

USER MANUAL

250^{CC}

EURO4

BLACK SEVEN



TWO FIFTY



MASH
DREAM MACHINE

Congratulations!

You are the new owner of a MASH motorcycle which embodies a new spirit, a new trend: a motorcycle with a cool new look and new design philosophy; "Vintage", a new concept, synonymous with freedom.

Please read this manual thoroughly before using your MASH

Important Cautions

Running-in of your new motorcycle

The first 1000 km of use is very important in the service life of a motorcycle. The correct running-in can guarantee both the longest service life and the best performance of the vehicle. Running-in ensures machined surfaces are gently smoothed to ensure correct engagement.

Careful and patient running-in will ensure the motorcycle gives its full performance. It is important not to do anything that may cause overheating of engine components.

For specific running-in method, please refer to "Running-in of a new vehicle".

Please carefully read the manual and strictly observe all instructions.

Special attention should be paid to the contents emphasized with the terms of "warning" "caution" and "note", etc.

Warning.....Relates to personal safety. Ignoring it may result in an accident.

Precaution.....Refers to operational methods that must be followed or measures that should be taken, so as to prevent damage.

Note.....Refers to special explanations to make maintenance or important descriptions more explicit.

The User manual is an important and permanent document of the motorcycle. Please transfer the manual any new owner if you sell your vehicle to move up to your next MASH motorcycle.

Two Fifty



250

Black 7 Seven



There are some differences among various models. For any unconformity between your vehicle and the instruction manual, the real vehicle shall prevail.

Foreword

Thank you for your choosing a MASH motorcycle. In design, development and manufacture of the motorcycle, our company applies the latest advanced technology and equipment to provide you with a vehicle that is reliable, novel in design and elegant in appearance. Motorcycle riding is one of the most exciting activities. The motorcycle is an ideal means of transport but it can also give you huge driving pleasure. Before driving your motorcycle for the first time, please become familiar with all stipulations and requirements mentioned in this instruction/User manual.

The instruction manual details the correct use and maintenance of the motorcycle. Observing the details in this manual will ensure your motorcycle will perform faultlessly for a long time. Your MASH dealer has skilled and well trained technical professionals who will provide the best maintenance and service to your motorcycle.

Table of Contents.

Specification	
Two Fifty.....	8
Chapter 1	
User Instructions.....	09
Chapter 2	
Location of Controls.....	11
Chapter 3	
Controls and Instruments	12
Chapter 4	
Recommendations on fuel and engine oil	22
Chapter 5	
Running in of new motorcycle	24
Chapter 6	
Inspection before driving.....	26
Chapter 7	
Essentials of driving.....	27
Chapter 8	
Inspection and maintenance.....	31
Chapter 9	
Measures to reduce pollution.....	54
Chapter 10	
Troubleshooting.....	55
Chapter 11	
Storage and Cleaning	59

Mash 250 cc euro 4

Motor type	Single cylinder 4T, Air cooling
Engine capacity	249cc
Compression ratio	9.2:1
Idle speed	1450±100RPM
Power max	20 cv à 7500 tr/min
Torque max.	20.30Nm/6000r/min
Ignition	CDI
Speed max.	≥ 110 km/h
Spark plug	DR8EA
Battery	12V8Ah
Front tire	Two Fifty 110/80-17 Black Seven 110/70/17
Rear tire	Two Fifty Black Seven 130/70-17
Oil motor	SAE10W-30
Oil engine quantity	1700 ml
Length /Width /Height	Two Fifty 2140x710x1050 mm Black seven1970x720x1115mm
Wheelbase	1370mm
Ground clearance	150mm
Weight	Two Fifty 130kgs Black Seven 112 kgs
Weight max	300kg
Fuel tank capacity	14 liters
Fuel	SP95 or SP98 (SP95 E10 not recommended)

This list is only for information. Changes can be made by the manufacturer without warning to customers.

Chapter 1

User Instructions

Instructions on safe riding of your motorcycle

Always observe the traffic and licensing laws in your country and follow the five points below.

Wear safety helmet

A high-quality safety helmet is the most important item of personal protection in motorcycle riding. Therefore, be sure to wear a safety helmet whenever you drive your motorcycle. Also wear a pair of proper protective glasses and good quality gloves.

Be familiar with the vehicle

Understanding how your vehicle is built, maintained and the correct functioning of all the key controls is vital to enjoying safe motorcycling. Be sure to keep in mind that skill comes from practice. Train and practice in a safe traffic free environment.

Understand what is a safe speed

Drive at all times at a speed which is consistent with the prevailing weather conditions, road conditions and your skill level. Keep within safe parameters when judging your speed.

Please note that on rainy days, the braking distance is two times as much as that in fine weather. Keep away from any manhole cover, paint mark or oil spillage to prevent skidding and **always** keep a safe distance with any vehicle in front.

Wear correct dress

As well as a crash helmet, your motorcycle attire is important in providing you with the safest possible experience. Always wear clothing designed for motorcycling (your dealer can advise).

Do not wear loose or badly fitting clothing which could become entangled with the moving parts.

Eye protection and gloves are both recommended.

Inspection before driving

Always inspect your vehicle before setting off to make sure there are no obvious faults

Please carefully read all instructions in "inspection before driving" of the manual to guarantee the safety of you and passengers.

Position of serial numbers

Chassis number (code VIN)



Engine number



Position of metal nameplate



The Chassis number (or VIN code) and engine number are necessary for registration of your motorcycle. The numbers are also needed when ordering components or spare parts.

Write the numbers in the spaces below, for future reference.

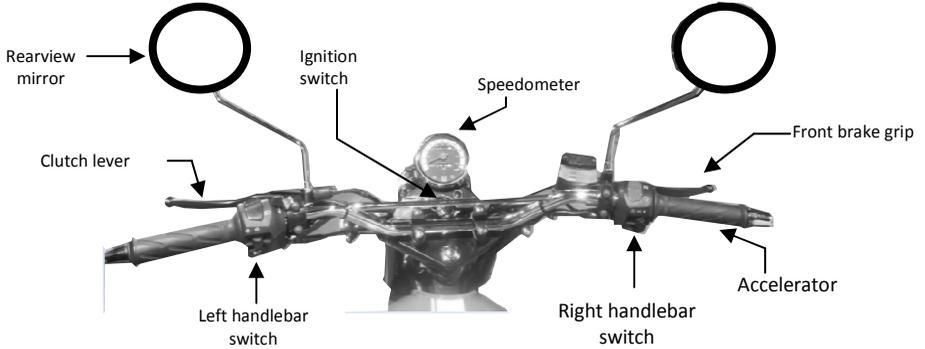
Chassis number :

Engine number :

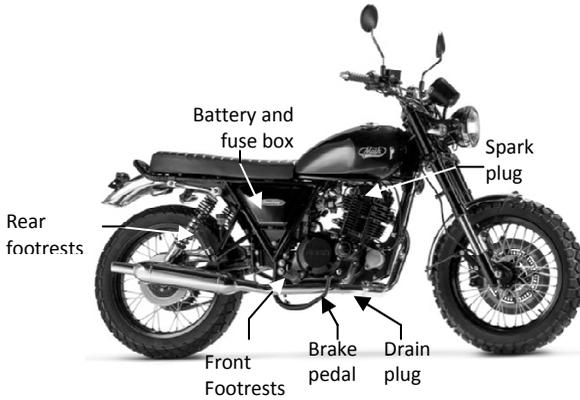
Chapter 2

Location of Controls

Handle bar instrument



Right side

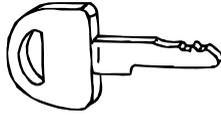


Left side



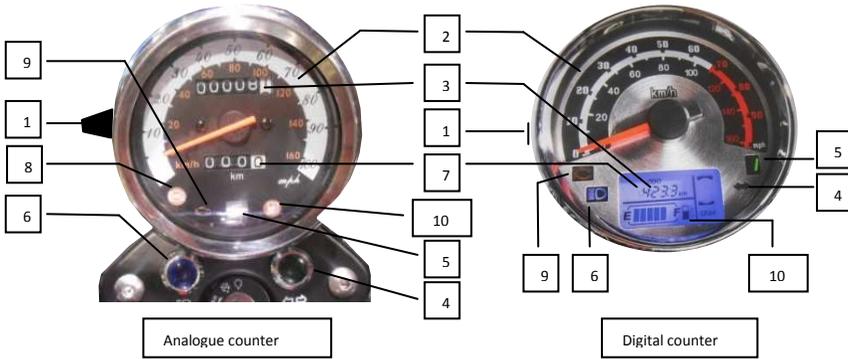
Chapter 3

Controls and instruments



Two keys are provided. Please use one key and put the other in a safe place for future use.

Instrumental panel



1. Reset counter

2. Speedometer : Miles, km/h

3. General Odometer

Indicates the total distance traveled by the motorcycle since its first use.

4. Turn signal indicator

Lights up when turn signals are used.

5. Gearshift indicator

This indicator will show the current selected gear. There are 5 gears.

6. High beam indicator lamp

When the head light is in high beam, the indicator is lit.

7. Trip mileage recorder

Indicates the distance traveled on a day or a partial area.

8. Indicator neutral mode

Light is on when in neutral.

9. EFI indicator

Lights in the event of injection system failure.

10. Fuel level indicator

Lights up when the fuel level reaches the the reserve. Refill fuel as soon as possible.

Ignition switch



FIG. 1

There are four positions as follows

OFF Position

All circuits are isolated and the key can be removed.

ON Position

All igniting circuits are ON and the engine can be started. The key cannot be removed in this position.

Lock the handlebar Position

In order to lock the handlebar, turn the bar to the left, then insert the key. Rotate it clockwise to full stop to lock the steering.

Night Parking position.

To park the motorcycle at night turn the key to “P⇐” position. In this position, the key can be removed and the tail lamp and front side lamps stay ON for parking on the roadside at night.

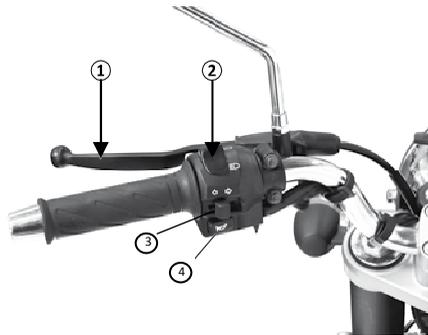
Warning

Before turn the key to  position, park the vehicle with its side stand or central stand on firm ground.

Warning

Do not try to move the motorcycle when the steering is locked

Left handlebar control system



1. Clutch lever

To start the engine or to shift gear, pull the lever to release the drive system and cut off the clutch.

2. Dimmer switch

When the dimmer switch is turned up to "☰" (high beam) position, the head light is in high beam and the high beam indicator lamp on the instrument panel is lit. Alternatively, when it is turned down to "☷" (low beam) position, the low beam is lit.

3. Turn signal switch

When the switch is turned to left "↶" position, the left turning signal lamp is lit and the indicator lamp on instrument panel flashes. When the switch is turned to right "↷" position, the right turning signal lamp is lit and the indicator lamp on instrument panel flashes.

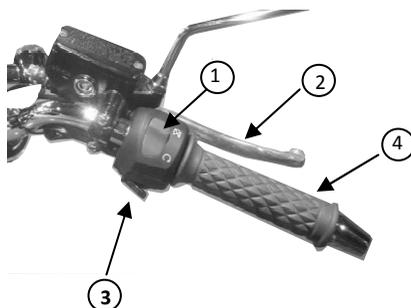
Precaution

Remember to turn on the flashing light each time you change lanes or directions. Switch it off immediately afterwards.

4. Horn button

Push the button  to use horn.

Right handlebar control system



1. Engine shutdown switch

This switch is a rocker switch. When it is in the "O" or start position, the engine can be started.

If the switch is pressed in "X" or off position, the starting circuit is completely cut off and the starter motor cannot be used. Do not put the switch in this position during driving.

2. Front brake lever

To apply the front wheel brake, slowly apply the brake lever on the right handlebar.

When the brake lever is pulled, the rear brake light will be lit automatically.

3. Electric start button

Press "E" button to operate the starter motor. Always pull in the clutch lever, and try if possible to use the starter motor only in Neutral gear.

Warning

The starter motor should not be operated for more than 5 seconds otherwise overheating of the starter motor and excessive battery discharge may result. If starting fails after several attempts, refer to "Troubleshooting").

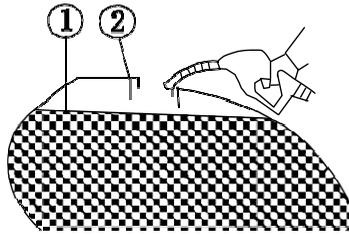
4. Accelerator grip

The Accelerator grip is used to control the engine speed. To accelerate, turn the grip towards yourself. To decelerate, turn the grip away from yourself.

Fuel tank cap



To open fuel tank cap, insert the key and turn it clockwise. The fuel tank cap can be removed together with the key. To replace the cap, align the arrow on the cap and press the cap, together with the key, into the fuel tank cap hole until a click sound is heard. Then, remove the key.



(1) Fuel level

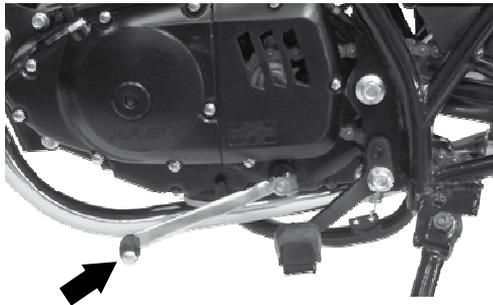
(2) Filler

Precaution

Do not fill the tank excessively. Never splash fuel onto a hot engine. Overfilling the tank can result in fuel leaking from the filler cap if there is expansion due to the machine being left in strong sunshine.

During refueling the engine must be turned off and the ignition isolated. Smoking is strictly forbidden during fuel refilling.

Gear lever



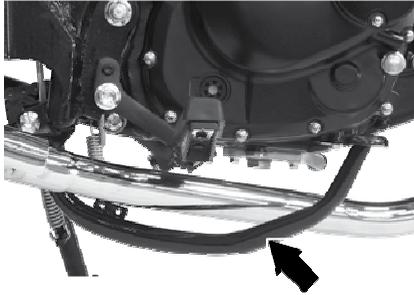
The motorcycle is provided with a 5-speed gear transmission. The gear lever connects to a ratchet mechanism in the transmission. After selecting a gear, the gear lever returns to the at rest position so that the next gear can be selected. The neutral gear is between the 1st gear and 2nd gear positions. From neutral position, press down the gear lever to engage 1st gear. Raise the gear lever one step to move up a gear. Owing to the ratchet mechanism you cannot move more than one gear up or down in one operation. To shift from 2nd gear to low gear, or from low gear to 2nd gear, the neutral position is passed without engaging neutral. To engage neutral gear, very gently nudge the lever down (if in 2nd) or up if in first gear.

Warning

When the transmission is in neutral position, the neutral indicator lamp is lit on the instrument board. Despite the lamp is lit, be careful to release the clutch grip slowly to make sure if the transmission is really in neutral position.

When engaging into a low gear during high speed driving, the engagement of clutch may make a sudden increase in engine speed. Before engaging a low gear, slow down the motorcycle to prevent unnecessary wear of components in transmission system.

Rear brake pedal



Press down this pedal to apply rear wheel brake. When operating the rear brake in this way, the rear brake indicator light is on.

Side stand



The vehicle is equipped with a side stand .

Warning

If you park the vehicle on sloped ground, please point it uphill and engage 1st gear.

Make sure that stand is up before setting off on your bike!

Rear shock damper

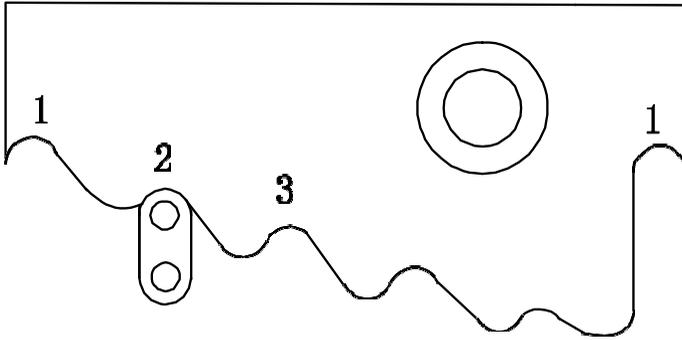


Spring adjustment

The shock damper springs of rear wheel can be adjusted according to the payload, driving mode and road conditions. The adjustment can be one of five stages. Park the vehicle on its central stand or side stand and turn the spring tension ring to the required position. The first stage is the softest and the fifth stage is the hardest. The second stage is as the factory setting.

Warning

The springs of both sides must be at the same stage. Otherwise, it may cause an instability and poor handling



Original factory setting.

Tool kit.



The tools box is right of side cover. To open the box, insert the ignition key and turn it clockwise and take down the box cover.

Chapter 4

Recommendations for fuel and engine oil

1. Fuel

Warning

Gasoline is inflammable and explosive. When handling gasoline, attention should be paid to prevent accidents.

- In places where gasoline is stored or handled, switch off the engine, do not smoke, and keep fuels away from naked flames or sparks.
- Refueling shall be made in a well ventilated place. After refueling, immediately clean off any gasoline from the surface of the fuel tank.
Use unleaded gasoline 95 (or 98)

Note :

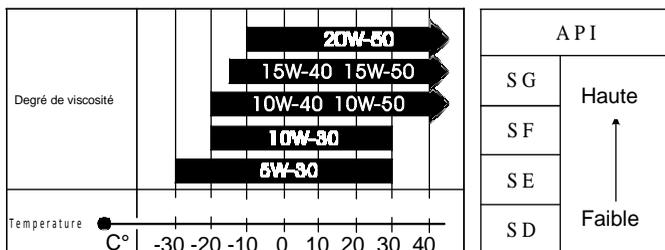
If the engine produces a distinct ping noise (called 'pinking'), it may be caused by using of improper fuel. Check you are using the correct fuel.

Do not use fuel E10

2. Lubricant

(Please refer to Regular Maintenance Table)

Use high quality 4-stroke engine oil to prolong engine life. Engine oil shall be SE or SD product in API classification. Engine oil of proper viscosity shall be used according to local air temperature. There are three viscosity levels suitable for the engine, namely, SAE15W-40, SAE10W-30 and SAE5W-30. Refer to the figure below:



The use of SAE5 10W-30 4-stroke lubricant is recommended.

Note :

Lubricant should be replaced at 1000km or about one month for the first time, and then every 5000km thereafter.

Amount of oil : *1000 ml*

Note : Always check the oil level to make sure the oil quantity is correct.

The quality of engine oil is a major factor affecting the service life of the engine. Replace the engine oil according to the maintenance period stated in the maintenance table (please refer to Page 33). When driving in dusty areas, the engine oil should be replaced more frequently than the stipulations in the maintenance table.

Warning

Inferior lubricants will cause irretrievable damage to the engine and seriously shorten the service life of the engine.

Chapitre 5

Running-in of a new motorcycle

The importance of correctly running in a new vehicle was mentioned in the Foreword. The correct running-in method is as follows.

Maximum speed

The maximum speed during running-in period is shown in the table.

First 800 km	Maxi 70% of the throttle grip	< 80 Km/h
800km to 1600 km	Maxi 70% of the throttle grip	< 90 Km/h
After 1600 km	End of running-in	End of running-in

Changes of engine speed

Do not drive at a constant engine speed for a long time. For a better run-in, increase and decrease the throttle opening frequently. Change engine speed from time to time to let various engine parts get "bearing" pressure. When the pressure is "unloaded", the engine parts will cool down, helping the fitting of different parts. During the running-in period, engine load may be progressively increased. Apply some load to engine parts to guarantee good fitting. This is very important, but do not apply excessive load to the engine.

Avoid driving at a low speed

Running at a low engine speed (with light load) can only polish the parts but cannot get a good running-in. So long as the upper limit of recommended throttle opening is not exceeded, drive the vehicle in various gears with necessary acceleration. However, never drive at the maximum throttle during the first 1600 km.

Oil circulation before driving

After starting a warm or cold engine and before applying load or driving, let the engine run at idle speed for an adequate time. This allows lubricant to flow to all important engine parts, so as to reduce wearing and increase the service life. This also helps the engine to warm-up sufficiently.

First maintenance inspection

The maintenance at the first 1000 km is the most important. During the running-in period, all engine parts have been run-in and other parts engaged. Then, all parts shall be adjusted, all fasteners be tightened, contaminated engine oil be replaced and filter element be replaced.

Performing the initial service at the recommended 1000 km can guarantee a long engine life and the best engine performance.

Chapitre 6

Inspection before driving

Before driving, make sure to carefully check the following items. Never ignore the importance of the inspection.

Contents	Purpose
Lighting	Operate all lamps -- head light, tail light, brake light, instrument board lighting lamp, turning signal lamps
Transmission oil	Check for Proper oil level
	<ol style="list-style-type: none"> 1. Check clearance of rear brake pedal 2. Not "spongy" feeling
Indicators	Neutral gear, gear position, oil level indicators (or turning signal indicators)
Accelerator	<ol style="list-style-type: none"> 1. Proper free play in accelerator cable 2. Check accelerator returns to closed position
Tires	<ol style="list-style-type: none"> 1. Correct air pressure 2. Proper tread pattern depth 3. No cuts or damage
Horn	Check operation
Clutch	<ol style="list-style-type: none"> 1. Proper free play in clutch cable 2. Smooth operation and full releasing
Fuel	Adequate fuel for the distance planned
Driving chain	<ol style="list-style-type: none"> 1. Proper tightness 2. Proper lubrication
Steering handlebar	<ol style="list-style-type: none"> 1. Smooth 2. Free steering 3. Not loose

Chapter 7

Essentials of Driving

Precaution

If it is the first time for you to drive this type of motorcycle, you are advised to practice on a road away from highways, until you have completely become familiar with the controls and operation of the vehicle.

Before driving, make sure that the side stand is returned to the up position. Do not shift gear or decelerate during turning. Slow down to a safe speed before turning.

Do not shift into a low gear during turning.

It is dangerous to drive a motorcycle single handed. During driving, take a firm hold of the handlebars with both hands and put your feet on the foot pegs.

On a wet road, the friction force is low and so is the brake force and turning capability. Therefore, decelerate in advance.

Observe the traffic laws and speed limit.

Engine starting

Make sure the fuel switch is in open position and the engine shutdown switch in “O” position. Insert the ignition key in ignition switch and turn it to ON position. If the transmission is in neutral position, the neutral indicator lamp is lit.

Warning

Make it a habit to engage the neutral gear and firmly press the clutch lever before starting the engine.

Press the electric starting button to start the engine. Never rotate the accelerator grip when pressing the starting button.

Note :

After the engine starts, immediately release the starting button, to avoid damage to the starter motor .

If the engine does not start after 5 seconds, wait for 10 seconds before making another attempt to prevent damaging the battery and starter motor.

In case of a failure in engine starting after two or three attempts, rotate the accelerator grip for 1/8 or 1/4 turns and try again.

A motorcycle not used for a long time can suffer deterioration in fuel condition which can lead to poor starting. Check and replace if necessary.

Cold engine

There is No choke because the engine has a fuel injection system.

Warm engine

Rotate accelerator grip for 1/8 - 1/4 turns, and press electric start button to start the engine.

Warning

Never start the engine in a room with poor or no ventilation. Never leave the motorcycle unattended with a running engine.

Precaution

Do not allow the engine run for a long time without moving, or the engine may overheat causing damage to internal parts or chrome plating of the exhaust system.

Start driving the motorcycle

Precaution

Start the engine with the transmission in neutral position, the clutch engaged and driver sitting in the normal riding position.

Firmly pull the clutch lever, wait a little moment, press down the gear lever to engage the first gear, rotate the accelerator grip slowly to you and smoothly and slowly release the clutch lever. When the clutch is engaged, the motorcycle will move forward.

To change into a higher speed gear, firstly decelerate a little, release the accelerator and, at the same time, pull in the clutch lever, shift the gear lever to the next higher speed gear position and release the clutch lever, slightly rotate the accelerator. In this way, the highest gear can be engaged gradually.

Note :

For high speed driving, always avoid releasing the accelerator suddenly. it is advised to wait a moment when the engine is running at 3000-5000rpm before fully releasing the accelerator. This can prevent the engine from shutdown due to abnormal combustion.

Driving on a slope:

Before changing down a gear whilst riding up or down a slope, make sure that your speed is not excessive for the gear you are selecting. Failure to do this could result in locking the rear wheel, over-reving the engine, or damaging the gearbox.

Slope climbing:

When going up a steep slope, the motorcycle may decelerate due to insufficient power. Then, immediately shift to a lower gear to allow the engine to maintain power. Try to maintain adequate forward momentum of the motorcycle.

When going down a slope, use the engine for braking, by shifting into a lower gear. However, note at all times the comment above about avoiding excessive engine speeds.

Braking

Always try to apply the front and rear brakes together, and with equal force. This will improve stability

Use gear shifting to slow down.

The use of engine braking to assist smooth speed reduction is recommended.

Warning

The faster the vehicle is driven, the longer the braking distance will be. Be sure to make correct estimation of the distance between you and the vehicle or object in front of you for safe braking performance.

An inexperienced driver always uses the rear brake only. This will cause premature wear to brake linings and will extend braking distances.

It is dangerous to use front brake or rear brake only. This can cause skidding and loss of control. On wet highways or other loose road surfaces and during turning, be extremely careful to apply the brakes gently. Hard braking on loose or wet road surfaces is very dangerous.

To park your motorcycle on a gentle slope using the side stand, engage first gear to prevent sliding back off the side stand. Remember to shift to neutral gear before starting the engine.

Turn the ignition switch to OFF position to shutdown the engine.

Chapter 8

Inspection and maintenance

The following table shows the interval of regular maintenance in travel distance or number of months. At the end of an interval, be sure to carry out the specified inspection, lubrication and maintenance. If your motorcycle is used with heavy loads, such as high power driving in a dusty environment, the maintenance shall be carried out more frequently. Your distributor can give you further guide. The parts of steering gear, shock absorber, bearings and wheels are critical components, and require professional skills to repair. In the light of safety, it is advisable to the inspection and maintenance done by your distributor or qualified maintenance staff.

Precaution

In regular maintenance, it may be necessary to replace one or more parts. For part replacement, it is advisable to use genuine parts or equivalent products. No matter if you are experienced in vehicle maintenance or not, the items with * mark shall be handled by your distributor or qualified maintenance staff. For the items without such mark, you can do it by yourself according to the instructions.

Warning

After correct running-in of 1000 km, maintenance is mandatory to ensure the safety of your motorcycle and give it a full play of its performance.

Be sure to make regular maintenance thoroughly according to the instructions in the manual.

TABLE OF MAINTENANCE INTERVAL

Interval: based on odometer reading or number of months	km	1000	4000	7000	10 000
	Number of months	6	12	24	36
Battery		I	I	I	I
* Butterfly throttle, throttle cable		I	I	I	I
* Spark plug		I	R	R	R
* Clutch		I	I	I	I
* Air Filter		C	R	R	R
* Fuel filter		I	I	I	I
* Fuel hoses		<i>Replace every 4 years</i>			
* Engine oil and oil filter		R	R	R	R
* Oil filter strainer		C	C	C	C
* Valve clearance		I	I	I	I
* Timing chain		I	I	I	I
* Chassis bolt and nut		T	T	T	T
* Brake pads front and rear, linings		I	I	I	I
* Brake fluid		<i>Replace every 2 years</i>			
* Front fork		-	I	I	I
* Rear shock absorbers		-	I	I	I
* Wheel and tyres		I	I	I	I
Driving chain		<i>Clean and lubricate every 1 000 kms</i>			
* Steering		I	I	I	I
* Cylinder head nut and exhaust pipe bolt		T	T	T	T

Caption : Inspection : **I** Tightening : **T** Cleaning: : **C** Replace : **R**

Note that the maintenance interval is 3000 km.

Do not forget to certify them in the manual provided by your MASH dealer

Lubrication Table

Item	Interval	Every 6000 km or 6 months	Every 12000 km or 12 months
Accelerator wire		Engine oil or (1)	Engine oil or (1)
Clutch wire		Engine oil or (1)	Engine oil or (1)
Speedometer wire		-	Grease (2)
Driving chain		Lubricate every 1 000 km (3)	
Brake cam shaft		-	Grease (2)
Accelerator grip		-	Grease (2)
Brake wire		Engine oil or (1)	Engine oil or (1)
Speedometer gear case and wheel bearing		-	Grease (2)
Brake pedal		Grease or Engine oil (1) (2)	Grease or Engine oil (1) (2)
Steering gear		Lubricate every two years or every 7 000 km	

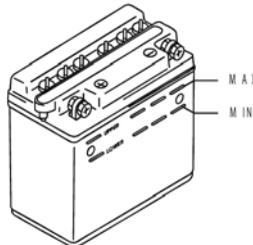
Reference IPONE : (1) Spray Cables / (2) Multifonction grease / (3) Spray chain

Tools

To help you with regular maintenance, a set of tools is provided in the tool box on the rear left side of the vehicle.

Battery

The Battery is normally stored inside the cover on the right side of the frame. The battery for the model may be of conventional type or maintenance-



free type.

During use, the fluid level must be kept between the upper limit and lower limit.

Warning

Once the battery has been used, no sulfuric acid shall be added. If the fluid level drops below the lower limit, fill with distilled water to the upper limit. Never use tap water.

Precaution

Never damage, clog or alter the vent pipe for the battery. Please make sure that the vent hose is connected to the vent after fitting the battery, with the other end kept always open. The vent pipe and battery shall be installed correctly.

The polarity of battery wiring should always be correct. Connect the red wire to positive (+) and the green wire to negative (-). Wrong connection may damage the charging system and battery.

Note :

After the first 1000 km and every 5000 km, we recommend that the battery condition is checked by your dealer.

Safety

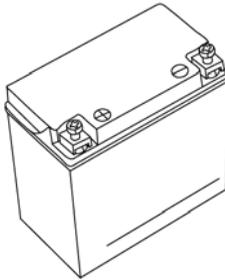
1. Electrolyte contains strong acid and contact with skin should be avoided. During filling, wear gloves and safety clothing.
2. In case the electrolyte gets in your eyes, immediately wash the eyes with plenty of clean water for at least 15 minutes, before seeking medical attention.
3. In case electrolyte is drunk, drink a large amount of water or milk.
4. Keep batteries out of reach of children.

Electrolyte filling

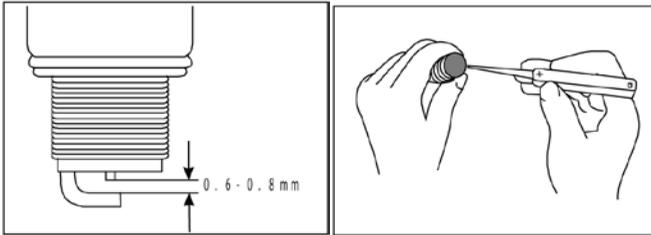
Before filling electrolyte, remove battery from the vehicle.

Some models are equipped with a maintenance free battery, in which case no electrolyte filling is necessary. To prolong the service life, fully charge a new battery before use.

When the vehicle is not used for a long time, remove the negative (-) wire from battery



Spark plug



After the first 1000 km and every 5000 km thereafter, clean off any carbon deposits from the spark plug by using a small steel wire brush or a spark plug cleaner. Readjust the spark plug gap with a thickness feeler to keep it between 0.6 - 0.8 mm. Replace the spark plug every 5000 km.

When cleaning off carbon deposit, observe the color of the ceramic tip of the spark plug. A normal working spark plug should be light gray or cotton yellow. If not, please consult your dealer at the first opportunity

Precaution

The Spark plug should not be over tightened otherwise the threads of the cylinder head may be damaged. When the spark plug is out, avoid any impurities from getting into the engine through spark plug hole.

The Standard spark plug for the motorcycle has been carefully selected and is suitable for most operating conditions. If the colour of the spark plug is found to be different from normal, it is advisable to contact your distributor before replacing with a spark plug in a different heat resisting range. An improper spark plug may cause serious damage to the engine. Therefore, consult with your distributor before selecting another brand of spark plug.

Engine oil

The longevity of the engine depends on the quality of the oil used, the frequency of its replacement and the checking of the oil level.



Check the engine oil level



1. Fil cap

2. Porthole **F** : Level maxi
L : Level mini

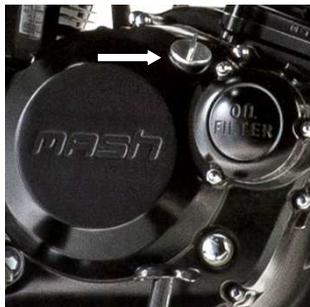
Warning

The Porthole shows the oil level. When oil level is low, never start the engine. Fill with recommended grade of oil until the oil level is just below the upper limit of oil window

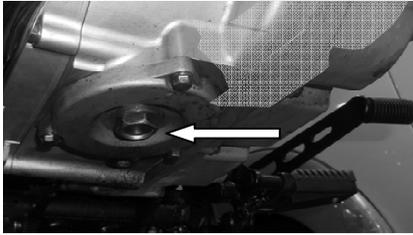
Replacement of engine the oil and oil filter

Replace the engine oil after the first 1000 km and every 5000 km thereafter. Oil replacement should be carried out when the engine is still warm, so as to thoroughly drain the old oil from the engine. The method is as follows

1. Park the motorcycle using the central stand.
2. Remove oil filler cap.



3. Remove drain plug from strainer cover under the engine to drain oil



4. Tighten the oil drain ring and fill with fresh engine oil using the oil filler, before gently tightening the top cover.

Note :

Always check the oil level to make sure the oil quantity is correct.

5. Start the engine and allow it to run at idle speed for several seconds.
6. Stop the engine and wait about one minute before checking the fluid level with the oil dipstick or porthole. The level must reach the upper mark (maximum). If the level is below this benchmark, add oil to suit.

Warning

Please use the engine oil recommended in "Instructions on fuel and engine oil".

Brakes

ABS :

Your motorcycle is equipped with a system that avoid the front wheel locking during periods of intense braking (ABS).

If the ABS warning light is illuminated, it is necessary to go to an authorized Mash dealer for an accurate diagnosis.

Check the brakes after first 1000 km and every 5000 km thereafter.

Correct braking operation is very important for safe riding. Be sure to have regular inspections of the brake system by a qualified technician.

Warning

We thoroughly recommend that all work on the braking system of this machine be carried out by your MASH distributor/stockiest.

Front brake

A Hydraulic brake system should be checked every day, as follows:

1. Check for any leakage or crack in oil pressure pipes.
2. Check that the front brake lever does not feel spongy
3. Check wear of brake lining/pads.



Warning :

Disc brakes are part of a high-pressure system. For your safety, the replacement interval for the hydraulic oil should not exceed the interval specified in the maintenance schedule of the manual.

Brake fluid

Warning

It is harmful if brake fluid is drunk by mistake or contacts the eyes or skin. If it is drunk by mistake, spit it out by force. If it contacts skin or eyes, wash with plenty of clear water and seek medical advice

Check the fluid level in the brake fluid tank. Replenish with specified hydraulic fluid if the level is low. As the brake pads wear, the level of fluid will become lower. Brake fluid replacement is an important item in regular maintenance.

Precaution

The vehicle uses ethanol series hydraulic oil. It should not be mixed with silicate or petroleum fluid. Otherwise, the brake system may be seriously damaged. Never use unpacked fluid or any fluid left over in the last maintenance, because moisture may get into the old fluid. Only SAE J1703 brake fluid should be used. Pay attention not to splash hydraulic oil to paint or plastic surfaces, to prevent cosmetic damage.

Reference IPONE : brake dot4

Brake pads



Check the brake pads to see if the wear is approaching the wear line. If wear exceeds the mark, the brake lining should be replaced with a new MASH approved parts.



Warning

Do not drive immediately after replacing a new disk brake lining. Press the braking grip several times to allow the brake lining to fully extend, or until pressure is felt in the brake lever. Pads take a little while to bed in, so allow a little extra braking time for the first 50 km.

Front brake light switch



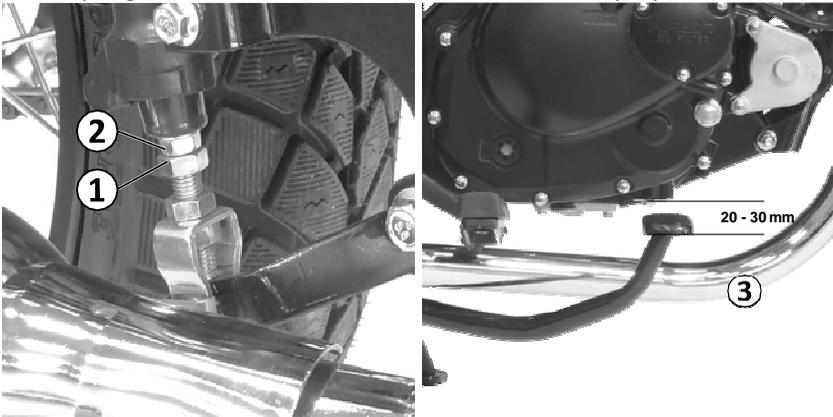
The front brake light switch is located below the brake lever. Loosen the screw and move the switch position back and forth to find the point where the lamp is lit immediately when pressure is applied but before the lever is fully pressed.

Rear brake

Adjusting the rear wheel brake pedal:

The rear brake is a disc brake. To adjust the rear wheel brake pedal, turn the pedal to the most comfortable position by turning the clamping nut (1). Once the position is adjusted, lock it with the counter nut (2).

Please keep a guard between 10 and 20 mm (3) of free play.



Warning

If the rear brake pedal has no free play (20-30mm), the rear master cylinder will be always under pressure. It could overheat and the brakes may start to bind.

Check the condition of the brake pads regularly. The thickness must be greater than 2 mm. If the thickness is less than 2 mm, the brake pads must be replaced.



Maxi
Mini

Regularly degrease the rear brake disc (5) to ensure optimum braking performance at all times.

In the event of a brake fluid leak, contact your MASH dealer.
In the event of a braking problem, contact your Mash dealer.

Brake Fluid Type : DOT4

Rear brake light switch



Rear brake light switch is located at the right side of chassis. Adjust the rear brake light switch as follows: Lift or lower the switch, so that, when the brake pedal is pressed, the lamp is lit before feeling a pressure.

Silencer



The silencer will become very hot after the motorcycle has been used.

Fuse



The fuse box is located inside the guard board on the right side of the chassis. A fuse is provided for the electrical system. In case of any trouble with the electrical system, check the fuse first. If the fuse is blown, replace it with the spare fuse (15A) in the fuse box.

Precaution

Always replace the blown fuse with a new one of the specified amperage. Never use aluminum foil, steel wire or other things as substitute for fuse. If a new fuse is blown in a short time, it means there is a major electric trouble. Contact your distributor immediately.

Replacement of bulbs

The rating of bulbs can be found in Chapter 13 . Always replace a bulb with a new one of the same rating. Otherwise, an overload to the electrical system may be caused.

Precaution

The head light is a reflection lamp. Do not touch the reflector during bulb replacement, so as to prevent reduction of service life.

For turning signal light, tail light and brake light, when installing light shield, do not excessively tighten the fixing screws to avoid damaging the plastic light cover.

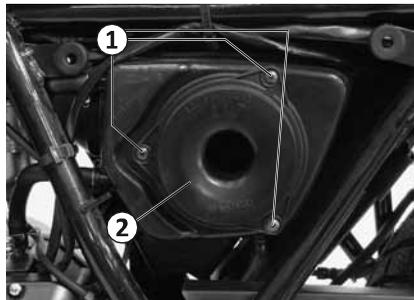
Air filter

If the air filter element is clogged by dust, the engine power may reduce and the intake resistance may increase; the fuel consumption will also increase. Therefore, the air filter element should be checked and cleaned every 5000 km, as follows.

Precaution

If the motorcycle is working in dusty conditions, the air filter shall be checked and cleaned more frequently than the normal schedule.

1. Remove the left side guard board.
2. Unscrew the air filter outer cover screw (1) and take out the air filter sleeve (2).

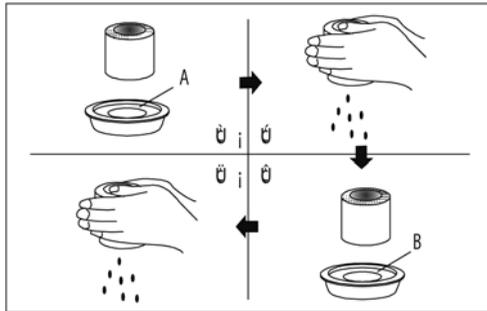


3. Take out the air filter foamed plastic sleeve shell.
4. Separate the foamed plastic from the outer frame.

Precaution

- During cleaning the filter element, check for any damage to the filter element and replace when necessary.
- Never start the engine without the filter element installed, or the engine wear may be increased

Clean the foam type filter as follows:



1. Fill a pan with incombustible cleaning solution. Immerse the filter element in the cleaning solution and wash it.
2. Press the filter element with both palms to squeeze out cleaning solution. Never twist the filter element to avoid damage.
3. Soak the filter element in engine oil tank and squeeze oil out, keeping it slightly wet.

Reference IPONE : AIRFILTER CLEAN/LIQUIDE FILTER OIL

Warning

Before and during cleaning, attention should be paid to check the filter element for any crack. Replace it if any crack is found.

4. Reinstall the filter in reverse order. Make sure the filter element is firmly fixed in correct position and reliably sealed.

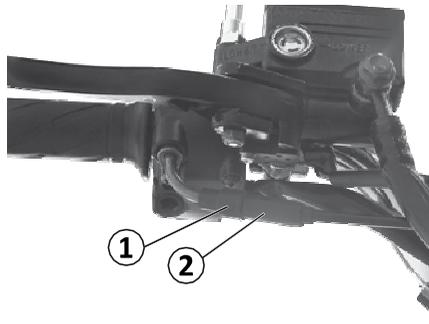
Warning:

Never start the engine without the air filter installed. The air filter element must be cleaned or replaced more frequently if the motorcycle is used in dusty conditions. Never start the engine without the filter element installed, or the engine wearing may be increased. Be sure to check the air filter element is in good working conditions, because this part is very important to engine service life.

Injection:

Your Mash motorcycle is equipped with an Electronic Fuel Injection (EFI) system to optimize the air / fuel mixture. No adjustment of the system is possible without specialized skills and equipment. If the EFI lamp is switched on, it's necessary to go to an authorized Mash dealer for diagnostics.

Adjustment of accelerator cable



1. Locking nut 2. Adjuster

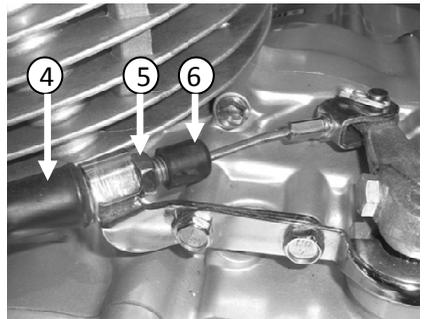
1. Loosen the locking nut.
2. Rotate the adjuster to make the wire clearance between 0.5 - 1.0 mm.
3. After clearance adjustment, tighten the locking nut once again.

Warning

After accelerator cable adjustment, check the operation of accelerator grip. Engine idle speed should not increase due to the adjustment, and the grip should return to the closed position automatically.

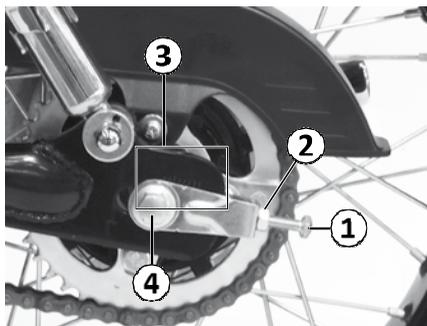
Adjustment of clutch

Clutch adjustment is made by adjusting the tension of the cable from the clutch lever to the clutch operating lever on the engine. The cable clearance measured at clutch lever should be 4 mm. If the clutch cable clearance is found to be incorrect, carry out adjustment as follows.



Loosen the nut (1) and turn the tension ring of the lever (2) fully clockwise. Unscrew the lock nut of the cable tension ring (5) before turning the ring (4) in one direction and then the other until the clearance of the lever reaches approximately 4 mm. The adjusting ring of the lever (2) may be used to fine-tune the adjustment. Once the adjustment has been made, tighten the lock nut (1) and the ring (5), then wrap them with the rubber sleeve (3).

Adjustment of driving chain



1. Adjusting bolt 2. Locking nut
3. Mark 4. Rear wheel shaft nut

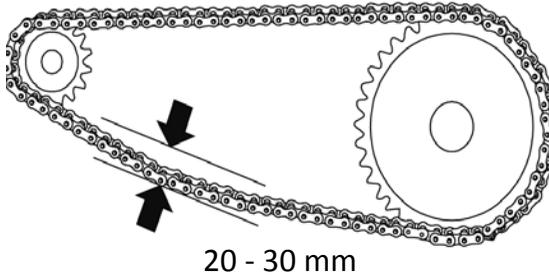
To adjust :

- 1、 Park the motorcycle with central stand.
- 2、 Loosen rear wheel shaft nut.
- 3、 Loosen the locking nut.
- 4、 Rotate the adjusting bolt left and right to adjust the chain.

Note :

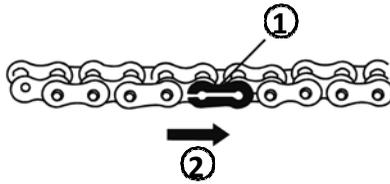
When a new chain is installed, it is necessary to check both chain sprockets. Replace if necessary.

The tension of the drive chain shall be adjusted every 1000 km, to keep a removable distance of 20 - 30 mm in the midpoint of the two chain wheels.



Precaution

The open end of driving chain connection clip shall point away from the direction of rotation.



1.Chain connector clip 2. Direction of rotation

Cleaning and lubrication of driving chain

Dirt on the drive chain can increase the wearing of the chain and sprockets. Therefore, clean the driving chain every 1000 km with cleaning solvent, and lubricate it with special chain lubricant or engine oil.

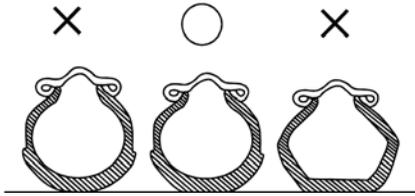
Référence : IPONE: Chain Clean / Spray Chain.

Tyres

Check the tyre air pressure and tread pattern after the first 1000 km and every 3000 km thereafter. Besides regular checks, make sure to check the tyre air pressure from time to time, to ensure maximum safety and long life.

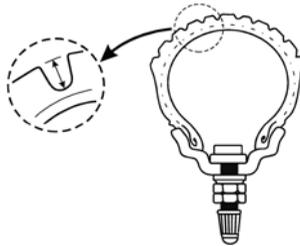
Tyre pressure

A low tyre pressure may intensify tyre wear and badly affect the driving stability, causing difficulties in turning. But, a too high tire pressure may reduce the contact area between tyres and road surface, causing wheel-slip and even loss of control. It is necessary to always keep the tire pressure within specified limits. Tyre pressure adjustment should be made when the tyre is cold.



Pressure 250cc : Avant - 1,80kg / Arrière - 2,20 kg

When driving a motorcycle with over-worn tires, the driving stability is poor and loss of control may follow. When the depth of front wheel tread pattern is reduced to 1.6 mm or less, it is advisable to replace the tyre. When the tread pattern of rear wheel is reduced to 2 mm or less, replace the tyre with a new one.



Warning

Problems may occur if a non-standard tyre is fitted. You are sincerely recommended to use the standard tyres.

Correct tyre inflation pressure is very important for normal vehicle performance and safe riding. Check the tyre wear and inflation pressure from time to time.

Chapter 9

Measures to Reduce Pollution

To reduce exhaust emission and noise pollution, please follow the points below:

Use unleaded gasoline 95 or 98

Do not use fuel *SP95 E10*.

Observe any abnormal engine noise and stop immediately if you suspect a fault has developed

Ride sensibly within your capability, and do not accelerate or brake excessively.

Chapter 10

Troubleshooting

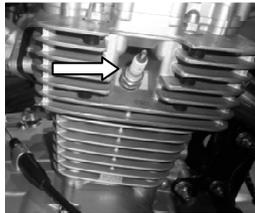
If the engine cannot be started, check the following items to locate the cause.

- 1、 Is there is fuel in fuel tank?
- 2、 Is fuel flowing from the fuel tank to the EFI system.?
- 3、 Is The fuel pump is operating correctly ?
- 4、 If it is confirmed that fuel is present, take the next step to check the ignition system.

Warning

Never allow fuel to flow everywhere. Collect it in a vessel. Keep fuel away from hot engine and exhaust pipe. During the operation, keep away from any flame or heat source.

Smoking is strictly prohibited during fuel system checking.



- 1、 Remove spark plug and connect it with the high voltage cable.
- 2、 Turn the ignition switch to ON position and the engine shutdown switch to "○" position. Place the spark plug near the engine, and operate the starter motor. If the ignition system is working, there should be blue sparks jumping over the spark plug gap; If there is no spark, contact your distributor.

Warning

Do not make the above check with the spark plug fixed near any fuel source to avoid fire hazard by igniting the vaporizing fuel.

If the Engine cuts out during operation;

- 1、 Check the fuel volume in fuel tank as previously described.
- 2、 Check sparks of ignition system as previously described
- 3、 Refer to your MASH dealer

Note :

Before any troubleshooting, it is advisable to consult with your distributor in advance. If the motorcycle is still in warranty period, be sure to contact your distributor before making any attempt to repair by yourself. Tampering with the vehicle in warranty period may invalidate the basis of warranty.

(Refer to the warranty book provided by the authorized MASH dealer.)

Table of engine troubleshooting

Trouble		Cau	Remedy
Engine cannot be started or stalls suddenly	Sparking normal in high voltage cable and no sparking in spark plug	<ul style="list-style-type: none"> • Oil stained spark plug • Broken spark plug magnetic core or broken electrode • Carbon deposit in spark plug electrode • Incorrect spark plug gap 	<ul style="list-style-type: none"> • Remove, clean and dry it • Replace spark plug • Clean out carbon deposit • Adjust the gap.
	Normal sparking to spark plug, poor cylinder compression	<ul style="list-style-type: none"> • Leaking cylinder head gasket • Loose spark plug • Seized piston ring • Excessively worn piston or broken piston ring • Serious cylinder wearing • Leaking intake pipe • Damaged crankshaft sealing 	<ul style="list-style-type: none"> • Tighten screw or replace gasket • Tighten spark plug • Clean off carbon deposit in piston ring and ring groove • Replace piston and piston ring • Replace cylinder body • Tighten or replace rubber ring • Replace sealing

Abnormal engine operation	Abnormal noise from engine	<ul style="list-style-type: none"> • Serious worn out cylinder and piston • Serious worn out needle bearings in small and big ends of connecting rod • Premature ignition • Excessive carbon deposit in combustion chamber • Overheated spark plugR 	<ul style="list-style-type: none"> • Replace cylinder body and piston • Replace bearing and relate parts • Adjust ignition time • Clean out carbon deposit • Replace spark plug
	Unstable engine operation	<ul style="list-style-type: none"> • Contamination of fuel intake system • Crankcase leakage 	<ul style="list-style-type: none"> • Clean or replace fuel line • Replace the seal
	Overheat engine	<ul style="list-style-type: none"> • Low gear driving over a long time • Over loaded driving or long time driving with heavy load • Unqualified engine oil or insufficient transmission oil • Slipping clutch • Too tight chain • Unreleased brake 	<ul style="list-style-type: none"> • Change gear position and control time • Control load-carrying and rest from time to time for cooling • Replace with qualified engine oil and fill oil to transmission case • Adjust free play or replace clutch, friction lining and spring • Adjust tension • Adjust brake clearance

(Refer to the warranty book provided by the authorized MASH dealer.)

Chapter 11

Storage Method

If the motorcycle is not used for a long time in winter or other seasons, it is necessary to carry out special maintenance with appropriate materials, equipment and techniques.

Motorcycle

When a motorcycle is not used for a long time, make preparation before storage: Wash the motorcycle, park it with the central stand on a solid and flat ground and prevent it from rolling. Turn the handlebar of motorcycle to the left side and lock it. Remove the ignition key. For safety, select a place suitable for long time storage. To re-use the vehicle, carry out a complete inspection to ensure normal performance of all parts of the motorcycle.

Fuel

Before storing the motorcycle, empty the fuel tank. Gasoline used in motorcycle is highly inflammable and even explosive under certain conditions. Therefore, never allow the motorcycle to get close to any fire. Never park the vehicle in a place storing articles subject to spontaneous combustion (such as grains, coal, cotton, etc.), because fire hazard may happen when the fuel in the vehicle contacts naked flame.

Tyres

Make tyre inflation to normal pressure values. Keep the outside of tyre clean. Avoid exposing to sunshine or moisture for a long time. Avoid contacting acid, alkali and oils..

Battery

When the vehicle is not used for a long time, remove the battery and fully recharge it before storing it in a place out of reach of children. Then, recharge it every month in summer and every two months in winter. If the battery is installed on the vehicle for a long time, recharge it every month.

Steps during storage

For a conventional battery, check electrolyte level every month. If the fluid level is low, replenish it with distilled water or pure water to the highest level mark. (Never use electrolyte or tap water)

Insufficient battery power may cause difficulty in engine starting. If this occurs, immediately recharge the battery for 15-20 hours.

When a battery has whitened plates, and if it can not be restored even after recharging, it means the service life has come to an end

Steps for returning a stored bike to service;

1. Clean the entire motorcycle.
2. Remove the spark plug and rotate the engine for several turns, before reinstalling the spark plug.
3. Reinstall the battery.

Note :

Make sure to connect the positive connector before the negative one.

4. Adjust tyre pressures
5. Lubricate all parts that require lubrication according to the manual.
6. Conduct "Check before driving" instructions as contained in the User manual.

Cleaning

Frequent and regular cleaning is an essential part for the maintenance of your bike. The exposure to natural elements (sea breeze, sea water, salt road, sludge, dust ...) and anti-slip additives spread over the roads in winter, can be a source of vulnerability for the components of your motorcycle. Corrosion and rust can occur even on good quality parts. The proper maintenance and regular cleaning of your vehicle will extend the original appearance of the vehicle but also, are essential in order to maintain the guarantee.

Precautions Before Cleaning:

Engine cold, protect the exhaust outlet with a suitable protection (example: plastic bag) to prevent water from getting inside.

The exposed electrical elements must be covered with a plastic bag. Check that the covers and caps are correctly positioned.

With a degreaser and a soft brush, remove any stubborn stains from the crankcase, making sure that they are never applied to the sprockets, drive chain, seals and wheel axles. . Rinsing residues and degreaser have to be done with clean water.

Cleaning :

Cleaners that are too acidic or aggressive are not recommended for washing the motorcycle. Especially for the axes, bearings, levers, pivots, wheels and spokes. If however it is necessary to use for stubborn stains, respect the instructions and time of application of the product. We recommend spraying an anti-corrosion and lubrication product on these items after rinsing thoroughly with water.

Plastic parts and windshields (for equipped vehicles) should be cleaned preferably with water using a soft sponge or soft cloth. Only a mild detergent may be used if some plastic parts cannot be cleaned properly. Rinse thoroughly the product used: badly rinsed it could damage the plastic parts. The use of other products on plastic parts is not recommended (thinner, solvent, gasoline, antifreeze, abrasive cleaner ...).

⚠ Caution, Special precautions: Do not use pressure washer or steam jet: Avoid directing the jet of water close to the following items: instrumentation,

cylinders and brake calipers, under the fuel tank, chain of transmission , steering column bearings, gaskets, air box, wheel or swing arm bearings, all electrical elements and also the air vents. Water infiltration could damage these elements.

After use under normal conditions: clean with lukewarm water mixed with mild detergent using a soft sponge and rinse thoroughly. A damp cloth placed a few minutes on the parts having more stubborn stains and insects, will allow the dirt to take off smoothly.

After use in the rain, near the sea or on salt roads: Clean the motorcycle with cold water and mild detergent: do not use hot water, it will increase the corrosive action of salt. Protect the vehicle from corrosion by spraying an anti-corrosion and lubrication product on all metal surfaces, chrome-plated or nickel-plated.

After cleaning:

Dry the body parts with a soft absorbent paper. After being dried with disposable cloth, the drive chain should be lubricated with a specific lubricant to prevent it from rusting.

It is recommended to rub the chrome or stainless steel elements (including the exhaust system) with a chrome care product.

An anticorrosion product will spray on all metal surfaces, chrome or nickel plated.

Lubricate all axes, pivots, bolts and nuts.

Apply wax on all painted parts.

 Caution, Special precautions:

Never use lubricating or greasy products on the braking elements. This will decrease braking efficiency and could cause an accident.

Always use a specific degreaser for braking systems.

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