

**HOW TO USE AND  
LOOK AFTER YOUR**

**SOLEX** 3800

**POWER ASSISTED BICYCLE**



# Important advice...

## ● Comply with Road Regulations:

(They vary in different countries).

Make sure that your SOLEX meets the Road Regulations and Specifications in force in the country where it is to be used.

## ● To ride comfortably:

At the time of delivery your saddle is adjusted to an average position. Your supplier would be pleased to raise or lower the saddle to meet your individual needs on request.

## ● For safe riding:

Tyres should be inflated to a pressure of 2 kg (28 Lbs).

SOLEXINE fuel should be used in countries where it is obtainable. Otherwise, you may prepare your own mixture at 5% as follows: a small measure will be found integral with the cap. Pour into a clean separate container one litre (1 3/4 pints) of petrol or gas (regular grade, neither super, nor extra). Using the measure on the filler cap, pour into the petrol one 1/2 measure if pressed steel, three if plastic, of ENERGOL 2 stroke patented lubricating oil or SHELL TT. In default of 2 stroke ENERGOL oil or SHELL TT, use unmixed mineral oil or engine oil S.A.E. 10 or S.A.E. 20. Shake the liquid in the container to ensure a thorough mixing of the petrol and oil, then pour the mixture into the fuel tank. The fuel tank should be filled to within 1/2 inch of the lower end of filling orifice. Filling the tank above this level may cause difficulty in starting.

## ENGINE NUMBER

The engine number is engraved on the back of the crankcase close to the forkhead.

## The SOLEX is Guaranteed for one year

Although sturdily built, your machine should receive regular attention so as to ensure the maximum service at the lowest cost. SOLEX SERVICE STATIONS are at your Service. They have special equipment, hold stocks of spare parts, and are staffed by efficient mechanics trained in our factory.

# Brakes

Your safety on the road depends largely on your brakes. You should therefore from time to time inspect the brake shoes, cables and cable casing and check adjustment.

- **Adjustment of front brake:** (Fig. 4)

Adjustment of the front brake is effected with the aid of the quick adjustment knob (M) (Fig. 4). Press the right hand brake lever then, with the other hand, hold the brake shoes against the rim.

When this is done, release the brake lever and turn the knob (M) by one or two notches after having released it from its locking system by pressing it.

- **Adjustment of drum brake:**

The adjustment of the drum brake is effected by means of the adjustable cable housing stop, placed above the crank bracket (Fig. 5).

Loosen the fixing bolt "B", move the lever "L" to the left and tighten the bolt.

If this adjustment proves insufficient alter the cable tension with the aid of the cable tightening bolt "V" after having returned lever "L" fully to the right. After adjustment, actuate the brake lever several times to make sure the wheel turns freely.

- **Exchange of front brake cable:** (Fig. 4 and 6)

Make sure of sheath length (425 mm and 254 mm) and cable (1.000 mm). After having fixed it on right hand brake, engage cable in the sheath, then on knob "M".

Position the brake sheath in notches "B", then the cable on the plastic roller "G". Adjust brake. Keep lever "L" in its low position and lock the pinch washer by screw "V".



Fig. 4

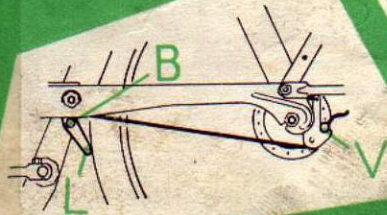


Fig. 5

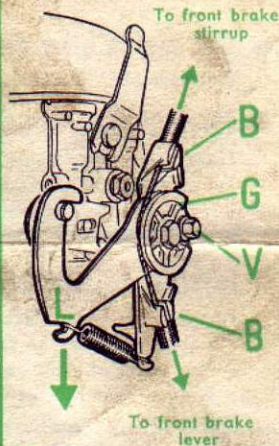


Fig. 6

# Various Checks

- **One month after delivery:**

Get your SERVICE STATION to check free of charge, the tightness of all the assembly nuts.

- **Every 2500 - 3000 miles:**

Have your engine decarbonized by a SOLEX SERVICE STATION. The carbon (produced by the combustion of the oil contained in the fuel) builds up on various parts of the engine and in the exhaust system, eventually causing loss of power and four-stroking. If you do not use the recommended two-stroke mixture, decarbonization will have to be carried out more frequently.

- **Lighting adjustment:**

To adjust the beam, slacken screw (7) (Fig. 1) move the reflector assembly to obtain the correct lighting angle, with the engine lowered on to the tyre then retighten the screw. Keep a careful eye on the operation of the lighting—your safety at night depends on it—. Clean the headlamp, rear lamp and reflector glasses. Check that the wiring is in good condition, as well as the bulbs, which should be: 6 volts 1 amp. for the headlamp and 14 volts for the rear lamp.

- **The cycle:**

To prevent rust, smear a little vaseline on all chromed surfaces (handlebars, rims, pedal assembly). Lubricate the steering, the hubs, the pedal assembly, and if necessary take up any play. From time to time, check wheel alignment, oil the chain to ensure smooth operation, check the tightness of all assembly nuts. Use the stand when the machine is left standing; this will avoid its falling over, and the possible breakage of the brake lever.

- **If you are storing your machine for several months:**

Clean and grease the whole machine. To avoid corrosion of the cylinder and the piston rings, remove the sparking plug, bring the piston to top dead center and pour into the sparking plug hole one teaspoonful of engine oil. Rotate the engine by hand two or three times, to distribute the oil over the cylinder walls and replace the sparking plug.

# Clutch



Fig. 1



Fig. 2

The 3800 engine is fitted with a centrifugal clutch which cannot go out of adjustment.

— It comprises: a drum, integral with the drive roller, and a system of bobweights and shoes integral with the crankshaft.

— The vaned rotor and the flywheel magneto cover form a fan which cools the engine when it is running and enables it to idle without overheating.

**Warning: Never run the engine with the flywheel cover removed**

## ● Principle of operation:

— When at rest, the bobweights (M) under the pressure of the springs are held against the pawls (B) of the shoes, forcing the pads against the surface of the clutch drum. The engine will start after a few turns of the pedals; the whole clutch assembly (see Fig. 1) then rotating with the engine.

— When the engine speed increases, centrifugal force presses the bobweights hard against the shoes, and the drum and the shoes rotate together (see Fig. 2).

— When the engine speed falls, the centrifugal force decreases and the springs act upon the bobweights the latter then apply the pads very lightly against the drum. The engine idles and the SOLEX will not move if the brakes are applied.

# Maintenance



Fig. 2

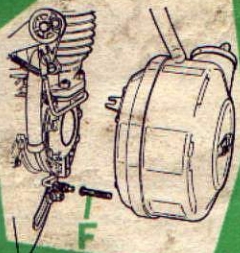


Fig. 3

If unsatisfactory running is experienced, don't jump to the conclusion it is a mechanical fault, or replace any parts, since very often faulty running can have a simple explanation. To find the cause of the trouble, follow the hints given below:

## ● To check the fuel supply:

Disconnect the fuel return pipe (Fig. 1 No. 4) and rotate the engine, using the decompressor lever (6 Fig. 1).

— If the fuel flows normally in a continuous trickle, clean the jet (Fig. 1 No. 5).

Never pass a steel wire or a needle through the calibrated orifice. If you have to change the jet, use only genuine Solex replacements.

— If the fuel does not flow, or flows intermittently, have the fuel supply circuit checked in a SOLEX SERVICE STATION who will clean the filters of the carburetor (Fig. 2) and the fuel tank (Fig. 3).

## ● To check the ignition:

Remove the sparking plug and after having refitted the lead and laying the plug on the cylinder head, turn the engine by hand... the spark should jump across the electrodes.

— **Plug inspection:** Clean the electrodes to remove carbon and adjust the gap to 0,5 mm. (When replacing, use MARCHAL plug V 36 or, if not available, AC 45 L or KLG FF 70 Y).

— **Checking ignition timing:** Remove the flywheel cover and rotate the rotor by hand until the raised mark coincides with the one on the stator. At this position, the contact breaker points should begin to open. If they do not, have setting adjusted at your SERVICE STATION.

# Riding

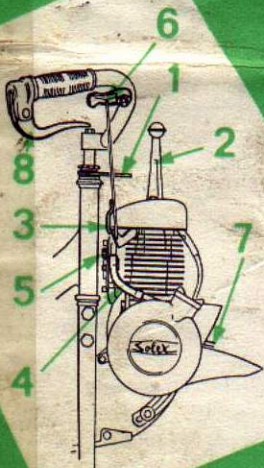


Fig. 1

## As soon as you are on the saddle:

— Bring the engine into contact with the tyre by pushing lever (2) forwards, after having removed it from the retaining bracket (1) on the handlebar (Fig. 1). Attention! The engine must only be pulled down or taken up when coming to complete standstill.

— If the engine is cold, close the carburettor choke by moving lever (3) to the left (Fig. 1). Once the engine is running, return the lever to its normal position after a few yards.

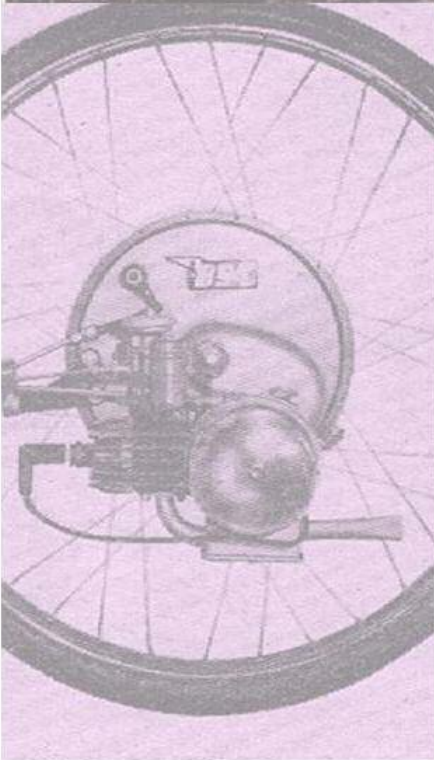
- **To start the engine:** Push the decompressor lever fully over to position (6 Fig. 1) and pedal off. After a few yards, release the lever and the engine will start.
- **To slow down:** Use the hand brake/throttle (right hand brake on machines sold in countries driving on the right, and vice versa).
- **To stop:** Brake until the machine comes to a stillstand... the engine will go on idling.
- **While stopped:** The hand brake which is linked with the throttle, should be kept on.
- **To start off again:** Release the brakes. The engine will gather speed and the SOLEX will move off (a few turns of the pedals are needed for quicker acceleration or for starting on a slope).
- **To stop the engine:** Brake until the machine comes to a complete stillstand, then push the decompressor lever right over (6 Fig. 1).
- **To climb hills easily:** Pedal just as much as is necessary to help the engine. On steep inclines, the clutch, by easing off, will enable the engine to run at the speed at which it gives the maximum assistance. Let it do so.
- **Lighting:** To switch the lights on or off without dismounting from the machine, turn the switch to the right on top of the headlamp cover.



More than 5.000.000 Solex in service on roads all over the world have won a reputation for **RELIABILITY, SAFETY and ECONOMY**



# IceniCAM Information Service



[www.icenicam.org.uk](http://www.icenicam.org.uk)