

# Owners Manual



Please study this manual carefully before riding the motorcycle for the first time

AJS



## FOREWORD

Thank you for choosing the AJS '71 Desert Scrambler 125 motorcycle. To ensure enjoyable and safe riding, please be sure to read this manual carefully before operation.

This manual summarises the method of how to use and maintain your motorcycle correctly. If you follow the guidelines of this manual carefully, your motorcycle should be reliable and will be kept in a good and safe condition.

Your AJS Dealer should service, and carry out specialised tasks for you. If you are unsure of any aspects, consult your AJS Dealer for advice or service.

Pictures and specifications are correct at the time of publication.

Due to the continuous development and improvement of the motorcycle, there maybe some discrepancies in this manual.

AJS Motorcycles Ltd. reserves the right to alter the specifications of its motorcycles without prior notice.

Errors and omissions expected.

# CONTENTS

Notice to user.....	1	Ignition switch and lock.....	7
Air filter.....	27	Inspection and maintenance.....	24
Battery.....	25	Inspection before riding.....	18
Brakes.....	35	Instruments.....	8
Chain.....	33	Key components.....	4
Cleaning.....	48	Oil renewal.....	30
Fuel and oil.....	14	Riding tips.....	20
Fuel filler cap.....	11	Running In.....	16
Foot brake pedal.....	13	Service schedule.....	24
Fuse.....	26	Spark plug.....	29
Gear lever.....	12	Stands.....	13
Handle bar controls.....	9	Starting the engine.....	20
Headlight bulb.....	41	Specification.....	50
		Troubleshooting.....	44
		Tyres.....	39

## NOTICE TO USER

### **Instructions for safe operation**

Motorcycle riding is great fun and exciting. However, safe riding requires that some extra precautions are taken and certain observations are made. You must obey the highway rules and observe traffic conditions. Always wear an approved safety helmet.

#### **Safe riding starts with wearing an approved safety helmet.**

This is an important factor of riding a motorcycle. You must always wear a helmet that meets current safety standards and is in good condition. Always replace a helmet that has had a knock or has been dropped.

#### **Riding apparel**

Wear suitable boots, gloves and jacket. Loose, or unsuitable clothing can be uncomfortable and unsafe when riding your motorcycle. Always wear good quality motorcycle riding apparel when riding your motorcycle. Ask your dealer for advice.

### **Inspection before riding**

Please read all the instructions in the INSPECTION BEFORE RIDING section starting on Page 18.

### **Familiarise yourself with your motorcycle**

Your riding skill and your mechanical knowledge is the foundation for safe and reliable riding practices. We suggest that you practice riding your motorcycle in a non-traffic situation until you are thoroughly familiar with your machine and its controls. Remember: practice makes perfect. Learn how to confidently operate, maintain and make adjustments to your motorcycle.

### **Aftermarket and spare parts**

Only fit genuine AJS approved parts and accessories. To do otherwise, may be dangerous and may invalidate your warranty. Seek advice from your dealer. You can purchase AJS parts from your AJS Dealer or directly from our web shop:  
[www.ajs-shop.co.uk](http://www.ajs-shop.co.uk)

## NOTICE TO USER

### Ride within your limits

Do not ride with excessive speed. Look ahead and plan your route. Keep both hands on the handle bars. Do not ride after consuming alcohol or drugs.

Take extra care in wet or adverse weather conditions. Slow down and allow longer to stop. Road surfaces will be slippery when wet or icy. Look out for pot holes and keep away from manhole covers and painted lines. Approach kerb edges, such as the entrances to filling stations, square on and not at an angle.

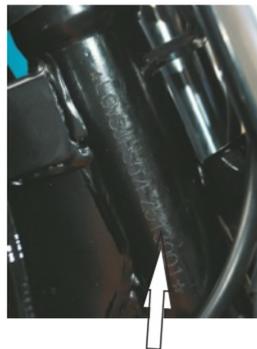
Don't make a sudden turn. Be very careful when crossing railway lines and bridges. Remember to keep a safe distance from the vehicle in front. Watch out for oil and diesel spills. Allow extra distance in adverse weather conditions.

### Do not overload your motorcycle.

The maximum load is 150kg. Overloading may cause instability and cause structural damage to the motorcycle. Do not drive with an insecure load. Secure your luggage on a purpose built luggage rack or inside a top box.

## Vehicle Identification Number (VIN)

The 17 digit Vehicle Identification Number (VIN) and engine serial numbers are used to register the motorcycle. The numbers will also assist your dealer to provide you with better service when ordering spare parts or providing special information. The VIN is located on the right side of the steering head-stock tube. The engine number is engraved on the top, right side of the crankcase.



VIN number



Engine number

## Write down the numbers below for your future reference.

Always quote your 17 digit VIN (Vehicle Identification Number) when ordering spare parts. Your VIN will be stamped on the right hand side of you motorcycle's head stock-tube. Alternatively, you can find it on your registration document.

Frame number (VIN)

.....

Engine number

.....

## Information about using this manual

Read and observe this Manual carefully. Terms such as “Warning”, “Caution” and “Notice” are used to emphasize the intensity of precaution required. Please study and understand their meanings thoroughly.

### “Warning”

Warning means: Your safety or other people's safety is at risk or you may seriously damage your motorcycle.

### “Caution”

Caution means: In order to extend the service life of your motorcycle and for optimum performance and reliability, you should take action. Severe damage to you motorcycle may be caused if you do not heed this message.

### “Notice”

Notice means: Take these tips to get the best out of your motorcycle or motorcycling experience.

## KEY COMPONENTS

- (1) Dual Seat
- (2) Battery cover
- (3) Fuel Injection Unit
- (4) Turning lights (L&R)
- (5) Front brake disc
- (6) Foot brake pedal
- (7) Rear brake disc
- (8) Exhaust Muffler
- (9) Fuel cap
- (10) Chain puller
- (11) Pillion Footrest (L&R)



## KEY COMPONENTS



- (10) Front light
- (11) Rear view mirrors
- (12) Fuel tank
- (13) Rear sprocket
- (14) Side stand
- (15) Centre (main) stand
- (16) Gearshift lever
- (17) Rear shock absorber (L&R)
- (18) Front fork (L&R)
- (19) Speedometer drive
- (20) Airfilter cover
- (21) Toolbox

# KEY COMPONENTS



⑱ Clutch Lever

⑲ Turning Light Switch

⑳ Speedometer

㉑ Tachometer

㉒ Front Brake Lever

㉓ Engine Kill Switch

㉔ Main/Dip Light Switch

㉕ Throttle Grip

## IGNITION SWITCH AND LOCK

This motorcycle is supplied with two keys.  
Keep one in a safe place as a spare.



## IGNITION SWITCH

### **WARNING!**

Risk of injury.

Never turn the ignition switch to “OFF” or “LOCK” whilst the vehicle is moving. To do so may result in loss of control or an accident.

Make sure the vehicle is fully stopped before turning the ignition switch to “OFF” or “LOCK”

The ignition switch has three positions:

“  ” (OFF POSITION)

In this position the engine cannot be started. The key can be inserted and removed.

“  ” (ON POSITION)

In this position the engine can be started. The key can not be removed.

“  ” (STEERING LOCK POSITION)

To lock the steering, turn the handle bars fully to the left, insert the key, push in, and turn anti-clockwise until the lock engages. Rock the handlebars a little to assist. Remove the key.

### **WARNING!**

Risk of injury.

Do not attempt to move the motorcycle whilst the steering lock is activated.

## INSTRUMENTS



### ① Speedometer

The speedometer indicates how fast the motorcycle is travelling. It is equipped with a dual scale. Miles per Hour and Kilometres per Hour are indicated.

### ② Odometer

The odometer shows the total distance travelled in Kilometres (1.6Km = 1mile)

### ③ Tachometer

The tachometer indicated the rotational speed of the engine in revs per minute. Note the RED area. If the needle enters this area for prolonged periods, the life span of the engine will be greatly reduced and/or

### ④ Neutral Indicator Light

When illuminated green, the engine is not in gear and the clutch can be released without forward movement of the motorcycle.

### ⑤ Turning light indicator Light

When the left or right turn signals are being operated, the green indicator light will flash simultaneously until cancelled.

### ⑥ High/Main Beam Light

When using the high beam and pressing the overtaking button, this lamp will be illuminated blue.

### ⑦ Fuel Light

When this light is illuminated, re-fuel as soon as

### ⑧ Engine Management Light

When illuminated contact your AJS Dealer.

## LEFT HANDLEBAR CONTROL



### ① Clutch Lever

When pulled in, the clutch is disengaged. The engine can be started in gear, when this lever is pulled in. Slowly release to engage the clutch and move forward. Pull in and apply the brakes to stop.

### ② Main Beam/Dip Switch

Toggle between Main and Dipped headlight beam to avoid dazzling oncoming traffic. When main beam is selected the blue light will illuminate on the tachometer. (see P8)

### ③ Turn signal operation

Moving the switch to the “ ← ” position will flash the left turn signal. Moving the switch to the “ → ” position will flash the right turn signal. The green indicator light on the tachometer will also flash intermittently. (see P8)

### ④ Horn button

Press the button to sound the horn.

### ⑤ Pass button

Press the button to flash the headlight when overtaking.

### **WARNING!**

Risk of injury.

Always use the indicators prior to changing direction or turning, but do not forget to cancel them after your manoeuvre.

## RIGHT HANDLEBAR CONTROL



### ① Engine stop switch

If you press the switch to the “” position, the engine can not be started. When pressing the switch to the “” position, and the ignition is switched ON the engine can be started. This is the emergency OFF switch.

### ② Front Brake Lever

The front brake lever is on the right handle bar. Squeeze the lever towards the handle bar to operate the front brake only. Pulling the lever harder will apply the front brake more so. Use with care in slippery conditions. As you apply the front brake the rear brake light will illuminate.

### ③ Throttle grip

Rotate the grip towards you from the top to increase the engine speed and also the speed of the motorcycle when it is in gear. Rotate the grip away from you to decrease the engine speed.

### ④ Light switch

Switch position “”

Turn on the headlight light and tail light.

Switch position “”

Turn on the front position light and taillight at same time.

Switch position “”

Turn on the front position light only.

\*NOTE: The lights are Automatically On

### ⑤ Starting switch

Use this switch to activate the electric starter.

#### **CAUTION!**

Do not activate the starter for more than 5 seconds at a time. If the motorcycle will not start, wait a few minutes and try again. Over use of the starter motor may cause overheating of the electrical circuit.

## FUEL FILLER CAP

### To open

- 1) Turn the escutcheon to expose the key hole.
- 2) Insert the key, and turn clockwise.
- 3) Lift the fuel cap out.

### To replace

- 1) Position the filler cap back in its place, with the arrow facing forwards.
- 2) Push firmly down on either side of the fuel cap with your thumbs.
- 3) The fuel cap will then snap back into the locked position.
- 4) Close the escutcheon to keep water and dirt out.



Fuel Filler Cap

### CAUTION!

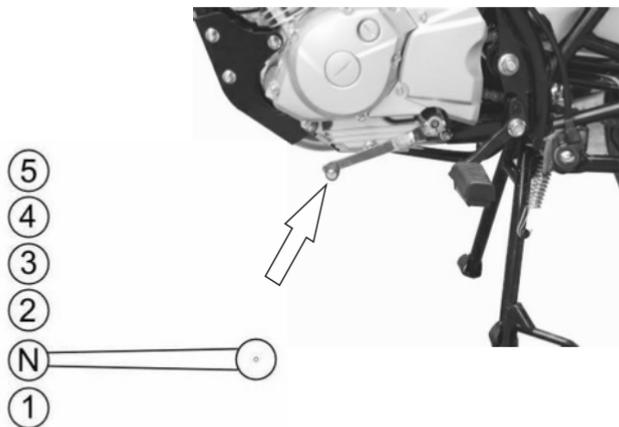
Use only Unleaded Petrol. The use of leaded petrol will cause unrepairable damage to the catalytic converters.

### WARNING!

Risk of injury.  
Do not over fill with fuel.  
Do not smoke whilst re fuelling.  
Do not spill fuel onto a hot engine.  
Allow room for fuel expansion in hot conditions.  
Only refuel when the ignition switch is turned to "OFF"

## GEAR LEVER

This model is equipped with 5 gears and a Neutral position. Press the lever down with your left foot to select lower gears, lift the lever up to select higher gears. The gear lever will return to the horizontal position after each gear change ready for the next selection.



### CAUTION!

Risk of damage.  
Always use the clutch when shifting gear.  
Never stamp or jerk the gear lever aggressively.

### CAUTION!

If neutral is difficult to select, make sure the clutch cable is correctly adjusted. Do not jerk or stamp on the shift lever.

### WARNING!

Risk of injury.  
When Neutral is selected a green light will be illuminated on the speedometer.  
However, release the clutch with caution in case a gear is still partially selected.

## FOOT BRAKE PEDAL

This motorcycle is fitted with a Combined Braking System (CBS) for extra safe riding.

Pressing the pedal with your foot will apply the front brake and the rear brake simultaneously, according to the pressure you exert on the pedal.

The more you press, the harder the brakes will be applied.



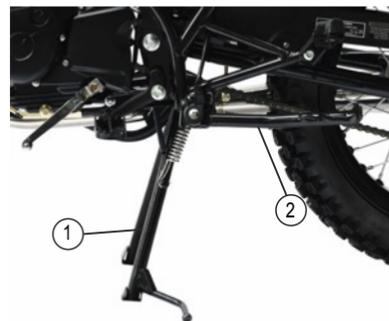
Foot Brake Pedal

## STANDS

This motorcycle is fitted with a Centre Stand and a Side Stand for your convenience.

To use the Centre Stand, push down firmly with your foot on the stand pedal whilst pulling the motorcycle up and backwards using the grab handles next to the seat.

Use the Side Stand for quick and easy parking on flat, firm soil or asphalt. Turn the handle bars and apply the steering lock (see P7)



① Centre stand

② Side stand

### NOTICE!

The side stand is fitted with a Cut Out Switch for your safety. If the stand is put in the down position, the engine will not start or will cut out.

### WARNING!

Risk of injury.

Do not use the motorcycle if the side stand cut out switch is disconnected or malfunctioning. Be very careful not to ride the motorcycle with the side stand in the Down position.

### CAUTION!

When parking on a hill, face the motorcycle uphill to avoid it slipping off of its stand/s

## FUEL AND ENGINE OIL RECOMMENDATIONS

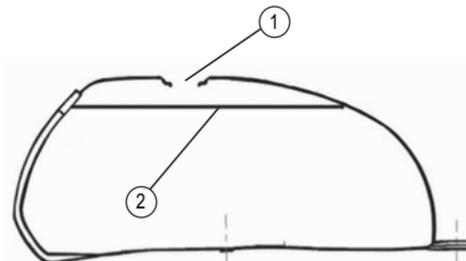
E5

Use only Unleaded or E5 Petrol (gasoline).  
Use 10W40 semi synthetic engine oil to API SF, SG & SH JASO MA2 specification such as Silkolene Super 4 10w40.

Fully synthetic oil should not be used as it may cause the clutch to slip.

### CAUTION!

Use Only Unleaded petrol (Gasoline).  
Damage to the catalytic converter will occur otherwise.



① Fuel filler neck

② Maximum fuel level

## WARNING!

### Risk of fire!

Do not fill the tank beyond level the level shown at line ②

When hot, the fuel will expand and if the upper level is exceeded, fuel might overflow and cause a fire. Never refuel the motorcycle with the engine running.

Always turn the ignition switch to OFF first.

Never refuel whilst sitting astride the motorcycle.

## NOTICE!

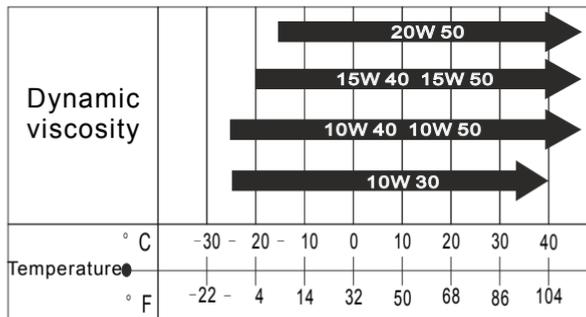
### Tip

When washing the motorcycle, do not use high pressure water. Avoid getting water into the fuel tank, or electrical system.

## ENGINE LUBRICATION OIL

Lubrication is a main factor that affects the performance and the engine's service life. It also has an effect on the engine's emission levels. Therefore the oil should be selected according to these recommendations and changed at the correct service intervals. It is also very important to keep a regular check on the oil level, as some oil may be consumed during service. If the engine runs low on oil, it will overheat and cause damage to the engine's internal parts. Select a good quality 10w40 4 stroke motorcycle oil, such as Silkolene Super 4. or an alternative approved to API SF, SG & SH, JASO MA2 specification.

### Example



## API classification table

Code	SD	SE	SF	SG
Grade	Low  High			

## “RUNNING IN” A NEW ENGINE

Careful running in will prolong the service life if your engine. For the first 500 miles do not use full throttle and avoid high engine speeds at all times. You should also avoid aggressive starts and stops except in an emergency. Don't over rev when cold and don't lug the engine. Always downshift before the engine begins to struggle. See the table below for guidance.

Initial 1,000 miles Below 5,000 r/min

1,000 miles to 1,600 miles Below 6,000 rev/min

Thereafter Keep Below 10,000 rev/min

### WARNING!

#### Health & Environmental Risk

Keep fuel, grease and oils out of reach of children.  
 Observe health and environmental information given by the oil manufacturer. Wear protective clothing when handling used engine oil.  
 Do not pour used oil into drainage systems.  
 Dispose of legally and responsibly.

### NOTICE!

After the first 500 miles, change the engine oil to remove running in debris.

## VARY THE ENGINE SPEED

The engine speed should be varied and not held at a constant speed. This allows the parts to be “loaded” with pressure and then “unloaded”, allowing the parts to cool. This aids the mating process of the parts. It is essential that some stress be placed on the engine components during running in to ensure this mating process take place. Do not cause excessive load though.

## USE THE CORRECT ENGINE SPEED

Do not under rev the engine and make it lug or labour too hard. This will cause stress and overheating. Keep the engine revving freely but do not exceed the recommended engine speeds as shown in the previous table. Do not use wide open throttle for long periods.

## BEFORE RIDING OFF

Allow sufficient idling time for the engine to warm up and the oil to circulate around the engine before you head off at speed.

Over revving a cold engine causes excessive wear and will shorten the life of the engine.

## THE FIRST SERVICE (oil change)

The first oil change should be 500 miles (800km) or 3 Months, whichever comes soonest. During running in all of the engine components will have worn a little And bedded in. Some service parts will require adjustment. The dirty oil must be replaced and adjustments made.

Note: Your warranty is dependant upon your service schedule being adhered to.

## INSPECTION BEFORE RIDING

Before you make each journey, you should make the following checks to your motorcycle to ensure it is safe to ride and that it will not let you down.

Test Item	Test details
Steering	<ol style="list-style-type: none"><li>1) Smoothness.</li><li>2) No tightness, notching or looseness.</li><li>3) No restrictions of movement.</li></ol>
Clutch	<ol style="list-style-type: none"><li>1) Check the lever free play.</li><li>2) Adjust when necessary.</li><li>3) When necessary, lubricate the lever or cable.</li></ol>
Fuel	<ol style="list-style-type: none"><li>1) Check the fuel level.</li><li>2) Add fuel when necessary.</li><li>3) Check the fuel pipe condition.</li></ol>

Engine oil	<ol style="list-style-type: none"><li>1) Check the engine oil level.</li><li>2) Add oil if necessary.</li><li>3) Check for oil leaks.</li></ol>
Tyres	<ol style="list-style-type: none"><li>1) Check for surface damage.</li><li>2) Check the tread depth.</li><li>3) Check the tyre pressures.</li><li>4) Adjust the pressures if necessary.</li></ol>
Brakes	<ol style="list-style-type: none"><li>1) Check the front brake lever free play.</li><li>2) Check for excessive wear to the brake pads and disks.</li><li>3) Check the fluid level in the brake reservoirs.</li><li>4) Check for fluid leaking from the hydraulic systems.</li><li>5) Check the foot brake pedal free play. Adjust as necessary.</li></ol>

Drive chain	<ol style="list-style-type: none"> <li>1) Check for correct tension.</li> <li>2) Adjust if necessary.</li> <li>3) Lubricate as necessary.</li> <li>4) Check for stiff links.</li> </ol>
Throttle	<ol style="list-style-type: none"> <li>1) Check for correct free play.</li> <li>2) Adjust if necessary.</li> <li>3) Check for smooth action.</li> <li>4) Check that it returns automatically, and fully.</li> </ol>
Side stand	<ol style="list-style-type: none"> <li>1) Make sure the safety cut out switch is working correctly.</li> <li>2) Check for smooth operation.</li> <li>3) Lubricate the pivot as necessary.</li> </ol>
Lights	<ol style="list-style-type: none"> <li>1) Make sure front and rear lights are working correctly.</li> <li>2) Check the braking light function.</li> <li>3) Check the function of the turning lamps.</li> </ol>

Information lamps	<p>Check the following lamps:</p> <ol style="list-style-type: none"> <li>1) High beam lamp</li> <li>2) Indicator warning lamp.</li> <li>3) Neutral gear lamp.</li> <li>4) Engine management lamp.</li> </ol>
Horn	Check that it sounds.
Hand grips	Check that they are in good condition and fixed firmly and securely in place.

**WARNING!**

Risk of injury.  
 If any item in the pre ride check list is not functioning correctly, have it fixed before riding.  
 Do not ride a defective machine.

## RIDING TIPS

If you are riding the motorcycle for the first time, we suggest you find a quiet area away from traffic and off the main highway. Practice until you are fully familiarised and confident with the handling and using the controls.

Do not consume drugs or alcohol whilst riding your motorcycle. Always wear an approved crash helmet and safety clothing.

Removing your hands from the handle bars or your feet from the footrests whilst riding can be hazardous. Even removing one hand or foot can cause loss of balance or stability and can reduce your ability to control the motorcycle. Always keep both hands on the handlebars and both feet on the footrests during operation.

Brake and change gear before entering a corner. Your motorcycle's braking and cornering ability will be reduced in wet or slippery conditions. Slow down accordingly.

Obey traffic rules and speed limits.

## STARTING THE ENGINE

- 1) Check the engine kill switch is set to the RUN position “”
- 2) Put the key in the ignition switch and turn to the ON position “”
- 3) Make sure the side stand is in the up position.
- 4) Select neutral gear. The green lamp on the tachometer will light up when in neutral.
- 5) Pull in the clutch and hold during the starting process.
- 6) Open the throttle 1/8 to 1/4 turn. Press the START button on the right handle bar switch for a maximum of 5 seconds until the engine starts. Release the starter button as soon as the engine starts. Do not open the throttle fully or violently. If the engine fails to start, retry after 10 seconds.

### CAUTION!

Let the clutch lever out carefully in case the motorcycle is in gear.

### **NOTICE!**

#### **Using the electric starter.**

Use the starter in 5 second bursts. If the engine fails to start, wait 10 seconds and try again. Release the starter button to disengage the starter motor as soon as the engine starts.

The engine may be difficult to start if the motorcycle had been laid up for a number of days or weeks. If so, you may need to charge the battery.

### **NOTICE!**

Do not allow the motorcycle to idle for long periods or overheating could occur.

### **WARNING!**

**Risk of injury or death.**

Do not start or run the motorcycle in an enclosed space, such as a garage or shed.

The exhaust gasses contain highly poisonous carbon monoxide, which is a colourless and odourless gas.

Never leave the motorcycle running unattended.

### **STARTING OFF**

With the engine idling, pull in the clutch lever fully and pause momentarily. Engage first gear by depressing the gearshift lever downward. Turn the throttle grip toward you a little and at the same time, release the clutch lever gently and smoothly. As the clutch engages the motorcycle will start moving forwards. After you pick up some speed, shift to the next gear. To do this, close the throttle, pull the clutch lever in and simultaneously lift the gear shift lever to select the next gear. Then release the clutch lever and open the throttle again. Repeat this procedure until top gear is reached.

Do not stomp or shift gear aggressively.

Keep it smooth and light. Always look ahead.

## USING THE GEARS (transmission)

Gears are used to keep the engine running at the optimum revolutions per minute for any given road speed. The gear ratios have been carefully designed to meet the characteristics of the engine. The rider should always select the most suitable gear for the prevailing conditions.

Never slip the clutch to control road speed. Instead, select the correct gear.

Attention should be paid to the tachometer to ensure the engine is not over or under revved.

### **WARNING!**

Risk of engine damage  
Never allow the engine to rev into the red zone on the tachometer.

### **WARNING!**

Do not coast in neutral or with the clutch disengaged.  
You may lose control.  
You may cause engine damage.

## RIDING ON HILLS

When climbing steep hills, the motorcycle will start to slow down and show lack of power. At this point you should shift to a lower gear so that the engine will again be operating within its optimum power and rev range. Shift in time to prevent the motorcycle losing too much momentum. When descending, the engine can be used as a brake by shifting down to a lower gear. Be careful, not to allow the engine revs to rise too high. Monitor the tachometer to keep within the safe rev range.

### **NOTICE!**

Tip  
Good use of the gears will enable you to control the engine speed and power when ascending or descending hills.

## STOPPING AND PARKING

- 1) Turn the throttle away from you to slow the engine.
- 2) Evenly apply the front and rear brakes together.
- 3) Change down progressively through the gears.
- 4) As you stop, pull the clutch lever in to disengage the clutch.
- 5) Hold the clutch in, and select Neutral before releasing the clutch carefully. Observe the green Neutral light on the tachometer.
- 6) Turn the ignition switch to OFF to stop the engine.
- 7) If the motorcycle is to be parked using the side stand on a slope, ensure the motorcycle faces uphill to prevent it from rolling off the stand. You can park it in 1st gear to help prevent it from rolling back on a hill. Remember to select Neutral before re-starting.
- 8) Turn the ignition lock to the steering lock position to secure the motorcycle. Remove the key and take it with you.

### NOTICE!

Always lock your motorcycle to prevent theft. Use a secondary locking device such as a chain and lock or a disk lock. Ask your dealer for advice.

### WARNING!

#### Risk of injury.

As your speed increases, your stopping distance also increases progressively. Allow a greater distance between you and the vehicle in front as your speed increases. Do not drive in the blind spot of the vehicle in front.

Remember: If you can't see them in their mirrors, they can't see you!

Using only the front brake can be hazardous especially when the road conditions are slippery and when negotiation sharp corners and roundabouts.

Use the foot brake pedal to use the Combined Braking System (CBS).

Operated the brakes firmly but smoothly.  
Keep your distance.

Be careful on wet and slippery roads.

## INSPECTION AND MAINTENANCE

It is the responsibility of the owner/rider to ensure the motorcycle is maintained and kept in a good and safe condition and serviced according to the Service Schedule. Record the services in your Warranty and Service Booklet. Please note that the service schedule is set by either time or distance travelled, whichever comes first. The schedule allows for normal usage, but if abnormal conditions are encountered such as dusty or very wet conditions, hard usage or extreme land form conditions, the service schedule should be more frequent. Ask advice from your dealer.

If your motorcycle is used in extreme conditions such as in sandy conditions, special maintenance will be required. The air filter should be changed more frequently. The drive chain will wear sooner.

If driven on winter roads where salt has been spread, extra maintenance and preparation will be required. Salt is very corrosive, even in powder form, when roads have dried after icy conditions. Bright parts should be protected before your journey with corrosion inhibitor such as Scottoiler 365, then washed off as soon as possible after your journey with cold water. Re apply the corrosion inhibitor immediately after washing. Do not store your motorcycle under a cover if it has road salt on it. It will corrode!

### NOTICE!

Scheduled maintenance is necessary to keep your motorcycle running in a safe, reliable and economical condition. You must keep to the Service Schedule shown in the AJS Warranty & Service booklet to preserve your AJS Warranty.

Download the Maintenance Operation Sheets from:  
[www.ajsmotorcycles.co.uk/owners](http://www.ajsmotorcycles.co.uk/owners)

### NOTICE!

Periodic maintenance may require some parts to be replaced.  
Always use genuine AJS original parts.

Some maintenance tasks are usually carried out by the owner/rider such as chain tension, lubrication of the drive chain and pivot points, bulb replacement, visual tyre inspection, washing and cleaning.

Other tasks, such as brakes or steering, which may affect the safety of the vehicle should only be carried out by an experienced motorcycle mechanic.

## BATTERY



Battery location

Your AJS Heritage motorcycle is fitted with a “MF” Maintenance Free battery. It is not required to top up this battery with electrolyte. If the motorcycle is not used for long periods, be sure to check the condition and keep the battery charged. Otherwise, battery deterioration may occur. Refer the the battery instructions (check with your AJS dealer)

The battery is located under the right body cover.

### **WARNING!**

Always wear protective eyewear and rubber gloves when handling batteries. The electrolyte is acidic.

Discard of used batteries legally. Do not dispose of into waterways or soil.

## BATTERY INSTALLATION

When connecting the battery leads, be sure to connect the leads correctly; Red to positive (+) and Black to negative (-). Incorrect connection can cause damage to the charging system, ECU, CDI and battery.

After you have tightened the terminal fixing bolts, coat them with white grease to prevent corrosion.

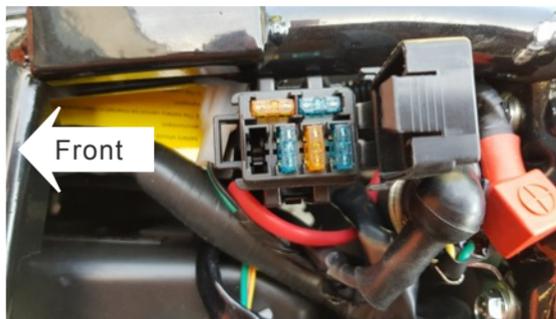
## USE AND MAINTENANCE OF THE BATTERY

- 1) Each electric starter session should not last longer than 5 seconds. If the engine fails to start, check the fuel level/supply. Allow 10 seconds between retries.
- 2) Frequent electric starting with short journeys will shorten the battery life.
- 3) If the battery shows signs of discharge, charge with a trickle charger. When usage of the motorcycle is infrequent, the battery may discharge partially.
- 4) If you want to store the motorcycle for some months, remove the battery from the motorcycle and keep it trickle charged. Sit the battery on wood or something similar to insulate it from cold.

## FUSE

The motorcycle is fitted with a 15A Fuse to protect the main circuit and a 5A fuse to protect the EFI circuit in the event of an electrical short.

The Fuse Holder can be accessed by removing the main seat. The Fuse Holder snaps open to reveal the fuses. There are spare fuses in case of emergency. If the engine suddenly stops, or there is a general electrical failure, first check the fuses before other diagnostic work is carried out.



If the Fuse has blown, follow these steps:

1) Turn the ignition switch to "OFF". Disconnect the faulty part that has a short circuit.

2) Open the Fuse Holder and replace the blown Fuse.

3) Switch the ignition to ON. If the replacement Fuse also blows, do not ride the motorcycle. Contact your dealer and seek professional help to solve the problem. A short circuit must not be in existence.

4) In the event of the Fuse continuing to blow, switch off the ignition and disconnect the battery. Call your AJS Dealer for help.

### **WARNING!**

Risk of fire or damage.

Do not use a fuse that is rated above 15A.

An over rated fuse could lead to a fire or damage to the motorcycle's electrical system.

Do not replace the fuse with an alternative device or other material.

Do not ride the motorcycle until the fault is rectified.

### **CAUTION!**

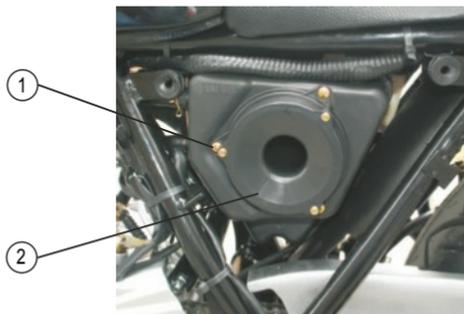
Switch off the ignition whilst replacing the fuse and looking for a short circuit.

## AIR FILTER

The air filter is the respiratory system of your motorcycle. Its role is to filter out small particles and impurities in the air that is drawn into the engine prior to combustion with the fuel. Clean air will extend the engine life.

If the air filter is clogged with dirt and oil, the air intake resistance will be higher and this will lead to a lack of power, increased fuel consumption, poor starting and increased exhaust emissions.

Once blocked, dirt will pass through the filter and into the upper cylinder area, causing accelerated engine wear. Clean and replace the air filter according to the service schedule and driving conditions.



① Screw

② Case cover

## TO CHANGE/CLEAN THE FILTER

- 1) Remove the left frame cover to reveal the air filter case.
- 2) Remove the case cover screws ① Remove the air filter element.
- 3) Tap the filter on a flat surface to remove large pieces of debris. Then wash and re-oil, with foam filter oil, or replace the foam filter element.
- 4) If the filter is oily, damaged or too dirty, replace it with a new genuine spare part. Spare parts and filter oil can be purchased from your AJS Dealer or directly on line at: [www.ajs-shop.co.uk](http://www.ajs-shop.co.uk)
- 5) Wipe the inside of the air filter case clean.
- 6) Clean out the air filter case oil trap tube.
- 7) Reinstall the air filter element and case covers in reverse order. Be sure to seal the air filter correctly.

### NOTICE!

Failure to replace a dirty air filter will shorten the life of your engine.

### **WARNING!**

Risk of fire.

Do not use petrol or other low flash point solvents to clean the air filter.

### **NOTICE!**

If the motorcycle is used in dusty conditions, you should clean or replace the air filter element more frequently than stated in the Service Schedule.

If the air filter case or connection hoses are cracked, split or damaged, they should be immediately replaced with new.

### **CAUTION!**

Do not start the engine with the air filter disconnected. Any foreign body entering the engine can cause severe damage to the engine.

## SPARK PLUG (NGK CR6HS)

The spark plug is an important component. It is easy to check and should be kept in good condition and changed according to the Service Schedule.

Over time, the electrodes will erode and the “gap” will change. The plug will then lose some of its efficiency. This will lead to poor performance, lack of power, poor starting and increased exhaust emissions.

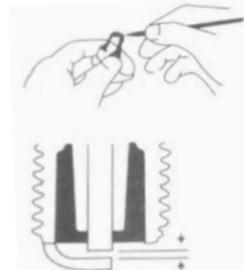
Switch off the engine, allow to cool then remove the plug cap and using the appropriate tool undo the spark plug.

Remove any build up of carbon or debris with a scraper or scribe. Clean with a wire brush.

Check the gap and adjust to 0.6mm-0.7mm

Apply a light smear copper grease to the threads and replace in reverse order.

Be sure to only replace the plug with the exact original type. Do not choose a different heat range or thread type.



0.6-0.7 mm

## SPARK PLUG, continued

Whilst checking the spark plug, note the colour of the electrodes. Mild brown indicates all is normal and well. Black indicates that the engine is running too rich. This could be caused by a dirty air filter or the jet/s may be too big. A whitish colour electrode indicates the engine is running weak. This could be caused by a fuel blockage, an air leak or perhaps the jet/s are too small.

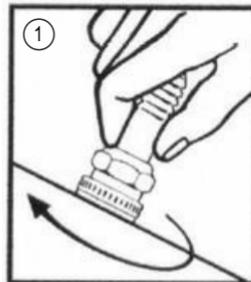
Seek professional advice from your dealer before making changes.

### CAUTION!

If the colour of the spark plug electrodes are black or white after normal use, seek professional advice from your dealer.  
Brown indicates normal conditions.

### CAUTION!

- 1) Install a new spark plug by hand until it seats – (fig 1) a length of rubber tubing pushed over the insulator can be a useful aid for plug installation where access is difficult.
- 2) Tighten to the specified torque setting: 12Nm.
- 3) Do not use a power tool to tighten the spark plug.
- 4) Be sure not to drop foreign objects into the open plug hole when the plug is removed.
- 5) Smear a light coat of copper grease onto the threads to aid removal later.
- 6) Take care not to cross the threads when inserting the plug. Start it off by hand.
- 7) The spark plug for this model has been chosen carefully. Do not change it for a different type.



## ENGINE OIL RENEWAL

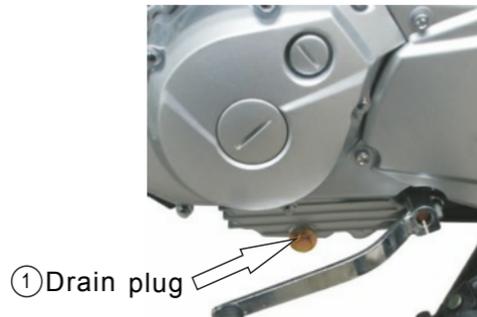
A lot depends on the selection of the engine lubrication oil and the daily oil level checks. These are the two most important tasks to ensure a long life from your engine. Only use high quality oil of the specified type. You should change it according to the service schedule. It is often more convenient to drain the oil whilst it is still quite warm, as it will drain quicker. Be careful not to burn or scold yourself though.

The procedure to change the oil is as follows:

- 1) Park the motorcycle on flat, level ground, on its centre stand.
- 2) Place a suitable receptacle under the crankcases and remove the crankcase drain plug. Allow all of the oil to drain out.
- 3) Replace the drain plug using a new sealing washer. Tighten to the specified torque.
- 4) Remove the oil filler cap. Refill through the filler hole 1.0 - 1.1L Check the level on the oil level gauge. (dip stick)
- 5) Run the engine for a few minutes, allow to settle for 5 minutes and check the level again. Check for oil leaks.

**NO NOT OVERFILL**

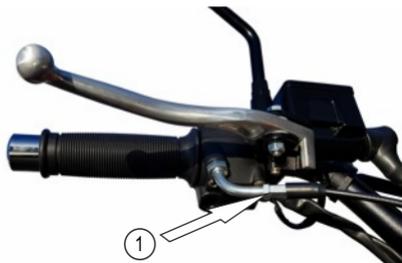
Dispose of old oil responsibly and legally. Do Not pour into drainage systems or waterways.



### **WARNING!**

Health Hazard.  
Used engine oil can harm your skin. Always wear protective gloves when handling used oil.

## ADJUSTING THE THROTTLE CABLE



To adjust the throttle cable do the following:

- 1) Loosen the locknut ① (10mm and 8mm spanner sizes)
- 2) Rotate the adjuster sleeve nut until there is 1.5mm - 2.5mm free play in the throttle cable.
- 3) Re-tighten the lock nut against the sleeve nut.
- 4) The rotational free play at the twist grip should now be 2mm - 6mm.
- 5) Turn the handle bars lock to lock and check the free play at each extreme position.

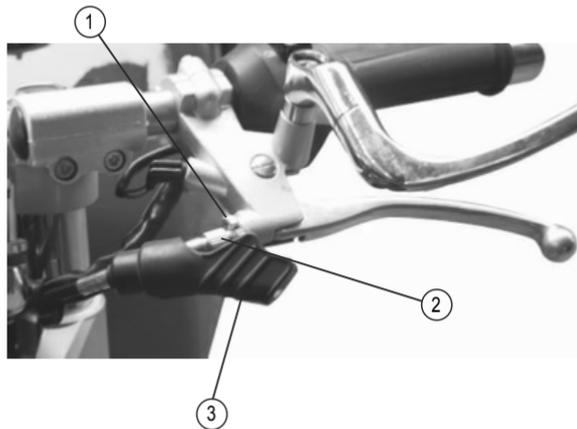
### WARNING!

Do Not adjust the throttle cable tension to alter the idle speed. The idle speed should only be adjusted by turning the idle adjustment screw on the side of the carburetter.

## ADJUSTING THE CLUTCH CABLE

The clutch lever should have approximately 5mm free play at the ball end. This is essential to avoid the clutch from slipping and wearing out prematurely. If the clutch free play is too great, difficulty engaging gears and neutral will be experienced. Damage to the gearbox could follow.

- 1) Peel back the rubber cover ③
- 2) Undo the round locknut ①
- 3) Rotate the cable adjuster ② until the correct free play is achieved.
- 4) Re-tighten the lock nut ①
- 5) Re position the rubber cover ③



## DRIVE CHAIN

The drive chain is one of the main components that effect the smoothness and reliability of the ride. It is essential for the chain to be in good condition and adjusted correctly. It is a highly stressed and exposed part and therefore needs constant lubrication, adjustment and inspection.

The chain should be checked and free from the following conditions:

- 1) Loose pins
- 2) Damaged rollers
- 3) Insecure joining link
- 4) Kinked or stiff links
- 5) Rusty links
- 6) Excessive wear
- 7) Improper adjustment

### WARNING!

Risk of injury.

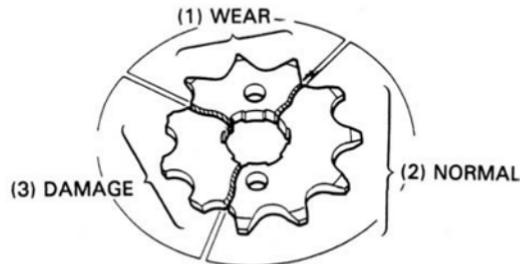
To ensure safety, the drive chain must be adjusted, lubricated and constantly maintained . If adjustment has reached the end of its scope, a new drive chain and sprocket set should be fitted. NEVER ride with a worn out, poorly maintained or poorly adjusted chain.

### NOTICE!

Wear and damage to the drive chain means that the sprockets may also be worn or damaged. Check the front and rear sprockets for the following conditions:

- 1) Excessive wear or “hooking” of the teeth.
- 2) Broken or damaged teeth.
- 3) Loose sprocket fixings.

Replace the chain and sprockets together as a set.



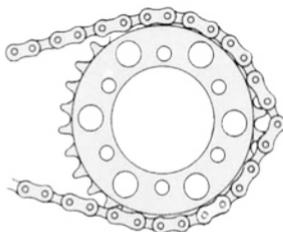
## MAINTAINING THE DRIVE CHAIN

If the chain is not too dirty, the operation of lubrication is normally sufficient to clean the chain.

When the accumulation of dirt on the chain (sand, mud, asphalt particles or other foreign materials) is excessive, the chain must be washed with a brush and kerosene. After washing, the chain has to be dried by towelling it off and hanging in the air.

To obtain good performance and long life, the chain must always be kept well lubricated.

A lack of lubrication increases friction between chain rollers and sprocket surfaces, resulting in an increase in friction, therefore an increase in the working temperature of the components. This will result in the lubricant burning and becoming less effective, therefore increasing chain wear.



Pull the chain to check for wear.  
Movement here should be minimal

## DRIVE CHAIN ADJUSTMENT

### **WARNING!**

#### Risk of injury

##### Excessive Chain Tension

An over-tight chain increases the working loads between the pins and the rollers, overheating the chain thus consuming the lubricant more rapidly. This causes the chain to wear faster.

Moreover, if the motorcycle is ridden on rough roads or trails, the chain is subjected to extremely hard shocks by the up and down lever action of the swinging arm. This can lead to premature failure of the chain and damage to other parts of the motorcycle.

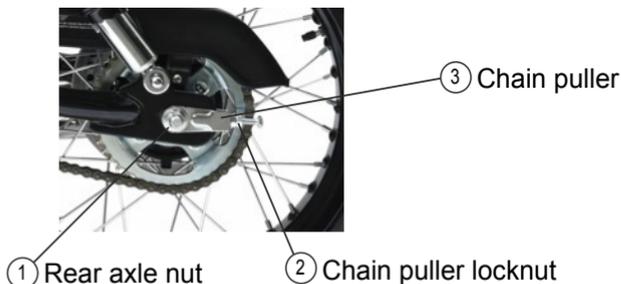
##### Excessive Chain Slack

A chain that is excessively loose is subjected to hard whiplash like vibration shocks during acceleration.

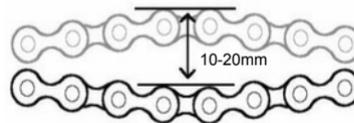
This adds to the force applied to the chain, causing the chain to jump over the sprocket teeth possibly causing harm to the vehicle or rider.

## To adjust the drive chain:

- 1) Put the motorcycle on its centre stand on flat level ground.
- 2) Slacken the rear axle nut, ① but not fully undone.
- 3) Loosen the locknuts ② on both left and right chain pullers.
- 4) The rear axle, swinging arm pivot and centre of the output shaft should be in near perfect alignment. The chain should be adjusted to give 10-20mm free play in this tightest position. Load may have to be applied to the rear of the motorcycle to achieve this.
- 5) Turn the left and right chain puller adjuster bolts ③ a little and evenly until the correct chain tension is achieved. Ensure the rear wheel is in alignment.
- 6) Re tighten the rear axle nut to the correct torque setting and chain puller locknuts.
- 7) Re check the drive chain tension. Turn the rear wheel and check again. Adjust if not correct.



Adjust the chain in its tightest position to give 10-20mm free play.



### CAUTION!

When replacing the drive chain, also replace the sprockets, as a chain and sprocket set. A new chain will not sit well on worn sprockets.

### CAUTION!

Ensure the rear wheel is aligned correctly after any adjustments have been made.

### WARNING!

Health risk  
Always wear protective gloves when handling oil, kerosene or de-greaser.

## BRAKING SYSTEM

This motorcycle is equipped with a Combined Braking System (CBS).

The right handle bar lever operates only the front brake. The right foot pedal operates both front and rear brakes simultaneously.

It is extremely important that the brakes are working correctly and are serviced to schedule by your AJS Dealer.

There are some important checks that should be carried out regularly by the owner. Such as:

- 1) Check the brake fluid levels.
- 2) Check for brake pad wear.
- 3) Check for brake disc wear.
- 4) Check for hydraulic fluid leaks.
- 5) Check for control lever and pedal adjustment.
- 6) Check brake hose condition.
- 7) Check for firmness of the hand brake lever and foot brake pedal action. The action should not feel "spongy or soft"
- 8) Check for brake fluid leaks.
- 9) Regularly clean the brakes with clean cold water to remove salt and debris.

## HYDRAULIC FLUID

Keep regular checks on the level of the fluid in the master cylinder reservoirs. As the brake pads wear, the fluid level will drop and may need to be topped up. The front master cylinder reservoir has a "level indication" window whilst the rear master cylinder reservoir is translucent. The level can be seen through the reservoir.

Hydraulic fluid is hygroscopic. The reservoir caps should not be left off, as moisture from the air will be absorbed by the fluid. The braking system should be regularly checked for leaks and cracks to the brake hoses. Replace any hoses that appear to be damaged or cracked. Replace the fluid for new, according to the service schedule. Use only DOT4 fluid.



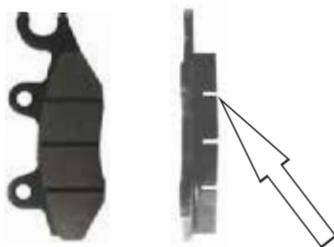
Front brake fluid level window.  
The fluid should not be below the window.



Rear brake reservoir

If the brake fluid level falls too low, air can enter the system and cause a spongy and ineffective brake.

## BRAKE PADS



Brake pad wear limit grooves

## BRAKE SYSTEM INSPECTION

Periodically check the friction surface of the front and rear brake pads to see if they have worn down to the bottom of the brake pad wear limit grooves. If the pads appear worn, replace them at your earliest convenience. Worn pads can cause ineffective brakes and can damage the surface of the brake discs. Consult your AJS Dealer if you do not feel confident to make these checks yourself.

### **WARNING!**

After fitting new brake pads, do not ride the motorcycle until you have pulled the front hand brake lever and pushed the foot brake pedal several times repeatedly to force the pads in contact with the brake disc. Failure to do this could mean that the brakes will not work properly when you need them.

### **WARNING!**

Do not ride the motorcycle if the braking system is defective or the brake pads are worn to the wear limit grooves.  
Contact your AJS Dealer for help.

## BRAKE DISCS

The brake discs are an important part of the braking system. Pay attention to their condition. They should not be heavily grooved or worn too thin. The front and rear discs should be replaced when they reach their minimum wear limit of 3mm thick.



Front brake disc



Rear brake disc

### **WARNING!**

Do not apply grease, oil or water repellant to the brake disc or loss of braking efficiency will occur.

### **WARNING!**

The disc braking system employs high pressure hydraulics. Brake hoses and brake fluid must be replaced according to the service schedule or if they are damaged or compromised.

### **WARNING!**

Risk of injury or death.  
If the braking system is not functioning correctly,  
**DO NOT** ride the motorcycle.  
Contact your AJS Dealer for assistance.

## REAR BRAKE

Adjust the rear brake pedal free play to be 20-30 mm of free play at the tip of the pedal. Make the adjustment by removing the brake clevis pin, and unlocking the locknut as shown. Then rotate the push rod shaft to increase or decrease free play. Re tighten the lock nut and replace the clevis pin and secure with a new split pin.



Adjusting push rod and lock nut.

### WARNING!

After adjusting the brake free play, check that the rear brake lamp operates correctly.

## FRONT BRAKE LIGHT SWITCH

The front brake light switch is located under the brake lever. When the lever is pulled and the ignition switch is set to "ON" the rear brake lamp should light up.



## REAR BRAKE LIGHT SWITCH

The rear brake light switch is located on top of the rear master cylinder. It is an in-line hydraulically operated device. When the foot pedal is depressed, and the ignition switch is set to "ON" the rear brake lamp should light up.



## TYRES

Each time before you ride, the tyres must be checked. If the tyres have reached their wear limit replace them immediately. Check the tyre surfaces for objects stuck in them such as stones, glass, nails etc. If the surface or sidewall appears cracked or cut contact your AJS Dealer or a tyre specialist for advice. The correct tyre pressures according to the load should always be employed. Be prepared to adjust the tyre pressures before your journey. Always keep a pump and pressure gauge handy.

### TYRE PRESSURE

Each time before you ride, you should check the tyre pressures. Incorrect tyre pressures will effect handling, stability and cause abnormal and uneven wear. If the pressure is too high there will be less tyre in contact with the road and loss of grip will occur. If the pressures are too low the motorcycle will be unstable and will not turn correctly. There is also a higher risk of concussion punctures occurring. Adjust the tyre pressure according to the specifications at normal ambient temperatures.

	Tyre	Front tyre	Rear tyre
Parameter			
Rider only		32psi	32psi
Rider and passenger		32psi	32psi

### **WARNING!**

Risk of injury or death.

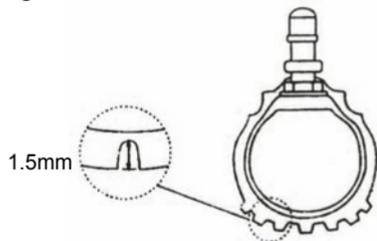
Loading your motorcycle will have a great impact on handling, performance and braking.

- 1) Do not overload your motorcycle. The maximum total load is 150kg.
- 2) Be sure to always use the correct tyre pressures.
- 3) Do not carry goods in a loose package or bag. Shifting luggage will cause instability.
- 4) Do not carry luggage on the handle bars.
- 5) Check the tyre condition and tyre pressures before each journey.
- 6) Only fit replacement tyres that equal the original size and specification.

## TYRE TREAD

Using tyres that have worn excessively or that are damaged will reduce stability, reduce grip, increase your braking distance and cause loss of control unpredictably.

Both tyres should have a tread depth of at least 1.5 mm across three-quarters of the breadth of the tread and in a continuous band around the entire circumference. Replace the tyres for new if this limit is approaching or reached.



### NOTICE!

Your motorcycle uses the following tyre sizes:

Front tire : 410 -18

Rear tire : 460 -17

## BULB REPLACEMENT

Always check your lights for correct function before each journey. Use your headlights at all times to increase your visibility.

Only use replacement bulbs that meet the specifications below. Failure to do so could damage your motorcycle's electrical system or cause damage to the lamps.

Head lamp	LED Unit
Rear lamp/Braking lamp	LED panel
Turning signal lamp	LED Unit
Front position lamp	LED Unit

## CHANGE THE HEAD LIGHT LED UNIT

- 1) Allow the lamp to cool before touching them.
- 2) Unscrew the two small screws either side of the head light rim as shown at point ①
- 3) Pull the front rim off of the head light shell.
- 4) Unclip the head light LED panel and replace.

## ABOUT THE HEAD LIGHT BULB

The headlight bulb is a double element LED type. One element provides the high beam whilst the other provides the low beam. The elements are located at different positions from the reflector so as to produce two different beam levels (one high and one low) If either the high or low beam fails, you should replace the headlamp LED assembly.



## TROUBLE SHOOTING

Your AJS motorcycle received a rigid inspection before shipment from the factory however, trouble may occur during operation due to a number of factors. Problems with the fuel system, compression, or ignition systems can cause poor starting and loss of power. The trouble shooting chart describes a quick, easy, procedure for making checks. If your motorcycle requires any repair, take it to your AJS Dealer. Your AJS Dealer will have the tools, experience, and know-how to properly service your motorcycle. Use only genuine AJS spare parts on your motorcycle. Imitation parts may look like AJS parts, but they are often inferior and have not been homologated. Consequently, they may have a shorter service life and can lead to expensive repair bills.

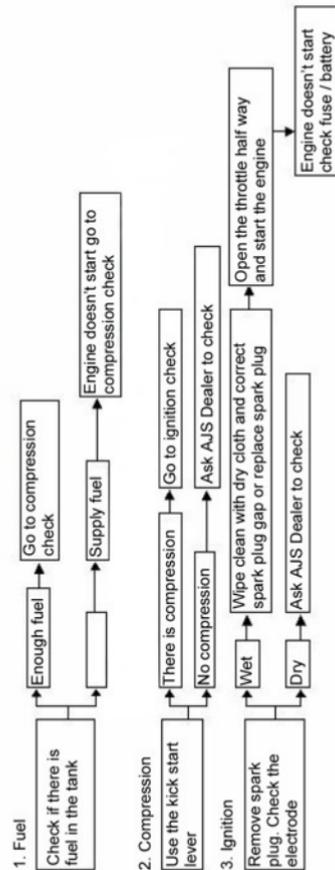
You can buy AJS parts from your AJS Dealer or directly line at [www.ajs-shop.co.uk](http://www.ajs-shop.co.uk)

### NOTICE!

Before you carry out any repair work your self, check with you dealer to see if your motorcycle is still in its warranty period and if you will invalidate your warranty by carrying out work your self..

### WARNING!

Never check the fuel whilst smoking or in the vicinity of naked flames.



## WARNING!

### Risk of Injury or Death!

Do Not spill fuel. Waste fuel should be collected in a suitable fuel proof container. Dispose of carefully and legally. Do not allow fuel to spill onto a hot engine or exhaust. Do not allow fumes to build up in a confined space. No naked flames or lights. No smoking.

Keep the HT lead and spark plug away from the spark plug hole if you are checking for a spark. Un burnt fuel exiting the spark plug hole can suddenly ignite. When checking for a spark, if you touch the metal part of an unearthed spark plug you may get a high voltage electric shock. No person with heart disease or wearing a heart modulator should carry out these checks.



## ENGINE STALLING / CUTTING OUT

- 1) Check the fuel level / supply.
- 2) Check the engine kill switch.
- 3) Check the battery terminals for tightness.
- 4) Check for a loose fitting fuse.
- 5) Check tappet clearances (IN & EX 0.15mm)
- 6) Check for air leaks to the intake system.
- 7) Check the side stand cut-out switch.

### Ignition circuit cut-off system

The ignition circuit cut-off system (comprising the side stand switch, clutch switch and neutral switch) has the following functions.

- 1) It prevents starting when the transmission is in gear and the side stand is up, but the clutch lever is not pulled in.
- 2) It prevents starting when the transmission is in gear and the clutch lever is pulled in, but the side stand is still down.
- 3) It cuts the running engine when the transmission is in gear and the side stand is moved down.

Periodically check the operation of the ignition circuit cut-off system. If it is not functioning correctly, do not ride the motorcycle. Contact your AJS Dealer for assistance.

## TROUBLESHOOTING

	Possible Cause	Remedy
Engine does not start	<ol style="list-style-type: none"> <li>1) Battery is discharged</li> <li>2) Engine kill switch set to "OFF"</li> <li>3) Side stand is set down</li> <li>4) No fuel in the tank</li> <li>5) Fuel level is low</li> <li>6) Water or Diesel in the fuel</li> <li>7) No spark at the plug.</li> <li>8) Faulty fuel pump relay</li> <li>9) Fault code needs clearing.</li> </ol>	<ol style="list-style-type: none"> <li>1) Charge the Battery or replace</li> <li>2) Set the engine kill switch set to "ON"</li> <li>3) Put the side stand up</li> <li>4) Replenish the fuel</li> <li>5) Add fuel</li> <li>6) Contact your AJS Dealer</li> <li>7) See the next section.</li> <li>8) Replace the fuel pump relay</li> </ol> <p>Note: To re-set the EFI, switch the ignition on and off 5 times quickly, ending in the on position.</p>
No spark at the plug or weak spark (must jump 6mm)	<ol style="list-style-type: none"> <li>1) Side stand is set down</li> <li>2) Handlebar kill switch set to "OFF"</li> <li>3) Blown fuse</li> <li>4) Defective spark plug</li> <li>5) Defective spark plug cap</li> <li>6) Defective HT coil or connection</li> <li>7) Defective ECU</li> <li>8) Defective trigger coil</li> <li>9) Defective right handle bar switch</li> </ol>	<ol style="list-style-type: none"> <li>1) Put the side stand up</li> <li>2) Set the switch to "ON"</li> <li>3) Replace the fuse</li> <li>4) Clean / replace the spark plug</li> <li>5) Replace the plug cap</li> <li>6) Check the connections / replace</li> <li>7) Check the connections / replace</li> <li>8) Check / replace</li> <li>9) Check / replace</li> </ol>

## TROUBLESHOOTING

	Possible Cause	Remedy
Engine fires but will not start	<ol style="list-style-type: none"><li>1) Engine flooded</li><li>2) Fuel supply is restricted</li><li>3) Contaminated fuel</li><li>4) Air leak to the intake system</li><li>5) Air filter is blocked</li><li>6) Exhaust is blocked</li><li>7) Water in the fuel system</li><li>8) Weak spark at the plug</li><li>9) Tight tappets</li></ol>	<ol style="list-style-type: none"><li>1) Remove spark plug and clean/replace.</li><li>2) Check fuel pipes for kinks.</li><li>3) Drain and replenish fuel. Contact your AJS Dealer</li><li>4) Check intake hoses for air leaks</li><li>5) Check the air filter for contamination and blockages</li><li>6) Check the exhaust system for blockages</li><li>7) Drain the fuel system. Drain the fuel tank.</li><li>8) See previous section</li><li>9) Adjust the tappets to 0.15mm clearance each. Inlet and Exhaust.</li></ol>

### NOTICE!

Unless you are a competent and skilled mechanic do not attempt repairs. Instead, contact you AJS Dealer for technical assistance.

## TROUBLESHOOTING

	Possible Cause	Remedy
Poor running and lack of power	<ol style="list-style-type: none"> <li>1) Incorrect tappet clearances.</li> <li>2) Brakes binding.</li> <li>3) Air leak to the intake system.</li> <li>4) Catalytic converter plugged.</li> <li>5) Fuel cap vent blocked.</li> <li>6) Water in the fuel.</li> <li>7) Lack of compression.</li> <li>8) O2 sensor faulty (eng. Light on)</li> <li>9) TPS faulty (eng. Light on)</li> </ol>	<ol style="list-style-type: none"> <li>1) Adjust the tappets to 0.15mm clearance each. Inlet and Exhaust.</li> <li>2) Service the brakes / contact your AJS Dealer.</li> <li>3) Check the intake system for leaks.</li> <li>4) Replace exhaust muffler.</li> <li>5) Check the vent is breathing correctly.</li> <li>6) Replace the fuel. Contact your AJS Dealer.</li> <li>7) Contact your AJS Dealer.</li> <li>8) Contact your AJS Dealer.</li> <li>9) Contact your AJS Dealer.</li> </ol>
Poor top speed	<ol style="list-style-type: none"> <li>1) Defective spark plug.</li> <li>2) Binding brakes.</li> <li>3) Blocked air filter.</li> <li>4) Blocked exhaust.</li> <li>5) Defective spark plug cap.</li> <li>6) Defective HT coil or connection.</li> <li>7) Defective CDI</li> <li>8) Blocked fuel vent.</li> <li>9) Restricted fuel supply.</li> <li>10) EFI system fault (eng. Light on)</li> </ol>	<ol style="list-style-type: none"> <li>1) Replace the spark plug.</li> <li>2) Service the brakes / contact your AJS Dealer.</li> <li>3) Replace the air filter.</li> <li>4) Replace the exhaust muffler.</li> <li>5) Replace the spark plug cap.</li> <li>6) Check the connections / replace.</li> <li>7) Check the connections / replace.</li> <li>8) Contact your AJS Dealer.</li> <li>9) Check for kinked pipes / blocked filter.</li> <li>10) Contact your AJS Dealer.</li> </ol>

## TROUBLESHOOTING

	Possible Cause	Remedy
Excessive engine noise - rattling - vibration	<ol style="list-style-type: none"> <li>1) Loose exhaust.</li> <li>2) Incorrect tappet clearances.</li> <li>3) Damaged valve gear.</li> <li>4) Excessive piston to cylinder clearance.</li> <li>5) Crankshaft bearings worn.</li> <li>6) Clutch worn.</li> <li>7) Worn balance shaft bearings/gears.</li> <li>8) Magneto flywheel loose.</li> </ol>	<ol style="list-style-type: none"> <li>1) Tighten the exhaust fasteners.</li> <li>2) Adjust the tappets to 0.15mm clearance each. Inlet and Exhaust.</li> <li>3) Check / repair valve gear.</li> <li>4) Replace cylinder, piston and gaskets.</li> <li>5) Replace clutch.</li> <li>6) Replace the balance shaft.</li> <li>7) Tighten the flywheel. Check for damage to crankshaft and flywheel.</li> </ol>
Lack of compression	<ol style="list-style-type: none"> <li>1) Incorrect tappet clearances.</li> <li>2) Loose spark plug.</li> <li>3) Worn piston / cylinder.</li> <li>3) Bent / sticking valve/s.</li> <li>4) Leaking head gasket.</li> <li>5) Burnt piston.</li> </ol>	<ol style="list-style-type: none"> <li>1) Adjust the tappets to 0.15mm clearance. each. Inlet and Exhaust.</li> <li>2) Tighten the spark plug.</li> <li>3) Replace the valves.</li> <li>4) Replace the head gasket.</li> <li>5) Replace the piston. Check fuel/air mixture.</li> </ol>

## CLEANING THE MOTORCYCLE

Frequent, regular cleaning is an essential part of maintaining your AJS motorcycle. If regularly cleaned, the appearance will be maintained for many years.

Always wash your motorcycle with clean cold water immediately after you have ridden on salty roads or have exposed your motorcycle to corrosive conditions such as in snow, slush or a sea breeze. Salt can corrode your motorcycle in a very short period of time.

**Note: on dry, bright winter days salt may not be obviously visible on the roads but may be there.**

Extra protection from salt can be gained by applying Scottoiler FS-365 to bright metal parts.

Place the motorcycle on its centre stand. Allow the motorcycle to cool. Cover the handle bar switches with cling film. Place tape over the ignition key hole. Bung up the exhaust hole. Do not use a pressure washer.

Use a bucket of water or low pressure hose. Keep excess water away from the instruments, air intake, under the fuel tank, steering bearings and carburetter. Apply water soluble de-greaser to stubborn or oily stains. Work in with a nylon brush.

Do not use washing up liquid or other household detergents, as they contain salt. Use only high quality automotive shampoo. Rinse thoroughly with clean water. Towel off with a micro fibre towel and allow to dry.

Many Automotive bodywork polishes will be suitable for applying to painted panels. A light lubricant ("GT85" or similar) is fine for coating the engine, carburetter and most non-painted bodywork area.

**WARNING DO NOT** apply light lubricants or waxes to the brake discs. Loss of braking could occur and an accident could result. Do not apply light lubricant to, meters or the exhaust system. (see below for exhausts).

### Cleaning of the Exhaust System

**WARNING** The exhaust system must be cool before washing to prevent injury from burns.

All parts of the exhaust system of your motorcycle must be cleaned regularly to avoid deterioration of its appearance. These instructions can be applied to chrome, brushed stainless steel and satin black components alike. Water spotting will occur if the exhaust is washed when hot or warm. Wash the exhaust system with a soft cloth. **DO NOT** use an abrasive scouring pad or steel wool. They will damage the finish. Rinse the exhaust system thoroughly. Ensure no soap or water enters the mufflers. Dry the exhaust system as far as possible with a micro fibre towel.

## NOTICE!

### Cleaning Summary.

1. Prepare yourself, your equipment and use only high quality automotive cleaning agents.
2. Prepare the bike for washing.
3. Wash the bike and leave to soak.
4. Rinse the bike with clean, cold water.
5. Dry the bike using a clean micro-fibre cloth.
6. Apply Scottoiler FS-365 corrosion inhibitor to metal parts and wax polish to painted parts.

## CAUTION!

Avoid excess water in the following places:

- Instruments
- Brake cylinders and brake callipers
- Under the fuel tank
- Head stock bearings
- Air intake duct
- Fuel filler cap
- Exhaust muffler outlet
- Electrical connections

DO NOT use a pressure washer. Only use a bucket of water or low pressure hose. Replenish the water in the bucket if it becomes contaminated with dirt and grit.

## STORING THE MOTORCYCLE

Long term storage of the motorcycle requires some preparation. Take the following measures:

- 1) Repair and service the motorcycle prior to storage.
- 2) Wash and dry it. Spray with moisture repellent spray. Apply light grease to the front fork legs.
- 3) Store it in a dry clean place with a stable moderate temperature.
- 4) Drain down the fuel from the tank and carburettor/injection system.
- 5) Remove the spark plug and insert a table spoon of engine oil. Turn the engine over several times with the kick lever. Replace the spark plug.
- 6) Inflate the tyres correctly. Place the motorcycle on its centre stand and chock so that both wheels are off the ground to avoid flat spots forming on the tyres.
- 7) Remove the battery and store it in a cool dry place. Keep it fully charged.
- 6) Keep the motorcycle under a dust sheet.
- 7) Check its condition regularly.
- 8) If the motorcycle is stored with winter salt on, it will corrode!

## Technical Specification Desert Scrambler 125

Overall Length	2,040mm
Overall width	800mm or 760mm
Overall height	1,060mm
Wheelbase	1,330mm
Min ground clearance	140mm
Mass in running order	126kg
Max load	150kg
Max speed	90km/h
Drive-by noise level	74 dB(A)
Climbing ability	≥20°
Starting performance	≥20°

## Technical Specification Desert Scrambler 125

Front shock absorber	Hydraulic telescopic - normal or USD
Rear shock absorber	Spring / hydraulically damped
Turning angle	Left / right $\leq 48^\circ$
Front tyre	410-18
Rear tyre	460-17
Front tyre pressure	33psi
Rear tyre pressure	33psi
Wheel rim material	Light aluminium alloy
Front rim size	17 x MT2.50
Rear rim size	17 x MT3.50
Front disc brake	300mm Dia. New 4mm Used 3mm thickness
Rear brake	210mm Dia. New 4mm Used 3mm thickness
Brake fluid type	DOT4

## Technical Specification Desert Scrambler 125

Engine type	Single cylinder 4 stroke, air cooled, OHC
Displacement	124cc
Bore x Stroke	54mm x 54mm
Compression ratio	10:1
Power	7.1 kW @ 7500 r/min
Max torque	9.5 NM @ 6500 r/min
Spark Plug	NGK CR6HSA
Idling speed	1500 r/min
Ignition method	CDI
Lubrication method	Pressure and spray
Engine lubricant	1.1l SAE 10w-40 (Silkolene Super 4)
EFI system	Mikuni

## Technical Specification Desert Scrambler 125

Clutch type	Wet type, multi plate
Gearbox shift pattern	International 1-N-2-3-4-5
Primary ratio	3.4
Final drive ratio	3.214
1st ratio	2.643
2nd ratio	1.778
3rd ratio	1.316
4th ratio	1.045
5th ratio	0.875
Front sprocket	428 x 14T
Rear sprocket	428 x 45T

## Technical Specification Desert Scrambler 125

Starting method	Electric / kickstart
Headlight bulb	LED unit
Front position light bulb	LED Unit
Tail / brake light bulb	LED Unit
Turning lamp bulb	LED Unit
Instrument bulb	LED Unit
Horn	12v 3A
Battery	12v 9Ah
Fuse	15A
Fuel type	Unleaded gasoline only
Fuel tank capacity	13L

To buy spare parts and accessories for your  
AJS '71 Desert Scrambler 125, contact your AJS Dealer or  
visit [www.ajs-shop.co.uk](http://www.ajs-shop.co.uk)

AJS '71 Desert Scrambler Owners Manual  
1st edition September 2020 All rights reserved.  
Any reprinting, copying, digitally sharing or  
unauthorised use without the written permission of  
AJS Motorcycles Ltd. is strictly prohibited.

©2020 by AJS Motorcycles Ltd.



**AJS Motorcycles Ltd.**

Unit 3, Balksbury Ind. Est.  
Upper Clatford  
Andover, Hants.  
SP11 7LW, UK

Website: [www.ajsmotorcycles.co.uk](http://www.ajsmotorcycles.co.uk)

Spares: [www.ajs-shop.co.uk](http://www.ajs-shop.co.uk)