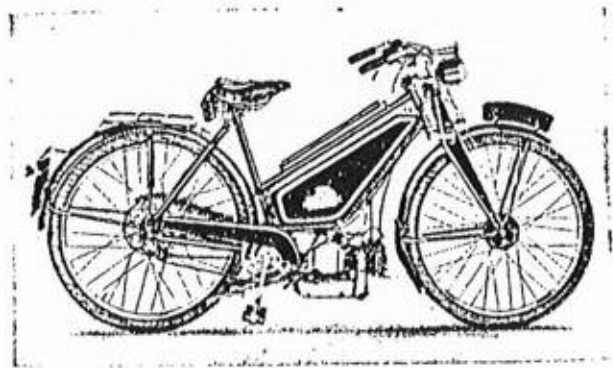


THE

'NORMAN'
Motobike

INSTRUCTION BOOKLET



MANUFACTURED BY

NORMAN CYCLES LTD.

BEAVER ROAD
ASHFORD, KENT

INTRODUCTION

THIS booklet is issued as a guide for owners of the Norman Motobyk in the proper care and attention of their machine and we hope the information herein will be found helpful, but remember our Service Department is always at your disposal for advice and service on any matter relating to your MOTOBYK.

Phones :
Ashford 235 & 236

NORMAN CYCLES LTD.,
BEAVER ROAD,
ASHFORD, KENT

THE NORMAN MOTOBYK

TO START.

1. Fill petrol tank with correct proportions of petrol and oil. (See note on lubrication).
2. Turn on petrol tap, open throttle lever a third of its travel and pull choke control right up.
3. Depress small plunger on top of carburetter float chamber until petrol appears.
4. Lift up compression release valve. Push or pedal machine a few yards and drop release valve lever, when engine will start. If using the push method it is necessary to pull up clutch lever fully immediately the engine starts.

Another method of starting is to put the machine on the stand and open throttle and close choke as above. Set the pedalling crank at the top of its stroke and lift compression release valve. Push pedal down smartly and drop release valve lifter. The engine will then start. Now pull up clutch lever (**very important this**) and let machine off the stand.

In both the above methods of starting it is essential the choke control is pushed **RIGHT DOWN** to its normal position immediately the engine starts, or the engine will refuse to run after a few minutes owing to too rich a mixture.

Having got the engine running, sit astride the machine and let clutch lever in very gently, at the same time opening the throttle. The wheels will then take up the drive very smoothly and without snatch. When riding the machine it is only necessary to control its speed with the throttle lever and use the clutch lever for stops and starts.

The controls are as follows from left to right on the handlebars :

1. Front brake.
2. Compression release valve lifter.
3. Clutch.
4. Throttle lever.
5. Rear break.

The choke control is situated on left-hand side of petrol tank.

Before taking the machine on the road, accustom yourself to the controls by running the machine on the stand but do not race the engine. The engine should only be run for a few minutes at a time with the machine stationary.

RUNNING IN.

When the machine is new do not exceed a speed of 15 miles per hour for at least the first 500 miles. This initial running in period will make a whole lot of difference to the life and performance of the engine later. And do remember this, the Motobyk is designed as a go-between the cycle and the motor cycle ; and high speeds are not aimed at. Although it will do 30 m.p.h. it is highly inadvisable to attempt to run at this speed all the time as you will put a great strain on the splendid little Power Unit, which will give you yeoman service if treated properly. 20 m.p.h. can be considered a good average.

Finally, cultivate good driving. DON'T drive on your clutch and brakes. To do so stamps you as a bad driver. Your brakes, if you drive properly, should only be needed in an emergency. It has been said before, that the test of a good driver is that nobody notices him and there is a world of truth in this simple statement.

LUBRICATION.

Mix thoroughly in a can one gallon No. 1 petrol and half pint of oil (Castrol XL or one of the other brands recommended by us). Pour this mixture in the petrol tank and the lubrication will look after itself. Inspect level of oil in clutch casing monthly and "top" up to the level of filler plug hole. Use engine or light gear oil.

To ensure smooth operation of the clutch the operating lever on the engine together with its push rod should have a spot of oil applied once a week.

The cycle parts needing lubrication are as follows :—

HUBS. Oil monthly (do not over oil these or the oil may find its way into the brake drums).

BOTTOM BRACKET. Monthly.

PEDALS. Monthly.

CHAINS and FREE WHEEL. Monthly.

All exposed cables and lever fulcrum pins should have a spot of oil applied once a week to prevent rust. The same oil as used for the engine will do quite well for oiling the cycle parts.

The steering head is packed with grease at the works and will need no attention for at least 18 months when any cycle repair man will re-pack these bearings.

ADJUSTMENTS.

The chains should be examined every few weeks and adjusted as necessary. The main driving chain is adjusted in the same manner as the ordinary cycle chain. The pedalling chain adjustment is carried out by regulating the position of the arm carrying the jockey sprocket, after first slackening the wheel nut.

All cables are adjusted by the usual method of cable adjusters at suitable points and an inspection will prove self-explanatory.

It will be noticed one of the rear mudguard stays is slotted, this is for easy wheel removal. If the nuts holding the stays in place are slackened off the back portion of the mudguard can be drawn back a good inch or so, thereby allowing the wheel to drop out easily. It is of course, necessary to take off both chains before the wheel can be removed. When replacing the connecting links on the chains, the spring must always have its closed end facing the direction in which the chain normally runs.

DECARBONISING.

After your Motobik has done five hundred miles, the engine will need its first decarbonising and thereafter every 1000 miles.

This you can do yourself or any good repair depot will undertake to do it for a small sum. We recommend the latter unless

you are possessed of some mechanical knowledge. If you elect to do this yourself the procedure is as follows :—

Remove petrol pipe, carburetter and exhaust manifolds. Disconnect compression release valve cable, and take out sparking plug. Undo the four cylinder head bolts and remove head. Take off the 4 nuts holding cylinder barrel to crank case and withdraw cylinder, keeping one hand free to catch piston as it emerges from the barrel. When withdrawing the cylinder take care not to twist it or broken piston rings will result. Now scrape the carbon deposit from the cylinder head, top and underside of piston. Before starting work on the piston stuff the mouth of the crank case with some clean rags. The cylinder ports should also have any carbon deposit removed and likewise the exhaust chamber and manifolds. Very carefully remove the rings from the piston, clean out the grooves and scrape carbon from inside the rings. If they show any brown patches on their outer polished surface they will need renewing. Now wash all parts with paraffin. Dry with clean rag and re-assemble. The piston should be smeared with engine oil before replacing the cylinder barrel.

TIP.—Do not under any circumstances use emery cloth or metal polish for cleaning the engine parts as it is next to impossible to remove every trace of such abrasives.

CARBURETTER.

When decarbonising the engine it will be advisable to clean out the carburetter. Proceed as follows :—

Take off petrol pipe, taking care not to lose the fibre washers or gauze filter, remove the throttle slide by unscrewing milled ring at the top and disconnect choke control. Take off air filter and clean the gauze. Remove float chamber by unscrewing the nut underneath. Clean all parts with paraffin and wipe dry and re-assemble. Do not tighten up float chamber nut too tight or the thread may be damaged.

MIXTURE STRENGTH.

When the machines leave our works the needle on the throttle slide is set to give a rich mixture, as it follows the more petrol the engine receives, the more oil it gets also.

It will be seen therefore, the petrol consumption may be found rather high. This needle must not be tampered with until the engine is run in. This can then be lowered with advantage, the most economical setting is found by lowering the needle until the engine spits back through the carburetter and then raising a shade until spitting back ceases.

IGNITION AND LIGHTING.

Other than cleaning plug occasionally and renewing the stand-by battery in head lamp, and perhaps a broken bulb, the ignition and Lighting equipment will need no attention but for your guidance we refer you to the engine manufacturer's booklet supplied with each machine.

SPRING FORKS.

These should be oiled or greased at monthly intervals. The spindles must be carefully adjusted to prevent side play. The correct adjustment is obtained in this manner.

Slacken off the locking nuts and adjust spindle by turning the hexagon head at the opposite end until it is tight. Slacken back half a turn and re-tighten lock nut. This applies to all four spindles.

An engine makers spare parts list is enclosed in their booklet.

**TO BE SENT TO NORMAN CYCLES LTD.
BEAVER ROAD, ASHFORD, KENT
FOR GUARANTEE COVER**

Name Engine No.
Address Frame No.
..... Model.
Agent
Address
Date of Purchase

**THE NOTABLE
NORMAN**

THE

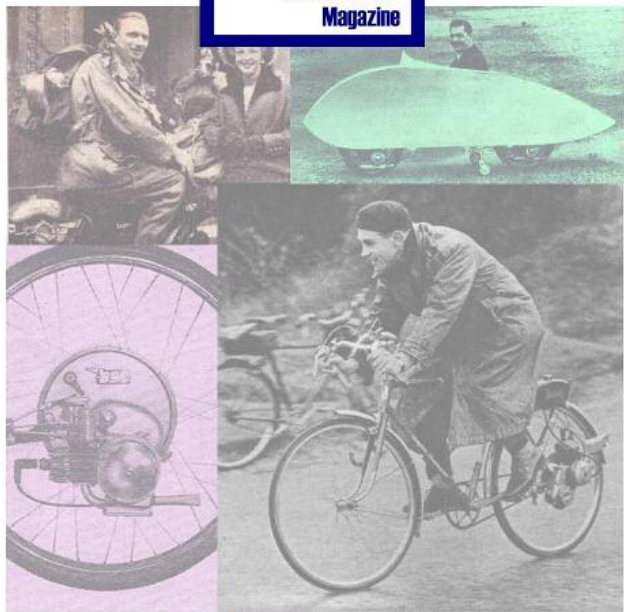
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