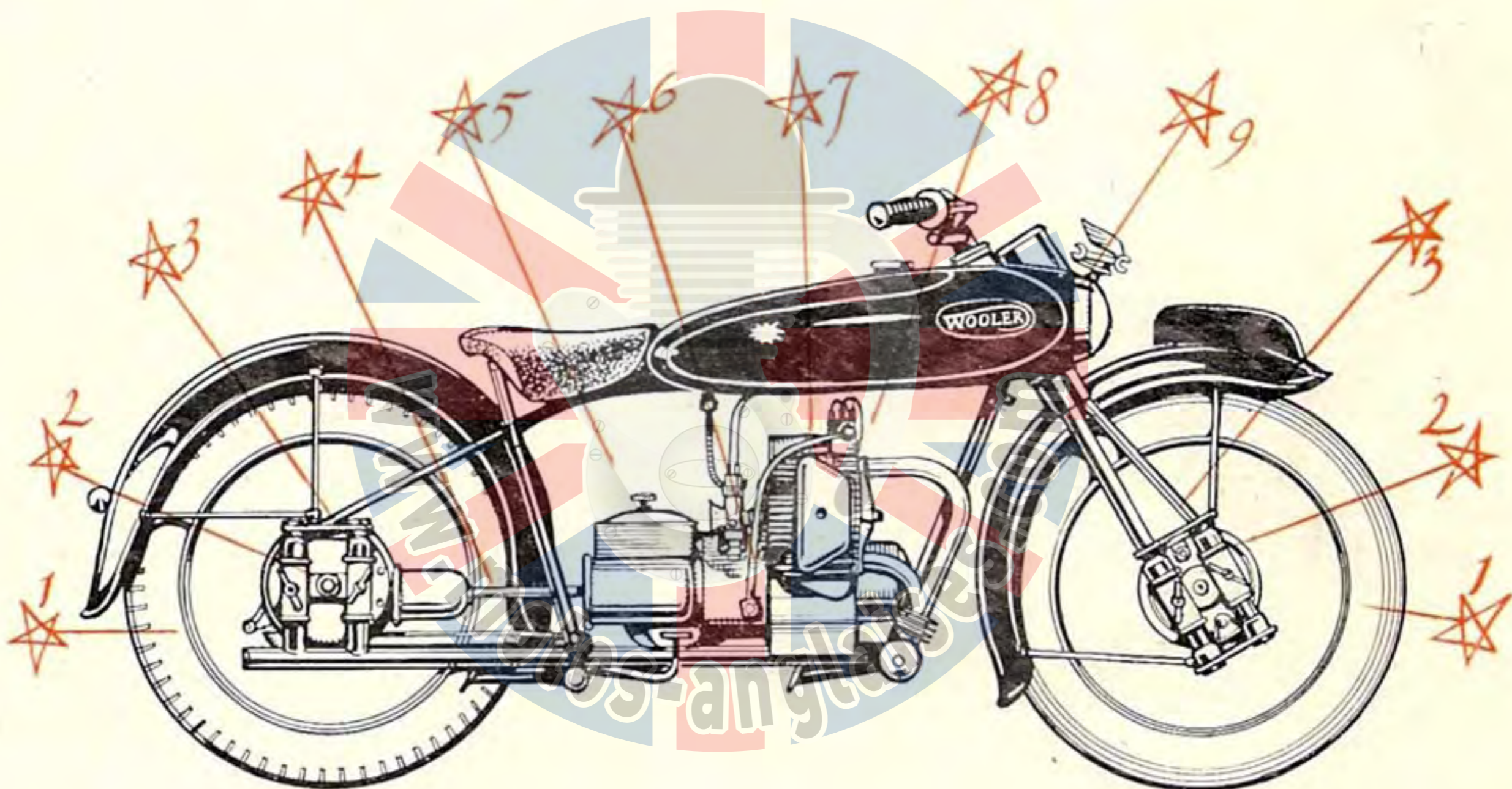


# Sparks of Genius!



1. Interchangeable quickly detachable wheels
2. Duplex spring frame
3. Alloy hubs incorporating massive finned brakes
4. Shaft drive
5. High power—weight ratio under 240 lb.
6. Unit construction
7. Unique 4 cylinder transverse beam engine
8. Complete accessibility—one spanner only
9. Petrol tank incorporating electrical equipment



ESTABLISHED 1909

## WOOLER



# A Message from the Designer



AS one who has both ridden, designed and manufactured Motor Cycles for the past forty years, it gives me great pleasure to present to the "fraternity" a machine in which, as a result of eight years research, I have endeavoured to embody all those features which go towards achieving a highly reliable, fast, touring machine.

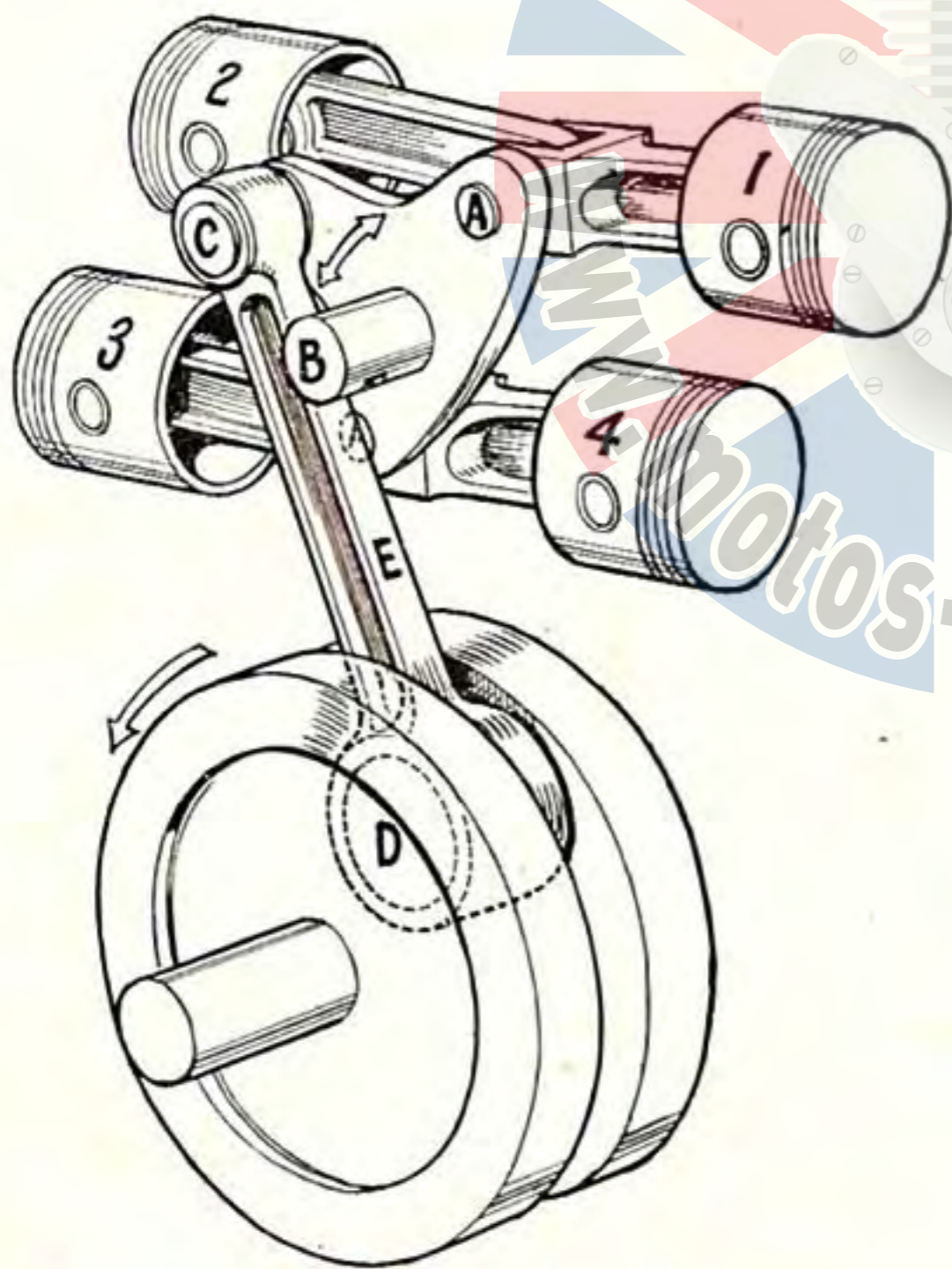
I feel sure that you will gain as much pleasure from riding this machine as I have experienced whilst designing.

Yours,

*John Wooler*

## The Beam Principle

..... *how it works*



The firing sequence of this engine is 1,2,3,4 and thus when No. 1 fires No. 2 is on the compression stroke and when No. 2 fires No. 3 is on its compression stroke and so on. Therefore, as No. 1 fires, the TRUNNION A rocks about point B thus causing point C to describe an arc downwards, which in turn revolves the crankshaft through 180° of its travel.

Piston No. 2 fires next in sequence and the reverse action takes place.

Pistons No. 3 and 4 then repeat the cycle of No's. 1 and 2.

The action at point C corresponds to that at the small end in a conventional single cylinder engine while point D is as per a normal crankshaft except that at all times the MASTER ROD E is transmitting a power stroke to the mainshaft.

Point B constitutes a fixed fulcrum through which the piston force is transmitted to the MASTER ROD.

### Some Advantages —

PERFECT BALANCE—  
GREATLY IMPROVED TORQUE—  
UNIFORM WEAR—  
COMPACTNESS—  
IMPROVED COOLING—

Freedom from Couple  
Continuous power supplied to the master rod; unobtainable with a conventional layout  
All bearing faces subjected to even loading  
75% saving in overall length giving light weight and lower centre of gravity  
Larger exposed surface area

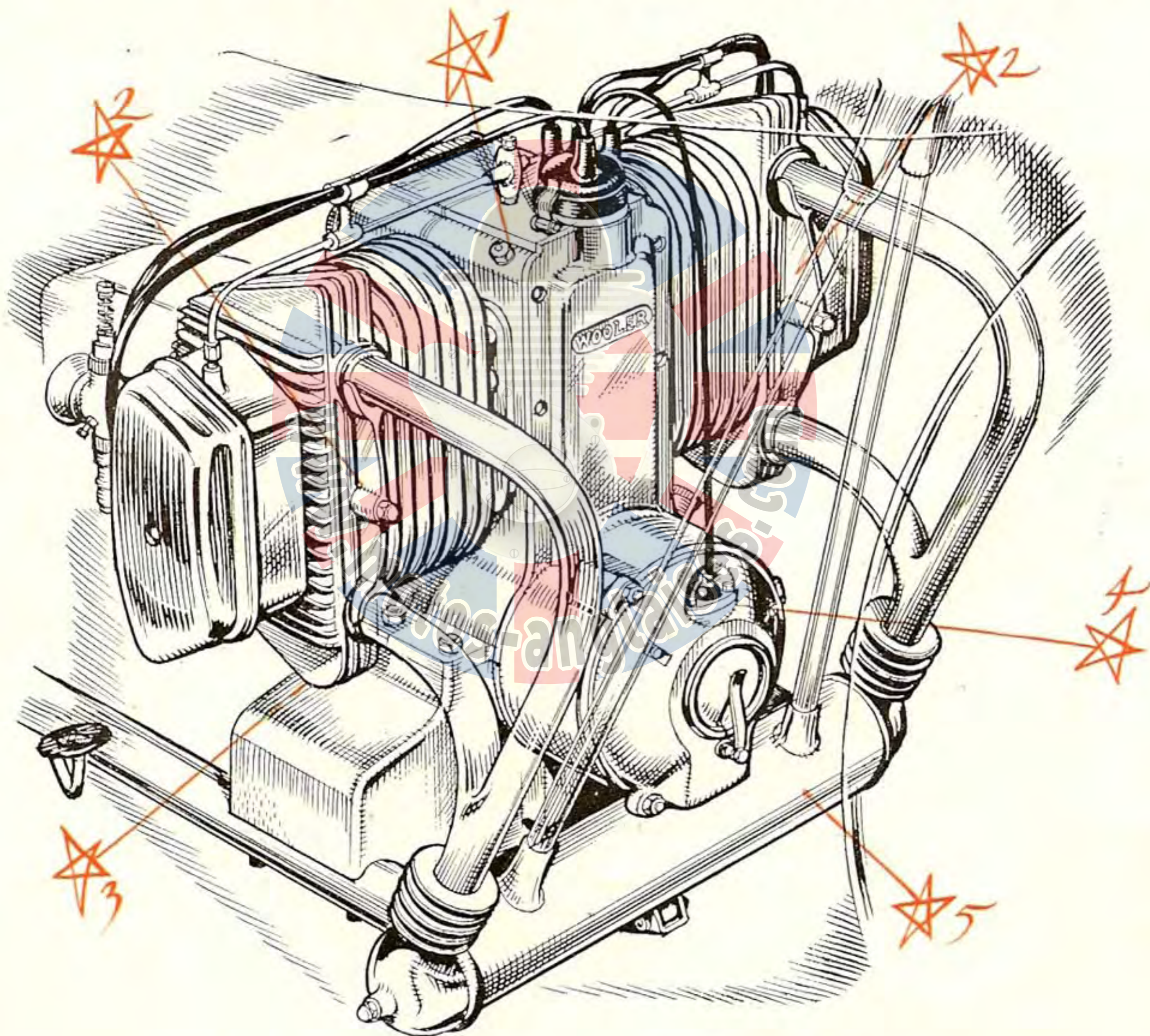


# Specification

- **ENGINE** 500cc. (50 × 63.75mm.) four-cylinder harmonic beam engine of patent design. Light alloy cylinder block fitted with steel liners. Coupling rods and master rod in RR. alloy with Meehanite bush in big end; plain bearings at coupling rod ends. Light alloy cylinder heads with patent ball joint rocker pivot.
- **CARBURETTOR** Single SOLEX Carburettor. Twin AMAL supplied at an extra cost.
- **GEAR BOX** Four Speed constant mesh, designed to form an integral part of the power unit and fitted with heel and toe control. Hand starter incorporated; single plate FERODO clutch of car type.  
RATIO'S :—SOLO Bottom 11.5:1 2nd 7.3:1 3rd 6.16:1 Top 5.0:1
- **TRANSMISSION** SHAFT DRIVE incorporating a LAYRUB shock absorbing joint and a HARDY SPICER UNIVERSAL coupling, with E.N.V. spiral bevel pinion and Crown Wheel.
- **IGNITION** WICO-PACY GENIMAG driven direct from the main shaft supplying A.C. current to the four LODGE plugs via a WICO distributor.
- **LUBRICATION** Double purpose gear-driven pump maintaining a high pressure to all working parts except the pistons. A reservoir of half gallon capacity incorporated in a specially designed deep sump. Engine oil is used throughout, including gear box and bevel housing.
- **FRAME** WOOLER PATENT straight tube design, bottom tubes carrying exhaust from the engine.
- **FORKS** WOOLER PATENT design incorporating dual springing.
- **SUSPENSION** WOOLER PATENT DUAL SPRINGING front and rear. Springs by TERRY.
- **STANDS** FRONT and REAR independent legs.
- **WHEELS** 19" × 3.25" Designed to be quickly detachable and interchangeable. Light alloy hub fitted with straight spokes. DURAL rims supplied at extra cost.
- **BRAKES** Patent light alloy finned hub of 7" internal diameter fitted with steel liners and FERODO linings.
- **TYRES** DUNLOP — 19" × 3.25"
- **MUDGUARDS** Specially designed to eliminate all exposed nuts and bolts. Rear end shaped to form number plate and to carry rear lamp.
- **HANDLEBARS** WOOLER PATENT cluster control with single bolt fitting, embodying new type of smooth positive action twist grip for throttle and ignition control, as well as the horn push and cut out switch.
- **PETROL TANK** Of light alloy embodying lighting, electrical fittings and speedometer. Fuel capacity 4½ gallons.
- **SADDLES** Made by BROOKS to our own design with totally enclosed springing.
- **LIGHTING** Special wide beam front lamp built into the detachable tank nose. Rear lamp of our own design fitted directly to rear mudguard. Current from WICO GENIMAG via a rectifier and VARLEY battery. All connections made with the Wooler Patent spring terminal.
- **FINISH** In black, chrome and polished aluminium with ivory and red lining. All enamelled parts pre-treated to ensure freedom from rust or corrosion, and only the highest quality materials used throughout.
- **WEIGHT** 238 lbs. — FULLY EQUIPPED.
- **PRICE** £200 0s. 0d. (Excluding P.T.)
- **EXTRAS** Speedometer, Pillion Seat and Footrests, Dural Rims.
- **SIDECAR** Specially designed frame and sidecar chassis, which embodies the same springing system as employed on the solo model, is available for use on the WOOLER MOTOR CYCLE.  
All sidecar chassis' will leave our works correctly aligned and will require no additional adjustment.



Wherever  
you look  
in front . . . . .

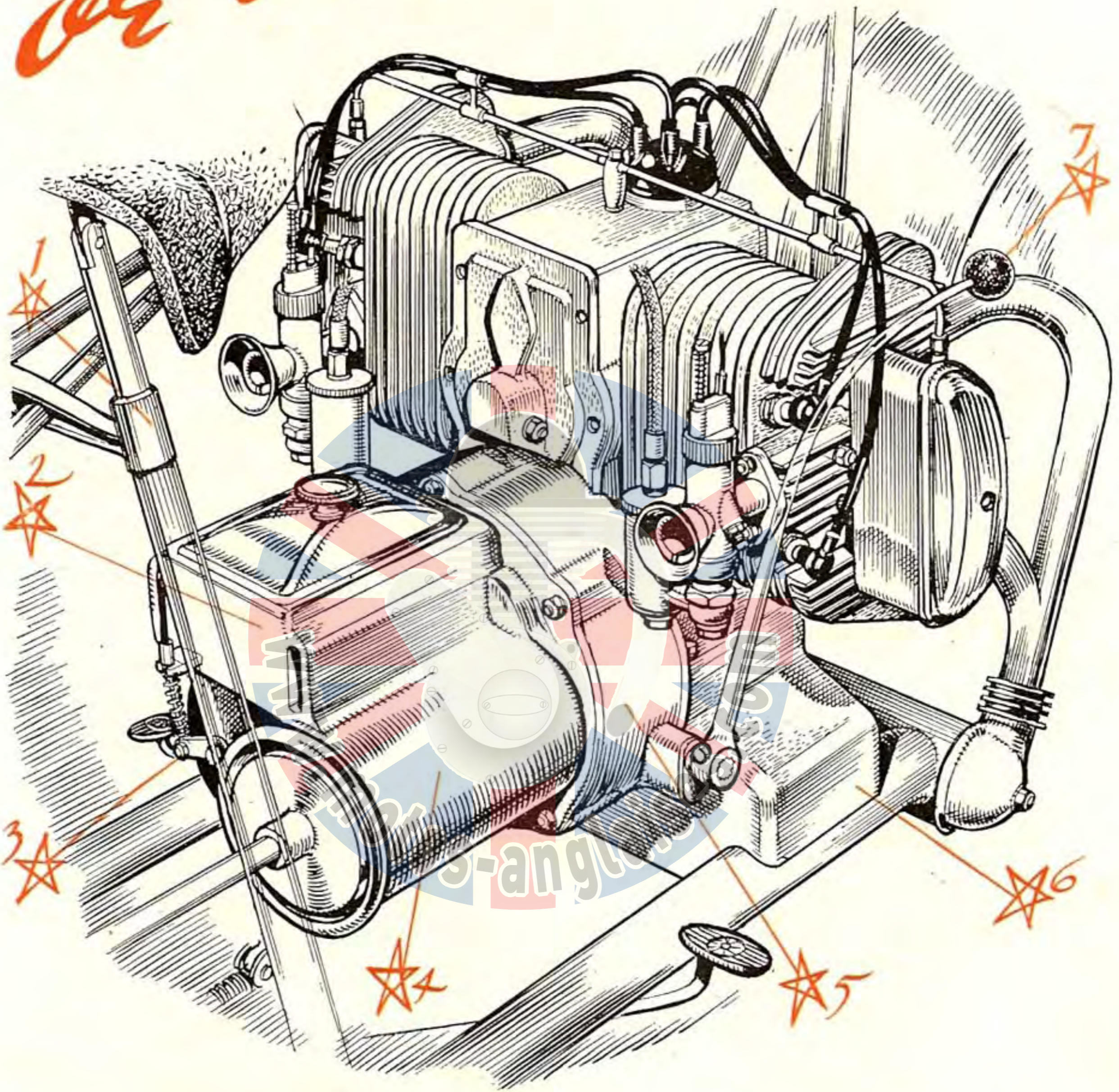


1. Single light alloy casting for engine
2. Simple exhaust union
3. Light alloy head
4. Wico Genimag
5. Unique exhaust system making use of frame tubes





# or behind



## Claims

**COMFORT**—Exceptionally smooth running. Low unsprung weight giving maximum freedom from road shocks.

**RELIABILITY**—gained by attention to detail design.

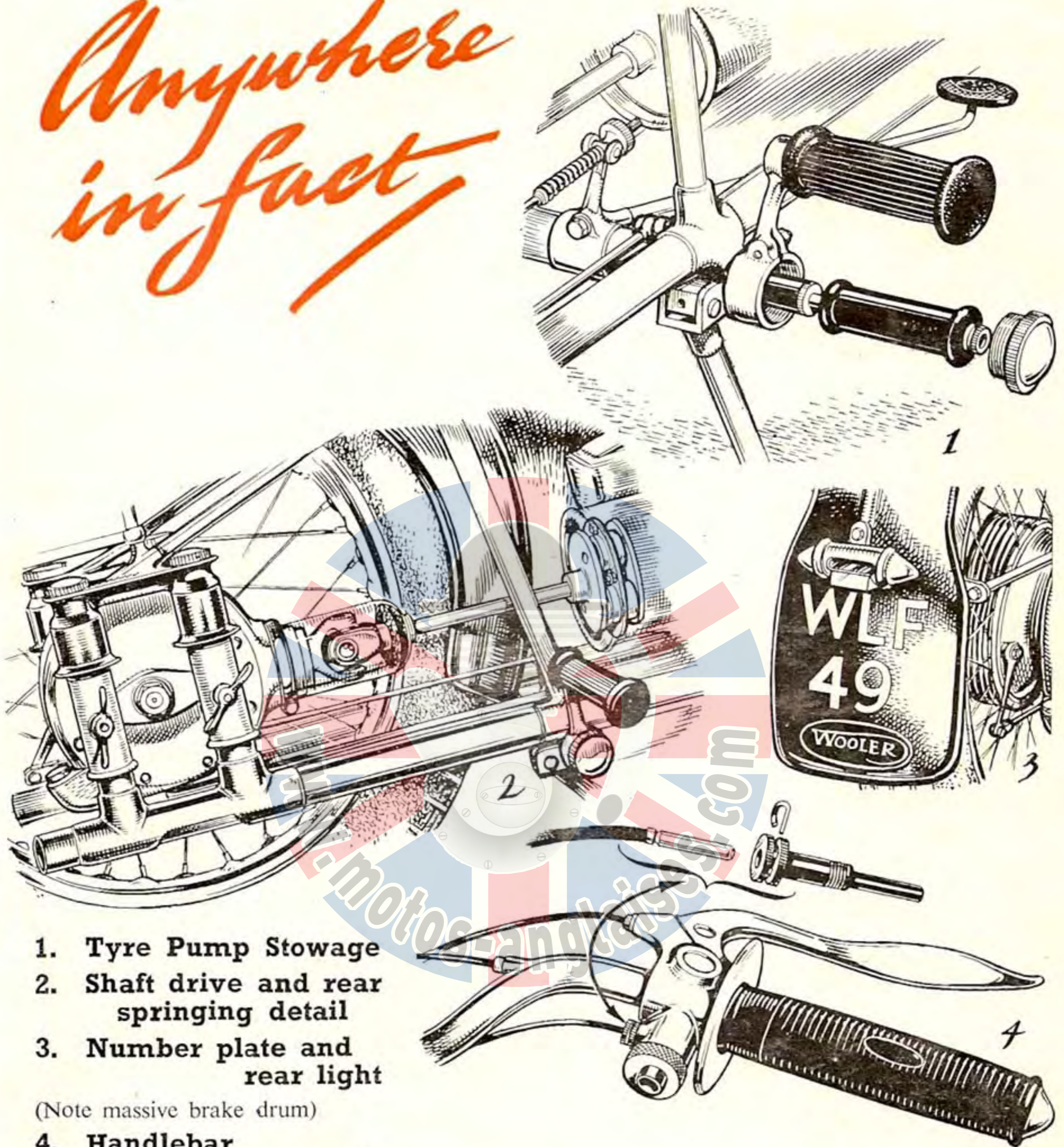
**ECONOMY**—PETROL 100 M.P.G. OIL 10,000 M.P.G.

1. Concealed saddle springs
2. Cast-in tool box
3. Heel-and-toe positive foot-change
4. Shrouded Layrube joint
5. Car-type clutch
6. Large sump
7. Hand-starter

# WOOLER



*Anywhere  
in fact*



1. Tyre Pump Stowage
2. Shaft drive and rear springing detail
3. Number plate and rear light

(Note massive brake drum)

4. Handlebar  
Cluster Control

(Inset— simple electrical terminal)

*Manufactured by*

**Wooler & Sequerra Ltd., Ruislip, London**

*Head Office :*

**Broad Street House, 54, Old Broad Street, London, E.C.2**