45p

CASAL

K 167 GB - K 196 GB - K 196 NL

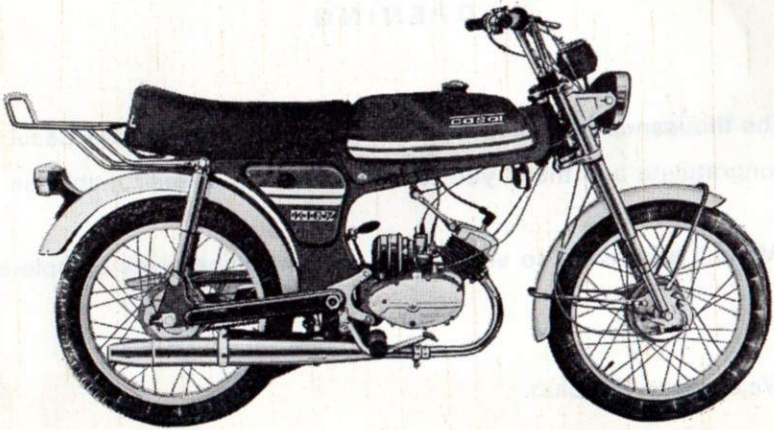
OWNER'S MANUAL

OPENING

The thousands of people who are responsible for making Casal motorcycles congratulate and thank you for choosing one of their machines.

We will endeavour to ensure that your machine gives complete satisfaction.

Welcome to the Club.



K 167

OBS. — The machine K167 GB is the same of the picture, but it is assembled with the pedals engine — **CASAL M148.**

TECHNICAL DATA

VEHICLE K 167 GB - K 196 GB

Frame
— Pressed steel sheet
Front suspension
— Telescopic fork
Rear suspension
— Swinging arm and shock absorber
Electrical system

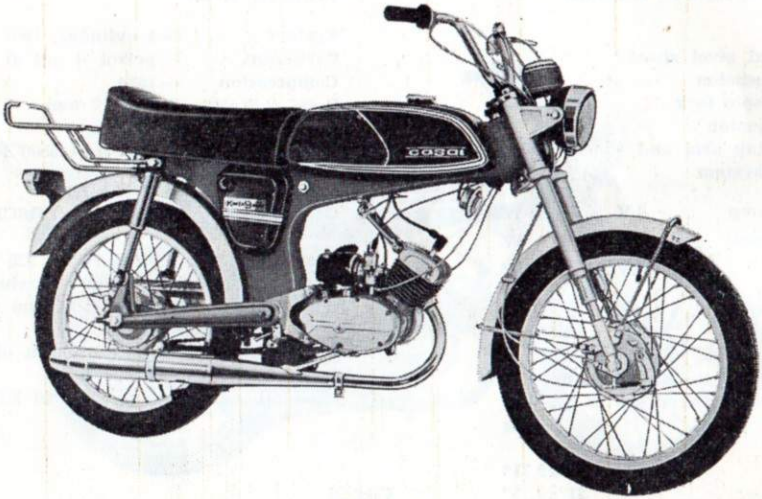
— Headlamp	6 V	15/15 W
— Rearlight	12 V	4 W
— Stop	12 V	5 W

Dimensions

— Length	1,870 m
— Hight	1.030 m
— Hight (till the saddle)	0,790 m
— Distance between shafts	1,210 m
Weight	55 Kg
Wheels	
— Front	21"x2,75"
— Rear	21"x2,75"

ENGINE M 148

System	— 1 cylinder, two stroke
Carburant	— petrol + oil at 30:1
Compression	— rate 1:8,5
Bore / Stroke	— 40x39,7 mm
Capacity	— 49,9 c.c.
Power	—2,5 PS at 5500 R.P.M.
Carburettor	— BING 1.17
Generator	— flywheel (BOSCH) 6V 17W
Spark plug	— BOSCH W 225 T1
Ignition	— 1,5 mm beforehand
Contact sets	— 0,35 to 0,4 mm separation
Clutch	— multidiscs in oil bath
Gear case	— 2 speed
Case oil	— 0,31 SAE 80 EP



K 196 - NL

TECHNICAL DATA

VEHICLE K 196 - NL

Frame
— Pressed steel sheet
Front suspension
— Telescopic fork
Rear suspension
— Swinging arm and shock absorber absorber
Electrical system

— Headlamp	6 V	15/15 W
— Rearlight	12 V	4 W
— Stop	12 V	5 W

Dimensions

— Length	1,870 m
— Hight	1.030 m
— Hight (till the saddle)	0,790 m
— Distance between shafts	1,210 m
Weight	55 Kg
Wheels	
— Front	21"x2,75"
— Rear	21"x2,75"

ENGINE M 142

System	— 1 cylinder, two stroke
Carburant	— petrol + oil at 30:1
Compression	— rate 1:8,5
Bore / Stroke	— 40x39,7 mm
Capacity	— 49,9 c.c.
Power	— PS at 00 R.P.M.
Carburettor	— BING 1.9
Generator	— flywheel (BOSCH) 6V17W
Spark plug	— BOSCH W 225 T1
Ignition	— 1.5 mm beforehand
Contact sets	— 0,35 to 0,4 mm separation
Clutch	— multidiscs in oil bath
Gear case	— 2 speed
Case oil	— 0,3 l SAE 80 EP

1
IDENTIFICATION

ENGINE AND FRAME NUMBERS

The frame number is stamped on the front headstock Fig. 1

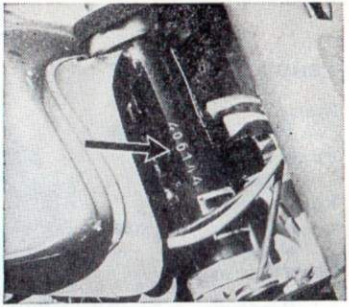


Fig. 1

Also attached to the headstock is a plate showing year of manufacture, weight and type of engine. Fig. 2.

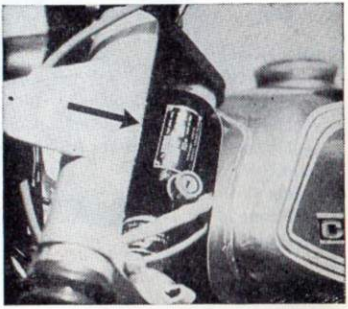


Fig. 2

The engine number is stamped at the front of the ritght hand crankcase A, Fig. 3.

It is also on a plate attached to the right-hand crankcase B, Fig. 4.

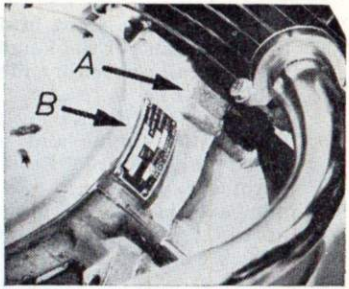


Fig. 3

2
CONTROLS

2 1 The gear selection lever is situated at the left hand side of the handlebar. When the engine is in neutral the lever is at position O
The first gear is position 1 and the 2nd is position 2. Fig. 4,

2 2 The cluth lever is positioned at the left side of the handlebars in the gears grip. Fig. 4,

2.3 The throttle twist-grip is positioned at the right side of the handlebars. It is important that both throttle and clutch cables should have a free run so that turning of the handlebars does not interfere with their operation B. Fig. 5,

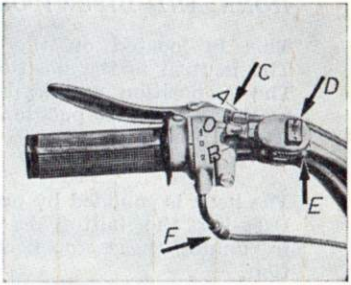


Fig. 4

2.4 *BRAKES* — the front brake lever is situated on the right-hand of the handlebars and is connected to the brake shoes by means of a flexible steel cable A. Fig. 5
The rear foot brake lever is on the right-hand side of the engine and connected to the brake shoes by a steel rod. Both hubs are 120 mm with normal expanding brake shoes: the free play allowable is 20 — 30 mm (0,8 — 1 2) at the end of the levers. If this measurement is greater adjust cable or rod.

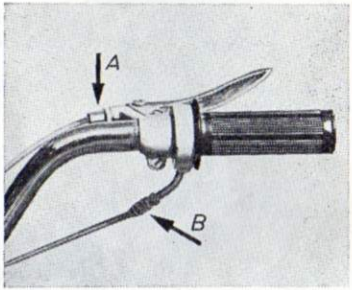


Fig. 5

2.5 *FLECTRICAL SYSTEM*

HORN AND DIPSWITCH

This is located on the left hand handlebar. The neutral is the position O.
The A position will switch the light beam to LOW and the B position switch the beam to HIGH. Fig. 6

The horn is sounded by pressing button D Fig 6 Pressing the button E, Fig. 6 when engine is running these stop because there is not ignition.

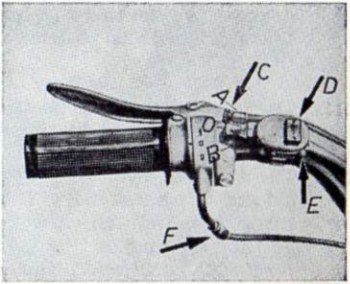


Fig. 6

REAR STOP LAMP

This is operated by pressing down on the foot-brake pedal. Adjustment can be made to the stop switch which is to the rear of the brake pedal. Fig. 7

2.6 The speedometer is placed on top of the forks in the centre of the handlebars for easy reading

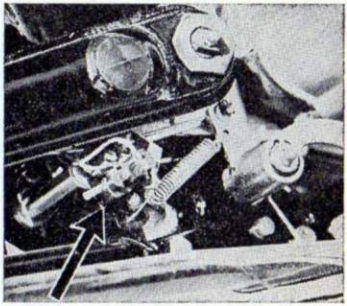


Fig. 7

3
SERVICE AND MAINTENANCE

3.1 *ENGINE*

3.1 *1 — RIDING*

The CASAL engine is a two stroke which means it runs on a mixture of petrol and oil at a ratio of 30 to 1. Great care must be taken to ensure that the correct amount of two stroke self-mixing oil is added to the petrol. This oil is essential to lubricate the crankshaft, piston and cylinder.

As the engine is not run in when it leaves the factory, do not drive the machine for the first 2000 kms at high speeds or very slow speeds, which will make the engine labour and knock.

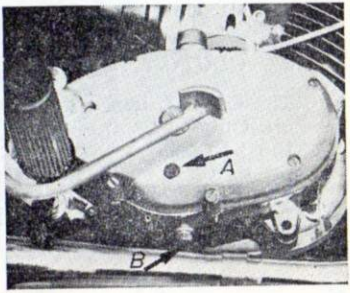


Fig. 8

3.1 *2 — GEAR BOX*

The CASAL engine is fitted with a two speed constant mesh gear box. To prolong gear box life all gear changes should be made as smoothly as possible. Regular oil changes of EP80 oil and regular checking of the oil level will ensure a troublefree gear box.
To check oil level (approx 500 kms) make sure the machine is standing on a level surface. Stop engine after running which will make the oil warm and flow easily. Remove the level plug A (Fig. 8). If oil is needed, remove filler plugs, B Fig. 8, to drain, and filling, plug C Fig. 9.

Top up with oil, wait until surplus has drained out of the level. Replace tighten both plugs

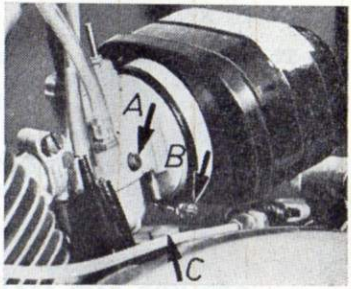


Fig. 9

3.1 *3 — CLUTCH*

The CASAL has a multi-plate clutch running in oil. Only use the clutch lever on the left side of the handlebars when gear changing or starting off to avoid premature wear of cable and clutch. Oil nipples are fitted to all the cables. Regular lubricating will add to the life and efficiency of the cables Fig 10

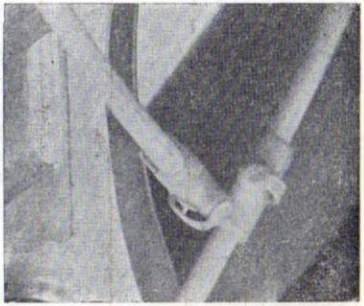


Fig. 10

3.1 *4 — IGNITION*

For greater engine performance and fuel consumption, regular adjustment of the contacts is necessary
Contact opening is 0,35 mm to 04 mm. Ignition advance is 1,5 mm. Sparkplug gap is 0,5 to 0,7 mm

3,1 *5 — CARBURETTOR*

Starting procedure

When engine is cold —

switch on petrol position A, Fig. 19. Press pin A, Fig, 11, Push down on Kickstarter on pedal. When engine has started and warmed up upper the choke pin A, Fig. 11 accelerating as far as possible.

3 2 *1 — WHEELS AND BRAKES*

The front wheel has a light alloy hub and is fitted with a steel brake drum of 120 mm (Fig. 12). The brake shoes are covered with ferodo of 2 mm and are operated by lever C. Any adjustment needed through wear can be made on cable adjuster B - Fig. 12

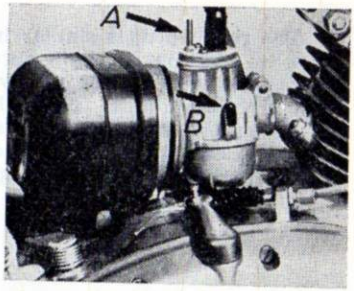


Fig. 11

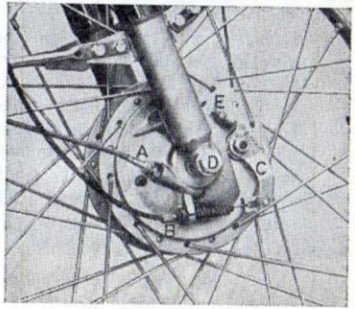


Fig. 12

The rear wheel is similar in design to the front, with addition of chain sprocket and holder. To remove wheel, first remove shaft A (Fig. 13) and brake rod B. Next the distance bush between the hub and the suspension arm. The wheel can then be removed. It is not necessary to disturb the chain and sprocket.

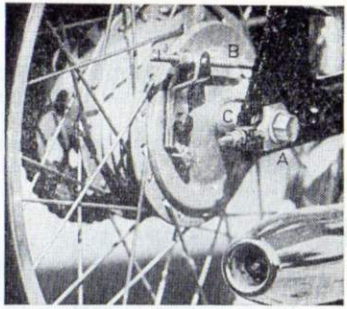


Fig. 13

3.2 *2 — CHAIN ADJUSTMENT*

Driving chains need periodic adjustment. They should not be too tight or too slack. To adjust loosen nut A Fig. 14 and A Fig 13 back off two nuts B Fig, 14. Pull wheel back until desired tension on chain is achieved. Tighten nuts B Fig 14 the same number of turns each side until wheel is in correct position. Tighten wheel spindle A Fig. 13 and lock nut A Fig. 14. Re-check chain tension.

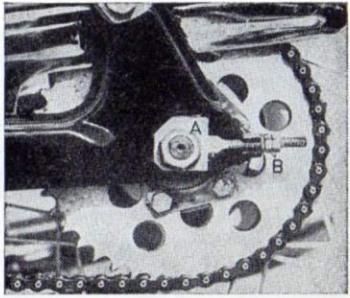


Fig. 14

3.2 *3 — CHAIN*

The chain is connected by means of a spring link which is in three pieces. The portion with two prongs attached fits through the roller at each end of the chain. The plate is then fitted over the prongs. The spring link, which is horse-shoe shaped is then clipped over the prongs. Ensure that the closed end of the horse-shoe clip always faces the direction in which the chain rotates. Fig, 15,

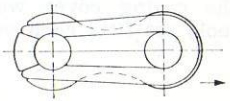


Fig. 15

3.2 *4 — STEERING*

To adjust any play at the fork headstock, loosen locknut Gently tighten screw ring A until play is removed. Tighten nut and re-check Fig 16

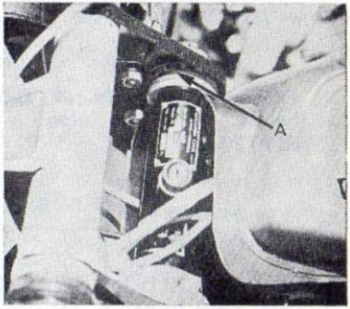


Fig. 16

3.2 *5 — LIGHTING SYSTEM*

Diagram II shows complete electrical system Diagram III shows settings for headlamp beam see pags. 23 and 25

In order to set the height of the headlamp beam loosen the two headlamp retaining screws. Tilt the headlamp up or down as required and tighten screws.

Removing the screw in the right hand of the casing cover we have admittance to the tools set fitts each vehicle Fig. 20

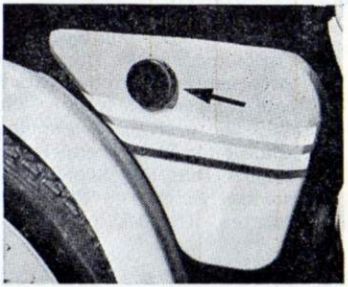


Fig. 17

Beyond the tools of fig. 18 and mentioned below there is also a little air-pump ref S170 20 101

Fig. 1 — S170 20 109
» 2 — S170 20 111
» 3 — S170 20 108
» 4 — S170 20 103 } S170 20 100
» 5 — S170 20 104
» 6 — S170 20 102
» 7 — S170 20 112

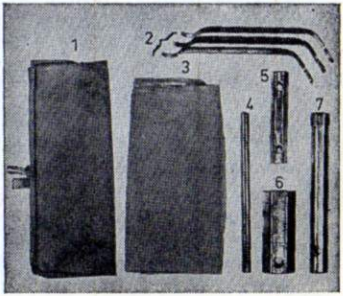


Fig 18

4
USEFUL INDICATIONS

4.1 1 — *STARTING ENGINE*
Covered by 3 1 5

4.2 *STARTING OFF*

4.2 1 — After starting engine as explained in 3.1 5 firts gear can be engaged by pulling in the clutch lever on the left hand side of the handlebar, turn the gear lever to position 1, Fig. 6
Gently release the clutch lever at the same time fractionally turning the throttle twist grip To change up a gear close the twist grip, pull in the clutch lever, turn the gear lever to position 2. Fig. 6
Never pull in the clutch lever to allow the machine to coast along.

4.2 2 — *GEARS*
Always choose a gear suitable for your riding speed, see enclosed chart, pág 20

4 2 3 — TYRE PRESSURES

Tyre pressures vary with the wheight carried i e. driver and passenger periodic checks will give longer tyre life and saferriding

PRESS TABLE

Wheel	Tyre	L S I PRESS	
		One man	Two men
Front	21"x2,50R	25	25
	21"x2,75	18	18
Rear	21"x2,75	25	30-32

CHANGE OF GEAR	INSTANTANEOUS SPEED
1st. gear	Only when setting off
2nd. gear	From 20 Kms/hour

5
ENGINE FAILURES

5.1 *ENGINE FAILURES AND POSSIBLE REASONS*

THE ENGINE DOES NOT START

5.1 *1 — POSSIBLE REASON*

A) — Empty tank
— fuel tap closed (position F). Fig. 19
— starting lever incorrectly adjusted
— fuel supply interrupted (dirty filter)
— float needle sticking

obs. Pos F — Closed; A — open; R — Reserv.

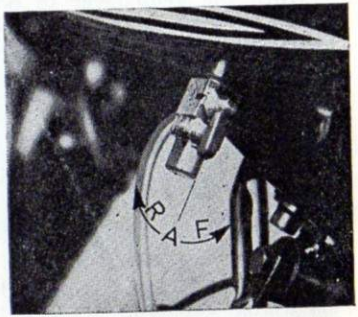


Fig. 19

B) — ignition disconnected by short circuit
— dirty spark plug
— spark plug electrodes too far apart (0,5 mm to 0,7 mm)
— defective ignition cable
— dirty or burnt contact breaker points

5.1 *2 — TROUBLE SHOOTING*

Put a new spark plug on the cable connection and turn the engine over by operating the starting lever. If spark does not occur check the points of B) If it occurs, check points A).

Recommended Spark Plug W225 TI

5.1 *3 — ENGINE STARTS BUT MISFIRES, FIRES BACK, STOPS*
POSSIBLE REASONS

— Fuel tap closed (engine only starts with fuel in carburettor)
— Fuel feed interrupted or. clegged with main jet clegged, dirty carburettor filter or dirty fuel tap

5.1 *4 — ENGINE RUNS BUT WITH EXCESSIVE EXHAUST SMOKE*

— sticking fleat needle causing excessive fuel
— the air intake is clogged causing a too rich mixture. Check the air intake. If it is not clogged, check the air filter. See it is clean
— Choke lever in wrong position

5.1 *5 — ENGINE WORKS IRREGULARLY*
POSSIBLE REASONS

— spark plug damaged (replace)
— incorrect ignition timing (workshop)
— detective ignition cable (replace)
— incorrect contact breaker points
— incorrect adjustment of carburettor (workshop)

5.1 *6 — ENGINE BECOMES HOT AND THE OUTPUT IS INSUFFICIENT*
POSSIBLE REASONS

— insufficient lubrication (petrol oil mixture)
— incorrect ignition time or incorrect grade of sparking plug
— exhaust and silencer carboned up
— lack of compression, piston rings become blocked, defective cylinder head gasket or unscrewed cylinder head

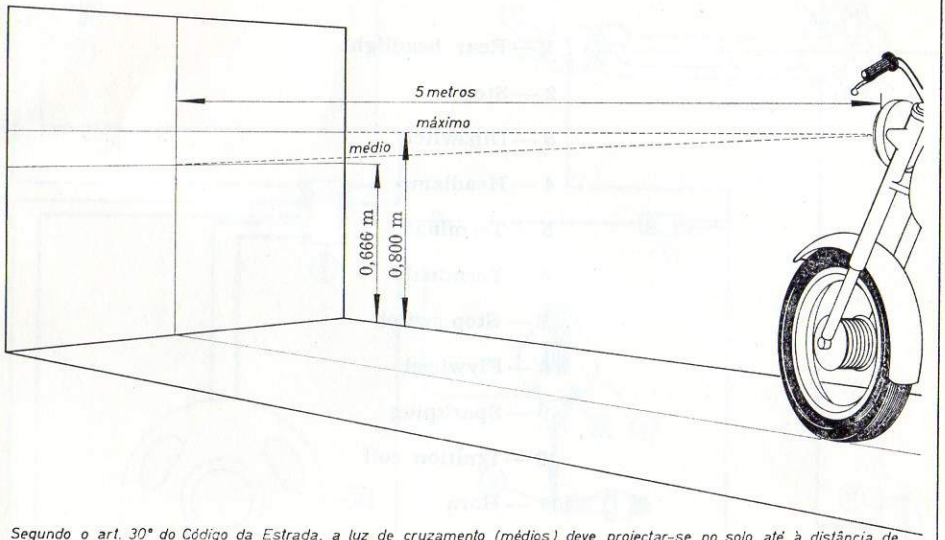
5.1 *7 — ENGINE CONSUMES TOO MUCH FUEL*
POSSIBLE REASONS

— leakage in pipes (workshop)
— too large jet
— leaking float or float needle valve sticking
— exhaust obstructed by carborized oil
— worn throttle jet
— throttle needle too high

5 1 *8 — DIFICULT GEAR CHANGING*
POSSIBLE REASON

Clutch (workshop)

POSIÇÃO REGULAMENTAR DAS LUZES



Segundo o art. 30° do Código da Estrada, a luz de cruzamento (médios) deve projectar-se no solo até à distância de 30 metros por forma a não causar encadeamento aos demais utentes da via pública. A contravenção desta disposição implica multa.

1 — Rear headlight

2 — Stop

3 — Dipswitch

4 — Headlamp

5 — Terminal

6 — Terminals

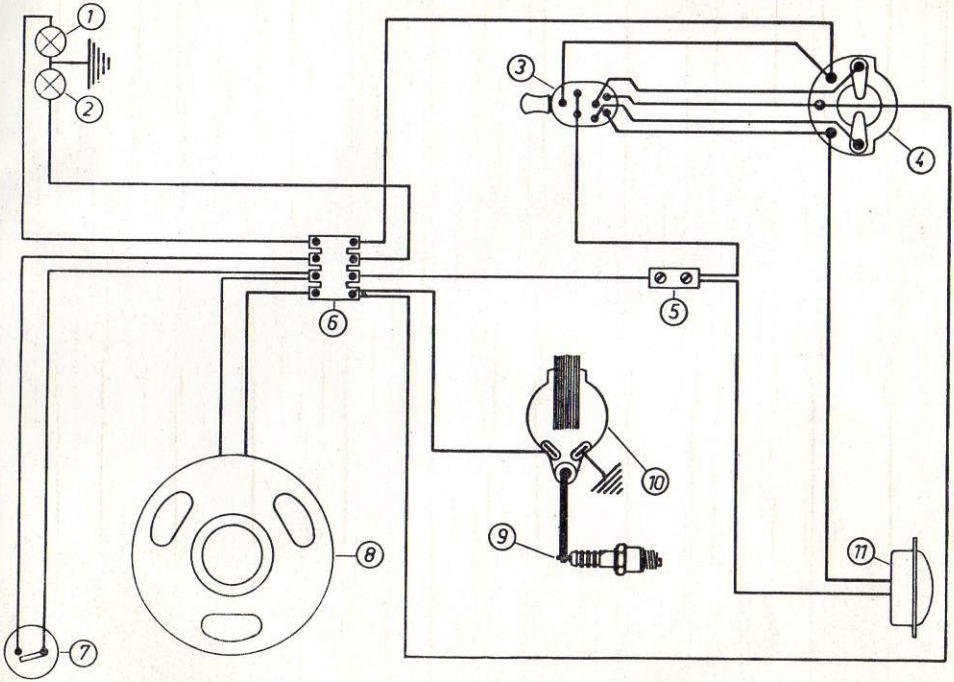
7 — Stop switch

8 — Flywheel

9 — Sparkplug

10 — Ignition coil

11 — Horn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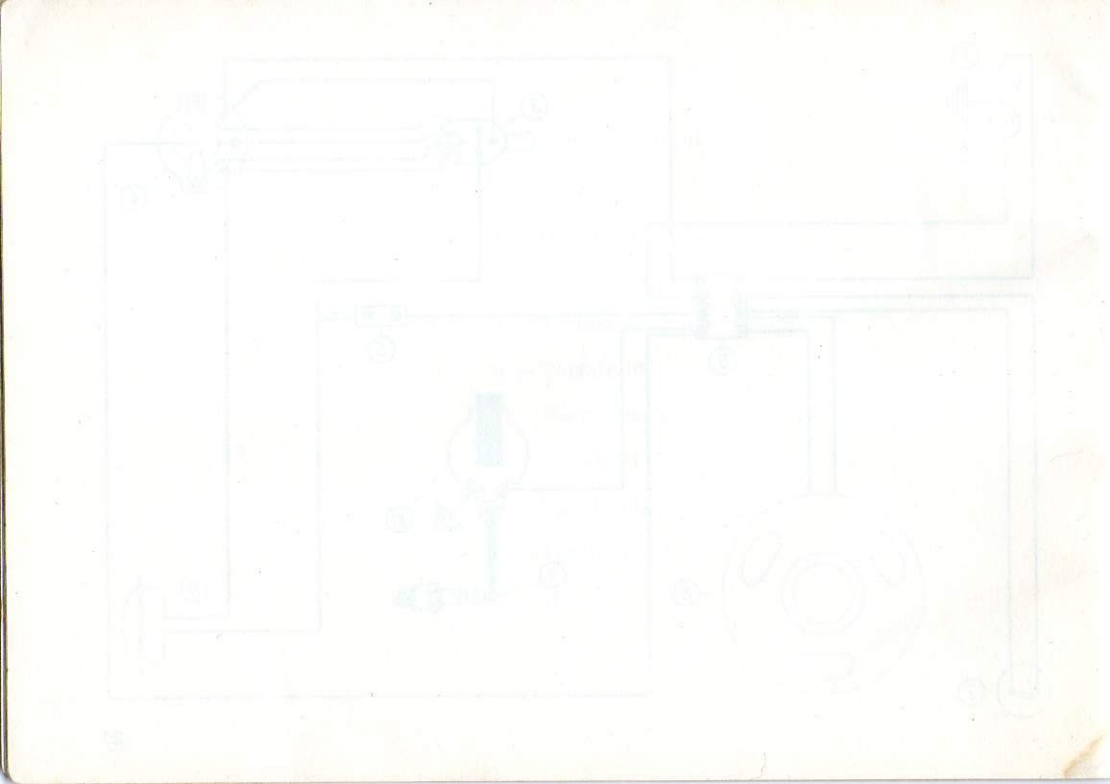

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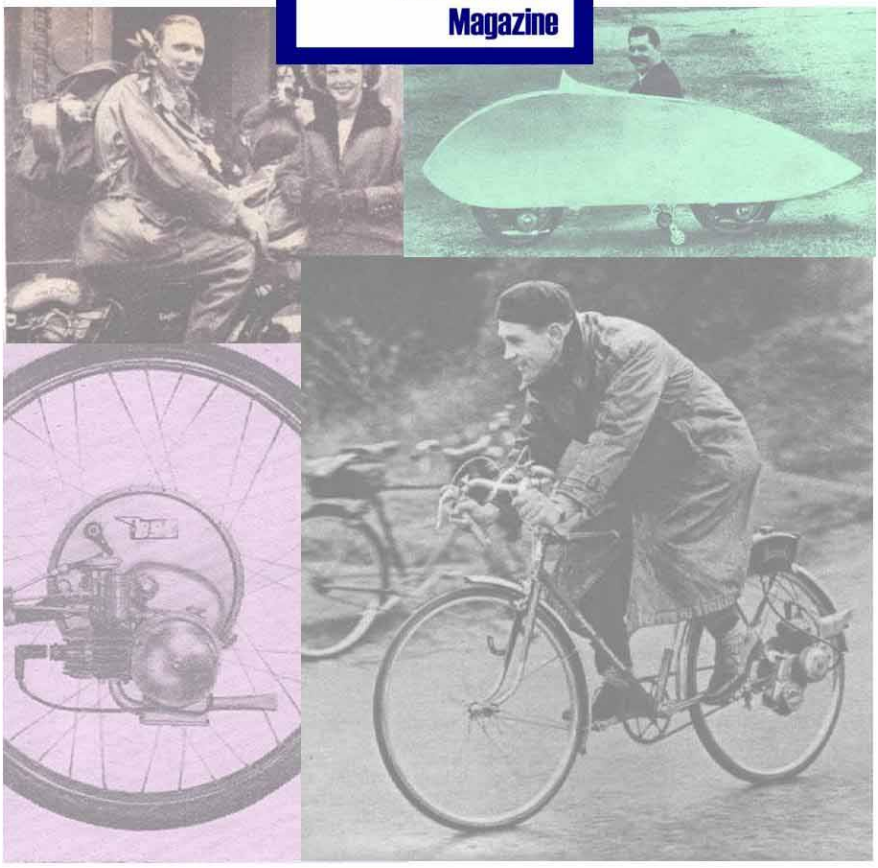
The Iceni CAM Magazine
Cyclemotor Autocycle C Moped



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