

THE
Excelsior

98 c.c.

"CONSORT"

MODELS F4, F6S, CA8, CA9, & F4F.

AND

"SKUTABYKE"

MODEL SB1.

**RUNNING AND MAINTENANCE
INSTRUCTIONS**

1959 EDITION

The Excelsior Motor Co. Ltd.

Head Office and Works

**King's Road, Tyseley
Birmingham 11**

Telephone ACOCKS GREEN 1677-8-9

Telegrams "MONARCH HAYMILLS"



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98 c.c.
"CONSORT"
MODELS FT, FT2, GAS, GAS 2, FT4
AND
"SKUTABYKE"
MODEL TBT

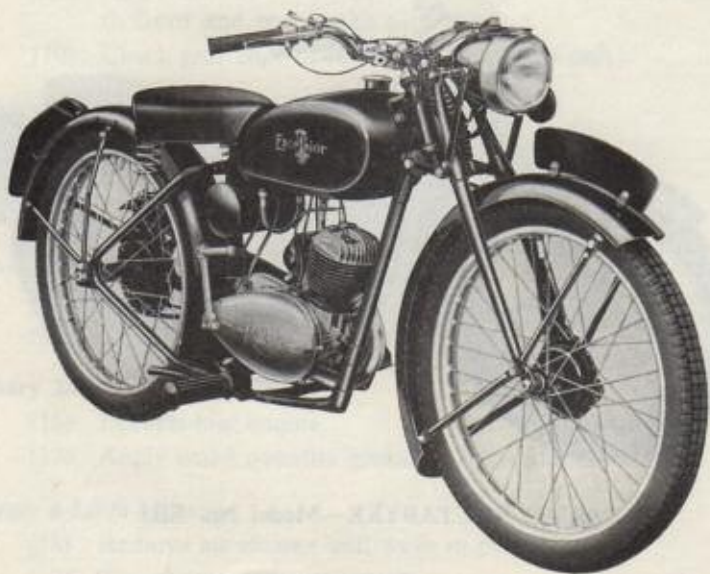
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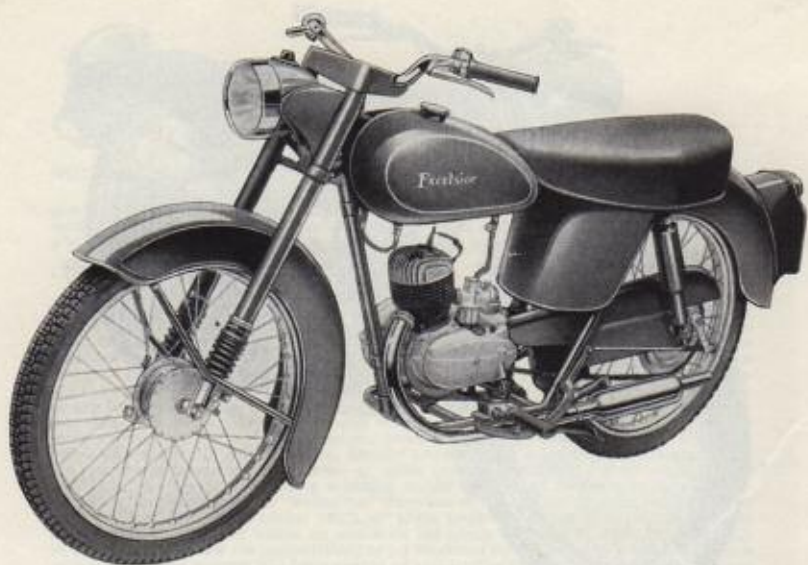
First published in 1958
By Excelsior Motor Co. Ltd.
Printed in England by
Institute Printing Works Ltd.
Birmingham, 14.



98 c.c. CONSORT—Model No. F6S



98 c.c. CONSORT—Model No. F4 & F4F



98 c.c. CONSORT—Model No. CA8/9



98 c.c. SKUTABYKE—Model No. SB1

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Service Department

OUR SERVICE DEPARTMENT is always available for advice, service and spares, and we invite all EXCELSIOR owners to take full advantage of the facilities offered.

Much trouble and delay will be saved if the following points are noted —

SPARES: When ordering, give full details as to model, year of manufacture, engine and frame numbers (WITH prefix letters). If possible with older machines, send the worn parts as patterns. Remittances should include sufficient to cover postage.

REPAIRS: Machines or components must be sent **CARRIAGE PAID**, with a label attached bearing the sender's full name and address. A covering letter should be sent giving detailed instructions as to whether an **ESTIMATE** is required, or whether we may proceed with the work immediately. By custom of the trade payment is to be made upon completion and prior to return of repaired items.

**REPLACEMENTS
UNDER
GUARANTEE:**

Any defective part must be sent with the request to be replaced free of charge, stating engine and frame numbers, the name and address of the Dealer from whom it was obtained, and the date of purchase. We do not undertake to **FIT** such replacement parts, and if you wish to send the complete machine, the Mechanic's time in dismantling and re-assembling will be charged for. Carriage both ways to be paid by the Sender.

Any machines or components sent not complying with the above procedure will remain **AWAITING IDENTIFICATION AT SENDER'S RISK**.

REMITTANCES. Cheques and Postal Orders should be made out to "THE EXCELSIOR MOTOR CO. LTD." and crossed "& Co."

C.O.D. SERVICE. Spares may be despatched C.O.D. if required.

GENERAL INFORMATION

Engine and Gear Unit.

These machines are fitted with either the Villiers Mark 4F (Handchange) or Mark 6F (Footchange) Engine, having a bore of 47 m/m and a stroke of 57 m/m and incorporating a two-speed gearbox built as one assembly. The crankcase is an aluminium casting in three main parts totally enclosing the primary drive, which is by endless pre-stretched chain from the crankshaft to the gearbox mainshaft. Journal ball bearings support the crankshaft, this having a double row roller bearing big end. The clutch is cork inserted, two plate, and gear selection is controlled by handlebar lever on Model F4 or by footchange on Models F6S, CA8/9, SB.1 and F4F. Where handchange is used control is by cable from a lever on the right handlebar. Lubrication by petrol. Carburettor is a Villiers Junior type operated by twist grip and is fitted with a combined air strangler and filter.

Ignition and Lighting.

Villiers flywheel magneto, providing current for ignition and direct lighting, of special type having a separate contact breaker on the left-hand side of the crankcase and operated by a cam on the end of the crankshaft.

Gearbox and Clutch.

The two gears are engaged by means of sliding dog mechanism there being a neutral or "free engine" position between high and low gears. The clutch is cable operated by means of a lever on the left handlebar.

Frame.

Excelsior duplex/cradle type built with weldless steel tubing and incorporating a central spring-up stand which allows ready removal of either front or rear wheels.

Front Forks.

Tubular, parallel action link forks having a centre coil spring and individual spindle adjustment are used on Models F4, F6S and F4F. Telescopic front forks with multiple rate springs and flexible gaiters are fitted to Models SB.1, CA8/9 and some F4F.

Tank.

Welded steel, gold lined and has a capacity of 1½ gallons.

Wheels and Tyres.

Having Dunlop 19 x 2.25" tyres, front and rear, the wheels have dull chrome rims and are built with 10 G spokes. All models have a 4" front brake, the rear brake on the F4 being 4½", and that on the F6S, the SB.1 and the CA8/9 being 5".

Transmission.

Final drive chain, ½" x ⅜" x .305" roller.

Saddle.

Large supple top, padded with wool felt and having both stretcher and rear springs on Models F4, F6S and F4F. Twinseat with foam rubber interior on Models SB.1 and CA8/9.

Handlebars.

Modern design, plated and polished, having fixed posts for the clutch and brake levers, the handlebars are adjustable for position as is the gear change lever on the Model F4.

N.B.—A number of F4F models have a two-piece handlebar fitted which gives independent adjustment on each bar.

Shields and Footboards.

Model SB.1 has metal side shields, quickly detachable from the frame; legshields and rubber covered footboards, the whole ensuring complete weather protection.

Toolbox and Equipment.

On Models F4, F6S CA8/9 and F4F, large tubular tool boxes are fitted, on Model SB.1 the tool box is a small compartment embodied in the side shield and closed by a flushfitting door.

Finish.

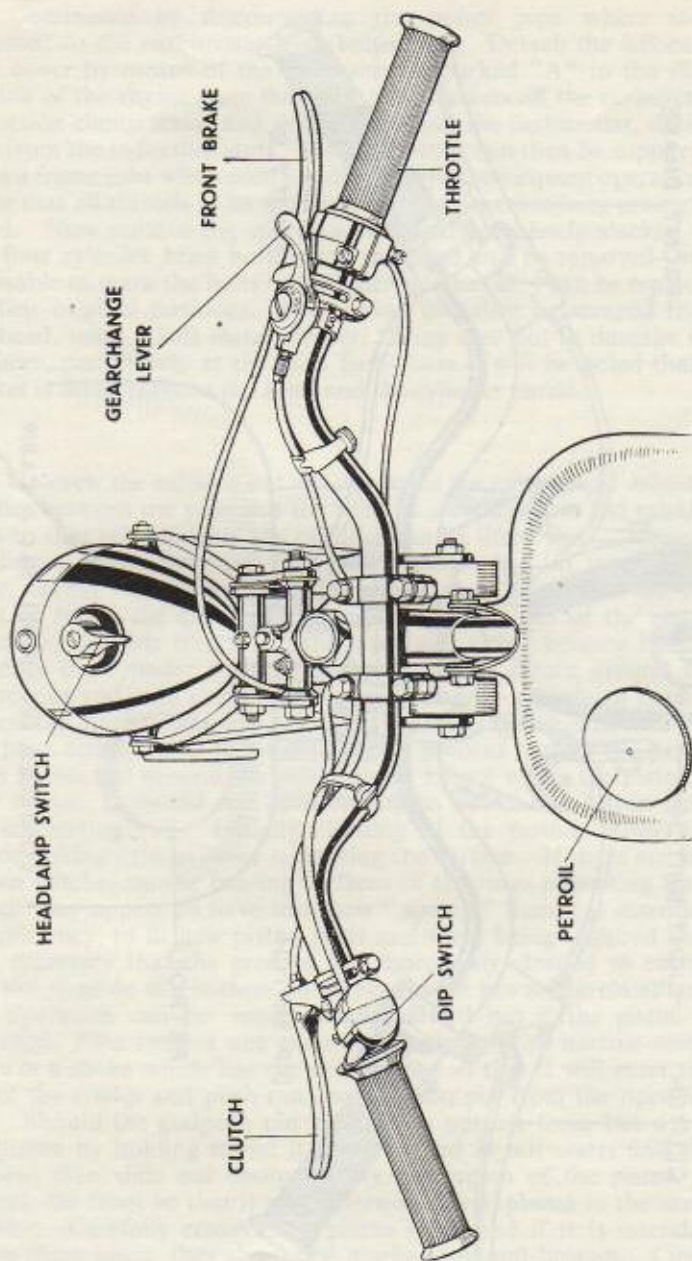
Frame parts rust proofed and stove enamelled in cactus green, handlebars with fittings and headlamp rim heavily plated and polished.

Weight.

F4/F4F ... 130 lb. F6S ... 140 lb. SB.1 ... 170 lb.
CA8/9 ... 150 lb.

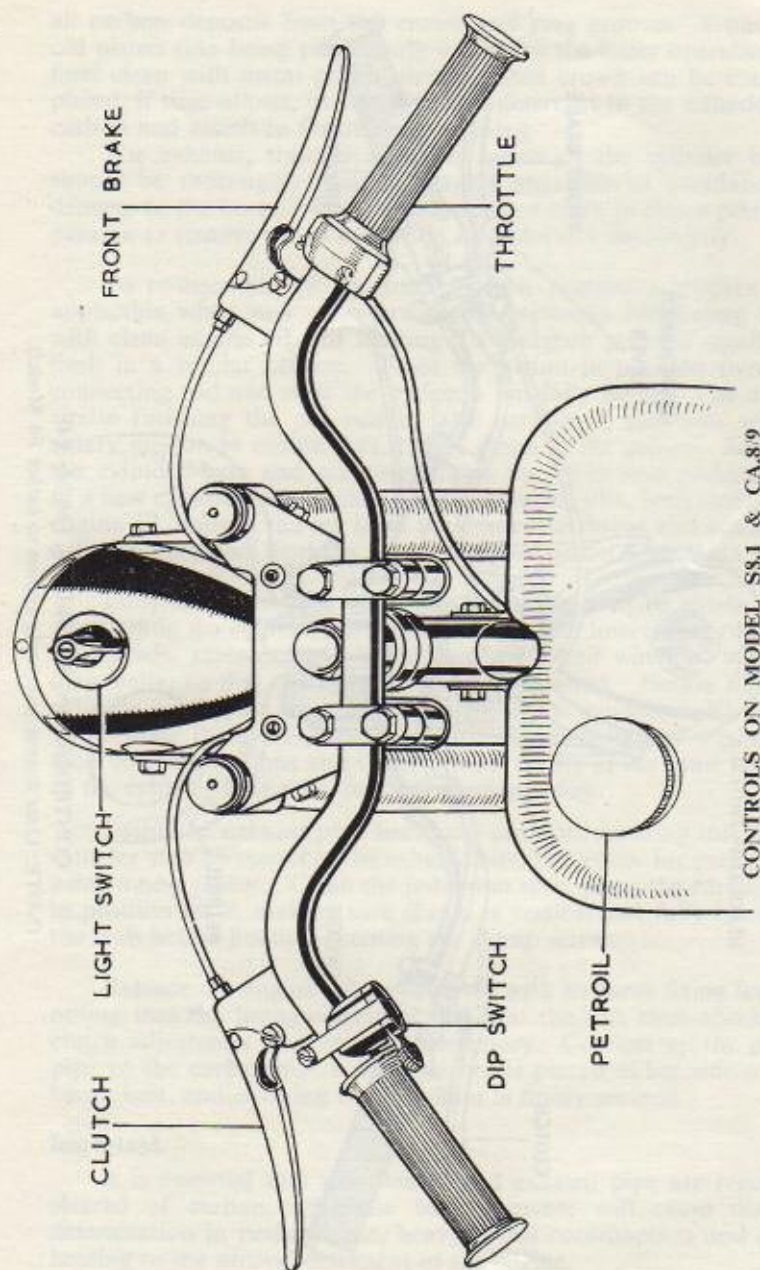
Preliminary.

The object of the rider should always be to maintain the machine in the condition in which it reaches him from the factory. Remember that dirt and wet are enemies and a scrupulous cleanliness should be observed to avoid damage to mechanism and clothing. Obviously, undue wear will follow inadequate lubrication, but don't overdo the oiling to the point where oil exudes onto the outside of the machine and remains there to collect dust. Remove all surplus oil as soon as it is noticed. Similarly, never tolerate a rattle, track it down and cure it before wear or damage eventuates. Don't be too lazy to attend to your tyre pressures and never be satisfied with a sloppy adjustment.



CONTROLS ON MODEL F4, F6S & F4F

(NOTE: Gear change lever only applies to earlier F4 Model)



Controls.

Those who are new to motor-cycling and indeed all who are making first acquaintance with the "Consort" or "Skutabyke" will do well to acquire a thorough knowledge of the positions and functions of the controls. Only when you are able to operate these automatically, without having to grope for them or think how to use them, will you be a really safe rider.

On the right handlebar is the twist grip controlling the throttle of the carburettor and thereby the speed of the engine—twisting the grip towards you, as you are seated in the saddle, opens the throttle, turning the grip away from you closes it. Fitted to the bar just inside the twist grip is the front brake lever, operation of this together with the similarly placed clutch lever on the left-hand bar is obvious after trial movement. Adjacent to the front brake lever on F4 is the gearchange lever, pulled towards you to select "high" gear and pushed away to select "low" gear.

The footchange lever on Models F6S, SB.1, CA.8 and F4F is on the right of the machine and may be placed in any convenient position on its serrated shaft. Pressing the lever downwards selects high gear, bringing it upwards selects low gear. Close to the left handlebar grip is the headlamp bulb dipswitch, the main light switch being located on the headlamp itself.

The rear brake is actuated by a pedal in a convenient position, adjustable for height, close to the left footrest, whilst on the right-hand side of the machine is the kickstarter lever.

Preparing the Machine for the Road.

Whilst every reasonable precaution is taken at the factory to ensure that each machine leaves the Works in perfect order, the new owner should satisfy himself on the following points when taking delivery.

Ascertain that the gearbox and primary chaincase has its correct quantity of oil. Check that the wheels spin freely and that both brakes are correctly adjusted. Test the front and rear springing for freedom and extent of movement and the tyres for correct pressure (refer to Tyre information).

TO START

Turn off the petrol tap, which is marked "Pull on" by pushing the slide into the tap body and fill the tank with a mixture of petrol and oil in the proportion of one part of straight oil to twenty parts of petrol or one part of self-mixing oil to sixteen parts of petrol.

There is an oil measure in the filler of the tank and 4 of these measures should be added to one gallon of fuel or 5 measures if self-mixing oil is used. Preferably, the oil and petrol should be thoroughly mixed in a separate container before pouring into the tank, otherwise they will not completely mix, the engine will not be correctly lubricated and the operation of the carburetter can be adversely affected. Use one of the grades of oil specified in the chart printed in this booklet and a good quality fuel.

Check that the gearchange lever is in the neutral position—the cover plate on hand change models is marked “LOW” for bottom gear, “N” which is neutral or free engine position and “HIGH” for top gear. Selecting neutral is sometimes made easier if the machine is moved gently backwards and forwards at the same time as the gear lever is operated. When making the initial start, or at any time with a completely cold engine, close the strangler shutter on the air filter, turn on the petrol tap, and depress the tickler on the carburetter until the fuel seeps from the float chamber, set the twist grip one-third to one-half open, slowly depress the kickstart lever two or three times to allow a full charge of fuel to be drawn in and then one sharp kick should start the engine. With the engine in motion, regulate its speed by moving the twist grip and as it warms up, the strangler shutter should be gradually moved round to the fully open position where it should be kept at all times during normal running and after the engine has attained a working temperature.

When restarting the engine whilst it is HOT, do NOT flood the carburetter and have the strangler shutter in the open position, the twist grip being set approximately one-eighth open.

FAILURE TO START.

If repeated kicks meet with no success after flooding (when cold), open the throttle (twist grip control) fully, turn off the petrol and resume kicking when the engine will probably go after several half-hearted starts. The throttle should then be closed and the petrol turned on again. If this fails, clean the sparking plug and if it is wet with petrol, remove the plug at the bottom of the crankcase (hexagon headed and found on the left-hand side). The engine should be kicked over several times with the sparking plug and drain plug out, petrol turned off and the throttle wide open; this will blow out any surplus petroil mixture; replace both sparking and drain plugs. If the engine still refuses to start, it may be due to one of the following causes:—

- (1) Kickstart being operated too slowly.
- (2) Magneto points out of adjustment; clean and reset to .015".

- (3) Plug dirty, wet or insulation cracked. Clean plug carefully and adjust the point gap to .020". Adjust by bending the outside point attached to the body of the plug in the required direction relative to the centre electrode, **BUT NEVER ATTEMPT TO BEND THE CENTRE ELECTRODE** as this will inevitably ruin the insulation.
- (4) Choked fuel supply—determine this by elimination, disconnecting the petrol pipe first and checking that a full flow exists through the petrol tap, this ascertained, connect up the pipe and again check fuel flow. When a machine is new, small impurities may accumulate and although precautions are taken by means of a filter in the petrol pipe banjo, it may be necessary to dismantle and thoroughly clean the carburetter if fuel starvation is suspected, but this is not normally required and is naturally to be avoided if possible.
- (5) H.T. lead disconnects from the sparking plug.

DRIVING

DRIVING AWAY.

To start from rest, having warmed up the engine and with it running gently, the gear being in neutral, free the clutch by means of the handlebar lever with the left hand. Retaining your grasp of the clutch lever, then, with the right thumb, push the gear lever forward to the **LOW** gear position, or, on a footchange model tread smartly upwards on the gear pedal and, if necessary, move the machine to allow the gear to be fully engaged. If when engaging bottom gear there is any tendency for "snatch" or unevenness of engagement, this tendency will be reduced if the clutch lever is pulled right up to the handlebar, the engine speed kept as low as possible and the gear lever operated smartly.

Gradually release your grip on the clutch lever and, at the same time, gently open up the throttle as you feel the clutch take up the drive. Do not open the throttle too wide, before fully engaging the clutch, but take care not to allow the engine to stall. Only practice will teach you how to use the clutch and throttle simultaneously and to the right degree to obviate excessive slipping of the clutch (a procedure which is to be avoided) or stalling of the engine.

By increasing the throttle opening, let the machine run up to 10-12 m.p.h. in low gear when high gear should be engaged. To do this, free the clutch as before and, at the same time, almost close the throttle then, whilst the clutch is disengaged, move the gear lever towards you into the **HIGH** position, or pull the footchange lever downwards as far as it will go. As soon as the high gear has

been engaged, release the clutch lever and open the throttle when the machine will continue to accelerate and subsequently, road speed can be governed by the throttle opening.

To change down from high to low gear, lift the clutch lever, slightly increase engine speed and move the gear lever smartly into the LOW position—release the clutch lever and regulate the road speed with the throttle.

Remember when changing up, lift the clutch and reduce engine speed; when changing down, lift the clutch and increase engine speed.

Note that if the machine is snatched forward when the clutch is re-engaged your engine speed has been too high. Conversely, if on changing down the machine receives a sudden check on reengaging the clutch, your engine speed has been too low. Properly performed, gear changing results in no snatch or check.

Do not retain high gear too long when climbing a hill, but make full use of the lower gear which is provided for this purpose.

Should you find it awkward or uncomfortable to use the gear lever, this can be adjusted to suit individual requirements by means of slackening off the handlebar clamp screw, correctly positioning and re-tightening the screw.

TO STOP THE MACHINE.

Except in emergency, all stops should be gradual and you should endeavour to judge your speed and that of other traffic in a manner as to avoid sudden, heavy braking.

To bring the machine to rest in the normal way, close the throttle and allow the engine to operate as a brake. Just before the machine comes to a halt, lift the clutch lever and apply the brakes. Put the foot not occupied in braking to the ground and keep the engine running gently by operating the twist grip. Whilst this is taking place retain your grip on the clutch lever, but should the stop be of more than momentary duration, select neutral gear and release the clutch lever to avoid unnecessary wear on the clutch inserts.

Remember when applying the brakes that with a locked wheel you are not obtaining so great a braking effort as is obtained by applying the brake just up to the point of skidding the wheel without actually locking it. Get into the habit of using both brakes in conjunction with each other and never forget that on a steep hill the front brake is particularly useful since the weight is thrown forwards thus imparting the effectiveness of the rear brake. Avoid fierce braking—except under stress of circumstances—at all times, but especially on wet roads or when the machine is actually rounding a turn or corner.

You may notice that, with a new machine, the brakes may lose their adjustment rapidly in the early stages, this is due to the

"bedding down" of the brake linings and the adjustment may have to be taken up once or twice in the first 100 miles or so. When the bedding down process has been completed, the brakes should remain effective for a considerable period without further adjustment.

When stopping the machine at the end of a day's run or if it is to be left at rest for any lengthy period, turn off the petrol 150 to 200 yards before your actual destination and let the engine run until all the fuel in the carburetter has been exhausted. In this way you will be assured that fresh fuel will be available for a re-start, especially if you agitate the machine in order to remix the "petroil" before turning on the petrol tap.

RUNNING IN.

For the first 500-800 miles, the machine must not be overdriven and during this period the throttle should not be fully opened as this governs the load on the engine which should not be allowed to race or run at high speed under light load.

Until the running-in period has been completed try, as a general rule, not to exceed 10 m.p.h. in low gear and 20 m.p.h. in high gear. These speeds need not be adhered to rigidly, but let any increase, consistent with the mileage which the machine has covered, be gradual and in easy stages. It is erroneous to think that, at the completion of a set period, the engine can at once be used at much wider throttle openings than have been formerly employed—nurture the machine during its initial life bringing the engine to its maximum performance progressively and such care will be amply repaid in terms of longer life and better performance.

It is possible that when the running-in has been completed, it will be necessary to weaken the mixture of fuel to air passed by the carburetter to the engine and this is done by slightly lowering the taper needle, this adjustment being dealt with later on in the handbook.

LUBRICATION

ENGINE.

As already indicated the main functional parts of the engine are lubricated by the petroil system of adding oil to the fuel in a proportion of one to twenty or one to sixteen parts as previously specified.

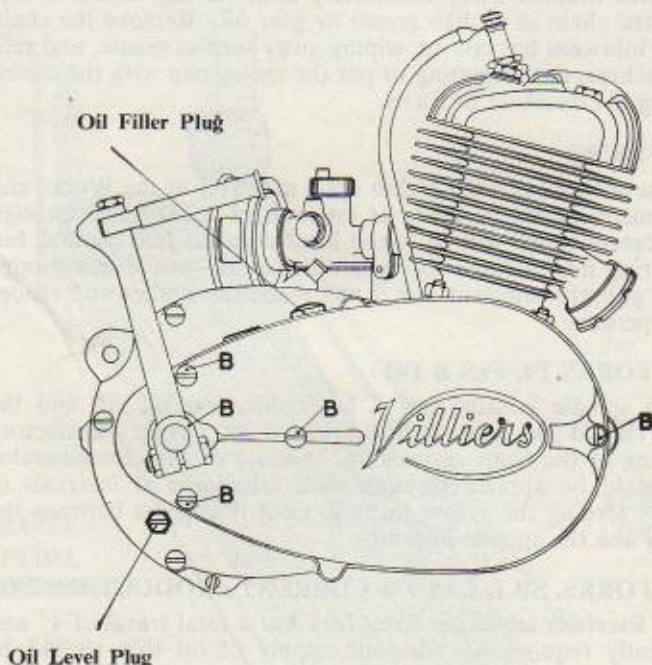
Recommended oils for the engine and other lubrication points will be found in the separate chart.

The Excelsior Motor Company, Limited.
RECOMMENDED LUBRICANTS
 FOR "CONSORT" AND "SKUTABYKE" MODELS

	SHELL	MOBIL	BP	WAKEFIELD	ESSO
ENGINE (Mix oil with petrol in the ratio of 1 : 20 unless otherwise stated)	Shell 2T Two Stroke Petroler Mix or Shell 2T Two Stroke Oil	MobilMix TT (1 : 16) or Mobiloil A	Energol Two Stroke Petroler Mix or Energol Two Stroke Oil	Castrol Two Stroke Oil (1 : 16) or Castrol XI	Esso Two Stroke Motor Oil (1 : 16) or Essolube 30
GEARBOX PRIMARY CHAINCASE REAR CHAIN	Shell Dentax 140	Mobilube C140	Energol SAE 140	Castrol D	Esso Gear Oil 140
WHEEL HUBS REAR SUSPENSION (SBI & F6S) FRONT FORKS (F4 & F6S)	Shell Retimax A	Mobilgrease MP	Energol L2	Castrolcase Heavy	Esso Multi-Purpose Grease H
FRONT FORKS (SBI & CA8)	Shell Dentax 140	Mobilube C140	Energol SAE 140	Castrol D	Esso Gear Oil 140

CLUTCH AND PRIMARY CHAINS.

The clutch and primary chain are totally enclosed and run in oil. Having the machine on an even keel but off the stand, remove the oil level plug and oil filler plug as indicated on the illustration below.



Pour into the filler plug orifice one of the recommended grades of lubricant until it runs out from the level hole when both plugs should be replaced. Always thoroughly clean around the plugs before their removal to avoid ingress of foreign matter whilst topping up.

The level should be checked every 500 miles and, if necessary, topped up.

GEARBOX.

This is lubricated integrally with the primary chain and clutch dealt with in the previous paragraph.

REAR CHAIN.

If you use oil, as recommended for the chain, use it sparingly and frequently at intervals of not less than 500 miles. Grease may be preferred since this is not so readily flung off by rapid motion and, this being so, it is advisable to detach the chain every 2,000 miles or so, wash it thoroughly in paraffin, hang it up until the paraffin has drained away completely and, having wiped it dry, immerse the chain in molten grease or gear oil. Remove the chain when the lubricant has cooled, wiping away surplus grease, and refit to the machine, not forgetting to put the spring clip with the closed end facing the direction of travel.

WHEEL HUBS.

These are packed with grease upon assembly at the Works and replenishment should be made at intervals of 2,000 miles through the lubricators which will be found located in the hub centres, but remembering not to force too much grease in—half dozen pumps from the gun are sufficient—or it will reach the brakes and render them inoperative.

FRONT FORKS F4, F6S & F4F.

Each spindle housing has a lubricator, four in all, and the spindles should be kept well lubricated to ensure satisfactory functioning of the front suspension. Grease of the recommended grade should be applied through each lubricator at intervals of 500 miles, forcing the grease through until it appears between the side links and the spindle housings.

FRONT FORKS, SB.1, CA8/9 & CURRENT PRODUCTION F4F.

The Excelsior telescopic front fork has a total travel of 4" and consequently requires an adequate supply of oil that should be applied to the sliding tubes fairly frequently to ensure easy operation. Under no circumstances should grease be used as this will render the forks sluggish and does in any case provide inadequate lubrication for the bushes. Gear oil of one of the recommended types is most satisfactory and three or four shots from the oil gun should be given to each leg at weekly intervals. The lubricators are positioned on the rear of the main outer tubes immediately above the fork crown which clamps around these tubes as illustrated in the assembly drawing that appears later.

STEERING HEAD.

This, too, is packed with grease upon assembly and under normal conditions does not require replenishment, unless the head is dismantled, after some considerable period of use for the fitting of replacement parts.

REAR SPRING BOXES, F6S & SB.1.

These are packed with grease upon assembly at the Works and replenishment of lubricant will usually be required at intervals of about 1,000 miles.

To obtain access to the internal parts of the Spring boxes, prise upwards the flat plates on the inside of the boxes and withdraw the main covers outwards—this is facilitated on the left hand side if the rear chain guard is first removed. Then liberally apply a medium to hard density grease to the moving parts, and replace covers, tapping home the securing plates.

Periodically clean the vertical tubes, on which the spring boxes move, in the case of the upper ones exposing them by compressing the plastic gaiters and smear grease on the parts of the tubes, both upper and lower, that are exposed.

REAR SUSPENSION CA8/9.

The swinging arm is mounted on Silentbloc bushes and, therefore, does not require lubrication. A similar instruction applies to the rear suspension legs, another important point being that topping up is not required, and further, no provision of this nature is made.

ADDITIONAL ITEMS.

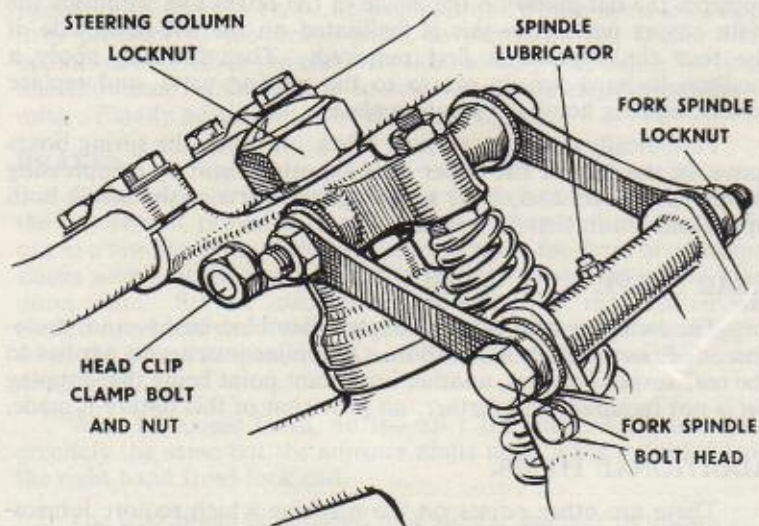
There are other points on the machine which require lubrication, and which we suggest be carried out at intervals of 500 miles, to maintain sweetness of control and operation and which may possibly be overlooked. In each instance, a few drops of oil applied from an oil can is all that is necessary; (a) The exposed portions of all cable, (b) the pivot pins of the brake and clutch levers, (c) the brake pedal pivot bolt, (d) the centre stand pivot bolts, (e) the front brake actuating lever and clevis connection, (f) the rear brake actuating lever and rod connection.

ADJUSTMENTS

STEERING HEAD.

Normally the top and bottom ball races for the steering head will require very little attention, but they may settle down during the early life of the machine when adjustment will be needed, otherwise wear on the races will be accelerated and irregularity in control will be promoted.

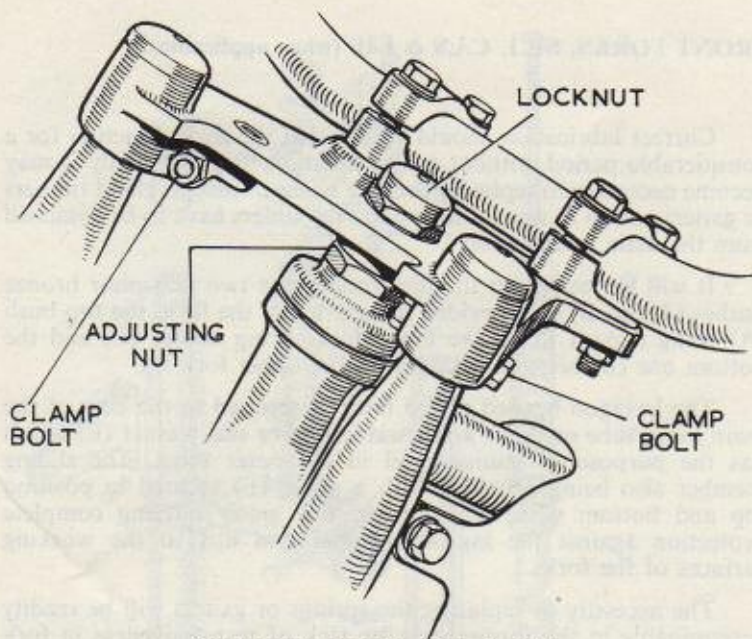
To determine play in the steering head, which should in any case be fairly obvious, sitting astride the machine, firmly grasp the front brake lever and gently rock the machine backwards and forwards, meanwhile placing a finger of the left hand across the bottom steering head races.



STEERING HEAD—F4, F6S & F4F

Assuming play to have been determined, adjustment is effected in this manner—placing the machine on its stand, slacken off the nut of the head clip clamp bolt three or four turns and gently tap the clamp bolt through so that it no longer tightens onto the fork column. Then turn the steering column locknut in a clockwise direction until such time as the play has been taken out—the handlebars should be free to move without perceptible play in the races. Finally, tighten up securely the clamp bolt and nut.

With telescopic forks Models SB.1, CA.8 and some F4F, slacken off the two clamp bolts securing the top yoke to the main outer tubes, and also the top lock nut, then tighten down the adjusting nut. Do this until play has been eliminated, meanwhile ensuring that the forks will move freely from lock to lock. Using a mallet, tap down the top yoke to ensure alignment between the fork column and the main tubes and when this has been carried out, tighten the two clamp bolts and the yoke locknut. Finally, test again for freedom of the steering.



STEERING HEAD—SB.1 & CA.8

FRONT FORKS, F4, F6S & F4F.

On the 1953-1954 F4 Models each of the 4 spindles has an integral hexagon head and at the opposite end is secured with a similar nut—the links have a plain hole drilled in one end and are screwed at the other.

To take up side play, which may develop after some usage, the adjustment is quite simple, but it is essential to deal with only one spindle at a time. Slacken off any one nut (not the bolt head) and then turn the bolt head in a clockwise direction as far as it will go and at the same time depress the forks to ensure that free motion still exists. Firmly tighten up the spindle nut and deal with the other three spindles in the same manner.

The upper fork spindles and links on the 1955-1957 F4 and the F6S are similar to those on the earlier model and the method of adjustment is the same. However, the lower spindles are of both greater diameter and of a different pattern and therefore a correspondingly different method of adjustment is used. Slacken off the right hand side nut on either lower spindle, but do not disturb the left hand side nut, then turn the squared end of the spindle in a clockwise direction until play is eliminated, taking the same precaution of depressing the forks for freedom of movement and finally retighten the right hand nut. The other lower spindle is treated in the same way.

FRONT FORKS, SB.1, CA.8 & F4F (when applicable).

Correct lubrication should ensure that the forks function for a considerable period without other attention, but eventually it may become necessary to replace either the bushes, springs, gland rubbers or gaiters and to fit any of these parts the sliders have to be detached from the main outer tubes.

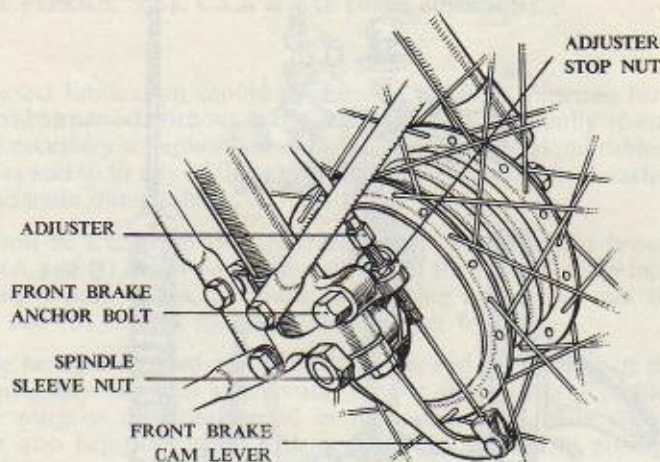
It will be seen from the illustration that two phosphor bronze bushes (A and B) are provided in each leg of the fork, the top bush (A) being a push fit on the lower fork spring holder (C) and the bottom one (B) being a sliding fit in the upper fork leg.

The hexagon headed plated nut (D) screwed to the base of the main outer tube contains a renewable rubber seal washer (E) which has the purpose of retaining oil in the outer tube. The sliding member also being provided with a gaiter (F) secured in position top and bottom with steel circlips, this gaiter offering complete protection against the ingress of mud and dirt to the working surfaces of the forks.

The necessity of replacing the springs or gaiters will be readily determinable in the former case by lack of responsiveness in fork action and in the latter case by their appearance but may not be quite so obvious where the bushes are concerned. Excessive fore and aft play at the front wheel, particularly when the front brake alone is used, is a firm indication, but do not confuse this with play which may have developed in the steering head races. Always ensure that these are kept correctly adjusted otherwise irregularity in steering and control will be present.

Taking the replacement of wearing parts collectively it is obvious that the front wheel must first be removed and to do this operate the brake lever with the left hand, with the right hand hold the brake cam lever in the up position and with the amount of free cable thus gained, the nipple on the end of the cable may be removed from the knuckle. Slacken the left hand spindle nut and remove the brake anchor bolt which is in the right hand fork lug immediately above the spindle nut. Unscrew both the bolts from the clamp on the right hand fork end and remove the clamp. The wheel may now be lifted clear. It is not necessary to interfere with the sleeve nut on the right hand end of the spindle unless it is desired to remove the brake outer plate. To do this, the sleeve nut must be removed.

Having done this, prise off both plated caps (G) from the top of the fork legs, the caps being held in position by steel spring tongues, thus exposing the top control rods (H) each secured in position by a lock-nut (I) and the latter should be slackened off



FRONT HUB AND BRAKE ADJUSTMENT ON SB.1 & CA.8/9

and completely removed. Slide the top of the rubber gaiters (F) from the gland nuts (D) whilst releasing pressure on the circlips that retain them in position, then completely unscrew both gland nuts so that they are released from the main outer tubes (N). The lower sliding members (J) can now be rotated in an anti-clockwise direction until removal from the main outer tubes is effected. The sliding members will be withdrawn complete with the springs (M) spring holders (C and O), control rods, bushes and gland nuts as built-up assemblies, and it will be seen that the springs contain a rubber buffer (K) which alleviates bottoming of the fork under heavy sudden load.

The spring sub assemblies are attached to the sliders by brass pegs (L) and upon tapping these pegs through the slider tubes the bottom spring holders (C) can be parted from the tubes. If attention is required to the bushes, gland rubbers or gaiters, discard for the present time the springs, etc., and slide the gland nuts, with them the lower bushes, from the tubes, leaving the gaiters in position. Should new gaiters be required release the lower circlips, withdraw the gaiters, and drop new ones into position, opening the circlips and securing them against the lip of the gaiters. Excessive wear on the lower bushes generally has the same result upon the sealing rubbers which are contained within the gland nuts and it is advisable to fit new rubbers at the same time as bushes. The old gland rubbers should be prised out of the nuts with a sharp ended tool such as

an old spoke ground at the end and new ones pressed into the recess, this operation being facilitated by smearing the inside of the nuts with grease. Put a small quantity of oil on the working faces of the sealing rubbers, slip the nuts back on to the slider tubes, followed by new lower bushes, the shoulders of which are placed within the nut to hold them captive when assembled against the main outer tubes.

To fit new springs and approaching each sub assembly individually, hold the top control rod in a vice, the jaws of which should be protected, grasp the spring firmly in the centre and twist in an anti-clockwise direction, meanwhile pulling the spring away from the top holder when the two parts will be separated. The new spring is then pushed onto the holder turning in a clockwise direction and pressing until the leading coil drops into the undercut at the top of the holder. Refit the buffer, detach the upper bush (A) from the lower spring holder (C) and holding the latter part in a vice push the spring on to it in a like manner to that of fitting the spring to the top holder which is then inserted into the slider so that the holes in the parts line up and tap back the brass peg (L).

The slider assemblies, with springs, etc., are now inserted into the main outer tubes screwing in a clockwise direction until the control rods are $\frac{1}{4}$ " from the top of the outer tubes and the fork ends are in line. Completely tighten the gland nuts onto main outer tubes, secure gaiters in position over the nuts, apply locknuts to control rods, fully tightening, and finally replacing top caps by snapping them into position.

As a precautionary measure it is advisable to grease liberally all internal parts prior to and during assembly. All threads used on the fork are right hand.

DRIVING CHAINS.

The primary chain is pre-stretched, runs in oil and is completely protected, therefore it has a considerable life and there is no provision for adjustment. After prolonged use the up and down play will increase and it is considered that if this dimension reaches approximately 1" then replacement of the chain is desirable, but due regard should be paid to the fact that wear is generally consistent throughout the primary drive and the sprockets will be affected in a manner similar to the chain.

To adjust the rear chain, place the machine on the centre stand, slacken off the rear wheel spindle nuts and the bolt which secures the brake anchor plate to the swinging arm on Model CA.8 (the brake anchor bolt is located on the left hand side, as illustrated).

Then screw up the nuts that are fitted at each rear fork end, ensuring that they are turned an equal amount otherwise the wheel will be pulled out of line, until there is $\frac{1}{8}$ "— $\frac{3}{4}$ " up and down movement of the chain at the tightest point. It may be found that the chain is tighter at some positions than others, but so long as the wheel is true in the fork ends this can be disregarded. Tighten up the wheel spindle nuts and the brake anchor bolt and at the same time apply firm pressure to the brake pedal to centralise the brake. This operation may effect the chain tension, usually tightening the chain, and allowance for this should be made when screwing up the adjuster nuts. Finally adjust the rear brake as required.

BRAKES.

Correctness in brake adjustment is of paramount importance; the adjustment provided is of a simple nature and can be carried out in a few moments. That at the front takes the form of a hexagon sleeve with adjusting stop nut that seats on a bracket of the brake outer plate. Set the machine on the stand, lift the adjuster with the left hand and screw down the locknut until the brake is dragging when the wheel is spun, then turn back the locknut until the drag disappears.

With telescopic forks, on the SB.1 the form of adjustment is precisely the same but the adjuster abuts upon a lug extended from the right hand front fork end.

The rear brake is adjusted in a similar manner by means of a knurled adjuster located on the brake rod near the brake. Screw the adjuster in a clockwise direction until the brake drags, then screw adjuster back until drag can no longer be felt.

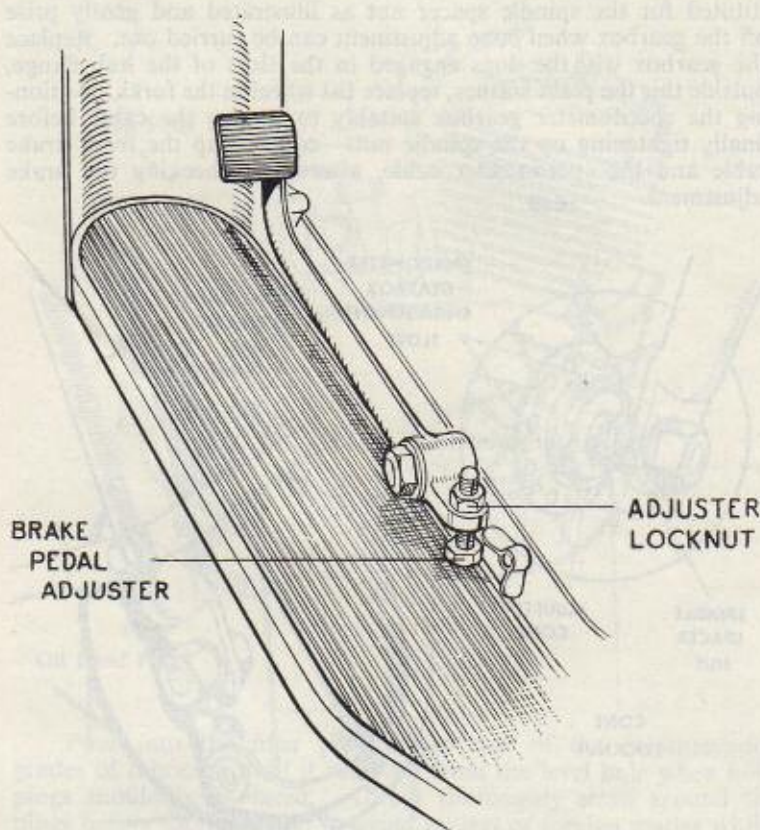
On the rear brake pedal and mounted immediately beneath the left-hand footrest is an adjuster, by means of which the position of the pedal can be altered to suit individual requirements. After slackening off the locknut, screwing the adjuster in raises the brake pedal, and screwing out lowers the pedal—after setting the position required, tighten the locknut and re-adjust the brake in the manner outlined above.

On Model SB.1 this pedal adjuster is screwed into an extension of the pedal and the head of the adjuster rests on the footboard. After loosening the locknut, screwing the adjuster upwards raises the pedal, screwing downwards lowers it.

WHEELS.

Play in the wheel bearings can be felt by grasping the wheel rim and gently pushing it to and fro sideways. Both front and rear wheels are fitted with cup and cone bearings and therefore the method of adjustment is precisely the same.

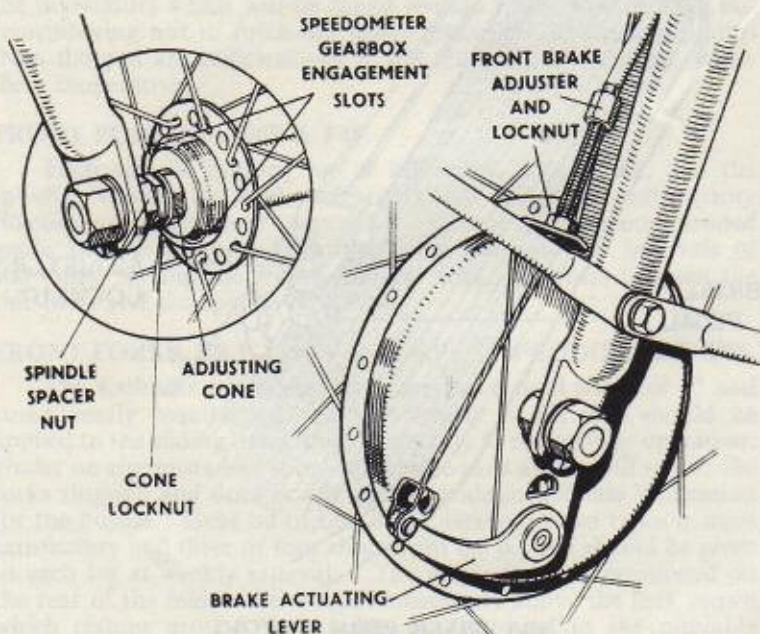
In the case of the front wheel, to obtain correct adjustment set the machine on its stand, slacken off the right-hand wheel spindle nut three or four turns, the spindle spacer nut a similar amount and then slacken off the cone locknut sufficiently to insert the cone spanner onto the flats of the adjusting cone which is turned in a



SB.1 BRAKE PEDAL LAYOUT

clockwise direction, whilst at the same time, testing for play. When all play has been taken up, tighten the locknut and test the wheel for free rotation—the wheel should be free to move without there being any perceptible play existent at the wheel rim. This being so, tighten the spindle spacer nut and finally the wheel spindle nut.

NOTE.—If a speedometer is fitted, then the driving gearbox conceals the adjusting cone and it will be necessary to remove the front wheel from the forks to allow access to this cone. Detach the flexible cable where it is connected to the speedometer gearbox and also the brake cable from the clevis on the brake actuating lever. Slacken off both spindle nuts and drop out the wheel. Remove the right hand spindle nut and plain washer which is substituted for the spindle spacer nut as illustrated and gently prise off the gearbox when cone adjustment can be carried out. Replace the gearbox with the dogs engaged in the slots of the hub flange, outside this the plain washer, replace the wheel in the forks, positioning the speedometer gearbox suitably to receive the cable before finally tightening up the spindle nuts—connect up the front brake cable and the speedometer cable, afterwards checking the brake adjustment.



F4, F6S & F47 FRONT HUB

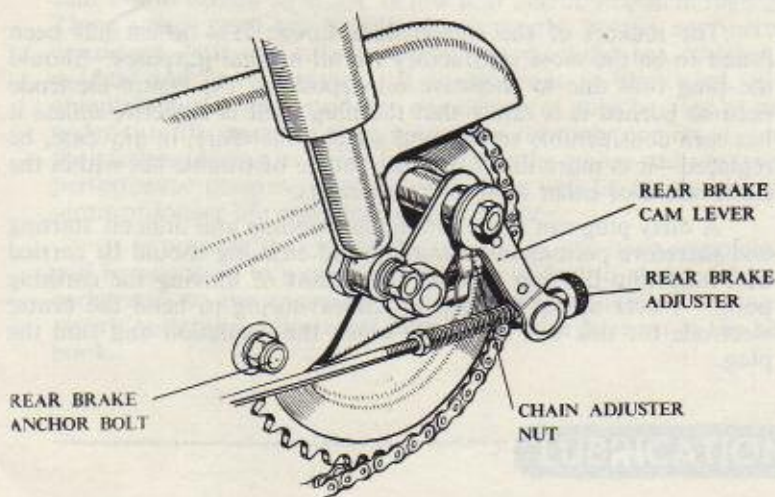
For rear wheel bearing adjustment, slacken off the right hand spindle nut and the cone locknut (easier access can be made by slipping the chain adjuster out of position), turning the adjusting cone clockwise, checking for freedom, subsequently securing the locknut, replacing the chain adjuster and tightening firmly the wheel spindle nut.

REAR SUSPENSION—MODEL CA8/9.

The fact that no maintenance is required has previously been referred to, and one may anticipate considerable life from the units providing that they are not damaged by accident or suffer from the ingress of foreign matter. Occasionally the top and bottom rubber bushings should be examined to ensure that they are not distorted. If this is confirmed the bushes should be replaced but as they are compressed between the eye and the sleeve, special tools are required, and this is a repair which must be undertaken either by the makers or one of their agents.

The suspension units are not intended to be dismantled and no endeavour of this nature should be made.

Brief mention is made earlier in the handbook that the swinging arm is pivoted on Silent bloc bushes which require neither lubrication nor adjustment. The bushes, which are mounted in the frame cross tube, have infinite life and the possibility of replacement cannot readily be foreseen—it is, in any case, a Works repair to fit



REAR END LAYOUT

new bushes. Should it be desired that the swinging arm is detached from the frame, and after having removed the suspension units, remove both pivot spindle nuts and tap out the spindle itself. When re-assembling it will be noted that tightening of the spindle nuts holds the arm in a pre-determined position, and to ensure that no undue deflection of the bushes takes place, the swinging arm should be

positioned so that it is midway between the normal extremities of its travel (when the rear suspension units are in position) then firmly tighten up the spindle nuts so that the swinging arm will have to be pressed to allow the suspension units to be attached.

TYRES.

Always keep the tyres inflated to the recommended pressure to ensure trouble-free service. Under-inflation will quickly ruin a tyre.

The booklet issued by the Dunlop Rubber Company Limited contains much detailed information on the care and maintenance of the Dunlop tyres fitted, and if a copy was not supplied with the machine, you can obtain one upon request to the manufacturers.

The recommended tyre pressures are:—

Front Wheel

Rear Wheel

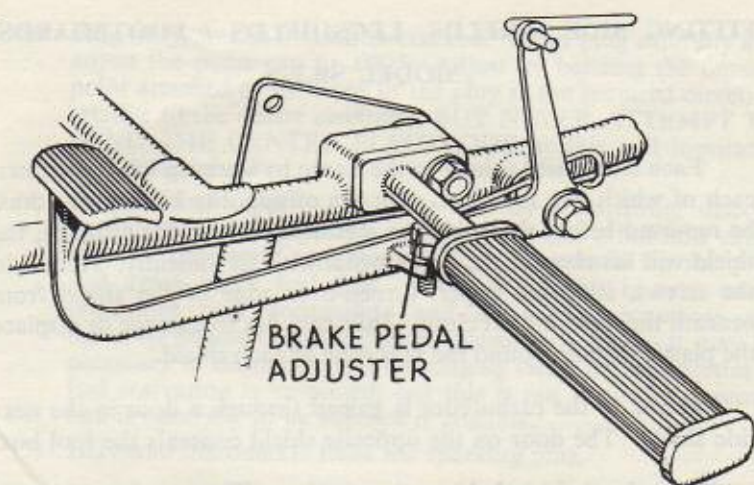
18 lb.

27 lbs.

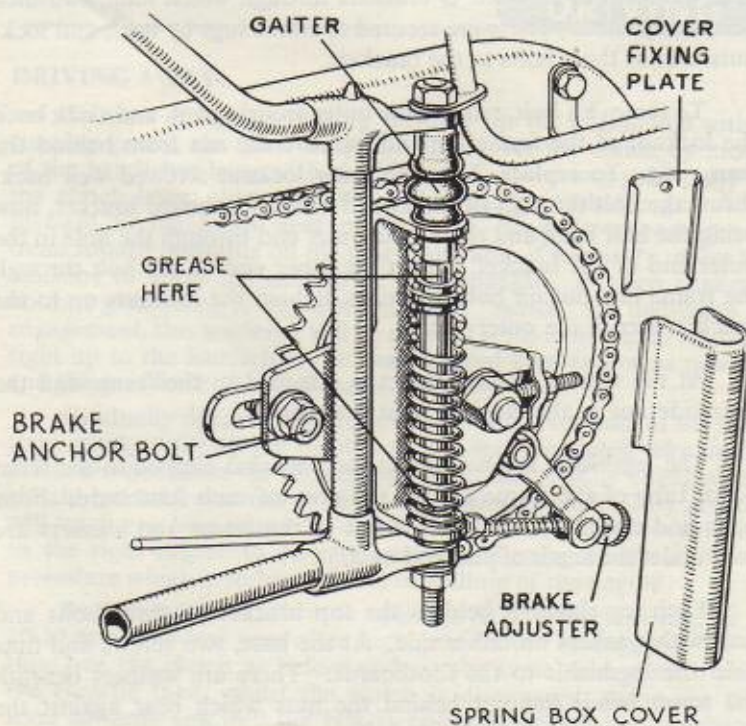
SPARKING PLUG.

The makers of the engine fit a Lodge H14 which has been found to be the most satisfactory for all normal purposes. Should the plug foul due to excessive oil deposit or the centre electrode become burned it is rarely that the plug itself is defective unless it has seen considerable service and should, therefore, in any case, be replaced—it is more likely that the source of trouble lies within the carburation or other ignition components.

A dirty plug can cause indifferent running and difficult starting and therefore periodic examination and cleaning should be carried out, adjusting the gap to .020" by means of moving the earthing point. Never adjust the gap by endeavouring to bend the centre electrode for this will inevitably crack the insulation and ruin the plug.



F4, F6S & F4F BRAKE PEDAL LAYOUT



SB.1 & F6S REAR SUSPENSION

FITTING SIDE SHIELDS, LEGSHIELDS / FOOTBOARDS, MODEL SB.1.

Each side shield is held to the frame by six wing-headed screws, each of which has a washer. On the offside, the kick starter must be removed before removing the legshield, but on the nearside, the shield will lift clear of the brake pedal without difficulty. Just undo the screws, slide the upper, turned-over edge of the shield from beneath the tank and lift clear. Take care not to damage or displace the plastic edging around the rear edge of each shield.

Access to the carburettor is gained through a door in the near side shield. The door on the opposite shield conceals the tool box.

Each foothold is held at three points. The two forward ones take the form of inverted U brackets through which long, half-inch bolts are passed. These are secured to frame lugs by nuts, and lock-nuts anchor these bolts to the brackets.

To remove a bolt, remove the outer securing nut, and slack back the locknut at the frame lug end, remove the nut from behind the frame lug. To replace, have the inner locknut screwed well back, thrust the bolt through the inner end of the footboard bracket, now bring the bolt back and thread the outer end through the hole in the outer end of the bracket. Insert the inner end of the bolt through the frame lug, put on both end nuts, tighten the locknuts on to the bracket, secure the outer nut.

At the rear, a single bracket is attached to the frame and the near side one is also used to hold the silencer.

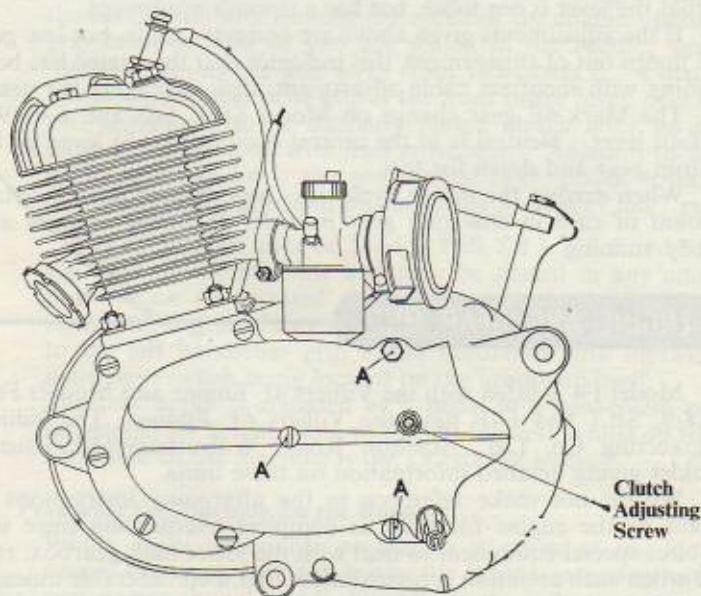
The legshields are held to the top bracket clipped to the front down tube of the frame and to the nose of each footboard. Four bolts and nuts hold the top bracket to the frame and washers are used under the heads of pins and nuts.

Each leg shield is held to the top bracket by three bolts and nuts with washers on either side. At the base, two screws and nuts hold the legshields to the footboards. There are washers beneath the screw heads but not behind the nuts which bear against the turned-over edges of the footboards.

CLUTCH AND GEAR CONTROL CABLES.

Clutch and gear cables where fitted, should be regularly adjusted to enable easy engagement of the gears, so preventing unnecessary wear and possible damage to internal parts.

There should be a small amount of slack in the clutch cable when the clutch is fully engaged—a minimum of $\frac{1}{16}$ " is recommended. The adjustment is carried out by means of the screw indicated on the illustration below.



Slacken off the locknut with a spanner in an anti-clockwise direction and then turn the adjusting screw in or out as required to obtain the correct amount of play which is readily determined by movement of the handlebar clutch lever, afterwards tightening the locknut. When the machine is new, rather more frequent adjustment may be required owing to the bedding down of the clutch insert surfaces. Insufficient slack in the clutch cable or riding with the hand tensed upon the clutch lever will cause the clutch to slip and eventually result in damage to the clutch surfaces.

We cannot over emphasize how essential it is to keep the gear cable correctly adjusted otherwise the gears can be seriously damaged and it will be found that they will not remain engaged.

There must always be a slight amount of slack movement in the cable when the handlebar gear control lever is in the "HIGH"

position, $\frac{1}{16}$ " slackness being adequate; this ensures that the "LOW" gear is fully engaged, a spring being used to retain the gears in "HIGH."

This cable has two adjusters, one about half-way between the control lever and the gearbox, and the other on the control lever itself, thereby providing adequate adjustment over a considerable period—the method of adjustment will be self-explanatory after trial movement.

The screw on top of the gear control lever must be kept tightened so that the lever is not loose, but has a smooth movement.

If the adjustments given above are correctly made, but low gear still jumps out of engagement, this indicates that the engine has been running with incorrect cable adjustment, thus damaging the gears.

The Mark 6F gear change on Model SB.1, F6S and CA8/9 is by foot lever. Neutral is in the central position; move lever up for bottom gear and down for top.

When driving the motor cycle, it is necessary to take a certain amount of care in changing gear in order to obtain smooth and steady running.

ENGINE AND GEAR UNIT

Model F4 is fitted with the Villiers 4F Engine and Models F6S, CA8/9, SB.1 and F4F have the Villiers 6F Engine. The Villiers Engineering Co. Ltd., Marston Road, Wolverhampton, issue a booklet giving detailed information on these units.

We do not make reference in the aftergoing instructions in regard to the engine for such as complete overhauling since this requires special equipment to deal with the lower half, gearbox, etc., and when such attention is necessitated after a considerable mileage, then we strongly recommend that this be entrusted to your local EXCELSIOR agent or the manufacturer's service department where the necessary facilities are available. The aftergoing is, therefore, confined to the normal adjustments which should be carried out to maintain the engine in good tune and which can be successfully undertaken by the average rider.

DECARBONISING.

This may be necessary with new engines after the first 1,000 miles and every 2-3,000 miles thereafter, depending upon the type and quality of the fuel used and the conditions of usage.

After approximately 1,000 miles have been covered, the carbon deposit in the cylinder head and on the piston crown may be only light and if this is so, then no purpose will be fulfilled in removing this deposit and it will be satisfactory for the decarbonisation to be deferred until 2-3,000 miles have been covered.

Commence by disconnecting the petrol pipe where it is attached to the carburetter by a banjo bolt. Detach the left-hand side cover by means of the three screws marked "A" in the illustration of the engine from this side, then slacken off the carburetter induction clamp screw and gently oscillate the carburetter, detach this from the induction stub. The carburetter can then be supported from a frame tube with a cord out of the way of subsequent operations. Note that all threads to be dealt with whilst decarbonising are right-hand. Now remove the sparking plug and completely slacken off the four cylinder head bolts when the head can be removed—it is advisable to mark the bolts and washers so that they can be replaced in their original positions. The carbon can then be scraped from the head, using a soft metal scraper, taking care not to damage the surfaces, particularly at the joint face—here it will be noted that a gasket is fitted between the head and the cylinder barrel.

Unscrew the exhaust nut which retains the copper and asbestos washer between the pipe and the exhaust stub and turn the exhaust pipe so that subsequently the cylinder can be lifted clear. Remove the four cylinder base nuts and plain washers and lift the cylinder clear, taking care to support the piston as it emerges. Do not twist or rotate the cylinder when lifting or the ends of the piston rings may become trapped in the ports and either become broken or score the cylinder bore. Fill the crankcase throat around the connecting rod with clean rag to prevent ingress of foreign matter. Unless the machine has seen some considerable service, when carbon will have accumulated in the piston ring grooves and on the piston faces above and around the gudgeon pin bosses where the piston is oval turned, it should not be necessary to detach the piston from the connecting rod. Initially cleaning of the piston crown will suffice, taking care to avoid scratching the surface. If there are any brown patches on the bearing surfaces of the rings indicating leakage or they appear to have lost their "spring," then it is essential, for efficiency, to fit new piston rings and these being required then it is necessary that the grooves are thoroughly cleaned to ensure that the rings do not bottom on carbon which has accumulated and this operation can be more readily carried out if the piston is detached. First remove one gudgeon pin circlip with narrow-nosed pliers or a spoke which has the end ground so that it will enter the ear of the circlip and push out the gudgeon pin from the opposite side. Should the gudgeon pin be stiff, do not use force but warm the piston by holding round it a rag soaked in hot water and the pin will then slide out easily. Mark the crown of the piston to indicate the front so that it may afterwards be replaced in the same position. Carefully remove the piston rings and if it is intended to use them again, they should be marked top and bottom. Clean

all carbon deposits from the crown and ring grooves—a piece of old piston ring being particularly useful for the latter operation. A final clean with metal polish on the piston crown can be contemplated, if time allows, as this acts as a deterrent to the adhesion of carbon and assists in future decarbonising.

The exhaust, transfer and inlet ports of the cylinder barrel should be thoroughly cleaned (paying attention to avoidance of damage to the bore.) Wash all parts when clean in either petrol or paraffin to remove traces of carbon dust and dry thoroughly.

To re-assemble, fit the rings in their respective grooves (not applicable when new rings are used), copiously lubricating these with clean engine oil and treating the gudgeon pin and small end bush in a similar fashion. Place the piston in position over the connecting rod and slide the gudgeon pin fully home. Use a new circlip (utilising the old one is false economy), and refit with a rotary motion to ensure that it beds down in the groove. See that the cylinder base and crankcase faces are clean and undamaged, fit a new cylinder base washer, lightly smearing this, both sides, with engine oil, remove the rag from the crankcase throat and smear the cylinder bore and working surfaces of the piston with clean oil.

Fully compress the rings, one at a time will be easier, then gently slide the cylinder barrel over the piston, lowering it onto the base studs, replace the cylinder base nuts and washers, working diagonally, so that the cylinder is evenly secured. Ensure that the cylinder head joint faces are clean, fit a new cylinder head gasket and replace the cylinder head with the fixing bolts and washers in their correct positions and tighten down evenly in the same manner as the cylinder base nuts, refit the sparking plug.

Swing the exhaust pipe back into position, securing this to the cylinder stub by means of the exhaust nut, and again, for preference, using a new gasket. Clean the induction stub, place the carburetter in position on it, making sure that it is vertical and fully home on the stub before finally tightening the clamp screw.

Replace the engine left-hand cover with its three fixing screws, noting that the hexagon headed one is at the top, then check the clutch adjustment and correct if necessary. Connect up the petrol pipe to the carburetter, a fibre washer is placed either side of the banjo bolt, and ensuring that the filter is firmly secured.

Important.

It is essential that the silencer and exhaust pipe are regularly cleared of carbon, otherwise back pressure will cause marked deterioration in performance, heavy petrol consumption and overheating to the general detriment of the engine.

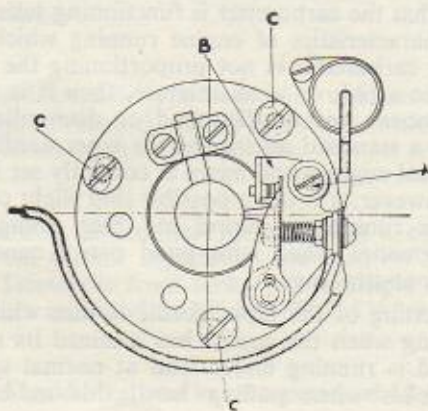
The greatest accumulation of carbon in the exhaust pipe will usually take place nearest the cylinder, and scraping away will suffice for about 5,000 miles, although during this period carbon will have adhered to relatively inaccessible parts of the exhaust pipe and silencer and the most satisfactory method of removing this is by utilising a strong solution of caustic soda. The chemical should be strictly prepared in accordance with the directions on the tin in which it is purchased. Having already removed the exhaust pipe and silencer from the machine and plugged the leading end of the exhaust pipe with such as a cork and the outlet end of the silencer packed tightly with rag, stand the parts in a corner and fill with the solution. Leave for at least 12 hours, preferably 24, pour away contents, remove plugging and flush with clean water when the carbon will be removed.

FLYWHEEL MAGNETO

CONTACT BREAKER ADJUSTMENT AND TIMING.

It is quite usual with flywheel magnetos that some wear will take place on the contact breaker rocker arm heel during the running-in period and until such time as the heel acquires a glaze. This will close the contact breaker gap, thereby promoting difficulty in starting and irregularity in running. For this reason we recommend that a close check be kept on this gap during the early life of the machine as a precautionary measure.

The contact breaker assembly illustrated below is secured to the left-hand side crankcase and to gain access to it the detachable cover must be removed. Then turn the crankshaft by operating



the kickstart slowly until the gap assumes its greatest measurement. With a feeler gauge, check the clearance between the two points which should be .015". If there is any discrepancy slacken the screw "A" and move the bracket "B" in the required direction until the correct clearance is obtained. Tighten up screw "A" and again check clearance to make sure that the bracket did not move as the fixing screw was tightened.

Now replace the left-hand engine cover, and this having been done, check the clutch adjustment and correct if needed.

IGNITION TIMING.

This is correctly set before the machine leaves our Works and there is no reason to suppose that adjustment of this is likely unless major overhaul is being carried out. The contact breaker points, having previously been set to .015" should commence to open when the piston is $\frac{1}{8}$ " before T.D.C. It is a simple operation to check this whilst the contact breaker gap is being adjusted if at the same time you are not satisfied with the performance of the engine and the procedure to be adopted if correction is needed is fully outlined in the maker's handbook provided with the machine.

CARBURETTER

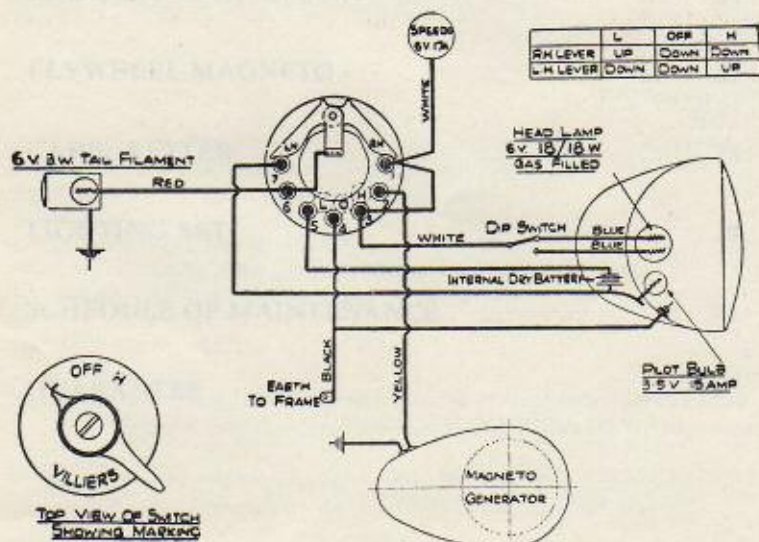
Either the Villiers Junior 6/0 or the Villiers S12 carburetter is fitted to the Villiers Mark 4F and 6F engines in which the combination of jet sizes, needle position and taper make it automatic in operation. No alternative sizes of taper needle or jets are available nor are they necessary for conditions of normal use. The one adjustment provided, namely the taper needle is sufficient to correct discrepancies in mixture strength which might possibly arise.

Assuming that the carburetter is functioning satisfactorily, that there are no characteristics of engine running which lead one to believe that the carburetter is not proportioning the fuel correctly and giving either a rich or weak mixture, then it is recommended that this component not be disturbed or dismantled. It is not possible to give a standard setting for the taper needle for this will vary on individual engines and again is correctly set before leaving the Works. However, it is often possible that slight correction may be required after running-in period has been completed to give optimum performance allied with good petrol consumption and freedom from four-stroking.

The best setting of the taper needle is that which gives most even two-stroking when the engine has attained its usual working temperature and is running under load at normal speeds. If the engine four-strokes when pulling hard, this indicates that the

- mixture strength is too rich which may be caused by the carburettor flooding due to foreign matter between the fuel valve and its seat, that the air cleaner is choked or the taper needle incorrectly set.

LIGHTING SET



SERVICING INSTRUCTIONS.

Headlamp.—The reflector and bulb assembly is housed in the front rim which is secured to the lamp shell by a clip at its base, depression of which allows the front assembly to be detached. The parking bulb has a small holder which is a press-in fit in the reflector—prise out the holder if replacement of the bulb is required and press into the reflector after screwing a new bulb into position.

The main bulb holder assembly is held into the reflector by two eared clips and to either replace or re-focus the bulb, turn the holder approximately one-eighth of a turn in an anti-clockwise direction to disconnect it from the reflector. Three alternative positions are provided for bulb focussing, but if the bulb is removed from its holder or a new one fitted, ensure that the word "top" printed on the bulb bayonet is uppermost.

Tail Lamp.—This is of Excelsior manufacture, in which bulb failure is reduced to a minimum, the lamp being rubber mounted—to fit a new bulb, remove the two small screws securing the cover so exposing the bulb, push and turn anti-clockwise to remove.

SCHEDULE OF MAINTENANCE

The following Schedule has been specially compiled to guide and assist you in the proper maintenance of your machine.

Each item should be carefully checked and attended to at the specified period.

Every Week:

- (1) Adjustment of both brakes.
- (2) Tightness of all obvious bolts and nuts.
- (3) Check tyre pressures.

Every 500 Miles:

- (4) Lubricate exposed portions of cables and nipples.
- (5) Check oil level in gearbox.
- (6) Clutch adjustment.
- (7) Lubricate front forks.
- (8) Rear chain adjustment and lubrication.
- (9) Apply light oil to brake pedal spindle and a small quantity to front and rear brake cam spindles.
- (10) Check gear control cable adjustment (F4 only).

Every 1,000 Miles:

- (11) Front and rear wheel bearing adjustment.
- (12) Lubricate stand pivot bolts.
- (13) Lubricate rear suspension (F6S and SB.1).

Every 1,500 to 2,000 Miles.

- (14) Clean sparking plug.
- (15) Check contact breaker gap.

Every 2-3,000 Miles:

- (16) Decarbonise engine.
- (17) Apply small quantity grease to front and rear hubs.

Every 4-5,000 Miles:

- (18) Remove air cleaner and wash in petrol.
- (19) Decarbonise exhaust system.

Guarantee

NOTICE

We do not appoint agents for the sale on our behalf of our Motor Cycles or other goods but we assign to Motor Cycle Dealers areas in which we supply to such dealers exclusively for re-sale in such areas. No such Dealer is authorised to transact any business, give any warranty, make any representation or incur any liability on our behalf.

CONDITIONS OF SALE AND GUARANTEE

We give the following guarantee with our motor cycles, motor cycle combinations, and sidecars including all accessories and component parts other than tyres, saddles, chains and lighting and electrical equipment and other than accessories and component parts supplied to the order of the Purchaser and differing from those comprised in the standard specifications supplied with our motor cycles, motor cycle combinations and sidecars, but including accessories and parts supplied by way of exchange as hereinafter provided. This guarantee is given in place of any implied conditions or warranties or any liabilities whatsoever, statutory or otherwise; no guarantee except that hereinafter contained and no condition or warranty whatsoever statutory or otherwise is given or is to be implied, nor are we to be under any liability whatsoever except under the guarantee hereinafter contained. Any statement, description, condition or representation contained in any catalogue advertisement, leaflet or other publication shall not be construed as enlarging, varying or over riding anything herein contained. In the case of machines (a) which have been used for "hiring out" purposes or (b) any motor cycle and/or sidecar used for any dirt track, cinder track or grass track racing or competitions (or any competition of any kind within an enclosure for which a charge is made for admission to take part in or view the competition) or (c) machines from which the trade mark, name or manufacturing number has been altered or removed or (d) any machine in which parts have been used not supplied by or approved by the motor cycle manufacturer, or (e) any machine from which the silencing system as fitted by the manufacturer has been partially or wholly removed or interfered with, no guarantee, condition or warranty of any kind statutory or otherwise is given or is to be implied nor are we to be under liability whatsoever in respect of such machines.

We guarantee, subject to the conditions mentioned below, that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship, but this guarantee is to extend and be in force for six months only from date of purchase, or date of exchange in case of any accessory or part supplied by way of exchange as hereinafter provided, and damages for which we make ourselves responsible under this guarantee are limited to the free repair of or supply of a new part or accessory in exchange for the part of the motor cycle, motor cycle combination or sidecar or accessory which may have proved defective. We undertake, subject to the conditions mentioned below, to make good in manner aforesaid any part or accessory covered by this guarantee, which has proved defective within the said period of six months. We do not undertake to replace or refix, or bear the cost of replacing or refixing any such new part of accessory in the motor cycle, motor cycle combination or sidecar. As motor cycles, motor cycle combinations and sidecars are easily liable to derangement by neglect or misuse, this guarantee does not apply to defects caused by wear and tear, misuse or neglect.

The term "misuse" shall include amongst others the following act—The use of a motor cycle when carrying more persons or greater weight than that for which the machine was designed by the manufacturers.

We do not guarantee tyres, saddles, chains or lighting and electrical equipment, or any accessories or component parts supplied to the order of the Purchaser differing from those comprised in the standard specifications supplied with our motor cycles, motor cycle combinations or sidecars. As regards all such tyres, saddles, chains, lighting and electrical equipment, accessories and component parts, no guarantee, conditions or warranty of any kind statutory or otherwise is given or is to be implied, and we are to be under no liability whatsoever in respect thereof.

CONDITIONS OF GUARANTEE

If a defective part or accessory should be found in our motor cycles, motor cycle combinations or sidecars or in any part or accessory supplied by way of exchange as before provided, it must be sent to us CARRIAGE PAID and accompanied by an intimation from the owner that he desires to have it repaired or exchanged free of charge under our guarantee, and he must also furnish us at the same time with the number of the machine, the date of the purchase or the date when the alleged defective part or accessory was exchanged as the case may be.

Failing compliance with the above, such articles will lie here at THE RISK OF THE OWNER, and this guarantee and any implied guarantee, warranty or condition shall not be enforceable. All machines are despatched Carriage Paid to nearest Railway Station in Great Britain.

THE
Fordster

98 c.c.

"CONSORT"

DESIGNED FOR THE CAR, CAM & TRUCK

AND

"SKUTABYKE"

NO. 101

**RUNNING AND MAINTENANCE
INSTRUCTIONS**

1945 EDITION

The Fordster Motor Co. Ltd.

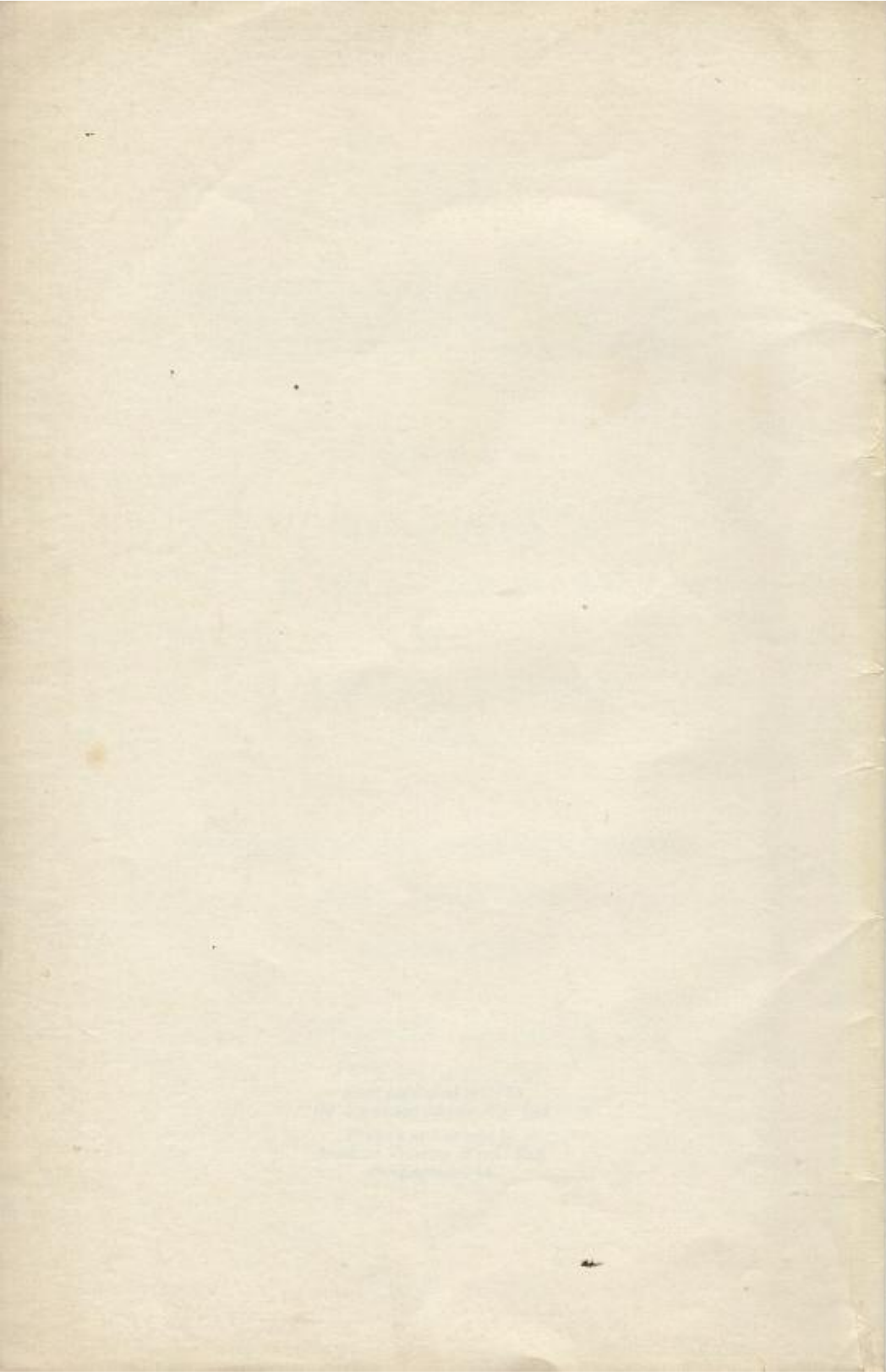
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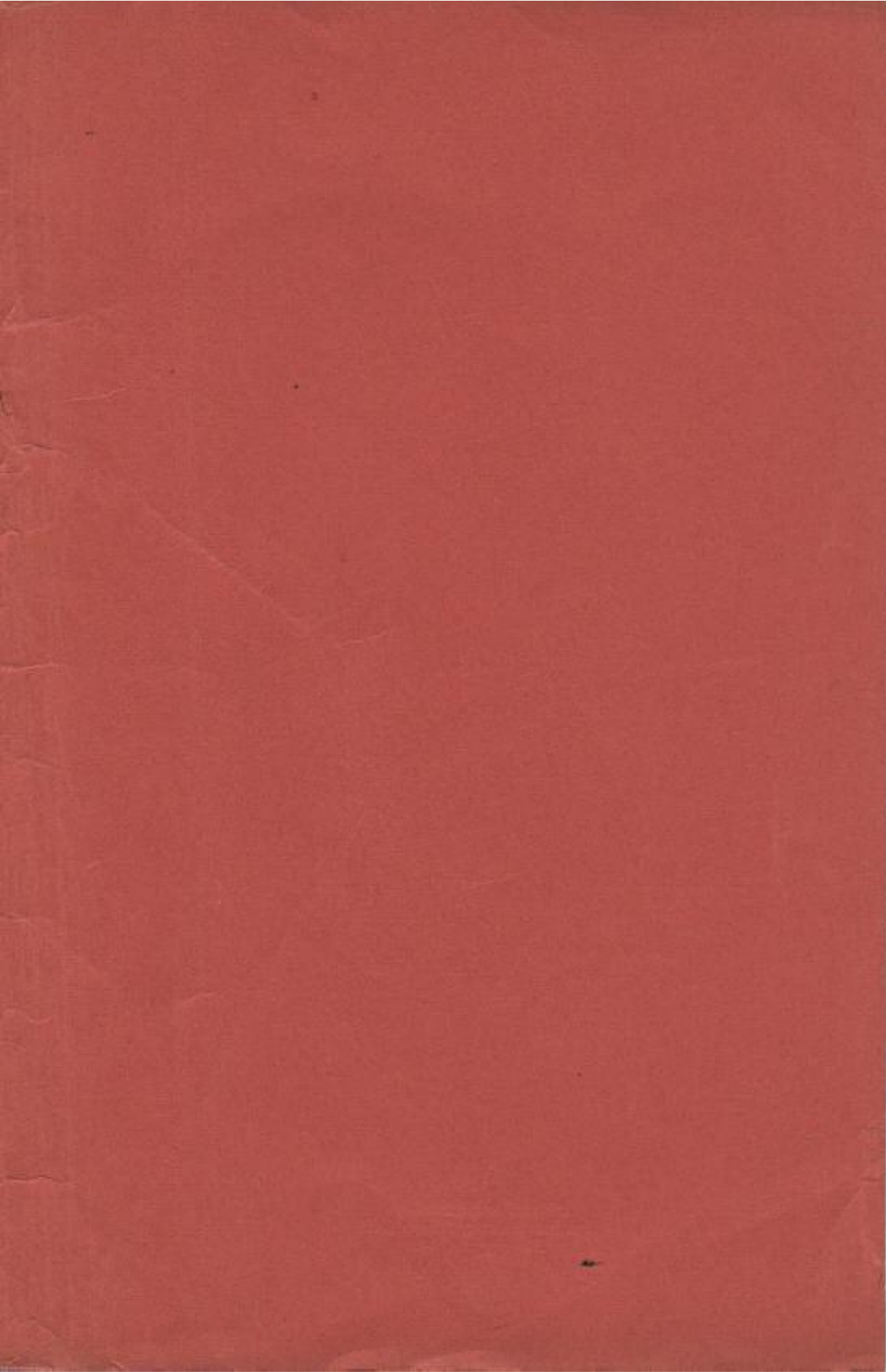
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*Printed in England by**
Institute Printing Works Ltd.
Birmingham, 14.