



Beta
the play bike

BETAMOTOR.COM

EVO
2013 evolution **trial** 

2T



MANUALE DI ISTRUZIONI
OWNER'S MANUAL
MANUAL DE ISTRUCCIONES
MANUEL D'INSTRUCTIONS
BEDIENUNGSANLEITUNG

EVO 2T 2013

125·200·250·300

EVO

Thank you for choosing BETA. Wishing you a lots of good biking!
This manual will give you the information you need to use your
motorcycle correctly and to keep it in excellent condition.

BETAMOTOR S.p.A. reserves the right to change the data and features described in
this manual and to modify its products at any time.

ATTENTION

After the first training hour, check all the tightenings and in a particular manner:

- Footboard supports
- Front and rear brake disks
- Wheel rims
- Shock absorber bolt
- Engine bolts and nuts
- Crown

SECTION 1: GENERAL INFORMATION

Main parts 44
 Vehicle identification data..... 44
 Instrument panel and controls..... 44
 Technical data 45
 Electrical diagram 46

SECTION 2: OPERATION AND USE

Check and maintenance before and after off-road use 48
 Fueling 48
 Recommended lubricants and liquids 49
 Breaking in 49
 Startup - Map switch 50

SECTION 3: MAINTENANCE AND CHECKS

Gearbox oil 52
 Brake pump oil 53
 Clutch pump oil 55
 Fork oil 56
 Air filter 58
 Spark plug 59
 Generator 59
 Front brake 60
 Rear brake 61
 Liquid coolant 62
 Silencer 62
 Carburettor 63
 Valve petals 63
 Rear shock absorber leverage 64
 Checks after cleaning 65
 Maintenance schedule 66

SECTION 4: ADJUSTEMENTS

Adjustement of brake 68
 Adjustement of clutch 68
 Adjustement of idling speed 69
 Adjustement of gas clearance 69
 Adjustement air 69
 Check and adjustement of steering gear..... 69
 Tightening the chain 70
 Adjustement of front suspension 71
 Adjustement of rear shock absorber 72

SECTION 5: WHAT TO DO IN AN EMERGENCY

Troubleshooting 74

ALPHABETICAL INDEX

Index 75



INDEX

Main parts

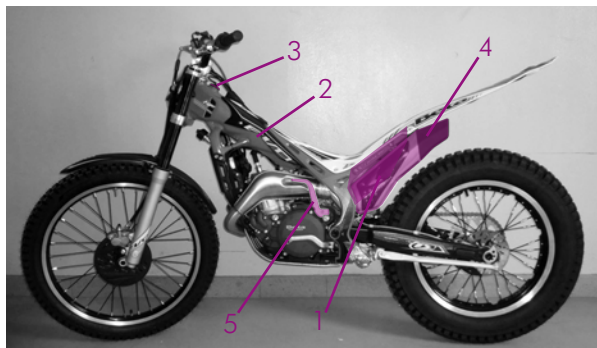
Vehicle identification data

Instrument panel and controls

Technical data

Electrical diagram

SECTION 1



MAIN PARTS

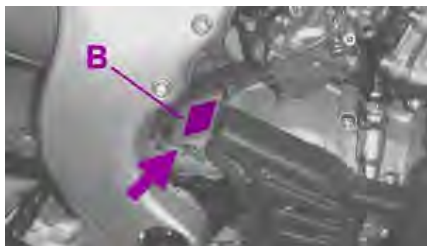
- 1-Filter box 2-Fuel tank 3-Fuel cap
4-Silencer 5-Kick starter



VEHICLE IDENTIFICATION DATA

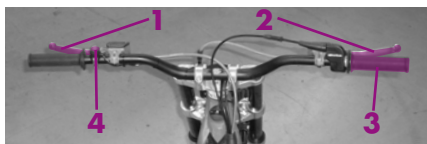
Frame identification

Identification data A are stamped on the right side of the steering gear column.



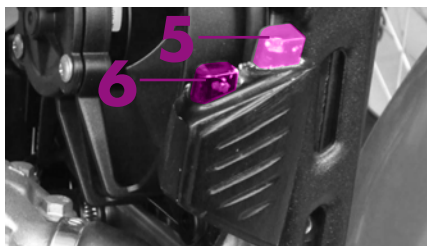
Motor identification

Motor identification data B are stamped as indicated in the picture.



INSTRUMENT PANEL AND CONTROL

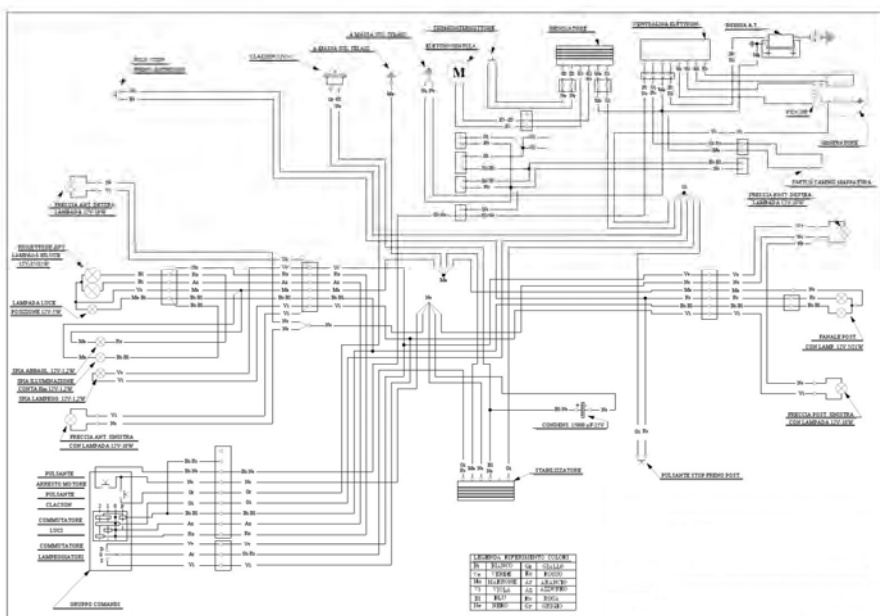
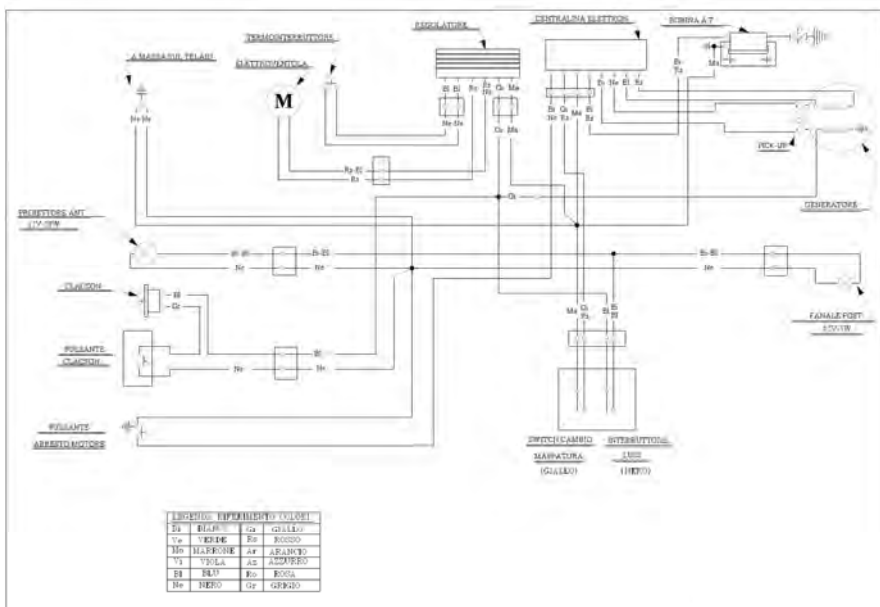
- 1 Clutch lever
2 Front brake lever
3 Throttle grip
4 Engine switch off button



- 5 Map switch
6 Lights switch on/switch off button

TECHNICAL DATA	VERSION TYPE			
	125cc	200cc	250cc	300cc
CYCLE				
Vehicle weight				
Ready to operate (unfueled)	67,5 kg	68,5 kg	68,5 kg	68,5 kg
Dimensions				
Wheelbase	1305 mm	1305 mm	1305 mm	1305 mm
Total length	1990 mm	1990 mm	1990 mm	1990 mm
Total width	850 mm	850 mm	850 mm	850 mm
Total height	1115 mm	1115 mm	1115 mm	1115 mm
Saddle height	660 mm	660 mm	660 mm	660 mm
Clearance from ground	310 mm	310 mm	310 mm	310 mm
Filling capacity				
Fuel tank	2,6 l.	2,6 l.	2,6 l.	2,8 l.
Including reserve of	0,5 l.	0,5 l.	0,5 l.	0,5 l.
Cooling circuit liquid	600 cc	600 cc	600 cc	600 cc
Engine oil	SAE 10/30 (S50cc)	SAE 10/30 (S50cc)	SAE 10/30 (S50cc)	SAE 10w/40 (S50cc)
Suspension				
Front suspension	hydraulic fork with ø38 mm rod	hydraulic fork with ø38 mm rod	hydraulic fork with ø38 mm rod	hydraulic fork with ø38 mm rod
Rear suspension	single-element	single-element	single-element	single-element
Brake				
Front brake	disk-type ø185 mm 4 piston	disk-type ø185 mm 4 piston	disk-type ø185 mm 4 piston	disk-type ø185 mm 4 piston
Rear brake	disk-type ø160 mm 2 piston	disk-type ø160 mm 2 piston	disk-type ø160 mm 2 piston	disk-type ø160 mm 2 piston
Tyre				
Front rim	21 - 1,6 - 32 holes	21 - 1,6 - 32 holes	21 - 1,6 - 32 holes	21 - 1,6 - 32 holes
Rear rim	18 - 2,15 - 32 holes	18 - 2,15 - 32 holes	18 - 2,15 - 32 holes	18 - 2,15 - 32 holes
Front tyre dimensions	2,75 - 21*	2,75 - 21*	2,75 - 21*	2,75 - 21*
Rear tyre dimensions	4.00 R 18*	4.00 R 18*	4.00 R 18*	4.00 R 18*
ENGINE				
Data				
Type	BETA6605 ZD3B9T A	BETA6605 ZD3B9T	BETA6605 ZD3B9T F	BETA6605 ZD3B9T L
Number of cylinders	1	1	1	1
Bore	54,0 mm	54,0 mm	72,5 mm	79,0 mm
Stroke	54,0 mm	60,5 mm	60,5 mm	60,5 mm
Displacement	124cc	194,6 cc	249,7cc	296,5cc
Compression ratio	16,4:1	11,8:1	8,9:1	10,2:1
Ignition	electrical AET 12V - 85W	electronica AET 12V - 85W	electronica AET 12V - 85W	electronica AET 12V - 85W
Spark plug	NGK BR7ES	NGK BR7ES	NGK BR7ES	NGK BR7ES
Fuel system				
Carburetor	Keihin PWK ø 28mm	Keihin PWK ø 28mm	Keihin PWK ø 28mm	Keihin PWK ø 28mm
Jet	min 55 max 130	min 48 max 125	min 48 max 125	min 48 max 125
Mixture	1,5 % synthetic oil 4% mineral oil	1,5 % synthetic oil 4% mineral oil	1,5 % synthetic oil 4% mineral oil	1,5 % synthetic oil 4% mineral oil

ELECTRICAL DIAGRAM



INDEX

Check and maintenance before and after off-road use

Fueling

Recommended lubricants and liquids

Breaking in

Start up

Map switch

SECTION 2

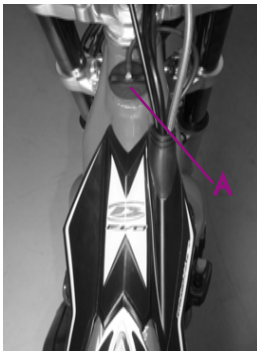
In order to avoid problems connected to the operation of the vehicle, it is advisable to perform some checking and maintenance operations before and after use. Just a few minutes given to these procedures will save you time and money, and will make riding much safer. Proceed as follows:

TYRES	check pressure, general condition and thickness of tread
SPOKES	check for correct tension
NUTS AND BOLTS	check completely all bolts and nuts
CHAIN	check tension (20 mm play) and grease if necessary
AIR FILTER	clean filter and wet with suitable oil for filters

Note:

Check that you have the vehicle identification documents.

On cold days, warm up the motor by running it at minimum for a few instants before starting off. Wash the vehicle carefully after every off-road use.



FUELING

Remove cap A.

The fuel tank holds approximately 2,85 liters, 0,5 liter of which is reserve.

Use only a mixture of unleaded super fuel and oil (mineral oil 4%, synthetic oil 1,5 %)

RECOMMENDED LUBRICANTS AND LIQUIDS

For better operation and longer vehicle life, we advise you to use the products listed in the following chart:

Premix Oil:	60:1	Motul 800 2T
Transmission Oil	550cc	Motul Transoil Expert 10w40
Brake/Clutch Fluid		Motul RBF 600
Coolant/Antifreeze		Motul Motocool Expert
Fork Oil		Motul Factory Line 5 wt.
Air Filter Oil		Motul Air Filter Oil
Air Filter Cleaner		Motul Air Filter Clean
Grease		Motul Tech 300

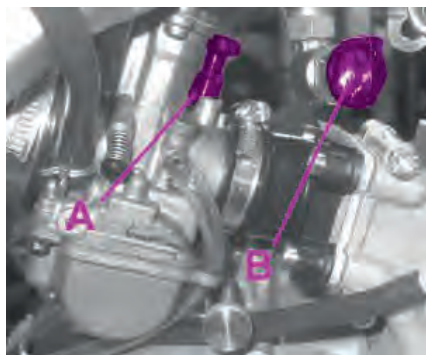
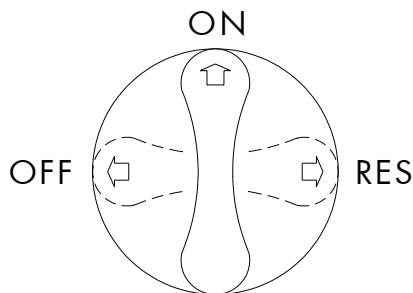
BREAKING IN

Breaking in takes approximately 10 hours of operation. During this time we suggest to:

- Ride after having well warmed the engine
- Avoid travel at constant speed
- Change speed often so that the parts will break in uniformly and in a shorter time
- Avoid turning the throttle more than 3/4 of the way.

Warning:

- After the first 5 hours of operation, change the gear box oil.
- Always use a mixture of unleaded super fuel and oil (mineral oil 4%, synthetic oil 1,5 %).
- After the first off-road use, check all the nuts and bolts.



STARTUP

- Open fuel tank valve B

OFF = closed

ON = open

RES = reserve

- Check that the gears are in neutral.
- Depress the kick-starter with a sharp movement the foot and slightly turn the gas control.
- Always close the fuel tank valve when the engine is off.

Attention!

During competition use or extreme "trial zone" is advising to position the fuel tap on "RES" to guarantee an optimal fuel supply in all condition use.

Note:

When the engine is cold, use choke A. Pull the lever, wait a few seconds, and then return the lever to its starting position.

MAP SWITCH

Using the switch shown in the picture, it is possible to choose between two different map for spark advance.

With the switch in position 1, "soft" map is selected, more suitable for slippery terrain and for a softer engine response.

With the switch in position 2, "hard" map is selected, for a more aggressive engine response: more suitable for dry condition.

INDEX

Gearbox oil

Brake pump oil

Clutch pump oil

Fork oil

Air filter

Spark plug

Generator

Front brake

Rear brake

Cooling liquid

Silencer

Carburettor

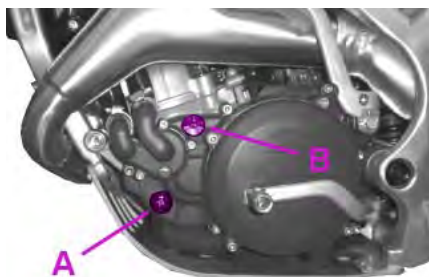
Valve petals

Rear shock absorber Leverage

Checks after cleaning

Maintenance schedule

SECTION 3

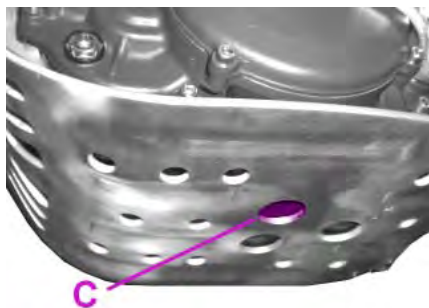


GEARBOX OIL

Check

Hold the vehicle vertical to the ground. When engine is cold check the oil level by means of porthole A. The oil level must be always visible from the porthole.

In contrary case restore the oil level through cap B.



Oil change

The engine must be hot when changing oil:

- Place a container under the engine
- Unscrew the filler cap and oil drain plug C
- Empty the crankcase completely
- Close drain plug C
- Put in the right oil quantity (table on page 45)
- Close the filler cap.

Note:

Change the gearbox oil after the first 5 hours of operation. For all subsequent changes, follow the instructions given on the chart on pag. 66, using the lubricants recommended on pag. 49.

BRAKE PUMP OIL

Front brake

Check the oil level by means of oil porthole **A**. The oil level must be always visible from the porthole. In contrary case restore the oil level.

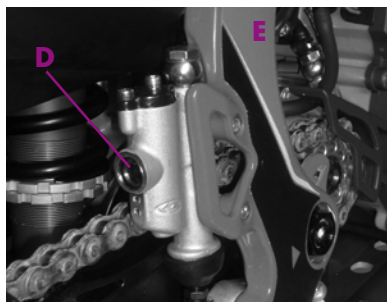
To restore the oil level, top up by unscrewing the two screws **B**, lifting cap **C** and adding oil.



Rear brake

Check the level of the brake fluid through sight **D**. The level of the fluid should never fall below the mark in the sight.

To restore the level of the brake fluid, unscrew cap **E** and pour in brake fluid (BARDAHL BRAKE FLUID DOT 4) until the level reaches the mark in sight **D**.

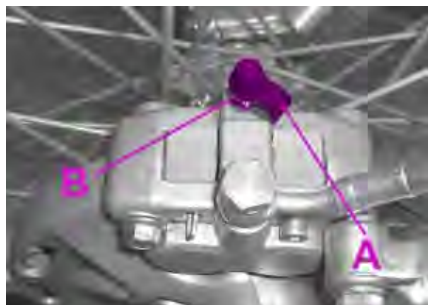


Warning:

If you feel the lever too soft, there may be an air bubble in the circuit. Follow the bleeding instruction on the next pages.

Note:

For oil changes, follow the instructions given on the chart on pag. 66, using the lubricants recommended on pag. 49.



Bleeding of front brake

To bleed air from the front brake circuit, proceed as follows:

Remove the rubber cap A from valve B

Open the oil sump cap

Insert one end of a transparent tube into valve B and the other end into a container

Pump with the brake lever 2/3 times and keep the lever pressed

Unscrew the valve and let the oil drain

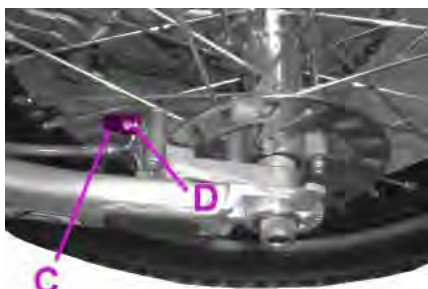
Close the valve and release the lever

If air bubbles are still visible in the tube repeat above operation until obtaining a continuous outflow of oil with no air bubbles

Note: During this procedure, continuously top up the brake pump tank to replace the oil that is out flowing

Remove the tube.

Replace the oil pump cap.



Bleeding of rear brake

To bleed air from the rear brake circuit, proceed as follows:

Remove the rubber cap C from valve D

Remove the brake pump cover

Insert one end of a transparent tube into valve D and the other end into a container

Pump with the brake lever 2/3 times and keep the lever pressed

Unscrew the valve and let the oil drain

Close the valve and release the lever

If air bubbles are still visible in the tube repeat above operation until obtaining a continuous outflow of oil with no air bubbles

Note: During this procedure, continuously top up the brake pump tank to replace the oil that is out flowing

Remove the tube.

Replace the oil pump cap.

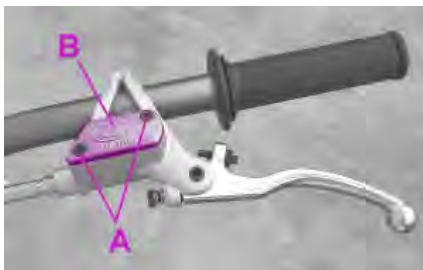
Note:

Handle the hydraulic oil very carefully. It is corrosive, and will irreparably damage painted or plastic parts of the motorcycle upon contact.

CLUTCH PUMP OIL

Check the oil level. The oil level must never be below half the tank capacity.

To restore the oil level, top up by unscrewing the two screws A, lifting cop B and adding oil.



Note:

For oil changes, follow the instructions given on the chart on pag. 66, using the lubricants recommended on pag. 49

Bleeding of clutch

To bleed air from the clutch circuit, proceed as follows:

- Remove the rubber cap C from valve D
- Open the oil sump cap
- Insert one end of a transparent tube into valve D and the other end into a container
- Pump with the clutch lever 2/3 times and keep the lever pressed
- Unscrew the valve and let the oil drain
- Close the valve and release the lever
- If air bubbles are still visible in the tube repeat above operation until obtaining a continuous outflow of oil with no air bubbles

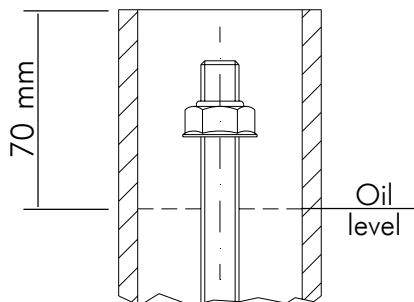
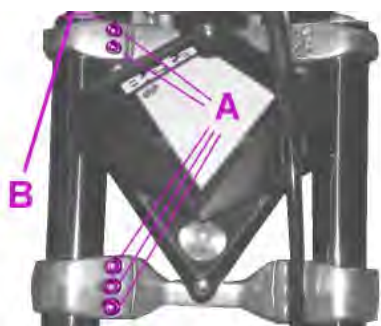
Note: During this procedure, continuously top up the clutch pump tank to replace the oil that is out flowing

- Remove the tube
- Replace the oil pump cap.



Note:

Handle the hydraulic oil very carefully. It is corrosive, and will irreparably damage painted or plastic parts of the motorcycle upon contact.



FORK OIL

Right shaft

To replace the oil, proceed as follows:

- 1) Remove the front wheel
- 2) Remove the front fender, the brake and cover brake
- 3) Loosen left shaft lock screws A and take off the slider
- 4) Unscrew upper plug B
- 5) Unscrew fixing lock nut and take off the plug
- 6) Unscrew the fixing screw of the cartridge positioned under the slider, and extract the cartridge
- 7) Empty the fork leg and the cartridge, draining all the oil inside
- 8) Reassemble the cartridge on the slider tightening the fixing screw, then refill oil (OJ01) in the cartridge up to the level indicated in the figure (with fork in the fully compressed position)
- 9) Reassemble the plug on the rod, tighten the lock nut and, extending the fork leg, screw the plug on the shaft
- 10) Reassemble the fork

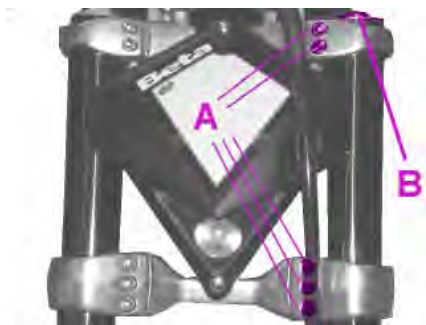
Note:

For screw A: torque wrench setting 7,8 : 9,1 Nm.

Left shaft

To replace the oil, proceed as follows:

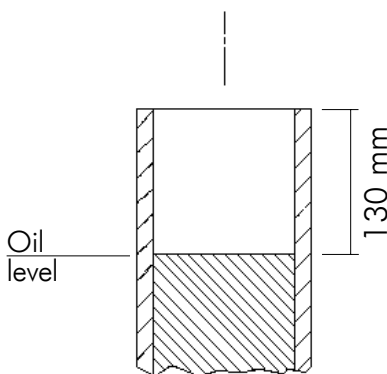
- 1) Remove the front wheel
- 2) Remove the front fender, the brake and cover brake
- 3) Loosen the shaft lock screws A
- 4) Unscrew slider plug B
- 5) Remove the spring and totally empty the oil
- 6) Fill oil up to the level indicated in figure (with fork compressed in the fully compressed position)
- 7) Reassemble the spring and extend fork leg
- 8) Screw the plug B



Note:

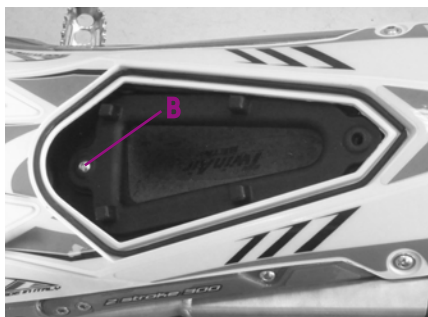
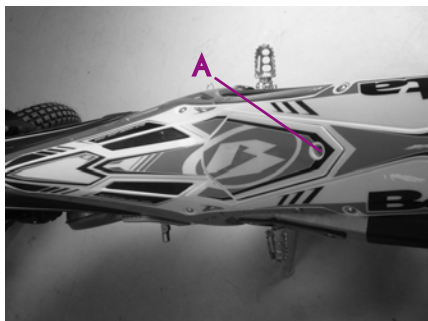
For all changes, follow the instructions given on the chart on pag. 66, using the lubricants recommended on pag. 49.

Check regularly and clean thoroughly removing any dirt on dust cover and also check the rubber seal to ensure a good seal.



Note:

For screw A: torque wrench setting 7,8 : 9,1 Nm.



AIR FILTER

To access the filter remove the mudguard by unscrewing the screw A, and then proceed as follows:

- Remove filter capping and filter unscrewing the 2 screws B
- Wash the filter with water and soap
- Dry the filter
- Wet the filter with filter oil, removing any excess oil so that there is no dripping
- If necessary, clean the inside of the filter box
- Reassemble. We suggest to assemble previously the filter capping on filter .

Note:

- If the filter is very dirty, wash it first with gasoline and then with water and shampoo.
- If the filter is damaged, replace it immediately.

Warning:

After every intervention, check that nothing has been left inside the filter box.

Clean the filter every time the vehicle is used cross-country.

SPARK PLUG

Keeping the spark plug in good condition reduce fuel consumption and increase engine performance.

To perform the check, simply slide off the electrical connection tube and unscrew the spark plug.

Examine the distance between the electrodes with a feeler. This distance should be from 0.5 to 0.6 mm. If it is not, it may be corrected by bending the earth electrode.

Check as well that there are no cracks in the insulation or corroded electrodes. If so, replace immediately.

Observe the chart on page 66 when performing the check.

When replacing the spark plug, screw it in by hand until it stops, then tight with a wrench.

Note:

- The use of low-quality oil will cause an increase in carbon deposits. We therefore advise the use of PANOLIN OFF ROAD 2T RACE oil.
- Always use NGK BR7ES spark plugs.

GENERATOR (IGNITION GENERATOR CHECK)

Check must be performed with a component temperature of about 20°C.

Check can also be performed with the generator mounted on the motor bike or on the engine.

Unplug the black 12 pins connector between the generator and CDI.

Verify with a multimeter that the resistance values among the below indicated pins are in the prescribed range:

- | | |
|----------------------------------|--------------------|
| • black- white (Pick-Up) | 320 ohm \pm 15% |
| • red-blue (capacitor charge) | 300 ohm \pm 15 % |
| • yellow-brown (services supply) | 0,45 ohm \pm 20% |

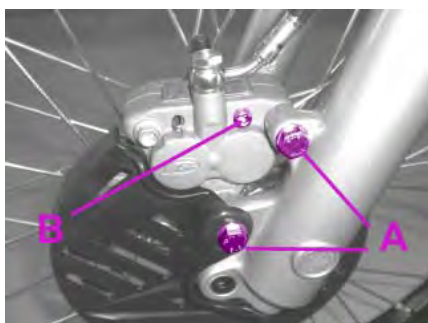
FRONT BRAKE

**Check**

To check the front brake wear, simply observe the caliper from the front, where it is possible to see the ends of the two pads. These pads should have at least a 2 mm layer of lining. If this layer is thinner than 2 mm, replace the pads immediately.

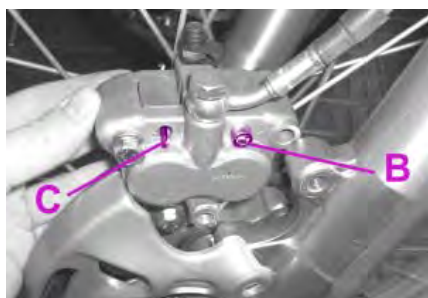
Note:

Observe the times given on the chart on pag. 66 when performing the check.

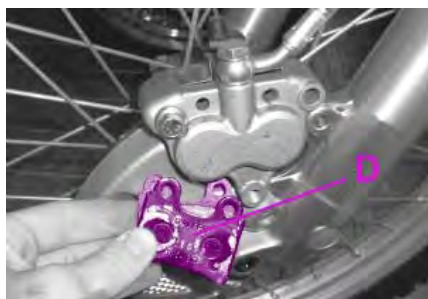
**Replacement**

To replace the pads, proceed as follows:

- Disassemble the disk cover and the caliper by unscrewing the two screws A and loosening the screw B
- Take off the split pin C
- Unscrew the screw B
- Remove the pads D and replace them
- To reassemble, proceed in the reverse order. Apply medium thread-locking (frenafilletti medio) to the screws A

**Note:**

To avoid braking problems, pay particular attention to the correct reassembly of the split pins.



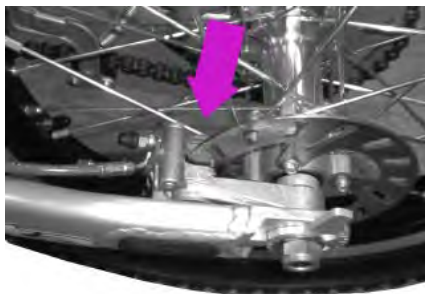
If the brake disk is removed, apply medium thread-locking to the screws when reassembling.

REAR BRAKE

Check

To check the rear brake wear, simply observe the caliper on the upper part where it is possible to see the ends of the two pads. The pads should have at least a 2 mm layer of lining. If this layer is thinner than 2 mm, replace the pads immediately.

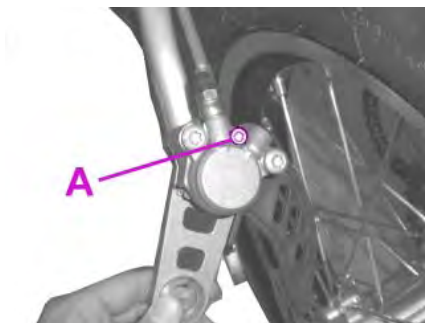
Note: Observe the times given on the chart on pag. 66 when performing the check.



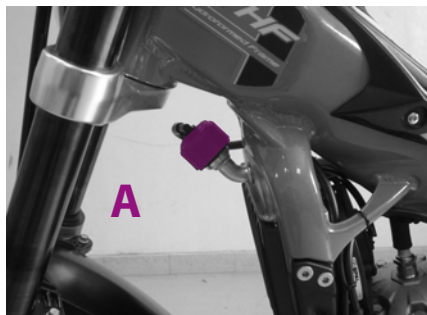
Replacement

To replace the pads, proceed as follows:

- Disassemble the rear wheel
- Remove the caliper from the swing arm
- Unscrew the screw A
- Take off the pads and replace them
- To reassemble, proceed in the reverse order. Apply medium thread-locking (frenafiletti medio) to the screw A.



If the brake disk is removed, apply medium thread-locking to the screws when reassembling.



LIQUID COOLANT

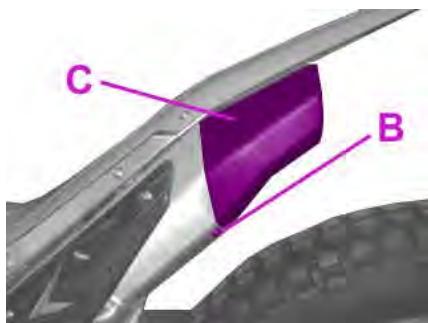
The level check must be performed with the engine cold, as follows:

- Unscrew cap A and check the level of the liquid
- If the level is not visible in proximity of the bottom of pipe proceed to add liquid

Circuit capacity is indicated in the table on pag. 45. Use the liquids recommended on the table on pag. 49.

WARNING:

To avoid burns, never unscrew the radiator filler cap when the engine is hot.

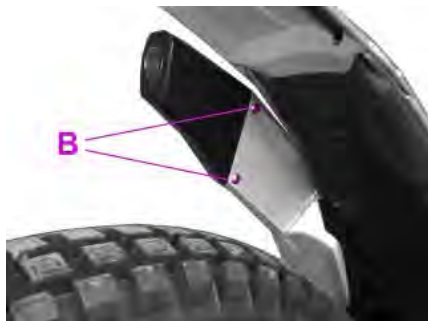


SILENCER

If an increase in exhaust noise is noted, check the silencer.

Proceed as follows:

- Unscrew the 3 screws B B
- Take off end piece C
- Extract the fiber wool and substitute with a new other (available as spare-part)
- To reassemble, proceed in the reverse order.

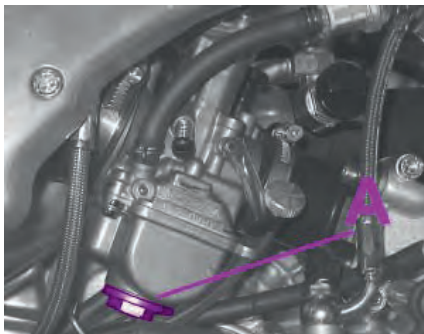


CARBURETTOR

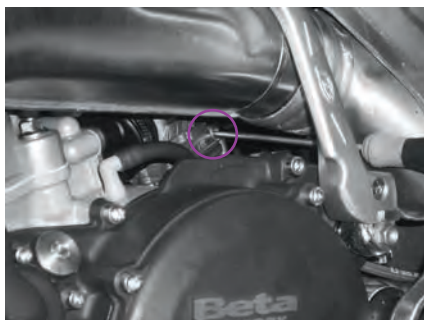
To ensure excellent carburettor performance, the carburettor must be periodically and thoroughly cleaned.

Unscrew plug A and check that no dirty is inside.

Differently it will be necessary to open the tank and to carefully clean the jets.



To adjust the mixture at the idling, use a screw-driver as it is shown in the pictures.



VALVE PETALS

We recommend to check the valve petals as follows after every 40 hours of use:

- Check that flaps A show no signs of breakage.
- Check that flaps A close perfectly on valve body B.

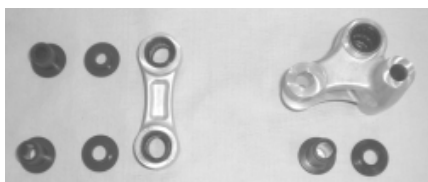
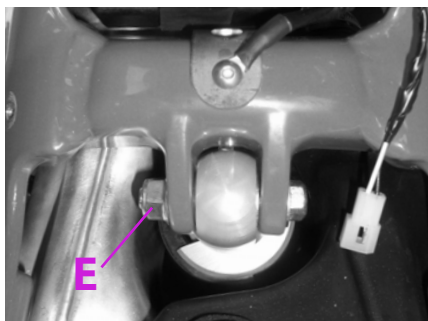




REAR SHOCK ABSORBER LEVERAGE

To guarantee an optimal operation and the longest lifetime of the progressive leverage of the rear suspension, it is recommended to check after every race/run the correct tightening of the bolts marked A, B, C, D and E.

It is also recommended not to wash the motorbike with high pressure water jets and also to perform a check of cages and bushes every 40 hours of usage. Proceed as follows:



Disassemble the leverage unscrewing the screws A, B, C, D.

- Extract the bushes.
- Clean all the parts with a dry cloth.
- Lubricate the cages with lithium grease.
- Reassemble the group starting with fixing the linking rods to the chassis, using bushes with internal diameter of 8mm and the special M8 screws.
- Fix the rocker arm to the swing arm using the bushes with the brim thickness of 2.5mm, and the M10x75. Afterwards fix it to the damper (screw M10x45).
- Finally assemble the linking rods on the rocker arm using the remaining bushes and the M10x125 screw.

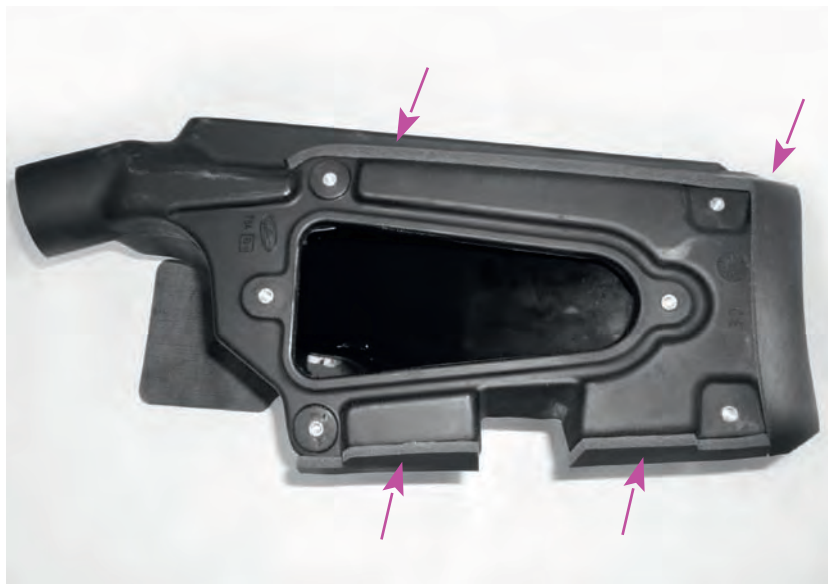
Note:

The prescribed tightening torques are 4,5Kgm for the screws A, B, C, E and 3,0Kgm for the screw D.

CHECKS AFTER CLEANING

After cleaning the motorcycle, it is good practice to:

- Clean the air filter (proceed as described on pag.58).
- Remove the flywheel cover to eliminate any water that may have entered.
- Check carburettor tank: proceed as described on pag.63, to eliminate any water that may have entered.
- Grease the chain.
- Verify the integrity of water proofing gaskets on air box shown in the picture. Change them if these are damaged.



MAINTENANCE SCHEDULE

		Breaking in, 5 hours		1st counterroll, 40 hours or 1000 km		2nd counterroll, 80 hours or 2000 km		3rd counterroll, 120 hours or 3000 km		4th counterroll, 160 hours or 4000 km		5th counterroll, 200 hours or 5000 km		6th counterroll, 240 hours or 6000 km		7th counterroll, 280 hours or 7000 km		8th counterroll, 320 hours or 8000 km		9th counterroll, 360 hours or 9000 km				
		CL	C	R	C-A	R	C-A	R	C-A	R	C-A	R	C-A	R	C-A	R	C-A	R	C-A	R	C-A	R	C-A	
engine		spark plug																						
		clutch	C-A																					
		flaps																						
		liquid coolant			C	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C
		engine oil			C	C	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
		piston ring			C	C	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
		piston																						
cycle		rear shock absorber	C	T	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
		nuts and bolts	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
		throttle grip	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A	C-A
		bearing and steering gear play	C		C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
		bearings rims			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
		lighting equipment			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
		air filter	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL	CL
		brakes	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
		general greasing			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
		rear shock absorber leverage		T	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
		oil level brakes			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
		fork oil			R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
		brake and clutch pump oil												S	S	S	S	S	S	S	S	S	S	S
		tires			C	C	C	C	C	C	C	C	C	C	C	C	R	R	R	R	R	R	R	R
		tension and grease chain			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
		tension spoke			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
		motorcycle test			C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

legend:

- C - Checks (cleaning, adjustment, greasing, replacement if necessary)
- R - Replacement
- A - Adjustment
- CL - Cleaning
- T - Tightening

INDEX

Adjustment of brakes

Adjustment of clutch

Adjustment of idling speed

Adjustment of gas clearance

Adjustment of air

Check and adjustment of steering gear

Tightening the chain

Adjustment of front suspension

Adjustment of rear shock absorber

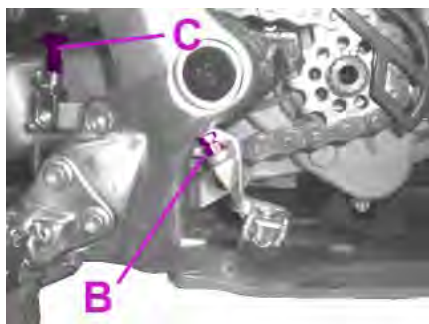
SECTION
4



ADJUSTMENT OF BRAKES

Front brake

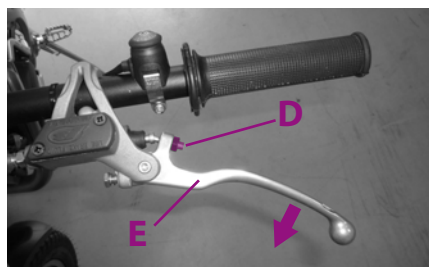
The front brake is disk type with hydraulic control, and therefore requires only ordinary maintenance. If you want to adjust the position of the lever, use register A.



Rear brake

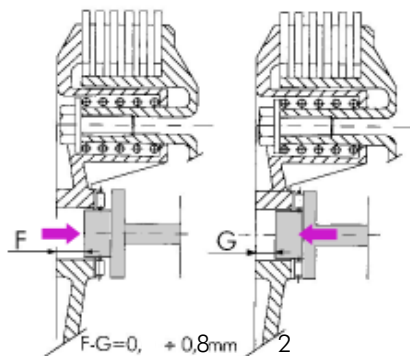
The rear brake is disk type with hydraulic control. You may adjust pedal height by means of registers B and C.

A minimum of clearance is recommended.



ADJUSTMENT OF CLUTCH

Only operation that is performed on the clutch is adjustment of the position of lever E. To do this, use register D.



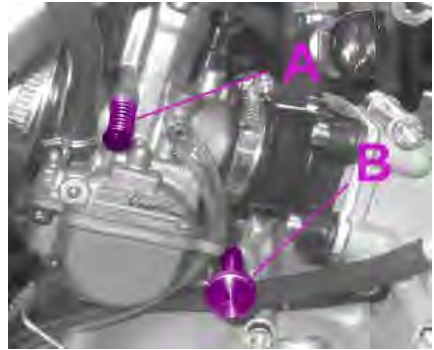
Note:

The device you pressure plate must have a play between 0.2mm and 0.8mm. Therefore, proceed as follows when replacing disks:

- Reassemble the clutch without the outer cover
- Send the control rod to end of travel by pushing the pressure plate and measure distance F
- Operate the clutch lever until the control rod activates the pressure plate. Measure distance G and check that there is difference of approximately 0.2-0.8mm

ADJUSTMENT OF IDLING SPEED

In order to correctly perform this operation, we advise you to do it when the engine is hot, connecting an electric revolution counter to the spark plug wire. Use the register A to calibrate the minimum (1000 rpm).



ADJUSTMENT OF GAS CLEARANCE

Whenever the accelerator shows unloaded travel exceeding 3 mm, measured from the edge of the handle, you should adjust it by means of cable gas register.



ADJUSTMENT AIR

From all closed recommend to 1 1/2 turns (B).

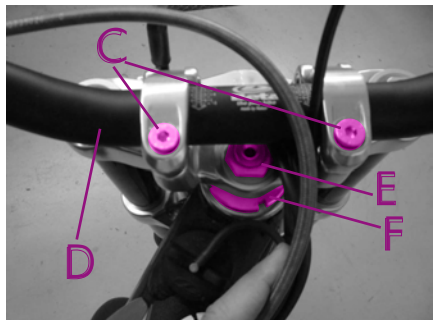
CHECK AND ADJUSTMENT OF STEERING GEAR

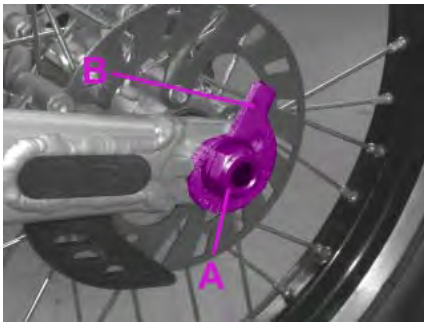
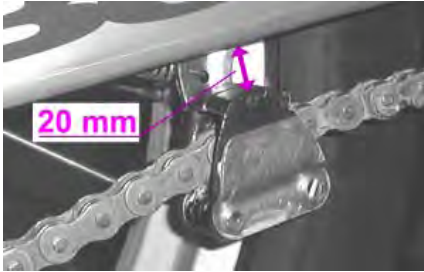
Periodically check the play in the steering sleeve by moving the fork back and forth as shown in the figure. Whenever you feel play, adjust as described below:

- Remove the handbar protection
- Unscrew the 2 screws C
- Remove handlebar D
- Loosen nut E
- Loosen the screws G
- Take up the play by means of ring nut F. F
- Correct adjustment, in order to not leaving any play, should not cause difficulty or irregularity in turning the handlebar
- Tighten the nut E



For reassembling proceed in the reverse order.





TIGHTENING THE CHAIN

Check the drive chain periodically to ensure longer chain life.

Always keep it lubricated and clean from deposited dirt.

If play exceeds 20 mm, tighten the chain as follows:

- Loosen nut A
- Adjust lever B
- Adjust the same lever on the opposite side, bringing it to the same position
- Check wheel alignment
- Tighten and block nut A.

ADJUSTEMENT OF FRONT SUSPENSION

Fork

- For a more active “quicker” suspension setting, totally unscrew regulation knob B compared to the std. position
- For a more controlled “slower” suspension setting, preload spring for about 4-5 turns using the adjusting screw A and turning the knob B by 15 clicks from the fully opened position, which is in the middle of the adjustment.
- Rider weight. According to the rider weight, use the following settings:

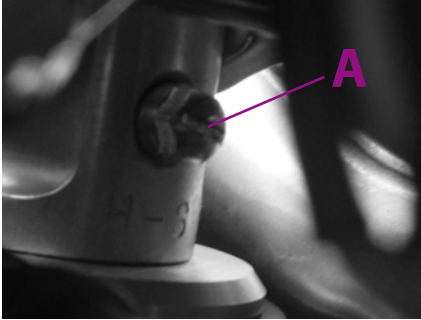


RIDER WEIGHT (kg)	SPRING PRELOAD
weight > 80	+ 10 turns 108 mm
75 < weight < 80	+ 5 turns 110 mm
weight < 70	0 112 mm

In the event of any malfunction, contact our authorised customer service network.

ADJUSTMENT OF REAR SHOCK
ABSORBER

Adjustment of spring load



- For a more active “quicker” suspension setting, open compression regulation knob A
- For a more controlled “slower” suspension setting, close compression regulation A

Note: for adjustment use a T-handle wrenches with jointed hexagonal socket

- Periodically clean the rebound rubber as follow:
lower/remove rebound rubber using a little screwdriver and blow with compressed air in the spring spacer milling
- Always check the top and bottom bolts are tight.

In the event of any malfunction, contact our authorised customer service network.

INDEX

Troubleshooting

SECTION 5

PROBLEM	CAUSE	REMEDY
The engine doesn't start	-Fuel system (tubes, fuel tank, valve) is blocked	Clean the system
	-Air filter is very dirty	Proceed as indicated on page 58
	-No current arriving at spark plug	Clean or replace spark plug. If the problem persists, consult one of our Authorized Dealers
	-Engine is flooded	With gas completely open, continue trying to start engine for a few moments. If engine still doesn't start, remove the spark plug and dry it off.
Engine misfires	-Spark plug has irregular electrode distance	Restore correct distance. See page 59
	-Spark plug is dirty	Clean or replace
	-check mass	Control isolation mass push-button
Piston knocks		
	-Carbon deposits inside cylinder or on spark plug	Consult one of our Authorized Dealers
	-Silencer partially obstructed	Consult one of our Authorized Dealers
Engine overheats and loses power	-Silencer partially obstructed	Consult one of our Authorized Dealers
	-Exhaust clearance partially obstructed	Consult one of our Authorized Dealers
	-Mix too lean	Jet may be partially obstructed
Weak front brake	-Worn pads, greased, vitrify	Proceed as indicated on page 60
	-Air or moisture in hydraulic circuit	Proceed as indicated on page 54
Weak rear brake	-Worn pads, greased, vitrify	Proceed as indicated on page 61
	-Air or moisture in hydraulic circuit	Proceed as indicated on page 54

Adjustment of brakes	68
Adjustment of clutch	68
Adjustment of front suspension	71
Adjustment of rear shock absorber	72
Adjustment air	69
Adjustment of gas clearance	69
Adjustment of idling speed	69
Air filter	58
Bleeding of brakes	54
Bleeding of clutch	55
Brakes: front brake check and replacement	60
Brakes: rear brake check and replacement	61
Breaking in	49
Carburetor	63
Checks after cleaning	65
Checks and maintenance before and after off-road use	48
Electical diagram	46
Fueling	48
Generator	59
Instrument panel and controls	44
Liquid coolant	62
Lubricants and liquids	49
Main parts	44
Maintenance schedule	66
Oil gearbox: check and change	52
Oil brake pump	53
Oil clutch pump	55
Oil fork: right shaft	56
Oil fork: left shaft	57
Rear shock absorber leverage.....	64
Silencer	62
Spark plug	59
Startup	50
Steering gear: check and adjustment	69
Technical data	45
Tightening the chain	70
Troubleshooting	74
Valve petals	63
Vehicle identification data: motor and frame identification	44



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