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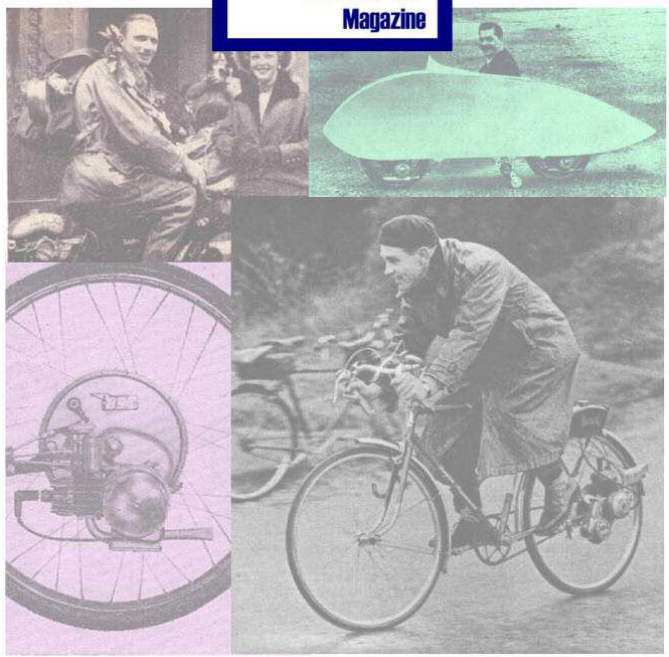

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BOB. SERGENT
MOORFIELDS, LIVERPOOL. 2
IS SOLE AGENT
START RIGHT BY DEALING WITH "BOB"

The *Commander*

Britain's revolutionary invention in the field of motorised transport

Contents

Published by THE GENERAL STEEL GROUP · SPRINGFIELD ROAD
HAYES · MIDDLESEX *Telephone Hayes* 2763

Introduction

Under the name *Commander* THE GENERAL STEEL GROUP of Hayes is manufacturing and marketing a new series of Auto and Motor Cycles designed for comfort, economy, and performance, at prices within the reach of everyone.

There are three models, all powered by the renowned VILLIERS engines.

Model 1 is a de luxe Autocycle which embodies both front and rear wheel springing, with Villiers 98 c.c. Mark 2F pedal start engine.

Model 2 is an Ultra-Lightweight Motor Cycle with front and rear wheel springing and the Villers 98 c.c. Mark 1F engine with 2-speed gearbox and kickstarter.

Model 3 is a fully sprung Lightweight Motor Cycle with the Villiers 122 c.c. 10D engine and 3-speed gearbox.

Commander machines are styled to appeal to women as well as men. They are distinguished by eight outstanding construction and design features built into all models:

1 Square-tube patented Beam frames for strength and stability.

2 Motor car front and rear suspensions: complete riding comfort on foam rubber saddles.

3 Patented bonnets, easily removable protect engine, rider, passenger.

4 Powerful brakes with encased cable controls.

5 Ultra-modern safety lighting: increased front-rear visibility.

6 Low centre of gravity ensures stability at all speeds.

7 Easy to clean cowlings streamlined for unique riding protection.

8 Car-body beauty: two colour metallic finish.

United Kingdom Retail Prices, in which the Total Price includes Purchase Tax, payable only in Great Britain, are:

		BASIC PRICE	TOTAL PRICE
COMMANDER 1 AUTOCYCLE	98 c.c.	£58 13 6	£74 19 6
COMMANDER 2 TWO-SPEED MOTOR CYCLE	98 c.c.	66 10 0	84 19 6
COMMANDER 3 THREE-SPEED MOTOR CYCLE	122 c.c.	75 0 0	95 16 8

Export Prices on application

STOP PRESS ANNOUNCEMENT *December 1952*

To meet the pronounced demand at home and abroad for a faster, more powerful machine, we present the

COMMANDER IV—powered by the Villiers 197 c.c. Mark 6E Engine

Its makers rightly claim that ' the engine design incorporates all the latest features, and the higher power output results in an outstanding performance. Petrol consumption is approximately 90 m.p.g.' A detailed Specification of the power unit is set out overleaf.

The COMMANDER IV embodies all the distinctive features exclusive to Commander machines.

To free productive capacity for COMMANDER IV, the AUTOCYCLE—Model I—has been deleted from the COMMANDER range, and all references to the Autocycle in this publication may therefore be disregarded.

COMMANDER United Kingdom Retail Prices, inclusive of Purchase Tax, payable only in Great Britain, are :

	Basic Price	*Purchase Tax*	*Total Retail Price*
COMMANDER II			
97 c.c. Two Speed	£66 10 0	£18 9 6	£84 19 6
COMMANDER III			
122 c.c. Three Speed	£75 0 0	£20 16 8	£95 16 8
COMMANDER IV			
197 c.c. Three Speed	£96 0 0	£26 13 4	£122 13 4

SPECIFICATION COMMANDER IV

BORE and STROKE.—59 mm. (2·322") × 72 mm. (2·834"). *Capacity* 197 c.c. (11·71 cu. in.).

CYLINDER HEAD.—*Aluminium, detachable,* 14 mm. *Sparking Plug. Compression Release Valve.*

PISTON.—*Aluminium, Flat Top, Two Compression Rings.*

BEARINGS.—*Three Ball Bearings to Crankshaft. Roller bearing big end.*

CLUTCH.—*Two plate cork insert type, finger control to adjustment.*

RATIOS.—*Engine to Clutch,* 1—2. *Gearbox, Top Gear* 1—1, *Middle* 1·4—1, *Low* 2·66—1. *Final Drive Sprocket.* 15 *Teeth* × ½*inch pitch to suit* 'Renold' *Chain No.* 110044.

GEARBOX.—*Constant mesh gears, positive stop foot change lever adjustable for position.*

STARTING.—*By Kickstarter with Folding Pedal.*

CARBURETTOR.—*Villiers two lever, suitable for lever or twist grip control. With latest type Air Cleaner.*

MAGNETO.—*Villiers flywheel type providing current for ignition and lighting, two types are available.* (1) *For direct lighting from magneto to lamps.* (2) *For charging a battery through a rectifier.*

LIGHTING SET.—*Either* 24 *Watt battery and rectifier set or* 30 *Watt direct lighting set is available.*

WEIGHT.—*Unit complete with magneto and carburettor approx.* 59 *lb.*

LUBRICATION.—*Engine* : 1 *part Castrol Patent XL Oil to* 16 *parts petrol.*
Gearbox and Chaincase : *Castrol* 'D' *Gear Oil.*

The Press on the COMMANDER

'A spectacular new British lightweight, which promises to be the Show sensation of 1952, has been announced by the General Steel and Iron Co., Ltd., of Springfield Road, Hayes, Middlesex. . . . All models employ swinging-fork rear suspension.'

'Much care has been given to the finish. Chromium plating is employed extensively, while the main bodywork is finished in dark blue enamel—in the case of the 122 c.c. machine—or in maroon for the 98 c.c. model. The autocycle has a light blue bodywork. In each case the "beam" is enamelled ivory. The largest machine weighs approximately 175 lb.'

'Considerable development work has been carried out and mention should be made of the services given by local clubmen. Several of the prototypes have been passed to them for extended test and their reports have been carefully studied.'

'All these models will be in production early in the New Year. They will be exhibited on Stand 108A at the forthcoming Earls Court Show.'

MOTOR CYCLING

'Most attractively styled, the Commanders *have considerable eye appeal; in addition, the immensely strong frame layout and soft suspension characteristics give promise of road handling and riding comfort well above the average for lightweights. Furthermore, by reason of the extent of enclosure achieved by a chromium-plated grille round the front of the engine and by sheet-steel cowling in other positions (including partial enclosure of the rear wheel), the machines should be reasonably clean to ride in ordinary clothing.'*

'Several ingenious detail features are incorporated in these altogether ingenious models. A small, chromium-plated knob on the cowling is situated just below the frame beam on the right-hand side of the machine; when the knob is pulled outward it opens the petroil tap. A similarly placed knob on the left side, when pulled out, closes the choke; when this same knob is turned anti-clockwise, the float tickler is depressed.'

'Where a machine is required for pillion work, a Vynide-covered twin-seat to match the colour scheme is to be offered as an extra. Also available as extras will be leg-shields and "running-boards" (in place of footrests) conforming with the lines of the machine and running rearward sufficiently to accommodate the pillion passenger's feet.'

THE MOTOR CYCLE

'. . . Three machines . . . completely revolutionary in design.'

'. . . A range of fully-enclosed machines that will appeal particularly to the people whose transport requirements are vested in a vehicle that is reasonably quick, economical to run and, above all, clean to ride. With their 122 c.c. and 98 c.c. motor cycles and 98 c.c. auto-cycle, the General Steel Company seeks to tap that market and their success may well set in motion a new train of thought in Britain so far as lightweight and ultra lightweight motor cycle design is concerned.'

'Another outstanding feature of all three models is the excellence of the springing.'

'All models will have the curved main-frame panelling finished cream, with a choice of light blue, dark blue and maroon for the remainder of the cowling, with the engine grille chromium-plated.'

'The prices of all three machines have been kept extremely competitive.'

' Products of a newcomer to motor cycle manufacture, the General Steel & Iron Co. Ltd., of Hayes, Middlesex, should be among the big attractions of the forthcoming Show.'

' This company—already well established in the world of steel—has struck out originally in the design of a range of fully enclosed motor cycles which will be sold at home and abroad under the name of Commander. *The object of the designers has been to appeal to the multitude of utilitarian—and potential utilitarian—riders.'*

' Of the minor features noticed, all cabling is concealed, battery and tool box are benaeth the saddle, while the headlamp has a fluted lens conforming with the general appearance of the machine. The rear light is on massive lines, and consists of a red plastic lens visible over more than 180 *degrees.'*

THE MOTOR CYCLE & CYCLE TRADER

Beautiful style

Two-colour cowlings

Chromium plated grille

Large head and rear lights

Front and rear springing

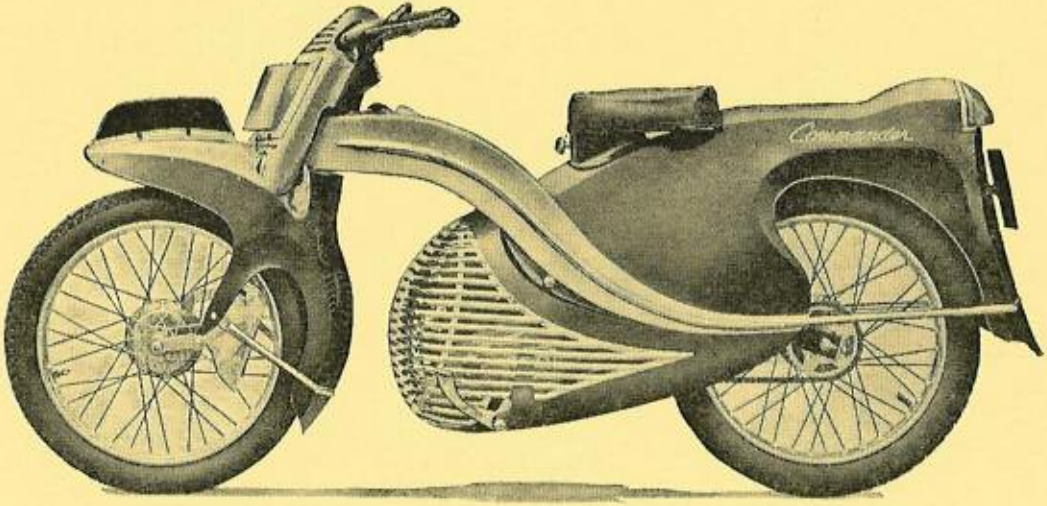
Enclosed battery-tool box

Carburettor tickler cum choke control

Foam rubber saddle

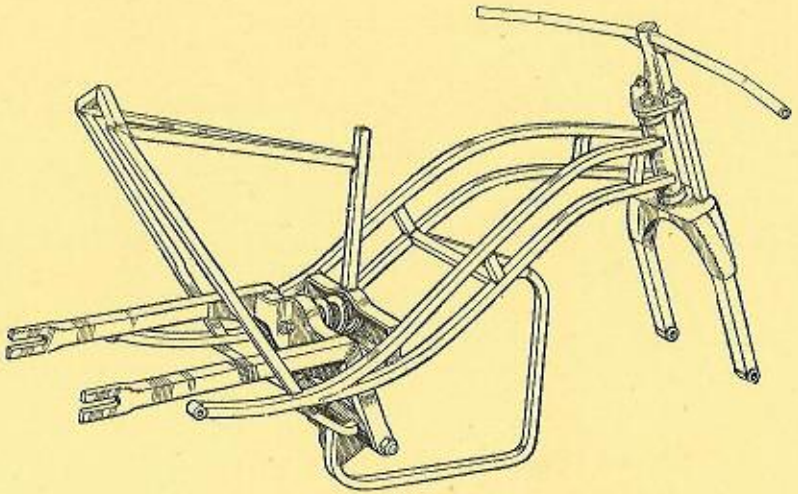
The COMMANDER

122 C.C.



By courtesy of THE MOTOR CYCLE

Framed for strength . . .



By courtesy of THE MOTOR CYCLE

'Identical frames with pivoted-fork rear springing, and bottom-link, elastic-controlled front forks are employed for all three models. The main frame is fabricated throughout in seamless-drawn, $\frac{3}{4}$in square-section, 16-gauge steel tubing supplied by Accles and Pollock. Welded-up construction is employed. The frame is of the "spine" (or beam) type and there is no front down tube. In the form of a very shallow S, the beam consists of four longitudinal members, arranged in box-section and cross-braced where desirable. These members splay out and extend rearward from the steering head, and curve down to pass behind the power unit. A little way behind the rear-fork pivot, the beam lower member merges on each side with the upper member, and the latter is continued to the rear nearly as far as the rear-wheel spindle—this for part-support of the rear-end cowling.'

'The engine is attached to a loop which is welded in front to the lower members of the frame beam, then passes under and behind the engine to the bottom of the rear-fork pivot-bearing housing.'

From THE MOTOR CYCLE

FACTS AND FIGURES

SECTION	MODEL 1 DE LUXE AUTO-CYCLE
Wheelbase	53½"
Overall length	84"
Overall height	39"
Saddle height	32½"
Ground clearance	5"
Handlebar width	32"
Weight	175 lbs.
Engine	Air cooled Villiers Mk. 2F
	Capacity 98 c.c.
	Bore 47 mm. Stroke 57 mm.
	Horse power 2 at 3,750 R.P.M.
	Sparking plug 14 mm. Lodge H 14
	Sparking plug gap ·018/·025"
	Carburettor Villiers Junior type
	Carburettor jet size. Marked J 8
	Carburettor taper needle—No. 2½ setting 29/32 out
	Contact breaker gap ·015" maximum
	Lubrication engine. Petroil fuel mixture 1 : 16. Oil S.A.E. 30
	Lubrication chain case. Castrol "D" S.A.E. 140

A COMPLETE SPECIFICATION OF THE *COMMANDER* RANGE

MODEL 2 ULTRA LIGHTWEIGHT MOTOR CYCLE

53½"
84"
39"
32½"
5"
32"
175 lbs.
Air cooled Villiers Mk. 1F
Capacity 98 c.c.
Bore 47 mm. Stroke 57 mm.
Horse power 2·80 at 4,000 R.P.M.
Sparking plug 14 mm. Lodge H 14
Sparking plug gap ·018/·025"
Carburettor Villiers Junior type 6/0
Carburettor jet size No. 8 type 6/0
Carburettor taper needle—No. 2½ type 6/0
Contact breaker gap ·015" maximum
Lubrication engine. Petroil fuel mixture 1 : 16. Oil S.A.E. 30
Lubrication gearbox and chaincase. Castrol "D" S.A.E. 140

MODEL 3 LIGHTWEIGHT MOTOR CYCLE

53½"
84"
39"
32½"
5"
32"
175 lbs.
Air cooled Villiers Mk. 10D
Capacity 122 c.c.
Bore 50 mm. Stroke 62 mm.
Horse power 4·80 at 4,000 R.P.M.
Sparking plug 14 mm. Lodge H 14
Sparking plug gap ·018/·025"
Carburettor Villiers type 3/4. Single lever

Carburettor taper needle—No. 3 setting 2·$\frac{48}{32}$ out
Contact breaker gap ·015" maximum
Lubrication engine. Petroil fuel mixture 1 : 16. Oil S.A.E. 30
Lubrication gearbox and chaincase. Castrol "D" S.A.E. 140

SECTION	MODEL 1 DE LUXE AUTO-CYCLE
Transmission	Drive chain engine to rear wheel ½" pitch. Coventry No. 112045 Cycle pedals, crank, and chainwheel with pedal chain ½" pitch. Fixed final gear ratio 10·76 : 1
Frame	Special patented 4 girder beam design Accles & Pollock ⅜" and 1⅛" square tube 16 gauge all welded construction. Front and rear wheel spring suspension units. Centre stand. Welded steel 1¼ gallon petroil tank
Front suspension	The front wheel spindle is bolted to link arms which pivot in bronze bearing bushes of ½" bore by 1⅜" length attached to the square tube front fork legs. Rubber dampers iron out all road bumps. Total vertical movement of wheel 4". Trail 3". Ball bearings in steering head.

MODEL 2 ULTRA LIGHTWEIGHT MOTOR CYCLE

Drive chain engine to rear wheel ½" pitch. Coventry No. 112045. Two speed gearbox in unit with engine with handlebar gear change. Top gear ratio 8·47 : 1. Bottom gear ratio 13·05 : 1

Special patented 4 girder beam design. Accles & Pollock ⅜" and 1⅛" square tube 16 gauge all welded construction. Front and rear wheel spring suspension units. Centre stand. Welded steel 1¼ gallon petroil tank.

The front wheel spindle is bolted to link arms which pivot in bronze bearing bushes of ½" bore by 1⅜" length attached to the square tube front fork legs. Rubber dampers iron out all road bumps. Total vertical movement of wheel 4". Trail 3". Ball bearings in steering head.

MODEL 3 LIGHTWEIGHT MOTOR CYCLE

Drive chain engine to rear wheel ½" pitch. Renold No. 110044. Three speed gearbox in unit with engine with foot pedal gear change. Gear ratios 19 : 1, 10 : 1, 7·18 : 1

Special patented 4 girder beam design. Accles & Pollock ⅜" and 1⅛" square tube 16 gauge all welded construction. Front and rear wheel spring suspension units. Centre stand. Welded steel 1¼ gallon petroil tank.

The front wheel spindle is bolted to link arms which pivot in bronze bearing bushes of ½" bore by 1⅜" length attached to the square tube front fork legs. Rubber dampers iron out all road bumps. Total vertical movement of wheel 4". Trail 3". Ball bearings in steering head.

Rear suspension	The rear half of the frame consists of a patented swinging arm of square tube construction which carries the rear wheel and has a horizontal high tensile steel pivot spindle of $\frac{5}{8}$" dia. mounted in 2 bronze bearing bushes 1" long. A steel coil spring 4" long by $3\frac{1}{2}$" dia. irons out all road bumps.
Wheels	Fitted Dunlop 21" by 2·25" tyres. Both 4" brakes hand operated. Rear wheel chain sprocket 48 teeth. Pedal chain free wheel sprocket.
Ignition and Electrical Equipment	Villiers flywheel Magneto and Dynamo. Direct lighting. Headlamp $5\frac{1}{2}$" dia. reflector 6 volt. Tail lamp full width 4 volt. Electric horn and 6 volt dry battery For indirect lighting see : "Optional Equipment"

MODEL 2 ULTRA LIGHTWEIGHT MOTOR CYCLE

The rear half of the frame consists of a patented swinging arm of square tube construction which carries the rear wheel and has a horizontal high tensile steel pivot spindle of $\frac{5}{8}$" dia. mounted in two bronze bearing bushes 1" long. A steel coil spring 4" long by $3\frac{1}{2}$" dia. irons out all road bumps.

Fitted Dunlop 19" by 2·50" tyres. Hand operated 4" front brake. Foot pedal operated 4" rear brake. Rear wheel chain sprocket 48 teeth.

Villiers Flywheel Magneto and Dynamo
Direct lighting
Headlamp $5\frac{1}{2}$" dia. reflector 6 volt
Tail lamp full width 6 volt
Electric horn and 6 volt dry battery
For indirect lighting see : " Optional Equipment "

MODEL 3 LIGHTWEIGHT MOTOR CYCLE

The rear half of the frame consists of a patented swinging arm of square tube construction which carries the rear wheel and has a horizontal high tensile steel pivot spindle of $\frac{5}{8}$" dia. mounted in two bronze bearing bushes 1" long. A steel coil spring 4" long by $3\frac{1}{2}$" dia. irons out all road bumps.

Fitted Dunlop 19" by 3·0" tyres. Hand operated 5" front brake. Front speedo drive. Foot pedal operated 5" rear brake. Rear wheel chain sprocket 38 teeth

Villiers Flywheel Magneto and Dynamo
Direct lighting
Headlamp $5\frac{1}{2}$" dia. reflector 6 volt
Tail lamp full width 6 volt
Electric horn and 6 volt dry battery
For indirect lighting see: " Optional Equipment "

SECTION	MODEL 1 DE LUXE AUTO CYCLE
General Details	Foam rubber saddle Patented cowling protecting engine, frame, petroil tank, chains and wheels. Built-in accumulator carrier, tool box and inflator housing. Tool kit and inflator provided. Finished in two colours and chromium plate. 160 miles per gallon. 40 miles per hour
United Kingdom Retail Price, including Purchase Tax	£74 19s. 6d.
Optional Equipment	Speedometer Indirect lighting 6 volt accumulator and rectifier Windshield Carrier

MODEL 2 ULTRA LIGHTWEIGHT MOTOR CYCLE

Foam rubber saddle
Patented cowling protecting engine, frame, petroil tank, chains and wheels. Built-in accumulator carrier, tool box and inflator housing. Tool kit and inflator provided.
Finished in two colours and chromium plate
160 miles per gallon
45 miles per hour

£84 19s. 6d.

Speedometer
Indirect lighting 6 volt accumulator and rectifier
Windshield
Legshields and running boards
Carrier

MODEL 3 LIGHTWEIGHT MOTOR CYCLE

Foam rubber saddle
Patented cowling protecting engine, frame, petroil tank, chains and wheels. Built-in accumulator carrier, tool box and inflator housing. Tool kit and inflator provided
Finished in two colours and chromium plate
120 miles per gallon.
55 miles per hour

£95 16s. 8d.

Indirect lighting 6 volt accumulator and rectifier
Windshield
Legshields and running boards
Carrier
Dual seat

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