

XP 4 STROKE

MINICROSS - MINIMOTARD

USE AND MAINTENANCE MANUAL MINICROSS AND MINIMOTARD

 **polini** motori®
trasforma il meglio in massimo

ENGLISH

FOREWORD

INSTRUCTIONS MAY BE REPEATED A NUMBER OF TIMES IN THE COURSE OF THIS MANUAL. THIS HAS BEEN DONE PURPOSEFULLY TO EMPHASISE THE IMPORTANCE OF CERTAIN OPERATIONS AND THE NEED TO BEAR SAFETY CONSTANTLY IN MIND. ALL ENGINE MAINTENANCE MUST BE REFERRED TO A SPECIALIST DEALER.

IMPORTANT

Read this manual carefully throughout before riding your new motorcycle. This manual contains important information that will help you avoid causing unnecessary damage to the machine and serious or even fatal injury to yourself to other persons and things. To ensure care-free and satisfying offroad riding you must get to know your new motorcycle thoroughly and set it up correctly before you start riding.

IMPORTANT LEGAL NOTICE

THIS MOTORCYCLE HAS BEEN DESIGNED AND MANUFACTURED EXCLUSIVELY FOR COMPETITION USE AND IS SOLD "AS SEEN" WITH NO WARRANTY. THIS MOTORCYCLE DOES NOT COMPLY WITH CERTAIN ROAD SAFETY REGULATIONS AND IT IS THEREFORE ILLEGAL TO RIDE IT ON PUBLIC ROADS, HIGHWAYS AND MOTORWAYS.

APPLICABLE LEGISLATION PERMITS THE USE OF THIS MOTORCYCLE ONLY IN ORGANISED COMPETITIONS OR CLOSED TRACK SPORTING EVENTS ORGANISED IN COMPLIANCE WITH LOCAL BY-LAWS.

ALWAYS ENSURE THAT IT IS LEGAL TO OPERATE THE MOTORCYCLE BEFORE RIDING IT.

IT IS STRICTLY FORBIDDEN TO CARRY PASSENGERS. This minicross motorcycle has been designed and manufactured for use by one rider only.

NOTE

Children must always be supervised by an adult when riding this motorcycle.

READ THIS MANUAL CAREFULLY.

⚠ CAUTION!

This text identifies a risk of serious or even fatal personal injury if the associated instructions are not followed. The associated instructions must be followed carefully to avoid damage to the motorcycle.

⚠ WARNING!

This text identifies a risk of personal injury or damage to the motorcycle. The associated instructions must be followed carefully to avoid serious or fatal accidents.

This manual is an integral part of the motorcycle and must accompany it if it is sold or transferred to a new owner or keeper.

WELCOME NOTICE

Congratulations on your choice of a Polini minicross motorcycle. By purchasing a Polini motorcycle you have become one of a large family of satisfied Polini motorcycle owners and riders.

NOTE!

This Polini minicross is a high performance competition motorcycle and incorporates the latest motocross race technology. It must only be used in competitive racing by expert riders.

This new Polini minicross model has been designed to perform as competitively as possible. Motocross is nevertheless a physical sport and winning requires more than just a good motorcycle. To achieve good results you must be in good physical condition and be a skilful motorcycle rider. The best results are achieved by riders who exercise regularly to keep in peak physical form and who practise their motorcycling skills frequently.

The purpose of this manual is to help you get the greatest satisfaction possible from your new Polini minicross motorcycle, both from the performance of the machine itself and from success in competitions.

PERSONAL PROTECTIVE EQUIPMENT

- 1- Most deaths in motorcycling are caused by head injuries. ALWAYS wear a helmet. Whenever possible, also wear a visor or goggles, as well as protective boots, gloves and clothes.
- 2- The exhaust system becomes extremely hot during use and may remain so for quite some time afterwards. Do not touch any parts of the exhaust system. Always wear clothes that completely cover your legs.
- 3- Do not wear loose or flowing clothing. This can become entangled in the control levers, kick-start lever, footrests, chain or wheels.
- 4- Respect the environment.

⚠ DANGEROUS MODIFICATIONS

MODIFICATIONS TO OR THE REMOVAL OF ORIGINAL PARTS FROM THIS MINICROSS MOTORCYCLE MAY CAUSE IT TO BECOME UNSAFE OR ILLEGAL. ALWAYS COMPLY WITH ALL LOCAL AND NATIONAL LAWS, REGULATIONS AND SAFETY STANDARDS.

THIS MOTORCYCLE HAS BEEN PROJECTED FOR A DRIVER UNDER A WEIGHT OF 85 Kgs.

For your own safety and for the best performance of your motorcycle, always insist on original Polini Motori spare parts for all repairs. To be able to recognise your motorcycle and to keep track of its identity in case of theft, make a note here of its specifications and frame number:

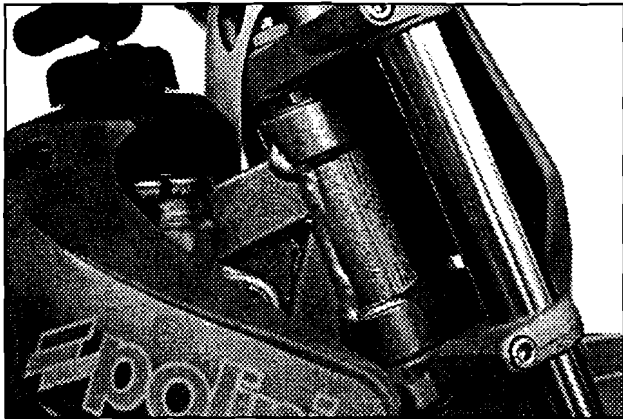
MODEL:

ENGINE CAPACITY:

TYRES: Front. Rear.

FRAME NUMBER:

IDENTITY CODE: 144.000.



LOCATION OF VEHICLE IDENTITY CODE

The motorcycle's identity code is stamped on the front of the frame or on the right hand side of the steering head.

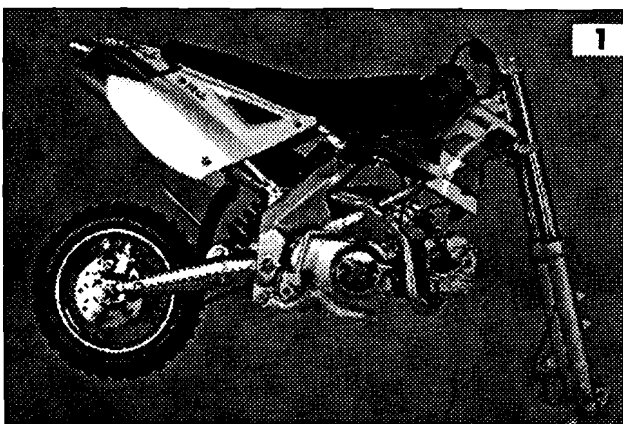
1. PREPARING YOUR MOTORCYCLE FOR USE

When you first open the crate you will see that the motorcycle is not ready for use, but has been partly dis-assembled for reasons of packing and transport. Carefully unpack all the parts from the crate and proceed as instructed below to check and assemble your motorcycle for use.

The following instructions give the most practical order for assembling the various parts of your motorcycle.

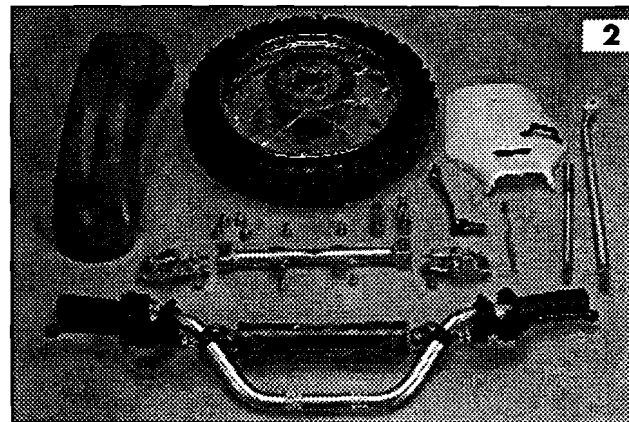
1- Remove the motorcycle from the crate (photo 1).

2- Remove all the parts needed to reassemble the motorcycle from the crate and check them thoroughly (photo 2).

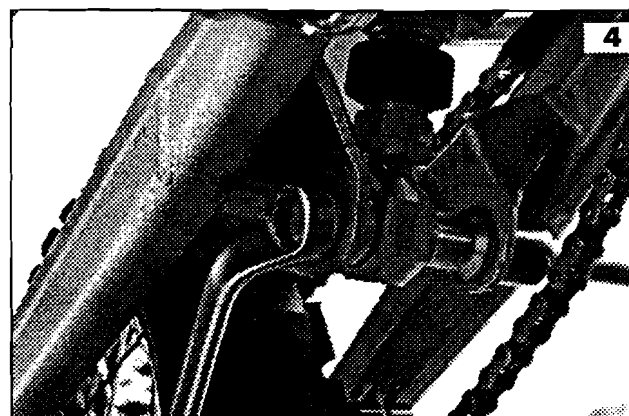
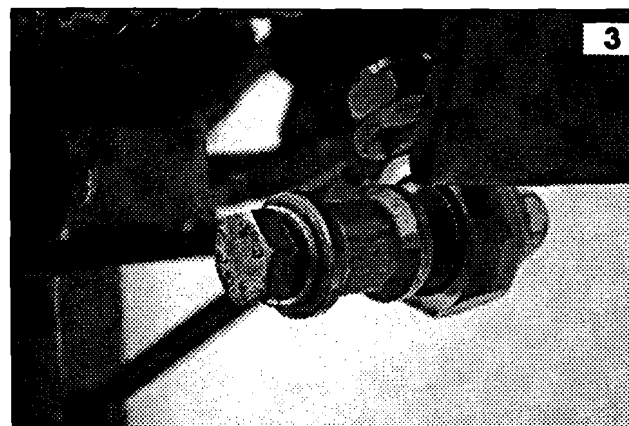


- 4 x WASHER (UNI 6593)
- 1 x PLASTIC TIE
- 2 x FOOTREST SPRING
- 6 x M8x20 ALLEN SCREW (cross-slot sunken hex screws) (UNI 5931)
- 2 x M8x40 ALLEN SCREW (cross-slot sunken hex screws) (UNI 5931)

- 4 x M6x16 ROUNDED HEAD SCREW (ISO 7380)
- 1 x M8x18 SCREW (ISO 7380) (for the stand)
- 1 x RIGHT FOOTREST
- 1 x LEFT FOOTREST
- 1 x FRONT WHEEL HUB
- 4 x M8 SELF-LOCKING NUT (UNI 7473)
- 4 x M8x30 ALLEN SCREW (cross-slot sunken hex screws) (UNI 6593)
- 2 x HANDLEBAR CLAMP
- 1 x HANDLEBAR WITH FOAM ROLL
- 1 x FRONT WHEEL WITH DISK
- 1 x FRONT MUDGUARD
- 1 x GEAR PEDAL
- 1 x FOOTREST SUPPORT
- 1 x NUMBER PLATE
- 1 x STAND
- 1 x STAND SPRING



- 3- Fit the rear shock-absorber, using the M10x80 hex head bolt, two M10.5 spacers, two washers and the M10 nut. Fit one of the washers at the bolt head and the other at the nut. The nut, bolt, spacers and washers are pre-fitted

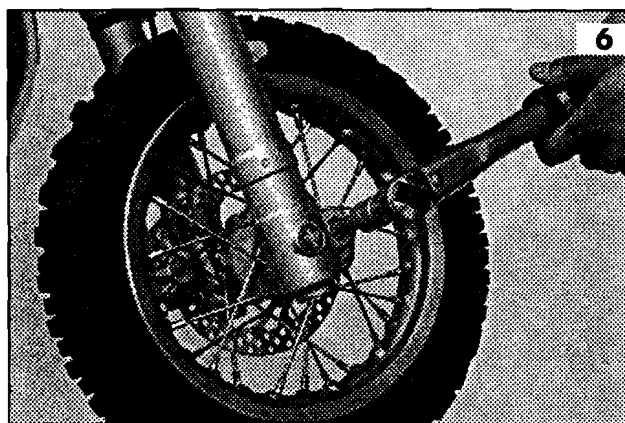
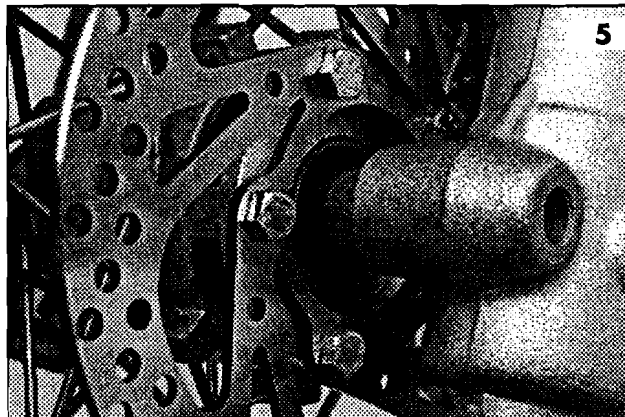


to the mounting on the swinging arm (photos 3, 4)
(See section 6.2).

4- Open the front brake disk pads.

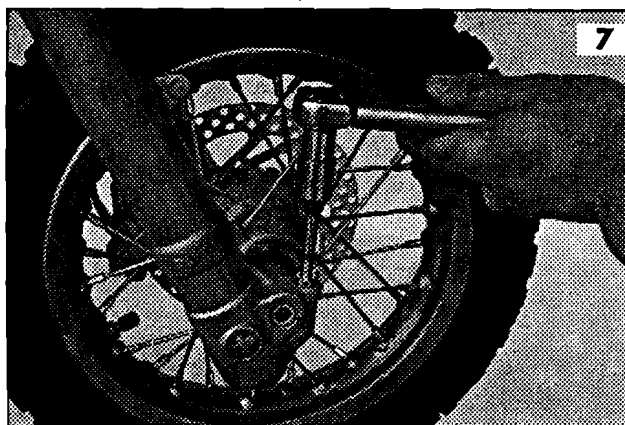
5- Fit the front wheel using the special spindle (photo 5).

6- Push the spindle right through the wheel and tighten with a torque wrench (photo n.6). (See section 6.2).



7- Tighten the spindle locking bolt with a torque wrench (photo 7) (See section 6.2).

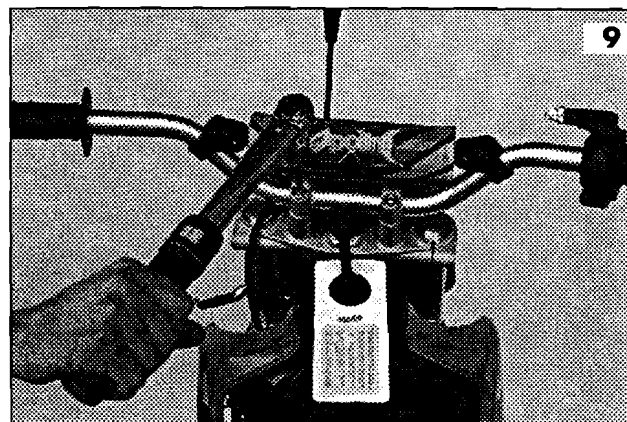
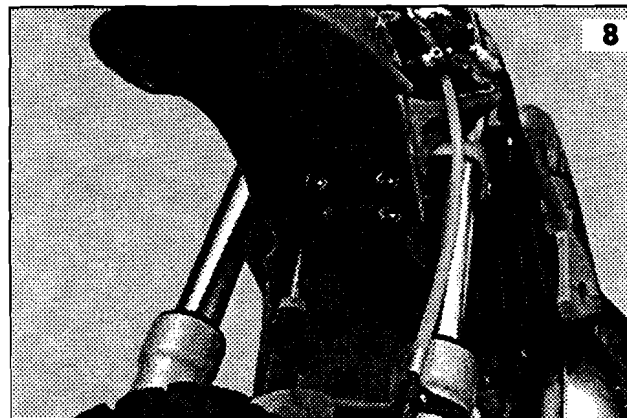
8- Inflate the front and rear tyres (See section 4.9).



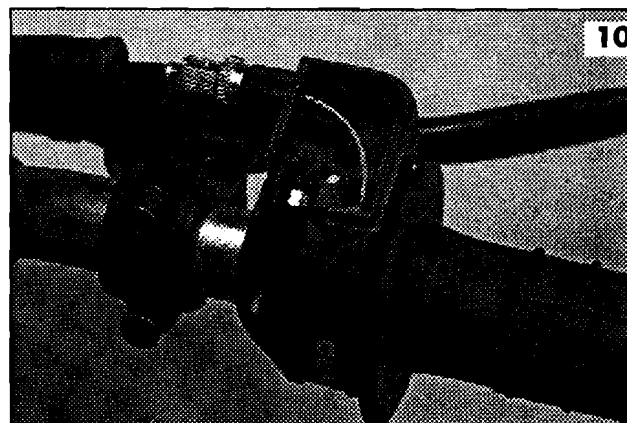
9- Fit the front mudguard with the 4 washers and rounded head screws provided M6x16 (photo 8).

Fit the front number plate inserting the brake cable in its special slide.

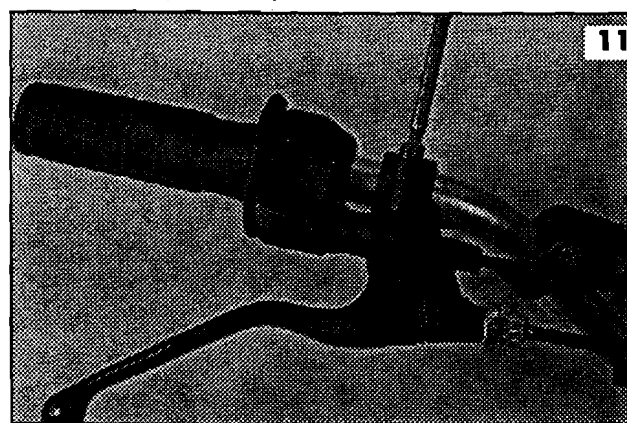
10- Cut the transport tie securing the front brake master cylinder. Fit the handlebar and fix it to the top fork with the two handlebar clamps and the four M8x30 Allen bolts (See section 6.2) (photo 9).



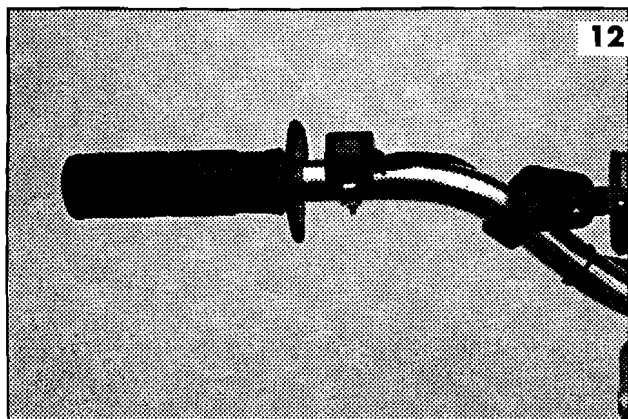
11- Remove the throttle control cover and fit the cable as shown in photo 10. Re-fit the cover. (See section 4.7).



12- Fit the front brake lever and secure the lever bracket with the screws provided (photo 11) (See section 4.8).



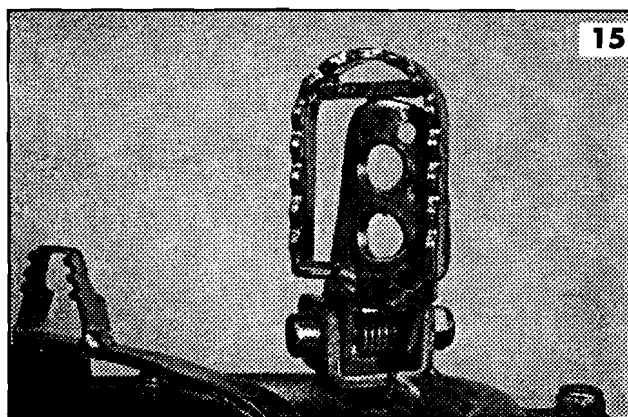
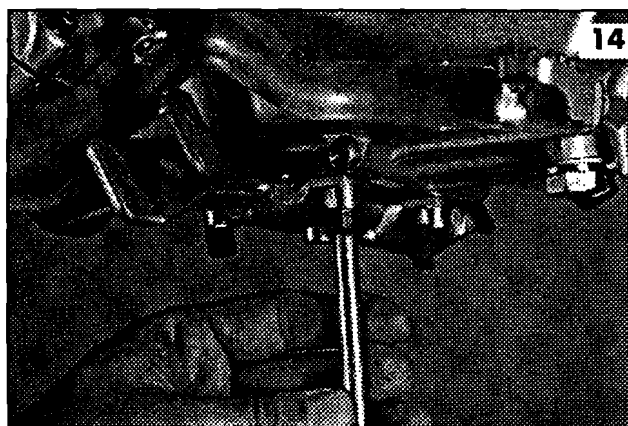
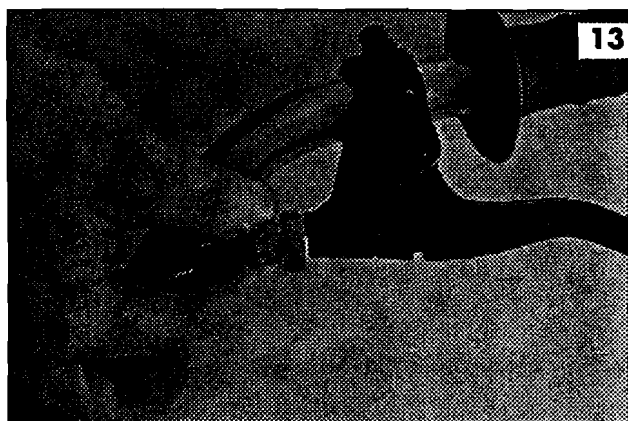
13- Fit the engine stop button and fix it to the handlebar with its mounting clamp (photo 12).



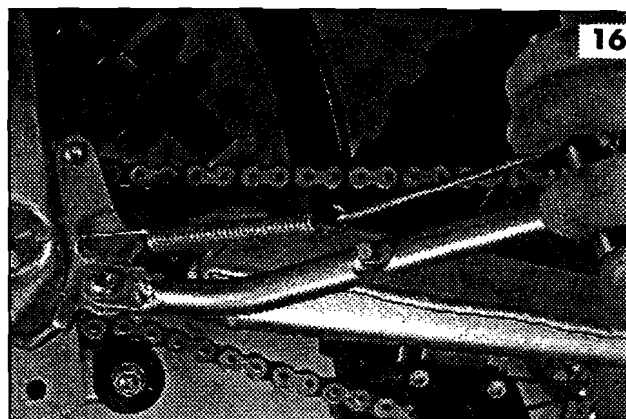
14- Fit the clutch lever and adjust the travel of the lever as you prefer using the regulator (photo 13) (See section 4.8).

15- Fit the footrest support first on the engine with the four M8x20 Allen screws and then on the chassis with 2 M8x20 screws and 2 self-locking nuts (photo 14).

16- Fit the footrests like shown in photo 15, with M8x40 screws and self-locking nuts.

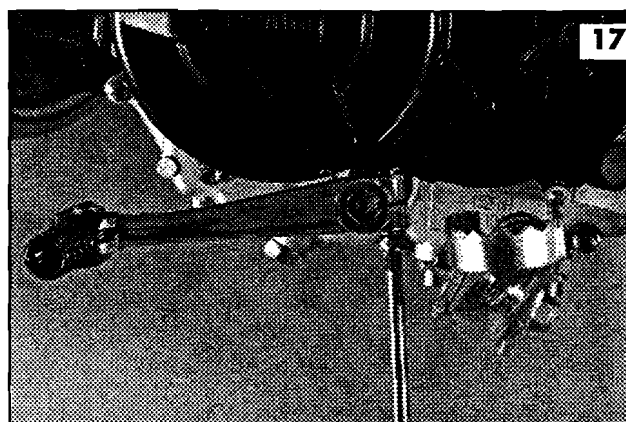


17- Fit the stand using the M8x18 screw to fasten it and the spring provided (photo 16).



⚠ DANGER! We suggest you to remove the stand during competitions as it could be dangerous and bruising.

18- Fit the gear lever (photo 17).



19- Fill the fuel tank (See section 4.13).

20- Check the engine oil level (See section 4.3).

INTRODUCTION

Always ensure that the motorcycle has been efficiently serviced and check it over before riding it.

Take your motorcycle to an authorised POLINI MOTORI dealer for all major servicing and repair.

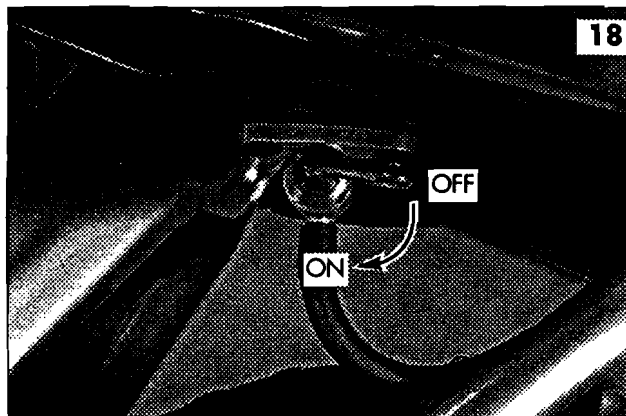
Because of the manufacturer's policy of continuous development, and because of constant innovations in technology, your motorcycle may differ in some details from that described in the illustrations and text in this manual. Original POLINI MOTORI spare parts are always made from the same materials and in the same way as the parts originally fitted to your minicross motorcycle.

Always insist on original POLINI MOTORI spare parts. Their use ensures a longer life and improved efficiency for your motorcycle.

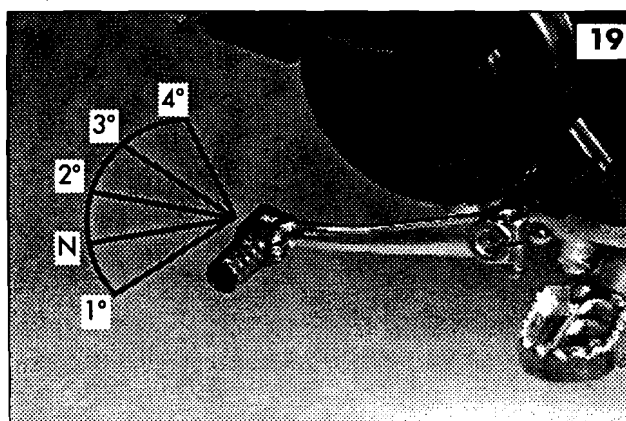
2. STARTING THE ENGINE FOR THE FIRST TIME

Always check over your motorcycle thoroughly before starting the engine. To start the engine for the first time, proceed as instructed below.

1- Turn the fuel tap located under the fuel tank to "ON" position (photo 18).

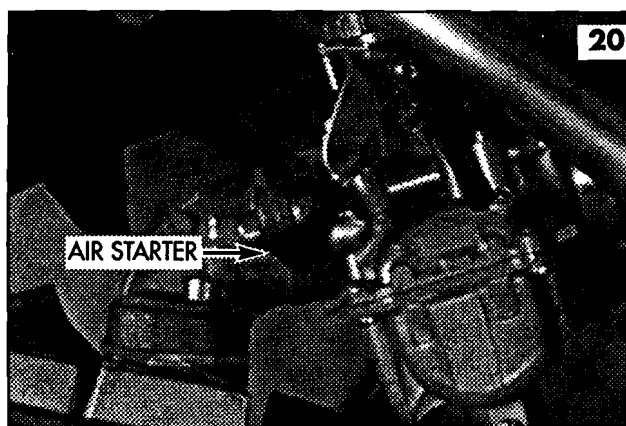


2- Before starting the engine put the gear in neutral position (photo 19, gear N).



⚠ WARNING! If the gear position is not neutral the bike could move when started.

3- If the engine is cold, lift the choke lever on the carburettor (photo 20).



⚠ WARNING! Lower the starter lever again as soon as the engine starts to warm up.

4- Leave the throttle closed. Pivot the kick-start lever outwards and push energetically downwards with your foot to start the engine.

5- Return the kick-start lever to its rest position. Leave the engine idle for a few minutes to warm it up.

⚠ WARNING! Check that the engine stop button stops the engine effectively before you begin riding the motorcycle.

3. RUNNING IN

1- Run your new motorcycle in as instructed below to ensure that the engine and transmission bed in correctly and to ensure continuous reliability in future.

⚠ CAUTION! The first time you ride your new motorcycle, ride for about two hours at low engine speeds to ensure that it runs in correctly. Also respect the following precautions.

2- Once the engine starts, leave it idle until it warms up to normal temperature. If you switch the engine off for a short time, wait for it to cool down completely before you re-start it.

3- During the running in period, always ride at constant speeds. **AVOID RAPID ACCELERATION.**

4- Even when riding at low engine speeds, avoid extended difficult sections of road or track that could cause the engine to become very hot.

5- Once you have run in your motorcycle following all these instructions, take it to a Polini Motori dealer for its post-running-in service. Apart from a change of spark plug and engine oil, this service also includes the disassembly of the cylinder to check on the condition of the spark plug, cylinder head and the piston and barrel.

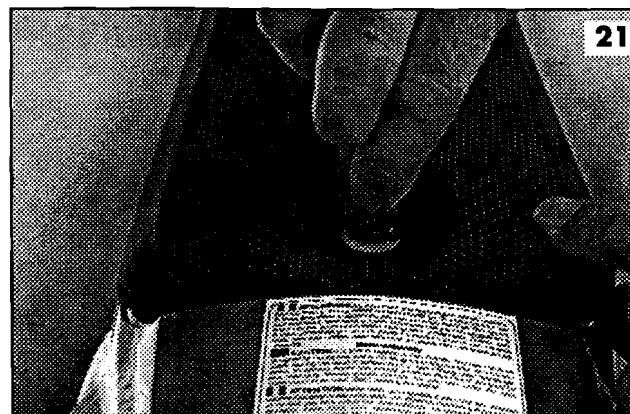
⚠ CAUTION! After the running in it is important to check the tightening of the head's nuts. Often they can be loosen after the running-in period.

4. SERVICING: INTERVALS AND OPERATIONS

The servicing described below is intended to keep your motorcycle in peak condition. It consists of tasks that should be done regularly, or on all occasions before you start riding. All the tasks and adjustments described below can be done easily by following the instructions given in this manual. Refer to your POLINI MOTORI dealer for scheduled services and repairs, and insist that only original spare parts be used to replace worn or broken components. Refer to the servicing tables in sections 5.1 and 5.2 below for the frequency with which the various service operations must be performed.

4.1 REMOVING THE SEAT

Lift the seat lock tab and turn the seat lock 180 degrees anti-clockwise. Lift the seat gently and slide it out rearwards (photo 21). To refit the seat, engage the front seat catch with the catch on the fuel tank and push the seat on to the frame members. Once the seat is firmly in position, turn the seat lock 180 degrees clockwise to lock the seat in place.

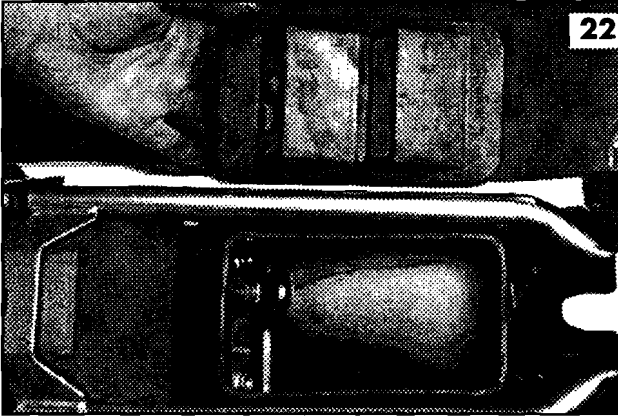


4.2 REMOVING AND CLEANING THE AIR FILTER

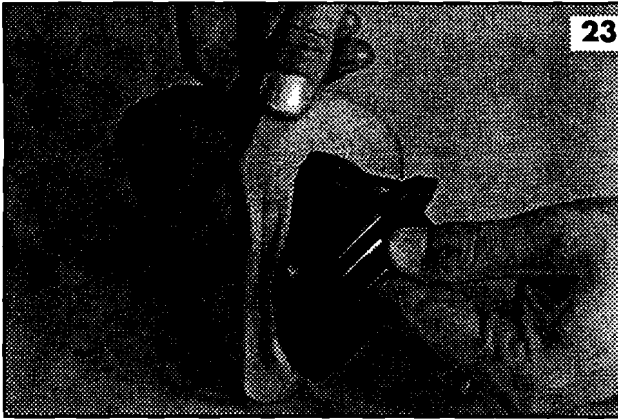
Dirty air filters are one of the most common causes of poor engine performance.

Proceed as follows to clean the air filter.

- Remove the seat. (See section 4.1)
- Remove the cover from the filter box (photo 22).



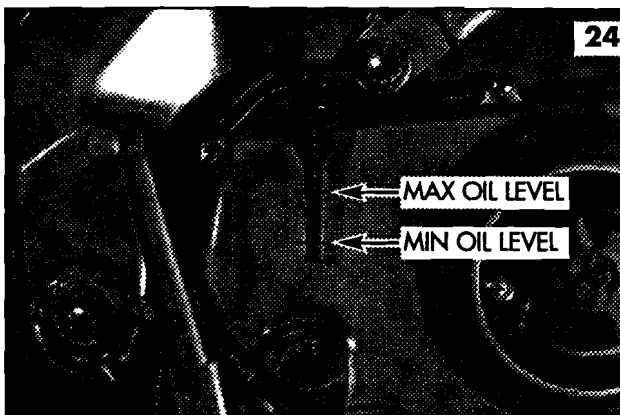
- Remove the air filter and wash it in hot water with neutral soap (photo 23)
- Rinse the filter and squeeze it dry, then dampen it with oil for filters. If the filter becomes clogged with fine dust as well as normal dirt, replace it with a new one.



CAUTION! Dirty air filters choke the engine and cause poor performance. Torn or broken filters can allow dirt to enter the engine and cause rapid deterioration of the piston rings and barrel.

4.3 CHECKING THE ENGINE OIL LEVEL

- Stand the motorcycle upright.
- Remove the oil level screw from the gearbox casing on the right hand side of the engine (photo 24).



- Check that the oil level reaches the bottom edge of the oil dipstick. Check oil level without screwing the dipstick onto its thread.

4.4 CHANGING THE ENGINE OIL

WARNING! Risk of burns! Wait for the engine to cool before removing the oil drain screw.

- Stand the motorcycle upright.
- Remove the oil drain screw from the bottom of the gearbox casing (photo 25) and leave the old oil drain out.

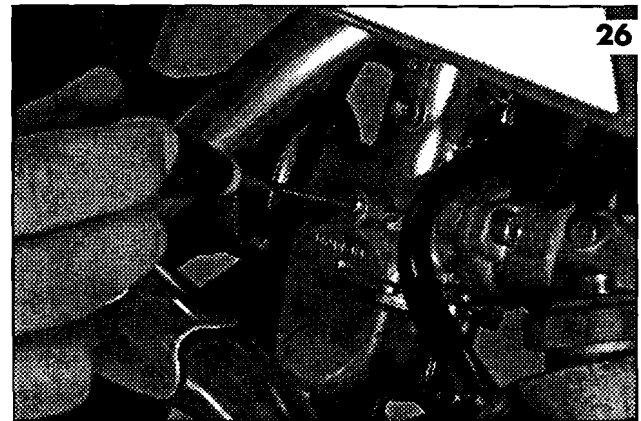


Do not throw spent oil into the environment. Dispose of it correctly through authorised collection points.

- Screw the drain screw back in. Add 850 grams of SAE 20W50 engine oil. Only employ highly detergent engine oil classified for service API SF or SG.

4.5 ADJUSTING ENGINE IDLING SPEED

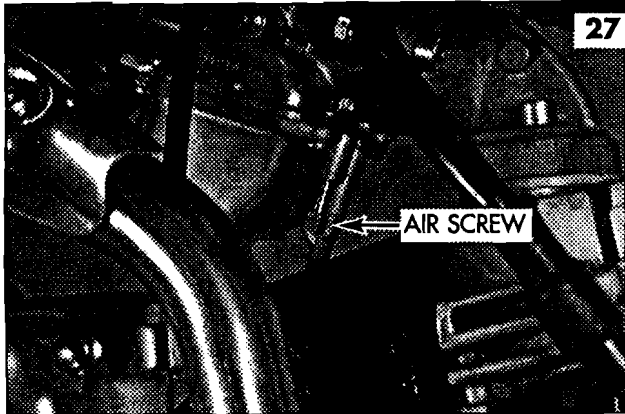
- Warm up the engine before adjusting the idling speed.
- Leave the engine idle with the throttle closed.
- Turn the idle speed adjustment screw on the right hand side of the carburettor in or out to achieve the lowest engine speed possible without running becoming irregular (photo 26).



4.6 ADJUSTING THE AIR SCREW

The air screw can be adjusted in order to obtain better performance when the bike is out of idling speed.

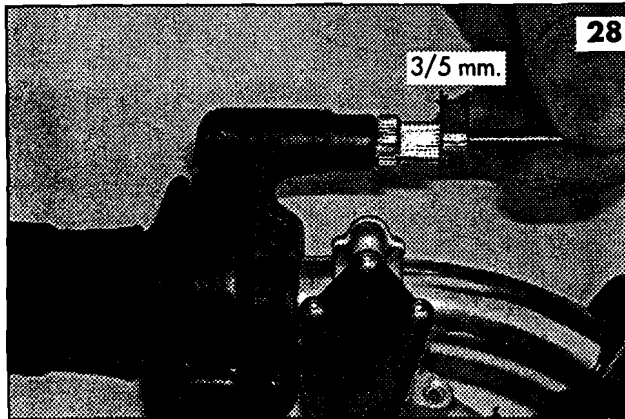
- If the engine has difficulty in curve (rich mixture) unscrew the air screw.
- If the engine has difficulty in curve (poor mixture) screw the air screw (photo 27).



⚠ WARNING! The adjusting screw is near the cylinder. Pay attention not to scald oneself while adjusting it.

4.7 ADJUSTING THE THROTTLE CONTROL AND CABLE

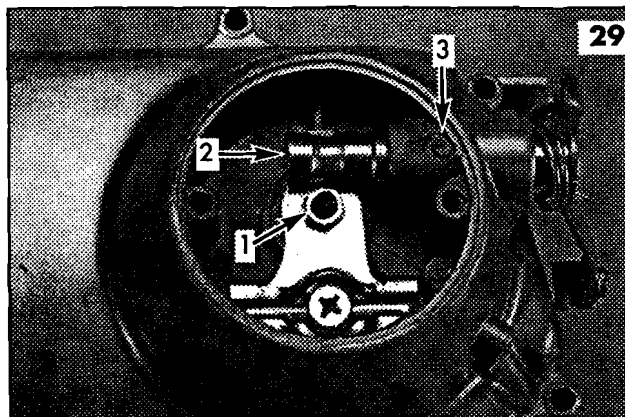
- Make sure that the throttle twist grip operates smoothly.
- Make sure that the play in the throttle cable measures 3-5 mm. If play exceeds this measurement, reduce play by screwing out the adjuster on the twist grip control (photo 28) or on the top of the carburettor.



⚠ CAUTION! Failure to keep this parts in peak condition and to make repairs whenever necessary can lead to serious personal accidents and serious damage to the motorcycle.

4.8 ADJUSTING THE CLUTCH

Should the clutch adjustment with the clutch lever (photo 13) be insufficient, it is possible to screw the adjuster (1) (photo 29) located under the cover of the clutch casing.



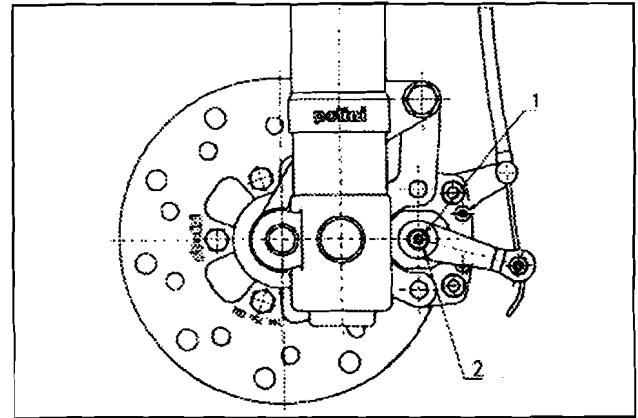
⚠ WARNING! Often lubricate the clutch shaft (2) in order to avoid it to grip while the casing moves.

Generously lubricate the part after disassembling it by removing the pin (3).

4.9 ADJUSTING MECHANICAL BRAKES

To adjust the brake lever, follow these instructions:

- 1- Remove the protection cover of the brake lever
- 2- Unlock the locking ring screwed on the brake lever and screw the adjuster clockwise direction if you want to decrease the lever play, or anti-clockwise if you want to increase it.
- 3- Once the operation is concluded, insert the protection cover on the cable tensioner again.



NOTE: Use a stroke of 5/10mm (measured from the head of the lever or of the pedal) on the lever and on the pedal brake. For the adjusting, act on the brake calliper, unscrew nut No. 1 and screw grub screw No. 2 till you reset the right stroke of the handlebar lever; keeping grub screw No. 2 in its position, block nut No. 1 and check that the wheel does not remain braked.

4.10 TYRE PRESSURES

Correct tyre pressure ensures maximum stability and control and also extends tyre life.

Check tyre pressure frequently and adjust as necessary. Always measure tyre pressure when the tyres are cold. Keep in mind that the tyre pressure can change depending on the track's conditions and on the rider's weight.

RECOMMENDED TYRE PRESSURES

FRONT	REAR
1.3 BAR - 18.9 PSI	1.3 BAR - 18.9 PSI

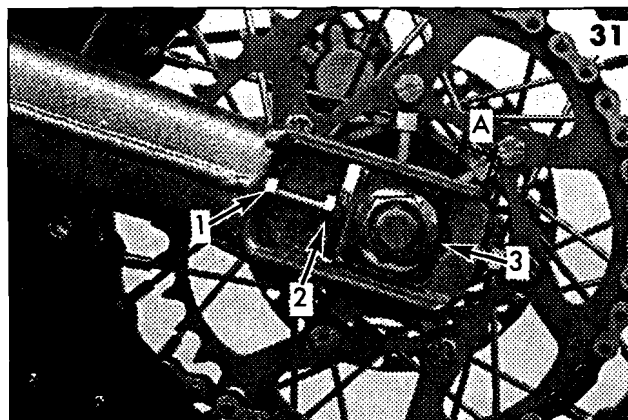
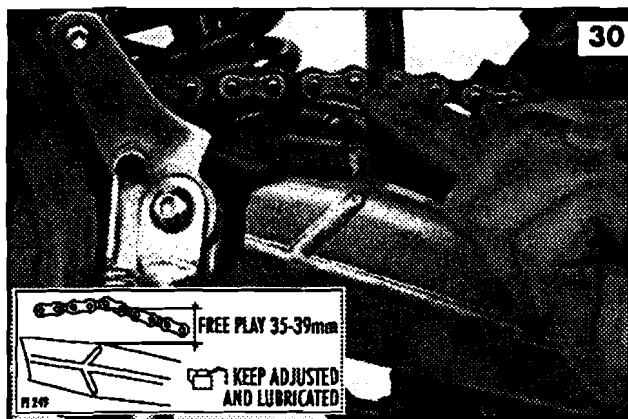
4.11 ADJUSTING THE TRANSMISSION CHAIN

The final drive chain is an extremely important component and deserves special care and regular servicing.

⚠ WARNING! When working on the chain, take care not to jam your fingers between the chain and sprocket.

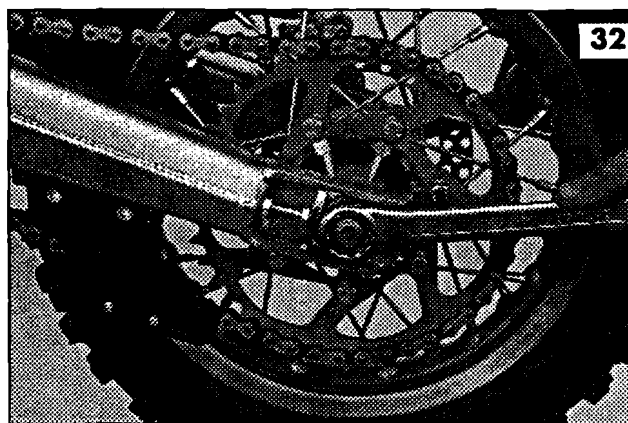
- 1- Check the chain tension with the motorcycle standing upright and with no pressure on the suspensions. Measure chain movement at the position shown in photo 30.
- Chain movement must be 35-39 mm as shown in the figure. If necessary, proceed as follows to adjust the chain tension (photo 31).
- Loosen the nut (3) on the rear wheel spindle.

- Loosen the two lock nuts (1) and turn the two adjusters (2) anti-clockwise to tighten or clockwise to slacken the chain.



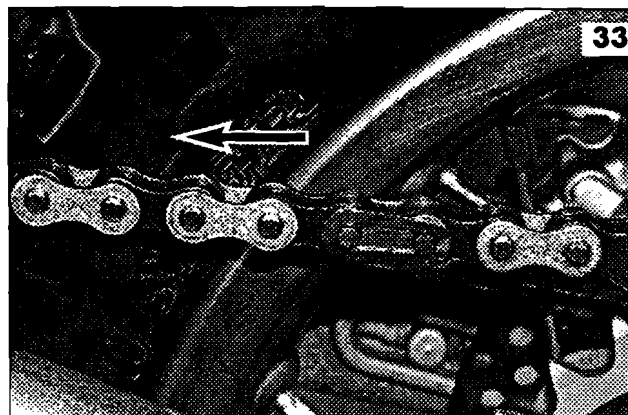
Make sure that the edges of the spindle plates are perpendicular to the swinging arm and measure distance "A" between the swinging arm and the plates. Make sure that distance "A" is the same on both sides.

- Tighten the rear spindle nut (3) (photo 32). See section 6.2 for the tightening torque.
- Measure the chain movement again and repeat the adjustment procedure if necessary.
- Gently turn the two adjusters (2) to bring them into firm contact with the axle plates. Hold the adjusters firmly with a spanner and tighten the lock nuts (1).



- 2- Whenever you check chain tension, also check the chain and the front and rear sprockets for wear or damage.
- 3- Always lubricate the chain after washing the motorcycle. Dirty chains can be cleaned with diesel fuel. A good quality chain lube spray reduces chain wear and improves the efficiency of the transmission.

- 4- If you have to remove or change the chain, remember to replace the clip on the split link with the closed end facing in the direction of travel (photo 33).



CAUTION! Never fit a new chain to worn sprockets or vice-versa. Incorrect wheel alignment not only causes rapid chain and sprocket wear but also affects the handling and control of the motorcycle.

WARNING! Loose, worn or badly aligned chains can break or come off the sprockets. If this occurs the chain can jam the rear wheel and cause accidents with serious personal injury and damage to the motorcycle.

4.12 ADJUSTING THE REAR SHOCK

The shock is set up in the factory and has no user adjustments.

SERVICING

- 1- Check the spring for damage or wear.
- 2- Bounce the rear of the motorcycle up and down and check that the rear suspension functions smoothly.
- 3- Check that the shock rod is perfectly straight and that there are no oil leaks around it.
- 4- Push the rear wheel sideways to check for play in the swinging arm bushings. Replace the bushings immediately any play is detected.

4.13 ADJUSTING THE FRONT FORK

The front fork is set up in the factory and has no user adjustments.

SERVICING

- 1- Check that the fork seals are clean and free from oil, dust and dirt.
- 2- Check the legs for oil leaks. Replace damaged fork seals before using the motorcycle.
- 3- Apply the front brake and bounce the front of the motorcycle up and down to check that the front fork is functioning smoothly.

4.14 FUEL

Only use petrol with an octane rating of 96 to 100 or more. In case of pre-ignition (knocking) try a different brand of fuel or a higher octane rating. Fuel tank capacity is 3 litres.

4.15 FUEL FILTER

The fuel filter is incorporated in the fuel tap under the tank. As dirt builds up in the filter it gradually impedes the flow of fuel to the carburettor.

For this reason the filter must be cleaned regularly.

SERVICING

- 1- Drain the fuel out of the tank into a clean petrol can.
- 2- Unscrew the two fixing screws and remove the fuel tap from the tank.
- 3- Wash the filter in water with neutral soap.
Leave the filter dry, in the sun if possible.
- 4- Replace the fuel tap on the tank, making sure that the seal is correctly seated.

⚠ WARNING! Petrol is extremely inflammable and petrol vapour can explode easily. Only drain the tank in a well ventilated area and with the engine switched off. Refrain from smoking and avoid all naked flames or sparks while draining fuel or refuelling.

4.16 WASHING THE MOTORCYCLE

Cover the following parts to prevent water from entering before washing your motorcycle:

- the throttle control
- the brake controls
- the air intake and filter
- the exhaust hole.

Avoid directing jets of water directly on to the following parts:

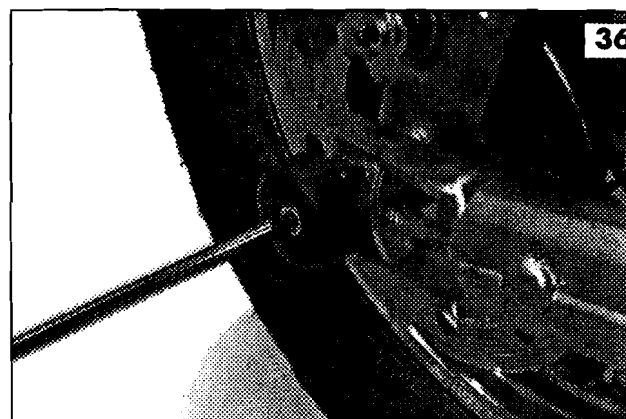
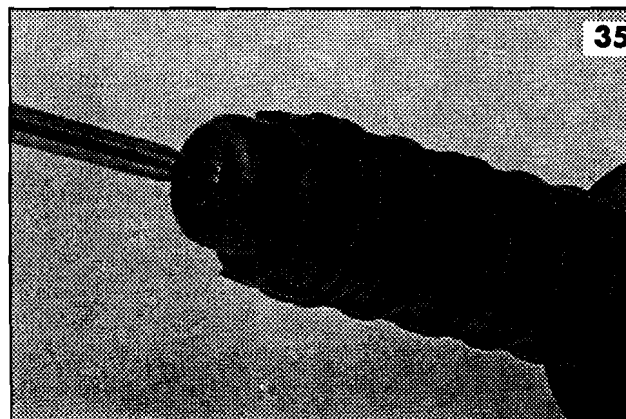
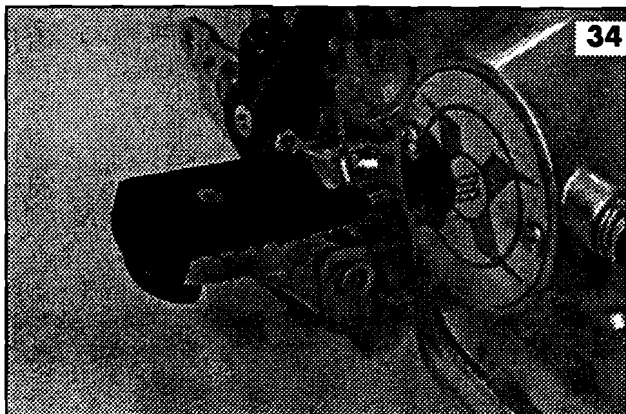
- the wheel hubs
- the swinging arm pivot
- the steering head
- the brake callipers
- the spark plug hood.

On completion of washing, lubricate the above parts as necessary then start the engine and leave it run for a few minutes.

⚠ WARNING! Make sure that the brakes are fully efficient before you start riding the motorcycle.

4.17 SUPERMOTARD VERSION



















































































































For the supermotard version assembly the provided footrest covers (photo n. 34), handlebar guards (photo n. 35) and fork guards for the rear wheel axle (photo n. 36).




5. PRE-RACE INSPECTION AND PREPARATION

5.1 DAILY CHECKS: TO BE PERFORMED ALWAYS BEFORE RIDING THE MOTORCYCLE

- Engine oil: check for leaks; check oil level.
- Carburettor: check that the throttle cable operates smoothly and without sticking.
- Fuel filler cap: check for tightness.
- Air filter and filter box: check that filter and box are free from dust and dirt.
- Brakes: check that the brakes lines are not kinked or pinched and that the callipers are clean.
- Seat: check that the seat is correctly fitted and locked in place.
- Chain: check that the chain is free from caked mud and that it is well lubricated and correctly tensioned.
- Sprockets: check that the sprockets are free from dirt and stones.
- Handlebars: check that the handlebar clamp bolts are tight.
- Tyres: check the tyre pressures.
- Front fork: check functioning and cleanliness.
- Steering: check the steering head for play.

5.2 REGULAR CHECKS: TO BE PERFORMED BEFORE EACH RACE AND AFTER LAYING UP	INTERVAL			RISK LEVELS W: WARNING! C: CAUTION!	SEE SECTION
	AFTER 1 RACE, APPROX. 2 HOURS	AFTER 3 RACES, APPROX 6 HOURS	AFTER 9 RACES, APPROX. 18 HOURS		
CHAIN	 +  + 			 C	4.11
SPROCKETS AND GEARS	 + 			 C	4.11
CHAIN ROLLER	 + 			 C	
CHAIN GUARD - CHAIN SLIDE	 + 			 W	
BRAKES	 + 			 C	4.9
BRAKE CALLIPERS	 			 W	4.9
BRAKE PADS	 + 			 W	4.9
THROTTLE CONTROL	 + 			 W	4.7
THROTTLE CABLE	 + 			 W	4.7
AIR FILTER	*			 C	4.2
TYRE PRESSURE	 + 			 C	4.10
WHEEL BEARINGS	 + 			 C	
SPOKES	 + 			 C	
ENGINE OIL				 W	4.3 - 4.4
STEERING HEAD ACTION	 + 			 W	
STEERING HEAD BEARINGS	 + 			 W	
FRONT FORK	 + 			 W	4.13
REAR FORK	 + 			 C	4.12
FUEL LINE	 + 			 C	4.13
FUEL FILTER		 + 		 C	4.13
REED VALVE		 + 		 C	6.2
CARBURETTOR	 + 			 C	4.5 - 4.6
SPARK PLUG	 + 			 C	6.2
SPARK PLUG HOOD	 + 			 C	
ELECTRICAL SYSTEM	 + 			 C	
EXHAUST				 C	
SILENCER				 C	
CYLINDER HEAD PISTON AND BARREL		 + 		 C	
PISTON		 + 		 C	
PISTON RING		 + 		 C	
ENGINE CASING			 + 	 C	
CRANKSHAFT			 + 	 C	
MAIN BEARINGS			 + 	 C	
ALL ENGINE BEARINGS			 + 	 C	
CLUTCH GEAR	 + 			 C	4.8
KICK-START BOLTS	 + 			 C	
NUTS, BOLTS, FIXINGS	 + 			 W	

 = INSPECT/ADJUST

 = CLEAN

 = LUBRICATE

 = REPLACE

 C = CAUTION!

 W = WARNING!

* = Industry race conditions, clean the air filter after every heat.

6 TECHNICAL SPECIFICATIONS	XP4 110 MINICROSS	XP4 110 MINIMOTARD
ENGINE	SINGLE CYLINDER FOUR STROKE	SINGLE CYLINDER FOUR STROKE
COOLING SYSTEM	AIR	AIR
BORE AND STROKE	52,4x49,5	52,4x49,5
DISPLACEMENT	107	107
COMPRESSION RATIO	9,6:1	9,6:1
CARBURETTOR	MIKUNI 22	MIKUNI 22
IGNITION	ELECTRONIC	ELECTRONIC
FUEL	UNLEADED FUEL	UNLEADED FUEL
STARTING	KICK STARTER	KICK STARTER
TRANSMISSION	4 SPEED	4 SPEED
FRAME	STEEL	STEEL
FRONT MECHANICAL BRAKE	Ø 150 mm.	Ø 190 mm.
REAR MECHANICAL BRAKE	Ø 150 mm.	Ø 150 mm.
FRONT TYRE	2,50x12"	90/90-10
REAR TYRE	2,75x10"	90/90-10
FRONT SUSPENSION	HYDRAULIC FORK, Ø 33 mm	HYDRAULIC FORK, Ø 33 mm
REAR SUSPENSION	HYDRAULIC MONOSHOCK	HYDRAULIC MONOSHOCK
FUEL TANK CAPACITY	3 litres	3 litres
EMPTY WEIGHT	60 Kgs	60 Kgs
SEAT HEIGHT	725 mm.	725 mm.
WHEELBASE	1.061 mm.	1.061 mm.

6.2 TIGHTENING TORQUE VALUES FOR FRAME AND CHASSIS

	M	N.m	Kgf.m	Lbf.t	LOCKING COMPOUND
FRONT WHEEL SPINDLE	M12	50	5	37	
FRONT WHEEL SPINDLE LOCKING BOLT	M8	20	2	14,8	
HANDLEBAR FIXING SCREWS	M8	20	2	14,8	
REAR WHEEL SPINDLE		60	6	44,40	
ENGINE/SWINGING ARM BOLT	M14	50	5	37	
FRONT ENGINE MOUNTING BOLT	M12	25	2,5	18,5	
TOP AND BOTTOM FORK PLATES	M8	18	1,8	13,32	
BRAKE DISK BOLTS	M8	10	1	7,4	LOCTITE 242
STEERING HEAD NUT	M6	80	8	59,2	
STEERING HEAD ADJUSTMENT RING NUT		6	0,6	4,44	

TIGHTENING TORQUE VALUES FOR ENGINE

	M	N.m	Kgf.m	Lbf.t	LOCKING COMPOUND
CYLINDER HEAD NUTS	M6	10	1	7,40	
CRANKSHAFT NUT, CLUTCH SIDE	M12	60	6	44,4	LOCTITE 270
CRANKSHAFT NUT, IGNITION SIDE	M8	27	2,7	19,98	LOCTITE 242
DRIVEN SHAFT NUT		18	1,8	13,32	
SPARK PLUG		10	1	7,40	

The torque values listed in the tables above cover the most important nuts and bolts on the motorcycle.

Apply the following standard tightening torque values to all nuts and bolts not listed above.

STANDARD TIGHTENING TORQUE VALUES

	N.m	Kgf.m	Lbf.t
5 mm NUTS AND BOLTS	6	0,6	4,44
6 mm NUTS AND BOLTS	10	1	7,40
8 mm NUTS AND BOLTS	25	2,5	18,50
10 mm NUTS AND BOLTS	45	4,5	33,30
12 mm NUTS AND BOLTS	55	5,5	40,70

STANDARD SPARK PLUG

CHAMPION Z9Y
NGK C7HSA
LG A7TC

INLET AND EXHAUST VALVE

0,15 mm. / 0,006 in
