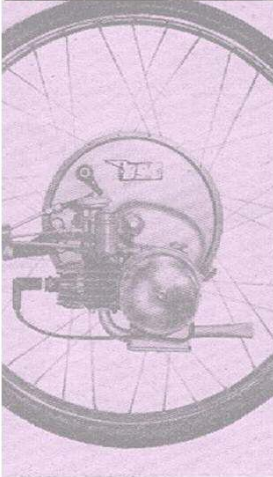
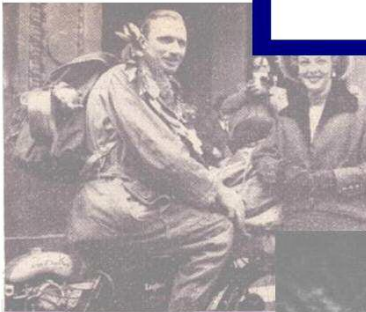


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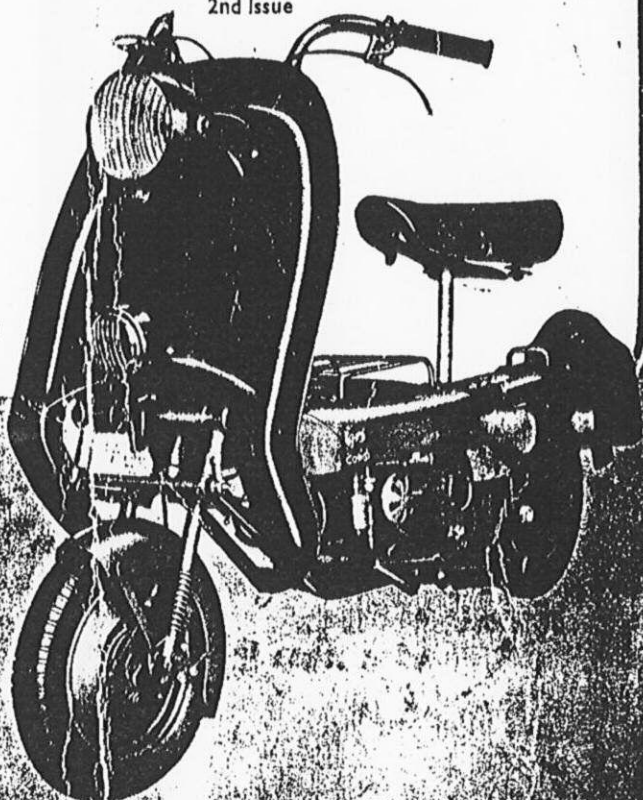
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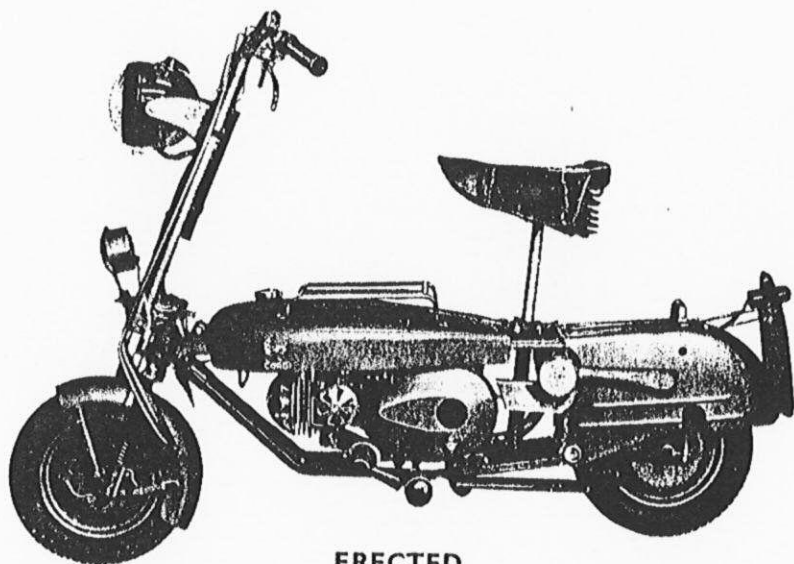
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Mark IV MOTOR CYCLE

2nd Issue

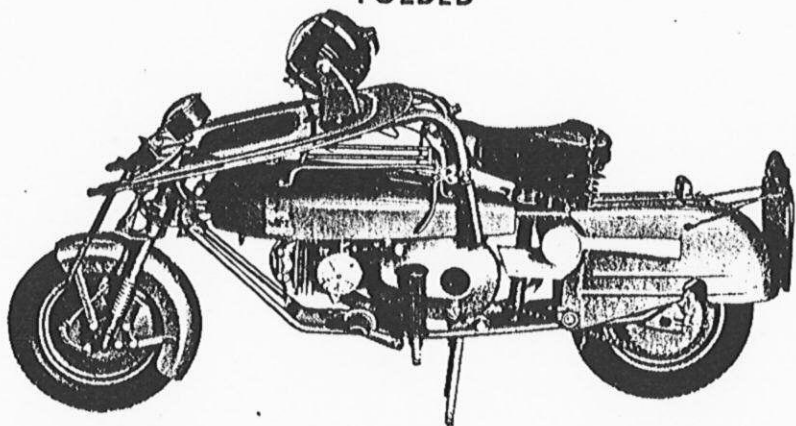




ERECTED

THE CORGI MARK IV

FOLDED



Manual

of the



MARK IV MOTORCYCLE

2nd Issue

CORGI motorcycles are in use in practically every country in the World, giving reliable service under the severest conditions. The Mark IV model is the latest type of CORGI, embodying many new features but still possessing all the many good points of the previous models. This manual will assist you to keep your machine in first class running order, and we ask that you read it carefully and retain it for constant reference. A few minutes spent in studying the relevant part of this manual before a maintenance or repair task is tackled will probably save you much trouble—and perhaps expense.

Your CORGI dealer is always at your service with advice and mechanical assistance. If, for some reason, you are unable to obtain the information or spare parts which you need from the dealer, please contact the Service Department at our Southport Works.



BROCKHOUSE ENGINEERING (Southport) Ltd.
CROSSENS . SOUTHPORT . ENGLAND

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Specification

Model	Mark IV — Folding handlebars, collapsible seat pillar, sprung front forks, hinged rear mudguard, tank fitting luggage grid, large front screen, foot operated 2 speed gear box, large touring saddle, electric horn. <i>Series 1.</i> Round tubular frame — Lucas Lighting. <i>Series 2.</i> Square tubular frame — Lucas Lighting. <i>Series 3.</i> Square tubular frame — Wico Lighting.
Engine	SPRYT MK. IV. 98 c.c. 2 stroke.
Bore and Stroke	50 m.m. × 50 m.m.
Cubic Capacity	98 c.c.
Engine Compression	6 : 1.
Type of Cylinder Head	Detachable, deep finned, aluminium alloy.
Method of Suspension in Frame	Bolted to lugs welded to frame.
Piston	Type—Dome top. Ports in skirt. Material—al. alloy.
No. of Rings	Two (<i>pinned to prevent rotation</i>).
Maker's Clearance	.0045" at bottom of piston. .0075" at top of piston
Connecting Rod Material	Nickel chrome molybdenum forging.
Type of Big End Bearing	3/16" diam. rollers.
Crankshaft Bearings	2 Timken Taper roller bearings
Carburettor and Type	AMAL 359/001 with Air Filter, Jet size 45. Control—twist grip on right handlebar.
Ignition	<i>Series 1 and 2.</i> Wico Flywheel Magneto. 6 volt 7.8 watt output. <i>Series 3.</i> Wico Flywheel Ignition Generator. 6 volt 27 watt output. Rotation—(both types) clockwise. Timing—3/16" before top dead centre.
Gearbox	ALBION 2 Speed :—Low gear, 1.7 : 1 ; High Gear, 1 : 1.

Dimensions (Folded)	Length 56" (142 cms.) ; Height 25" (63.5 cms) ; Width 19" (49 cms.).
Side-Carrier	(for goods only) Size of box :— 34" long × 14" wide × 9" deep.
Lubrication	Engine : Petrol System. Essolube 30, Castrol XL, Shell X.100 SAE.30, Mobiloil A, Energol SAE.30. Gearbox and Chaincase : Shell X.100 Motor Oil 40, Mobiloil B.B., Castrol X.X.L., Energol. SAE.40, Essolube. 50, Wheel Hubs, etc : Good quality cycle oil.
Silencer	Cylindrical, with extended tail pipe and expansion chamber.
Fuel System	Tank Capacity 10 pints, 1.25 British Imperial Gallons, 5.683 litres. Filters incorporated in tap and carburettor union.
Clutch	Single plate cork insert, operated by lever on left handlebar.
Overall Gear Ratios	8.9 : 1 (Low), 5.25 : 1 (High).
Chains	Primary : Type, roller : Maker —Renold & Coventry Chain Co. Ltd. Pitch— $\frac{3}{8}$ " ; width—.225" ; Number of pitches—58. Secondary: Type, roller: Maker Renold & Coventry Chain Co. Ltd. ; Pitch— $\frac{1}{2}$ " ; width—.192" ; Number of pitches—86 (Solo). Number of pitches—89 (with side-carrier).
Chain Sprockets	Engine Sprocket — 21 teeth. Clutch Sprocket—44 teeth. Final Drive Sprocket—14 teeth. Rear Wheel Sprocket—35 teeth (Solo). Rear Wheel Sprocket—38 teeth (with sidecarrier).
Wheels	Bearing type. Cup and cone with steel balls ; rivetted discs. Rims $8\frac{3}{4}$ " × $1\frac{3}{4}$ " for $12\frac{1}{2}$ " × $2\frac{1}{4}$ " DUNLOP tyres.

NOTE. All dimensions stated are approximate.

Preparation for the Road

1. **Erect the Handlebars :** First, remove the Handlebar Clamping Bolt by unscrewing the Clamping Bolt Nut, then raise the handlebars, at the same time turning the handlebars outwards until the eyes at the lower end of the bars coincide with the hole in the fork clamping tube. Re-insert the clamping bolt, replace the spacer and secure the nut.

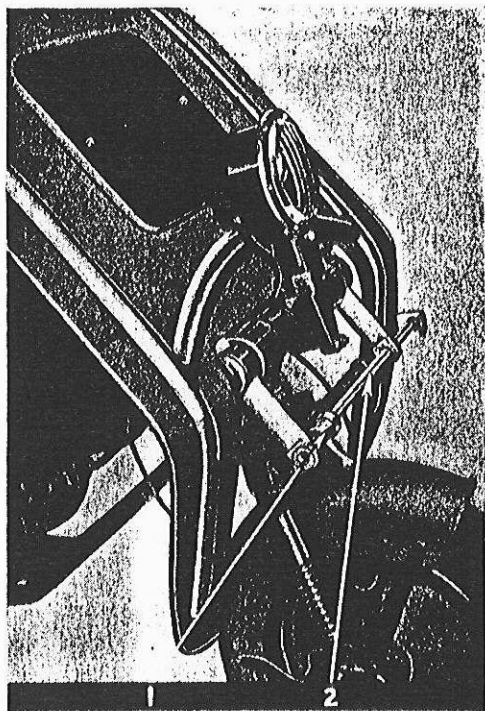


FIG. 1

1.—Clamping Nut

2.—Clamping Bolt

2. **Raise the Saddle :** Release the seat tube clamp, pull up the saddle until the spring-loaded locating pin clicks into position (there are two alternative heights of saddle available, either of which can be used at will). Then pull the clamping lever backwards, clamping the seat pillar. *The locating pin only ensures that the saddle is fixed on the centre line of the machine so do not attempt to ride the machine until the seat tube has been securely clamped.*

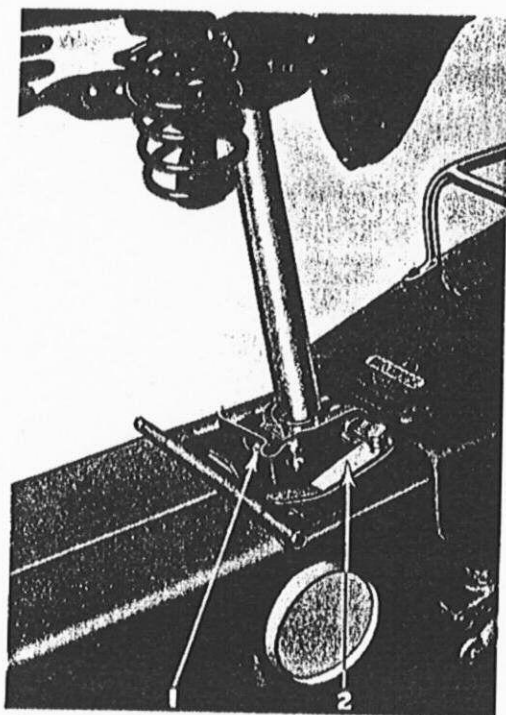


FIG. 2

1.—Locating Pin

2.—Seat Clamping Lever

3. Push down the footrests.

4. Fill the fuel tank : The tank will hold about one and a quarter gallons (approx. 5.68 litres) which should consist of a mixture of petrol and oil, 1 part of oil to 25 parts of petrol *Mix the oil and petrol in a container before putting it into the tank.* After filling the tank and replacing the filler cap, make sure that the air vent in the filler is clear.

5. Fill the gearbox with oil : Add $\frac{1}{2}$ of a pint of oil, or where a level plug is fitted, fill to that level using one of the recommended oils.

6. Fill the chaincase with oil : The filler and level plug is near the bottom of the chaincase. Fill to this level with one of the oils recommended.

7. Inflate tyres : The recommended pressures are :—front wheel, 20 lbs. per sq. in. Rear wheel, 35 lbs. per sq. in.

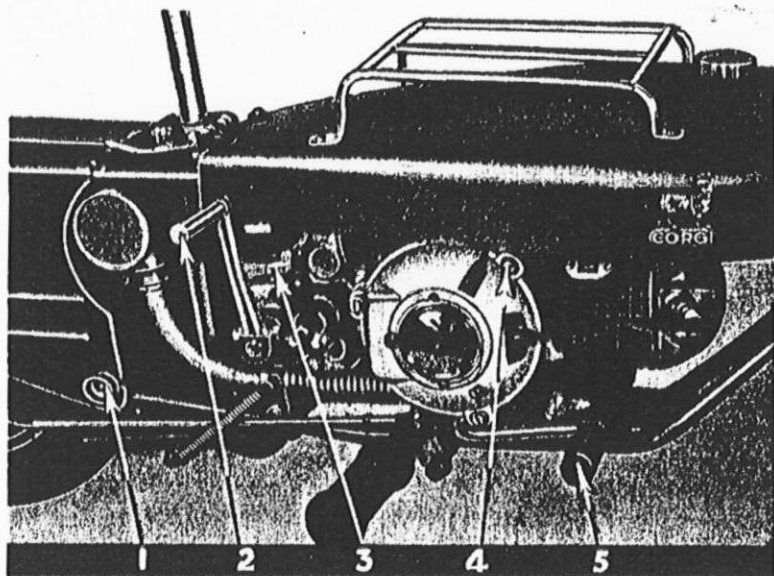


FIG. 3

- | | |
|----------------------------|------------------------------------|
| 1.—Mudguard Locking Nut | 2.—Kick Starter |
| 3.—Gearbox Oil Filler Plug | 4.—Magneto Timing Adjusting Screws |
| | 5.—Gear Change Lever |

8. **Check Spark Plug :** Remove the plug and wipe the points to remove any moisture caused through condensation whilst the machine has been standing.

9. **Load Horn Battery Case :** Load the case with four No. U.2. dry batteries. These are not supplied with the machine as they deteriorate with storage.

10. **Fit Parking Light Battery :** Fit a 4.5 volt flat dry battery in the headlamp. This is required to light the parking bulb.

11. **Test Controls :** Test the clutch, brakes, twist grip and horn.

The Controls

Hand.

1. **Twist Grip.** Controls engine speed. To increase speed (open throttle) twist the grip towards the rider.

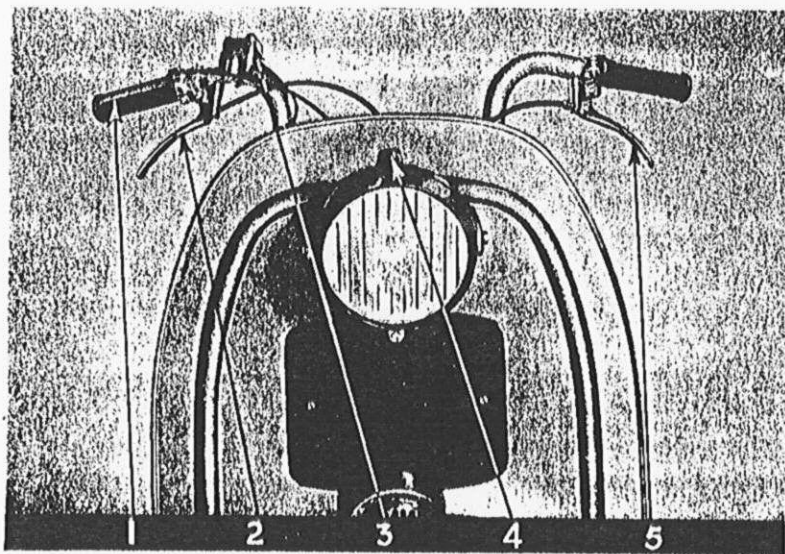


FIG. 4

- 1.—Twist Grip 2.—Front Brake 3.—Horn Push, (Series 1 & 2)
 3.—Horn Push & Dipper Switch, (Series 3) 4.—Headlamp Switch
 5.—Clutch Lever

2. Front Brake Lever (Hand Lever below twist grip). *Pull lever towards handlebar to apply the brake.*

3. Horn Button.

4. Dipper Switch (Mk. IV Series 3.) *This dips the headlamp beam.*

5. Clutch Lever (Hand Lever on left hand bar). *Pull towards the bar to declutch, (that is to disengage the drive between the engine and the-rear wheel). As the clutch lever is released the drive is re-established. Always release the clutch lever slowly to restore the drive smoothly.*

Foot

6. Rear Brake Pedal (on left hand side). *Toe-operated, applies rear brake.*

7. Foot-pedal Gear Change (on right hand side). *Toe-operated. See driving Instructions.*

8. Kickstarter Pedal (on right hand side behind the footrest). *Depression of this pedal rotates the engine.*

General

9. Petrol Tap (situated below the petrol tank and above the rear brake foot pedal). *Pull out to open—Push to close.*

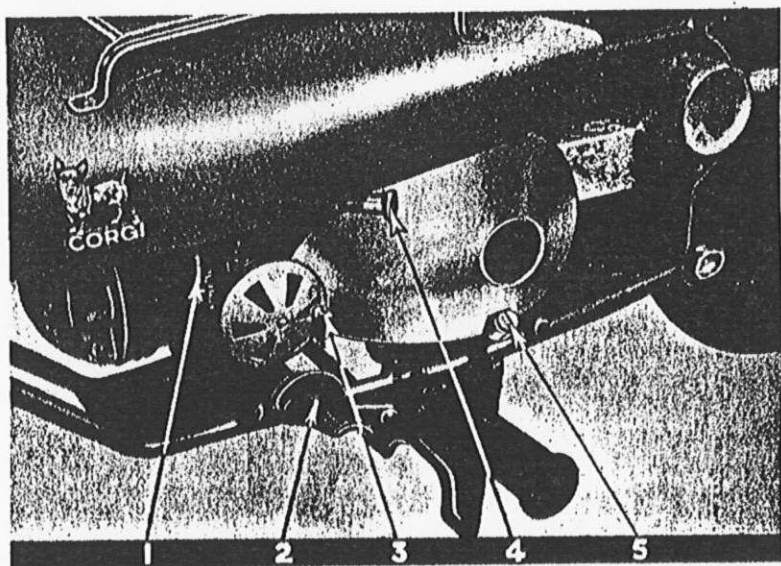


FIG. 5

- | | | |
|---------------|------------------------------|----------------|
| 1.—Tickler | 2.—Foot Brake | 3.—Choke Lever |
| 4.—Petrol Tap | 5.—Chaincase Oil Filler Plug | |

10. Choke Lever. Integral with the Air Filter attached to the carburetter. See *driving instructions*.

11. Headlamp Switch (on the top of headlamp).

12. Parking Light (incorporated with headlamp switch).

To Start & Stop the Engine

Starting with Engine Cold

1. Check that the gear lever is in the neutral (middle) position, and that the drain tap on the crankcase is closed.
2. Open the petrol tap.
3. Flood the carburettor by depressing the tickler momentarily three or four times. Close the air strangler, then shut the throttle by turning the twist grip backwards as far as it will go. Then open it a little (about half to three-quarters of its full turn).
4. Stand astride the machine, grasp the handlebars and place the right instep on the kick-start lever. Push down the kick-start lever smartly but firmly. The engine should now start.

5. When started, *gradually* open the throttle to make the engine run faster and when the engine is warmed up, close down again and open the air strangler. Should the engine falter, either tickle the float chamber again or partially close the air strangler until the engine is warm enough to stand the strangler being opened fully.

Starting with Engine hot

1. Do not, at first, flood the carburettor nor close the air strangler, but set the throttle half to three-quarters open and kickstart. If the engine fails to start, flood slightly or close the strangler and try again. It may be, however, that there is too much petrol already in the crankcase. To remedy this, open the crankcase drain tap and depress the kickstarter several times. Close the drain tap and then kickstart again.

Stopping the Engine

1. Close the throttle by means of the twist grip.
2. If the engine is not to be run again for some time, it is preferable to stop the engine by closing the petrol tap (stopping the flow of petrol to the carburettor) and let the engine run until the carburettor is emptied, when the engine will stop. *By this method easier starting will result, as a correct mixture of oil and petrol will be drawn into the carburettor on which to start the engine, and not a mixture with an excessive oil content caused through evaporation of the petrol whilst the machine has been standing.*

Driving

Starting Off

Sitting astride the machine with the engine running, withdraw the clutch by pulling the lever towards the handlebar. Placing the toes under the gear lever, lift upwards as far as it will go. *Do not force* the gear lever into position or damage to the pinion may result; try to *feel* for the position when the gears will mesh with ease. Gradually release the clutch lever while at the same time opening the throttle by turning the throttle control twist grip. The machine will now move off.

Changing to High Gear

Opening the throttle will now increase the speed of the machine. Having reached a speed of approximately 12/15 miles per hour change into high gear. Withdraw the clutch, at the same time close the throttle a little, and having put the foot on top of the gear lever press down as far as it will go. Again, *feel* for the gear rather

than 'slam it home.' Release the clutch gradually and open up the throttle until the desired speed is reached.

Changing Back to Low Gear

To change down from high gear to low gear, withdraw the clutch, open up the throttle, and placing the toes under the gear change lever, lift upwards as far as it will go ; release the clutch smoothly.

Stopping

To stop the cycle, slow down the machine by closing the throttle, withdraw the clutch and move the gear lever to the middle (neutral) position, release the clutch and apply the brake. Close the throttle completely if desired to stop the engine, or if only a momentary stop, close the throttle until the engine 'ticks over.'

Points to Remember

The clutch must be fully engaged and the gear lever released at all times, except when changing gear. Never slip the clutch when riding.

When changing up, the clutch is disengaged and the throttle closed slightly ; when changing down, the clutch is disengaged and the throttle opened slightly.

The Running-In Period

With a new machine it must be remembered that all the working parts of the engine are not yet fit to give of their best performance, and must be 'run-in.'

On the care exercised during the running-in period depends the future performance of the engine, so it must be handled carefully during this first stage of its life.

A maximum speed of 25 miles per hour should not be exceeded for the first 500 miles, and no undue strain should be imposed upon the transmission.

Avoid sudden and sharp acceleration, especially when the engine is not pulling under load ; do not force it up hills in top gear, when a change down would ease the load ; do not race the engine when cold but allow the engine to warm up before operating at high speeds.

If the engine is put through its paces too soon there is a possibility that it will seize up.

After 500 miles do not run the machine at full throttle for long periods at a stretch, but occasionally close the throttle.

It is advisable to change the oil in the gear box and chain case at the end of the running-in period.

Six Important Points

1. *DO* see that your fuel is mixed with the correct amount of oil before it is put into the tank.
2. *DON'T* overflow the carburettor, or the engine will be difficult to start.
3. *DON'T* alter the setting of the carburettor unless it is absolutely necessary.
4. *DON'T* allow the machine to stand still with the clutch drawn and the engine running—this practice generates heat, and can cause burnt inserts. Stop the engine or put it into Neutral gear.
5. *DON'T* 'free-wheel' down hill with the engine stopped and the clutch drawn—this wears out the clutch very quickly.
6. *DON'T* ride the machine with the seat pillar loose ; there is a proper lever to tighten it firmly.

Looking for Trouble

1. **If Engine will not start** *it may be*—No petrol at carburettor—No Petrol in tank ; Petrol tap closed ; Choked filter ; Choked pipe ; Floating needle sticking ; Air vent in filler cap blocked. *It may be* No spark at plug ; Dirty or faulty plug ; Dirty or improperly set contact points ; H.T. Cable fault ; Breaker arm sticking.

If there is Petrol at carburettor and spark at plug, then perhaps Choked jets ; Blocked petrol feed passage in carburettor ; Throttle valve sticking ; Engine flooded ; Wrong choking.

2. **If Engine is misfiring.** *It may be* Dirty petrol ; Faulty plug ; Defective wiring ; Dirty or improperly set contact breaker points ; Mixture too weak.

3. **If Engine is overheated.** *It may be* Air choke partly closed ; Mixture too rich ; Piston rings sticking ; Silencer blocked ; Air cleaner requires cleaning ; Engine overloaded.

4. **If Engine knocks.** *It may be* Carbon in cylinder ; Loose or worn bearings ; Worn cylinder and piston.

5. **If Engine lacks power.** *It may be* Worn piston or cylinder ; piston rings worn, broken or sticking ; exhaust ports in cylinder blocked up with carbon deposit ; choked silencer or exhaust pipe ; wrong mixture ; or parts attached to cylinder may be loose.

6. **If excessive smoke from exhaust.** *It may be* Too much oil mixed with the petrol—only a faint trace of blue smoke should be noticeable.

7. **If compression is poor.** *It may be* Piston rings worn or weak ; Piston rings sticking or broken ; Worn piston or cylinder ; Parts fitted to cylinder loose.
8. **If brakes are inefficient.** *It may be* Adjustment needed ; Shoes need re-lining ; Grease on linings.
9. **If clutch slips.** *It may be* Cable adjuster is set wrong ; New clutch corks required.
10. **If clutch is hard to free.** *It may be* Cable adjuster is set wrongly.
11. **If steering rolls or wanders.** *It may be* Loose head adjustment.

Lubrication

Engine. Lubrication of the piston, big and small end bearings, crankshaft and crankshaft bearings is achieved by the addition of one of the recommended oils to the petrol in the tank. If the engine has been stationary for a day or so the tank and its contents should be well shaken to ensure a good oil distribution throughout the petrol. While the engine is running, the oil is carried with the petrol through the carburettor into the crankcase where it lubricates these moving parts continuously.

Chaincase. The primary chain housed in the chaincase runs in an oil bath. Fill up to the level of the filter plug and maintain at this level.

Gearbox. Lubrication of this component is important. Add one-eighth of a pint of oil every 500 miles, or top up to the height of the level plug where one is fitted. Should the box be dismantled or cleaned out, it should be initially primed with 2 ozs. of fluid grease such as Shell Retinex C.D. followed by 1/12th pint of oil, or filled up to level plug.

Rear Chain. Keep the chain clean, and lubricate with a little engine oil ; alternatively, smear lightly with graphite grease.

Wheels. A lubricator is located in the centre of the hub and is accessible through the hole in the side flange of the wheel. A frequent but small application of light oil should be made, *but do not over-oil, otherwise the surplus oil may seep through the seal and get on the brake linings.*

Front Fork Lugs. A charge from a grease gun should be applied occasionally to the grease nipples on the front fork end lugs.

Steering Head. A few drops of oil down the slot inside the steering column at the top rear will lubricate the headstock ball races.

Control Wires. Clutch, Carburettor and Brake. A few drops of oil inserted at the handlebar end of these controls will preserve them and make the controls work smoothly.

Magneto. An occasional drop of oil should be put on the Cam pad.

General. A drop of oil applied to all moving parts such as the brake lever, brake clevis, etc., will keep these parts free and easy in operation.

The Fuel System

Fuel Supply.

This engine is both powered and lubricated by a mixture of petrol and oil which are mixed in the proportions of 25 parts of petrol to 1 part of oil. Before filling the tank, mix these fluids very thoroughly in a separate container.

Cleaning the fuel pipe.

Close the petrol tap underneath the tank. Disconnect the petrol pipe at the tap and at the carburettor. Blow through the pipe, to clear.

Cleaning Petrol Tap and Filter.

Drain tank by disconnecting petrol pipe at carburettor and turn on petrol tap allowing petrol to run into a container, or lay machine on its side with tap uppermost. Disconnect petrol pipe from tap. Unscrew petrol tap from tank. Wash filter attached to tap in petrol and see that the outlet aperture is clear.

To clean Fuel Tank Cap.

See that the small vent hole in the Tank Cap is clear, for air must enter the tank to allow the petrol to flow to the carburettor.

Correct use of Choke (or Strangler).

The carburettor is set to give the best mixture when the engine is hot. When starting from cold, it is necessary to choke the carburettor to enrich the mixture. A warm or hot engine requires very little choking. Try starting the engine with the choke lever in different positions until a satisfactory setting is arrived at. The choke lever is attached to the Air Filter on the carburettor, and when the carburettor is correctly set and the engine hot, the choke should be fully opened.

To flush out the Carburettor.

Unscrew the jet plug and flood the carburettor. If the needle in the float chamber is free and the petrol feed channel is clear, petrol will flow from the aperture from where the jet plug has been removed. If dirt has been impeding the flow of petrol, the repetition of this flooding may wash the sediment away. If, however, there is still no flow, or only a poor one, it will be necessary to remove the carburettor from the engine, to clean thoroughly.

To clean the Jet.

Unscrew the jet plug and with the special jet spanner unscrew the main jet. Clean by washing in petrol, and clear the orifice by blowing through it. Do not attempt to clean the jet by pushing wire through it, as the hole may be enlarged and the setting of the carburettor upset.

To remove carburettor from the engine and dismantle.

Turn off petrol tap underneath tank. Remove the air filter. Disconnect petrol pipe from top of carburettor. Screw down (as far as it will go) cable adjuster on top of the mixing chamber. Remove the two nuts securing the carburettor to the cylinder. Unscrew the Mixing Chamber Top ; the main body of the carburettor is now free. By compressing the throttle valve against the spring, the throttle cable can be released and these parts freed. Remove the two screws securing the Float Chamber Cover ; the float is then accessible. Removal of the jet plug gives access to the main jet and needle jet.

To clean the carburettor.

Remove and dismantle the carburettor. Wash all parts thoroughly in petrol. Clean out the needle guide at the bottom of the float chamber, the Air Release passage from the float chamber to jet chamber, and the Petrol Feed passage from the float chamber to Main Jet. Access to the last is obtained by removing the Feed Hole screw which enters the Mixing Chamber at an angle.

Re-assembly of carburettor.

See that the float chamber needle is not bent, and that the float chamber is not punctured. If the needle has a deep groove in it on the taper end, a new needle and float will be required.

Before replacing the float chamber lid see that the blunt end of the needle is in the guide hole at the bottom of the float chamber, and then guide the lid over the taper end of the needle before screwing down.

Thread the end of the throttle control cable through the Cable adjuster and Mixing Chamber Top, replace the spring and fit the nipple into the socket in the Throttle Valve, having replaced the jet needle and jet needle clip.

Place this sub-assembly in the Mixing Chamber with the slot in the Throttle valve correctly located by the Throttle Valve Location Screw. Screw down the Mixing Chamber Top.

Replace the Needle Jet, the Main Jet and the Jet Plug. Examine the carburettor joint washer and if faulty replace with a new one. Fit the carburettor to the cylinder, replace the washers and secure tightly with the nuts.

Reconnect the petrol pipe and adjust the Cable Adjuster to take up any slack in the Throttle Control Cable.

Correct mixture.

The strength of the mixture is controlled largely by the position of the jet needle. This has five grooves at the uppermost end, in one of which fits the Jet Needle Clip. This clip is normally fitted into the centre groove ; moving the clip to the highest groove gives a weaker mixture, whilst a richer mixture is obtained when the clip is placed in the bottom groove.

The size of the main jet fitted is No. 45 and if adjustment of the needle does not give a satisfactory result, it may be that the Main jet orifice is enlarged and a new jet is required.

Rich mixture—signs and causes. The signs are :—*Black sooty smoke in exhaust ; Petrol spraying out of carburettor ; Two stroke engine—four stroking ; Heavy petrol consumption ; Sparking plug sooty ; Heavy lumpy running.*

The probable causes are :—*Punctured float or bent float needle ; Tickler stuck down ; Needle raised too much ; Main jet too large or not screwed up ; Air Filter choked ; Needle jet worn.*

Weak mixture—signs and causes. The signs are : *'Spitting' in the carburettor ; Erratic slow running ; Poor acceleration ; Engine runs better at less than full throttle opening ; Overheating ; Sparking plug dry grey colour around the points.*

The probable causes are : *Air leaks ; Petrol supply or jet partially choked ; Impurities in needle guide under float chamber preventing float from dropping, or bent needle ; Too small main jet ; Needle in too low a position ; Air gauze or filter been removed ; Using petrol with water in it.*

The Ignition System

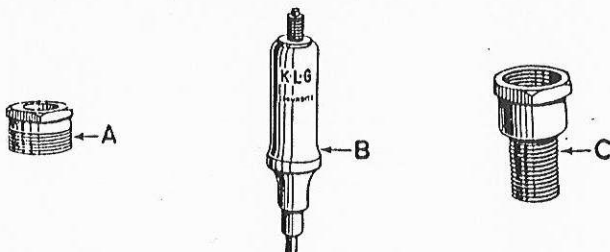
The spark which fires the charge is the result of an electric current generated in the magneto and carried to the spark plug via the H.T. Cable. The magneto itself, as well as the cable and spark plug, must all be in proper condition and adjusted correctly to produce a good hot spark.

To check for spark. Remove the H.T. cable from the spark plug and hold the cable terminal about $\frac{1}{8}$ " from any metal part of the cylinder. Turn the engine over and if a good spark jumps this gap the entire ignition system with the exception of the spark plug is working satisfactorily.

If no spark appears, check the cable and make any necessary magneto adjustments.

If a spark appears, remove the spark plug from the cylinder, re-attach the cable to the plug, and hold the plug side-ways in contact with the cylinder. Rotate the engine and if no spark jumps the points then the plug is faulty and should be cleaned and the points re-set.

Spark Plug Adjustment. Take the plug to pieces by unscrewing the gland nut A and removing the centre electrode B. Clean the centre electrode with a rag soaked in petrol to remove any oil or carbon deposits ; scrape the body C with penknife or file and wash in petrol. Re-assemble the plug and set the points to the correct gap of (.020") by bending the outside electrode. Never bend the centre electrode. Check for spark. If no spark now appears, the plug is faulty and a replacement is required.



The H.T. Cable. The insulation must not be broken or soaked with oil or water. It should not be frayed where it can contact any part of the engine or frame. Verify that the terminal end is secured and makes contact with the wire core of the cable, also that the other end is securely soldered at the point where it enters the magneto coil.

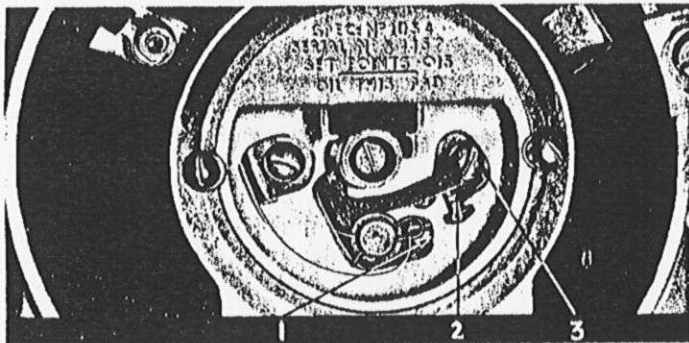
To adjust and clean contact points. Access to the contact points is obtained by the removal of the cover plate which is secured by two screws. To set the points, proceed as follows :—

Turn the engine over until the breaker points are fully open and insert the feeler gauge. Slacken off the locking screw (to be found immediately above the points) and, if the gauge is tight, rotate the eccentric adjuster in an anti-clockwise direction until the setting of .015" is obtained. Tighten up the locking screws.

The breaker point setting should only be adjusted in the manner described and at no time should the fixed contact be bent to provide adjustment.

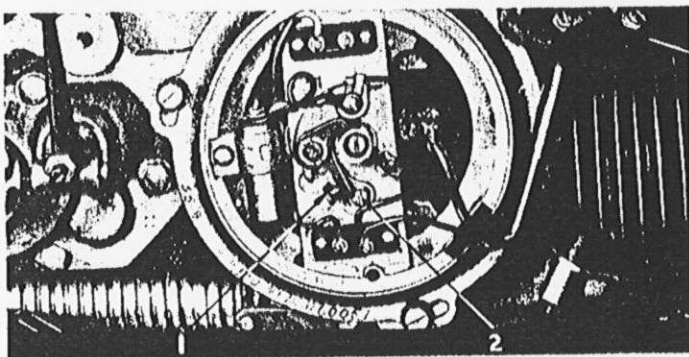
If the points are dirty or pitted they should be dressed with fine

FIG. 7



SERIES 1 & 2.

1.—Locking Screw 2.—Eccentric Adjuster 3.—Fixed Contact



SERIES 3.

1.—Fixed Contact. 2.—Locking Screw

emery paper or a stone, and all traces of dust and dirt removed with petrol; the faces of the points must be flat and parallel.

No engine timing is necessary, as it is determined by the cam which is located on the crankshaft by a key. The spark can, however, be advanced or retarded slightly. To advance the spark, slacken off the stator housing nuts and rotate the magneto slightly in the opposite direction to the rotation of the flywheel. (Fig. 3).

Running maintenance. Check and, if necessary, re-adjust the contacts once every 5,000 miles. Occasionally clean the contacts by inserting a dry smooth piece of paper between them and withdrawing while the contacts are in the closed position.

Do not allow the engine to run with oil or petrol on the contacts or they will start to burn and blacken. If, however, this has happened, lightly polish with a piece of smooth emery cloth.

Moisten the cam lubricating pad with a few drops of thin oil every 5,000 miles.

Other magneto troubles.

If the magneto requires any attention beyond the replacement of contact points, it is recommended that the complete machine should be sent to us or to an authorised Wico Service Station.

Adjustments

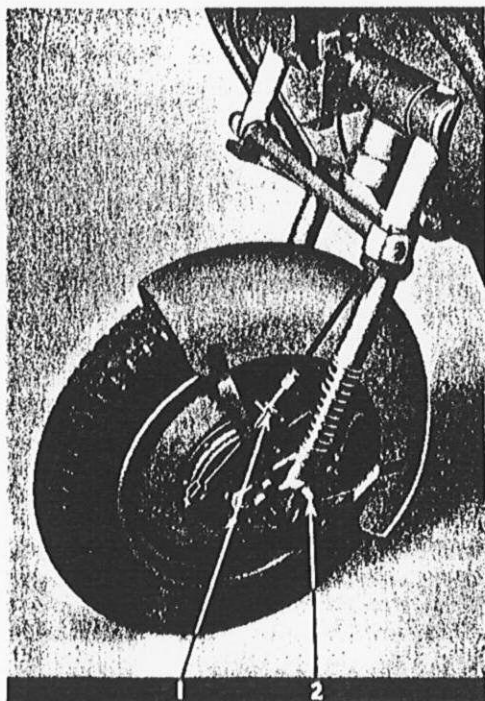


FIG. 8

1.—Brake Adjusting Screw 2.—Grease Nipple

Front Brake. This is adjusted by means of the knurled thumb nut on the cable stop at the lower end of the brake cable.

Rear Brake. Adjustment is effected by turning the knurled nut on the end of the brake rod.

To adjust, turn the adjusting nuts until the brake shoes are felt to be in contact with the brake drum, then turn the nuts back slightly until the wheel spins freely.

Wheel Alignment. If the steering appears at all unsteady, or the tyres show signs of wear on the sides of the treads, check the alignment with a straight edge. If the alignment is not correct, check the rear chain adjusters to ensure that they are equally adjusted.

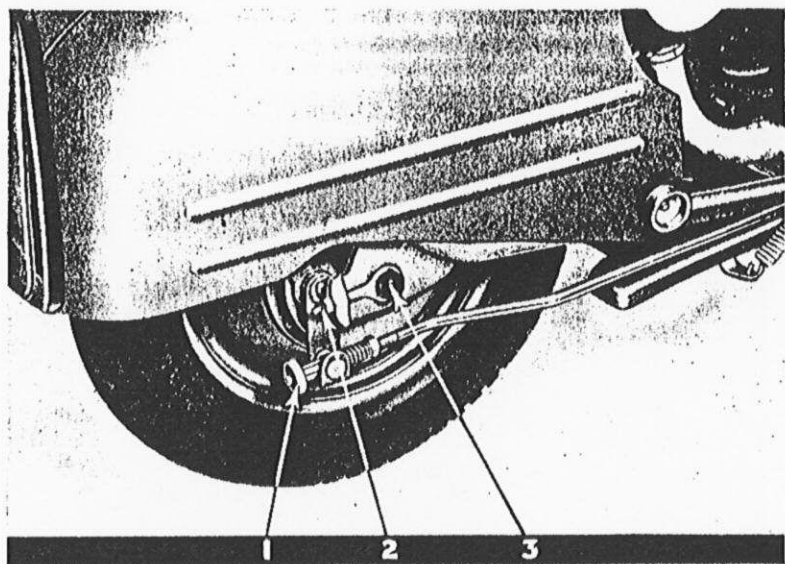


FIG. 9

1.—Brake Adjuster

2.—Chain Adjuster

3.—Spindle Nut

Front Forks and Steering Head. 'Play' in the steering column may be taken up by adjustment of the two nuts on top of the column. Slacken off the top nut and tighten the lower nut until the excess play has been taken up, then lock in this position by tightening the top nut, while at the same time holding the bottom nut with a spanner to avoid this being turned.

Driving Chain. The driving chain is correctly tensioned when, if checked at the bottom mid-way between the sprockets, it has approximately $\frac{1}{2}$ " lift. The tension of the chain can be adjusted by slackening off the rear wheel spindle nuts, turning the nuts on the chain adjusters until the correct chain tension is obtained, and then tighten up the wheel spindle nuts securely.

Clutch Adjustment. The main clutch adjustment is to be found just above the pivot pin on which the clutch lever (on the right hand side of the gear box) is mounted. It consists of a stud and a locknut. Slacken off the locknut and turn the stud until there is a minimum of clearance between the end of the stud and the clutch push rod. Lock in this position by tightening the locknut. 'Slack' in the clutch cable can be taken up by turning the cable adjuster, which is under the petrol tank. Note that some free movement in the clutch control is necessary, as if the adjustment is too tight there will be constant pressure on the clutch, resulting in premature wear and loss of efficiency.

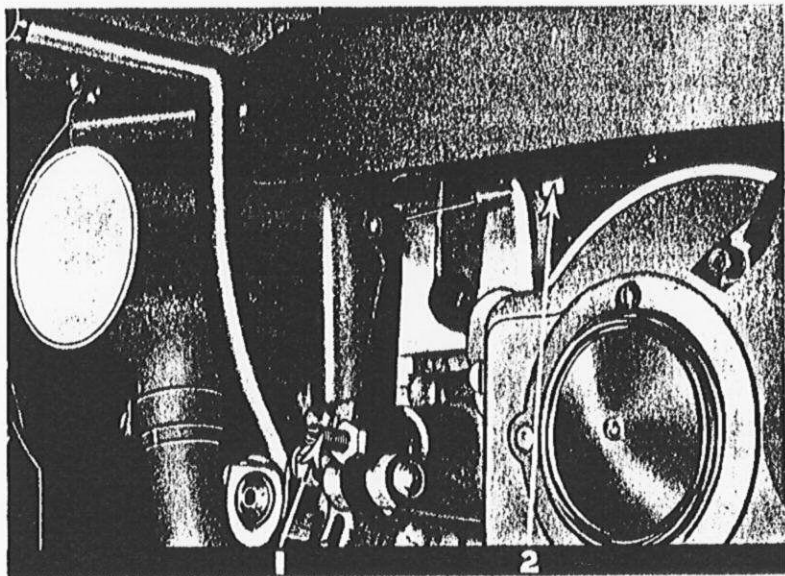


FIG. 10

1.—Clutch Adjusting Stud 2.—Clutch Cable Adjuster

Decarbonising

Decarbonising and 'top overhaul' of the engine present no difficulty, but should only be undertaken when really necessary. A general falling off of power, noticeable mainly when climbing; a tendency for the engine to run hotter than usual; an increasing tendency to 'pink' (a metallic knocking when under heavy load) due to heavy carbon deposits on the piston crown and inside the cylinder head: these are symptoms indicating that the decarbonising of the engine is desirable.

Before commencing this job it is advisable to obtain a set of replacement gaskets and some sealing compound such as *Welseal Jointing Compound*. The gaskets are cheap and time will be saved should one be damaged when dismantling the engine.

A set of gaskets comprises:—

2 off BES.896. *Transfer Block Joint Washer.*

1 off BES.1127. *Gasket, Exhaust Stub.*

Proceed as follows:—

Remove H.T. Cable from spark plug.

Remove spark plug from cylinder head.

Slacken bolt securing engine tie rod to frame.

Remove (4) cylinder head bolts.

Remove cylinder head. Should this appear to be stuck to the cylinder barrel a few light taps with a wooden mallet should break the seal.

Turn the kickstarter pedal until the piston is at the top of its stroke, and with care to avoid damage by scoring, scrape the carbon deposits from the crown of the piston, then clean the sealing face of the cylinder barrel to remove traces of old sealing compound. Now take the cylinder head, and from the inside remove all carbon deposits, here again avoid damage to the surface, and then remove any traces of old sealing compound which may be adhering to the face which mates with the cylinder barrel. Wipe all surfaces with a rag soaked in petrol, smear joint faces with sealing compound and re-assemble.

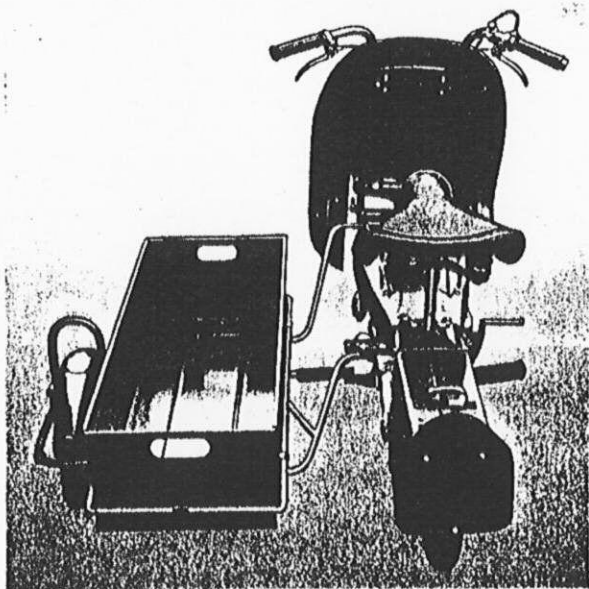
Remove the exhaust stub and scrape all traces of carbon from the exhaust port in the cylinder barrel. Pay particular attention to this as a blocked exhaust port means loss of engine power and leads to 'spitting back' in the carburettor. Re-assemble, fitting a new gasket should the old one have been damaged.

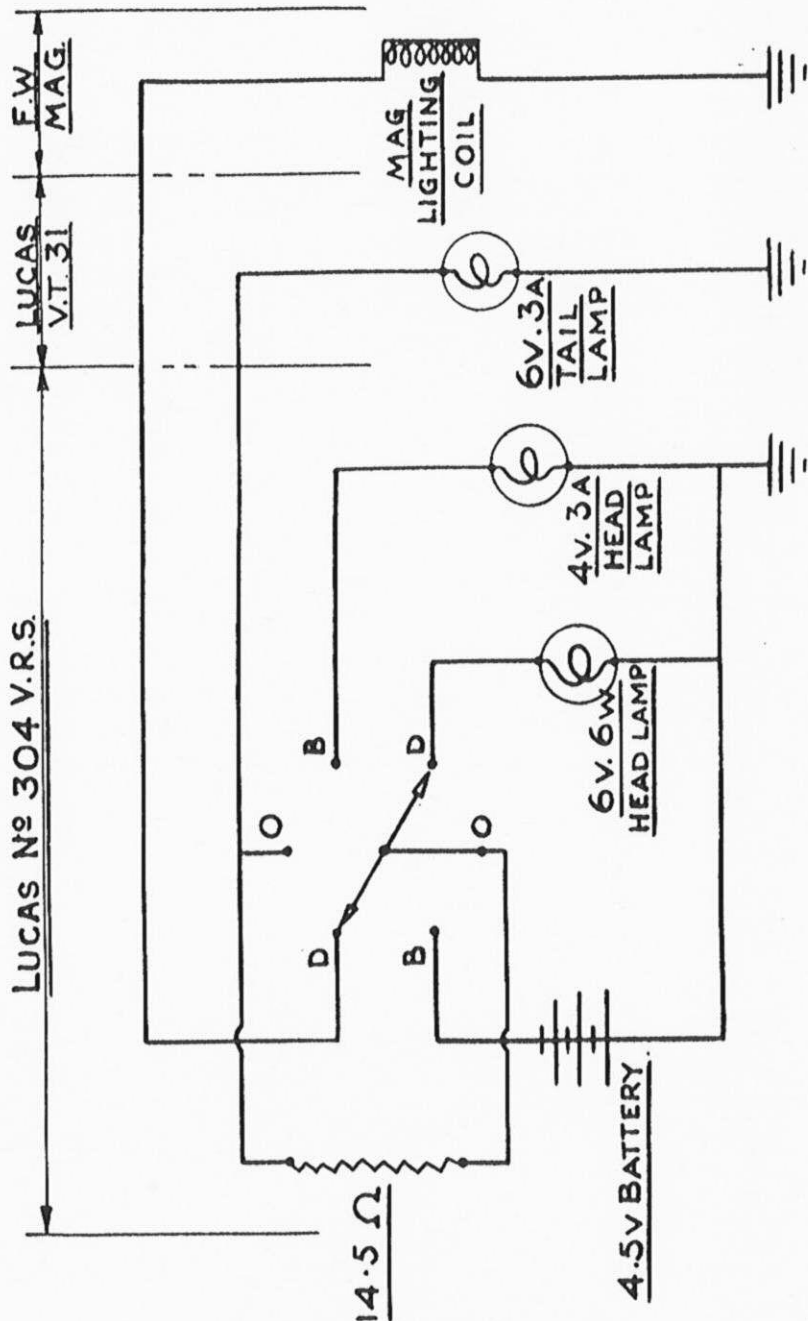
Next remove the transfer blocks from the cylinder barrel; each is secured by two cheese head screws. Before taking the blocks off, mark them in such a manner that will ensure them being re-assembled to the same port and the same way up. Remove the carbon deposits from the ports in the cylinder barrel and from the blocks. Before re-assembly polish the faces of the deflector blocks and if necessary re-new the gaskets.

Running-in Period.

After a few hours running, check over the bolts to make sure they are tight, and look for any signs of leakages due to faulty gaskets or imperfect joints.

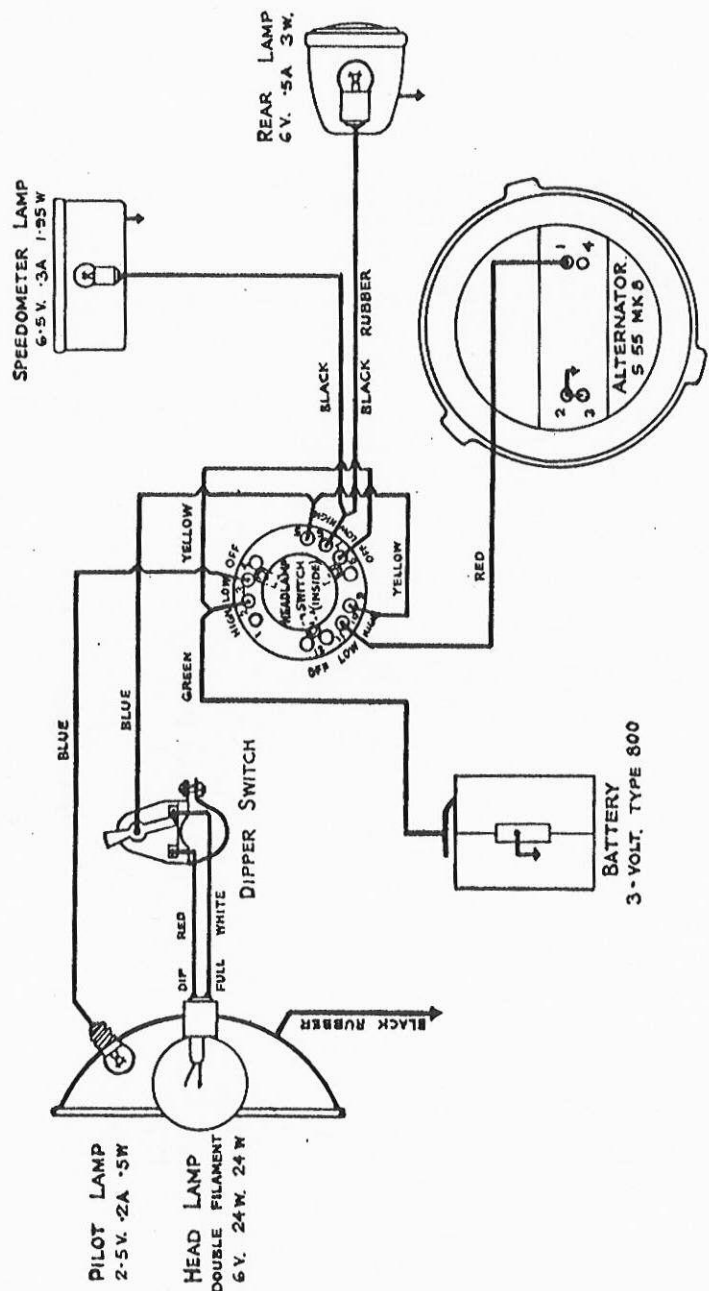
CORGI MARK IV SIDECARRIER



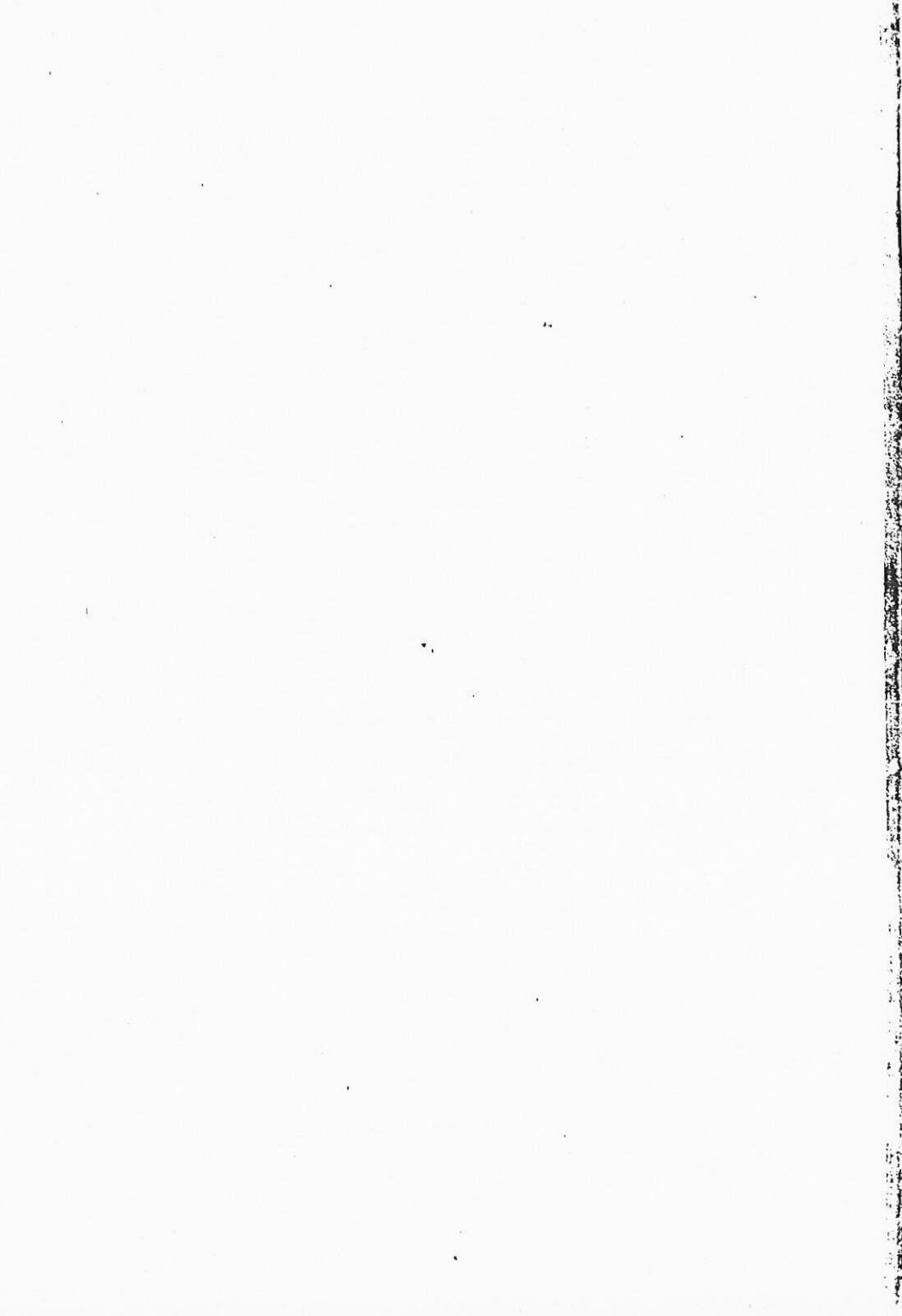


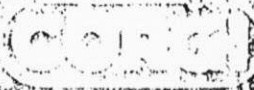
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Manufacturers:

BROCKHOUSE ENGINEERING (SOUTHPORT) LTD.

MOTOR CYCLE DIVISION

Crossens . Southport . Lancs. . England

Produced by Brockhouse Advertising Division
and printed by North View Press Ltd, Coventry

10/53 2m B.E.S. 60.