ignition to OFF after engine has been stopped; otherwise you can not start engine again.

Ignition Switch

Insert key in switch and turn to the right to start engine. After engine works, key should be automatically “ON” position.

To stop engine, turn to the right from “ON” position.

CAUTION: Never start engine for long time otherwise it would be damaged.

**Emergency Alarm Switch**
Located as above mentioned
1 XYUTV1000 break down.
2 The weather is bad such like raining and flog etc, you should open EAS, then turning light are flashing to remind others for your emergency.

**Front lamp Switch**
**This button can control the front lamp, use it in the dark.**

**Position light Switch**
Using as Position Lamp on and off.

**Mp3 operation board**
Using as the control for power of MP3 player, speed of the playing and selections.

**Speedometer**
It is digital speedometer as the illustration showing


It is speedometer to show speed in Mile per hour or KM per hour. When engine starts, it would

show the figure. And background light is working.

It is with an Odometer in KM, and there is also a fuel indicator to show fuel level, reminding the driver to fill up the fuel in time.

**Lamp Indicator**
It is as the illustration showing:


**（1）Oil Pressure** **（RED）**
When the ignition switch is on IGN1 position, it is light when engine doesn't start. And it will be off after the engine works. When this indicator light is on, it indicates a low oil pressure condition of the engine.
CAUTION: If the light does not turn off after engine starting, stop the engine. Check engine oil level. Refill if necessary. If the oil level is good, see an authorized Discovery UTV dealer. Do not use the vehicle until repaired.

**（2）Engine Charge** **（RED）**
If it is lights when engine starts, it indicates the engine is not charging

**（3）Reverse** **(RED)**
When it lights, it indicates the transmission is in reverse position.

**（4）4WD** **(GREEN)** （olny 4WD）
When it all lights, it indicates the

vehicle is in 4WD status, when only the lower two wheel signal lights, it means in 2WD status

（**5**）LEFT/RIGHT Turning Indicator ⇦ ⇨ **(GREEN)**

Turn on left turning lights, ⇦ is flashing together with front and rear left turning lights to remind you that you can turn to the left.

Turn on right turning lights, ⇨ is flashing together with front and rear right turning lights to remind you that you can turn to the right.

When emergency alarm switch is "ON", ⇦ ⇨ are flashing together with turning lights to remind you that you are in emergency case.

（**6**）High Beam Indicator **(GREEN)**

When switch is "HI", is in light to remind you that it is in high beam.

**CAUTION: Never use HBI during normal operation.**

■ 2WD/4WD switch（olny 4WD）

2WD/4WD is controlled by impulse motor. When the drive shaft spline is not joggled in the splinehousing, the impulse motor will keep on making signal to make the motor work，till the drive shaft spline is joggled in the splinehousing to finish the 2WD/4WD switch. If the motor works more than 24 times within one minute but the drive shaft spline is still not joggled in the splinehousing it will alarm，in that case you should operate it in the opposite way to protect the motor in order to avoid overheat for the motor to get burnt.

2WD/4WD switch

**Note：when the switch can not be realized successfully, it will alarm, and** you should operate it in the opposite way to protect the motor in order to avoid overheat for the motor to get burnt.

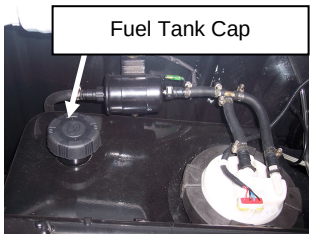
■ Front and rear differential lock shift（olny 4WD）

Lever forward means differential unlocked, backward means locked；left to control front and right for rear


| WARNING |
| --- |
| When Turning Do Not Lock，The Front Differential Gear |

**Fuel Tank Cap**

Located as the illustration showing:




Unscrew counterclockwise and remove cap to allow fuel tank filling then fully tighten clockwise
**CAUTION:** Never place anything over fuel tank cap because the vent hole on the top of fuel tank cap can be blocked and the engine could misfire.

Always stop engine before refueling. Open cap slowly. If a differential pressure condition is noticed (whistling sound heard when loosening fuel tank cap) have vehicle inspected and/or repaired before further operation. Fuel is flammable and explosive under certain conditions. Never use an open flame to check fuel level. Never smoke or allow flame or spark in vicinity. Always work in a well-ventilated area. Never top up the fuel tank before placing the vehicle in a warm area. As temperature increases, fuel expands and may overflow. Always wipe off any fuel spillage from the vehicle.
Oil switch is electronic switch, oil switch turns off after turn engine off, oil can not flow out from switch, oil switch turn on after starting the engine, then oil can flow out from switch.

## Seat

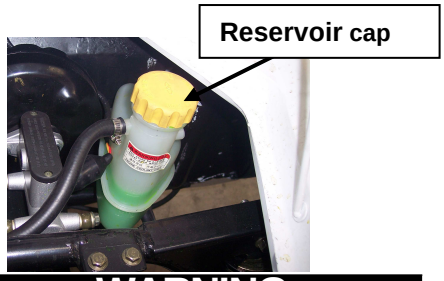
Pull the adjustment lever up to adjust the seats position forward or backward. Please adjust it to the best position according to your height.


**CAUTION:** Never put spinal or too heavy material to avoid lacerate or destroy seat.

Safety belt is strongly recommended for the diver and passenger if any during driving. Otherwise might result in serious injury or death.

## RESERVOIR CAP

It is located at the top of reservoir，reservoir connects the radiator.




**WARNING**

Never operate reservoir cap to avoid scald when engine is hot. Please turn it in counter-clockwise when take it off; otherwise turn it in lock wise.

## Fuel Gauge

Located on the right side of the engine, the gauge shows an approximate amount of the engine oil.

**Refer to LIQUID to check the engine oil level correctly.**

# LIQUIDS

While reading this Operator's Guide, remember that:

Indicates a potential hazard that, if not avoided, could result in serious injury or death.

This section specifies the recommended liquids and procedures to check their levels. Refer to MAINTENANCE for procedures to replace the liquids.

## Fuel

Recommended Fuel

Use regular unleaded gasoline or gasohol containing less than 10% of methanol, available from most service stations. The gasoline use must have an octane number of 93 or higher.

NOTE: In most service stations, pump octane number corresponds to octane number. Usually a sticker can be found on the pump.

**CAUTION**: Never experiment with other fuels. The use of unrecommended fuel can result in vehicle performance deterioration and damage to critical parts in the fuel system and engine components.

**CAUTION**: Never mix oil with fuel. This XYUTV1000 has a 4-stroke engine. Oil must be added to engine base only.

**Fuel Level**

Always stop engine before refueling. Open cap slowly. If a differential pressure condition is noticed (whistling sound heard when loosening fuel tank cap) have vehicle inspected and/or repaired before further operation. Fuel is flammable and explosive under certain conditions. Never use an open flame to check fuel level. Never smoke or allow flame or spark in vicinity. Always work in a well-ventilated area. Never top up the fuel tank before placing the vehicle in a warm area. As temperature increases, fuel expands and may overflow. Always wipe off any fuel or oil spillage from the vehicle.

Engine/Transmission/front and rear differential Oil

Recommended Oil

Use 4-stroke engine oil that meets or exceeds the requirements for API service classification SG, SH or SJ. Always check the API service label on the oil container to be sure it includes the letters SG, SH or SJ. Only use high quality high-detergent oil.

**Note**:Engine and transmission and front and rear differential are the different oil lubricates

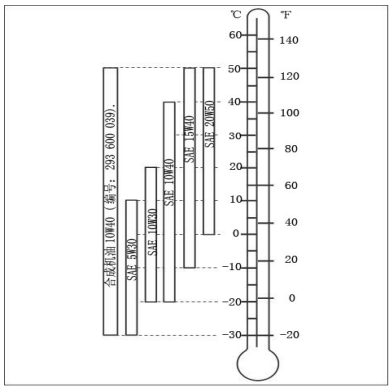
*Engine oil*: 10W/30，

*Transmission and front and rear differential oil*: 75W/90

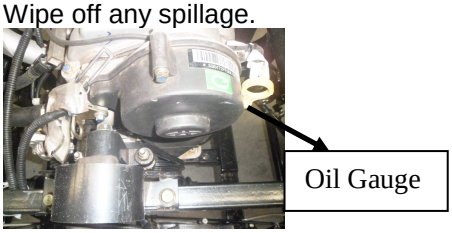
**Oil Viscosity**

SAE 10W30 is recommended for all seasons.

However, during the hottest days of the summer and bitter cold days of the winter, refer to the following chart to select the proper viscosity.




**NOTICE:**
Check level frequently and refill if necessary. Do not overfill. Operating the engine/transmission with an improper level may severely damage engine/transmission. Wipe off any spillage.




*RH SIDE OF ENGINE*

With vehicle on a level surface and engine cold, not running, check the oil level as follows:
1. Unscrew dipstick then remove it and wipe clean.
2. Reinstall dipstick, screw in it completely.

3. Remove and check oil level. It should be near or equal to the upper mark.

4. To add oil, remove dipstick. Place a funnel into the dipstick tube and fill up with the recommended oil to upper mark. Do not overfill.
5. Properly tighten dipstick

## Engine Coolant

Recommended Coolant

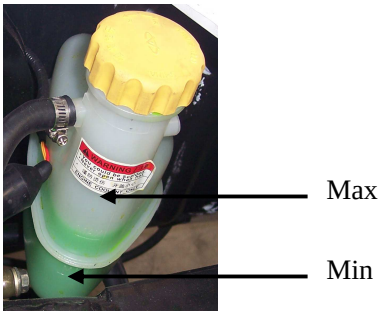
Remove the reservoir cap

Always use ethylene-glycol antifreeze containing corrosion inhibitors specifically for internal combustion aluminum engines. Cooling system must be filled with water and antifreeze solution (50% water, 50% antifreeze).

## Coolant Level

Check coolant level with engine cold. Never add coolant in cooling system when engine is hot.

With vehicle on a level surface, liquid should be between MIN. and MAX. level marks of coolant reservoir.




NOTE:
When checking level at temperature lower than 20°C (68°F), it maybe slightly lower than MIN mark.

Add coolant up to MAX. mark if required. Use a funnel to avoid spillage. Do not overfill.
Properly reinstall and tighten filler cap and reinstall access panel.
If the coolant is added in the coolant reservoir, check the level in the radiator too. Add coolant if necessary

**⚠ WARNING**

To prevent burning yourself do not remove the radiator cap if the engine is hot.

## ■Brake Fluid

Recommended Fluid
Always use brake fluid meeting the specification DOT 4 only.

CAUTION: To avoid serious damage to the braking system, do not use fluids other than the recommended one, nor mix different fluids for topping up.

Fluid Level

With vehicle on a level surface, check brake fluid in reservoirs for proper level. They should be above MIN. mark. Add fluid as required. Do not overfill.

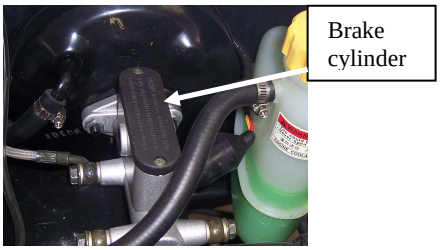
Clean filler cap before removing.

CAUTION: Use only DOT 4 brake fluid from a sealed container. Do not use brake fluid taken from old or already opened containers.

NOTE: A low level may indicate leaks or worn brake pads. See an authorized Discovery UTV dealer.

**Brake cylinder Fluid Reservoir**

Turn steering in the straight-ahead position to ensure reservoir is level. Check the brake fluid level, the reservoir is full when the fluid reaches of the top of the reservoir.




NOTE: A cooling system that frequently requires coolant is the indication of leaks or engine problems. See an authorized Discovery UTV dealer.

## ■ Battery

This vehicle is equipped with a 12V36AH battery.

Cleaning
Clean battery post with a wire brush. Apply dielectric grease on post to protect against oxidation.

Removal battery
Disconnect Green (-) cable first then RED (+) cable.
Always respect this order for disassembly when removal battery from vehicle; disconnect Green (-) cable first.

Unscrew battery fix board, take out battery

Installation

Reinstall battery in vehicle.

Connect RED (+) cable first then GREEN (-) cable. Always connect RED (+) cable first.

# BREAK-IN PERIOD

### Engine

A break-in period of 10 operating hours is required before running the vehicle at sustained full throttle.
CAUTION: Never mix oil with fuel. This vehicle has a 4-stroke engine.
Oil must be added to engine base only.
During this period, maximum throttle should not exceed 3/4. However, brief full acceleration and speed variations contribute to a good break-in. Continued wide open throttle accelerations, prolonged cruising speeds and engine overheating are detrimental during the break-in period.

## 10-Hour Inspection

As with any precision piece of mechanical equipment, we suggest that after the first 10 hours or 30 days after the purchase, whichever comes first your vehicle be inspected by an authorized XYUTV1000 dealer. This inspection will give you the opportunity to discuss the unanswered questions you may have encountered during the first hours of operation.

The 10-hour inspection is at the expense of the vehicle owner.

# PRE-OPERATION CHECK

**WARNING**

The pre-operation check is very important prior to operating the vehicle. Always check the proper operation of critical controls, safety features and mechanical components before starting. If not done as specified here, severe injury or death might occur.

• Apply parking brake and check if it operates properly.
• Check tire pressure and condition.
• Check wheels and bearings for wear and damage.
• Check location of controls and ensure they work properly.

• Verify if steering operates freely.
• Activate throttle control lever several times to ensure it operates freely. It must return to idle position when released.
• Activate the brake pedal to make sure the brakes fully apply. Pedal must fully return when released.
• Ensure transmission lever is working then reset in PARK position.
• Check fuel, oil and coolant levels.
• Check for oil leaks on the engine/transmission and drive train components.
• Clean headlamps and taillight.
• Ensure front access compartment cover and rear storage compartment cover are properly latched.
• Look and feel for loose parts before engine is on. Check fasteners.
• Ensure the path of travel is free of persons and obstacles.
• Check operation of ignition switch,

start button, engine stop switch, headlamps, taillight and indicator lights.
• Start engine and drive forward slowly a few feet and apply all brakes individually to test them.

# OPERATING INSTRUCTIONS

## General

The transmission lever must be on NEUTRAL to allow engine to start.

## Initial Cold Starting

Insert key in ignition switch and turn to ST.
NOTE: Do not forget to place the engine stop switch to RUN.
Turn the ignition key and hold until the engine starts.

**CAUTION:** Do not turn the ignition key more than 30 seconds. A rest period should be observed between the cranking cycles to let the starter cool down. Pay attention not to discharge the battery.
NOTE: The throttle can be used to help starting the engine faster. Press the throttle lever slightly; If it is pressed too much, the choke system will not be activated.
Release the ignition key immediately when the engine has started.

## Stopping the Engine

Avoid parking on an incline surface.
Release throttle and completely stop the vehicle. Apply brake to stop it steadily.
Shift the transmission to neutral. Press the engine stop switch in OFF position. Turn key in ignition switch to OFF. Remove key from ignition switch.

## Shifting the Transmission

Let engine idle to warm up. Press the clutch pedal by left foot, apply brakes and select the gear 1, press the clutch pedal to the end while shifting gear, release the throttle pedal from your right foot.

CAUTION: Don't press the throttle pedal while shifting the transmission, press the brake pedal if necessary, gradually press or reduce the throttle pedal to change the vehicle speed, so it would run smoothly.

**Using the Reverse**
CAUTION: When changing from forward to reverse, or vice-versa, always completely stop the vehicle and apply the brake prior to moving the transmission lever.

**Post-Operation Care**
When vehicle is operated in muddy conditions, rinsing the vehicle is recommended to preserve vehicle and its components and to keep lights clean.

NOTE: Never use the high pressure washer to clean the vehicle USE LOW PRESSURE ONLY (like a garden hose). The high pressure can cause electrical or mechanical damages.

**Turn Over**
When vehicle is turned over or stays tilted on the side, replace the vehicle in its normal operating position (on all four wheels). Before

starting engine, check engine oil level and refill if necessary. If the oil pressure light stays ON after starting engine, stop engine and see an authorized Discovery UTV dealer as soon as possible.

**XYUTV1000 Immersion**

Should the XYUTV1000 become immersed, it will be necessary to take it to an authorized Discovery UTV dealer as soon as possible. DO NOT START THE ENGINE! Immersion of the XYUTV1000 can cause serious damage if the correct re-start procedure is not followed.

**Cargo**

The vehicle handling, stability and braking distance are affected when loading cargo and using the vehicle. Correct loading and weight distribution are therefore important. Never overload, tow or carry cargo improperly. Always ensure the cargo is safely secured and properly distributed before operating the vehicle. Safely reduce speed according to terrain conditions when carrying cargo. Allow greater distance for breaking. Always secure cargo as low as possible to reduce the effect of a higher center of gravity. Failure to follow the recommendations here could cause changes in vehicle handling which could lead to an accident resulting in severe injuries including the possibility of death.

**Transportation**

When transporting a vehicle, secure vehicle to trailer or in pickup box with suitable tie-downs.
Using ordinary ropes is not recommended. Never tip this vehicle on end for transporting. We recommend that you carry the vehicle in its normal operating position (on all four wheels).
Shift the transmission to gear 1st or reverse. Secure the vehicle by the front bumper and rear bumper. Secure other locations may damage the vehicle.

CAUTION: Don't tow this vehicle behind a car or other vehicle. Use a trailer.

## MAINTENANCE CHART

The maintenance is very important, if you are not familiar with safe service

practices and adjustment procedures, see your authorized Discovery UTV dealer.

| **LUBRICATION AND MAINTENANCE CHART**<br>I: Inspect, verify, clean, adjust, lubricate, replace if necessary<br>C: Clean<br>L: Lubricate<br>R: Replace | **INITIAL INSPECTION 10 h or 30 daysOR 300 km (185 m.)** | **EVERY** | | | | **TO BE PERFORMD BY** |
|---|---|---|---|---|---|---|
| | | **25 h OR 750 km (470 m.)** | **50 h OR 1500 km (930 m.)** | **100 h OR 1YEAR OR 3000 km (1865 m.)** | **200 h OR 2 YEARSOR 6000 km (3730 m.)** | |
| **ENGINE/TRANSMISSION** | | | | | | |
| Engine/transmission oil and filter ④ | I | | R | | | CUSTOMER |
| Engine/transmission oil strainer cleaning | | | | | C | DEALER |
| Valve adjustment | I | | | I | | DEALER |
| Engine mount fasteners | I | | | I | | DEALER |
| Exhaust system | I | | | **I** | | DEALER |
| ECUI | | | | **C** | | CUSTOMER |
| Condition of seals | I | | | **I** | | DEALER |
| Coolant ④ | I | | | ② | **R** | CUSTOMER |
| Radiator cap/cooling system pressure test | I | | | | **I** | DEALER |
| Radiator condition/cleanliness (radiator fins) ③ | I | | **I** | | | CUSTOMER |
| Drive belt | | | | **I** | | CUSTOMER |
| Front and rear differential | I | | **I** | | | DEALER |
| **FUEL SYSTEM** | | | | | | |
| Air filter ④ | | **C** | | **R** | | CUSTOMER |
| Fuel lines and connections | I | | | **I** | | DEALER |
| **ELECTRICAL SYSTEM** | | | | | | |
| Spark plug | I | | | **R** | | DEALER |
| Battery connections | I | | **I** | | | CUSTOMER |
| Wiring harnesses, cables and lines | I | | | **I** | | DEALER |
| Condition of ignition switch, start button and engine stop switch ④ | I | | | **I** | | CUSTOMER |
| Condition of lighting system (HI/LO intensity, brake light, headlamp aiming, etc.) ④ | I | | | **I** | | CUSTOMER |
| 2WD/4WD Switch | I | | | I | | |

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| **DRIVE TRAIN** | | | | | | |
| Front drive shaft | | | I | | | DEALER |
| Rear drive shaft | | | I | | | DEALER |
| Front output shaft | | | | | | DEALER |
| Rear output shaft | | | | I | | DEALER |
| Wheel bearings condition | | | | I | | CUSTOMER |
| **STEERING/CONTROL SYSTEMS** | | | | | | |
| Steering wheel fasteners | | | | I | | DEALER |
| Throttle/housing/cable ④ | I | | I | | | CUSTOMER |
| Choke condition ④ | I | | I | | | CUSTOMER |
| Steering system ③ | I | | | I | | DEALER |
| Tie rod ends | | | I | | | DEALER |
| Wheel nuts/studs | I | | I | | | CUSTOMER |
| Wear/pressure of tires ④ | EVERY RIDE | | | | | CUSTOMER |
| Front wheels alignment | I | | | I | | DEALER |
| **SUSPENSION** | | | | | | |
| Trailing arms ④ | | | | I | | DEALER |
| Shock absorbers ④ | | | I | | | DEALER |
| A-arms | | | I | | | CUSTOMER |
| **BRAKE** | | | | | | |
| Brake fluid front/rear ④ | I | I | | | R ⑤ | CUSTOMER |
| Brake pads | | I | | | | CUSTOMER |
| Brake system (discs, hoses etc.) | | | | I | | CUSTOMER |
| **BODY/FRAME** | | | | | | |
| Engine compartment | C | | C | | | CUSTOMER |
| Frame | | | | I | | DEALER |
| Chassis fasteners | | | I | | | CUSTOMER |
| Seat fastener | EVERY RIDE | | | | | CUSTOMER |
| Vehicle cleaning and protection | | | C | | | CUSTOMER |

① To be performed by an authorized Discovery UTV dealer. The initial maintenance is very important and must not be neglected.

② Every 100 hours, check coolant strength and pressure.
③ More often under severe use such dusty area, sand, snow, wet or muddy conditions.
④ Pre-ride inspection item.
⑤To be performed by an authorized Discovery UTV dealer.

# MAINTENANCE

While reading this Operator's Guide, remember that:

**⚠ WARNING**

Indicates a potential hazard that, if not avoided, could result in serious injury or death.

**⚠ WARNING**

Unless otherwise specified, engine should not be running for all maintenance procedures.

**⚠ WARNING**

Should removal of a locking device (e.g. lock tabs, self-locking fasteners, etc.) be required when undergoing disassembly/assembly, always replace with a new one.

The following covers the maintenance items that can be performed by the customer if desired. Other items found in maintenance chart must be performed by an authorized Discovery UTV dealer.

NOTE: Among other things, this section gives the procedures to replace the liquids. Refer to LIQUIDS for procedures to check levels and refill.

## Engine/Transmission/front and rear differential Oil Change and Oil Filter Replacement

Oil and filter are to be replaced at the same time. Oil change should be done with a warm engine.

**WARNING**

The engine oil can be very hot. To prevent burning yourself, do not remove the engine drain plug or the filter cover if the engine is hot. Wait until engine oil is warm.

Ensure vehicle is on a level surface.
Remove dipstick.
Clean the oil drain plug area.
Place a drain pan under the oil drain plug area.
Unscrew oil drain plug.
Allow enough time for oil to flow out of oil filter.

Oil drain plug

Unscrew the original oil filter cover, replace with a new one.
NOTE: Check the cover O-ring and change it if necessary.

Wipe out any oil spillage on engine.
Change gasket on oil drain plug. Clean gasket area on engine and oil drain plug then reinstall plug. Refill engine at the proper level with the recommended oil. Refer to SPECIFICATIONS for capacity.
Start engine and let idle for a few minutes. Ensure oil filter area and oil drain plug areas are not leaking. Stop engine. Wait a while to allow oil to flow down to crankcase then check oil level. Refill as necessary.
Dispose of oil as per your local environmental regulations.

**Oil Strainer Replacement**
The oil strainer must be cleaned every 200 hours or every 2 years or every 6000 km. Contact an authorized Discovery UTV dealer.

**Coolant Replacement**

To prevent burning yourself, do not remove the radiator cap or loosen the coolant drain plug if the engine is hot.

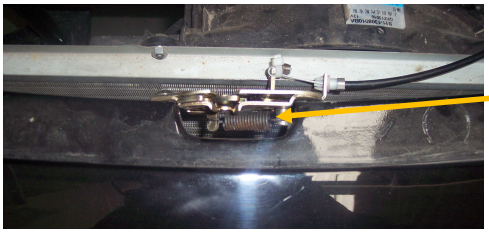
Fill the coolant, Open the access panel and remove reservoir cap.

Reservoir cap

Remove the right engine cover. Unscrew the coolant drain plug and drain the coolant into a suitable container.
Replace coolant, Disconnect the engine temperature sensor connectors, then unscrew the bleeding screw on the top of thermostat housing.
Drain the system completely and reinstall the coolant drain plug. Fill the radiator until the coolant comes out by the thermostat housing hole. Install the bleeding screw then remove the hose pincher. Complete the radiator filling.
Check the level in the coolant reservoir and refill if necessary.
Run engine at idle with the radiator cap off. Slowly add coolant if necessary. At this point, wait until engine reaches normal operating temperature. Depress the throttle lever two or three times; then add coolant if required. Install radiator cap. Inspect all connections for leaks and check coolant level in the reservoir.

**Valve Adjustment**
See an authorized Discovery UTV dealer for valves adjustment. Insufficient clearance will cause loss of power and possibly damage the valves. Excessive clearance will cause noise.

**Radiator**
Periodically check the radiator area for cleanliness.




Inspect radiator fins. They must be clean, free of mud, dirt, leaves and any other deposit that would prevent the radiator to cool properly.
Remove as much deposits as you can with your hands. If water is available in proximity, try rinsing the radiator fins. If available, use a garden hose to rinse the radiator fins.

**WARNING**

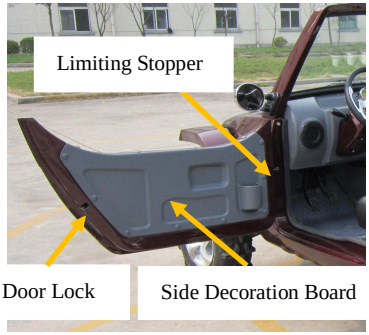
Never clean radiator with your hands when it is hot. Let the radiator cool down before cleaning.

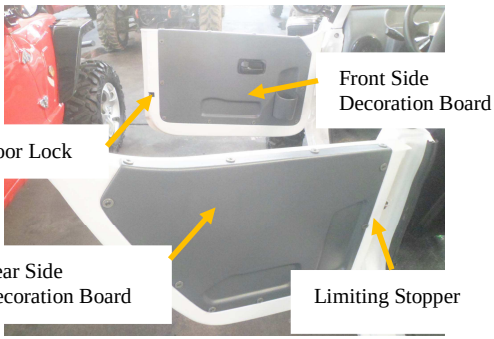
CAUTION: Be careful not to damage the radiator fins when cleaning. Do not use any object/tool that could damage the fins. The fins are purposely thin parts to allow efficient cooling. WHEN HOSING, USE LOW PRESSURE ONLY, NEVER USE A HIGH PRESSURE WASHER.
See an authorized Discovery UTV dealer to check the performance of the cooling system.

## Door System

Outside Door Handle

Inside Door Handle




Due to this car is open type,both sides of the door can be opened and closed by a open handle.

1. pull the open handle or the inside handle gently,you can open the door.
2. Push inside the door and loose the open handle gently,you can close the door.

CAUTION:

1. if the lock of the door is broken,you can loose the screws on the trim panels then open the trim panels to repair it.
2. Don’t pressure on the door when it is opened,otherwise the door will be destroyed.

## Air Intake System

**Air Filter Cleaning/Draining**
Periodically inspect air filter box drain tube for water or deposits.

NOTE: If vehicle is used in dusty area, inspect more frequently than specified in MAINTENANCE CHART. If water/deposits are found, squeeze and remove the clamp. Pull drain tube out.
CAUTION: Do not start engine when water is found in the drain tube.
When water/deposits are found, the air filter must be inspected/dried/replaced depending on its condition.
Remove air filter as explained below.

Air Filter Removal

CAUTION: Never remove or modify any component in the air filter box. Otherwise, engine performance degradation or damage can occur. The engine carburetion is calibrated to operate specifically with these components. remove seat, release clamps and remove air filter box cover.
Pour cleaning solution into a bucket. Put the filter in to soak. While filter soaks, clean inside the air box. Rinse the filter with warm water until all cleaning solution disappears. Then, let the filter dry completely. When the filter is dried, re-oil with air filter oil.

Air Filter Installation
Properly reinstall removed parts in the reverse order of their removal.

## Electrical

### Battery

**WARNING**

Never charge a battery while installed in vehicle.

Clean battery post with a wire brush. Apply dielectric grease on post to protect against oxidation.

### Fuses

If a fuse is damaged, replace it by one of the same rating.
**CAUTION:** Do not use a higher rated fuse as this can cause severe damage.
To remove fuse from holder, remove the fuse holder cover then pull fuse out. Check if filament is melted.

### Bulb Replacement

Always check light operation after replacement.
CAUTION: Never touch glass portion of a halogen bulb with bare fingers, it shortens its operating life. If glass is touched, clean it with isopropyl alcohol which will not leave a film on the bulb.

## Drive Train

### Drive Shaft Boot/Protector

Inspection
Visually inspect drive shaft protectors and boots conditions. Check protectors for damage or rubbing against shafts. Check boots for cracks, tears, leaking grease etc. Repair or replace damaged parts as necessary.

### Wheel Bearing Condition

Push and pull the wheels from the upper edge to feel the play. See an authorized Discovery UTV dealer if there is any play.

Wheel
Occasionally, wheel nuts should be removed to apply anti-seize lubricant on studs to ease future removal. This is particularly important when vehicle is used in salt-water environment or in mud. Remove one nut at a time, lubricate then retorque.

**Tires/Wheels**
Tire Pressure

**WARNING**

Tire pressure greatly affects vehicle handling and stability. Under pressure may cause tire to deflate and rotate on wheel. Overpressure may burst the tire. Always follow recommended pressure. Since tires are low-pressure types, a manual pump should be used.

Check pressure when tires are “cold” before using the vehicle. Tire pressure changes with temperature and altitude. Recheck pressure if one of these conditions has changed.
For your convenience, we suggest you to put a pressure gauge in tool box.

| TIRE PRESSURE | | | | |
|---|---|---|---|---|
| TYPE | STREET TIRE | | OFF ROAD TIRE | |
| RECOMMENDED | FRONT | REAR | FRONT | REAR |
| | 200 kPa | 225 kPa | 45 kPa | 50 kPa |
| MINIMUM | 180 kPa | 200 kPa | 40 kPa | 45 kPa |

Although the tires are specifically designed for off-road use, a flat may still occur. Therefore, it is recommended to carry a tire pump and a repair kit.

**Tire/Wheel Condition**
Check tire for damage and wear. Replace if necessary.
Do not rotate tires. The front and rear tires have the same size. The tires are directional and their rotation must be kept in a specific direction for proper operation.

Wheel Removal

Loosen nuts then lift vehicle. Place a support under vehicle. Remove nuts then remove wheel.
At installation, it is recommended to apply anti-seize lubricant on threads.
Gently tighten nuts in a criss-cross sequence then apply a final torque of 120 N•m.


**CAUTION:** Always use the recommended wheel nuts. Using a different nut could cause damages to the rim.

The throttle cable, clutch cable and transmission cable must be lubricated with cable lubricant or an equivalent.

**WARNING**

Using another lubricant could cause bad working of throttle lever/cable.

**WARNING**

Always wear eye protection and gloves when you lubricate a throttle cable, clutch cable and transmission cable.

NOTE: Place a rag around the throttle cable, clutch cable and transmission cable adjuster to prevent the lubricant

from splashing.

Reinstall and adjust the throttle cable, clutch cable and transmission cable With the parking lever on PARK position, start the engine. Check if the throttle cable is adjusted correctly by pressing the throttle pedal. If the engine RPM increases, readjust the throttle pedal free play.

Front suspension

Rear suspension

# Suspension

## Lubrication

Lubricate front A-arms. Use synthetic grease. There is two grease fittings on each A-arm.

**Inspection**

Front Suspension

Inspect the struts for oil leaks or other damages. Check tightness of fasteners. See an authorized Discovery UTV dealer as necessary.

Rear Suspension

Inspect shock absorber for oil leaks and fasteners for tightness. See an authorized Discovery UTV dealer as necessary.

A-arms

Check A-arms for cracks, bending or other damages. See an authorized Discovery UTVdealer as necessary.

**Adjustment**

Shocks

**WARNING**

Left and right adjustment cams must always be set to the same position. Never adjust one adjusting cam only. Uneven adjustment can cause poor handling and loss of stability, which could lead to an accident.

Preload Adjustment

Adjust spring preload by turning adjusting cam accordingly, with the adjusting wrench in vehicle tool box. Turn the adjusting cams clockwise for a firmer ride and rough road condition or when carrying cargo or pulling a trailer. Turn the adjusting cams counterclockwise for a light load and a smooth road condition.

## Brake

### Front and Rear Brakes

The front and rear brakes are hydraulic disc types. These brakes are self-Adjusting and require no adjustment. The brake lever and the brake pedal require no adjustment.

Check the following to keep the brakes in a good operating condition:

– brake system for fluid leaks
– brake for spongy feel
– brake discs for excessive wear and surface condition
– brake pads for wear, damage or looseness.

| SERVICE LIMIT | |
|---|---|
| Brake pads thickness | 1 mm |
| Front discs thickness | 10 mm |
| Rear disc thickness | 10 mm |
| Maximum discs warpage | 0.5 mm |

### Brake Fluid Replacement

**WARNING**

The brake fluid replacement or any brake system repairs should be performed by an authorized Discovery UTVdealer.

Body/Frame

Engine area

Check engine area for any damage and leaks. Ensure all hose clamps are properly secured and no hose is cracked, kinked or otherwise damaged.

Inspect muffler, battery and fastening devices.

Check electrical connections for corrosion and tightness, replace or have damaged parts repaired.

Hitch condition

Check tightness of fasteners and tightness/condition of hitch. properly retighten as necessary and replace the hook if worn

Chassis fastening piece

Check fastener condition and tightness on the vehicle. Retighten as required.

Seat fasteners

Remove seat and check latch mechanism and pin for wear, see an authorized Discovery UTVdealer for the parts replacement if damaged.

**Vehicle Cleaning and Protection**

Never use the high pressure washer to clean the vehicle USE LOW PRESSURE ONLY (like a garden hose). The high pressure can cause electrical or mechanical damages.

Painted parts which are damaged should be properly repainted to prevent rust.

When required, wash the body with hot water and soap (only use mild detergent).

Apply non-abrasive wax.

CAUTION: Never clean plastic parts with strong detergent, degreasing agent, paint thinner, acetone, etc.

# TROUBLESHOOTING

| SYMPTOM | | POSSIBLE CAUSES | WHAT TO DO |
|---|---|---|---|
| | **a, Starting motor doesn't work** | Weak battery or loose connections. | Charge it or connect it well |
| | | Circuit disconnection | Repair |
| | | Starting motor is defective | Repair or replace |
| | **b,** Spark too weak/no spark | Ignition coil is defective | Replace |
| | | The spark plug burnt or insulator damage | Replace |
| | | The spark plug electrode/clearance is improper | Purge accumulated carbon or Adjust clearance |
| | | Coil wire is defective or disconnection | Replace or adjust |
| | | Ignition timing is not right | adjust |
| | **c, Damage fuel supply system** | Fuel pump doesn't working | Check plug or replace |
| | | Plugged/worn oil pipe | purge |
| | | Plugged oil filter | Replace |
| | | combination gas too thick or thin | Check intake pressure/plug of air throttle senor, or replace senor |
| | | Cylinder flood | looseRemove spark plug and pluck spark loop charge, release the oil when start the vehicle |
| | **d, Insufficient cylinder pressure** | Cylinder gasket is defective | Replace |
| | | improper valve clearance | Adjust |
| | | Valve and valve seat is not sealed well | Repair |
| | | The base of intake pipe leakage | Repair |
| | | Piston ring/cylinder port wear off badly | Replace |
| | | Insufficient cylinder pressure | As 1 (d) |

| | | |
|---|---|---|
| **2 Under power** | Insufficient oil supply | As 1 (c) |
| | Spark too weak | As 1 (b) |
| | Air throttle senor is defective | Check plug or replace |
| | Intake pressure senor is defective | Check plug or replace |
| | Spark timing is defective | Check timing, measure cylinder Pressure/sealing of air throttle |
| **3 Overheating** | Water pump is defective | Replace |
| | Fan is defective | Replace or adjust plug |
| | Insufficient cooling liquid/ plugged hose | Refill cooling liquid or purge water pipe |
| | Thermostat doesn't working | Replace |
| | Excessive accumulated carbon in chamber | Purge accumulated carbon |
| | Insufficient/excessive/thin oil | Adjust surface of oil |
| | Spark timing too early or late | Readjust |
| | Clutch slip | Repair or replace |
| **4 Backfire** | Spark timing too late | Adjust |
| | Overheating | As 3 |
| | Thin gas mixture | Check the base of intake pipe leakage |
| | Insufficient oil supply | Check oil filter or replace oil pump |
| | Valve leakage | Adjust clearance or check timing after grind valve |
| | Coil wire is defective | replace |
| **5 Abnormal sound inner** | Spark timing too early | Adjust & check cylinder pressure |
| | Excessive accumulated carbon in chamber | purge |
| | Main shell and connecting rod wear off badly | Replace or repair |

| | | |
|---|---|---|
| | Cylinder/piston/piston pin wear off badly | Replace or repair |
| | Piston ring& edge wear Off badly | Replace |
| | Excessive valve clearance | Adjust |
| | Thrust half-ring wear off badly | Replace |
| **6 Excessive oil consumption** | Worn oil sealing of valve pipe | Replace |
| | Piston pin spring is weak or the opening is not be cross-set | Replace or adjust |
| | Worn cylinder port | Repair |
| | Air vent system of crankcase plugged | purge |
| **7 Insufficient oil pressure** | Insufficient or excessive oil | Supply or decrease • |
| | Oil overheating | Repair cooling system |
| | Oil too thin | Replace |
| | Oil pipe leakage | Repair or replace |
| | Oil filter plugged | Purge or replace |
| | Oil pressure senor is defective | Replace |
| **8 Blow of exhaust pipe** | Exhaust valve is not sealed | Grind valve |
| | Spark too late | adjust angle of spark and then check cylinder pressure |
| **9 No idle speed** | Intake pipe leakage | Adjust or replace |
| | accumulated carbon/clearance the spark plug is improper | Adjust |
| | Spark timing is too early | Adjust |
| | Throttle valve is defective | Adjust/replace air throttle positioning senor plug or change it , adjust idle stepper motor plug or replace |
| | Fuel supply not smooth | purge |

| | | |
|---|---|---|
| **10** Dynamo default/ **not working** | Rotor/stator loop open circuit/short circuit/connect iron | Replace or repair |
| | rectifying tube burnt/open circuit/short circuit | Replace or repair |
| | Necking insulate is defective， lead line cut off | Replace or repair |
| **11** Dynamo **under power** | Ring header is defective | Replace |
| | Electric brush disconnection, oil stain is on slip ring | Purge oil stain |
| **12** Dynamo has abnormal sound | Loose/noise bearing | Replace or fill lubrication grease for adjusting |
| | rotor and stator collision | Adjust |
| | Ring header is short circuit | Replace |
| | Stator winding is short circuit | Replace |
| **13 Clutch slip** | Oil stain is on friction piece | Remove or purge |
| | Friction piece wear off badly | Replace |
| **14** The clutch is shaking with noise | Worn/not free separation bearing | Replace/adjust lubrication grease for purging |
| | Worn/not free first bearing | Replace |
| | Loose clutch spline hub | Repair |
| | Loose platen/membrane spring | Repair or replace |
| | Flaw is on clutch platen | Replace |
| | Worn clutch absorber spring | Replace |

SPECIFICATIONS

| VEHICLE MODEL | XYUTV1000<br>2x4\4x4 |
|---|---|
| ENGINE | SQR472 |
| Type | Vertical， 4-cylinder, liquid cooled, 4- stroke, DOHC |
| Number of cylinder | 4 cylinder |
| Number of valve | 16 valves |
| Displacement | 1000 cc |
| Bore Standard | 72 mm |
| Stroke | 61.4 mm |
| Compression ratio | 9.5:1 |
| Lubrication | combined type (Force & Splash) |
| Air filter | 2 stage foam filter |
| Transmission system | |
| Transmission | Manual |
| COOLING | |
| Type | Liquid cooled(Water) |
| Radiator | Front mounted with thermostatic fan |
| Carburetor system | |
| EFI SYSTEM | Simens VDO electronic control jet injection system |
| Idle speed | 800-900r/min |
| ELECTRICAL | |
| Magneto generator make and ype | Denso, 400 W @ 6000 RPM |
| Ignition type | ECU (electric control unit) |
| Ignition timing | Not adjustable |
| Number of spark plug | 4 |
| Spark plug | NGK DCPR8E F6RTC |
| Battery | 12 V, 36 Ah |
| Starting system | Electric start,<br>Start on neutral |
| Headlamp | 2 x 35 W |
| Taillight | 2X5 /21W |
| Pilot lamp cluster | LED, 0.7 V approx. (each) |
| FUSES | |
| Accessories | 15 A (power outlet and auxiliary supply) |

| | | | |
|---|---|---|---|
| Fan | | 20A | |
| Main | | 30 A | |
| DRIVE TRAIN | | | |
| Rear axle | | Shaft driven | |
| SUSPENSION | | | |
| Front | Type | Independent suspension — Dual A Arm | |
| | Load | | |
| Rear | Type | Independent suspension — Dual A Arm | |
| | Load | | |
| TIRES | Type | Off road tire (recommended) | Street tire (recommended) |
| | Front | 45 kPa | 200 kPa , |
| | Rear | 50 kPa | 225 kPa , |
| Size | Front | 27 x 8-14(Off road tire) or 24 x 8-14 (Street tire) | |
| | Rear | 27 x 11-14(Off road tire) or 24 x10-14(Street tire) | |
| Wheel nut torque | | 120 N•m (88 lbf•ft) | |
| BRAKES | | | |
| Front | | Hydraulic, 2 discs | |
| Rear | | Hydraulic, 2 discs | |
| LIQUIDS | | | |
| Oil type | engine | SAE 10W/30, 4-stroke mineral-based engine oil. 2.3L | |
| | transmission | GL-4 75W/90, The load gear oil，2.0L | |
| | Front and Rear differential(only 4WD) | GL-4 75W/90, The load gear oil，450ml and 450ml | |
| Coolant | | Ethylene-glycol/water mix (50% coolant, 50% water). Use coolant specifically designed for aluminum engines. | |
| Fuel | Type | Regular unleaded gasoline | |
| | Model | 93 or higher | |
| Hydraulic brake | | Brake fluid, , DOT 4 | |
| Propeller shaft joint grease | | SHELL Alvania EP-2 only | |
| CAPACITIES | | | |
| Fuel tank | | 23L | |
| Coolant | | 8.5 L | |