
Bermuda

BERMUDA BIKE OWNER'S HANDBOOK FOR HAMPTON & HAMILTON MODELS

FOREWORD

Your Bermuda Bike is capable of miles and miles of dependable service; in Europe 40,000 kilometers (25,000 miles) is common before engine overhaul.

However, as in any mechanical conveyance the initial break in period is important and you should become familiar with the basic operation of your bike and its requirements for maintenance.

This handbook, we believe, gives you all the information the average owner wants but if you are a "do it yourselfer" the simplicity of our bikes, and a copy of our Workshop Manual, which is available from dealers for a modest charge along with any spare parts you may require, will carry you through any problem.

Our association doesn't end with your purchase of our bike, it begins with the follow-thru our concept of service requires. All the Bermuda Bike people sincerely want you to enjoy your Bermuda Bike experience.

Thanks for your confidence.

Robert W. Starke

Robert W. Starke
Pres. Bermuda Bikes Inc.

THE HAMILTON

THE HAMPTON

THE BERMUDA BIKE

In 1972 on our first trip to Bermuda we explored the island in a way to us unique - on motorized bikes! How else could we see, and feel, all the charm of Bermuda, certainly not in a taxi or bus, and given the hills and dales, walking or pedal biking could not provide the range required to visit all the lovely areas. In addition to all the pleasures of motor biking, I was impressed with the efficiency and quiet operation of the bikes and the ease with which they were ridden.

We thought what a great thing it would be if you could buy and use such a bike at home. Then and there we decided to give it a good try and founded our company, Bermuda Bikes Inc., with view to getting a top manufacturer to produce his bike for us meeting the requirements of the National Highway Safety Administration of the Federal Department of Transportation.

We were most fortunate in getting the enthusiastic support of one of the oldest and finest manufacturers in Europe. The Belgium concern, A. Claeys Flandria in Zedelgem founded in 1825 by Alexander Claeys, a Flemish blacksmith. The company in 1896 manufactured its first bicycle, in 1950, the first production year, it produced 25,000 motorized bikes. Today, the assembly line has a capacity of 300 bikes a day and from the start it has always been in the family. Today, Mr. Paul Claeys is president. The Robert Bosch people also were a great help in providing a magneto with sufficient generating capacity to meet the needs of the required seal beam headlight, stop light, and tail light. All our bikes are equipped with Robert Bosch ignition and electric power generation. We think it the best available.

The engine, made by Flandria, is two cycle designed for long life with cast iron cylinder, chrome alloy piston, and meticulously balanced roller bearing crank shaft.

Mounted for low center of gravity, the engine drives through a dual centrifugal clutch. The inner clutch is connected to the rear wheel and is thus activated by forward motion while the outer clutch is connected with the engine and is brought into action by the speed of engine revolution.

Pedalling to start the engine, either underway or on the stand, the inner clutch pads expand and transfer rotary motion to the outer clutch attached to the engine. With the decompressor open there is sufficient drag to turn over the engine. At this point, closing the decompressor permits the engine to fire on compression and start. With the engine at idle there is not sufficient centrifugal force generated to activate the outer clutch and since the bike is at rest the inner clutch is not being activated and, accordingly, there is no forward pull. To start off, open the throttle and the increased revolutions of the engine will engage the outer clutch. When sufficient speed is attained the wheel revolutions in turn bring the innter clutch to bear and the fulll power of both clutches are in operation. Conversely slowing down to stop the outer clutch disengages as the wheel revolutions slow down and you are back to idle.

This two stage automatic clutching system is designed for safety. It is not possible to make a snap start that would throw the rider off balance and out of control.

STANDARD SPECIFICATIONS

THE HAMILTON MODEL

See Note For Lower & Higher Speed Models

PERFORMANCE

Maximum Speed	25 m.p.h.
Climbing Ability	11.7%
Fuel Consumption (Approx.)	133 m.p.g.
Minimum Turning Circle	78.7"

ENGINE & TRANSMISSION

Type	2 Cycle
Capacity	49.7 cc
Bore & Stroke	40 x 39.7 mm
Compression Ratio	7.5: 1

Maximum h.p.	1.4 at 5500 rpm
Maximum Torque m/kg	0.295 at 4000 rpm
Lubrication/Fuel	Oil/Gas - 1:25 - 4%
Starting System (Either underway or on stand)	Forwards pedal
Transmission	V-belt
Clutch	Automatic 2 stage

FRAME

Type	Pressed Steel
Suspension - front	Telescopic Forks
rear	Rigid
Tires - front	2.00 x 17"
rear	2.00 x 17"
Brakes - Drum front & rear hand operated	
Fuel Tank	1 gal.

Overall length	66.2
Overall width	26.8
Overall height	39.4
Wheelbase	43.3
Ground Clearance	4.8
Net Weight	92 lbs.

ELECTRICAL

Source	Bosch magneto/generator B212-115-023 with 3 generating coils of 25 - 18 - 5 watts capacity - 6 volts
Headlight	SAE Standard seal beam unit 25 watt Tung-Sol #4583
Stop light	18 watt SAE Standard stop light tail light 5 watt - Tung-Sol type 1154 two filament lamp
Sparkplug	Bosch - W145T1
Horn	Electric - button on handlebar light switch

Standard Equipment	Toolkit & Safety Flag
Standard Color	Blue and White

THE HAMPTON MODEL

All specifications are the same except for the following:

Tires – front & rear	2.25 x 17"
Net Weight	97 lbs.
Wheelbase	44"
Suspension Rear	Swinging Arm shock absorbers
Standard Equipment	Toolkit, Safety Flat, Speedometer & Odometer, Lock & Key for Steering Post & Tire Pump

NOTE: Both Hampton and Hamilton supplied, only in those states requiring it, in lower power, lower speed version or higher speed versions where permitted.

i.e. (L.P. Model)	.9 h.p.	(H.P. Model)	1.8 h.p.
Maximum Speed	20 m.p.h.		30 m.p.h.

All other specifications remain the same

CONTROLS

Left handlebar

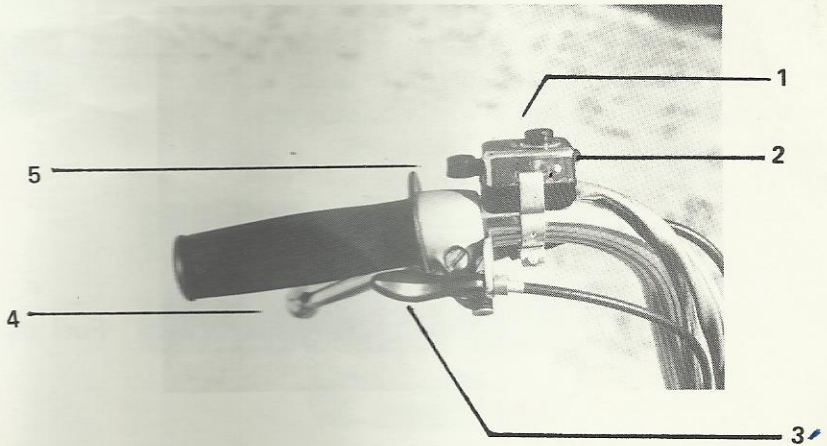
1 - Horn

2 - Engine stop

3 - Choke

4 - Rear brake lever

5 - Light switch

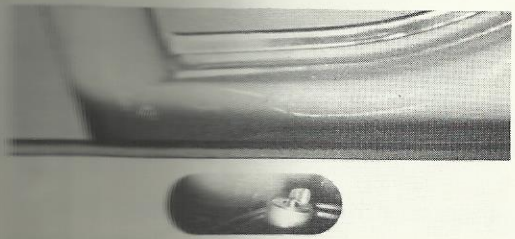


Right Handlebar

1 - Throttle

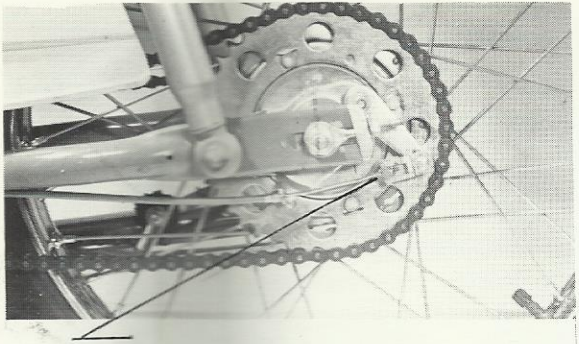
2 - Front brake lever

3 - Decompressor and supplementary engine stop.



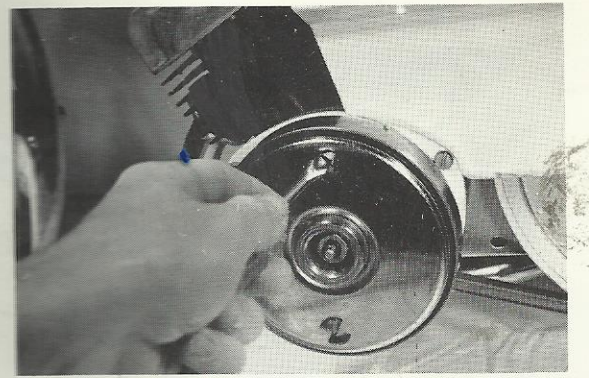
Fuel tap open position

Fuel tap closed position forward



Left side rear brake coarse adjustment

Left side front brake coarse adjustment



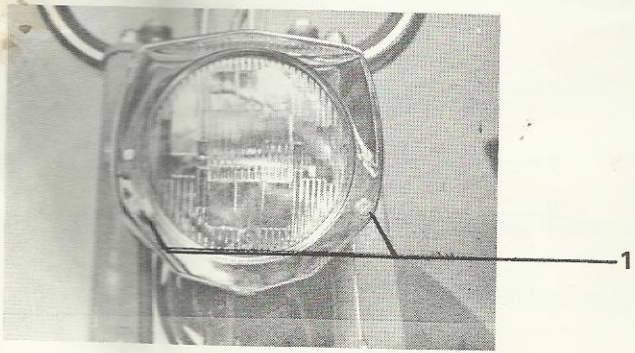
Adjusting inner clutch for free pedalling. Line up plate exposing slotted adjusting nuts. Use large screwdriver and make only quarter turn on each. Clearance of hourglass openings will indicate direction and amount required. Reverse procedure for re-engagement.

Idle adjustment screw
Turn in to increase
Turn out to decrease

The tire irons included in owners tool kit (located under seat) should be used as shown to remove the tire from its rim.

2 - Speedometer - Odometer

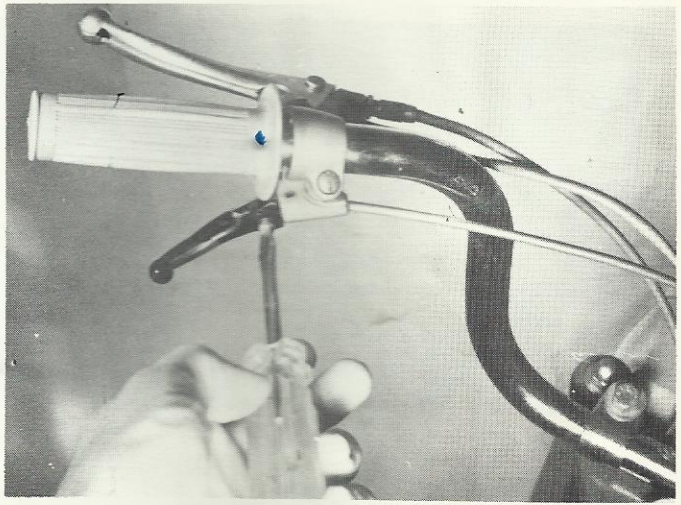
Hampton Model

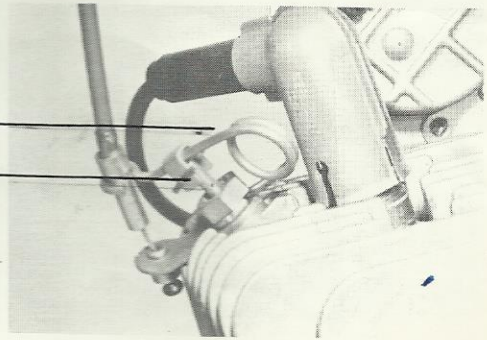


1 - Adjusting screws for headlight beam. Screw in (clockwise) lowers beam - out (counter clockwise) raises beam, further adjustment if required can be obtained by loosening housing mounting bolts and moving entire unit up-down-right-left and retighten bolts.

Adjust decompressor, if required, by loosening cable binding screw #3 to allow spring #1 to fully close decompression valve #2. Retighten cable binding screw and test operation. On newer models decompressor is located on right handlebar. Choke is located on left handlebar.

When decompressor is activated, inner clutch (pedal start) should have sufficient drag to turn engine over.





OPERATING INSTRUCTIONS

Before starting the engine, adjust the height and angle of the seat. To facilitate adjustment of height, drool a little light oil around saddle post and let it seep down around the post. The seat should not be set so both of the riders feet cannot be put flat on the ground with legs extended.

FUEL & BREAK IN

Your bike engine is two cycle getting its lubrication from the oil that is mixed with the gas. Using the concentrated 2-cycle oil (50 to 1), mix 2½ gallons thoroughly for the break in period at a ratio of 40 to 1. Do not open the throttle more than ¾ during this period. After the break in, 250-300 miles you may change to a ratio of 50 to 1. At this time you should also change your carburator jet from size 52 to size 50.

The fuel shut off valve has two positions, on and off. The valve should always be left in off position (handle to front of bike) when bike is parked.

Please check the following before you start off.

(a) Do you have enough fuel?

(b) Try the brake controls and see if they operate properly.

(c) Check tire pressure - depends on weight of rider - approx. 22 psi front and 30 psi rear.

(d) Check for free & full movement of steering post.

(e) Open fuel valve and with engine idling, check all lights.

STARTING

Bermuda Bike may be started from kickstand or while riding.

FROM KICKSTAND - METHOD I

Lift rear wheel and extend kickstand.
Open fuel tap located on the right side of the chain guard by the pedals.
Pull choke lever up
Now standing along right side of bike push down briskly with your right foot releasing the decompressor at the bottom of your stroke.
Keep choke on until engine idles without stalling.

WHILE PEDALLING - METHOD II

Apply choke as in Method I.
Squeeze decompressor handle.
Begin pedalling.
Release decompressor handle when sufficient speed has been attained for clutch to turn over engine.
Adjust throttle as required.

TO DISENGAGE CLUTCH

Align the two holes in clutch plate with the two screws behind plate by rotating clutch plate. Turn each screw ¼ turn. The clutch is now disengaged and Bermuda Bike may be pedalled as an ordinary bike without drag of clutch, in case of engine failure or fuel exhaustion.

CARBURETOR ADJUSTMENT FOR ENCARWI TYPE A

The only adjustment on the carburetor is the engine idle. If the engine stalls after warmup when the throttle is at idle; or if it idles too fast to the point of engaging the clutch and rotating the rear wheel, the idle should be adjusted as follows:

1 - Remove left hand shroud.
2 - Push rubber boot on top of carburetor up, exposing the adjusting nuts at the top of the carburetor.
3 - Loosen the 8 mm hex locking nut, and with engine running (on stand) adjust idle by turning knurled adjusting nut IN to slow down, or OUT to speed up. When engine idles properly without rotating rear wheel, lock adjustment by tightening the 8 mm hex locking nut.
FOR ENCARWI TYPE S use idle screw on left side of carburetor.

BRAKE ADJUSTMENT

Both front and rear brakes may be adjusted at the handle bar levers by turning the small diameter knurled ferrule OUT to shorten IN to lengthen control.

After adjustments are made lock in place with large diameter locking nut.

Should the fine adjustment scope be insufficient, lengthen or shorten the cable clamps on the brake levers to suit and make final fine adjustments as above.

CHAIN ADJUSTMENT

As with any bike, its important to have correct chain tension. There should be ½ to ¾" slack in the engine drive chain. To adjust - loosen rear axle nuts - adjust tension of chain with adjuster nuts - be sure both adjusting nuts are set for true alignment of the wheel.

The tension on the bicycle drive chain is made up by a spring loaded tensioner. Tighten axle bolts.

WHEEL REMOVAL

Front

Disconnect brake cable from hub assembly.
Disconnect speedometer cable; if fitted loosen axle nuts.
Pull on axle and remove wheel.

To re-assemble, reverse procedure. After re-assembly, check and adjust front brake.

Rear

Disconnect brake cable from hub assembly
Loosen chain adjuster nuts enough so wheel removal is possible
Loosen axle nuts
Lift frame slightly and slide wheel forward and out of frame bracket
Remove chains

To re-assemble, reverse procedure remembering to adjust chain tension and adjust rear brake.

GENERAL SUGGESTIONS

1 - The Bermuda Bike safety flag is provided with all of our bikes. It should be mounted on either the left rear axle or lower shock absorber fastening. Since your bike has a step thru frame, get into the habit of taking advantage of this when mounting your bike. Do not swing your leg over and foul the flag staff. This will only be annoying and you'll probably remove the flag and lose this safety factor.

2 - Keep both feet firmly on the pedals when riding.

3 - Always apply front and rear brakes simultaneously, never independently.

4 - When climbing a steep hill or starting off on an adverse grade, assist the bike by pedalling. This will decrease wear on the clutch and strain on the engine.

5 - Set both feet on the ground while waiting to move off.

6 - Always use the engine stop button to shut off the engine. Only in an emergency use the decompression lever as repeated use builds up carbon deposits in the engine.

7 - Obey all traffic laws applicable to motorized bikes in your state.

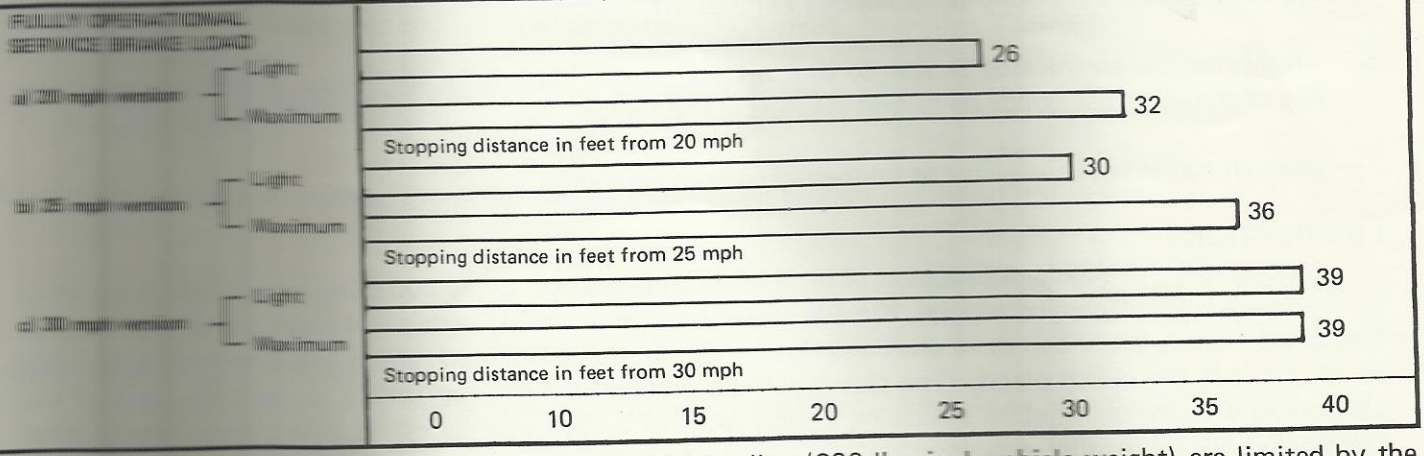
LUBRICATION

Make a habit of regular lubrication of all friction components. Every 500 miles apply a few drops of oil on the brake lever pivots and nipples, throttle and speedometer cables, pedals and clean and oil both chains. Grease the front forks, V-belt drive shaft and clutch. Do not pump too much grease in clutch bearing as it may be forced onto the clutch plates. The clutch will slip and will require dismantling to clean the faces of the plates. Oil used in fuel mixture should be a good grade of 2 cycle oil. We would recommend Castrol Grand Prix motorcycle oil for this purpose.

CONSUMER INFORMATION

This figure indicates braking performance that can be met or exceeded by the vehicles to which it applies, without locking the wheels, under different conditions of loading. The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

Description: Motorized bicycles with trade name Bermuda, manufactured by A. Claeys Flandria models 147 F and 147 FA.



Notice: The above indicated stopping distances at light loading (290 lbs. incl. vehicle weight) are limited by the locking point of time of the wheels. The table also shows the maximum loading (330 lbs. incl. vehicle weight).

This figure indicates passing times and distance that can be met or exceeded by the vehicles to which it applies in the situations diagrammed below.

The low speed pass assumes an initial speed of 20 mph and a limiting speed of 35 mph. The high speed pass assumes an initial speed of 50 mph and a limited speed of 80 mph.

Notice: The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions and the information may not be correct under other conditions.

Description: Motorized bicycles with trade name Bermuda, manufactured by A. Claeys Flandria models 147 F and 147 FA.

SUMMARY TABLE

Low speed pass.....not capable
High speed pass.....not capable

LOW-SPEED
Initial speed 20 mph — Limiting speed 35 mph

not capable

HIGH-SPEED
Initial speed 50 mph — Limiting speed 80 mph

not capable

FOR BOSCH MAGNETO

A-RIGHT HAND STOP CONTACTOR

B-LEFT HAND STOP CONTACTOR

C-HEADLAMP 6V 25W

D-SPEEDOMETER LIGHT

E-HEADLAMP SWITCH HORN CONTACTOR AND ENGINE STOP

F-HORN

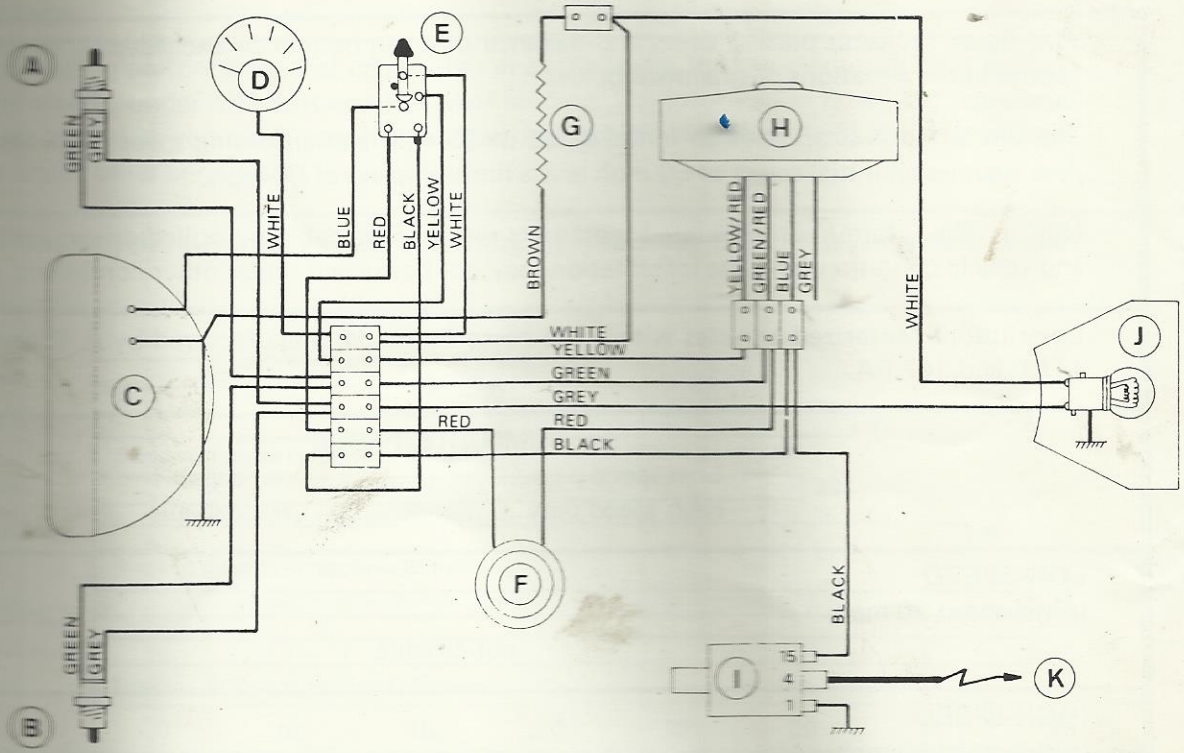
G-RESISTANCE CABLE 5.7 OHM FOR BOSCH MAGNETO ONLY

H-FLYWHEEL MAGNETO 6V - 35 / 5 / 18W BOSCH 6V - 30 / 18W PAGANI

I-H.T. COIL

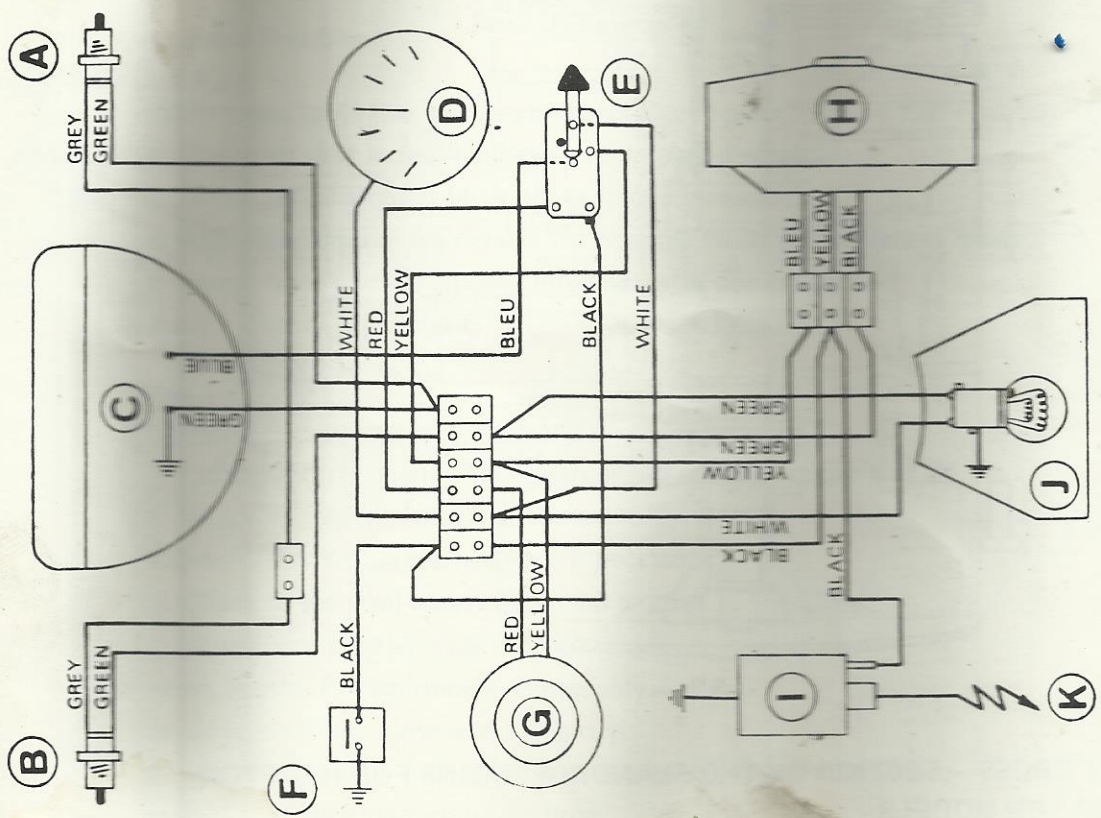
J-REAR LIGHT 6V - 5 / 21W (6W = Rear light 18W = Stop)

K-TO SPARK PLUG



FOR HAMPTON AND HAMILTON MODELS

ELECTRIC DIAGRAM - FLYWHEEL - PAGANI



A. RIGHT HAND STOP CONTACTOR

B. LEFT HAND STOP CONTACTOR

C. HEADLAMP 6V. - 25W

D. SPEEDOMETER LIGHT

E. HEADLAMP SWITCH
HORN CONTACTER
ENGINE STOP

F. SECOND ENGINE STOP

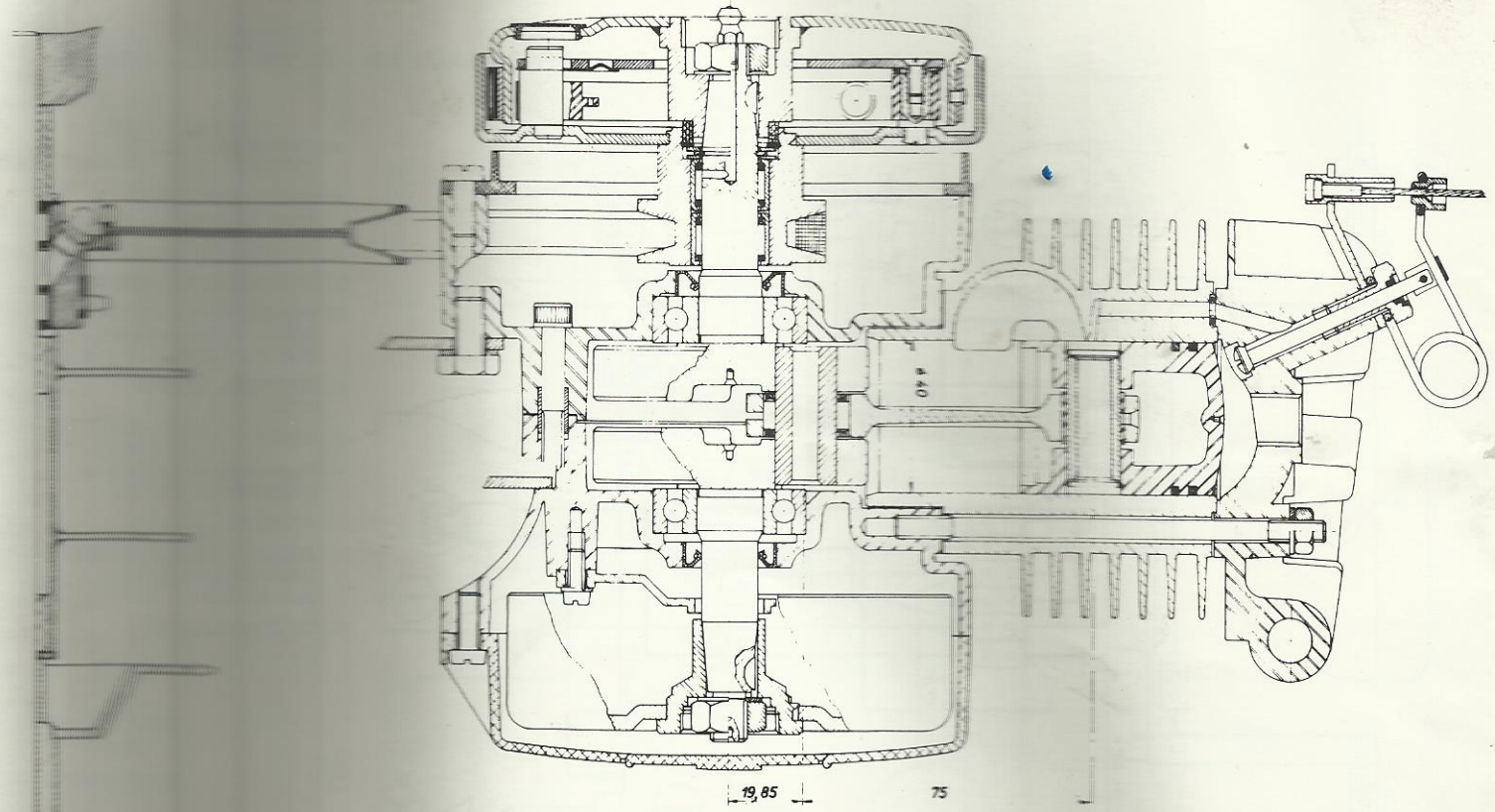
G. HORN

H. FLYWHEEL MAGNETO PAGANI 6V - 30/18W

I. HT COIL

J. REAR LIGHT 6V - 5/18 W
5W = REAR LIGHT
18W = STOP

K. TO SPARK PLUG



COMPLETE CROSS - SECTION OF THE FLANDRIA ENGINE FOR HAMPTON AND HAMILTON MODELS

TROUBLE SHOOTING

DIFFICULT STARTING

A. Carburator Troubles

1. No Fuel
   - With open fuel valve, remove carburator jet holder to see if fuel runs out. If not proceed as follows:
   a. Check air vent in fuel tank cap and enlarge if necessary.
   b. Check jet - if clogged blow out with compressed air.
   c. Float may be sticking - check for possible faults and replace if needed.
   d. Check fuel filter - if clogged blow out with compressed air.
2. Faulty Choke Adjustment.

B. Ignition Troubles

1. No spark
   a. Faulty or dirty spark plug - clean or replace and set gap to .025 in.
   b. Plug wire faulty - replace if necessary.
   c. Faulty spark plug cap - replace if necessary.
   d. Check to see if all wires connected to coil.
   e. If still have problems see dealer.
2. Weak Spark - Engine smokes excessively.
   a. Dirty air filter - rinse and oil lightly.
   b. Mixture too rich - use only recommeded oil to fuel mixture.
   c. Leaky or sticking carburator float.

Limited Warranty

The authorized Bermuda Bike dealer warrants to the initial retail purchaser that this Bermuda Bike is free from defects in material and workmanship during the 3 months warranty period commencing at date of purchase.

This warranty is subject to the Owner's obligation to maintain and operate the bike as outlined in the Owner's manual. The warranty does not apply to normal maintenance items, ie. tires, tubes, spark plugs, bearings, stands, control cables or to repairs necessitated by misuse, modification of parts or accident.

This is the only warranty made by Bermuda Bikes, Inc. applicable to this bike.

Revised 7/1/77

Bermuda
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