

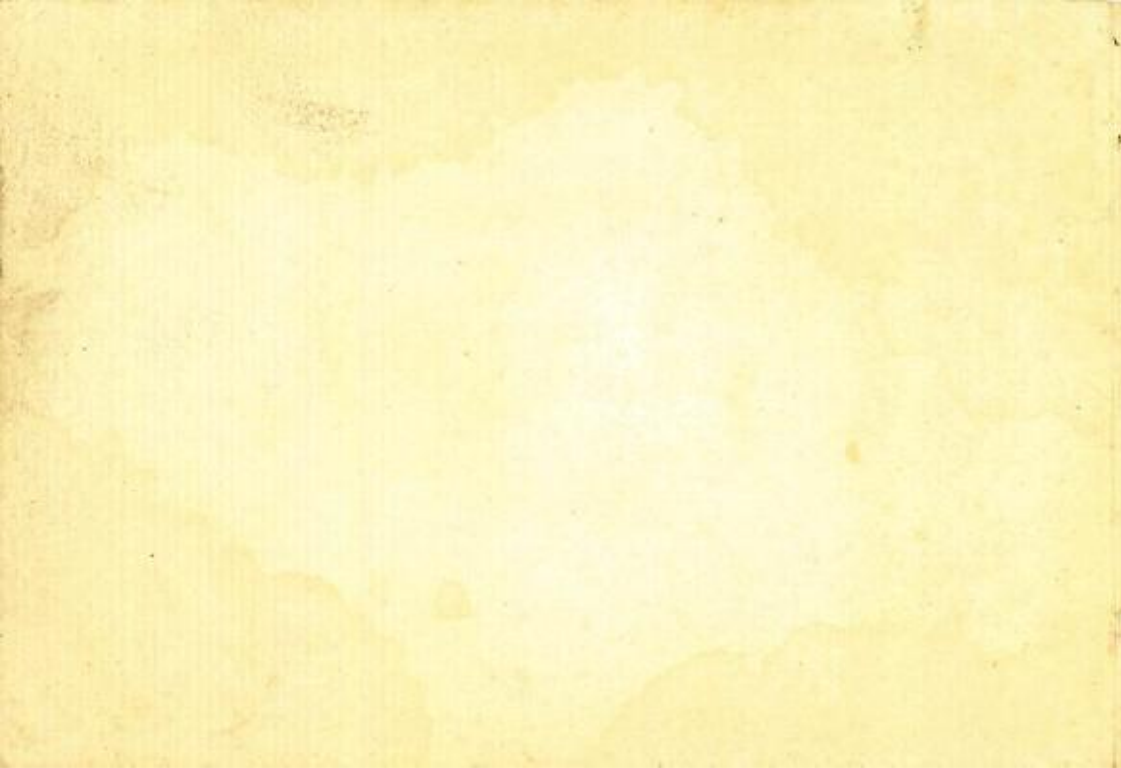


Quickly N

Quickly S

Quickly S 2





Dear Quickly Owner,

When you are not riding your Quickly you can park it almost anywhere — in a corner of the yard, in a garden shed, or against the kerb. It is light enough for you to carry it up or down a few steps if this is necessary. Your Quickly is both unassuming and loyal.

However, it does ask you in return to spend a little time looking after it. Then it will always be ready for use when you want, it, whether for a long or a short journey. We have summarised in this Handbook everything you need to know to keep your Quickly running contentedly for many hundreds of miles. We hope you will regard this handbook initially as a pleasant evening's reading and subsequently as a constant companion on your travels.

NSU MOTORENWERKE AKTIENGESELLSCHAFT NECKARSULM

QUICKLY N



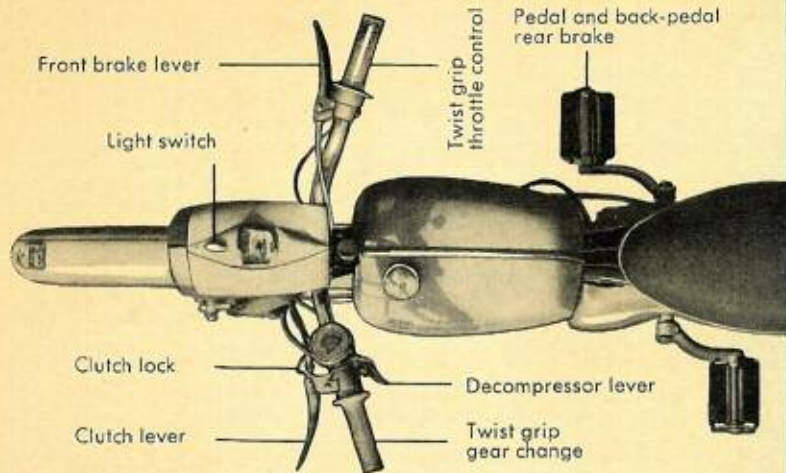
QUICKLY S



QUICKLY S2



QUICKLY F



HAND AND FOOT CONTROLS ON THE QUICKLY



FILLING UP

Twist to the left

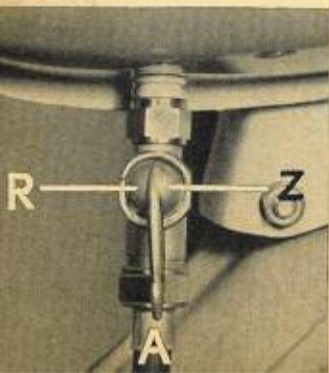
Half a turn to the left opens the filler cap.

Special attention must be given to the following points.

- The Quickly engine is a two-stroke. It sucks its lubricating oil through the carburettor and will only take a **25 : 1 petrol mixture**. In other words, every 25 pints of petrol used must have added to it 1 pint of engine oil. Put another way, **every 6 1/4 pints of mixture must contain 1/4 pint of lubricant**.
- At the same time, it is important to see that the right oil is used. Make sure you use a **proprietary brand of SAE 40 oil**.

As to the actual measuring and mixing of fuel and oil, this can be left safely to the filling station attendant — it's his job. Just see that he always uses the right grade of oil.

- The fuel tanks holds a little over 1 1/2 gallons.
- The fuel reserve system leaves approximately 3 1/2 pints in the tank. If you want to use this reserve, turn the fuel cock from "A" to "R", as shown in the illustration.



THE TYRES

Tyre Gauge or thumb pressure?

After all, it's only air you need! At no extra cost, therefore, the man at the garage will be happy to let you have air for soft tyres. Seasoned moped riders, with years of experience behind them, use their thumb as a tyre gauge. For those who prefer the greater accuracy of a gauge, here are the correct tyre pressures:

- **Front: 14 $\frac{1}{4}$ —17 lbs.; rear 28 $\frac{1}{2}$ lbs. or 31 $\frac{1}{2}$ lbs. with pillion rider.**

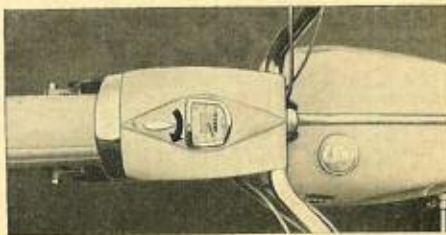
The Law also requires an audible alarm ...

The horn on your Quickly must always be "in good voice". Make sure that it is in working order at all times.

AND THE LIGHTS

Safe Riding after Dark

The law requires that your Quickly must be equipped with reliable lights — and you'll find them very useful anyway! The power for these comes from the dynamo, and the switch is located on the top of the headlamp. Keep both your headlamp and tail light spotless and in tip-top working order, even in broad daylight. The excuse: "I never use the machine at night" carries no weight at all with the police.

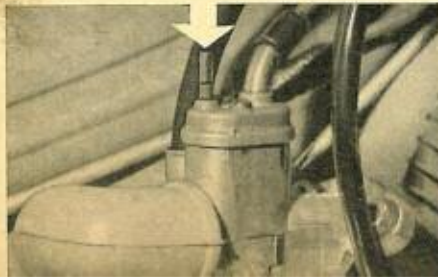


KICK START OR RIDING START

The way you start your Quickly is a matter of inclination:

With the twist-grip gear change in neutral (0) and the pedal used as a kick-starter, one swift depression of the pedal should make the engine spring to life. Alternatively, engage second gear, pull in the clutch lever (this is how a Motorcycle Racing Champion does it), start pedalling as with an ordinary bicycle and, when the machine is up to speed, slowly let out the clutch lever.

Either method will turn the engine over sufficiently for it to fire.



Here is the starting procedure in full, step by step:

- Open up the fuel tap.
- Naturally, the Quickly is fitted with a carburettor with a starting device. When the engine is cold, depress the rod which protrudes from the carburettor cover and open the throttle a little (until you feel a slight resistance). Now you can start!
- The crank can be depressed with only half the force if the decompressor lever is pulled at the same time; remember, though, to let go when the stroke is well on its way, or the momentum will be lost.
- The starting device will cut out automatically when full throttle is applied briefly. Do not forget to do this, or your fuel consumption will be very high.

It goes without saying that, when the engine is warm, there is no need to press the rod on the carburettor before starting.

RUNNING IN

You are the trainer of your Quickly

Athletes who want to become Olympic champions train with great care. They know that their muscles must become gradually accustomed to a sports performance, and everyone knows that to do too much too quickly can ruin their chances.

It is the same with a new engine; it takes some time before all the moving parts are really "run in". There are tiny irregularities in the most carefully finished surfaces, and these must be carefully smoothed away. During this running-in time, it is not good for an engine to be raced or treated roughly.

How should you run in your Quickly engine?

- Use maximum $\frac{3}{4}$ -throttle and always let the engine run easily — neither too slow nor too fast.
- When the engine will not pull on an uphill stretch you will certainly not help by opening the throttle —
- Change down to a lower gear and you will see right away how well the Quickly engine responds.
- If your machine is a Quickly S/2, don't take your pillion rider on hilly runs; let her plan future journeys while she waits.
- Above all: don't be afraid and go so slowly that the engine does not run freely and easily. This can damage your engine permanently.

After the first 200 miles or so, you may do the odd short journey at full throttle. With the Quickly S/2, you can now take a pillion rider down to the beach. After the first 375 miles, give the machine its head. Your patience will have been rewarded by smoother performance and longer life from your Quickly!

DID YOU KNOW -

that you should close the throttle whilst braking? Of course you do! Then you practically know how to ride a moped! And everything else is so easy that a few words of advice from your NSU Dealer (who will be very happy to help you) are worth far more than ten pages of instructions.

However, as the brakes on any motor vehicle are so important for the safety of its rider, we would like to say a few words about the use of the Quickly's.

- Normally, the front and rear wheel brakes are applied at the same time. You should accustom yourself to this and you will soon see how much safer it is. Wet or slippery road surfaces, of course, call for very sensitive operation of the hand brake lever.
- On a long downhill stretch, apply the front and rear brakes alternately so that neither becomes overheated.

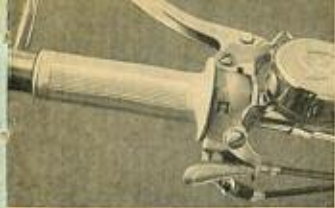
On these long downward slopes you must not forget about your engine. It would be absurd to go down hill throttling and braking at the same time. But every rule has its exception: two-strokes are lubricated by their fuel, so that riding with the throttle closed deprives the engine of oil.

- **Therefore, every 300 to 500 yards on a long downhill stretch, de-clutch and open the throttle to give the engine a welcome drop of oil.**

Whilst on the subject:

The decompressor valve is only designed to facilitate starting and stopping of the engine. Don't try to use this valve as a vacuum brake in an emergency!

Don't unintentionally keep the rear brake on by applying backward pressure on the pedals. Your brake linings as well as your speed will suffer.



3 POINTS WORTH FURTHER COMMENT

The twist grip gear change is quite special. Not only because the engraved figures show which gear is engaged; a safety lock is provided to ensure that you de-clutch before changing up or down to the next gear. This prevents any accidental damage to the gearbox.



The Quickly Rider provides his own Breakdown Service

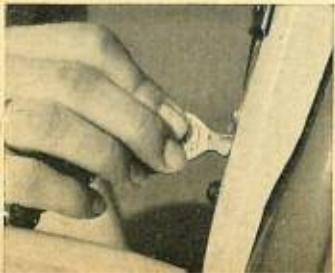
Anyone who finds he has used up the last drop of petrol need not wait by the roadside until a Good Samaritan passes:

- Engage second or third gear.
- De-clutch and insert the clutch lock
- and pedal on to the next petrol station under muscle power.

And when thieves are around . . .

If you want to keep your Quickly, lock the steering before leaving the machine unattended. This safety measure can save you a sorrowful homeward trek on foot. However: no lawyer in the world will hold you responsible for the tricks others get up to. You will have done your best.

- **Don't forget to close the fuel tap when the engine is stopped, other than in traffic.**



CARE AND MAINTENANCE

You can wash your Quickly in clean water as often as you like; greasy or oily spots can be removed with a little petrol or paraffin.

The Servicing Chart will tell you what jobs have to be done at certain intervals for the maintenance of your Quickly. We suggest you have a close look at this for yourself.

OPENING UP

Tool No. 1: a sixpence.

The tool-box is readily accessible, under the saddle. One full turn to the left with the sixpence is sufficient to open the patent lock of the tool-box cover.

Standing on its own feet:

Whenever you want your Quickly to stand up by itself, the fold-away stand under the engine can be swung down to provide a steady base.

The air pump is stowed away under the dual seat.



THE AIR FILTER

Through the air intake pipe

The Quickly carburettor obtains the air it needs from inside the frame to mix with the fuel for combustion. Such a long intake offers many advantages: it saves space, because the frame of the machine acts also as the intake silencer. The air filter of the Quickly is ideally but also comfortably located on the left, inside the frame.

The proper functioning of the engine depends upon the condition of the filter. Were it not for this very efficient "watchdog", the engine would soon become worn out from the abrasive effect of dust particles in the atmosphere.

- Your Service Chart shows cleaning of the air filter to be necessary every 1250 miles.
- It is just as well, though, to check at more frequent intervals that the air filter is in good condition.

- When the pores in the fabric start to clog up, it is high time to wash out the filter in petrol.
- Afterwards, blow out the filter from inside with compressed air. When thoroughly clean, the filter should be soaked in engine oil (SAE 10 or SAE 20).
- Leave the filter for ten minutes so that any excess oil can drip off, then replace in position in the frame.

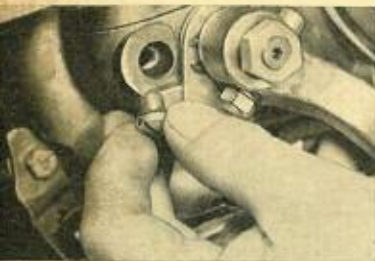




REGULAR LUBRICATION IS ESSENTIAL

There are only three grease nipples on the whole vehicle, and all are grouped nicely together on the front wheel. So it is certainly no hardship to apply three strokes with a grease-gun to the swinging links every 300 miles, and also to the nipple of the speedometer drive every 1250 miles! It is very reassuring to see how the fresh grease forces out the old, black sludge, so that you know everything is clean and freshly greased.

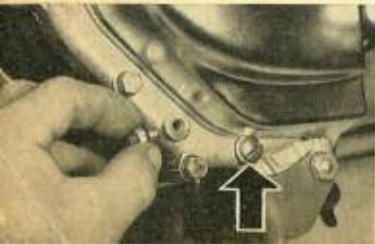
- It is important first to clean the surface of the nipples thoroughly with a clean rag.

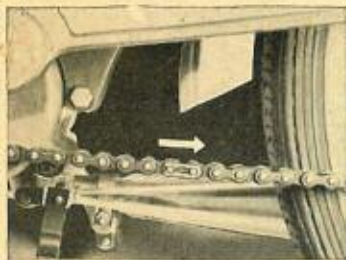


And now the Gearbox

Change the oil in the gearbox every 1250 miles. With a large screw-driver, first remove the filler screw on the right-hand side, then the inspection screw on the left, and finally the drain screw:

- Drain off the old gearbox oil whilst the engine is warm.
- Using an oil-can, fill up with fresh oil to the level of the inspection screw. In summer, use a proprietary SAE 30 oil; in winter changing to an SAE 20 grade; alternatively, use a proprietary SAE 80 gear oil which is suitable for all-the-year-round use.
- Halfway between oil changes, (after every 600 miles), take out the inspection screw and see whether the oil needs topping up.



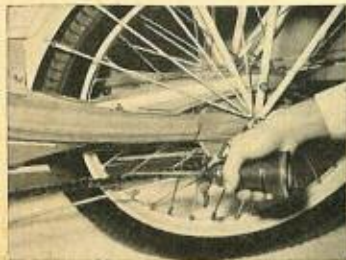


In their own juice

Chains are like geese: they turn out best when cooked in their own fat. This is why manufacturers of lubricants have devised a special "chain grease". Heated in its original can, the grease penetrates lastingly into every joint and it is quite enough to give the chain this thermal bath every 1250 miles.

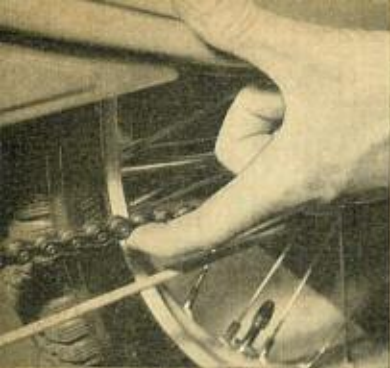
Take off the chain by removing the connecting link and clean thoroughly in petrol.

- An important point: The connecting link must subsequently be attached so that the closed end of the spring link is pointing in the direction in which the chain moves.



The oil-can will do

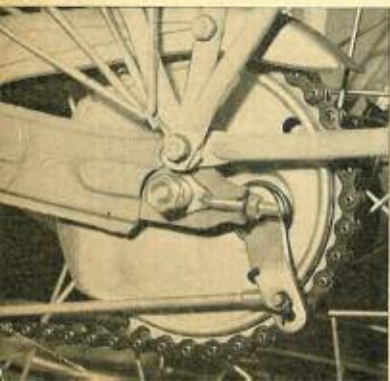
Of course, the oil-can does not do such a thorough job as a bath in chain grease, which means you have to do the job more often: have you ever seen how an engine driver goes over his engine with an oil can after a long run? It's true that he is not oiling chains, but the care he gives to lubrication is really an example worth following!



CHAIN TENSION

The life of your chain depends entirely on how it is treated. When your chain rebels and starts striking the chain guard, then it's high time you gave it some attention.

- Engage neutral.
- Check the amount of play in the chain with your finger; it ought to be $\frac{5}{8}$ to $\frac{3}{4}$ of an inch.
- Too much? Using the correct spanner, slacken the nuts on the rear wheel axle and evenly adjust the two tensioning screws, using a 10 mm spanner.
- Retighten the axle nut.
- Finally, check the chain tension again.
- **This adjustment may have upset that of the brake linkage. You must always check the brake adjustment whenever the axle has been slackened.**



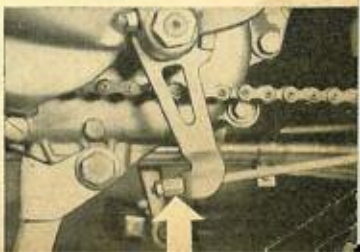
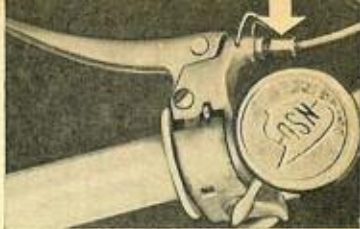
ADJUSTING THE CLUTCH AND BRAKES

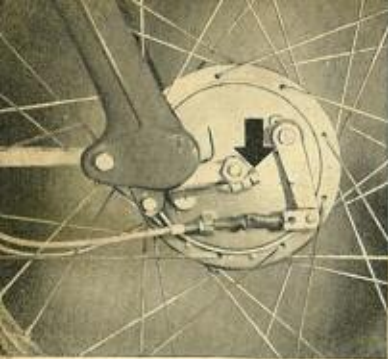
The **clutch lever** is a part of the twist grip gear change, on the left-hand side of the handlebars. The play at its free end should be roughly $\frac{3}{8}$ " ; this can easily be adjusted by means of the set-screw.

On the **hand brake lever**, everything is exactly the other way round: it is kept continuously in tension by the return spring of the brake and the adjustments are made at the other end of the control cable.

You will soon find out what adjustment the hand brake requires by propping up the Quickly so that the front wheel can rotate freely. Now turn the set-screw further in or out until the brake responds as soon as the lever is pulled in about $\frac{3}{8}$ " to $\frac{5}{8}$ ".

The **brake pedal** acts on the rear wheel only. Raise the back of the Quickly and then proceed as for the front wheel, but use a 9 mm spanner on the nut where the brake linkage is engaged in the brake lever underneath the right-hand pedal. Afterwards, make sure you tighten the lock nut securely!





Removing the Front Wheel

When the evil day comes and a nail or something like that gives you a puncture, there is nothing for it but to roll up your sleeves and spread out a cloth on the kerb.

- Undo the locking screws of the swinging links with a fork spanner (black arrow).
- Remove the axle nut on one side.
- Disconnect the brake control cable. Loosen the axle and withdraw it.

This should be done with a rubber hammer or a brass rod. Only in dire emergencies, and then only if using suitable care in order not to damage any of the threads, should steel be applied to steel.

When fitting, make sure that the slot in the brake anchor fits properly over the lug on the inside of the right-hand swinging arm. On the left, insert the two speedometer drive dogs accurately into the appropriate notches of the hub. Only then is the axle inserted, and finally the most important job of all — the locking screws in front of the swinging links can again be tightened.

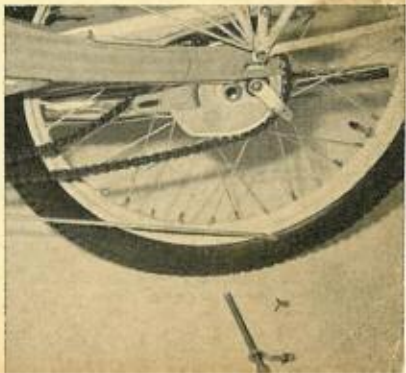
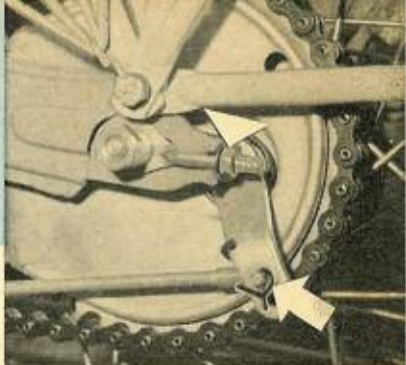


This cloth will ensure that any parts you dismantle do not get dirty or lost. Have your tools ready before you start, and then follow these steps carefully: —

... and the Rear Wheel

- Remove the wire retaining clip on the brake lever and disconnect the brake rod (white arrow).
- Slacken the chain tensioning nuts (white triangle) and take off the axle nut.
- Loosen and withdraw the axle.
- Move the rear wheel forward and take off the chain at the rear.

When fitting the rear wheel, the slot in the brake anchor engages over a projecting pin on the end of the frame. Once this has been correctly inserted, adjust to the correct chain tension as described on Page 14. Finally, carefully engage the brake linkage and make sure that the wire retaining clip is securely seated in its proper place.



YOUR LIGHTS

Dont dazzle others!

The headlamps of motor vehicles are intended neither for hypnotising rabbits on country roads nor for blinding the drivers of oncoming vehicles. The Law's requirements in this respect are quite clear and strict. However, moped headlamps may project a constant beam, so you have no need to worry about a dip switch. The following, however, must be observed:

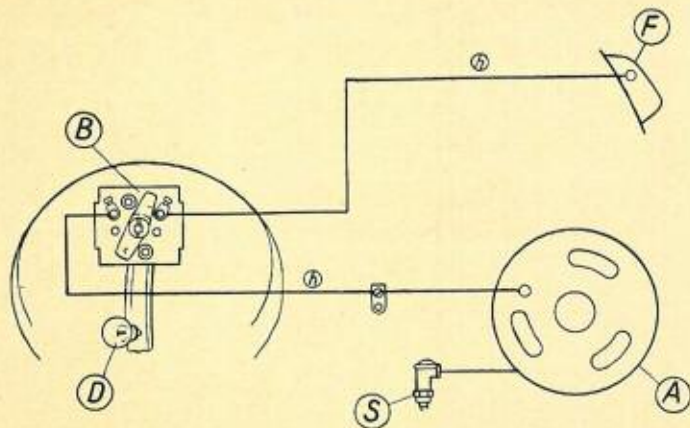
The headlamp requires a 6-volt, 17 watt bulb, which can easily be removed from the reflector once the contact spring has been moved to one side. The mirror surface of the reflector should neither be touched with the fingers nor wiped with a rag. To do either will reduce the quality of light from your headlamp.

The small slot-headed screw under the bezel adjusts the headlamp beam.

With the machine loaded exactly as for normal riding (solo or with pillion-passenger), turn the little screw to left or right until the centre of the headlamp beam strikes the ground roughly 33 feet in front of the front wheel.



WIRING DIAGRAM FOR QUICKLY S/2



- A Flywheel magneto
- B Light switch
- D Headlamp bulb
- F Tail-light bulb
- S Spark plug



Quickly-N

The Quickly-N is deviating in the following essential points from the Quickly-S:

Tool number one: a sixpence coin.

With this, pressed in the slot of the tool kit cover tap and turning it to the left by a few turns like a screw-driver, you can open the tool kit cover. The tool kit is readily found under the front fork cowling.

The pump is fixed safely on the luggage carrier stay.

The bolt on the rear end of the headlight body serves for adjusting the headlight beam. The vehicle should be charged with the weight corresponding to that which it carries in actual service - with or without pillion passenger. Then turn to left or right until the center of the beam reaches the ground 10 yards ahead of the front wheel.

Technical Data

Engine:

Single-cylinder, two-stroke
Bore: 40 mm
Stroke: 39 mm
Capacity: 49 c. c.
Compression ratio: 5,5:1

Chassis:

Central pressed frame
Front: Swinging on front fork
Gear ratios:
1 st. gear = 1,88:1
2 nd. gear = 1:1
Tyres: 23x2,00"

Fuel unit:

Bing starter carburettor 1/9/22
Main jet = 56
Needle jet = 210
Needle setting = 3
Amount of fuel in
the fuel tank = 1 gallon
Air Filter in the frame

General Details:

Max. height: 37 $\frac{1}{2}$ in.
Max. length: 72 $\frac{1}{2}$ in.
Max. width: 25 $\frac{1}{4}$ in.
Total admissible weight: 287 lbs.

TECHNICAL DATA

Engine:	Single-cylinder, two-stroke Bore: 40 m.m diam. Stroke: 39 m.m Capacity: 49 c.c. Compression ratio: 6.8 : 1 Quickly S 5.5 : 1	Air Filter:	In the frame, on the left, above the gearbox.
Electrical Equipment:	Dynamo magneto Spark plug: Bosch W 190 M 11 S or a plug with the same qualities. Headlamp bulb: 17 watts, 8 volts Tail-light bulb: 2 watts, 6 volts	Chassis:	Central pressed frame Front: Swinging links on front fork Rear: Swinging arm rear suspension Gear ratios: Quickly S: 1st gear = 1.88 : 1 2nd gear = 1 : 1 Quickly S/2 1st gear = 2.44 : 1 2nd gear = 1.563 : 1 3rd gear = 1 : 1 Tyres: Quickly S/2 Quickly S: Front: 23x2 $\frac{1}{8}$ " Rear: 23x2 $\frac{1}{8}$ " 23x2 $\frac{1}{4}$ "
Fuel unit:	Bing starter carburettor 1/12/117 Quickly S 1/ 9/ 22 Carburettor settings: Main jet = 66 Quickly S = 54 Needle jet = 2.1 Needle setting = 2 Quickly S = 3 Amount of fuel in the fuel tank = 1 $\frac{1}{2}$ gallons Fuel reserve = 3 $\frac{1}{8}$ pints	General Details:	Maximum height: 38" Maximum length: 72 $\frac{1}{2}$ " Maximum width: 25 $\frac{1}{8}$ " Total admissible weight: 485 lbs. Quickly S 309 lbs.

Subject to Modifications of Design and Equipment without notice



*These two
can laugh,*



because they have entrusted the repair of their Quickly engine to an appointed NSU Dealer who uses **Original NSU Spares**.

Original NSU Spares are only produced by NSU. They are manufactured from the same materials and with the same accuracy and are subjected to the same tests as new components.

Original NSU Spares make it possible to repair
properly **cheaply** **quickly**

Original NSU Spares always carry the label shown on the left. If you require spares, consult your NSU Dealer. NSU owners can at any time take advantage of the Service Exchange Parts facilities (far cheaper than new components) offered by the NSU Dealer:

Exchange engines
Exchange crankshafts

**Exchange cylinder and piston
assembly**
**Exchange connecting rod
assembly, etc.**

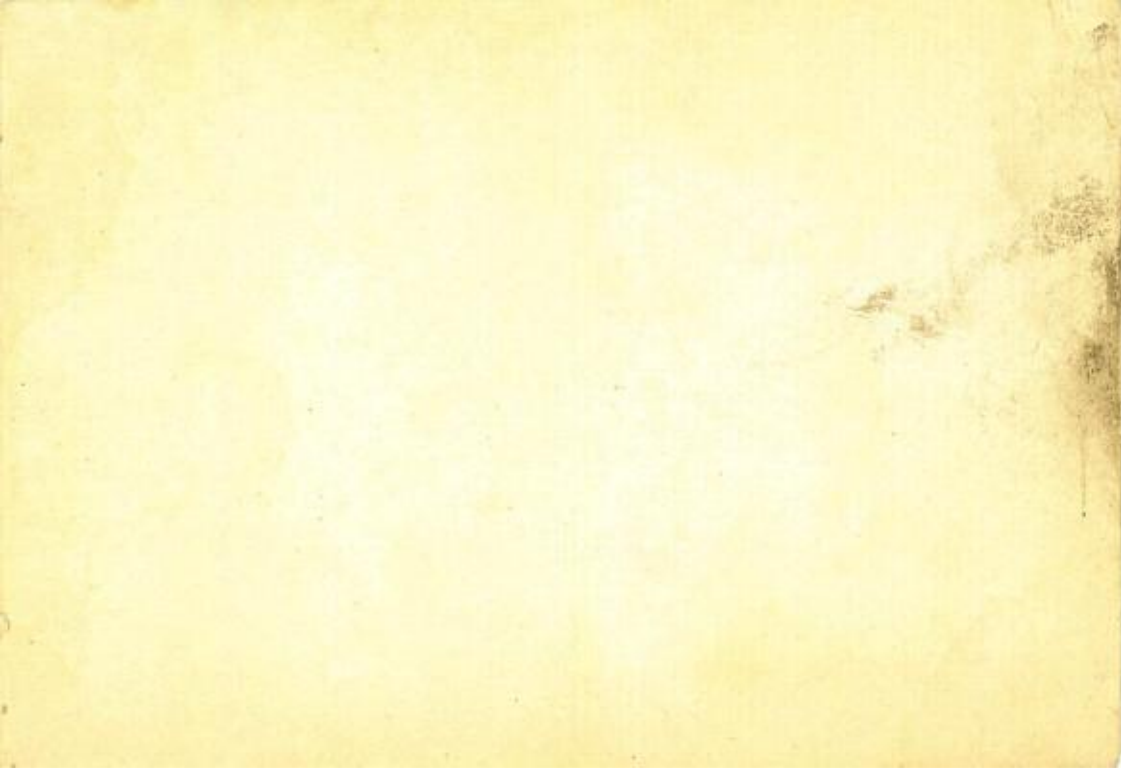


CONTENTS

Riding	3—9
Operating the controls	3
Filling up	4
Reserve tap	4
Tyre pressures	5
Light switch positions	5
Starting	6
Running-in	7
Brakes	8
Twist grip gear change	9
Steering anti-theft lock	9
Care and Maintenance	10—15
Tool-box	10
Fold-away stand	10
Air pump	10

Cleaning the filter	11
Lubricating front fork swinging links	12
Lubricating speedometer drive	12
Changing gear box oil	12
Servicing the chain	13
Chain tension and adjustment	14
Adjusting control cables	15
Wheels and Tyres	16—17
Changing front wheel	16
Changing rear wheel	17
Electrical Equipment	18—19
Adjusting headlamp	18
Wiring diagram	19
Quickly-N	20
Technical Data	21

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