owner's manual

HESKETH
V1000

Easton Neston

Dear Owner

The Hesketh motorcycle is built by individuals, for individuals. It is a concept based on perfection not compromise. I believe that the dedicated motorcycle enthusiast should be able to demand the very highest standards of engineering, craftsmanship and finish in pursuit of excellence. These, too, are the aims of Hesketh Motorcycles.

The Rt. Hon. Lord Hesketh.

INTRODUCTION

The Hesketh is a motorcycle for enthusiasts. We expect that most people who ride a Hesketh will be experienced motorcyclists who do not need instruction on the basic principles of riding and caring for a powerful machine.

This book does not contain riding instruction and does not go deeply into mechanical details. What it does is to guide the new owner through the operational details of his machine, and gives instruction on the regular tasks necessary to maintain it in good condition. Some owners will wish to do all their own maintenance, but those who lack the inclination should have such work carried out by a competent mechanic. Every Hesketh Dealer employs a factory trained experienced mechanic.

Any owner who wishes to learn more about the construction or overhaul of his motorcycle is advised that a Parts List and Workshop Manual are available from any Hesketh Dealer, who will also provide advice and assistance. Further information on any topic concerned with the use of Hesketh motorcycles can be obtained by reference to :-

The Service Department,
Hesketh Motorcycles PLC.,
Broad March,
Daventry,
Northamptonshire, NN11 4RU.
Tel. 03272-5211

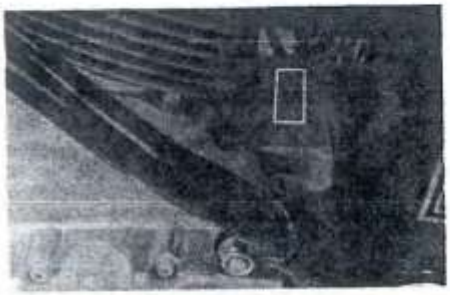
Please remember when communicating with the factory to quote your engine number, frame number and any other relevant details, such as modifications from standard, or any accessories fitted.

The Company follows a policy of continuous development. Whilst the contents of this manual are correct at the time of going to press, Hesketh Motorcycles PLC. reserve the right to alter specifications without prior notice. There may be minor differences in the specification of the machine shown in this manual and any particular production machine. This is because of variations in legal and technical requirements and may usually be ignored for maintenance purposes.

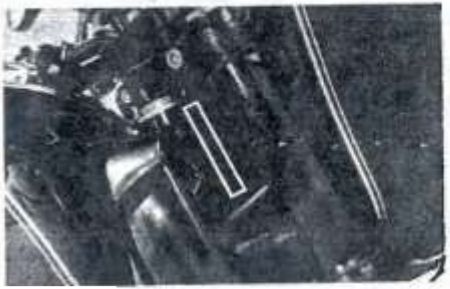
Before using the machine you are strongly advised to read this manual, noting in particular the WARNINGS in each section.

IDENTIFICATION.

The engine serial number is stamped on the top of the crankcase behind the rear cylinder.



The frame serial number is stamped on the right hand side of the steering head tube.



Note your details here:-

Engine number:- ..... Ignition key number:- .....

Frame number :- ..... Fuel cap key number:- .....

FOR TECHNICAL INFORMATION, ADVICE AND SPARE PARTS.
To ensure that you receive the correct spares and technical information for your motorcycle always quote the engine and frame serial numbers, when referring to any Hesketh dealer, or the Service Department at the factory.

WARRANTY: HESKETH MOTORCYCLES PLC.

1. Your rights and remedies at common law and under statute are not affected by this Warranty.
2. This Warranty shall remain in force for a period of twelve calendar months from the date of delivery by the dealer.

3. During the Warranty period, should any defect occur in the motorcycle due to faulty workmanship or materials then the fault will be corrected free of charge by any of the company's authorised dealers, provided that the machine is promptly taken to that dealer and a valid Warranty Certificate is produced.
   Any replaced part will become the property of Hesketh Motorcycles PLC.

4. Genuine Hesketh spare parts are also covered under the same terms if they were supplied for use on a Hesketh motorcycle. In this case evidence of supply by the company and date of retail sale should be produced.
5. The Warranty does not cover any defect or damage which in the opinion of the company arises as a consequence of:
   a) Normal wear and tear. For example the Warranty does not cover work done as normal maintenance (such as wheel balancing, clutch and chain adjustment) or the normal wear or failure of expendable items (such as tyres, chains or filament lamps).
   b) Neglect, misuse, accident or lack of proper maintenance.
   c) Racing or speed events or any use other than as a normal road-going motorcycle on public roads.
   d) Any alteration, addition or repair other than by the company or one of its authorised dealers or the use of any part which has not been supplied or approved by the company.
6. This Warranty does not cover any claim for loss damage or expense consequential upon any loss of use of the motorcycle or in any way resulting from a defect which the company may be bound to remedy under Warranty.
7. This Warranty does not apply to machines registered outside the British Isles.

SPECIFICATIONS.

ENGINE.				
Cycle	4 stroke, spark ignition.			
Engine layout	90° V-twin.			
Cooling	Air cooled.			
Bore	95mm.			
Stroke	70mm.			
Piston displacement	992cc.			
Compression ratio	9.5 : 1.			
Idle speed	800/1000 r.p.m.			
Max. engine speed	7000 r.p.m.			
Valve clearance	inlet	0.10mm. (0.004").		
	exhaust	0.15mm. (0.006").		
Valve timing	inlet	opens	55° before	T.D.C.
		closes	80° after	B.D.C.
	exhaust	opens	70° before	B.D.C.
		closes	55° after	T.D.C.
LUBRICATION.	Semi-wet sump.			
Oil pressure warning light	Instrument display (Red).			
Oil filter	Disposable full flow cartridge with paper element.			
Oil pump	Trochoidal rotor pump feeds the engine, the primary drive and the gearbox. Integral gearbox oil bath.			

IGNITION.	
Ignition	Lucas RITA electronic coil-ignition idle spark system, with one central sparking plug per cylinder.
Spark plugs	N.G.K. DR 8E S.
Spark plug electrode gap.	0.6mm. - 0.7mm. (0.024" - 0.028").
Ignition timing	Non mechanical automatic advance; 34° BTDC at 5,000 r.p.m.
CARBURATION.	
Carburettors	Two Dellorto P H F carburettors with 36mm. bores, by-pass enrichment for starting, and accelerator pumps.
Air filters	Two disposable paper elements.
ELECTRICAL.	
Alternator	Lucas RM 24 12 Volt x 15 Amp. 3 Phase, permanent magnet.
Starter motor	Lucas electric starter 5 M 90, (special).
Battery	12 Volt x 27 Amp. hour, heavy duty, Negative earth.
Lamps:-	
headlight	Bosch 178mm. (7"), with H4 halogen bulb. Main beam 60W. Dip beam 55W.
tail/brake	12V. 21W./5W.
turn light	12V. 21W.
instrument display	12V. 3.4W.
parking light	12V. 4.W.
clock	12V. 2.4W.

ELECTRICAL (continued)

Fuses:-

Main	35 Amp. All circuits except the starter.
No. 1.	5 Amp. Main beam.
No. 2.	5 Amp. Dip beam.
No. 3.	5 Amp. Parking light, Tail light, Instrument display.
No. 4.	8 Amp. Ignition and Brake lights.
No. 5.	8 Amp. Horn and Turn light.
3 spare fuses.	1 x 5 Amp.) in fuse box. 1 x 8 Amp.) 1 x 35 Amp. in tool kit.

See page 53 for note on fuse type and values.

TRANSMISSION.

Primary drive	Single helical gears giving a reduction of 1.81 : 1.
Clutch	Wet multiplate, 150mm. (6") diameter, with coil springs, hydraulically operated.
Gearbox	Five speed constant mesh in unit with engine. Spur gear train between gearbox output shaft and final drive sprocket shaft co-axial with rear fork pivot.

Gear ratios		Internal	Overall
	1st:	2.78 : 1.	12.06 : 1. (15 tooth
	2nd:	2.06 : 1.	8.93 : 1. gearbox sprocket
	3rd:	1.55 : 1.	6.72 : 1. 46 tooth rear
	4th:	1.25 : 1.	5.42 : 1. wheel sprocket).
	5th:	1.00 : 1.	4.34 : 1.
Final drive		DID roller chain type HDS 5/8" x 3/8" (16mm. x 9.5mm.).	
Final reduction		3.067 : 1.	
CYCLE PARTS			
Frame		Duplex, of Reynolds 531 tubing. 1.125" diameter x 17 swg; Sifbronze welded.	
Steering:			
	rake	27°.	
	trail	145mm.	
Suspension	front	Marzocchi telescopic forks with integral two way hydraulic damping.	
	rear	Marzocchi AG Strada spring/damper units with multi-rate springs and five stage pre-load adjustment, and pressurised hydraulic system.	
Wheels		Astralite light alloy.	
	front	19 MT 2.25.	
	rear	17 MT 3.00.	

CYCLE PARTS (continued)

Tyres		'V' rated, tubed type.
	front	Dunlop K 91 ribbed 4.10 V 19 (100/90 V 19).
	rear	Dunlop K 91 ribbed 5.10 VB 17 (130/90 VB 17).
Tyre pressure		Normal solo riding. Further details on page 95.
	front	1.9 bars (28 p.s.i.).
	rear	2.2 bars (32 p.s.i.).
Brakes	front	Twin Brembo hydraulically operated brakes with 280mm. (11") cast iron discs.
	rear	Single Brembo Hydraulically operated brake with 280mm. (11") cast iron disc

OVERALL DIMENSIONS AND WEIGHTS.

Wheel base	1511mm. (59½").
Length	2235mm. (88").
Width	800mm. (31½").
Seat height	838mm. (33")
Kerb weight	250kg. ((550lbs.).
Ground clearance	152mm. (6").

CAPACITIES.

Petrol tank including res.	22.7 litres (5 imp. galls.).
reserve	2.2 litres (½ imp. gall.).
Engine oil	3.7 litres (6½imp. pts.).
Front fork oil	250cc. (9 fl. oz.).

TOOL KIT.
The tool kit is fitted within the right side cover.
C Spanner for rear damper adjustment.
Single open ended spanner:- 24mm.
Combination spanners:-
8mm. 10mm. 11mm. 12mm. 13mm. 14mm.

Tommy bar.

Spark plug removal:-
18mm. box wrench with rubber retaining grommet with extension to take 8mm. key.

Adjustable spanner.

1 Pair of pliers.

Fixed handle screwdriver -
Posidriv cross head, (see use of the tool kit).
Combination screw driver -
Phillips cross head/blade, reversible.

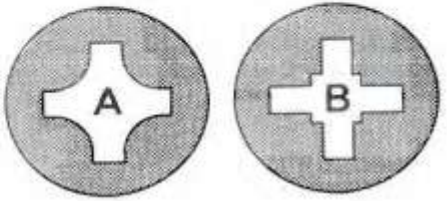
1 set of hexagon keys, (long series):-
Across flats: 2.5mm. 3mm. 4mm. 5mm. 6mm. 8mm.

Sparking plug gap gauge.

SPARES KIT CONTAINING:-
Sparking plugs, main fuse, split pins, tab washers, chain split link, and ignition timing blade.

USE OF THE TOOL KIT.

Two different designs of cross head screw are used on Hesketh motorcycles, depending on the origin of the parts. Phillips screws (fig A) will be found on the instrument panel, the handlebar switches and the direction indicator lenses. For these, the reversible screwdriver (black handle) should be used. Posidriv screws (fig B) are used for the rear lamp lens, the headlamp cowl, and the air filter housings. The Posidriv screwdriver has a blue handle. Use of an incorrect tool may cause damage to the screw and the driver.



Experienced motorcyclists will not need to be reminded that wherever possible the ring end of a spanner rather than the open end should be used.

The adjustable spanner should only be used on parts for which a fixed spanner is not provided, such as the petrol tap gland nut, the carburettor float bowl nuts, and the control cable mid-way adjusters.

The pliers are intended for use on the wheel nut split pins, the chain split link, and the rear brake torque arm tab washers.

The rounded handle of the damper adjusting C spanner may be used to loosen a recalcitrant oil filler plug.

Take particular care when setting sparking plug gaps; the gauge supplied is for measurement of the gap. Close up the gap if necessary with a light tap from the handle of a screwdriver.

The tools supplied are designed to be more than adequate for all normal purposes, and riders are advised that the use of extensions to provide extra leverage may cause damage to the fastenings on the machine.

PRE-RIDE CHECK.

Each day before riding your motorcycle check the following items to ensure that the motorcycle is safe and in good condition. If any adjustment or maintenance is necessary, refer to the appropriate section in the manual.

	Page.
Fuel	21
Engine oil	22
Throttle control	22
Clutch operation	36
Battery	51
Lights	54, 56
Horn	54
Front wheel	61
Front forks	61
Front brake	65
Rear wheel	77
Rear damper units	77
Rear brake	79
Drive chain	86
Tyres	95

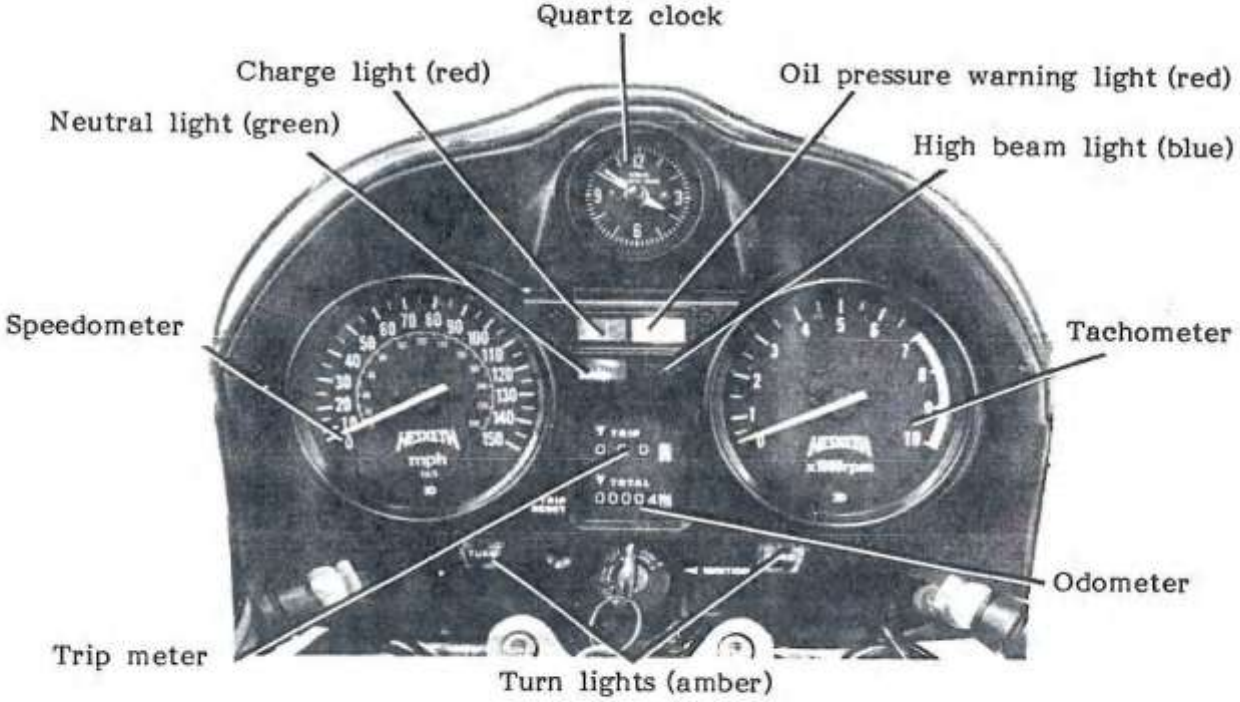
RUNNING-IN.

The performance of your motorcycle depends on the restraint used during the running-in period of 1,500 miles. This should be covered over a wide range of road conditions to vary the engine speed and load in the various gears, without exceeding the specified r.p.m. and throttle opening as shown in the guide below.
Failure to comply with this requirement may cause premature or serious damage, and will result in reduced performance and durability. In addition, the Warranty could become invalidated.

First 600 miles.	Progressively increase the throttle opening, taking care not to exceed 3,500 r.p.m. or 1/4 throttle.
600-1,000 miles.	Progressively increase the throttle opening, taking care not to exceed 5,000 r.p.m. or 1/3 throttle.
1,000-1,500 miles.	Continue the process with occasional brief bursts of speed in all the gears, taking care not to exceed 6,000 r.p.m., until at the end of this period short bursts of full throttle are used.
After 1,500 miles.	Take care not to exceed 7,000 r.p.m. at any time.

The motorcycle is delivered to the dealer with a special running-in oil in the crankcase; this oil must be changed for our recommended lubricant, and other checks must be carried out at the first service interval of 600 miles, (page 30).

INSTRUMENT DISPLAY.



INSTRUMENT DISPLAY.

Trip meter.
To zero the trip recorder, turn the knob clockwise and press.

Turn lights.
An amber light flashes while the indicators are in use.

High beam light.
A blue light indicates that the headlight is on main beam. (When the ignition is switched ON, with the light switch in the ON and the dip switch in the HI positions).

Neutral light.
A green light indicates that the transmission is in the neutral position when the ignition is switched ON. Before pressing the start button check that the neutral light is illuminated.

Charge light.
A red light indicates that there is no current from the alternator, and it should go off when the engine has reached about 1,200 r.p.m.

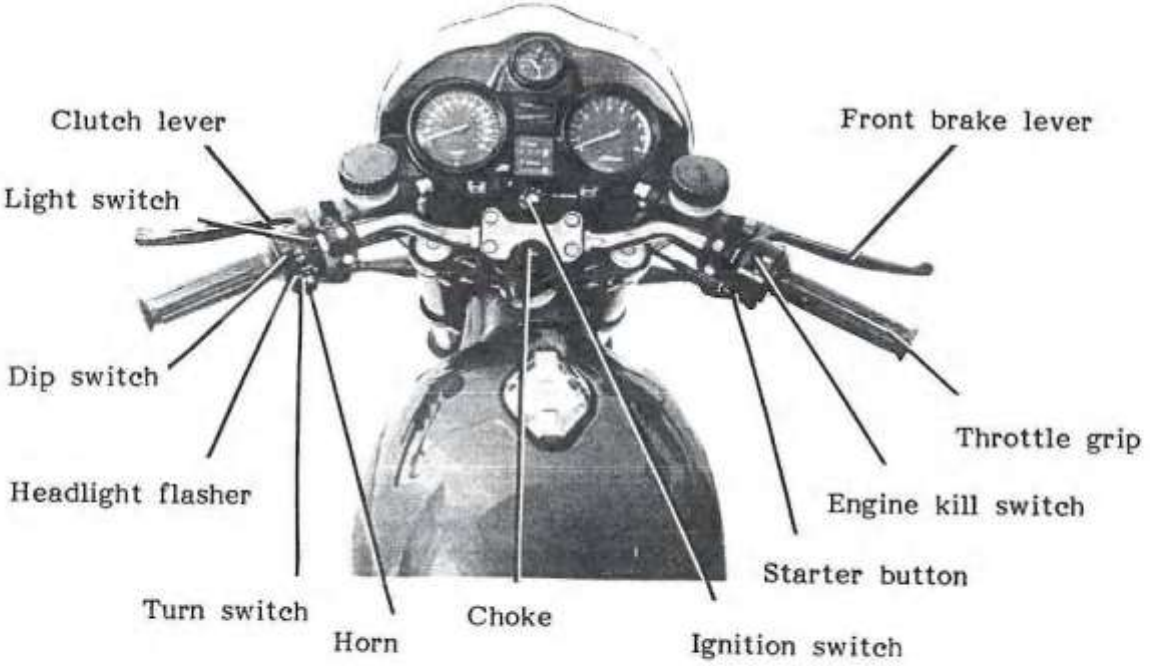
WARNING:
IF THE CHARGE LIGHT REMAINS ON WHILST THE ENGINE IS RUNNING, YOU MAY CARRY ON RIDING BUT HAVE THE SYSTEM CHECKED AS SOON AS POSSIBLE, REMEMBERING THAT THE BATTERY IS NOT BEING CHARGED SO LIMITING THE DRIVING RANGE. WITH A FULLY CHARGED BATTERY IN DAYLIGHT CONDITIONS (NO LAMPS LIT) THE ENGINE WILL CONTINUE TO RUN FOR APPROXIMATELY 8 HOURS BEFORE THE BATTERY BECOMES FULLY DISCHARGED. USE OF THE STARTER MOTOR AND LIGHTS WILL SHORTEN THIS TIME CONSIDERABLY.

Oil pressure warning light.
A red light is illuminated when the ignition is switched ON, and should go off when the engine is started to show that the correct oil pressure has been reached.

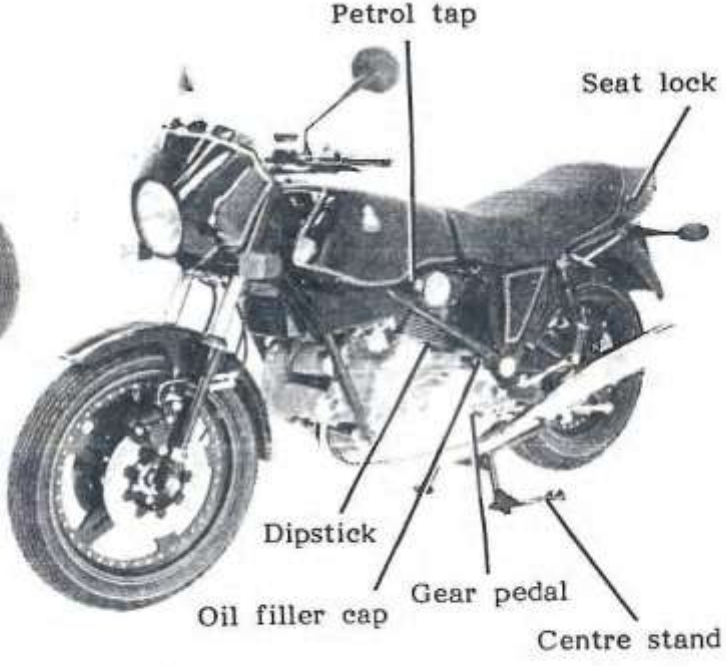
WARNING:
THE OIL PRESSURE LAMP MAY FLICKER DURING HARD BRAKING. BUT IF IT STAYS ON WHILST THE ENGINE IS RUNNING NORMALLY DO NOT RIDE ANY FURTHER, AS IT INDICATES A FAULT IN THE LUBRICATION SYSTEM. STOP THE MOTORCYCLE, TURN THE IGNITION OFF AND ALLOW THE ENGINE TO COOL DOWN BEFORE CHECKING THE OIL LEVEL.
IF THE OIL LEVEL IS INCORRECT TOP IT UP TO THE MAXIMUM LEVEL MARK ON THE DIPSTICK WITH THE RECOMMENDED LUBRICANT, (PAGE 22). REGARDLESS OF THE OIL LEVEL HAVE THE SYSTEM CHECKED IMMEDIATELY BY ANY HESKETH DEALER.

Quartz Clock.
To reset, depress and turn the central knob.

LAYOUT OF CONTROLS.




Petrol tap
Rear brake pedal


Petrol tap
Seat lock
Dipstick
Oil filler cap
Gear pedal
Centre stand

CONTROLS.

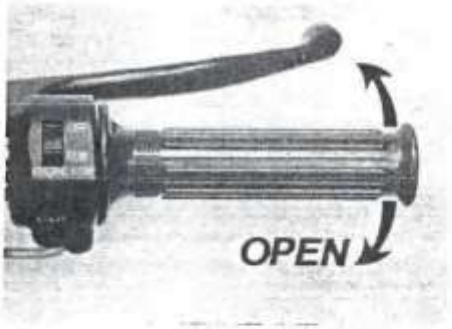
Dip stick.

When cold, the oil level should be on the maximum mark; if the level is below the mark, the recommended oil (page 115) should be added. The addition of about 1.5 litres (2½ imp. pts.) of oil will cause the level to rise from the minimum to the maximum mark.

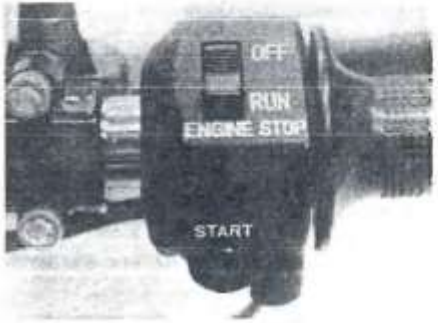
Throttle grip (Accelerator).

As the twist grip is rotated the engine will produce more power.

Avoid opening or closing the throttle when the engine is not running, as the accelerator pumps will tend to flood the engine thus making starting more difficult.



Engine kill switch.
The engine can only be started if the kill switch is in the RUN position.
The engine can be stopped independently of the ignition switch by turning the kill switch to the OFF position. Although the kill switch isolates the ignition system and the starter motor, this control should not be used instead of the ignition switch when parking the machine.

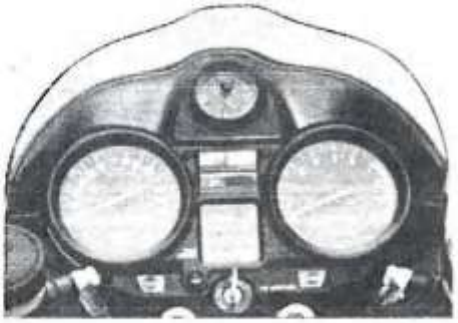


Starter.
The electric starter is operated by depressing the starter button, with the ignition switch in the ON, and the engine kill switch in the RUN positions.
Do not operate the Starter for more than 10 seconds at one time; allow the battery to recuperate for 20 seconds before trying again.
If luggage is carried on the tank ensure that it does not protrude, as it may restrict the handlebar movement, and operate the starter button causing damage to the starter mechanism.

WARNING:
AVOID RESTARTING THE ENGINE BEFORE IT HAS COMPLETELY STOPPED.

Ignition switch.
The ignition switch has four positions:-

OFF:	All the electrical circuits are turned off, except the clock.
ON:	Turn the key to the ON position and all the normal electrical functions are available except the parking lights.
PARKING: (WITH LIGHTS ON)	TO LOCK: turn the handlebars to the extreme left or right; depress and turn the key to the PARK position, which will operate the parking lights and lock the steering head, then remove the key. TO UNLOCK: insert and turn the key. It is not possible to operate the parking lights without also locking the steering.
PARKING: (WITH LIGHTS OFF)	TO LOCK: turn the handlebars to the extreme left or right; depress and turn the key to the LOCK position, which locks the steering head, then remove the key. In this position all the electrical circuits except the clock are disconnected. TO UNLOCK: insert and turn the key.



Choke (Cold start).

To start a cold engine pull the choke out to its maximum and operate the starter, and returning the choke to the closed position after a few seconds. The choke can be locked in position when it has been pulled out, by turning it through 90° to the left or to the right.

It is not necessary to leave the choke out for more than a brief period, except in extremely cold weather.

DO NOT use the choke to start a warm engine.

DO NOT open the throttle when starting a cold engine.

Light switch.

ON position (forwards), the lights (other than parking) will operate but only when the ignition is switched ON.

OFF position (downwards), the lights are switched off.

Dip switch.

The dip switch will only function with the light switch in the ON position, and the ignition ON.

HI position (forwards), the headlight will operate on main beam.

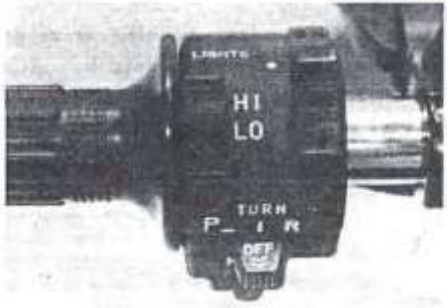
LO position (downwards), the headlight will operate on dip beam.

WARNING:

BE CAREFUL WHEN OPERATING THE DIP SWITCH WITH GLOVED HANDS THAT THE LIGHT SWITCH IS NOT TURNED OFF COMPLETELY.

Clutch lever.
The clutch should always be used when changing gear as well as for pulling away from rest. Avoid slipping the clutch for more than a few seconds or overheating of the clutch plates may occur.

Headlight flasher. (marked P)
The headlight can be operated to attract the attention of other road users by depressing the flasher button, when the ignition is turned ON.
When the lights are ON the headlight flasher will operate the filament not already in use.
When the lights are OFF the headlight flasher will illuminate the main beam.



Turn switch.
The indicators are normally self-cancelling and will automatically return to the OFF position; but they can be cancelled manually at any time during the operating cycle by pressing the switch downwards.
The period of operation depends on the speed of the machine.
Below about 10 m.p.h. the flashers continue to flash indefinitely. Once above that speed the system will run for around 10 seconds, unless the speed should drop below 10 m.p.h. in which case the timing device will be disconnected. The timing device is automatically reconnected when the speed increases.

Seat lock.
TO UNLOCK; insert the ignition key into the lock and turn it clockwise, which allows the seat to be pulled backwards and hinge upwards.
The seat is held open by a gas strut.

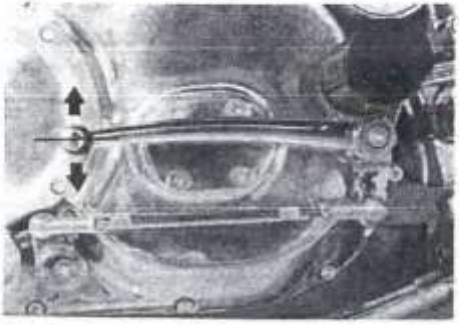


TO LOCK; push the seat down and forwards until the lock engages, then remove the key.

WARNING:
BE CAREFUL NOT TO PUSH THE MOTORCYCLE OFF THE STAND WHILST THIS IS BEING DONE.

Gear pedal.

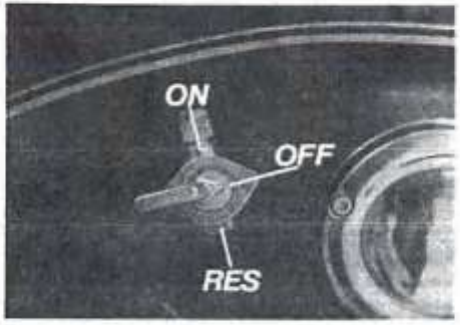
The motorcycle is equipped with a five speed constant mesh transmission, which operates in the conventional one down and four up sequence, with the true neutral position between bottom and second gear. Whilst a neutral position must exist between all gears, only the true neutral should be used as it is provided with a positive location. The green neutral indicator lamp on the instrument display will assist in locating the correct neutral position.



Petrol taps.

The two petrol taps are screwed into bosses, one located each side of the petrol tank base with OFF, ON and RESERVE positions. Both petrol taps must be operated together as each is connected to a carburettor with no inter-connection between the two.

When the petrol taps are in the RESERVE position there is around 2.2 litres ($\frac{1}{2}$imp.gall.) of petrol remaining in the tank. If you have been running in the RESERVE position, remember to turn the taps back to the ON position after refilling the tank.

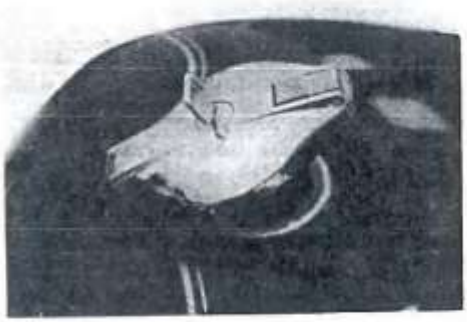


WARNING:

REMEMBER TO TURN THE PETROL TAPS OFF AFTER USE. IF THEY ARE LEFT ON THE CARBURETTORS COULD BE FLOODED RESULTING IN DAMAGE OR FIRE.

Petrol tank lock.
To open the cap; insert the key into the lock, turn the key anti-clockwise, depress the latch and lift the cap up.

To lock the cap; push the cap down until the latch engages, turn the key clockwise and remove it.



Centre stand.
To lift your motorcycle onto the centre stand, stand facing the left hand side of the machine. Place your left hand on the handlebars to steady the motorcycle, your right hand onto the rear left hand rail, and your right foot onto the centre stand. Press firmly down on the centre stand whilst lifting on the grab rail and roll the motorcycle back onto the centre stand.

FIRST SERVICE REQUIREMENTS.

However carefully a motorcycle is manufactured, some of the moving parts will bed in and need adjustment after a period of use. When your machine has covered 600 miles you should return it to the supplying dealer for these details to be checked, and any adjustments to be made. This initial service will normally be carried out free of any charge for labour. All Hesketh owners are reminded that if this initial work is not carried out at around the correct mileage the Warranty will become void.

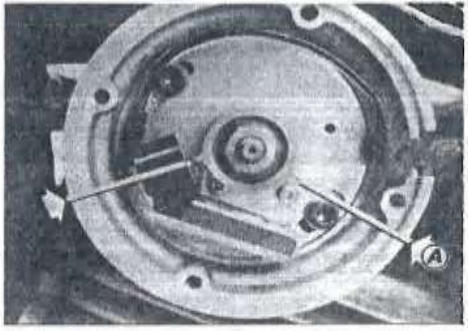
Check and tighten all fastenings.
Check and adjust battery acid level.
Check brake fluid, pads and adjustment.
Check and adjust clutch mechanism.
Check and adjust valve clearances and timing chain setting.
Check and rectify chain lubrication and adjustment.
Change engine oil and renew oil filter.
Check all electrical functions.
Check and regulate carburettor and control cable settings.
Clean petrol tank filters.
Check and adjust steering and swinging arm bearings.
Check and adjust tyre pressures.
Test ride machine and make any other adjustments found to be necessary.

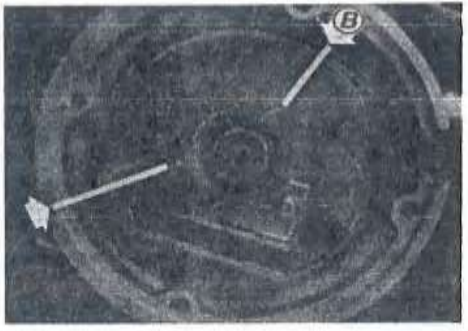
MAINTENANCE.

ENGINE.

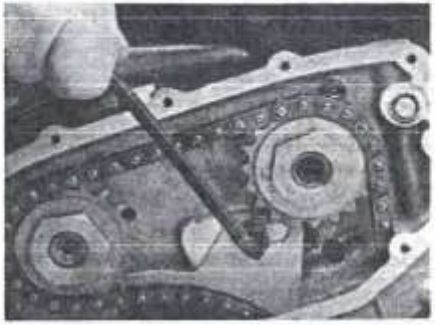
It is not anticipated that the valve clearance or the cam chain should need frequent adjustment, but if you are concerned about noise from the top end of the engine some attention may be necessary.
The cam chains should be adjusted when the engine is cold using the tool kit supplied with the machine. Remove the 10 socket screws holding each cover to the head and lift off the covers. It is not necessary to disturb the two oil feed screws in the rear cover, but to remove the front cover it will be necessary to remove the two oil feed screws before sliding the cover off.

Engage top gear and by rotating the rear wheel turn the engine until the appropriate piston is at TDC on the compression stroke (i.e. with the ignition reluctor in position A for the front cylinder, and B for the rear cylinder).

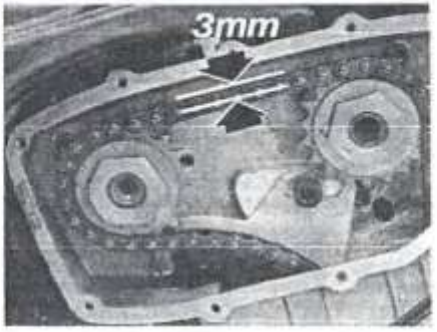




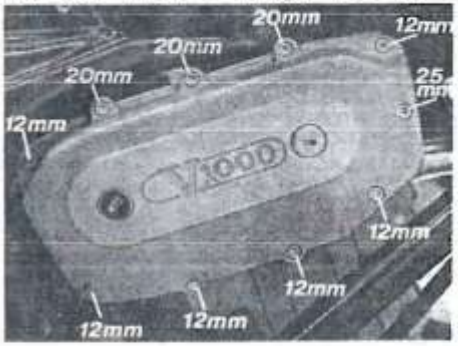
Slacken the tension blade screw (8mm. Allen key) and move the blade until there is 3mm. of movement in the top run of the chain.



Check the movement when the retaining screw has been tightened by holding the chain between finger and thumb ensuring that there is 3mm. of chain movement. While the covers are off, take the opportunity to remove the oil restrictors and clean any debris from the filter gauzes.



When replacing the covers check that the oil restrictors and O rings are in position in each chain case. Note that the threaded holes in the cam chain case are all the same depth but the screws vary in length to suit the thickness of the cover. The one long screw (25mm.) fits the hole in the centre of the right hand side of the cover. The three medium length screws (20mm.) fit the three top bosses, and the six shortest screws (12mm.) fit the remaining holes. No gasket is fitted to the cover so use a smear of silicone jointing compound (RTV) around the joint faces, taking care not to block the oil feed holes.



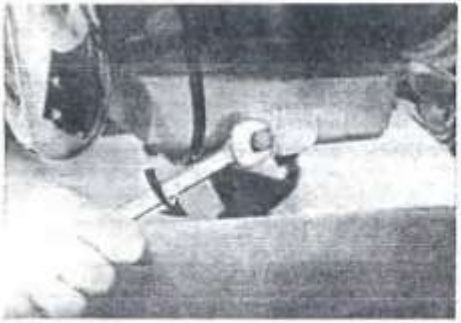
The four screws retaining the ignition reluctor cover are 16mm. long. Owners who wish to carry out their own valve clearance adjustment should refer to the Workshop Manual, as it is necessary to remove the camshafts in order to change the adjusting shims.

Engine oil.

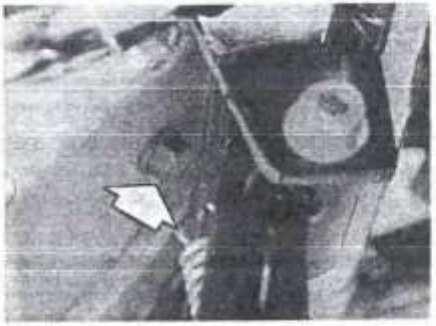
Check the oil level daily and top up to the maximum level mark on the dipstick using the recommended lubricant, (page 115).

Engine oil change.

The engine oil should be changed when the engine is warm; cold oil will take longer to drain from the sump due to its greater viscosity. Support the motorcycle on the centre stand and place an oil catch tray, capable of holding more than 3.7 litres, (6½imp.pts.), below the front drain plug. Remove the filler cap and the drain plug to allow the old oil in the engine to drain out.



Move the oil tray behind the crankcase and remove the rear drain plug to allow oil held in the gearbox oilbath to escape.

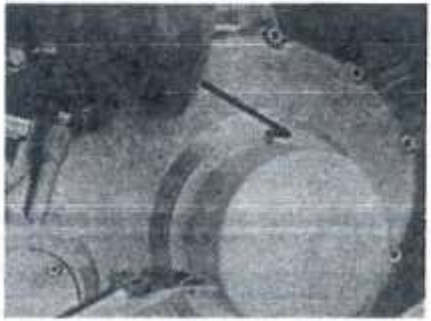


Check the condition of, and clean any debris from, the filler cap, the magnetic drain plugs and their seals.
Refit the drain plugs and seals and refill the engine with 3.7 litres, (6½ imp. pts.), of the recommended lubricant, (page 115).
Refit the oil filler cap and seal.
If the oil level is checked on the dipstick immediately after refilling in this way, it will be seen to be above the maximum mark by a few mm. This extra oil is to allow the gearbox oilbath to be replenished automatically when the engine is started. A punch mark is provided on the dipstick to indicate the extra quantity should a measure not be available when filling with oil.
Start the engine and run at idling speed, to circulate the new oil.
Switch off the engine, wait for a minute, and then check the oil level, topping up if necessary to the maximum mark on the dipstick.

Oil filter replacement.

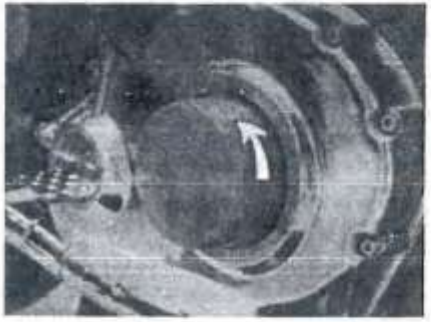
The filter should normally be replaced during an engine oil change.

When all the old oil has drained out of the engine remove the oil filter cover which is retained by three socket screws.



Unscrew the oil filter and sealing ring and discard them. A small amount of oil will be released as the filter is unscrewed, and some oil will also remain in the filter itself.

Prime the new oil filter by half filling it with fresh engine oil, and lubricate the oil sealing ring.



Fit the new oil filter and oil sealing ring into the crankcase cover hand tight only, as excessive force is unnecessary and makes it difficult to remove next time. Refit the oil filter cover.

CLUTCH.

The clutch is hydraulically operated. The fluid level in the reservoir should be checked before riding to make sure that it has not fallen to below the minimum level line.

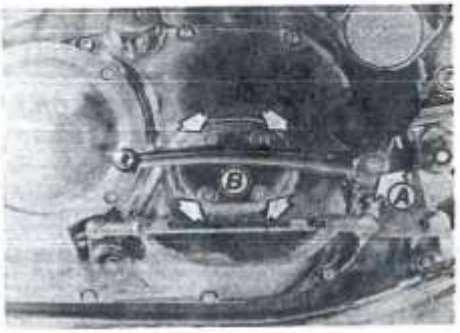
The fluid level should not change significantly during service and should it be necessary to add fluid at regular intervals have the motorcycle checked by a Hesketh dealer.

WARNING:

HYDRAULIC FLUID IS HIGHLY CORROSIVE TO SOME FINISHES AND PLASTICS AND WILL DAMAGE EYES; A SKIN REACTION CAN ALSO OCCUR, ANY FLUID SPLASHED SHOULD BE RINSED IMMEDIATELY WITH PLENTY OF WATER; IF EYE CONTACT OCCURS SEEK MEDICAL ATTENTION. TO AVOID SKIN CONTACT USE RUBBER GLOVES AND AVOID RUBBING EYES OR PAINTWORK WITH ANYTHING THAT MAY HAVE PICKED UP FLUID.

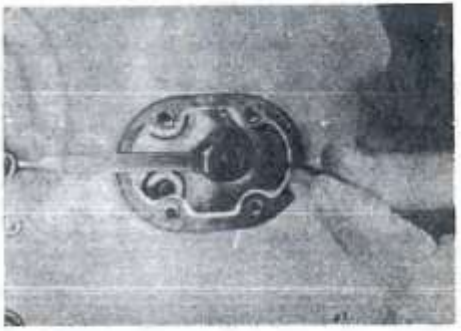
Clutch adjustment.

Unscrew the pivot bolt A (8mm. Allen key) holding the gear pedal beneath the footrest; remove the bolt and collect the spacer from the pedal, allowing the assembly to hang from the linkage. Remove the oval cover B adjacent to the riders left footrest. (Four socket screws, 4mm. Allen key).



Slacken the nut on the adjuster (10mm. spanner). Screw in the adjuster (2.5mm. key) until the pressure plate is seen to move outwards; at this point the resistance of the adjuster to movement will increase. Turn the adjuster back ½ to ¾ of a turn from the point at which the pressure plate starts to move outwards, securing the adjustment with the lock nut. Check the condition of the gasket and replace the cover.

Fit the spacer in the pedal pivot and refit the pedal beneath the footrest, securing it with the pivot bolt.



WARNING:

DO NOT REMOVE THE FOUR SCREWS HOLDING THE CLUTCH CYLINDER COVER ONTO THE RIGHT ENGINE COVER, OR HYDRAULIC FLUID WILL LEAK AND THE CLUTCH SYSTEM WILL NEED TO BE BLED.

Clutch lever adjustment.
The level of free play in the lever is adjustable through a grub screw located inside the lever. By turning the grub screw to the left or to the right either increases or decreases the level of free play.
Unless there is some free play at the end of the lever, the hydraulic mechanism will not operate correctly.

Air bleeding.
Should the clutch become spongy in service or the hydraulic unions be disturbed, the clutch should be bled in the manner described for the front brake (page 69).

Gear pedal adjustment.
The gear pedal is splined to the end of the shaft and the linkage is threaded to permit variations in pedal position.

CARBURATION.

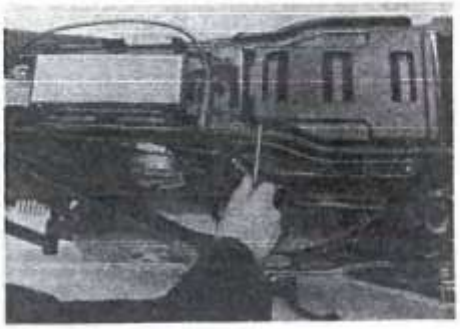
Carburettors.

The carburettors are pre-set at the factory and no attempt should be made to alter any settings except the idling speed and the cable synchronisation. No mechanical harm will result if standard jets are used at high altitudes, but power will be reduced, petrol consumption increased, and plugs fouled with carbon which may cause misfiring. If the motorcycle is to be used at high altitudes for a prolonged period, technical advice should be sought from either your Hesketh dealer or the Service Department at the factory.

Air filters.

Lift the seat, (page 27). Turn the petrol taps to the OFF position, and prise off the petrol pipes carefully with a screwdriver. Unscrew the rear tank mountings; remove the petrol tank by sliding it backwards off the rubbers and lifting it up taking care not to catch the cam chain covers, and top fork yoke.

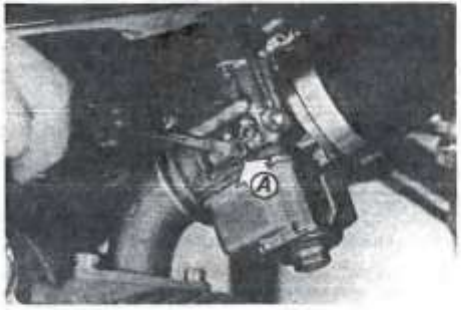
Remove the air cleaner covers, lift out the disposable paper elements and fit new Hesketh air cleaner elements, noting the arrows indicating the direction of air flow.
Reverse the procedure for reassembly.
Check that all the fixings are secure and turn the petrol taps on briefly to check that there are no leaks.



Idling speed regulation.

Before checking the idle speed, check that there is some slack in each throttle and choke cable and that the rubber covers on the inlet manifold vacuum gauge adaptors are secure.

Unless the settings have been disturbed, the idling speed may be set by movement of each throttle stop screw A. They may be found on the right of the rear carburettor, and the left of the front one. As the screw is moved inwards the carburettor slide is lifted, allowing more mixture to the cylinder and thus increasing the idle speed.



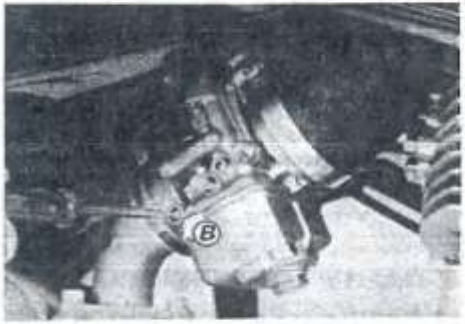
The carburettors should be set so that both cylinders are firing evenly.

This can be checked most easily through using vacuum gauges; but a fair approximation can be achieved by listening to the exhaust note from each cylinder, and ensuring that a small variation in either throttle stop screw has the same effect on engine speed and noise.

If variation of the throttle stop screw position does not have the desired effect, screw both screws in half a turn to increase the idle speed temporarily.

Try the effect of moving each mixture screw B a small amount in each direction. Leave each screw in the position which gives the fastest steady idle speed, and unscrew the throttle stop screws slowly until the desired idle speed is reached. The setting of the mixture screws will normally be found to be around 1½ turns out from the fully home position.

A certain amount of experience is necessary to achieve the best results; if the idle speed is still irregular or in any way unsatisfactory, have your Hesketh dealer check the settings.

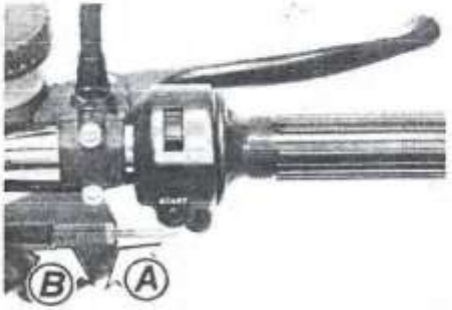


WARNING:

DO NOT ATTEMPT TO ADJUST THE HEXAGON HEADED SCREW ON THE PETROL UNION OR THE BRASS SCREW ON THE OPPOSITE SIDE OF THE CARBURETTOR. IDLE ADJUSTMENT SHOULD BE CARRIED OUT IN THE OPEN AIR AND PREFERABLY IN A BREEZE TO AVOID OVERHEATING AND POSSIBLE EXHAUST SYSTEM DISCOLOURATION.

Throttle grip adjustment.

Release the locknut A and turn the adjuster B until there is 1mm. (0.04") of free play in the throttle cable. The adjuster acts on both cables to remove backlash evenly. If there is insufficient free movement present in the throttle cable, the engine may race when the handlebars are turned to full lock.



Throttle cable adjustment.

Check that the free play on each cable is identical with a minimum free play of 1mm. (0.04"), so that the slides operate exactly together. The play may be checked where the cables enter the fittings on the top of each carburettor.

If vacuum gauges are not available reasonable results may be achieved by proceeding as follows. Start the engine and warm it up to the running temperature. Set the tick over adjustments with the engine running so that the engine runs smoothly without faltering, (see idling speed page 40). The strength and regularity of the puffs from the exhaust as felt against the palm of the hand should be equal. With the engine ticking over try the effects of opening the throttle very slowly, and both the cylinders should pick up at the same time.

If not, release the adjuster on the carburettor which opens late and take up the slack in the cable.

For a more accurate check, the petrol tank (page 39) and the air boxes (page 40) must be removed. This will enable a finger to be placed against each slide as an assistant opens the throttle slowly.
Adjust the cable adjusters at the top of each carburettor, so that each cable has 1 mm. (0.04")of slack at tickover and the slides move simultaneously.
Unless the carburettors are properly synchronized rough running will be experienced at low engine speeds. This operation must be done after the idle speed has been correctly adjusted.

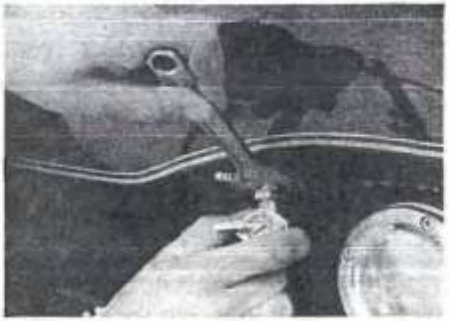
Choke cable.
The choke cable setting should not need regular adjustment. If necessary, follow the procedure as for the throttle cable, ensuring that there is some free play in each cable when the choke knob is released.

WARNING:-
DO NOT SMOKE OR HAVE ANY NAKED LIGHTS NEARBY WHILST WORKING ON THE PETROL SYSTEM.

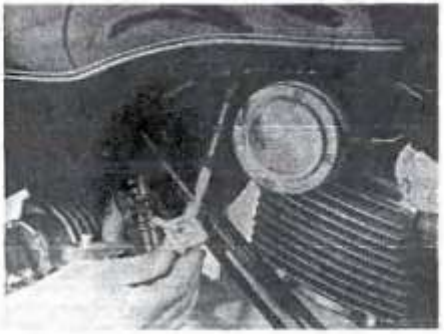
Petrol tap filters.
There is a filter in the tank above each petrol tap, which should be removed periodically for cleaning. The tank must be empty before the filters are removed. Turn the petrol taps to the OFF position, and remove the petrol pipes. Attach a 1m. (3ft.) length of plastic pipe to each tap in turn, and place the other end into a metal container. Turn the petrol taps to the RESERVE position and drain any remaining petrol from the tank into the container, returning the taps to the OFF position. Some fuel will remain in the lowest part of the tank; have a cloth handy to catch any drips as the taps are removed.

The petrol taps are each retained by a double threaded nut, (right hand thread to the fuel tank and a left hand thread to the petrol tap). Hold the tap and turn the nut to the left, which allows the tap to be removed from the tank. Should both the taps be removed at the same time, they are marked:-

D = Right hand side.
S = Left hand side.



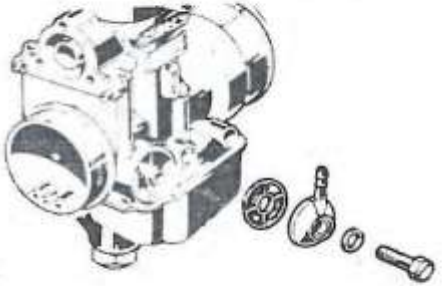
Wash the filters in clean petrol and blow through to remove any deposits.
In cases of severe contamination it is possible to unscrew the filter tube from the tap, and remove the gauze filter to allow thorough cleaning.
The flange plate can be removed for access to the internal parts of the petrol tap. When refitting the taps, fit the nut with the plain portion upwards, noting that the nut draws the tank and the tap together.



Reverse the procedure for reassembly, and after refitting the tank briefly turn on the petrol taps to check that there are no leaks.

Carburettor filters.

At the connection between each fuel pipe and the carburettor is a further filter. For access and cleaning, remove the slotted hexagon bolt holding the fuel union to the right side of the carburettor. Lift off the union and remove the plastic filter. The filter may be rinsed in clean fuel or blown through with a low pressure compressed air line. The cleaned filter may be refitted either way round. When refitting, check the condition of the fibre washer on the bolt, and be careful not to overtighten. Finally turn on the petrol taps briefly to check that there are no leaks.



WARNING:
DO NOT SMOKE OR HAVE ANY NAKED LIGHTS NEARBY WHILST WORKING ON THE PETROL SYSTEM.

Removal of the float bowl.

The float bowls should only need to be removed when the petrol is severely contaminated, and should be removed one at a time. Turn the petrol taps to the OFF position. Hold a container beneath each float bowl in turn, and remove the nut holding the bowl to the carburettor.

Remove the bowl from the carburettor, and allow any petrol to drain into the container, briefly turning the petrol tap ON to flush the system through, and returning it to the OFF position after a few seconds or when clean petrol appears.

Wash the bowl in clean petrol replacing it the correct way round, ensuring that the rubber seal is positioned around the edge of the bowl. If the seal was damaged during removal or it appears to be damaged then it must be renewed.

Briefly turn the petrol taps on to check that there are no leaks. Should there be evidence of sediment in the float bowls it may be helpful to clean out the tank filters, (pages 43 & 44), and the carburettor filters, (page 45).

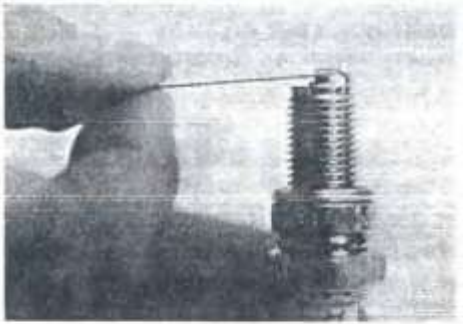
Petrol pipes.
Check the pipes for general condition, and replace them if their condition is not perfect.

IGNITION SYSTEM.

Sparking Plugs.

Remove the front plug cover and unscrew the sparking plug, then lift the seat (page 27), and remove the rear plug cover and sparking plug.

Check the sparking plug electrode gap with tool number CT 410 from the tool kit, adjusting the gap to the required specification. Check the condition of the sparking plugs; if you are in any doubt over their condition, fit a new set or the spare set from the tool kit and have the old set checked by any Hesketh dealer.



Sparking plug electrode gap:
0.6mm. - 0.7mm. (0.024" - 0.028").

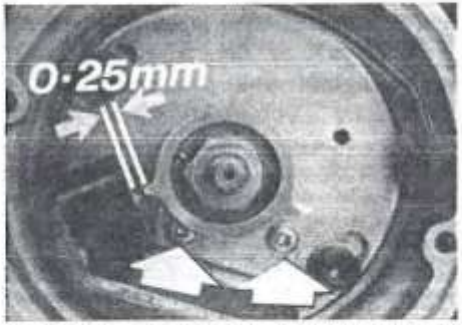
Fit the new sparking plugs after lightly wiping the threads with a film of lubricant. Refit the plug covers making sure that each sparking plug top thread engages in the clip in the plug cap, and lock the seat, (page 27). Fitting the rear plug cap is made easier if the 8mm. Allen key is pressed down onto the covering of the plug cap until the sparking plug engages into the clip in the plug cap.
When refitting a used sparking plug screw it in by hand and tighten with the 18mm. box wrench from the tool kit by about an eighth of a turn to prevent stripping the threads. A new plug however will need to be tightened by about half a turn to compress the new sealing washer. If the plug is overtightened damage to the threads may occur.

WARNING:

USE OF A BRASS WIRE BRUSH WILL COAT THE PLUG INSULATOR WITH A CONDUCTING DEPOSIT AND MAY CAUSE MISFIRES AND POOR STARTING.

Ignition timing.

With the electronic ignition fitted the ignition timing should not vary in use. Should you be in any doubt, especially if the ignition pick-up assembly on the rear cylinder head has been disturbed, the engine timing may be checked using a conventional white-light stroboscope.
If the ignition pickup assembly has been moved on its backplate, it is first necessary to set the radial clearance between the poles of the reluctor and the core of the coil to 0.25mm. (0.01inches), using a feeler gauge; (if no feeler gauges are available a page from this manual may be used as a temporary measure).

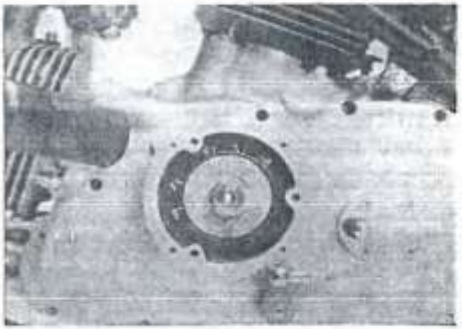


This can be done by turning either the back plate or the engine until the two poles line up.

To alter the clearance; slacken the two Posidriv screws holding the pick up to the back plate, allowing the pick up to be rotated. This operation will not be necessary if the pick up and the back plate have been removed together.

The alternator cover on the left hand side of the engine should be removed to reveal the timing marks, (T = T.D.C., F = Firing point fully advanced).

This will enable the engine to be run with the stroboscope connected to one plug lead. As the engine has an "idle spark" ignition system both cylinders may be checked at the same time by connecting the strobe to the more accessible front H.T. lead.



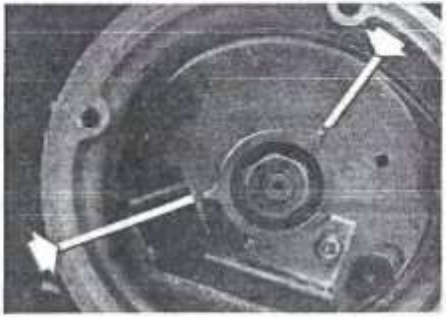
If the timing is found to be incorrect stop the engine and remove the ignition pick-up cover on the rear cylinder head. Slacken the two socket screws holding the back plate to the housing allowing the pick up to be rotated:-

clockwise - to advance the ignition.

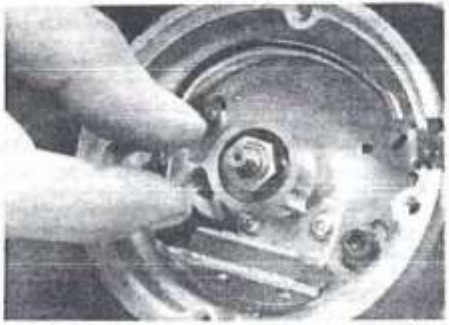
anticlockwise - to retard the ignition.

Tighten the two socket screws, and refit the ignition pick-up cover before rechecking the timing, as the cover includes an outrigger bearing for the ignition spindle. Further timing details are given in the Workshop Manual.

Should the ignition timing be disturbed when a stroboscope is not available, the timing may be set with reasonable accuracy as follows:-
Engage the transmission in top gear. Turn the engine, by rotating the rear wheel, until the rear piston is exactly at the firing point on the compression stroke. This will position the ignition rotor approximately, and the alternator rotor exactly as shown on page 49 with the top F mark in line with the rotor mark.



Now position the pick up coil assembly so that there is 5.3mm. (7/32") between the coil pole and reluctor blade, as illustrated. The timing blade (Part No.1461) included in the tool kit should be inserted between the two poles as shown to set the timing in this way.
Without turning the engine, tighten the two socket screws to lock the pickup in place.

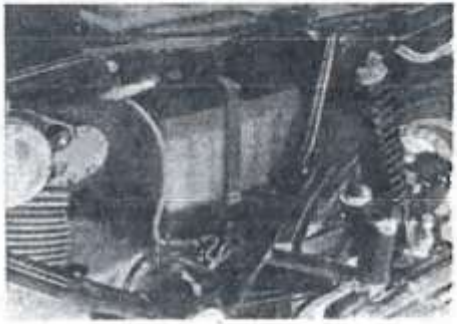


This automatically sets the correct timing for the other cylinder at the same time.
Remember to change the gearbox back into Neutral before attempting to start the engine.
WARNING:
IF THE IGNITION TIMING HAS BEEN DISTURBED, DO NOT USE THE MOTORCYCLE AT MORE THAN HALF THROTTLE UNTIL THE TIMING HAS BEEN ACCURATELY SET WITH A STROBOSCOPE, OR OVERHEATING AND INTERNAL ENGINE DAMAGE COULD BE CAUSED.

ELECTRICAL EQUIPMENT.

The Battery.

The battery is positioned beneath the left hand side cover, and the acid level should be checked weekly. To check the level which should be 15mm. (5/8"), below the moulding on the top of the battery, lift the seat (page 27), and remove the left hand side cover. If you are not sure which is the acid level, tilt the battery slightly and the fluid will be seen to move.



If the battery requires topping up unhook the retaining strap, tilt the battery and slide it out of the frame for access to all the filler plugs. Top the cells up with distilled water to the correct level with the battery held level, wiping any spilt water off the battery with a clean cloth which should be discarded after use. Refit the retaining strap, the side cover and lock the seat (page 27).

If the battery requires frequent topping up check it for signs of damage and if there are none have the charging system checked by a Hesketh dealer. Should it be necessary to remove the battery, disconnect the leads, unhook the retaining strap and slide the battery out of the frame.

WARNING:
ENSURE THAT THE BATTERY IS CORRECTLY CONNECTED (NEGATIVE EARTH) AS DAMAGE WILL OCCUR IF THE POLARITY IS REVERSED.
BE CAREFUL WHEN REMOVING THE BATTERY TO AVOID SHORT CIRCUITS AS THE TERMINALS PASS METAL PARTS.
DO NOT ALLOW THE BATTERY BREATHER TUBE TO BECOME BLOCKED OR KINKED.

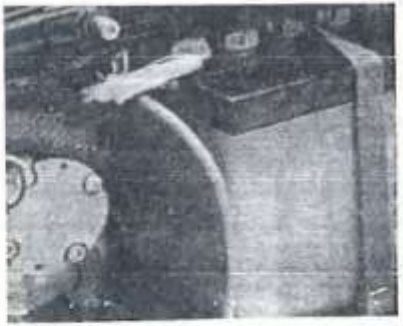
Riders who do not use their machines every week should note that if a battery remains unused for a month or more it will lose its charge and begin to deteriorate. Such damage cannot be corrected and will lead to premature failure. To avoid this the battery should be given a freshening charge of 1 Amp. for 8 hours each month.

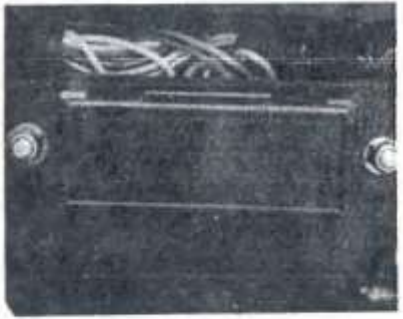
Charging the battery.
The battery can be charged in position on the motorcycle, and it is not necessary to disconnect the leads. Whilst the battery is large by motorcycle standards, it is not as big as a car battery, so car type boost charging must be used with extreme caution. Too high a charge rate will overheat the cells causing permanent damage, and the voltage regulator on the motorcycle may also be damaged beyond repair.

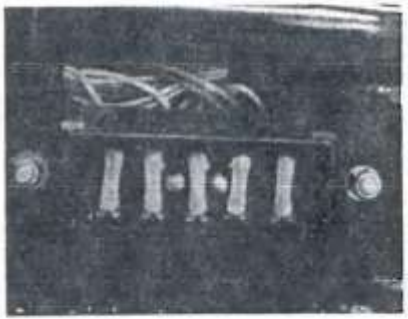
Jump starting.
If the battery has been run down through normal usage jump leads can be used to start the motorcycle provided the battery has not been left for more than a few hours in the fully discharged condition. When the machine is running, remember that the alternator will not produce enough current to charge a fully discharged battery, run the ignition and lights at tick over. Keep the engine revs above 2,500 r.p.m. for a few minutes and avoid having to restart the engine before the battery has had time to become recharged.

Fuses.

To prevent damage to the electrical system each circuit is protected by a fuse. If an electrical component should fail, check the fuses, which are located beneath the right hand side cover except the main fuse which is positioned above the battery. It should only be necessary to examine the main fuse if the clock has stopped, as the clock system is fed directly from this fuse.



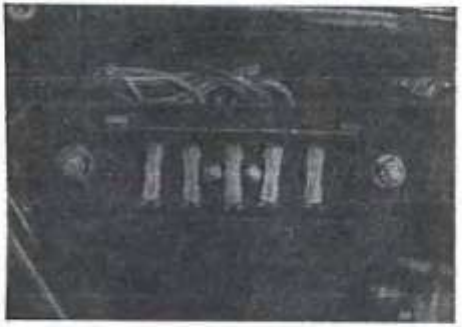




	Fuse rating.	Circuit.
Fuse no. 1.	5 Amp.(Yellow)	Main beam.
Fuse no. 2.	5 Amp.	Dip beam.
Fuse no. 3.	5 Amp.	Pilot light, Tail light, Instrument display.
Fuse no. 4.	8 Amp.(White)	Ignition and Brake light.
Fuse no. 5.	8 Amp.	Horn and Turn lights.
Main fuse.	35 Amp.(Glass)	All circuits except the starter itself.
Spare fuses.	5 Amp.	In the fuse box.
	8 Amp.	In the fuse box.
	35 Amp.	Included in the tool kit.

WARNING:
NEVER USE A SUBSTITUTE MATERIAL FOR A FUSE OR FIT A FUSE WITH A GREATER FUSE RATING THAN THE STANDARD FITMENT. THE FUSES ARE DESIGNED TO PROTECT THE ELECTRICAL CIRCUITS AND THE USE OF INCORRECT FUSES COULD RESULT IN SEVERE DAMAGE TO THE SYSTEM, OR A SERIOUS FIRE.

To renew a fuse.
Turn off the failed component concerned, lift the seat (page 27), remove the right hand side cover and the fuse box cover. Remove the blown fuse from the clips and fit a new one of the same fuse rating, so that the metal strip in the fuse is clearly visible. Turn the component on and check that the circuit is working. Refit the fuse box cover, the side cover and lock the seat (page 27).
It is advisable to carry a set of spare fuses in the tool kit to cover emergencies.



If the new fuse blows again have the machine checked by any Hesketh dealer or an electrical specialist, as this indicates a short circuit or an overload in the electrical system.
Should one of the minor circuits, e.g. parking lights, not work it is quite safe to ride your motorcycle to any Hesketh dealer.

In case electrical trouble is experienced when no Hesketh dealer is available to help, here are the Lucas part numbers for the fuses used:-

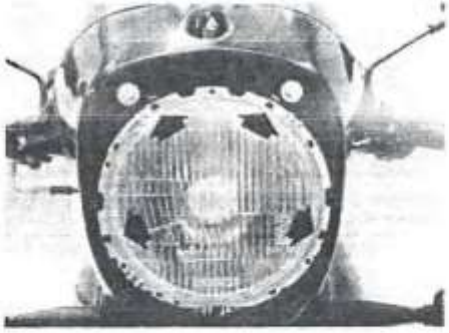
5 Amp. (Yellow) - Hesketh 8020, Lucas 54160411.
8 Amp. (White) - Hesketh 8021, Lucas 54160412.
35 Amp. (Glass) - Hesketh 1460, Lucas 188218.

The fuses used in the fuse box are of European (DIN) pattern and are rated with the steady current which they will pass without overheating; they will not fail until about twice this current is passed. In other words, a 5 Amp. fuse is used for a system in which 5 Amps is the normal maximum load. The main fuse is of British pattern, however, and is marked with the current which would cause it to fail (i.e. 35 Amps). The steady current through the main fuse should not exceed half this value (i.e. 17½ Amps). These factors should be borne in mind when considering the addition of electrical accessories. If in doubt your Hesketh dealer or a vehicle electrical specialist should be consulted.

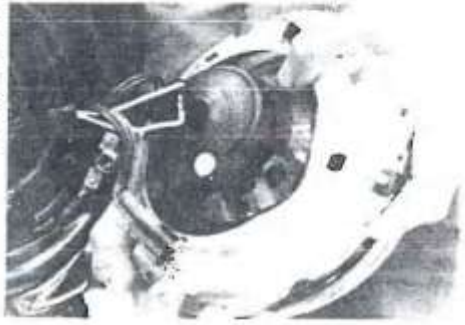
Bulb replacement.
When changing bulbs switch the light concerned OFF or remove the main fuse to avoid a short circuit. See page 14 (use of tool kit), for remarks on the two types of cross headed screws used (Phillips and Posidriv).

Headlight.
Unscrew the 6 Posidriv screws and remove the flyscreen and outer headlight cowl.

Remove the four Posidriv screws to release the headlight mounting ring. Disconnect the central 3 pin connector and remove the parking light (bayonet fitting), then take out the headlight assembly.



Peel back the rubber cap on the back of the headlight assembly, and release the exposed spring clip. Remove the old bulb and fit a new bulb of an identical value, with the wide locating tab on the bulb towards the top of the headlight.



Reverse the procedure for reassembly.

WARNING:
REMEMBER ONLY TO TOUCH THE METAL PARTS OF THE QUARTZ BULB. FINGER MARKS ON THE QUARTZ ENVELOPE MAY CAUSE DAMAGE; AND ACCIDENTAL MARKS MUST BE REMOVED USING METHYLATED SPIRITS, (ALCOHOL).

Parking light.
Remove the headlight as for the main bulb replacement.
The parking bulb is held by a standard bayonet fitting.
Reverse the procedure for reassembly.

Tail/Brake light.

Remove the two Posidriv screws to release the lens.

The tail/brake bulb is held by a bayonet fitting; it is the only bulb to have an 'offset-pin' fitting, which means that it will only fit one way round.

Refit the lens and the two screws, noting that the clear section must face downwards to illuminate the number plate.

Turn light.

Remove the two Phillips screws to release the lens.

The indicator bulbs are held by standard bayonet fittings.

Refit the lens with the two screws, noting that the drain hole should be at the bottom.

WARNING:

WHEN REFITTING THE LENSES TIGHTEN THE SCREWS EVENLY BUT DO NOT OVERTIGHTEN, AS THIS MAY CAUSE POOR SEALING OR LENS DAMAGE.

Instrument console bulbs.

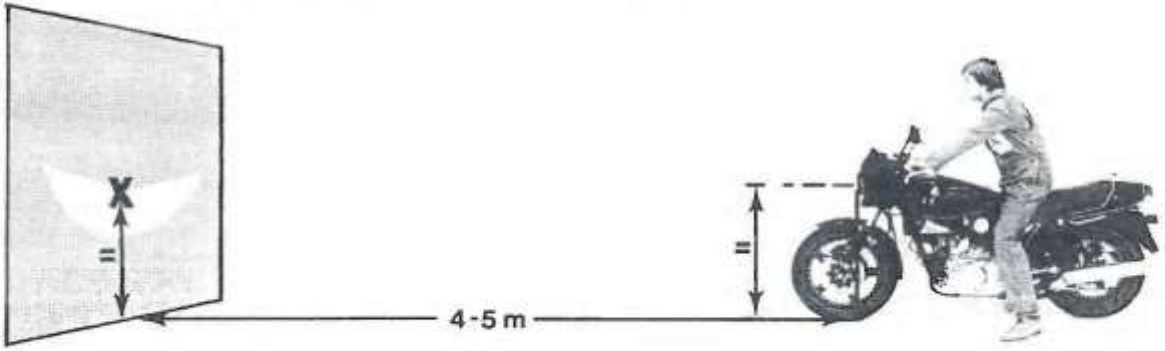
To replace any of the bulbs in the instrument console the flyscreen, outer cover and headlamp surround must be removed (page 56) to give access to the back of the instrument assembly. The instrument and warning bulbs are all conventional bayonet fitting.

Do not remove the four Phillips screws on the top of the console whilst it is in position, as reassembly may become difficult.

Headlight adjustment.

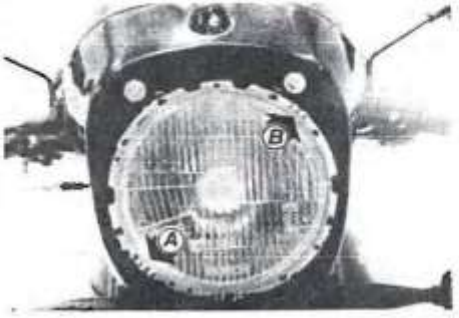
The headlight must be correctly adjusted for safe night riding, and so that oncoming traffic is not dazzled. Check and adjust the tyre pressures (page 95) and the rear damper unit settings (page 77).

Place the motorcycle on a level surface, 4-5 metres (13-16ft.) away from a wall, and remove the headlight cowl and fly screen (page 56). Measure the distance from the ground to the centre of the headlight glass (about 915mm. 3ft.), and make a cross on the wall at the same height.



To adjust the headlight the rider should sit on the motorcycle, with the appropriate adjustment for passenger and/or luggage. The motorcycle must not be supported on the centre stand.

Switch the headlight onto dip beam and rotate the lower adjuster screw A (vertical pitch) to align the beam, so the horizontal light/dark boundary passes through the centre of the cross, or slightly below. Whilst making the adjustment check that the beam aligns with the handlebars, adjusting the upper screw B (horizontal pitch) as necessary.



Under no circumstances should the dip beam rise above this line, as it will dazzle other road users, and give a main beam which is too high.

WARNING:
IF A PASSENGER OR LUGGAGE IS CARRIED THE ANGLE OF THE HEADLIGHT MAY CHANGE, AND SHOULD BE ADJUSTED, REMEMBERING TO ADJUST THE TYRE PRESSURES AND THE REAR DAMPER UNITS BEFORE THE HEADLIGHT ADJUSTMENT.

FRONT WHEEL.

The front wheel is made from light alloy. Before riding your motorcycle check the wheel for any sign of damage or free play. If you suspect that there is any damage to the wheel or free play in the steering mechanism have the motorcycle checked by any Hesketh dealer before riding it.
When a tyre is renewed, it is recommended that the inner tube is renewed at the same time.

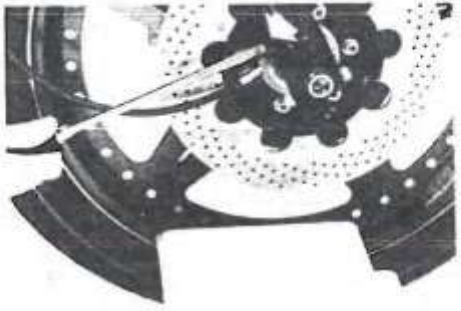
WARNING:

HESKETH LIGHT-ALLOY WHEELS ARE NOT DESIGNED FOR TUBELESS TYRES. THE RIMS ARE EASILY DAMAGED BY TYRE LEVERS AND FLANGE PROTECTORS MUST BE USED WHEN CHANGING A TYRE.

Front forks.
Marzocchi telescopic front forks with integral two-way hydraulic damping. The turning angle of the front fork is 27° in either direction.
Check the front forks for any sign of oil leaks or damage before you ride your motorcycle.

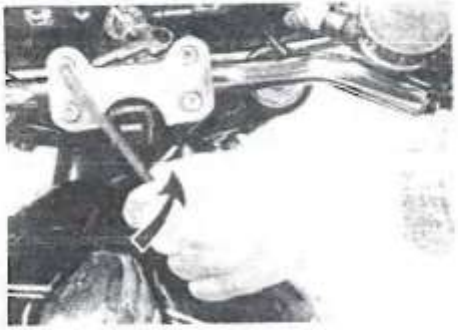
Front fork oil replacement.
The used oil should be drained from each fork leg in turn, and the operation is simplified if an assistant is available. The motorcycle must be off the centrestand and balanced by the rider standing astride the seat.

The assistant should undo the first drain plug, whilst the rider holds the handlebars steady, and pumps the forks up and down to force out the used oil. Refit the first drain plug and repeat the operation for the other fork leg.

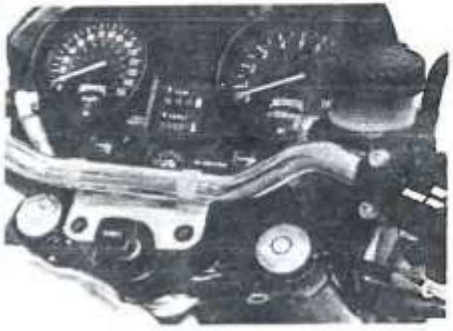


When both forks have been drained lift the motorcycle onto the centrestand, (page 29).

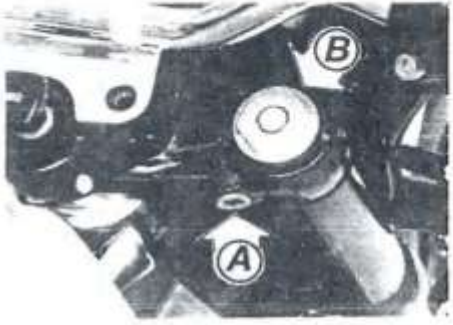
Unscrew the handlebar clamp and turn it through 180° so that the handlebars can be lifted up and the clamp refitted in its original position.



Retain it with one screw and lower the handlebars so that they rest on top of clamp.



Slacken the pinch bolt A in each stanchion to release the tension from the threads of the filler nuts B. Remove one of the filler nuts using a 30mm. socket or box spanner.



WARNING:
AFTER AROUND 7 COMPLETE TURNS THE FILLER NUT WILL BE RELEASED AND IT IS UNDER A LIGHT SPRING PRESSURE.
IF BOTH SPRINGS ARE REMOVED AT THE SAME TIME THE FRONT FORKS WILL COLLAPSE AND THE MOTORCYCLE MAY ROLL OFF THE STAND.

Remove the spacer, the spring and the spring cover. It is more convenient to take the spring and its cover out of the fork, as it allows the new oil to flow in more quickly.

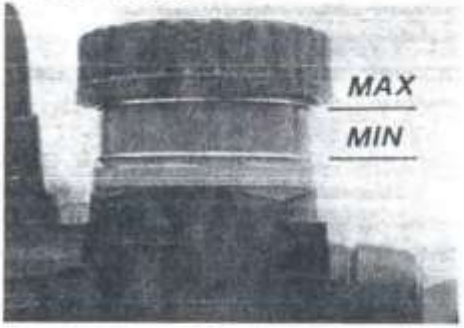
The spring cover may be reversed and used as a funnel to speed up the filling process, of replenishing the 250cc. of recommended lubricant (page 115).
Refit the spring, the spring cover and the spacer. When refitting the filler nuts take care that the threads engage properly against the spring pressure, and that the filler nut is not over-tightened. Securely tighten the pinch bolt in each stanchion to retain the filler nuts. Lift the handlebars up and remove the screw retaining the handlebar clamp. Turn the clamp through 180°, lower the handlebars into position and securely refit the handlebar clamp.

WARNING:
BEFORE RIDING YOUR YOUR MOTORCYCLE CHECK THAT ALL THE CONTROLS ARE FUNCTIONING CORRECTLY AND THAT NO CABLES ARE TRAPPED. CLEAN YOUR HANDS THOROUGHLY BEFORE AND AFTER WORKING ON THE BRAKE SYSTEM. SEE PAGE 70 FOR REMARKS ON HANDLING BRAKE FLIUD.

Front brake.

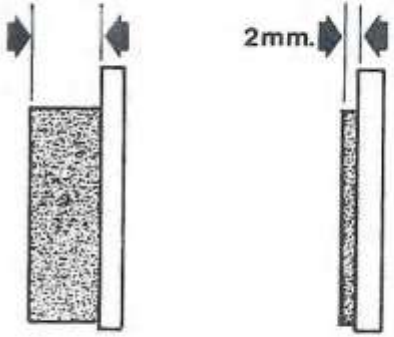
Twin Brembo hydraulically operated brakes with cast iron discs.

The fluid level in the reservoir should be checked before riding to make sure that it has not fallen to below the minimum level line. Should the brake reservoir require topping up on a regular basis, the system must be checked for leaks.



Remove the dust covers and examine the brake pads for wear, renewing as necessary (page 66), noting that if the pads are close to the wear limit, and you are preparing to set out on a journey of several days length, the pads should be renewed before you set off.

Wear limit: 2mm. of friction material.

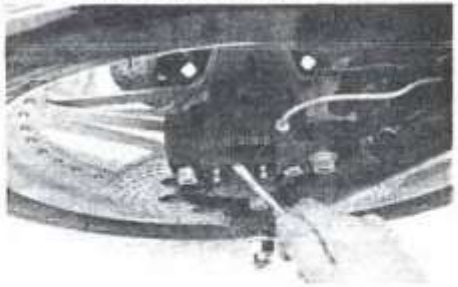


Examine the front brake hydraulic system for any sign of hydraulic fluid leakage or damage to the system.
Inspect the front discs for signs of damage or excessive scoring. Clean off any traces of lubricant with a solvent. Remember that if the motorcycle is exposed to wet weather, surface rust will form on the disc. This should not affect the braking performance and will be removed by the action of the pads when the motorcycle is next used. If the discs are damaged or scored have your motorcycle checked by any Hesketh dealer.

Front brake lever adjustment.
The level of free play in the lever is adjustable through a grub screw located inside the lever.

WARNING:
THERE SHOULD ALWAYS BE MINIMUM PLAY OF 1mm. (0.04") AT THE END OF THE LEVER, IF NOT THE BRAKES MAY BIND, OVERHEAT AND COULD LOCK THE WHEEL.

Front Brake Pad Replacement.
The brake pads may be removed from the caliper units whilst they and the front wheel are in place. Remove one set of pads at a time following the same procedure for both calipers.
Prise off the plastic dust cover on top of the caliper unit with a screwdriver and place it to one side.

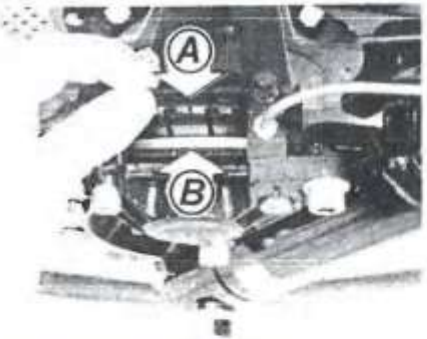


Using the pliers from the tool kit, pull out one of the pad retaining pins, thus freeing the spring clip.
Should the brake pad retaining pins be tight in their housings, they may be tapped out from the opposite side of the motorcycle with the tommy bar from the tool kit.
With the spring tension released, the remaining pad retaining pin and the tensioning pin can be withdrawn, and the old pads lifted out of the caliper.

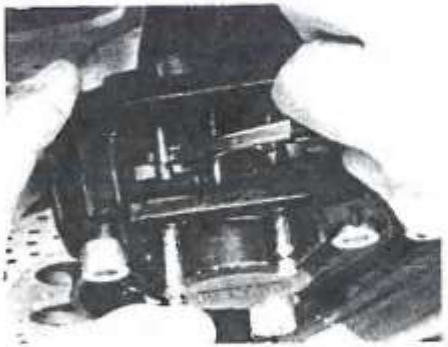
Before fitting the new pads check that the hydraulic fluid in the reservoir is at the minimum mark, adjusting as necessary, as when the pistons are backed up in the calipers the fluid level will rise, and could overflow.
As the new pads have thicker linings than the old ones, it is necessary to push the pistons back into their housings; this can be done by applying gentle pressure with the plain end of the 'C' spanner from the tool kit.

WARNING:
DO NOT SQUEEZE THE BRAKE LEVER WHILST REPLACING THE PADS, AS THIS MAY EJECT OR MISALIGN THE PISTONS IN THE CALIPER AND RELEASE HYDRAULIC FLIUD.

Fit the new pads into position in the caliper making sure that the friction surface A faces towards the disc B.



Refit the rear retaining pin and the tensioning pin. Place one end of the spring under the rear pin and fit the front retaining pin through the loop of the spring, whilst pushing down on the spring. Push the retaining pins in until the spring locates in the grooves, and then refit the dust cover.



Rotate the front wheel to check that the new pads are not binding on the discs, and squeeze the brake lever several times to position the new pads correctly.

WARNING:
DO NOT LUBRICATE ANY OF THE BRAKE PARTS AS THIS WILL SEVERELY AFFECT THE BRAKING PERFORMANCE AND THE CONDITION OF THE RUBBERS.

Air Bleeding.

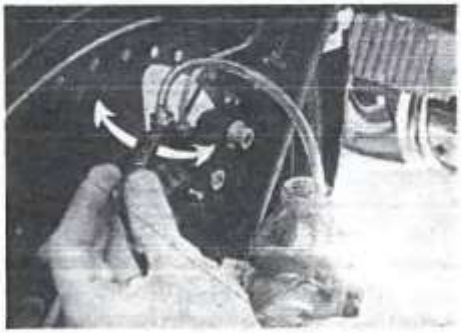
None of the hydraulic systems should need to be bled as a routine operation. Should the connections have been disturbed, air may enter the system, and should be removed as described here. Should you be in any doubt regarding the need for bleeding or the procedure involved, please refer to your Hesketh dealer.

There are two bleed valves for the front brake; each is located on the top of a brake caliper, and should be bled individually rather than both together, following the same procedure.

Remove the dust cap from the bleed valve and place an 11mm. ring spanner over the valve. Push a length of clear plastic tube (Part No. 1154) over the nipple, securely immersing the other end in a transparent jar half full of new hydraulic fluid.

Unscrew the front brake reservoir cap and make sure that the hydraulic fluid is at the maximum mark, refitting the cap to keep out any dirt, (but omitting the bellows for convenience).

Apply light pressure to the brake, and release the bleed valve. The lever will move towards the handlebars and fluid will be seen to flow from the valve. Tighten the valve lightly onto its seat and release the lever.
Repeat this operation, forcing fluid out of the bleed valve each time, until fluid free of bubbles is seen to flow. Check the fluid level in the reservoir from time to time, and top up with new fluid. If the level is allowed to sink too low, air will be drawn into the system, necessitating a fresh start.



Note :-
The rear brake may be bled in the same manner. If the clutch should require bleeding, it is usually sufficient to release the bleed valve and fluid will flow through the system under gravity.

When all the air has been removed, indicated by a firm feel to the lever when pulled in as normal, tighten up the bleed valve, release the lever, remove the plastic tube and refit the dust cap. Finally make sure that the hydraulic fluid in the reservoir is at the maximum mark, and refit the bellows and cap.

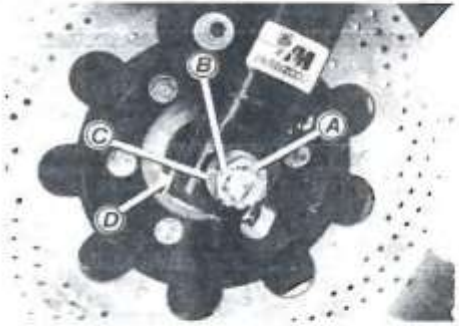
WARNING:
HYDRAULIC FLUID IS HIGHLY CORROSIVE TO SOME FINISHES AND PLASTICS AND WILL DAMAGE EYES; A SKIN REACTION CAN ALSO OCCUR, ANY FLIUID SPLASHED SHOULD BE RINSED IMMEDIATELY WITH PLENTY OF WATER; IF EYE CONTACT OCCURS SEEK MEDICAL ATTENTION. TO AVOID SKIN CONTACT USE RUBBER GLOVES AND AVOID RUBBING EYES OR PAINTWORK WITH ANYTHING THAT MAY HAVE PICKED UP FLUID.

Front wheel removal.

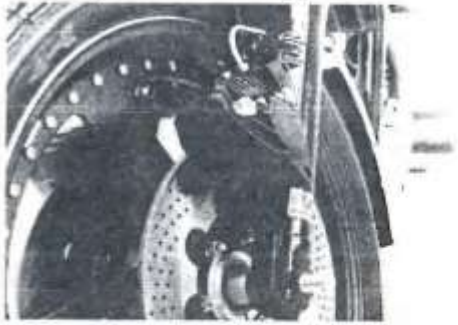
Lift the motorcycle onto the centre stand and place a solid support under the engine, to lift the front wheel clear of the ground.

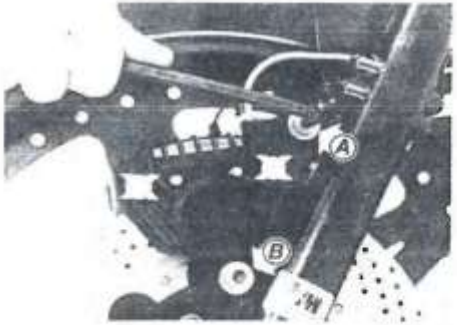
Withdraw the retaining pin A from the wheel spindle and remove the wheel spindle nut B and washer C.

Slacken the pinchbolt D on the base of each fork leg.

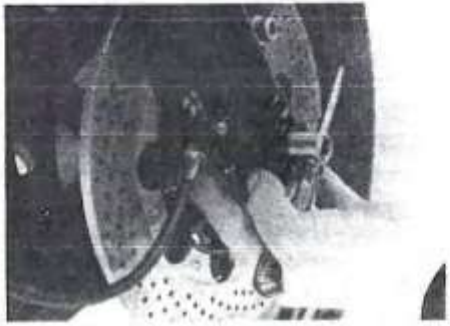


Remove one of the brake calipers, making sure that you remove only the two socket head screws A & B holding the caliper to the fork leg, and not the two screws X holding the caliper halves together.

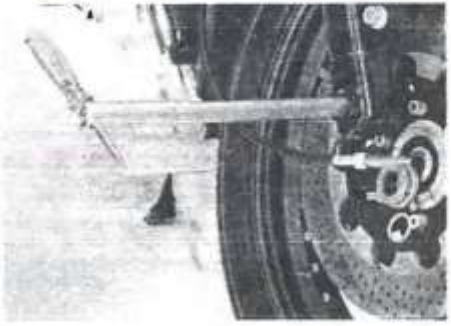




Place a bar through the end of the wheel spindle and turn it to and fro whilst pulling to remove the spindle. If the wheel spindle is very tight in its housing, refit the spindle nut loosely and tap it lightly to release the spindle.



Remove the wheel from between the fork legs and carefully place the speedometer drive washer to one side. Be careful not to allow the discs to become contaminated or scored.

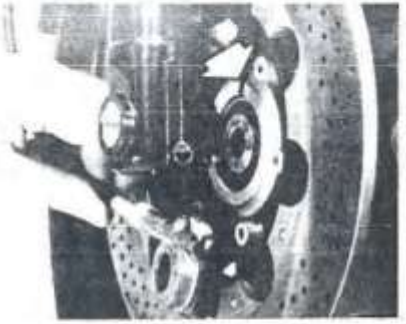


WARNING:

DO NOT SQUEEZE THE FRONT BRAKE LEVER AS THIS WILL PUSH THE PADS TOGETHER, AND COULD MAKE REFITTING DIFFICULT.

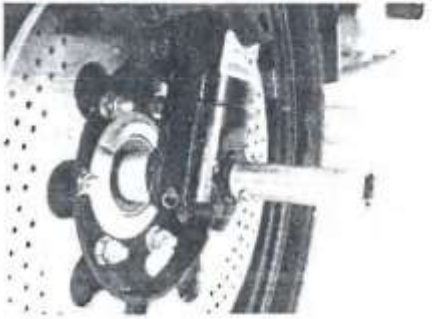
Front wheel refitting.

Roll the front wheel between the fork legs with the thinner spacer to the right hand side and the speedometer drive slot uppermost.



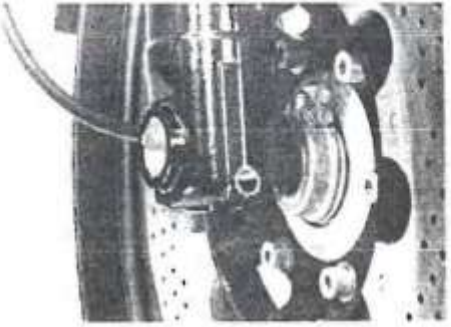
Locating the front wheel is made easier if an assistant is available to support the wheel, if not proceed as follows.

Lift the wheel and temporarily locate it by passing the sparking plug spanner handle through the left hand fork leg, and into the wheel.

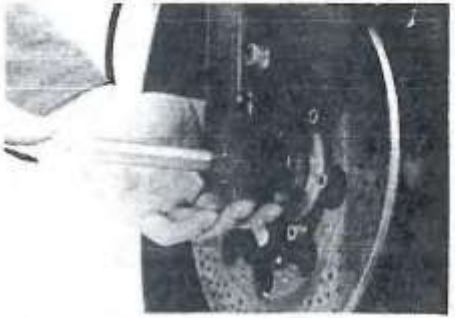


Refit the speedometer drive with the drive tag uppermost, locating it between the wheel and the right hand fork leg, ensuring that the drive tag engages over the slot in the wheel.

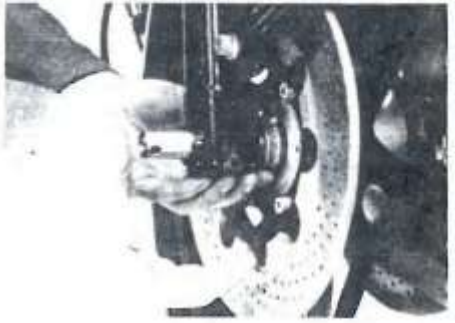
Hold the washer in one hand between the speedometer drive and the right hand fork leg.



With the other hand pass the wheel spindle through the right hand fork leg, the washer, the speedometer drive and half way into the wheel. Remove the sparking plug spanner from the left hand fork leg.

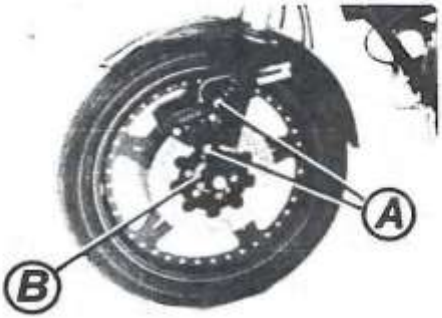


Push the wheel spindle home making sure that the speedometer drive tag and slot in the wheel locate together and that they engage on the shoulder of the wheel spindle.



Refit the wheel spindle washer and nut. Whilst tightening the spindle nut, place the tommy bar through the other end of the spindle to prevent the spindle from rotating. At the same time hold the speedometer drive to prevent it from turning on the spindle shoulder.

Refit the retaining clip; should the clip be damaged a replacement will be found in the tool kit.
Refit the brake caliper to the fork leg and securely tighten the two socket head screws A. Tighten the pinch bolt B at the base of each fork leg.



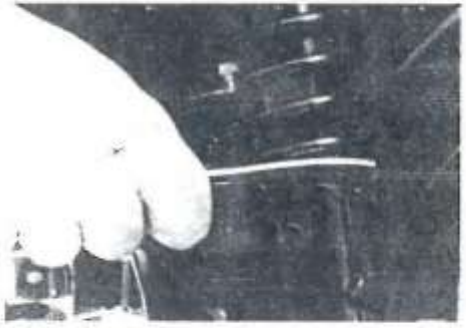
Lift the front of the motorcycle and remove the support from underneath the engine. Apply the front brake and bounce the forks up and down several times to ensure that the wheel spindle is correctly aligned and that the brake pads are correctly located. If the forks feel stiffer than usual slacken the pinch bolts, and bounce the forks two or three times by pushing down hard with the front brake on, then tighten the pinch bolts. This will allow the wheel spindle to position itself correctly in the fork legs.

REAR WHEEL.

The rear wheel is made of light alloy. Before riding your motorcycle lift it onto the centre stand, and check the rear wheel and swinging arm for any sign of damage or free play. If you suspect that there is any damage to the wheel or sideways movement in it or the swinging arm, have the motorcycle checked before riding it.
When a tyre is renewed, it is recommended that the inner tube is renewed at the same time.

WARNING:
HESKETH LIGHT-ALLOY WHEELS ARE NOT DESIGNED FOR TUBELESS TYRES. THE RIMS ARE EASILY DAMAGED BY TYRE LEVERS AND FLANGE PROTECTORS MUST BE USED WHEN CHANGING A TYRE.

Rear Damper Units.
Marzocchi AG. Strada spring/damper units with multi-rate springs and five stage pre-load adjustment.
The damper units can be adjusted for different riding conditions with the C spanner from the tool kit. The cam ring should be turned only when the motorcycle is on the centre stand, to avoid overloading the damper unit. As the cam ring is moved away from the lower mountings the pre-load is increased.



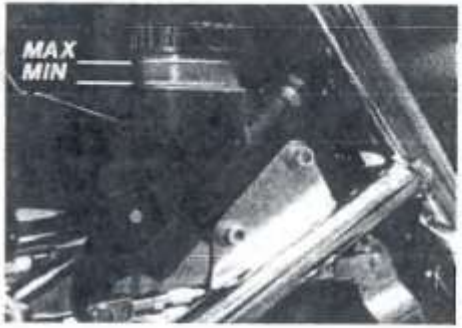
Under normal conditions, a solo rider of moderate weight should use the softest setting. A pillion passenger may require the central setting, whereas a fully laden machine with pillion and heavy luggage may need the hardest setting. Remember that when adjusting for load the tyre pressures should also be adjusted. (See page 95).
The air pressure in the damper units is pre-set at 2.0 bars (28 p.s.i.) at the factory and should not need any adjustment. Should you need to check the pressure note that the volume of air in the damper unit is very small. Use of a conventional tyre pressure gauge may not be satisfactory, as air escapes each time it is used. The most satisfactory check is to use an air line with its own gauge, remembering to release the connection smartly to avoid any leakage. Alternatively the units may be pressurized to a higher figure, and the pressure released by successive applications of a conventional tyre gauge until the correct figure is reached. If for any reason the pressure is inadvertently released the machine may be driven quite safely to the nearest garage, so that the units may be repressurized

WARNING:
ADJUST THE PRE-LOAD ON THE DAMPER UNITS EQUALLY OR THE HANDLING OF THE MOTORCYCLE WILL BE ADVERSELY AFFECTED.
ALWAYS CLEAN YOUR HANDS BEFORE AND AFTER WORKING ON THE BRAKE SYSTEM.
SEE PAGE 70 FOR REMARKS ON HANDLING BRAKE FLIUD.

Rear brake.

A single Brembo hydraulically operated brake with a cast iron disc.

The fluid level in the reservoir should be checked before riding to make sure that it has not fallen to below the minimum level line. Should the reservoir require topping up on a regular basis, the system must be checked for leaks.



Remove the dust cover and examine the brake pads for wear renewing as necessary, noting that if the pads are close to the wear limit and you are preparing to set out on a journey of several days length, the pads should be renewed before you set off.

Wear limit: 2mm. of friction material.

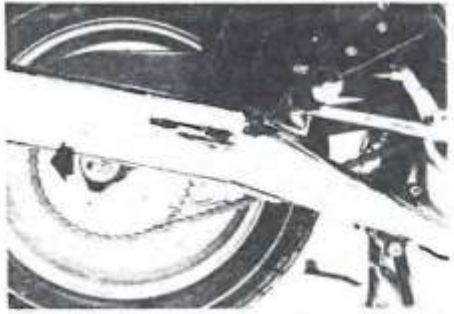
Examine the rear brake hyraulic system for any sign of hydraulic fluid leakage or damage to the system.

Inspect the rear disc for any sign of damage or excessive scoring which should be refered to your Hesketh dealer. Clean off any traces of lubricant with a solvent. Remember that if the motorcycle is exposed to wet weather, surface rust will form on the disc. This should not affect the braking performance and will be removed by the action of the pads when the motorcycle is next used.

Rear Brake Pad Replacement.
The brake pads can be removed from the caliper whilst it and the rear wheel are still in place, in exactly the same manner as the front brake, (page 66).

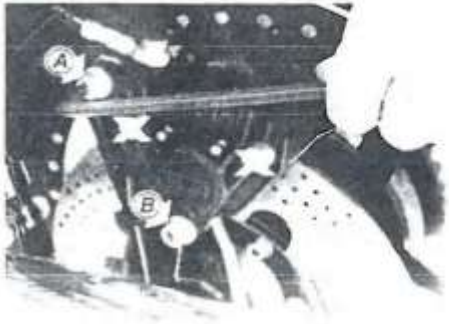
Air bleeding.
Should the rear brake become spongy in service or the hydraulic unions be disturbed, the rear brake should be bled in the manner described for the front brake, (page 69).

Rear Wheel Removal.
Lift the motorcycle on to the centre stand. Rotate the rear wheel until the chain link appears at the midway point of the rear sprocket.

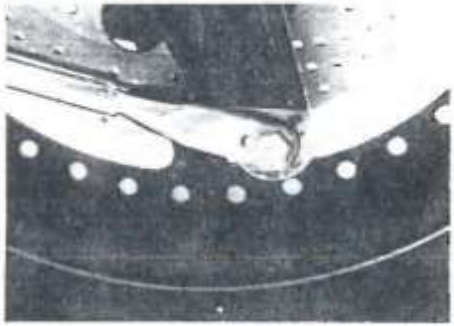


Split the chain split link using the pliers from the tool kit and remove the link.

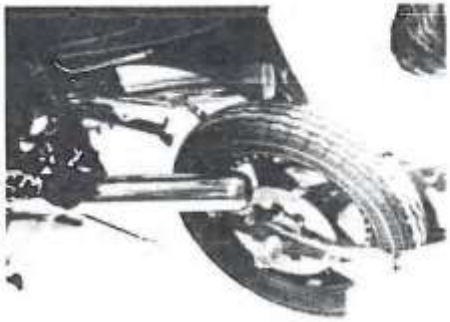
Remove the brake caliper, making sure that you remove the two socket head screws A & B holding the caliper to the caliper arm, and not the two screws X securing the caliper halves.



Disconnect the torque arm from the caliper arm, taking care to retain the tab washer. Remove the swinging arm end caps, noting the side from which each came.



Lift the wheel from the swinging arm clamps and lower it to the ground. Roll the wheel forward and tilt it slightly towards the left silencer so that it clears the chain guard when rolled backwards between the mudguard and the left silencer.

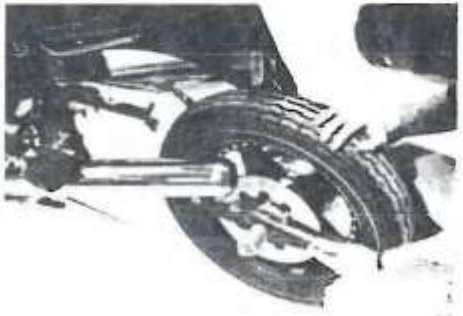


It is not necessary to remove the rear wheel spindle as this is part of the wheel assembly, or to remove the slotted nuts from either end of the spindle as they are removed with the wheel.

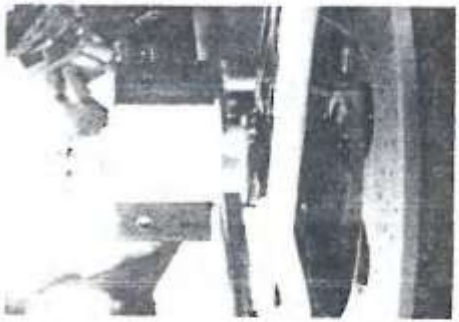
WARNING:
DO NOT DEPRESS THE REAR BRAKE PEDAL DURING THIS OPERATION AS THIS WILL MISPLACE THE PADS AND MAKE REFITTING DIFFICULT.

Rear Wheel Refitting.

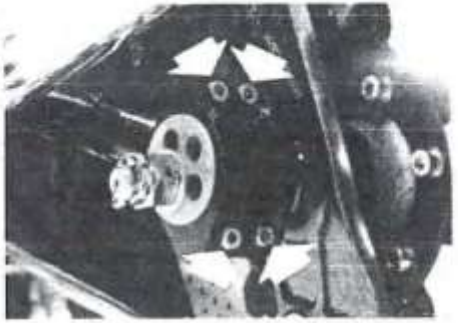
Relocating the rear wheel is easier if it is rolled into position from the left side of the motorcycle. Whilst rolling into position hold the torque arm parallel to the ground and locate the rear sprocket under the chain guard.



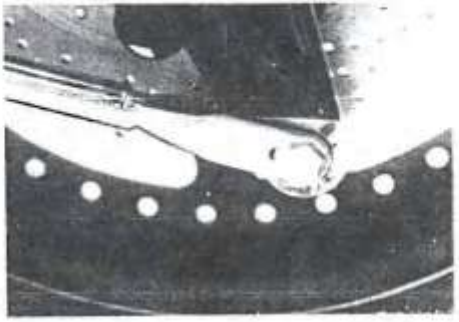
Lift the wheel into the swinging arm end clamps.



Loosely refit the end caps to the correct sides, finger tight only, noting that each is marked for identification, and that these marks should be at the top of each clamp.

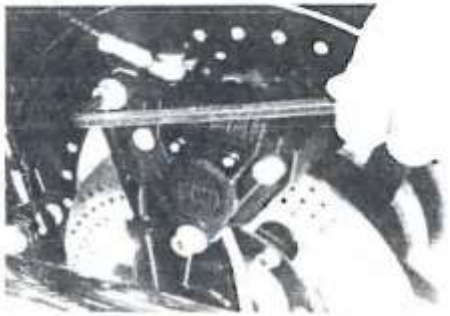


Refit the torque arm to the caliper arm, ensuring that the locking washer is correctly located over a flat on the nut, and the tab locates into the torque arm.
Should the old washer be damaged on removal, a new washer will be found in the tool kit.



WARNING:
DO NOT USE THE MOTORCYCLE IF THE TORQUE ARM BOLT IS NOT PROPERLY LOCKED IN PLACE.

Refit the brake caliper to the caliper arm, ensuring that the pads are correctly located on either side of the disc.



Refiting the chain is made easier if the top run is first located under the chain guard and onto the rear sprocket, so that the link can be connected on the rear sprocket, noting that the closed end of the link faces in the direction of the chain movement.

When the chain is removed, it is recommended that a new link is fitted, as this is the weakest link in the chain and the one most subject to uneven wear. A new link can be found in the tool kit.
Adjust the chain tension (page 86). The wheel spindle may be fitted above or below the centre line of the eccentric adjuster (see page 89). Finally, tighten securely the swinging arm end caps.

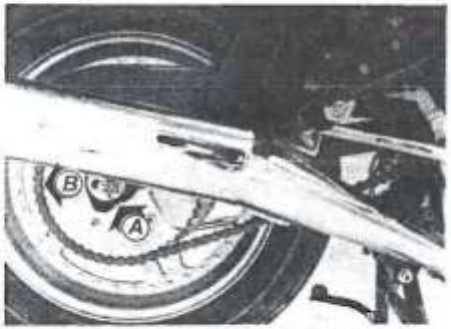
WARNING:
BEFORE RIDING YOUR MOTORCYCLE ROTATE THE REAR WHEEL AND APPLY THE BRAKE TO ENSURE THAT ALL THE COMPONENTS ARE WORKING NORMALLY.

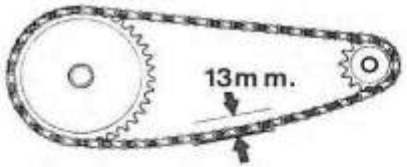
DRIVE CHAIN.

The final drive is a DID type H.D.S. 5/8" x 3/8" roller chain.
The chain should be checked before the motorcycle is ridden for:-

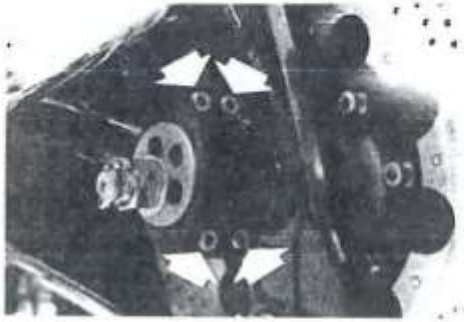
Free play.
Damage to chain or sprockets.
Chain wear.
Cleaning.
Lubrication.

Chain adjustment:-
The chain should have a free play measurement of 13mm. ($\frac{1}{2}$") at the tightest point in the chain. This can be found by lifting the lower run of the chain, whilst the wheel is slowly turned. When checking the free play in the chain the load on the motorcycle is immaterial, as with this design constant sprocket centres are achieved.

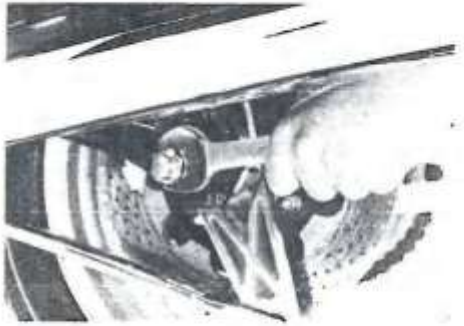




To adjust the free play in the chain, lift the motorcycle onto the centrestand and slacken the swinging arm end caps.



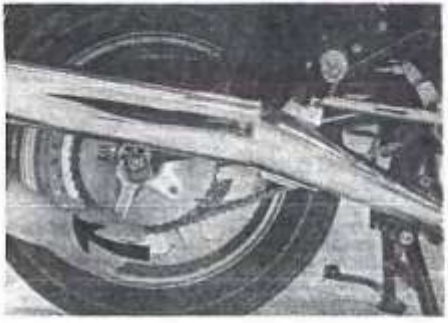
Fit the 24mm. spanner from the tool kit onto either side of the eccentric cam chain adjuster, depending on which way you wish to adjust, and turn it until the correct free play is obtained.



To slacken the chain:
Fit the spanner to the wheelnut on the left hand side of the motorcycle, turning it clockwise.

To tighten the chain:
Fit the spanner to the wheelnut on the right hand side of the motorcycle, turning it clockwise.

Note:
If the wheel spindle is fitted above the centre line of the eccentrics instead of below the centre line as shown, these instructions should be reversed.



This ensures that the nuts on the eccentric adjusters are not released when the chain is adjusted.

The illustrations in this manual show the rear chain adjustment with the wheel spindle below the centre line of the eccentric adjusters.
In this position the machine will roll more easily onto the centre stand. If the spindle is above the centre line the seat height will be lowered slightly, but the behaviour of the motorcycle will not otherwise be affected.

Each eccentric cam is keyed to the rear wheel spindle so that it should be impossible for any misalignment of the wheel or chain to occur. If this is suspected and no accident damage has occurred, have the motorcycle checked by a Hesketh dealer as soon as possible.

Chain damage.
Lift the motorcycle onto the centre stand. Rotate the wheel and examine the chain for damage to any of the links or tight spots (stiff links); at the same time check the condition of the sprocket teeth.
If the chain is damaged or you are in any doubt remove the old chain, and fit a new one (page 90).
When replacing the rear sprocket check the condition of the front sprocket, renewing it if necessary.

Chain renewal.

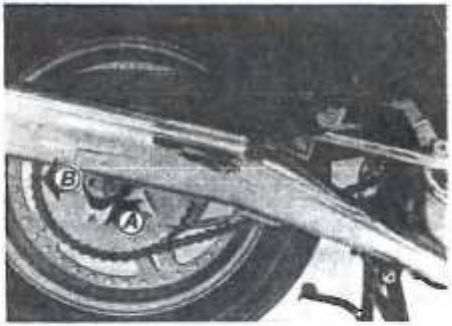
The chain will gradually wear with normal use so should be checked at regular intervals, and especially if any chain noise is audible whilst riding. When the chain is adjusted for free play (page 86), the tension is increased by turning the wheel nut clockwise from the right hand side of the motorcycle (see note on page 88). The wheel spindle will travel through an arc on the eccentric adjuster passing from the front of the adjuster when the chain is new towards the rear as the chain wears. This allows adjustment to maintain the correct free play, (page 86). When no further adjustment is possible the chain must be renewed.

WARNING.

NEVER ATTEMPT TO SHORTEN THE CHAIN LENGTH BY REMOVING ONE OR MORE LINKS, ALWAYS REPLACE IT WITH A NEW ONE.

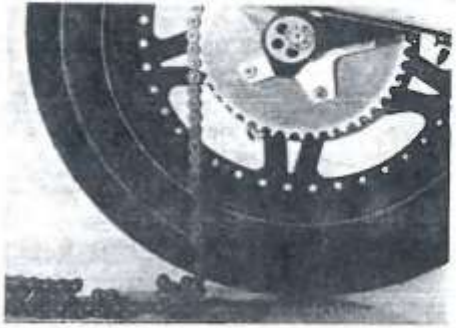
Chain removal.

Lift the motorcycle onto the centre stand, engage Neutral gear and slacken the chain tension (page 87), by turning the wheel nut A to its most forward position on the eccentric adjuster. Turn the wheel until the chain link appears at the midway point B of the rear sprocket. Place a clean cloth under the lower run of the chain to prevent any contamination from the ground when the chain link is removed.

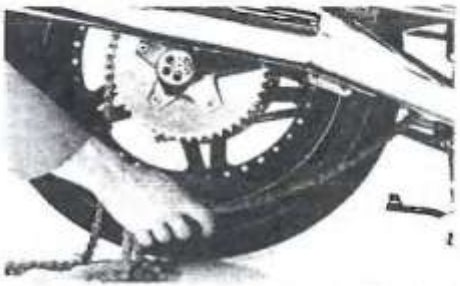


Split the chain link using the pair of pliers from the tool kit and remove the link, allowing the lower run of the chain to lie on the cloth.

If a length of old chain is available temporarily attach it to the chain so that as the chain is removed the old chain is fed around the sprockets.



If the chain is being renewed the new one can be fed around the sprockets in the same manner as the old one is removed. If an old length of chain is not available, it is not necessary to remove the chain guard to refit the chain.



Check that the gearbox is in Neutral. Feed the chain from underneath the gearbox output sprocket ensuring that it comes out over the top of the swinging arm. The chain can then be fed over the top of the rear sprocket. Reconnecting the chain is made easier if the chain link is fitted half way round the rear sprocket; ensuring that the closed end of the link faces in the direction of chain movement.

When a used chain is removed for cleaning and lubrication it is recommended that a new spring link is fitted, as this is the weakest link in the chain and the one most subject to uneven wear.

If a freshly lubricated chain is fitted it may appear that the adjustment is too tight. So long as the adjustment was correct before the chain was removed, the tightness is simply due to grease within the chain and should be ignored.

Chain cleaning.
If the motorcycle has been used in an abrasive atmosphere or in severe weather conditions, it is advisable to clean the chain in a solvent such as white spirit (turpentine substitute), or paraffin (kerosene) before relubricating.
Under normal conditions it should only be necessary to wipe off any old lubricant and road dirt with a cloth, before applying new lubricant.
If you are in any doubt over the condition of the chain, cleaning will allow a more thorough examination.

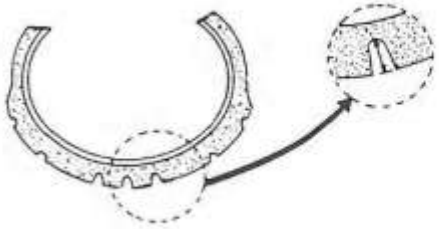
Chain lubrication.
Inadequate lubrication is shown by red deposits along the sides of the chain. If this occurs check it for wear, then remove the chain (page 90), either renewing it (page 90), or cleaning (above), relubricating and refitting it (page 90).
The best results are obtained when the whole chain is removed (page 90), and immersed in a bath of molten lubricant (page 115), following the manufactures instructions.
The chain can be lubricated on the motorcycle with an aerosol lubricant (page 115), which will give satisfactory results.
When applying an aerosol lubricant it must penatrate into the internal surfaces of each link; lubricating the centre of the rollers alone is not sufficient. Rotate the rear wheel slowly whilst aiming the lubricant at each edge of the lower run of the chain in turn.
Wipe off with a clean cloth and a solvent such as white spirit (turpentine substitute) any lubricant which may cover the surrounding parts.

TYRES.

The tyres should be checked every week and before a journey of any length. Check the air pressure, the depth of tread, the condition of the tyre e.g. any cuts or bulges, and remove any stones or other material in order to prolong the tyre life and to comply with the various legal requirements.

WARNING:
CURRENT U.K. LAW REQUIRES A MINIMUM DEPTH OF TREAD OF 1mm. AND IT IS STRONGLY RECOMMENDED THAT THIS AMOUNT OF WEAR IS NOT EXCEDED WHEREVER THE MOTORCYCLE IS USED.

The rate of tyre wear on a large and powerful motorcycle may make it necessary to change a tyre before setting out on a journey of several days duration, even though the depth of tread may still be legal before departure. When a tyre is renewed, it is recommended that the inner tube is also renewed.



WARNING:
HESKETH LIGHT-ALLOY WHEELS ARE NOT DESIGNED FOR TUBELESS TYRES. THE RIMS ARE EASILY DAMAGED BY TYRE LEVERS AND FLANGE PROTECTORS MUST BE USED WHEN CHANGING A TYRE.

Tyre pressures.
The air pressure in the tyres is best measured when the tyres are cold but can be taken when they are warm, so long as allowance is made for increase in pressure with the rise in temperature. Under normal riding conditions when the tyres are no more than warm to the touch, (less than 50°C) an increase of about 0.25 bar, (4 p.s.i.) can be expected.

		SOLO.	2 PEOPLE & LUGGAGE.
Normal riding.	Front.	1.9 bar. (28 p.s.i.)	2.1 bar. (30 p.s.i.)
	Rear.	2.2 bar. (32 p.s.i.)	2.7 bar. (39 p.s.i.)
High-speed riding.	Front.	2.1 bar. (30 p.s.i.)	2.2 bar. (32 p.s.i.)
	Rear.	2.4 bar. (35 p.s.i.)	2.9 bar. (42 p.s.i.)

Tyre size and recommended make.

Front: 4.10 V 19 (100/90 V 19) Dunlop K91.
Rear : 5.10 VB 17 (130/90 VB 17) Dunlop K91.

WARNING:
'V' RATED TYRES MUST BE USED. AFTER FITTING OF NEW TYRES, IT IS ADVISABLE TO RESTRICT THE MACHINE TO MODERATE SPEEDS FOR AROUND THE FIRST 100 MILES (160km.), TO CONDITION THE TYRES. AFTER THIS DISTANCE, THE TYRES SHOULD BE CHECKED AND THE PRESSURES ADJUSTED.

CLEANING.

The engine and the transmission should be cleaned with a non-inflammable proprietary engine cleaner.
Clean all the paintwork with water and motor vehicle shampoo, and dry off with a chamois leather. Road dirt and dust contain a number of chemicals which can damage paintwork unless they are removed. Therefore you should wash your motorcycle regularly, especially when it is new. Never use petrol, solvents, spirit or paraffin on the paintwork as this will ruin the sheen.
Paintwork can be polished using a solid or liquid vehicle bodywork polish, in accordance with the maker's instructions.
Remove tar stains and dead insects with a tar remover and not with a knife blade.
Clean rubber components with soap and water only, as detergents or solvents may perish the rubber. A protective coat of glycerine can be applied when the rubber is dry.
Clean chrome plate with either soapy water or a non-abrasive chrome cleaner and polish with a soft cloth.
Where paint has been chipped or damaged and rust is evident, clean the area concerned and have it attended to as soon as possible.

Recommendations for cleaning materials can be found on page 115.

STORAGE.

If you intend to store your motorcycle for a significant period, the following steps will help to protect it and keep it in good condition.

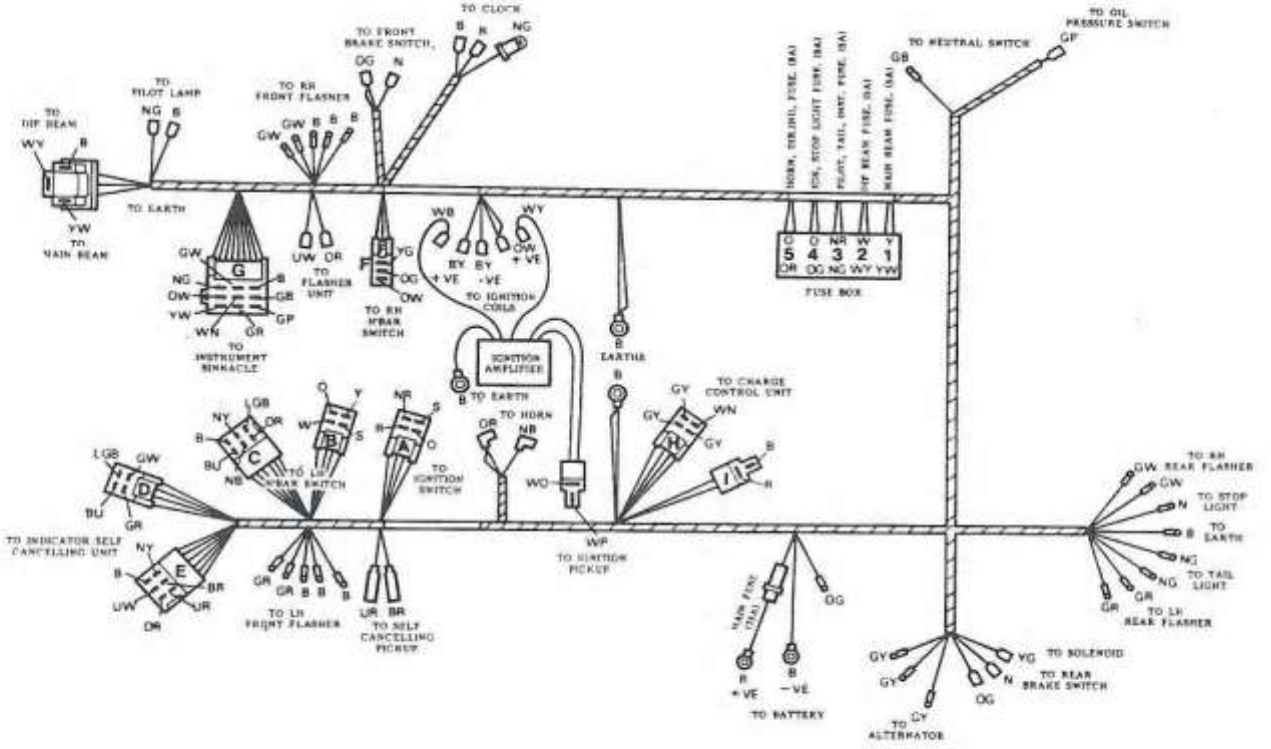
Clean the motorcycle thoroughly, (page 96).
Drain the petrol tank, the petrol pipes and the carburettors, (pages 43-46).
Remove and refit the sparking plugs in turn, (page 47), after squirting several drops of engine oil into each cylinder. Press the starter for several seconds to turn the engine over and this will spread a thin film of oil over the cylinder walls.
Remove the battery (page 51), and store it where it will not be exposed to direct sunlight or freezing temperatures. During storage it should be given a low charge, 1 Amp. for eight hours every month.
If the environment is damp, the brake pads should be removed from the calipers, (pages 66 & 80), and stored in a dry place. The brakes should not be operated in this condition. Lightly wipe the discs with grease or spray with a water repellent spray to prevent any corrosion.
Place a secure block underneath the engine so that both wheels are raised off the ground, and reduce the tyre pressures by 20%.
Cover the chain liberally with the recommended lubricant (page 115).
Cover all the non-painted surfaces with a thin film of water repellent spray to prevent any corrosion. Be careful not to get any oil onto the brake calipers or pads.
Place a cover over the motorcycle to keep it clean during storage.

Recommendations for materials can be found on page 115.

When you come to take your motorcycle out of storage, follow the steps below before you start the engine or ride it on the road. If you are in any doubt over the safety of your motorcycle after its period of storage, you should have it checked over by a Hesketh dealer.

Adjust the tyre pressures, (page 95), and check the condition of the tyres, (page 94).
Remove the block from underneath the engine.
If the motorcycle has been out of use for longer than a month, charge the battery, (page 52), at 2.7 amperes for ten hours or until all the cells gas vigorously. Refit the battery to the motorcycle, (page 51).
Remove all the grease from the discs and the oil from other protected surfaces with a clean cloth and a solvent, such as white spirit, (turpentine substitute). This operation should be carried out with the wheels out of the machine, so that the risk of contamination of caliper seals is eliminated.
Refit the brake pads, (pages 66 & 80), and operate the brakes several times to reposition the pads.
Refil the tank with petrol checking that there are no leaks, (page 43); and check both throttle and choke cable operation, (pages 42 & 43).
Check the engine oil, (page 22), topping up if needed with the recommended lubricant, (page 115).
Turn the ignition switch ON and check that all the electrical circuits are operating correctly.
Before starting your motorcycle allow time for the carburettors to fill. Start your motorcycle in the normal way; as there may be considerable smoke and dust from the exhausts for the first few seconds of operation, do not start the machine in an enclosed space.

WIRING DIAGRAM.



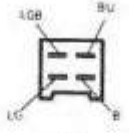
A

IGNITION SWITCH
(Green moulding.)

	BATTERY RED	LIGHT SWITCH ORANGE	PILOT, TAIL BROWN	LIGHT SWITCH GREY	
LOCK					LOCK
OFF					OPEN
ON	o——o		o——o		OPEN
PILOT	o——o		o——o		LOCK

SELF CANCELLING UNIT

SELF CANCELLING UNIT



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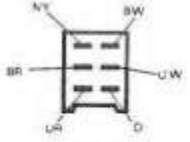

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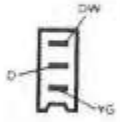


F

CUTOUT AND
STARTER SWITCHES
(Green moulding)

CUTOUT SWITCH

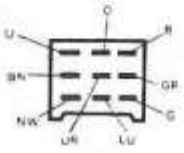
	FUSE BOX ORANGE	IGNITION ORANGE WHITE
OFF		
RUN	o——o	

STARTER SWITCH

	IGNITION ORANGE WHITE	STARTER SOLENOID YELLOW GREEN
OFF		
ON	o——o	

INSTRUMENT HOUSING

FUNCTION	HOUSING WIRE COLOURS	HARNESS WIRE COLOURS
OIL WL	RED	GREEN PURPLE
NEUTRAL WL	GREEN RED	GREEN BLACK
EARTH	GREEN	BLACK
TURN RIGHT WL	LIGHT BLUE	GREEN WHITE
CHARGE WL	BLUE RED	WHITE BROWN
ILLUMINATION	BROWN WHITE	BROWN GREEN
SUPPLY	BLACK BROWN	ORANGE WHITE
MAIN BEAM WL	BLUE	YELLOW WHITE
TURN LEFT WL	ORANGE	GREEN RED



G

LIGHTS, DIP, DIRECTION INDICATORS PASS AND HORN SWITCH. (LH H'bar.)

LIGHTS

	IGNITION SWITCH ORANGE	IGNITION SWITCH SLATE	DIP SWITCH YELLOW WHITE	PASS SWITCH LN	DIP BEAM WHITE
OFF	o			o	
ON	o	o	o	o	o

PASS

	LIGHT SWITCH LN	MAIN BEAM YELLOW
OFF		
ON	o	o

DIP

	LIGHT SWITCH YELLOW WHITE	DIP WHITE	MAIN YELLOW
HIGH	o		o
LOW	o	o	

HORN

	EARTH BLACK WHITE	HORN GREEN
OFF		
ON	o	o

TURN SIGNAL

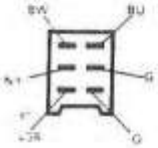
	LEFT LAMPS BLACK BLUE	FUSE BOX ORANGE	RIGHT LAMPS LIGHT GREEN BLACK
R		o	o
OFF			
L	o	o	

MANUAL CANCEL

	EARTH BLACK WHITE	CANCEL UNIT BROWN YELLOW
OFF		
ON	o	o

B

C



COLOUR CODE

W White
Y Yellow
G Green
R Red
O Orange
B Black
S Slate
P Purple
U Blue
N Brown
LG Light Green
LU Light Blue
K Pink
LW Internal connectio (Link wire)

TOURING INFORMATION.

If it is necessary to run the machine where 98 octane fuel is not available, use the highest available grade, and do not subject the machine to maximum throttle, maximum r.p.m. or maximum speed. At the time of going to press, the only European Countries where suitable fuel is not available are East Germany, Poland and Turkey. For up to date information you are advised to contact the Touring Service of one of the motoring organisations.
As the Hesketh is a new motorcycle, proper service facilities have not yet been established in all countries. Before undertaking an extended tour it is suggested that owners should contact the factory for advice, and for an up to date list of dealers in the areas to be visited.

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REGULAR SERVICING in addition to daily checks, (page 16).

N.B. Some of the maintenance specified below requires the use of special tools or particular skills and is not covered in this manual.
Owners should refer to the Workshop Manual or their Hesketh dealer.

EVERY 3000 MILES:
Check all fastenings and correct where necessary.
Change engine oil and renew oil filter.
Lubricate cables, control pivots, stands, chain etc.
Check brake pad wear and renew if necessary.
Check and adjust sparking plugs.
Check and adjust cam chains.
Check condition of drive sprockets, chain, and rear brake linkage bearings, renewing as necessary.

EVERY 9000 MILES:
With normal use the air filter elements should be renewed every 9000 miles.
Check the valve clearances at the same time, (see workshop manual).

OVERHAUL: Every 2 years irrespective of mileage.
Renew oil in front forks and rear dampers.
Check battery condition and renew if necessary.
Renew all hydraulic rubbers, hoses and refill with new fluid.
Renew petrol pipes.
Grease inner cables of speedometer, rev. counter and throttle drum.
Dismantle and grease steering head bearings and swinging arm bearings.
Check all bulbs and renew any showing signs of blackening or silvering.