



QUAD GRILLO DX175



EDIZIONE 2004
USE AND MAINTENANCE

Grillo[®]
S.p.A.
AGRIGARDEN
MACHINES

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INTRODUCTION

Thanks for having choose QUAD GRILLO DX 175

This use manual has been prepared in details to show you the working and the necessary operations for a safe use of the vehicle.

IT'S NECESSARY TO READ IT CAREFULLY, BEFORE USING THE VEHICLE.

Grillo S.p.A. do not assume any responsibility for possible undergone damages, or for damages caused by the non-observance of this information.

CAUTION

IT'S COMPULSORY THE HELMET USE

NEVER operate this ATV if you are under age 18.

“The warranty recognition is subordinated to the regular execution of the operations, prevented by the following maintenance coupons, against payment, and by the relative coupon dispatch to Grillo S.p.A.”

1° SCHEDULED SERVICE COUPON

within the first 500 km or at least within 6 months

- Replace engine oil
- Replace transmission oil
- Clean fuel filter
- Check valves clearance
- Check battery
- Check bolts and nuts
- Check brakes
- Check engine fuel
- Check and lubricate primary and secondary chain

CAUTION:

The warranty do not
cover possible
damages due to a
lack of engine oil.

CUSTOMER COPY Date _____

1° SCHEDULED SERVICE COUPON

within the first 500 km or at least within 6 months

- Replace the engine oil
- Replace the transmission oil
- Check the fuel filter
- Check the valves clearance
- Check the battery
- Check bolts and nuts
- Check the brakes
- Check engine fuel
- Check and lubrication primary and secondary chain

CAUTION:

The warranty do not
cover possible
damages due to a
lack of engine oil.

Grillo S.p.A. COPY Date _____

1° SCHEDULED SERVICE COUPON

After-Sales & Service Centre stamp

Customer/vehicle datum

SURNAME

NAME

ADDRESS

.....

MODEL

FRAME N.

Send to Grillo S.p.A. – Via Cervese, 1701 (FC) – ITALY

Tel. (0039) 0547 381.333

1° SCHEDULED SERVICE COUPON

After-Sales & Service Centre stamp



2° SCHEDULED SERVICE COUPON

within the first 1.500 km

- Replace engine oil
- Clean fuel filter
- Check valves play
- Check advance ignition
- Check battery
- Check bolts and nuts
- Check brakes
- Check and lubricate primary and secondary chain

CAUTION:

The warranty do not
cover possible
damages due to a
lack of engine oil..

CUSTOMER COPY Date _____

2° SCHEDULED SERVICE COUPON

within the first 1.500 km

- Replace engine oil
- Clean fuel filter
- Check valves play
- Check ignition advance
- Check battery
- Check bolts and nuts
- Check brakes
- Check and lubricate primary and secondary chain

CAUTION:

The warranty do not
cover possible
damages due to a
lack of engine oil..

Grillo S.p.A. COPY Date _____

2° SCHEDULED SERVICE COUPON

After Sales & Service Centre stamp

Customer/vehicle datum

SURNAME

NAME

ADDRESS

.....

MODEL

FRAME N.

Send to Grillo S.p.A. – Via Cervese, 1701 (FC) – ITALY

Tel. (0039) 0547 381.333

2° SCHEDULED SERVICE COUPON

After Sales & Service Centre stamp



Grillo[®] S.p.A.

3° SCHEDULED SERVICE COUPON

within the first 2.500

- Replace engine oil
- Replace transmission oil
- Replace petrol filter
- Replace fuel filter
- Clean spark plugs
- Check battery
- Check transmission belt
- Check clutch
- Check brakes
- Check bolts and nuts
- Check engine fuel
- Check and lubricate primary and secondary chain

CAUTION:

The warranty do not cover possible damages due to a lack of engine oil.

CUSTOMER COPY Date _____

3° SCHEDULED SERVICE COUPON

within the first 2.500

- Replace engine oil
- Replace transmission oil
- Replace petrol filter
- Replace fuel filter
- Clean spark plugs
- Check battery
- Check transmission belt
- Check clutch
- Check brakes
- Check bolts and nuts
- Check engine fuel
- Check and lubricate primary and secondary chain

CAUTION:

The warranty do not cover possible damages due to a lack of engine oil.

Grillo S.p.A. COPY Date _____

3° SCHEDULED SERVICE COUPON

After Sales & Service Centre stamp

Customer/vehicle datum

SURNAME

NAME

ADDRESS

MODEL

FRAME N.

Send to Grillo S.p.A. – Via Cervese, 1701 (FC) – ITALY

Tel. (0039) 0547 381.333

3° SCHEDULED SERVICE COUPON

After Sales & Service Centre stamp



Grillo[®] S.p.A.

4° SCHEDULED SERVICE COUPON

within the first 3.500

- Replace engine oil
- Replace spark plugs
- Check valves play
- Check advance ignition
- Check bolts and nuts
- Check brakes
- Check and lubricate primary and secondary chain

CAUTION:
The warranty do not cover
the possible damages due
to a lack of engine oil.

CUSTOMER COPY Date _____

4° SCHEDULED SERVICE COUPON

within the first 3.500

- Replace engine oil
- Replace spark plugs
- Check valves play
- Check advance ignition
- Check bolts and nuts
- Check brakes
- Check and lubricate primary and secondary chain

CAUTION:
The warranty do not cover
the possible damages due
to a lack of engine oil.

Grillo S.p.A. COPY Date _____

4° SCHEDULED SERVICE COUPON

After Sales & Service Centre stamp

Customer/vehicle datum

SURNAME

NAME

ADDRESS

.....

MODEL

FRAME N.

Send to Grillo S.p.A. – Via Cervese, 1701 (FC) – ITALY

Tel. (0039) 0547 381.333

4° SCHEDULED SERVICE COUPON

After Sales & Service Centre stamp



5° SCHEDULED SERVICE COUPON

within the first 4.500

- Replace engine oil
- Replace transmission oil
- Replace petrol filter
- Replace fuel filter
- Clean petrol filter
- Check distribution chain
- Check battery
- Check transmission belt
- Check clutch
- Check brakes
- Check bolts and nuts
- Check engine fuel
- Check and lubricate primary and secondary chain

CAUTION:
The warranty do not
cover possible
damages due to a
lack of engine oil.

CUSTOMER COPY Date _____

5° SCHEDULED SERVICE COUPON

within the first 4.500

- Replace engine oil
- Replace transmission oil
- Replace petrol filter
- Replace fuel filter
- Clean petrol filter
- Check distribution chain
- Check battery
- Check transmission belt
- Check clutch
- Check brakes
- Check bolts and nuts
- Check engine fuel
- Check and lubricate primary and secondary chain

CAUTION:
The warranty do not
cover possible
damages due to a
lack of engine oil.

Grillo S.p.A. COPY Date _____

5° SCHEDULED SERVICE COUPON

After Sales & Service Centre stamp

Customer/vehicle datum

SURNAME

NAME

ADDRESS

.....

MODEL

FRAME N.

Send to Grillo S.p.A. – Via Cervese, 1701 (FC) – ITALY

Tel. (0039) 0547 381.333

5° SCHEDULED SERVICE COUPON

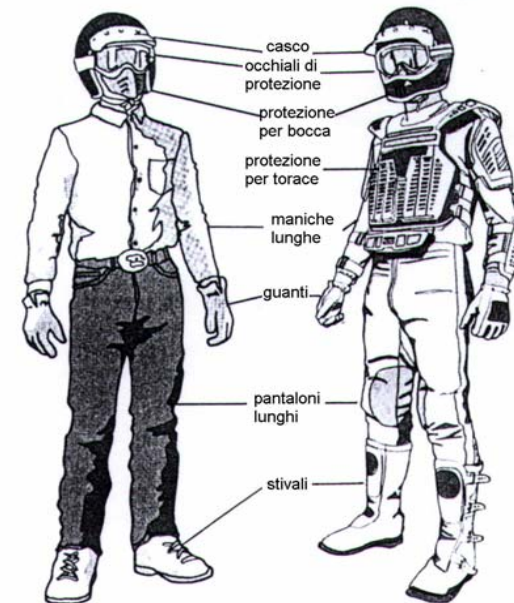
After Sales & Service Centre stamp



Grillo[®] S.p.A.

MAIN RULES FOR THE INJURIES PREVENTION

- 1) The caution is the main mean in the injuries prevention. Reduce the speed and avoid doing dangerous manoeuvres.
- 2) Always wear the helmet.
- 3) Wear appropriate clothes: helmet, protection glasses, mouth protection, thorax protection, long sleeves, gloves, long trousers, boots, etc..



- 4) The tires pressure is very important for the grip and for the machine handling (check the value on the use and maintenance manual).
- 5) Never use this ATV if you are under age 16.
- 6) On disconnected roads travel at a low speed.
- 7) Reduce your speed in the bends, above all sloping down.
- 8) It's very dangerous to action the handlebar brusquely.
- 9) When you fill up with fuel switch off the engine, get off the vehicle and clean all spills before starting the engine.
- 10) Keep in working order the vehicle, above all the brakes.

11) While climbing, drive staying on feet, moving the body forwards to avoid to turn over.



12) Sloping down drive the vehicle staying on feet, moving the body behind.



13) Bending moving the body weight forwards inside the bend.



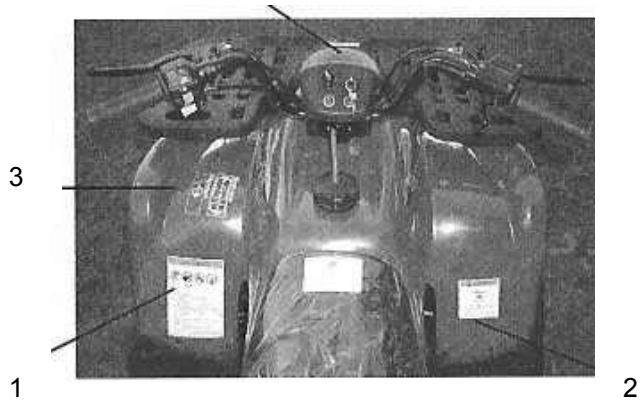
USE AND MAINTENANCE MANUAL

QUAD DX 175

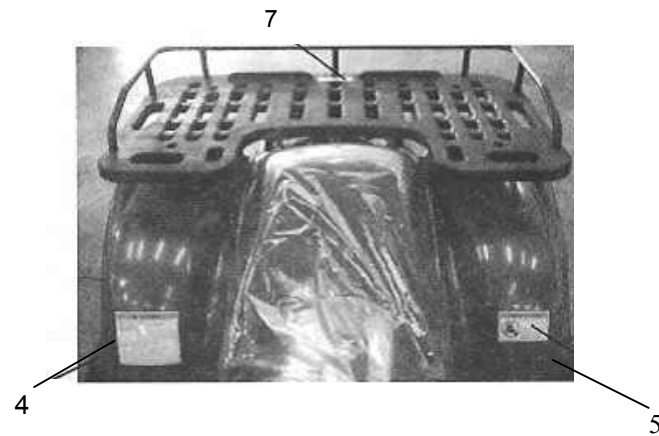


This manual contains important safety information: read it carefully!

LOCATION OF THE “WARNING AND SPECIFICATION LABELS”



Read and understand all of the labels on your quad.
They contain important information for safe and proper operation of your quad.
In case of doubt, consult the distributor or an authorized dealer.



Never remove any labels from your quad. If a label becomes difficult to read or comes off, a replacement label is available from your dealer.

1 – WARNING
Some information, which are contained in the 1, and 4 labels, that you find on your vehicle, are referred to the Countries where the ATV is not homologated for the employment on road or for the passenger transport. Even if in Italy it is not compulsory, the use of the helmet is advisable. NEVER use the vehicle under the effect of substances, which may alter the driving abilities.
5 – WARNING
The label is not referred to the Countries where the vehicle is NOT homologated for the passenger transport.
6 LOADING LIMIT/ WARNING
(Front luggage-rack) 30kg (66 lbs) NEVER sit in this point.
7 LOADING LIMIT/WARNING
(Rear luggage-rack) 45 kg (99 lbs) NEVER sit in this point.

2 – WARNING
NEVER operate this ATV if you are under age 18.
3

4 – WARNING
Improper tire pressure or overloading can cause loss of control. Loss of control can result in severe injury or death. OPERATING TIRE PRESSURE: set with tires cold. Recommended: FRONT 0,25 bar = kgf/cm ² . REAR RE 0,25 bar = kgf/cm ² . Minimum FRONT 0,22 bar = kgf/cm ² . REAR 0,22 bar = kgf/cm ² . Never set tire pressure below minimum. It could cause the tire to dislodge from the rim.
LOADING/TRAILER TOWING CHECK IF THE TOWING OF A BARROW IS ALLOWED. Cargo or a trailer can affect stability and handling. Read owner's manual before loading or towing. When loading with cargo or towing a trailer, reduce speed and allow more room to stop. Avoid hills and rough terrain. Maximum Vehicle Load: 180 kg, (396 lbs), includes weight of operator, cargo and accessories (and if applicable, trailer tongue weight).

SECURITY INFORMATIONS

WHEN YOU DRIVE AN ATV YOU MUST BE VERY CAREFUL

An ATV reacts differently from the other vehicles, like motorcycle and cars. The wrong use may cause rapidly a crash or the tipping, both during the normal manoeuvres and bending or overtaking hills and obstacles.

THE NON-OBSERVANCE OF THE FOLLOWING DIRECTIONS COULD CAUSE SERIOUS INJURIES

Read carefully the manual and the labels, following the procedures that are described.

NEVER use an ATV without an adequate period of apprenticeship.

If you are under the age of 16, you should not use an ATV with a higher displacement than 50 c.c.

The passenger transport needs more caution.

Driving on roads opened to traffic or on asphalted surfaces needs a particular care.

It is advisable the use of the helmet and of adequate cloths, which are composed by gloves, robust shoes, a jacket with sleeves and long trousers.

NEVER use the vehicle, after having substances, which may alter the driving ability.

Do not drive, keeping an excessive speed, compared to your abilities and to the route conditions.

NEVER do jumps, rearings, or other acrobatics.

Always check your ATV, before using it, to verify its security.

Using the ATV, always keep both the hands on the handlebar and the feet on the running boards.

Do not use the ATV in rivers with strong currents or in deeper waters than 25 cm. (10 inch.).

Always use tires of the type and the measures, which are specified in this manual and pump them at the pressure indicated in the manual.

Do not change the ATV, installing or using unsuitable accessories.

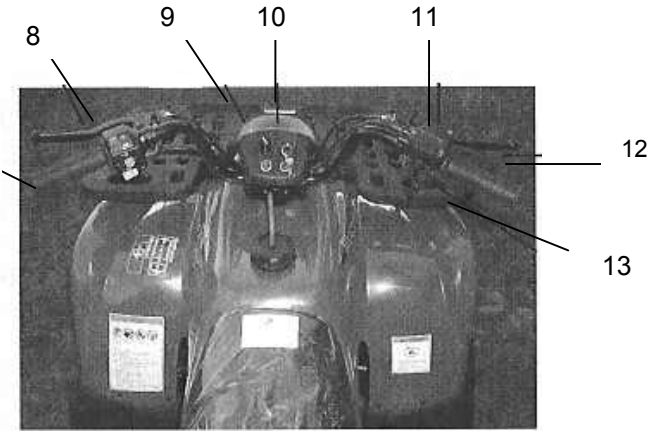
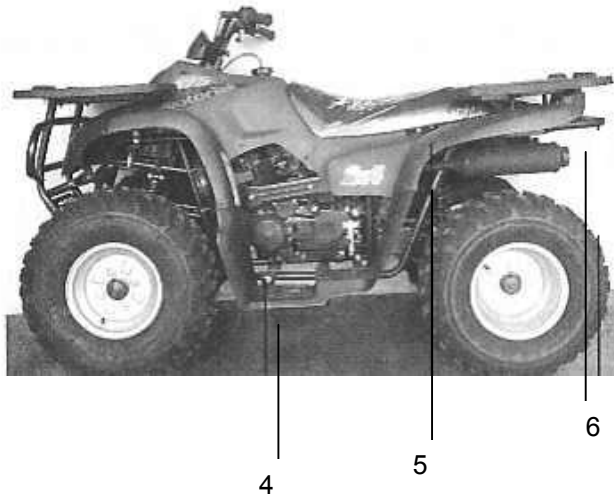
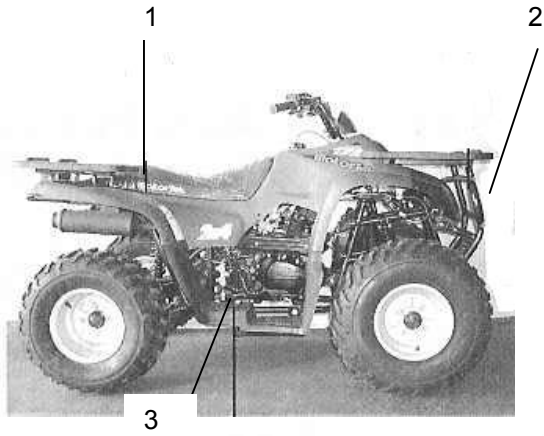
Do not exceed the loading capacity, which is established for your ATV. The loading must be suitably arranged and fixed. Regulate the speed and follow the instructions of this manual, regarding the loading and the towing of a barrow. Keep a bigger security distance in case of braking.

WARNING

Always switch off the engine, during the refuelling.

Do not start the engine or drive the vehicle in closed places to avoid potential risks.

DESCRIPTION AND MACHINE IDENTIFICATION

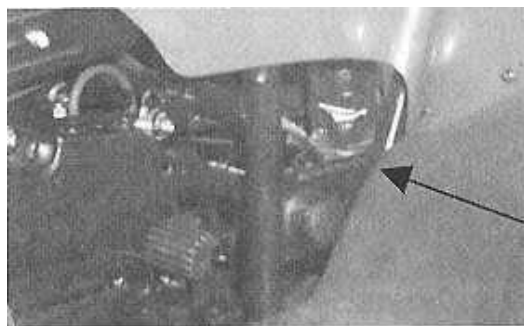


1. Battery
2. Front headlight
3. Rear brake pedal
4. Gearbox pedal
5. Seat lock
6. Rear bumper
7. Handlebar
8. Clutch pedal
9. Starter knob (choke)
10. Main switch
11. Speed limiter
12. Front brake lever
13. Throttle lever

IDENTIFICATION NUMBERS RECORD

Record the vehicle identification number and engine I.D. number in the spaces provided for assistance when ordering spare parts from dealer or for reference in case the vehicle is stolen

1. VEHICLE IDENTIFICATION NUMBER



The vehicle identification number is stamped on the frame.

2. ENGINE I.D. NUMBER



NOTE: the vehicle identification number is used to identify your ATV.

The information of vehicle identification number and engine I.D. number will be needed to order spare parts from your dealer.

CONTROL FUNCTIONS

Main switch

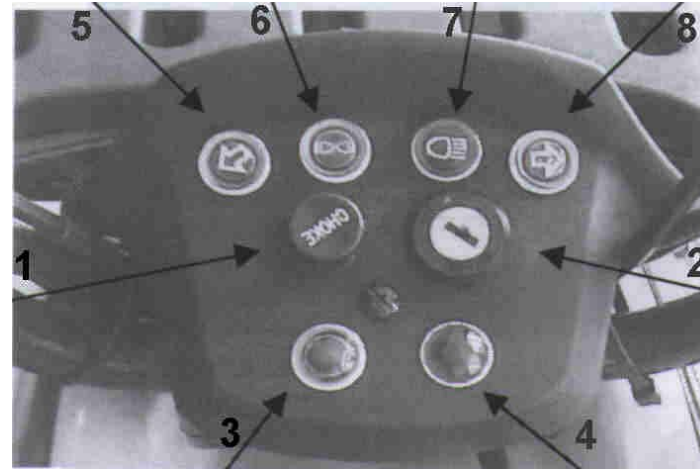
Functions of the respective switch positions are as follows:

ON: Engine can be started only at this position and the headlight and taillight come on when the light switch is on.

OFF: All electrical circuits are switched off. The key can be removed in this position.

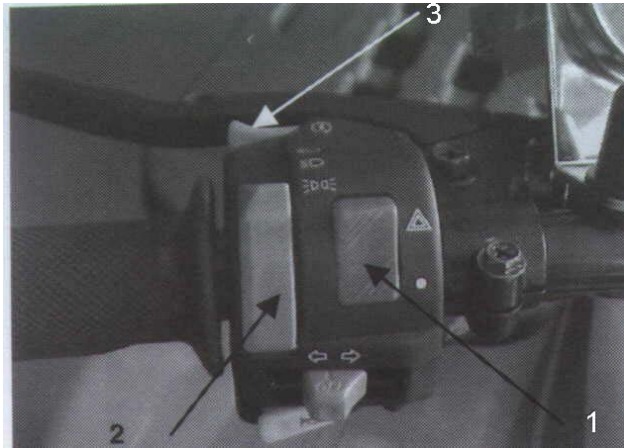
Warning lights

1. The "GREEN" warning light lights up when the transmission is in neutral.
2. The "RED" warning light lights up when the vehicle warning lights are switched on.



1. Starter knob for the cold-starting
2. Main switch
3. Green warning light "NEUTRAL"
4. "Reverse motion connection" red warning light
5. "Left arrow" warning light
6. "Parking lights" warning light
7. "Headlights" warning light
8. "Right arrow" warning light "

Handlebar switches



1. Emergency lights switch
2. Lights switch
3. Start button

Start button

Pressing this button, the starter starts the motor.

CAUTION:

See starting instructions prior to starting engine.

Lights switch

Turn the lights switch to the position On to switch on the parking lights and the rear light.

CAUTION:

Do not use the half-lights when the motor is stopped for more than 15 minutes. The battery could discharge and for this reason the starter may not work correctly. If it will happen, remove the battery and recharge it.

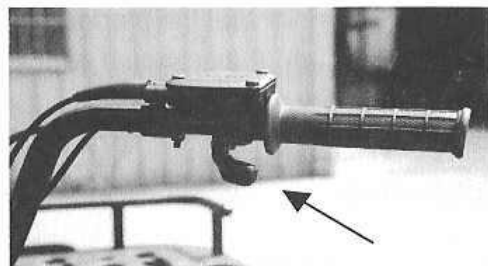
Throttle lever

Once the engine is running, movement of the throttle lever will increase the engine speed.

Regulate the speed of the engine by varying the throttle position.

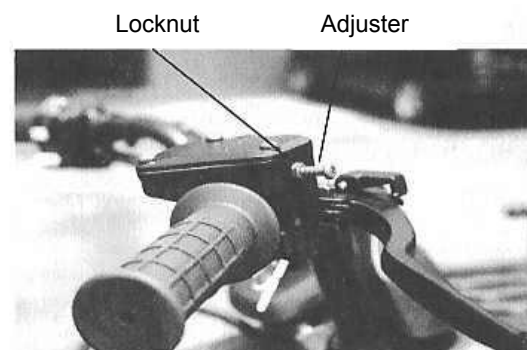
Because the throttle is spring-loaded, the engine will decelerate, and the engine will return to an idle any time the finger is removed from the throttle lever.

Before starting the engine, check the throttle to be sure it is operating smoothly. Make sure it returns to the idle position as soon as the lever is released.



Speed limiter

The speed limiter keeps the throttle from fully opening, even when the throttle lever is pushed to the maximum. Screwing in the adjuster limits the maximum engine power available and decreases the maximum speed of the ATV.

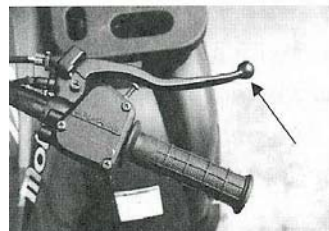


WARNING:

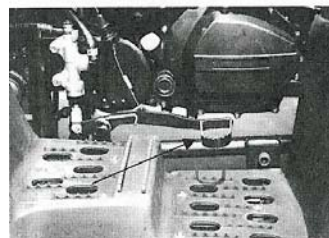
Do not turn the speed adjuster out more than 12 mm. Always make sure the throttle lever free play is 3-5 mm. (0,12-0,20 in.).

Front brake lever

The front brake is located on the right handlebar. Pull it toward the handlebar to apply the front brake or parking brake.

**Foot brake pedal**

The brake pedal is located on the right side of the vehicle. Push down on the pedal to apply the rear brake.

**Parking brake**

Apply the brake lever while pushing the stopper, then push in the stopper to apply the parking brake. Squeeze the front brake lever to release the parking brake.



Gearbox pedal

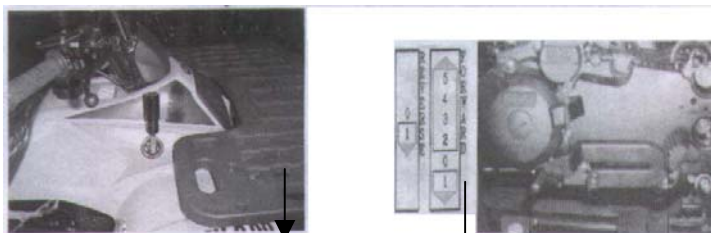
This ATV is engaged with a gearbox fitted with five speeds, both forwards and reverse. The pedals of the gearbox and of the reserve reducer are located on the left side of the engine.

Reverse pedal

This pedal can be operated with the heel and it is used to connect the reverse motion.

NOTE: Consult the paragraph dealing with the “Reverse driving”, before using the vehicle in reverse motion.

**** Note:** in the version with the starter, located on the right side of the body frame, the reverse pedal is absent.



Gearbox pedal

Reverse pedal

Clutch lever

Pull the lever towards the handlebar to detach the clutch when you have to change the connection.



Fuel tank cap

Remove the fuel tank cap by turning it counter clockwise.

Automotive gasoline with octane number of 91 or higher may be used.

After refuelling, be sure to tighten the tank cap firmly.



Starter (Choke)

The starting with cold engine needs a bigger air-petrol fuel. A separate start circuit (choke) provides to furnish this fuel.

Pull outwards the knob (choke), used to action the starter.

Push the knob to put out the starter.

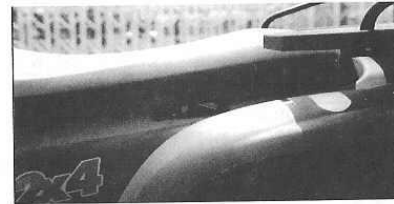
Consult the paragraph headline with the "Starting with cold engine" for a correct operation.



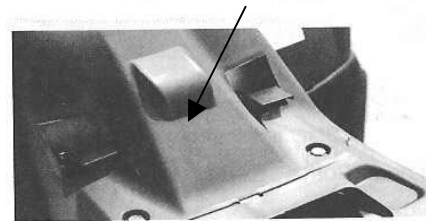
1 Completely opened 2 Half-opened 3 Closed
A. Starter/choke.

Seat

To remove the seat, pull the seat lock lever upward and pull up the seat at the rear.



To install the seat, insert the lobe on the seat front into the receptacle on the frame and push down the seat at the rear.



Front shock absorber adjustment

The spring preload can be adjusted to suit the vehicle's load and riding conditions.

Spring preload adjustment:

To increase the spring preload, turn the adjuster in direction e.

To decrease the spring preloaded, turn the adjuster in direction a.



A—Minimum (Soft) E—Maximum (Hard)

Rear shock absorber adjustment

The spring preload can be adjusted to suit the vehicle's load and riding conditions.

Spring preload adjustment:

To increase the spring preload, turn the adjuster in direction e.

To decrease the spring preload, turn the adjuster in direction a.



A—Minimum (Soft) E—Maximum (Hard)

WARNING:

Uneven adjustment on different sides can cause poor handling and loss of stability.

PRE-OPERATION CHECKS

Before using this ATV, check the following points:

ITEM	ROUTINE
Brakes	Check operation, free play, fluid level and fluid leakage. Fill with DOT 4 (or DOT 3) brake fluid if necessary.
Parking brake	Check operation, condition and cable free play.
Fuel tank	Check fuel level. Fill with fuel if necessary.
Engine oil	Check oil level. Fill with oil if necessary.
Reverse reducer oil	Check the presence of possible leaks.
Throttle	Check for proper throttle cable operation.
Wheels and tires	Check tires pressure, wear and damage.
Fittings and fasteners	Check all fittings and fasteners.
Lights	Check for proper operation.
Battery	Check fluid level. Fill with distilled water if necessary.
Primary chain (inverter)	Lubricate.
Secondary chain	Lubricate and check the voltage.

ATTENTION:

Always check each item in the above list prior to operating your ATV.

Front and rear brakes

1. Check the operation and free play of the levers and pedal.
They should move smoothly and there should be a firm feeling when the brakes are applied. If not, have the vehicle inspected by your dealer.
2. Brake fluid level.
Check the brake fluid level. Add fluid if necessary.
Recommended brake fluid: DOT 4.
NOTE: -----
If DOT 4 is not available, DOT 3 can be used.

3. Brake fluid leakage.
Check to see if any brake fluid is leaking out of the pipe joints or master cylinder.
Apply the brakes firmly for one minute. If there is any leaking, have the vehicle inspected by your dealer.

4. Brake operation.
Test the brakes at slow speed after starting to make sure they are working properly. If the brakes do not provide proper braking performance, inspect the brake pads for wear.

Fuel:

Make sure there is sufficient fuel in the tank.

Fuel tank capacity:

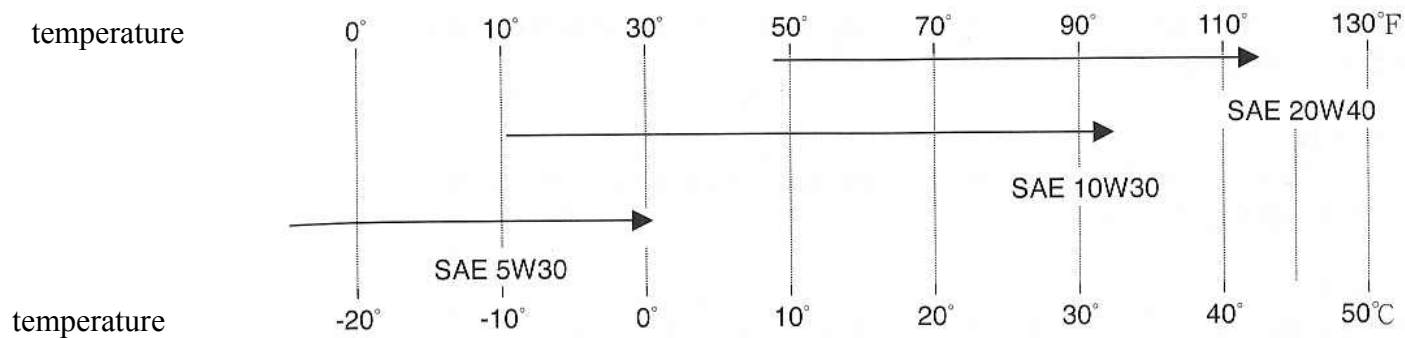
Total: 11 L.

The engine has been designed to use regular gasoline with RON of 91 or higher.

Engine oil:

Make sure the engine oil is at the specified level. Add oil if necessary.

Recommended oil:



Recommended engine oil classification: API Service SE, SF, SG type or higher.

ATTENTION:

Do not add any anti-friction modifier to ensure proper clutch function.

Oil quantity in the engine: 1 L.

N.B. See the recommended oil list at the end of the manual.

Throttle lever:

Check to see that the throttle lever operate correctly. It must open smoothly and spring back to idle position when released. Repair if necessary for proper operation.

Lights:

Check the headlight and taillight to make sure they are in working condition. Repair if necessary for proper operation.

Switches:

Check the operation of the headlight switch, engine stop switch and any other switches. Repair if necessary for proper operation.

Battery:

Check fluid level and top-off if necessary. Use only distilled water if refilling.

Tires:

In order to have the highest efficiency & safety operation, please pay attention to

The follows:

1. Use the following tires:

Producer	MAXXIS	KENDA	LOAD STAR
Front	23x7x10	22x8-10	205/65-10
Rear	22x11x10	22x11-10	225/50-10

2. The tires should be set to the recommended pressure.
Recommended tire pressure:
Front 0,25 bar = kgf/cm²
Rear 0,25 bar = kgf/cm²
Pressure check and regulation must be done with cold tires.
3. Tire pressure below the minimum specified could cause the tire to dislodge from the rim under severe riding conditions.
Minimum tire pressure:
Front 0,22 bar = kgf/cm²
Rear 0,22 bar = kgf/cm²
4. **ATTENTION! Use no more than following pressures when seating the tire beads.**
Front 2,5 bar = kgf/cm²
Rear 2,5 bar = kgf/cm²
Higher pressures may cause the tire to burst. Inflate the tires very slowly and carefully.
Fast inflation could cause the tire to burst.
At the end of the operation bring again the tires values at the values indicated in the points 2 and 3 (recommended 0,25 bar, minimum pressure 0,22 bar).
5. The wear limit.
When the tire groove decreases to 3 mm (0,12 in.) due to wear, replace the tire.

OPERATION

WARNING: Operation ATV without being familiar with all controls is extremely dangerous.

Freezing control cables in cold weather is extremely dangerous.

Make sure everything is work smoothly before starting.

To start out:

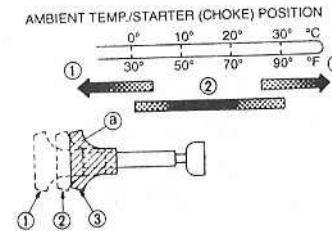
1. Put the parking brake
2. Turn the main switch in the "ON" position.
3. Put the gearbox in the neutral position.
4. Pull the starter knob (choke) completely or at half, according to the environmental temperature (see the drawing).
5. Pull the starter button and in the meanwhile pull slightly the throttle.
6. Keep slightly accelerate the engine for 1.2 minutes and heat the engine carefully at minimum.

7. Bring back the starter to the closure position and the release the throttle lever.

Position starter (choke)

1. Cold starter of the engine with an environmental pressure inferior to 5° C (40° F).
2. Cold starter of the engine with an environmental temperature included between 0° C (40° F), 30° C (90° F) and the heating position.
3. Cold starter of the engine with an environmental temperature over 25° C (80° F) and position to start the engine already warm.

ENVIROMENTAL TEMPERATURE / STARTER POSITION



- 1 Completely opened 2 Half-opened 3 Closed
A. Starter (Choke).

Starting with warm engine

To start the warm engine, you must refer to the “Starting of the warm engine” paragraph. The choke must NOT be used. The throttle must be opened carefully.

Engine heating

To assure the maximum mechanical life and to ensure the best capabilities, always heat the engine up, before operating. Never accelerate too much with the cold engine. To understand if the engine is warm enough, check if it normally responds to the throttle even if the starter is off.

Pedal working and reverse driving.

CAUTION: before fitting in the reverse motion, stop the vehicle and put the throttle in the closure position, otherwise the transmission gear could be damaged.

1. Stop completely the ATV, pressing the brake pedal and releasing the throttle lever to the nonworking position.
2. Fit in the first gear and release the gear pedal.

3. Check, slightly releasing the clutch lever, which the gear is correctly fit in, than pull another time the clutch lever.
4. **With the heel of the shoe, press the reverse motion pedal and in the meanwhile progressively release the clutch lever, slightly accelerating (version with reverse motion pedal).**
5. With the clutch lever completely released, the vehicle goes back, until the pedal is pressed. When you do not press the pedal, the ATV goes forward gear.

Gear

This ATV model is engaged with a 5-speed gearbox both in forward and reverse motion; this characteristic and the particular gear will permit you a very easy mobility on the soil.

CAUTION: during the reverse driving, be particularly careful and do NOT operate brusquely the drives. Do not forget that the stability and the steering respond, when the vehicle goes in reverse motion, are very different than the normal gear.

To start out:

1. Release the throttle lever.

ATTENTION:

Always turn off the gas, changing the gears. Otherwise, the engine and the transmission gear may be damaged.

CAUTION:

To fit in the reverse motion the vehicle must be motionless and the engine must run at minimum, to avoid serious damages to the transmission gear.

HOW TO USE THE GEAR

To accelerate:

2. Open the gas gradually, progressively releasing the clutch lever.
3. Once the vehicle has attained adequate speed, release the throttle lever and pull the clutch lever.
4. Change in second gear, using the pedal and gradually release the clutch, avoiding the skidding.
5. Turn on gradually another time the gas.
6. Follow the same procedure when shifting to the next higher gear.

To decelerate:

When slowing down or stopping the vehicle, release the throttle and apply the brakes smoothly and evenly. As you slow down, shift to a lower gear, using the same procedure used before.

Be sure that the engine has sufficiently slowed before engaging a lower gear, gradually releasing the clutch.

DANGER: fit in a reduced gear when the engine and the vehicle are travelling at a high speed, this may be very dangerous both for the passengers and for the transmission gear.

ENGINE BRAKE-IN

ATTENTION: The first 20 Hrs for engine brake-in are very important, never exceed the running conditions listed below:

1. 0-10 Hrs

Avoid continuous operation above half throttle.

Allow a cooling off period of life to ten minutes after every hour of operation. Vary the speed of the vehicle from time to time. Do not operate it at one set throttle position.

2. 10-20 Hrs

Avoid prolonged operation above $\frac{3}{4}$ throttle.

Rev the vehicle freely through the gears but do not use full throttle at any time.

3. After brake-in

Avoid prolonged full throttle operation. Vary speeds occasionally.

Parking:

When parking, stop the engine and shift into neutral.
Turn the fuel cock to "OFF" and apply the parking brake.

Parking on a slope:

Avoid parking on slopes. If you must park on an incline, put the engine in a reduced gear, apply the parking brake, and block the wheels with rocks or other objects.

ATTENTION:**MAXIMUM LOADING LIMIT**

Vehicle loading limit (total weight of cargo, rider, accessories and tongue weight): 180 kg. (397 lbs).

Towing capacity:

Towed cargo (total weight of sulky and of cargo): 200 kg (440 lbs).

ATTENTION: CHECK IF THE LAWS OF THE COUNTRY WHERE THE VEHICLE IS USED ALLOW THE CIRCULATION ON OPENED TRAFFIC ROADS. OTHERWISE, USE THE ATV ONLY FOR THE TOWING IN PRIVATE AREAS.

SCHEDULED SERVICE TABEL															
DO NOT SCATTER THE EXHAUSTED OIL IN THE ENVIRONMENT, BUT BRING IT IN THE PROPER COLLECTING CENTER.	Km	500	1500	2500	3500	4500	5500	6500	7500	8500	9500	10500	11500	12500	
	Engine oil	S	S	S	S	S	S	S	S	S	S	S	S	S	S
	Transmission oil	S		S		S		S		S		S		S	
	Petrol filter			S		S		S		S		S		S	
	Oil filter	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
	Fuel filter		CL	S		S		S		S		S		S	
	Carburettor	CH		CH		CH		CH		CH		CH		CH	
	Spark plug			CL		S		S		S		S		S	
	Valves play	CH	CH		CH		CH		CH		CH		CH		
	Ignition timing		CH		CH						CH				CH
	Gear drive chain					CH					CH				CH
	Battery	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	Exhausted system	CH		CH		CH		CH		CH		CH		CH	
	Clutch	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	Brakes	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	Bolts and nuts	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
	Tires	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH	CH
Inverter chain – Secondary chain	L CH/L	L CH/L	L CH/L	L CH/L	L CH/L	L CH/L	L CH/L	L CH/L	L CH/L	L CH/L	L CH/L	L CH/L	L CH/L	L CH/L	

When the mileage exceeds the indicated mileage, do the maintenance, conforming to the scheduled intervals.

When the service for the oil replacement does not match the date of the scheduled servicing nevertheless you wish to replace it by your own, please follow the instructions on this manual.

IMPORTANT: Check every 500 km the oil level and check it if necessary.

ATTENTION: The warranty does not cover possible damages due to a lack of engine oil.

NOTE:
S: Substitute
CL: Clean
CH: Check
L: Lubricate

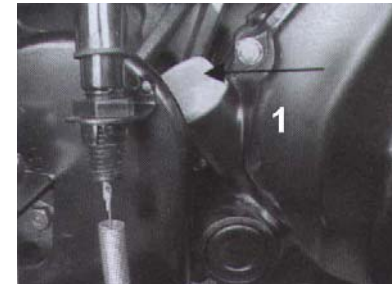
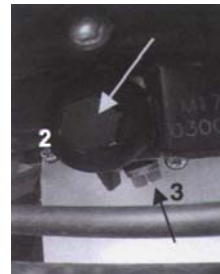
Engine oil

Engine oil level measurement.

- a. Place the vehicle on a level place.
- b. Warm up the engine for several minutes and stop it.
- c. Wait a few minutes until the oil level settles before checking.
- d. Remove the dipstick and wipe it off with a clean rag.
Insert the dipstick in the filter hole without screwing it in.
Remove the dipstick and insert the oil level.
- e. Remove the dipstick and inspect the oil level.
- f. The oil level should be between the maximum and the minimum marks. If the level is low, add oil to raise it to the proper level.

CAUTION:
Be sure no foreign material enters the crankcase.

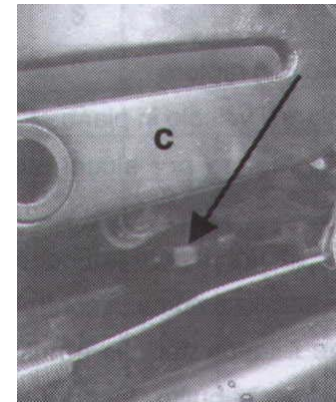
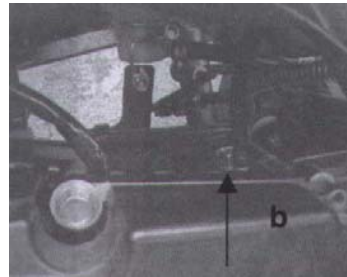
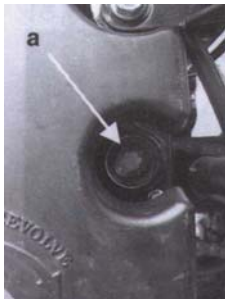
2. Engine oil replacement and oil strainer cleaning.
 - a. Place the vehicle on a level place.
 - b. Warm up the engine for several minutes and stop it.
 - c. Place a container under the engine.
 - d. Remove the dipstick (1), the oil filter cap (2) and the discharging cap (3) to permit to the oil to flow out.
 - e. Clean the mantle oil filter with petrol and dry with compressed air.
 - f. Reassemble the oil filter cap and the discharge cap.
 - g. Put a litre of oil (page. 16).



Reduction gear oil of the reverse motion

Substitute the oil every 12 months (page. 23).
Check periodically the level through the observation of the proper window (a)

1. Warm up the engine
2. Put off the refilling cap (b)
3. Put off the discharge cap (c)
4. Let the oil completely leak.
5. Close the discharge cap.
6. Fill up with 400cc (page. 31)
7. Close the refilling cap.



Fuel filter cleaning

At the top of the filter-box there is a check cover. If after the removal, you find the presence of water or dust, empty out the cover and clean the filter-box and the filtering element in the following way:

1. Put off the seat.
2. Put off the cover of the filter-box.
3. Put off the filtering element and disjoin the stand.
4. Clean carefully the filtering element with the proper solvent and if it is not enough, substitute the filtering element.
5. Squeeze the filter in order to remove the excessive solvent. Reassemble the filter when it will be dry.

NOTE: Regarding the use on dusting soil it is possible to improve the filter abilities of holding the impurities, soaking it with proper products or with a minimum quantity of fluid oil.

Idle speed adjustment

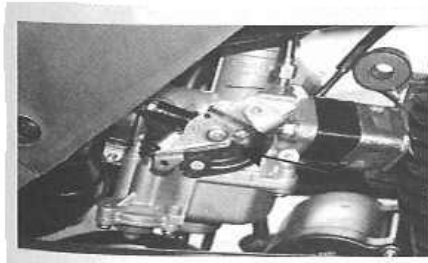
NOTE: for this operation a diagnostic instrument must be used (rev. counter).

1. Start the engine and warm it up for a few minutes at approximately 1.000-2000 r/min. Occasionally rev the engine to 4.000 and 5.000 r/min. The engine is warm when it quickly responds to the throttle.

2. Connect the tachometer and set the idle to the specified idling speed by adjusting the throttle stop screw. Turn the screw into increase engine speed, and out to decrease engine speed.

SPECIFIED IDLE SPEED:

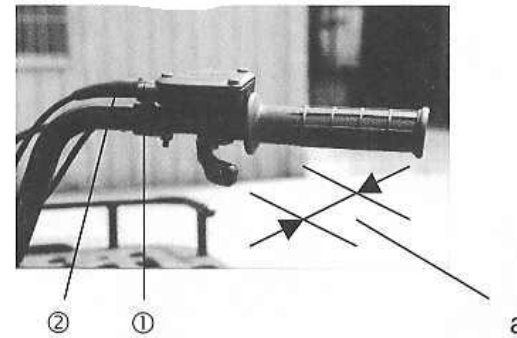
1.450 rpm +/- 100



Throttle lever adjustment

NOTE: Adjust the engine idling speed before adjusting the throttle lever free play.

1. Loosen the locknut.
2. Turn the adjustment bolt until the throttle lever free play is 3-5 mm. (0.12-0.20 inc.)
3. Tighten the locknut.



1. Locknut
 2. Adjusting bolt
- a. 3-5 mm. (0.12-0.20 inc.).

Inspecting the brake fluid level

Insufficient brake fluid may let air enter the brake system, possibly causing the brakes to become ineffective.

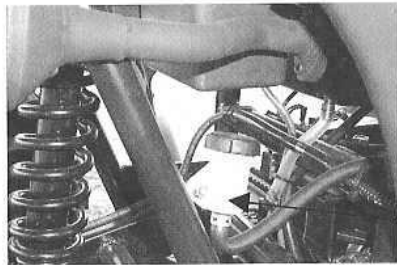
Before riding, check that the brake fluid is above the lower level and replenish when necessary.

Use only the designated quality brake fluid.

Recommended brake fluid DOT 4.

NOTE:

If DOT 4 is not available, DOT 3 can be used.



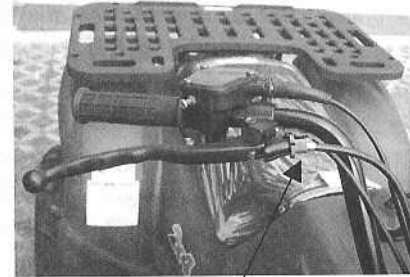
1. Minimum level mark "LOWER".

Front brake lever free play adjustment

The front brake lever free play should be 20-25 mm. (0.80 – 1.0 inc.). If the free play is incorrect, adjust it as follows:

1. Adjust the screw under the brake lever with finger.

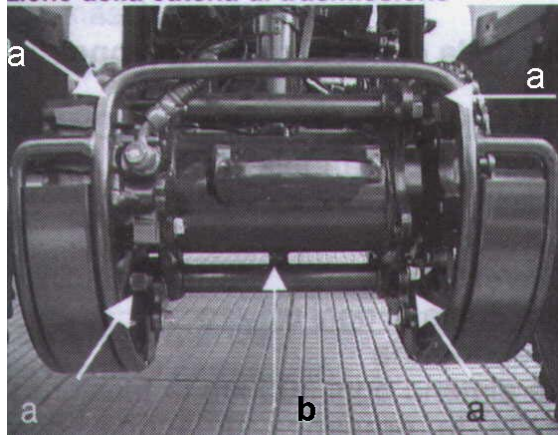
Adjust same turns of screw on both side of brake.



Brake level lubrication

Lubricate the pivot of each lever and pedal.
Use SAE 10W30 motor oil.

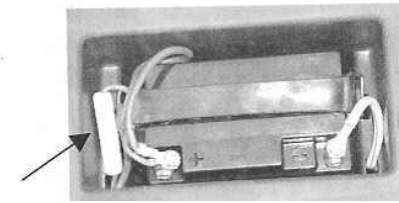
Drive chain adjustment



1. Unlock the fastening screw of swing arm (a).
2. Swing the rear axle-bearing holder back and forth to reach suitable chain tension.
3. Lock the fastening screw of swing arm.

Fuse replacement

If the fuse is blown, turn off the main switch and install a new fuse of the specified amperage. Then turn on the switches. If the fuse immediately blows again, consult your dealer.
Specified fuse: 10 A.



1. Main fuse.

WARNING:

Never use an improper fuse.
An improper fuse can cause damages to the electrical system that could led to a fire.

CAUTION:

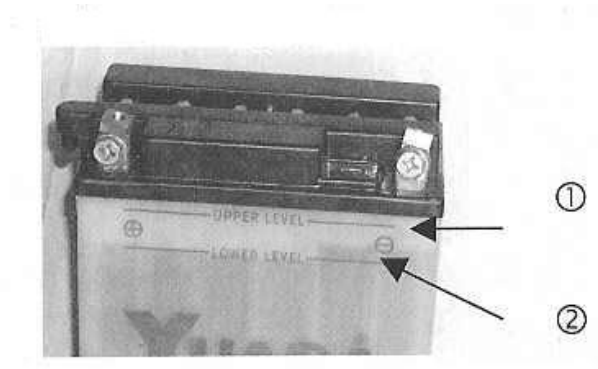
To prevent accidental short- circuiting, turn off the main switch when checking or replacing a fuse.

Replacing the battery fluid

A poorly maintained battery will corrode and discharge quickly.

The battery fluid should be checked at least once a month.

1. The level should be between the upper and lower level marks. Use only distilled water if refilling is necessary.



- 1- Maximum level mark "UPPER LEVEL".
- 2- Minimum level mark "MINIMUM LEVEL".

Replacing the headlight bulb

If the headlight bulb is burnt, remove the headlight unit assembly, take out the defective bulb and replace a new one.

Spark plug inspection

NOTE:

Standard spark plug: NGK D8EA or CHAMPION

Spark plug gap: 0.6-0.7 mm. (0.024-0.028 inc.)

Inverter chain

Lubricate before each use

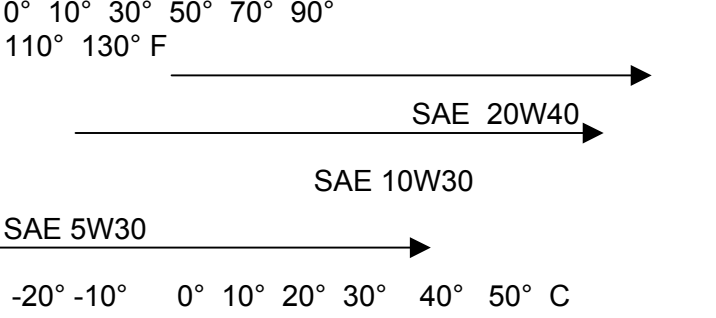
Secondary chain

Check at least every 300 km the voltage and after each output of water, dust or sand. Clean and lubricate another time the chain.

N.B.: the voltage must be checked with the loaded vehicle.

TECHNICAL CHARACTERISTICS

MODEL	DX 175
Dimensions:	
Overall length	1.950 mm
Overall width	1.100 mm
Overall height	1.150 mm
Seat height	820 mm
Wheelbase	1.200 mm
Minimum turning radius	180 mm
Basic weight:	228 kg
Engine:	
Engine type	Forced air-cooled, 4 stroke, OHV.
Cylinder arrangement	Forward inclined single cylinder
Displacement	168 cc
Bore x stroke	62 x 55,6 mm
Compression ratio	9,2: 1
Starting system	Electric
Lubrication system	Wet pump

MODEL	DX 175
<p>Engine oil Type</p> <p style="text-align: right;">temperature</p> <p>Classification of the recommended oils. See the suggested oils diagram at the end of the manual.</p> <p style="text-align: right;">Temperature</p> <p>Quantity</p>	<p>0° 10° 30° 50° 70° 90° 110° 130° F</p>  <p>SAE 20W40</p> <p>SAE 10W30</p> <p>SAE 5W30</p> <p>-20° -10° 0° 10° 20° 30° 40° 50° C</p> <p>Type API Service SE,SF,SG or higher 1.0 L</p>
<p>Reduction gear oil reverse motion</p> <p>Type</p> <p>Quantity</p>	<p>SAE 10W30 400 cc</p>
<p>Air filter</p>	<p>Dry element</p>
<p>Fuel</p> <p>Type</p> <p>Fuel tank capacity</p>	<p>Unleaded fuel 11 L</p>
<p>Carburettor</p> <p>Type</p>	<p>Keihin/PD-24D</p>
<p>Spark plug</p> <p>Type/Manufacturer</p> <p>Spark plug gap</p>	<p>NGK o Champion 0.6-0.7 mm</p>

Chassis	
Type	Steel tube
Caster angle	4°
Forerun	19 mm
Toe-in	3-6 mm

MODEL		DX 175	
Transmission			
Primary reduction system		CVT , ratio 73/18 (4.056)	
Secondary reduction system		Chain	
Secondary reduction ratio		38/15 x 20/14 (4.082)	
Transmission type		5 speeds	
Operation		With pedal	
Reduction ratio		1.a	36/13 (2.769)
		2.a	32/17 (1.882)
		3.a	28/20 (1.400)
		4.a	26/23 (1.130)
		5.a	23/26 (0.885)
Reverse motion		as for front motion	
Tires			
Manufacturer	MAXXIS	KENDA	LOAD STAR
Forwards	23x7x10	22x8-10	205/65-10
Rear	22x11x10	22x11-10	225/50-10

MODEL	DX 175
Battery type/voltage/capacity	12V – 12 ampere
Bulb voltage, wattage x quantity:	
Headlight	12V, 30w/35W x 1
Taillight	12V, 21W/5W x 1
Dashboard warning light:	
Neutral indicator	12V, 3,4W x 1
Lights ignition indicator	12V, 3,4W x 1

Copies of work orders and/or receipts for parts you purchase and install will be required to document maintenance done in accordance with the warranty. The chart below is printed only as a reminder to you that the maintenance work is required. It is not acceptable proof of maintenance work.

MAINTENANCE INTERVAL	DATE OF SERVICE	MILEAGE	SERVICING DEALER NAME AND SURNAME	REMARKS
1 month				
2 months				
3 months				
4 months				
5 months				
6 months				
12 months				
18 months				
24 months				
30 months				
36 months				
48 months				
54 months				
60 months				

WARNING: the use in particular conditions, for example driving on difficult soil, towing, renting (reaching a higher mileage in a short period of time) needs more maintenance interventions, to keep the vehicle in working order.

CAUTION: to improve the product, the manufacturer reserves to change the building characteristics, without the notice duty. If your vehicle building characteristics would be different than what is described in the previous pages or in case of doubt during the consultation of this manual, address to the dealer or to an authorized assistance centre.

GRILLO ADVICES OF USING THE WLADOIL PRODUCTS	
Engine oil	BLUE POWER
Gear oil	SINT GEAR 2T
Brakes liquid	MOTO BRAKE FLUID DOT 4
Gen. lubrication	MOTO GREASE RS
Steering bushing	MOTO GREASE RS
Transmission chain spray	SUPER CHAIN LUBE



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