ATV
PREDELIVERY
Bulletin

October 24, 2008 Subject: **Can-Am™ DS 450™ EFI Predelivery Inspection** No. **2009-5**

YEAR	MODEL	MODEL NUMBER	CE MODEL NUMBER	SERIAL NUMBER
2009	DS 450 EFI	3F9A / 3F9B / 3F9C / 3F9D	3F9F	All
	DS 450 EFI X™ xc	3G9A / 3G9B	---	
	DS 450 EFI X™ mx	3H9A / 3H9B	3H9C	

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IMPORTANT NOTICE

This bulletin must be used in conjunction with check list enclosed in bag with *OPERATOR'S GUIDE*. Make sure that *PREDELIVERY CHECK LIST* is completed and **signed by customer and dealer.**

⚠ WARNING

To obtain limited warranty coverage, predelivery procedures must be performed by an authorized BRP ATV dealer/distributor. Apply all necessary torques as indicated.

NOTE: The information and components/system descriptions contained in this document are correct at time of publication. Bombardier Recreational Products Inc. (BRP) however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured.

Due to late changes, there might be some differences between manufactured product and descriptions and/or specifications in this document. BRP reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations in this document show **typical** construction of different assemblies and may not reproduce full detail or exact shape of parts. However, they represent parts that have same or similar function.

Content of this bulletin is designed as a guideline only. **All mechanics performing predelivery procedures should have attended current model year service training.**

All adjustments have already been performed at factory, it is only necessary to validate them. However, if readjustment is needed, refer to the appropriate *ATV SHOP MANUAL* for the proper procedure.

Further information or inquiries should be directed to your distributor service representative and/or specific *SHOP MANUAL* sections.

Please complete *PREDELIVERY CHECK LIST* for each vehicle and retain a customer signed copy.

Make sure customer receives *OPERATOR'S GUIDE*, *PREDELIVERY CHECK LIST* signed copy and *SAFETY DVD*.

There is a tag attached to ignition key, only customer must remove it. This label will remind customer to ask dealer/distributor to perform suspension adjustments according to riding style and vehicle load.

⚠ WARNING

Torque wrench tightening specifications must strictly be adhered to. Locking devices (e.g.: locking tabs, cotter pin, etc.) must be replaced with new ones.

UNCRATING

⚠ WARNING

Never stand at front or at rear of the vehicle while straps are being cut.

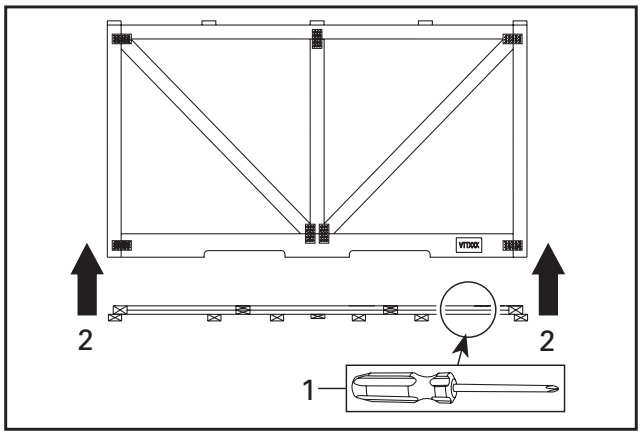
NOTICE Allowing the crate to drop may cause serious damages to vehicle.

NOTICE While manipulating to cut, take care not to damage trim components with blade.

NOTICE Never tip cover toward the front or rear of the vehicle while lifting it.

NOTE: Screws that are used are Robertson† #2 type that require the use of an appropriate bit (Scrulox #2 from Snap-on†† Tools or ECAR.1 from Facom††† Tools).

1. Carefully lay the crate on its bottom.
2. Remove all screws retaining crate cover to crate base.
3. Assisted by another person, lift up crate cover.
4. Raise cover vertically from both ends at the same time.



1. Screw
2. Lift up crate cover

5. Remove protective wrapping from the vehicle.
6. Remove boxes from crate base.
7. Remove parts and equipments from crate base.
8. Remove straps, hooks and brackets retaining vehicle to crate base.
9. Move vehicle out of the crate base.
10. Ensure that the crate includes the following items:

All Models except CE

ITEM	DESCRIPTION	QTY
1	First oil change kit	1

CE Models

ITEM	DESCRIPTION	QTY
1	First oil change kit	1
2	Mirror kit	1
3	Vehicle lock kit	1

NOTE: This vehicle comes with a hang tag and labels containing important safety information. Do not remove hang tag from vehicle, they are considered permanent parts of the vehicle.

PARTS TO BE INSTALLED

Battery

⚠ WARNING

Always connect RED positive cable first and then BLACK negative cable.

⚠ **CAUTION** Never charge or boost battery while installed on vehicle.

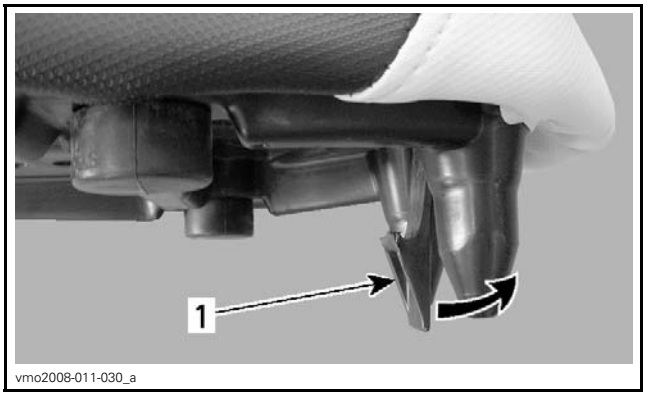
NOTICE Always charge battery before its installation on the vehicle.

NOTICE Make sure not to squeeze battery cables between vehicle components.

Battery Installation

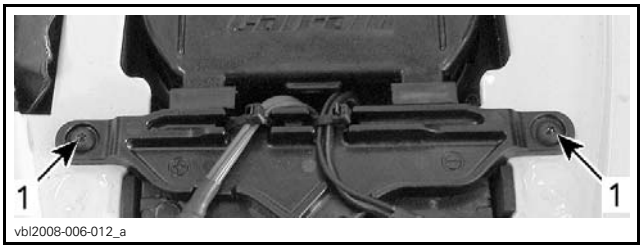
1. Refer to the latest edition of *CAN-AM ATV BATTERIES SERVICE BULLETIN NO. 2009-1* for proper activating, charging and maintenance procedures.
2. Remove seat from vehicle.

† Robertson is a registered trademark of Robertson Inc.
†† Snap-on is a trademark of Snap-on Inc.
††† FACOM is a brand of the International tools Group, subsidiary of FIMALAC.



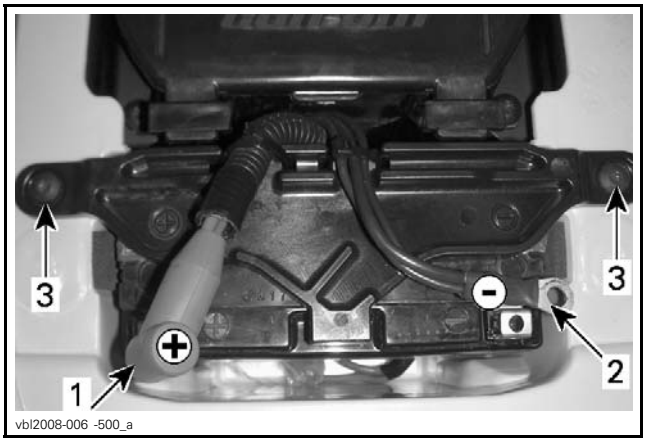
1. Seat latch

3. Remove battery from vehicle.



1. Battery holder retaining bolts

4. Charge battery. Refer to *CAN-AM ATV BATTERIES SERVICE BULLETIN NO. 2009-1*.
5. Install charged battery on vehicle.
6. Connect RED positive cable to positive battery post.
7. Connect BLACK negative cable to negative battery post.



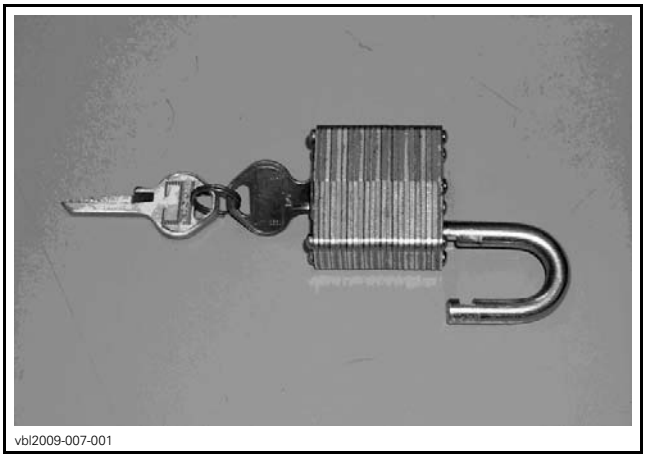
1. RED (positive cable)
2. BLACK (negative cable)
3. Battery holder retaining bolts

8. Apply dielectric grease (P/N 293 550 004) on battery posts.
9. Cover positive post with rubber boot.

Vehicle Lock

For the European Community models, a locking device is required to avoid vehicle from moving when needed. This locking device is located inside a bag in the crate. Refer to the following picture.

Refer to the Operator's Guide for locking device operation procedure.



Accessory Installation

1. Install accessories (if any) as per their installation instructions (included in each kit).

Equipment Required by Local Law

1. Install any other equipment required by local law (if any). Such as:
   - Mirrors
   - Flag holder
   - Etc.

Vehicle Decals

1. Install decals on vehicle according to customer country language and local legislation.
2. Ensure that the new decals are installed at the same location and over the factory installed decals.

FLUIDS

General Guidelines

All fluids (except fuel) have already been filled at factory, it is only necessary to validate them. However, if refill is needed, refer to the appropriate *ATV SHOP MANUAL* for the proper procedure.

Fuel

1. Add fuel in the fuel reservoir.

Recommended Fuel

Use Premium unleaded gasoline or gasohol containing less than 10% of ethanol or methanol, available from most service stations.

COUNTRY	MINIMUM OCTANE NUMBER
NORTH AMERICA	91 octane (RON + MON) / 2
OUTSIDE NORTH AMERICA	95 RON

⚠ WARNING

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.

NOTICE **Never experiment with other fuels. The use of non-recommended fuels can result in vehicle performance deterioration and damage to critical parts in the fuel system and engine components.**

NOTICE **Do not mix oil with fuel.**

Engine Oil

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.**

NOTE: The same oil lubricates both engine and transmission.

Important Notice

The Can-Am DS 450 is the most advanced sport ATV and it has been designed using the latest technology all the way down to its synthetic multilayer oil filter and break-in oil.

Change engine break-in oil and filter after using **3 fuel tanks or 5 hours of riding (whichever comes first)** to maintain the DS 450 at the highest level of performance.

Recommended Engine Oil

Use XP-S SUMMER GRADE OIL (P/N 293 600 121).

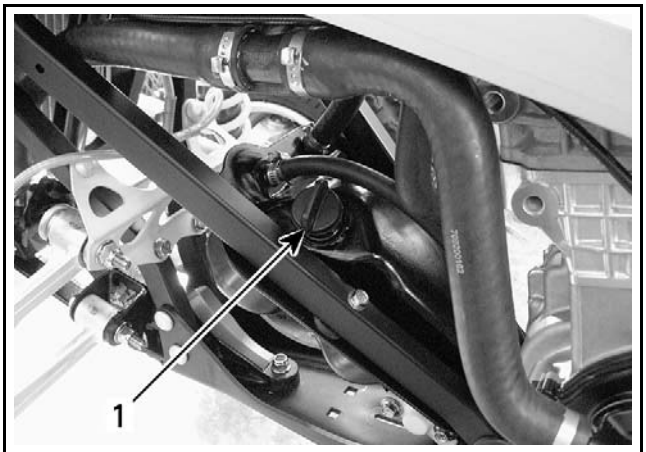
NOTE: The XP-S SUMMER GRADE OIL is specially formulated and tested for the severe requirements of this engine.

If not available, use a 5W 40 oil formulated for wet clutch type gearbox.

NOTICE **The engine oil must be thoroughly tested to be free of any additives that could impair the functionality of the clutch. Do not use a motor oil meeting the API service SM or ILSAC GF-4 classification. Clutch slippage will occur.**

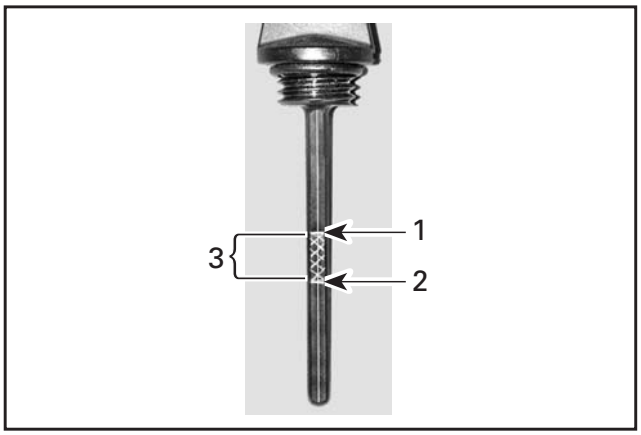
Engine Oil Level Verification

1. Park vehicle straight on a level surface.
2. Start engine and let it run for at least 1 minute.
3. Stop engine and let it stand for at least 1 minute.
4. Unscrew and remove oil dipstick.



LH SIDE OF VEHICLE
1. Oil Dipstick

5. Wipe dipstick.
6. Reinstall and screw in the dipstick completely.
7. Unscrew and remove the dipstick.
8. Check oil level as per the following illustration.



TYPICAL - OIL DIPSTICK
1. *Full*
2. *Add*
3. *Operating Range*

9. Ensure that oil level is between ADD and FULL marks.
10. If necessary, add recommended engine oil.
11. Reinstall and screw in the dipstick completely.

NOTE: Do not overfill.

Engine Coolant

⚠ WARNING

In order to avoid potential burns, do not remove the coolant tank cap if the engine is hot.

⚠ WARNING

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

NOTICE Do not overfill coolant reservoir.

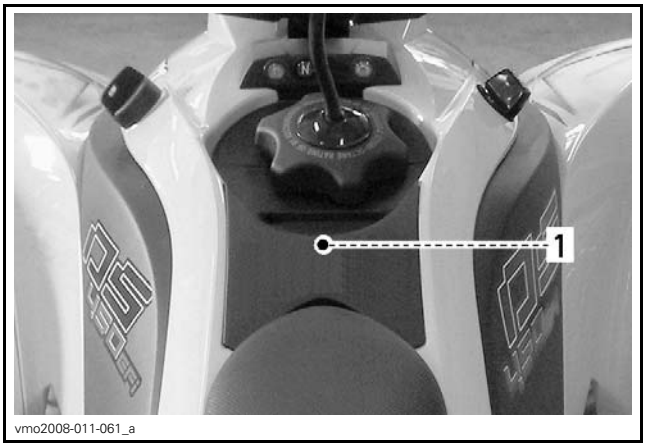
Recommended Coolant

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) or with BRP premixed coolant (P/N 219 700 362).

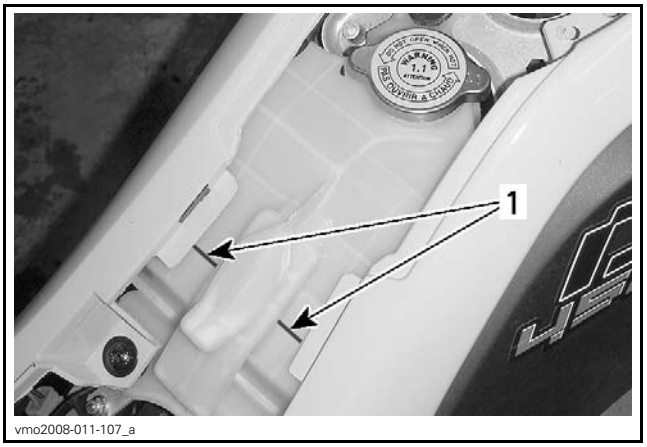
Coolant Level Verification

1. Park vehicle straight on a level surface.
2. Remove seat.
3. Remove fuel tank cap.
4. Remove access cover.



1. *Access cover*

5. Check coolant reservoir level.
6. Ensure that fluid reaches the level marks (small ribs).



1. *Level marks (small ribs)*

7. If necessary, add recommended coolant.
8. Reinstall access cover.
9. Reinstall fuel tank cap.
10. Reinstall seat.

NOTE: Coolant may be slightly lower when checking level at temperature lower than 20°C (68°F).

NOTE: Do not overfill coolant reservoir.

Brake Fluid

NOTICE Always use brake fluid meeting the specification DOT 4 from a sealed container.

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

NOTICE Be sure to clean reservoir caps before removing it to avoid contaminating the oil.

NOTICE Be careful not to damage the diaphragm while removing and installing handlebar reservoir caps.

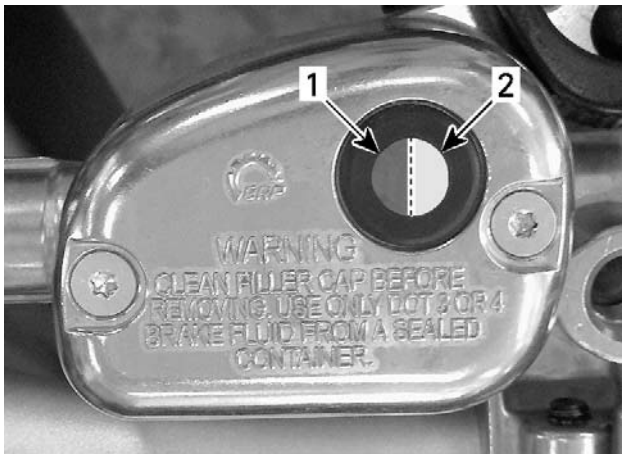
NOTICE Do not overfill brake fluid reservoir.

Recommended Fluid

Use GTLMA (DOT 4) (P/N 293 600 062) from a sealed container.

Brake Lever Fluid Level Verification

1. Park vehicle straight on a level surface.
2. Turn steering in the straight-ahead position to ensure reservoir is level.
3. Check brake fluid level in reservoir.
4. Ensure that the window is dark (FULL).

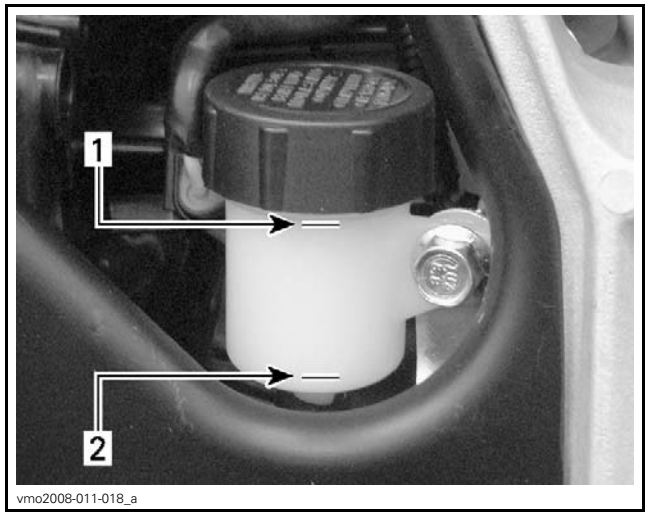


BRAKE LEVER RESERVOIR
1. Dark window
2. Clear window

5. If window is clear, add recommended brake fluid.

Brake Pedal Fluid Level Verification

1. Park vehicle straight on a level surface.
2. Check the brake fluid level.



RH SIDE OF VEHICLE
1. MAX. mark
2. MIN. mark

3. Ensure that fluid is between MIN. and MAX. marks.
4. If necessary, add recommended brake fluid.

SET UP

Tire Pressure

NOTICE For transportation purpose, tires are deflated at the factory, make sure to inflate them at the recommended air pressure before riding the vehicle.

NOTICE Always check pressure when tires are cold.

⚠ WARNING

Low pressure may cause tire to deflate and rotate on wheel. Overpressure may burst the tire. Always follow recommended pressure. Since tires are low-pressure type, a manual pump should be used.

NOTE: Tire pressure varies with temperature and altitude.

NOTE: A pressure gauge is supplied in the tool kit.

1. Inflate tires to the specified air pressure. Refer to the following tables.

DS 450, DS 450 X XC (AND DS 450 X MX CE)			
TIRE PRESSURE		FR	RR
Up to 100 kg (220 lb)	MAXIMUM	48 kPa (7 PSI)	
	MINIMUM	34.5 kPa (5 PSI)	

DS 450 X MX (ALL EXCEPT CE)			
TIRE PRESSURE		FR	RR
Up to 100 kg (220 lb)	MAXIMUM	69 kPa (10 PSI)	62 kPa (9 PSI)
	MINIMUM	55 kPa (8 PSI)	48 kPa (7 PSI)

Brake Disk Cleanup

1. Clean front and rear brake discs using pulley flange cleaner (P/N 413 711 809).

NOTICE A thin layer of anticorrosion product can be present on the brake disc and must be removed before using the vehicle. Not conforming to this procedure may lead to a brake chattering and the brake pads replacement would be necessary to solve the problem.

Protective Materials

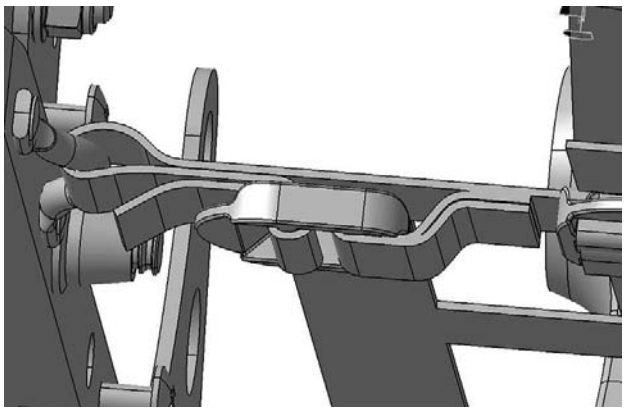
1. Ensure that all protective materials are removed from vehicle.

Nerf Bars

⚠ WARNING

Check for nets clearance by standing up on foot pegs and moving feet in all directions. Feet must not interfere with nerf bar nets; otherwise, serious injuries may occur.

1. Ensure all net straps are properly secured.



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ADJUSTMENTS

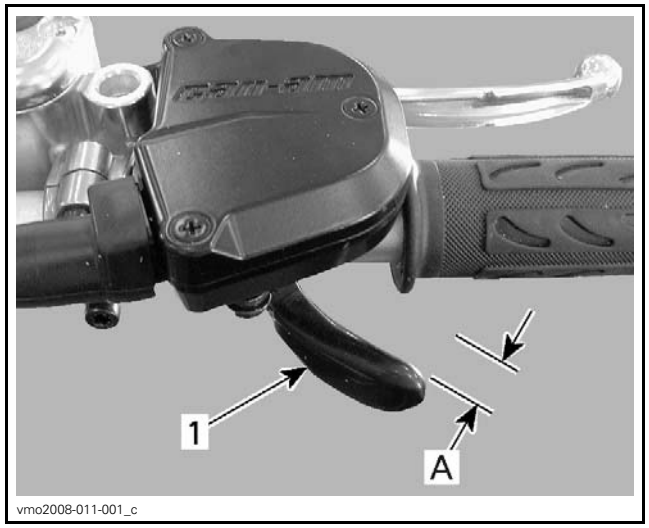
General Guidelines

All adjustments have already been performed at factory, it is only necessary to validate them. However, if readjustment is needed, refer to the appropriate *ATV SHOP MANUAL* for the proper procedure.

Throttle Lever

1. Verify that throttle lever is properly adjusted as per the following specification.

THROTTLE LEVER ADJUSTMENT	
Free play [A] (Measured at the tip of throttle lever)	2 to 4 mm (5/64 to 5/32 in)



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THROTTLE LEVER ADJUSTMENT
A. Free play of 2 to 4 mm (5/64 to 5/32 in))
1. Throttle lever

2. Adjust if required.

Drive Chain

⚠ WARNING

Place ignition switch to OFF before checking, adjusting or lubricating drive chain.

NOTICE Never operate this vehicle with the drive chain too loose or too tight as severe damage to the drive components can occur.

NOTE: This vehicle is equipped with O-ring sealed permanently greased pins and rollers chain.

Drive Chain Inspection

1. Inspect drive chain for:
   – Damaged rollers
   – Damaged or missing O-rings
   – Kinked or binding links
   – Rotated pins.

Drive Chain Cleaning and Lubrication

NOTICE Never wash the chain with a high pressure water, gasoline or solvent. Damage to the O-ring will result, causing premature wear and drive chain failure.

NOTICE Never use commercial chain lubricants containing solvent which could damage the O-rings.

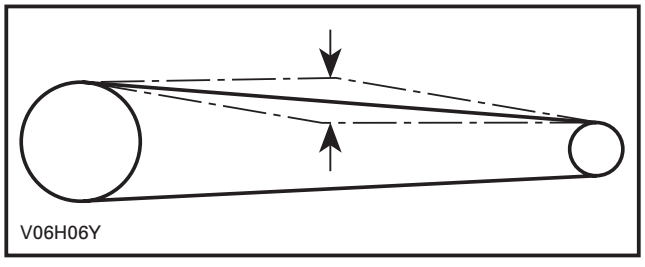
1. Clean the side surfaces of the chain with a dry cloth, do not brush chain.
2. Lubricate only with the BRP approved O-ring chain lubricant.

Drive Chain Free Play Verification

NOTICE Always check and adjust drive chain with the driver, or equivalent weight, seated on the vehicle.

1. Select a level surface and set transmission to NEUTRAL.
2. Ensure that the driver, or equivalent weight, is seated on the vehicle.
3. Check drive chain free play at midway between sprockets, on upper run of drive chain.
4. Drive chain free play must allow the following vertical movement by hand.

DRIVE CHAIN FREE PLAY	22 MM (7/8 IN)



CHAIN DEFLECTION

5. Adjust if required.

Drive Chain Adjustment Method

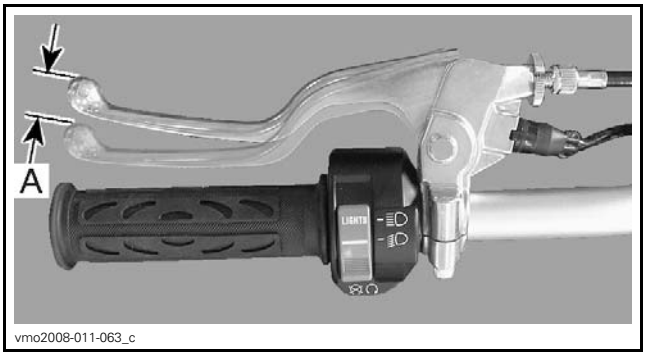
NOTICE There are 2 drive chain adjustment methods to adjust the drive chain free play for DS 450 vehicles. Always use the right method according to your model. Damage to the vehicle can occur if the drive chain is adjusted using a wrong method. Refer to the following table.

MODEL	ADJUSTMENT METHOD	CHAIN FREE PLAY
DS 450 DS 450 X xc DS 450 X mx CE	To decrease free play: **PULL** vehicle backwards	22 mm (7/8 in) at midpoint between sprockets
DS 450 X mx	To decrease free play: **PUSH** vehicle forward	

Clutch Lever

1. Verify that clutch lever is properly adjusted as per the following specification.

CLUTCH LEVER ADJUSTMENT	
Free play [A]	10 to 15 mm (3/8 to 5/8 in)

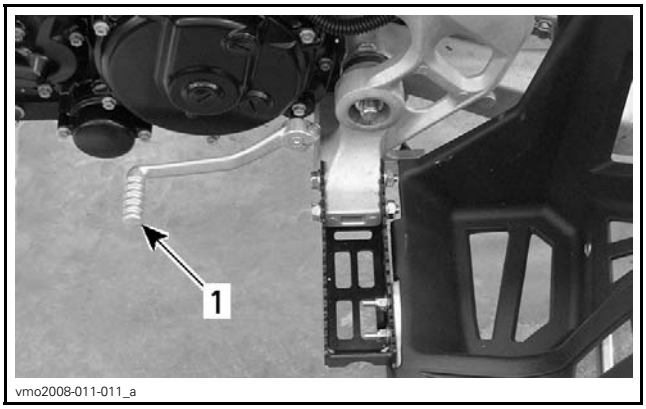


CLUTCH LEVER ADJUSTMENT
A. Free play of 10 to 15 mm (3/8 to 5/8 in)

2. Adjust if required.

Gearshift Pedal

1. Adjust gearshift pedal as per the owner's preference.



LH SIDE OF VEHICLE
1. Gearshift pedal

Suspension

⚠ WARNING

Adjust both shock absorbers identically. Uneven adjustment can cause poor handling and loss of stability, and/or control, and increase the risk of an accident.

⚠ WARNING

The front and rear shock includes a damper unit that contains high pressure nitrogen gas. Do not attempt to disassemble or dispose of the damper. Dispose as per your local environmental regulations.

1. Adjust the suspension as per the owner's preference.
2. If an adjustment is required, refer to the appropriate *ATV SHOP MANUAL*.
3. The following adjustments are possible on front and rear suspension:
   – Spring preload
   – Low speed compression damping
   – High speed compression damping (X xc and X mx)
   – Rebound damping

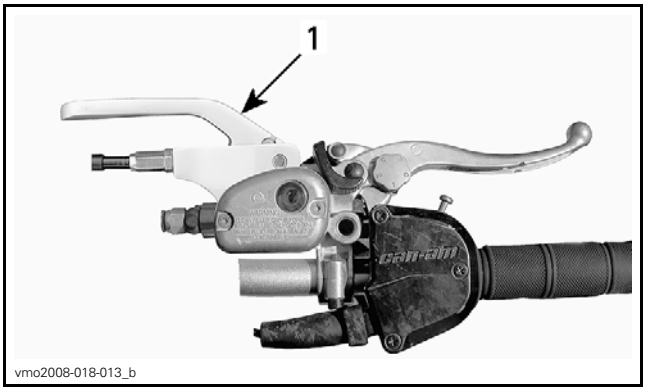
Brake Pedal and Lever

1. Ensure that brake pedal and brake lever are not spongy.

Parking Brake Lever

CE Models

1. Verify that parking brake lever is properly adjusted by applying it.



1. Parking brake lever

2. Try pushing vehicle forward and backward.
3. If vehicle does not move, parking brake adjustment is correct.
4. If vehicle moves, release parking brake lever and adjust it.
5. Apply parking brake and recheck.
6. Repeat operation until vehicle stops moving forward and backward when parking brake is applied.

NOTE: Vehicle should move freely when parking brake is released.

Rear Track Width

X xc and X mx Models

The rear track width, measured outside the wheels, can be adjusted from 117 cm (46 in) to 127 cm (50 in) by moving spacers inside or outside rear wheel hubs.

1. Adjust the rear track width as per the owner's preference.
2. If an adjustment is required, refer to the appropriate *OPERATOR'S GUIDE* for proper procedure.

Caster

X xc and X mx Models

The caster angle is the angle between the vertical and the steering knuckle pivot axis in a longitudinal axis.

When a higher caster angle is set, the knuckles tend more to bring the front wheels to a straight line than with a lower angle. Also, when a higher caster angle is set, a greater force is required to steer the vehicle than with a lower angle.

1. Adjust the caster as per the owner's preference.
2. If an adjustment is required, refer to the appropriate *OPERATOR'S GUIDE* for proper procedure.

Camber

X mx Models

The camber angle is the angle between the vertical and the steering knuckle pivot axis in a transversal axis.

Adjusting the camber angle changes the front wheels inclination and has an effect on the steering stability an feedback.

1. Adjust the camber as per the owner's preference.
2. If an adjustment is required, refer to the appropriate *OPERATOR'S GUIDE* for proper procedure.

B.U.D.S. Programming

Vehicle does not have DESS, therefore B.U.D.S.is not required to program a key.

Even if vehicle does not have a multifunction gauge, it is recommended to use B.U.D.S. to enter all start-up information in the ECM and to ensure no fault codes are active and to clear any occurred faults.

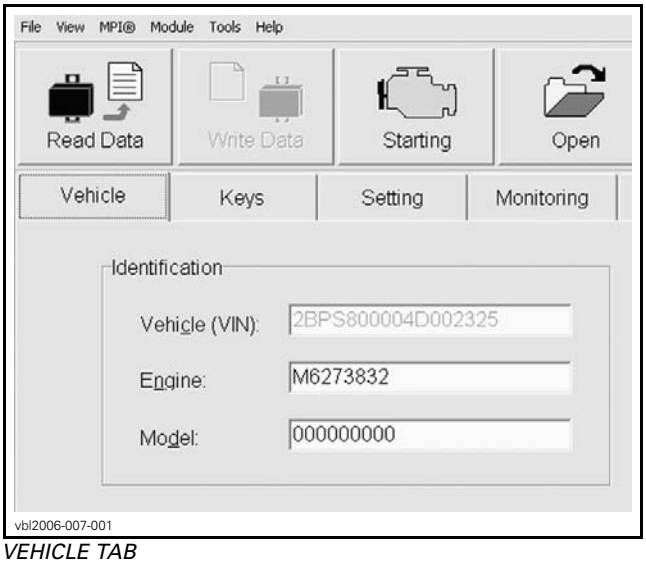
Connecting a PC to Vehicle

1. Connect the PC to vehicle. Refer to the latest edition of *CAN-AM ATV B.U.D.S. SOFTWARE AND COMMUNICATION TOOLS* for the proper connecting procedure.
2. Ensure that the status bar shows the proper protocol and number.
3. Press the READ DATA button from the tool bar to initiate communication with the vehicle.

Entering Customer's Name

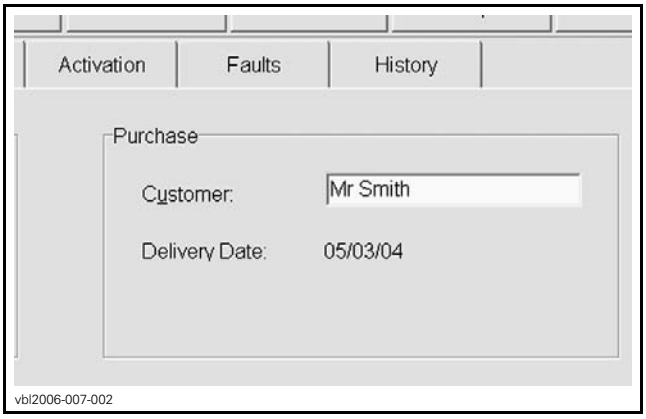
NOTE: When starting the vehicle, the multifunction display will show the name of the customer; for example: "HI JOHN SMITH". If the customer's name is not programmed, only "HI" will be visible when turning the vehicle ON.

1. Click on the VEHICLE tab to open the vehicle information page.



VEHICLE TAB

2. Type the name of the customer.

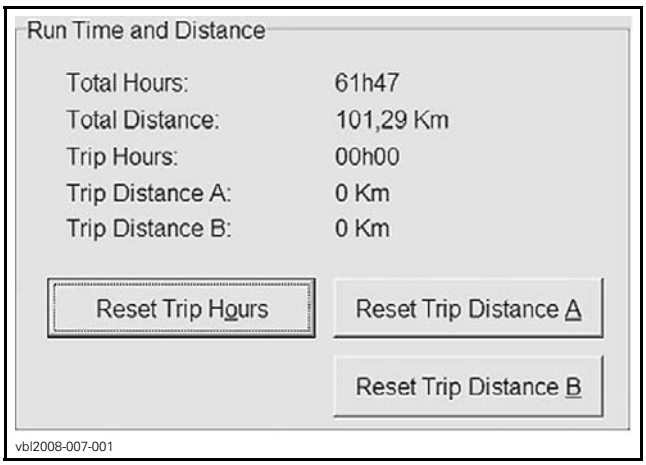


3. Click on WRITE DATA to save the information in the vehicle's ECM.

NOTE: After you are finished typing the name, B.U.D.S. automatically updates the Delivery Date on the screen.

Resetting Trip Hours and Trip Distance

1. Ensure that the VEHICLE tab is selected.
2. Click on the RESET TRIP buttons to reset the information.

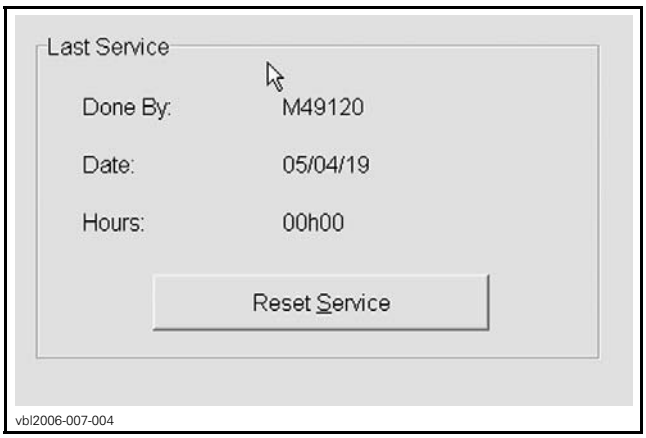


RESET TRIP BUTTONS

NOTE: It can also be done directly on the info-center, using the selector button.

Resetting Last Service

1. Click on the RESET SERVICE button to reset the informations.



RESET SERVICE BUTTON

After each maintenance service, last service should be reset to keep a good tracking of the vehicle service history.

Speedometer Units

The speedometer is factory preset in miles but it is possible to change it to kilometer reading. Any unit modification is applied to the speedometer, odometer and trip meter.

1. Select SETTING tab in B.U.D.S.
2. Select Miles or Kilometers from the CLUSTER SCALE section.

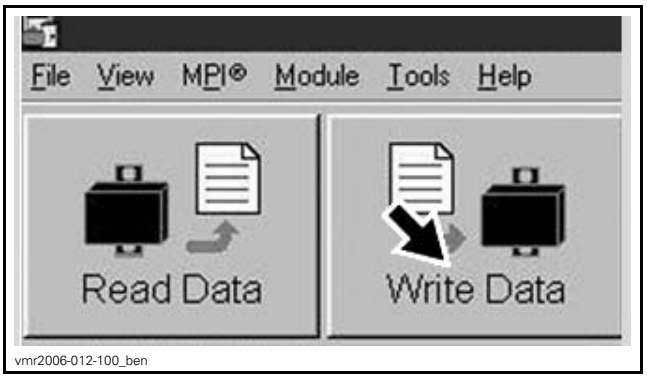
NOTE: No data will be lost when changing this setting.

Ending a B.U.D.S. Session

1. Click on FAULT tab and check if there are active faults.
   – If so, service vehicle then clear the faults in B.U.D.S.

NOTICE After a problem has been solved, ensure to clear the fault(s) in the ECM. This will properly reset the appropriate counter(s). This will also records that the problem has been fixed in the MPEM memory.

2. Click on WRITE DATA button to transfer new settings and information to the ECM.



WRITE DATA BUTTON

3. Click on EXIT button to end session.
4. Disconnect all cables and hardware from vehicle.
5. Ensure to reinstall the cap over the vehicle's communication connector.

ASSEMBLY INSPECTION

Inspect the following parts to make sure that the vehicle is properly assembled.

1. Handlebar tightness
2. Wheel nut torque
3. Tubes/hoses routing and condition
4. Steering column cotter pin
5. Suspension arm ball joint cotter pins
6. Tie rod end nuts and cotter pins
7. Wheel nuts and cotter pins
8. Complete applicable recall or factory-directed modification.

FINAL INSPECTION

Vehicle Test Run

1. Ride the vehicle to ensure proper operation of all systems and components.

Vehicle Cleaning

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

NOTICE It is necessary to use flannel cloths on plastic parts to avoid damaging surfaces. Never clean plastic parts with strong detergent, degreasing agent, paint thinner, acetone, products containing chlorine, etc.

1. Wash and dry the vehicle.
2. Remove any dirt.
3. Clean vinyl and / or plastic parts, using flannel cloths with BRP Vinyl & Plastic Cleaner (P/N 413 711 200).
4. Clean the entire vehicle, including metallic parts, with BRP Cleaner (P/N 293 110 001) (400 g).
5. Painted parts which are damaged should be properly repainted to prevent rust.

Delivery to customer

1. Complete the *PREDELIVERY CHECK LIST*.
2. Give *OPERATOR'S GUIDE* and *SAFETY DVD* to customer.
3. Ask the customer to read and sign the *PREDELIVERY CHECK LIST*.

NOTE: Hang tag is to be removed by the owner only.

NOTE: Any person who rides this vehicle should read and understand all the information given on hang tag and safety labels before riding.

TECHNICAL DATA

Specifications

MODEL			DS 450/DS 450 X XC/ DS 450 X MX
ENGINE			
Type			BRP Rotax, 4-stroke. Double overhead camshaft engine, chain drive
Number of cylinder			1
Number of valves			4
Displacement			449.3 cc (27.42 cu. in)
Bore			97 mm (3.82 in)
Stroke			60.8 mm (2.44 in)
Compression ratio			11.8:1
Lubrication		Type	Dry sump lubrication (lubrication of engine and transmission simultaneously)
		Oil filter	Synthetic multi-layer oil filter
Decompressor			Automatic
Exhaust system			BRP, stainless steel
Air filter			2 stage foam filter
TRANSMISSION			
Clutch			Wet-clutch, multi-disc
Transmission			Integrated 5 speeds constant mesh transmission
COOLING			
Type			Liquid cooled with integrated water pump
Radiator			Front mounted with thermostatic fan
FUEL SYSTEM			
Type			Electronic fuel injection with a 46 mm single throttle body
Idle speed		± 50	1800 RPM (not adjustable)
Fuel pump	Make		Bosch
	Type		Electrical (in fuel tank)

MODEL		DS 450/DS 450 X XC/ DS 450 X MX
ELECTRICAL		
Magneto generator	Make	Denso
	Type	250 W @ 6000 RPM
Ignition type		IDI (Inductive Digital Ignition)
Ignition timing		Not adjustable
Engine RPM limiter		10 200
Spark plug	Make	NGK (apply heat-sink paste P12 (P/N 420 897 186) on spark plug threads)
	Type	DCPR9E
	Gap	0.7 to 0.8 mm (.028 to .032 in)
Number of spark plug		2
Battery	Type	Maintenance free battery type
	Volt	12 volts, 7 A•h
Starting system		Electric start. Start in any gear (with clutch applied or on NEUTRAL)
Headlight bulb		2 x 35 W
Front position lamps (CE models)		2 x 5 W
Turn signal lights (CE models)		4 x 10 W
Taillight and brake light bulb		8/27 W, 1157
Fuses	Main	20 A
	Main (CE models)	30 A
	Charging system	20 A
	Turn signals (CE models)	5 A
	Injector/ignition	15 A
	ECM	5 A
	Cooling fan and accessories	20 A
	Fuel pump	15 A
DRIVE TRAIN		
Rear axle		Chain driven/solid axle

MODEL			**DS 450/DS 450 X XC/ DS 450 X MX**
SUSPENSION			
Front	Type		Independent suspension - double A-arm
	Shock absorbers	DS 450	HPG
		DS 450 X x c/ DS 450 Xmx	HPG (fully adjustable)
	Travel	DS 450/ DS 450 X xc	241 mm (9.5 in)
		DS 450 X mx	271.8 mm (10.7 in)
Rear	Type		Rigid swing arm
	Shock absorbers	DS 450	HPG
		DS 450 X xc/ DS 450 X mx	HPG (fully adjustable)
	Travel	DS 450/ DS 450 X xc	267 mm (10.5 in)
		DS 450 X mx	282 mm (11.1 in)
TIRES			
Pressure (up to 100 kg (220 lb))	Front	DS 450/ DS 450 X xc	48 kPa (7 PSI) maximum 34.5 kPa (5 PSI) minimum
		DS 450 X mx	69 kPa (10 PSI) maximum 55 kPa (8 PSI) minimum
	Rear	DS 450/ DS 450 X xc	48 kPa (7 PSI) maximum 34.5 kPa (5 PSI) minimum
		DS 450 X mx	62 kPa (9 PSI) maximum 48 kPa (7 PSI) minimum
Size	Front	DS 450/ DS 450 X xc	21 x 7 x 10
		DS 450 X mx	20 x 6 x 10
		CE models	21 x 7R-10
	Rear	DS 450/ DS 450 X xc	20 x 10 x 9
		DS 450 X mx	18 x 10 x 8
		CE models	20 x 11R-9

MODEL			DS 450/DS 450 X XC/ DS 450 X MX
WHEELS			
Size	Front	DS 450	10 x 5.5
		DS 450 X xc	10 X 5
		DS 450 X mx	10 X 5
	Rear	DS 450	9 x 8.5
		DS 450 X xc	9 x 8
		DS 450 X mx	8 x 8
		DS 450 X mx CE	9 x 8
Wheel nuts torque			52 N•m (38 lbf•ft)
BRAKES			
Front			Hydraulic, 2 discs
Rear			Hydraulic, single disc
Parking brake (CE models)			Separate RH lock lever on handlebar (rear wheels)
Parking device			RH brake lever includes a parking device on front wheels
STEERING			
Toe-in (vehicle on ground and measure on the center of tire tread)	DS 450/DS 450 X xc		0 to 6.35 mm (0 to 1/4 in)
	DS 450 X mx CE		0 to 6.35 mm (0 to 1/4 in)
	DS 450 X mx		6.35 mm to 12.7 mm (1/4 in to 1/2 in)
Caster (adjustable on X xc and X mx)			Factory setting: 6°
Camber (adjustable on X mx)			Factory setting: 12°
LOADING CAPACITY			
Total vehicle load allowed			100 kg (220 lb) includes operator, all other loads and added accessories
GVWR (Gross Vehicle Weight Rating) Corresponds to laden mass for CE models	DS 450		281 kg (620 lb)
	DS 450 X xc		292 kg (645 lb)
	DS 450 X mx		283 kg (625 lb)

MODEL			**DS 450/DS 450 X XC/ DS 450 X MX**
DIMENSION			
Overall length			1.83 m (72.1 in)
Overall width	DS 450		1.17 m (46.1 in)
	DS 450 X xc		1.17 m to 1.27 m (46 to 50 in)
	DS 450 X mx		1.25 m (49.3 in)
Overall height	DS 450		1.06 m (41.9 in)
	DS 450 X xc		1.05 m (41.5 in)
	DS 450 X mx		1.10 m (43.3 in)
	DS 450 X mx CE		1.05 m (41.5 in)
Wheelbase			1.27 m (50 in)
Wheel track (measured at center of tread)	Front	DS 450	1.0 m (39.5 in)
		DS 450 X xc	1.04 m (40.9 in)
		DS 450 X mx	1.08 m (42.5 in)
	Rear	DS 450	909 mm (35.8 in)
		DS 450 X xc	932 mm (36.7 in)
		DS 450 X mx	997 mm (39.3 in)
Ride height	Under frame	DS 450	229 mm (9 in)
		DS 450 X xc	190 mm (7.5 in)
		DS 450 X mx	184 mm (7.25 in)
Ground clearance	Rear axle	DS 450	124 mm (4.9 in)
		DS 450 X xc	103 (4.1 in)
		DS 450 X mx	86 mm (3.4 in)

MODEL		**DS 450/DS 450 X XC/ DS 450 X MX**
FLUIDS		
Engine oil type		XP-S SUMMER GRADE OIL (P/N 293 600 121)
Coolant		Ethylene-glycol/water mix (50% coolant, 50% distilled water). Use BRP premixed coolant or a coolant specially designed for aluminum engines.
Fuel	Type	Premium unleaded gasoline
	Octane	Inside North America: (91 (RON + MON)/2) Outside North America: 95 RON
Hydraulic brake		Brake fluid, DOT 4
CAPACITIES		
Fuel tank		11.5 L (3 U.S. gal) including an approximate reserve of 2.5 L (0.66 U.S. gal)
Engine oil		1.8 L (1.9 U.S. quarts)
Coolant		1.8 L (1.9 U.S. quarts)