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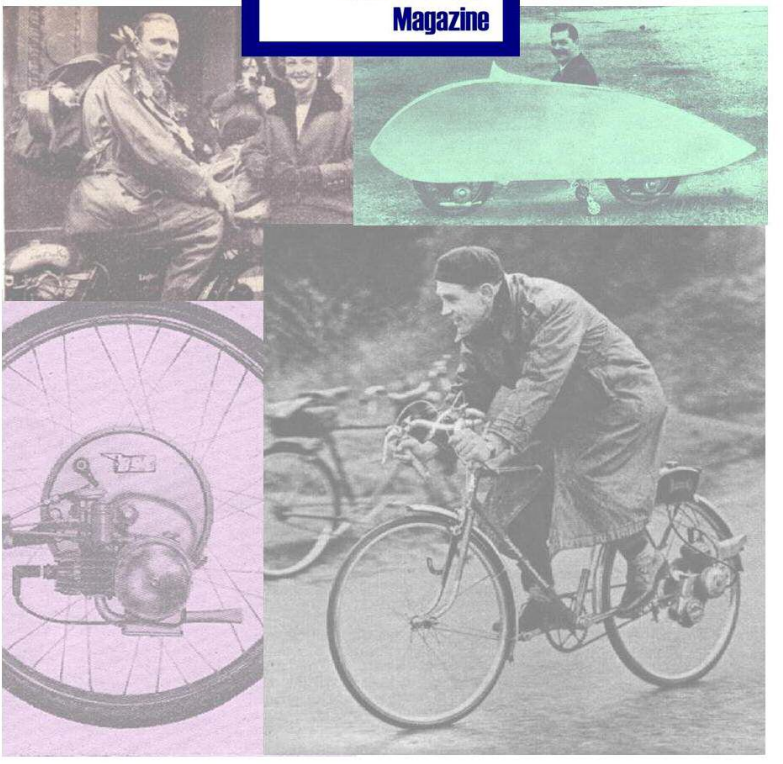

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List BEE 8. 7/53.

BRAID BROS.

Electrical & Mechanical Engineers

50 Birchwood Avenue, Hackbridge, Surrey.
Telephone: Wallington 9309.

THE "BUSY BEE" 50 c.c. AUXILIARY ENGINE.

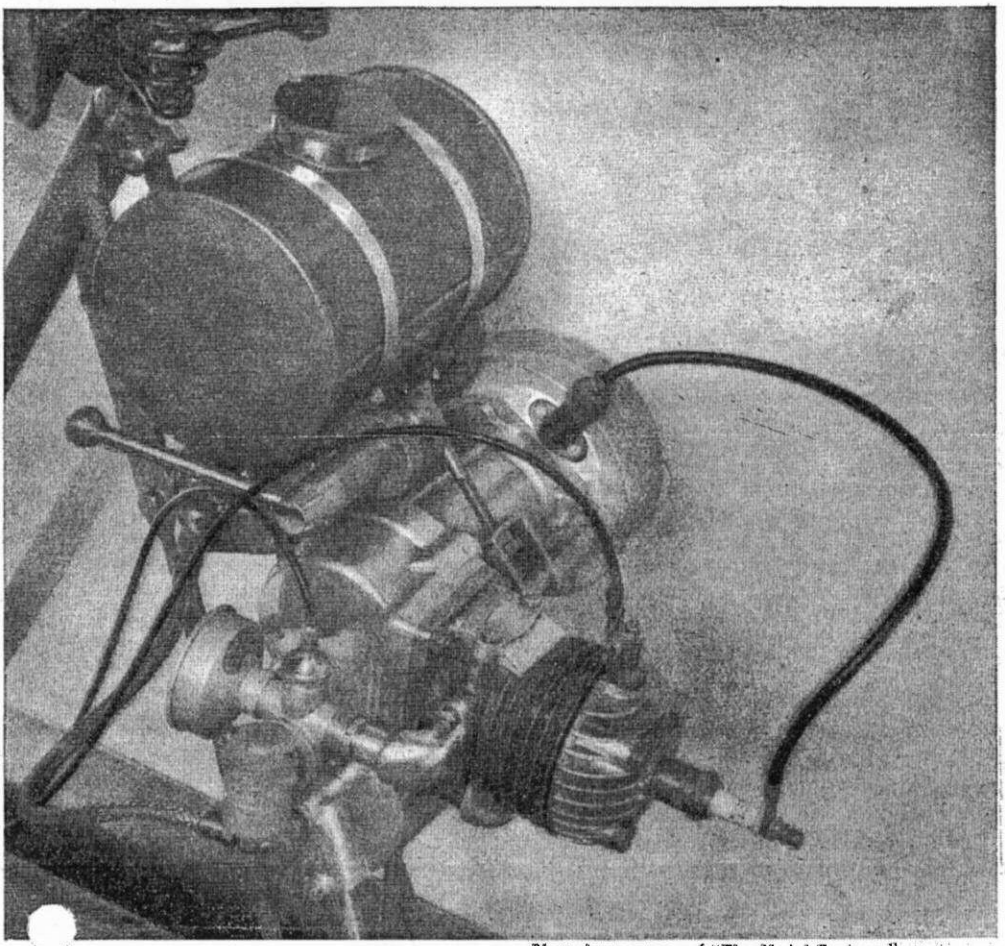

Photo by courtesy of "The Model Engineer"

A complete "Busy Bee" Unit attached to cycle frame, as exhibited by Messrs. Braid Bros. at the 1951 "M.E." Exhibition.

The "Busy Bee" 50 c.c. Auxiliary Engine.

This engine was designed by Mr. E. T. Westbury and used by the Myford Engineering Co., Ltd., of Beeston, Notts., in order to provide an example of work which would show the great possibilities of the M.L.7 Centre Lathe. At the same time it provides a sound, well designed product which meets the needs of many amateurs who like to make something which is finally of great value every day.

The engine of 50 c.c. capacity ($1\frac{5}{8}$" bore; $1\frac{1}{2}$" stroke) has an aluminium crankcase and cylinder head with a special design, aluminium deflector type piston (2 rings) working in a cast iron cylinder. An exceptionally sturdy crankshaft is carried in large ball bearings which are mounted on either side of the driving roller in a one piece, strongly ribbed, aluminium housing. The crankcase is carried on one side and the magneto mounting flange is on the other end so that the weight is well distributed across the wheel. A substantial bronze seal bush looks after the crankcase compression and this avoids the use of any other form of crankcase seal and as it is not load carrying, its life should be indefinite.

The weight of the complete unit is extremely reasonable because of the care given to compact design with good strong sections used everywhere, so that the final results are a great improvement over some other designs.

Clamped on to the rear seat stays of the cycle, the weight is kept well within the centres, it is at the stragetic point for weight balance and at one of the best places for strength as well as convenience.

In addition to its use for cycles, the Busy Bee is intended to be used for lawn mowers, and many other purposes, with suitable brackets and mountings.

All the castings are made from first class patterns with good machining allowances, the metals having been carefully selected to give high strength combined with good machining. These qualities were very obviously demonstrated at the Model Engineer Exhibition 1950, where the Myford Engineering Co., Ltd. were machining the castings on the M.L.7 lathes on show there.

The description of this engine first commenced in The Model Engineer with the issue No. 2601 of March 29th, 1951.

The following Castings are as "officially approved" by Mr. E. T. Westbury, and carry our full guarantee of free replacement if any prove faulty and are returned to us.

" Busy Bee " Guaranteed Castings

WE ARE THE SOLE SUPPLIERS.

Terms—Cash with order. Post free for complete sets. Please add extra when ordering part sets.

BEE 5.	Cylinder ..... High Duty Iron	**10**	**0**
„ 22.	De Luxe Cast Aluminium Cylinder with Chrome Molybdenum Steel Liner, cast in Bore, unlapped. A first class cylinder with an accurate bore. A real saver	**25**	**0** ✓
„ 6.	Cylinder Head, Die Cast Alum. D.T.D.424	**7**	**6** ✓
„ 1.	Crankcase „ „	**12**	**0** ✓
„ 2.	Main Bearing Housing „ „	**13**	**6** ✓
„ 3.	Magneto Mtg. Flange „ „	**3**	**6**
„ 7.	Piston Die Cast LO-EX	**6**	**6** ✓
„ 4.	Transfer Port Cover Die Cast Alumn. D.T.D.44	**1**	**3** ✓
„ 11.	Exhaust Bend „ „	**3**	**6**
„ 19.	Inlet Bend „ „	**3**	**6**
„ 20.	Silencer Cover „ „	**4**	**0**
„ 8.	Connecting Rod Die Cast „ „	**4**	**6** ✓
„ 12.	Driving Roller. High Duty Iron	**4**	**6** ✓
„ 21.	Expansion Chamber (added Jan. 1952) Alumn. (Postage extra)	**5**	**0**

Complete Set with BEE 5 (post free) **£3-15-0.**
„ „ with BEE 22 „ „ **£4-10-0.**

Carburettor & Control Lever for the " Busy Bee " Engine.

We have introduced the following Carburettor Castings for those clients who wish to make their own carburettor to Mr. Edgar T. Westbury's design for the " Busy Bee " Engine.

BEE 23.	Body Alum. D.T.D.424.	**5**	**0**
„ 24.	Float Chamber „ „	**5**	**0**
„ 25.	Air Cleaner Cover „ „	**2**	**6**
„ 26.	Control Lever Body „ „	**2**	**0**
„ 27.	Control Lever „ „	**3**	**0**

Complete Set of Carburettor Castings, post free **15/-**

Accessories and Finished Components for " Busy Bee" Engine.

Full scale Drawing of Engine and Details P.E.23/1.	**4**	**6**
„ „ Drawing of Mounting P.E.23/.	**4**	**6**
(or 8/- per pair)		
Full Scale Drawing of Carburettor and Details P.E. 26. 1-sheet	**2**	**9**
Wico Pacy Bantamag and 15" lead	**£4**	**6** **0**
„ „ „ with finned blower type flywheel for cooling stationary engines	**4**	**6** **0**
Wipac Flywheel Magneto with combined 6v. 8w. Generator for lighting	**4**	**10** **0**

Amal 308 Carburettor with Combined Decompression Control Lever and 60" Double Cable, less Decompressor	£2	14 0
Amal 308 Carburettor only	£1	17 6
Lever and Controls only		17 6
Piston Rings ($1\frac{5}{8}$" dia. x $\frac{1}{8}$". Two required)	each	2 6
Ball Race SKF-EE6 or equivalent		8 6
Ball Race SKF-RLS4 ,, ,, ...		11 2
" Reservoil " Crankcase Seal Bush, oil retaining bronze		2 6
Exhaust Pipe $\frac{5}{8}$" dia. x $7\frac{1}{2}$" Seamless Heat Resisting Steel		1 0
,, ,, as above. Polished Chromium Plated		3 0
,, ,, $\frac{5}{8}$" x $11\frac{1}{2}$" Seamless Heat Resisting Steel		1 3
,, ,, as above. Polished Chromium Plated		3 3
Gas Cut Cycle Mounting Plates $\frac{1}{8}$" mild steel	per pair	7 6
Petrol Taps. $\frac{1}{8}$" Gas Thread, $\frac{3}{16}$" Bore Union		3 6
Petrol Pipe. Flexible Plastic, clear, $\frac{3}{16}$" Bore		1 0
Sheet Gasket ·015" thick x 10" x 20"		2 9
,, ,, ·031" thick x 10" x 20"		3 10
Sparking Plug 12 m/m. Lodge		5 0
(As recommended by E. T. W. for " Busy Bee ")		
,, ,, 10 m/m ..... Lodge		5 0
,, ,, 14 m/m ..... Lodge		5 0
,, ,, Minature $\frac{3}{8}$" dia. x 24 T.P.I. Lodge		5 0
Weather Proof 'Lodge' Elbow Terminal Cover for above plugs		1 6

All the above items are usually available from stock in 7 to 10 days in spite of the material supply difficulties.

Prices will be those ruling at the date of despatch owing to the possibility of increases taking place in the meantime.

COMING SHORTLY

The New E. T. Westbury's Forced Air-cooled 50 c.c. Stationary Engine " The Bumble Bee."

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