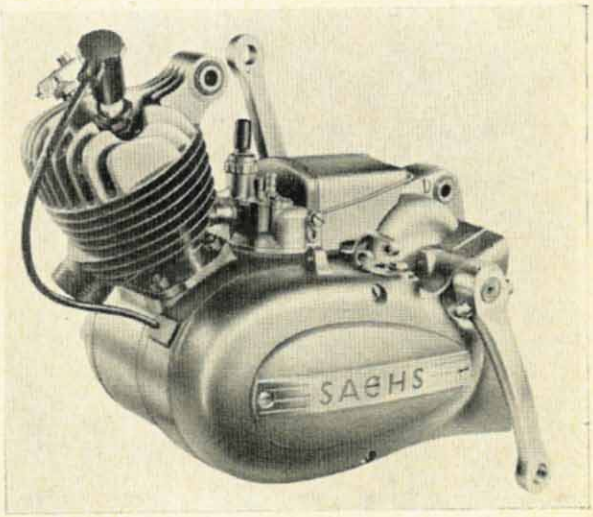
OWNER SERVICE on the SACHS "50"

by

Brian Young



The latest three-speed version of the SACHS "50" with gear primary drive.

RECENTLY a lot of correspondence has arisen in *Power and Pedal* regarding of the *Sachs* 50 engine units, and it seems time that an outline be given of the work which the average owner can undertake on these units.

1. Special Tools

A great deal of misunderstanding has arisen about special tools for the *Sachs* 50 ; figures of up to £20 worth have been quoted. The facts are that in order to overhaul the clutch, primary drive, magneto and cylinder, only five special tools and two books are needed. The repair manual—3/- from your *Sachs* Service Station—is most important and should be studied carefully in conjunction with the Handbook before any work is done on the engine. The tools required are illustrated.

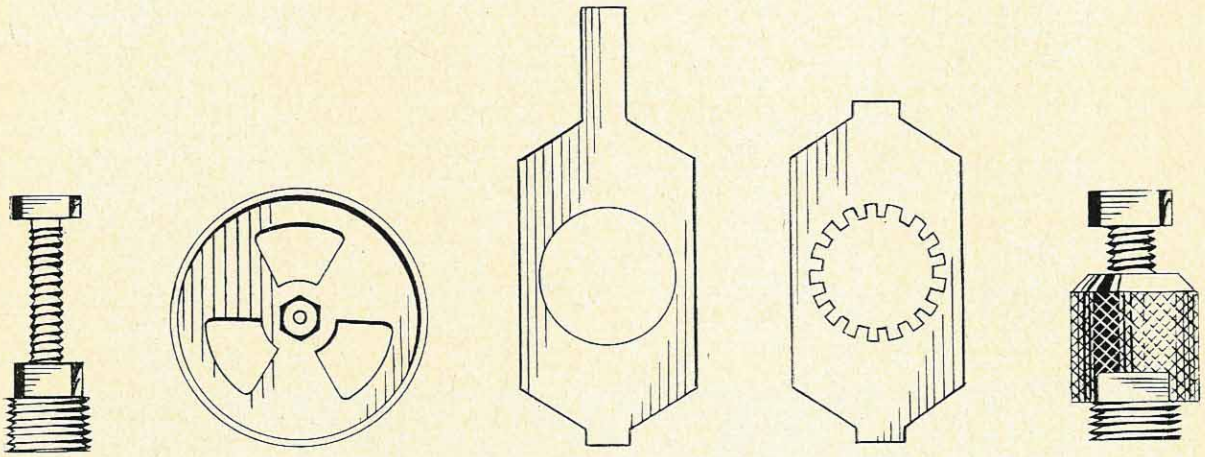
2. General Maintenance

Details of decarbonising and carburetter adjustments are given in the Handbook, and will not be quoted here. However the following points should be borne in mind :

(*a*) Do not overfill the gearbox with oil, otherwise clutch slip may rapidly result with consequent damage to the primary chain, where fitted. Note that later chain drive units are fitted with two hard rubber rings on the engine sprocket which act as chain tensioners and shock buffers. These should be checked occasionally.

(*b*) Always make sure that the hole in the gearbox filler plug is clean; this plug acts as a breather, and if the hole is blocked oil may be pumped out the clutch lever orifice.

(*c*) When decarbonising make sure that the exhaust port is perfectly clear ; this port is relatively large. Every decoke it is worth while to check that the transfer ports are clear—this means that you must remove the cylinder. Do not highly polish the piston crown, but only remove the burnt brown flakes ; the remainder of the carbon acts as a heat insulator and prevents seizures. Piston



Those special tools : (A) *flywheel drawer*; (B) *clutch compressor plate* ; (C) *c utch fixing plate* ; (D) *stop plate* ; (E) *clutch centre drawer.*

clearances, it might be noted, are—very small on the *Sachs* 50.

(*d*) Make sure that the thick fibre washer between the carburetter and the cylinder barrel is sound. This washer is an insulator, and prevents heat transfer to the carburetter. Make sure that the fibre faces of the small carburetter stud washers turn to the cylinder.

(*e*) A special tool (A) is needed to remove the magneto flywheel. Examine the contact points and replace if they are badly pitted or worn. When refitting make sure that the shims and fibre washers are put back correctly, and also that the contact faces are in line. Check that the rocker arm pivot pin is firm in the stator plate ; loose pivots are a frequent cause of bad running and erratic firing. Remember that the timing and contact gap are fairly critical, so measure these carefully.

If a new coil is being fitted always be sure that the gap between the pole shoe and the flywheel magnets is correct. If you are in any doubt take your stator to the local Service Station, where this gap can be checked with the correct jig.

(*f*) If a new gear change lever is to be fitted to the engine, remove the screw passing through the lever shaft, and put a threaded 5mm. stud in place. This will prevent the inner fork from moving; if this fork moves, the whole engine must be dismantled.

(*g*) The clutch and primary drive can be dismantled by means of four special tools. The clutch compressor (B) enables you to remove the clutch outer plates with springs. When removed slacken off the compressor nut so that the springs are not kept fully compressed. Examine the clutch friction plates and the teeth of the steel plates. Replace if worn. Remember that the bent tags of the new steel clutch plates face outwards. To remove the clutch housing first remove the centre nut, using the two plates (C, D) to lock the housing. At the same time undo the engine sprocket nut. Remove the splined hub with the tool E. The nut underneath has left hand thread (so has the large nut on the pedal shaft sleeve). The housing will free if a sharp tap is given to the hub bearing with a sleeve and mallet. The chain can be replaced at this stage.

It is possible for an owner with knowledge and aptitude to overhaul the unit completely, but it should be noted that the shafts and crank assembly are all shimmed to accurate and critical float limits. To measure these rather more expensive tools are required. Should you ever feel in doubt, contact your local Service Station and ask their advice.

Assembly is really the reverse of the above procedure, but when replacing the shims on the pedal shaft sleeve, put the thickest one furthest from the crankcase face.

The shims fitted to *Sachs* Motors serve both to limit side float accurately and also to act as thrust washers, so reducing wear and frictional losses.

There remain two jobs which are too involved to describe in the space available ; these are the adjustment of the gear change on the three speed unit, and the temporary repair to replace a blown crankshaft oil seal. Details of the first are given fully in the appropriate manual, and the second will be described to you by a Service Station.

When servicing your *Sachs* 50 unit, keep the following in mind :

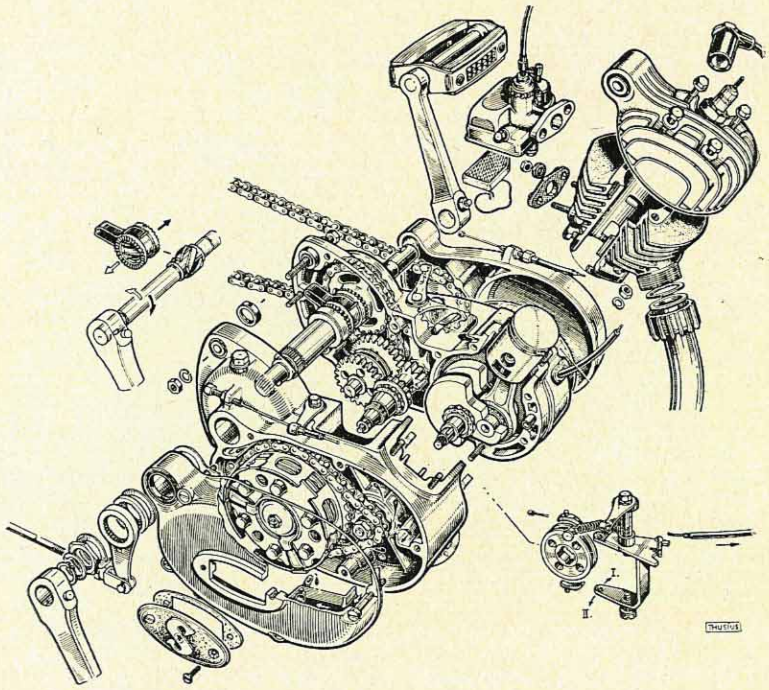
(1) Read the manual first very carefully before you start, and also while working.

(2) Work carefully and slowly, checking at all stages.

(3) Replace anything you feel doubtful of.

(4) Use your local *Sachs* Service Station at all times. Whereever you see the blue " S " shield, you can be sure of a full range of spares and exchange units, coupled with factory trained staff whose job it is to render every possible assistance to *Sachs* Owners.

Exploded view of the two-speed chain drive model.



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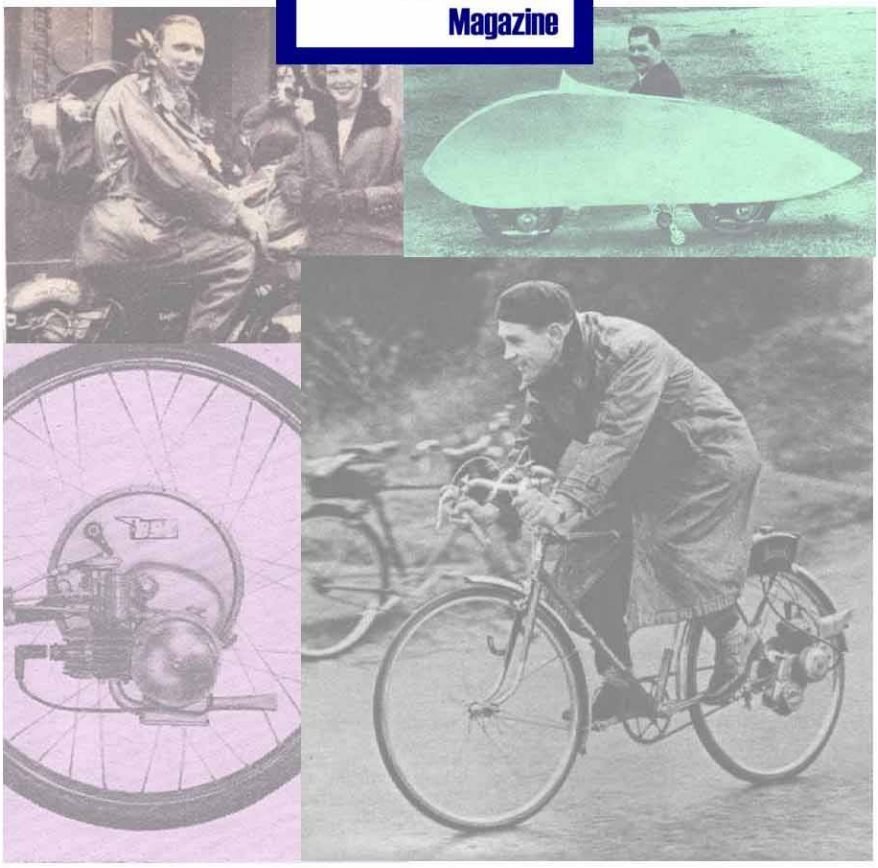

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