

THE VELOCETTE OILING SYSTEM THE VELOCETTE ENGINE

IL is fed from the Tank through the Oil pipe to the Gear pump enclosed in the timing-gear box. From there it passes up the vertical shaft cover and over the bevel gear bearings into the bevel gearbox. When the pressure in this box reaches a certain height, the small ball valve in the centre of the crankshaft opens and allows oil to pass to the big end bearing. The flow to this point is controlled by the pressure regulating valve, which consists of a ball valve held on its seating by a spring, the pressure of which can be regulated by the screw H. Excess oil is passed by this ball valve into the suction side of the Gear pump, thus keeping lubrication constant at all engine speeds. The oil is thrown off the big end to lubricate the piston and gudgeon pin and all excess oil falls into the sump. The gear pump returns it to the tank, after which it passes through the gauze filter and is again ready for circulation. The cams are fed with oil from the bevel gear box, through a specially cut groove in the shaft, which registers once every revolution with a similar groove in the bearing, thus allowing the oil to be forced through it by the pressure in the bevel gear box. The oil thrown out by the cams lubricates the roker bearings and is then caught and sucked back into the crankcase through a non-return disc valve. From there it drains into the sump and so back to the tank. The rokers have small pockets which catch a certain amount of oil which is carried through pipes into the front chain case. An oil vent pipe is fitted to the oil tank in such a way that any leakage at this point is made to lubricate the rear chain.

THIS is an illustration of the all-conquering power unit of the Velocette. The distinctive features of this engine, which is designed and built entirely in our own Works, are the Overhead Camshaft operating mechanism and the cylinder head, which is detachable without disturbing the engine in the frame.

For fuller details of the wonderful oiling system employed, see on the opposite side of this Folder. We are here more concerned with the engine itself.

The aluminium piston is fitted with scraper ring and the gudgeon pin is floating. Large diameter valves are employed, made of Cobalt Chrome Steel. The valve washers are held in position by split taper collars with annular grooves cut inside and engaging with similar grooves on the Valve Stem. This arrangement does not weaken the Valve Stem.

The adjustable tappets give a rolling contact on the full width of the Valve Stem. A very fine adjustment of valve timing is provided. The cams are of large dimensions. The drive to the Overhead Camshaft is flexible so that it can be easily and correctly refitted. It is truly an engine that is worthy of the success which has crowned it during the past two years.

A special piston can be supplied giving higher compression for racing purposes. The piston and con rod are as light as it is possible to make them.

VELOCE LIMITED

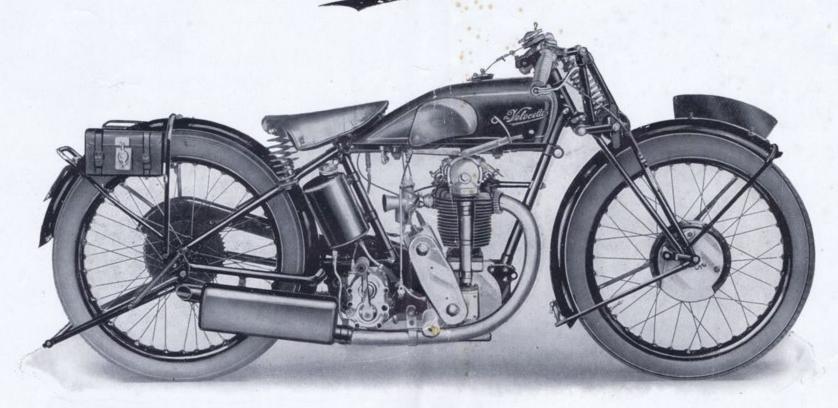
HALL GREEN WORKS, YORK ROAD

HALL GREEN, BIRMINGHAM

VELOCE LIMITED

HALL GREEN WORKS, YORK ROAD

HALL GREEN, BIRMINGHAM



B.H.P. 18-19 at 5,800 R.P.M.

MODEL KSS

80 m.p.i. guaranteed

This model has the following features additional to those set out below. Compression Ratios: 7 to 1 for 50 per cent. Petrol Benzol, 8½ to 1 for Discol P.M.S.2. (to order only). For ordinary fast touring we recommend 6 to 1 for petrol only. Lubrication: Extra large oil feed pipe is supplied and tap fitted with an additional gauze filter. Gear Ratios: Sprocket 23T top 5.25; middle 7.6; low 9.94. The front chain is totally enclosed in an aluminium chain case. Magneto: M.L. special racing type. Webb De-Luxe Spring Forks, Steering damper is fitted. Curved tank tube to give greater accessibility to cam-box. Specially large ball-head bearings. Saddle Height: 27in. 3 point adjustable suspension. This model is guaranteed 80 m.p.h. when fitted with an open exhaust of correct length, which can be supplied for racing. No speed guarantee is given to machines fitted with electric lighting set.

MODEL K.E. SPECIFICATION

Velocette Engine. 348 c.c. Bore 74 m/m, Stroke 81 m/m.

Compression Ratios. 6 to 1.

Lubrication. Constant circulation by gear pump with one gallon oil tank under the saddle.

Saddle Tank. For Petrol only, capacity 21 gallons with hinged filler-cap.

Gearbox. Velocette three-speed with hand clutch and improved kickstarter.

Gears. Touring ratios. Sprocket, 21T; Top, 5.8; Middle, 8.4; Low, 14.5. Close Ratios optional.

Gear Change. Forged steel lever, gate on side of Tank. The gears are located accurately by a spring plunger in the gearbox.

Clutch. Seven plates with square Ferodo inserts, chain wheel running on ball-bearing, when in free position.

Chain Guards. The chains are protected by sheet metal chain guards.

Brakes. Internal expanding 7in. diameter front and rear.

Magneto. M-L.

Carburettor. Amac or B & B Twist Grip optional.

Handlebars. Adjustable, fitted with long rubber grips.

Footrests. Adjustable in eight positions.

Stand. Front and rear. Rear spring up type. Steel Forging. H. Section.

Spring Fork. Webbs Popular with spring loaded Dampers and hand adjustment.

Saddle. Lycett Aero Elastic.

Tyres. 27 x 2.75 wired on.

Weight. 265 lbs. Wheelbase. 533in.

Ground Clearance. 41in. Height. To top of Saddle, 28in.

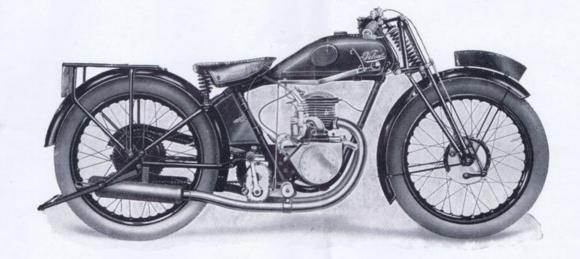
Silencer. Large capacity with a baffle at the Inlet end.

Electric Lighting. We recommend the Lucas Magdyno

extra

Grease Gun Lubrication. A grease gun is supplied for lubricating

ENTIRELY NEW TWO-STROKE



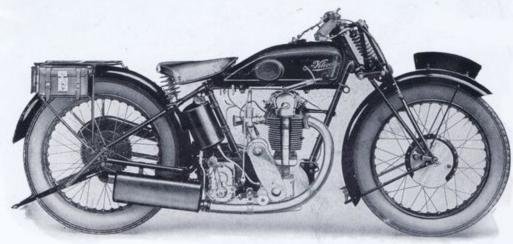
PRICE

"U" FOR UTILITY

MODEL U TWO-STROKE

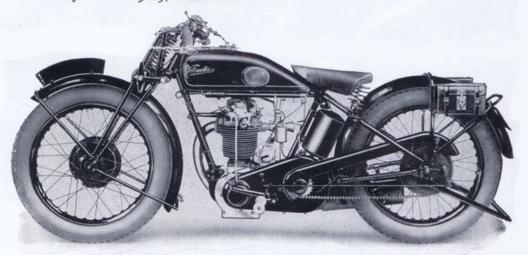
This model has been produced in response to the many requests we have received from our friends. Its design follows our standard practice, which has proved so successful in the past, but this model has been brought thoroughly up-to-date and differs in many respects from the old Model A.C. It is essentially a touring machine, designed for service in all weathers and in every kind of country.





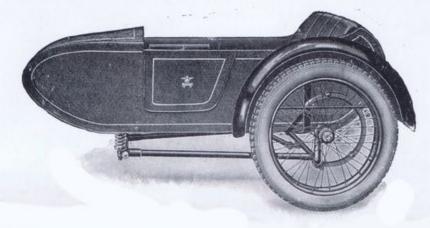
MODEL K

Specification as for K.E. with these additions. Front chain is totally enclosed in aluminium case. Webb De-Luxe Spring Forks, Steering Damper fitted. Curved tank tube for greater accessibility to cam-box. Specially large ball-head bearings. Saddle Height 27in. 3 point adjustable suspension. Tyres 26 x 3.25, wired on.



MODEL K.S.

The specification is the same as for Model K, except that narrow mudguards with racing tubular stays are fitted, as shown.



TOURER SIDECAR

SPECIFICATION

(Model U .- Continued.)

Carburettor. Amac Automatic Twist Grip Control.

Stand. Spring up type, all steel. H section, very strong.

Saddle. Lycett Aero Elastic with 3 point adjustable fixing.

Magneto. M-L.

Handlebars. Adjustable.

Silencers. Two silencers are fitted.

Tyres. 25 x 3

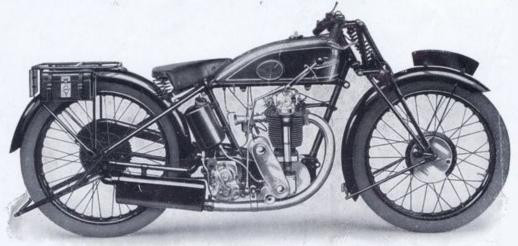
Grease Gun Lubrication. A grease gun is supplied for Lubricating all parts.

Weight. 190 lbs.

Height. To top of Saddle 27in.

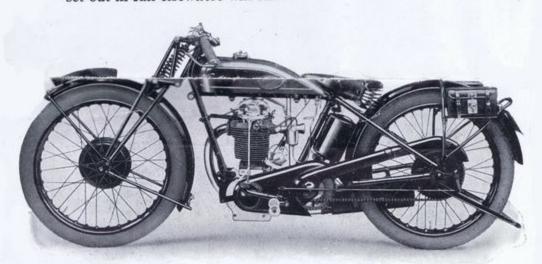
Wheelbase. 50in.

Ground Clearance. 5in.



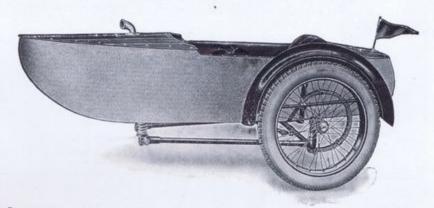
MODEL K.E.

This model has been produced to satisfy the needs of those who want an overhead-camshaft machine at a moderate price. It is an ideal machine for fast touring and is unquestionably a machine for the connoisseur, as the specification set out in full elsewhere will show.



MODEL K.E.S.

The specification is the same as for Model K.E., except that narrow mudguards with racing tubular stays are fitted, as shown.



LAUNCH TYPE SIDECAR

SPECIFICATION

(Model U.)

Velocette Engine. 249 c.c., 63 x 80 m/m. Twin Port Roller big end bearing. Automatic Lubrication. Oil sump cast in crankcase. Capacity approximately 3 pints.

Velocette Gearbox. Three Speeds with hand clutch and improved kick-starter. Ratios: Top, 5.2; Middle, 7.5; Low, 13.2.

Frame. Loop frame fitted with tank rail.

Forks. Webbs.

Tank. Saddle tank. Capacity 11 gallons.

Controls. Gear change lever on side of tank. Rear brake operated by toe pedal; other controls from handlebar.

Footrests. Adjustable. Rubber covered.

Brakes. Both internal expanding, 6in. diameter.

Wheels. 25 x 3, fitted with large Hub Spindles and Bearings.

Mudguards are extra wide and have ample clearance.

SOME OF THE SUCCESSES OF THE OVERHEAD CAMSHAFT VELOCETTE

1926

Junior T.T. 1st, 5th and 9th, also TEAM PRIZE.

Amateur T.T .- Isle of Man.

Winner of the Motor Cycle Trophy. For the fastest machine in the 350 c.c. class.

The British Motor Cycle Racing Clubs Meeting at Brooklands.

Three-lap Handicap Race.

Winner of the Private Owners' Cup: A. P. Hamilton. Speed, 75.23 m.p.h.

The British Grand Prix at Brooklands.

Winner of the 350 c.c. class. Mr. Hicks (Private Owner).

The German Grand Prix. Winner of the 350 c.c. class.

Bergrundahr Motor Cycle Race. (Germany).

Winner of the 350 c.c. class. Fastest time of the day.

The Spanish Twelve Hour Race. Winner of the 350 c.c. class.

Carrera Guesta de las Perdices. Road Race, Spain. 350 c. c. Racing Class. First.

International Six Hour Trial. (Spain).

"The Auto" Cup. "Manuel Gomez" Cup, and "Luman" Trophy

The London-Exeter Trial. Three Gold Medals.

The London-Gloucester Trial. Two Silver Cups.

The Winchester Clubs Sporting Trial. The Committee Cup.

The Victory Cup Trial.

The Jennens Cup. 6 Gold Medals. 3 Silver Medals.

The Scottish Six Days Reliability Trial.

Silver Cup: W. T. Tiffen. Silver Medal: G. M. Black.

Douglas Cup Reliability Trial. The Cope Shield and the Turner Plaque.

The Travers Trophy Trial. The Team Prize and 6 Gold Medals.

West Birmingham M.C.C. Hill Climb.

The Cranmore Cup and the Whitley Cup. First and Second in the 350 c.c. class First in the unlimited Sidecar Class, and Fastest Time of the day. 1927

Junior T.T. Second.

World's Records.

4 hours. 5 hours. Five hundred Kilometres.

Riders: A. P. Hamilton and H. J. Willis.

French Grand Prix. Won by 23 minutes. F. A. Longman.

Czechoslovakian T.T. First.

Hungarian International Road Race. First.

Amateur T.T. (350 c.c. class). First, for second year in succession.

Hutchinson Hundred (Brooklands). First: H. I. Willis.

Second B.M.C.R.C.Meeting at Brooklands.

First in three-lap scratch race. F. G. Hicks.

Brooklands.

Three-lap Handicap: First, Jones. Three-lap Passenger Handicap: First, F. G. Hicks.

Circuit of Capri. First, also beating the 500 c.c. on time,

500 Mile Road Race Salisbury Southern Rhodesia.

First: T. H. Hines. Leinster Hundred.

200 Guineas Trophy and Coleburn Cup: J. H. Blackburn

Welsh T.T. Races. First in every 350 c.c. event.

Brooklands Championship Races. Scratch Race Class B/S. First: F. G. Hicks.

10 Miles International Championship Race.

Phoenix Park. First: Mr. Humphrey.

German International T.T. Second and Third.

Scottish Six Days Trial. Silver Cup: W. T. Tiffen.

International Six Days Trial. Gold Medal: W. T. Tiffen.

Victory Cup Trial.

Olai Cup: G. Denley. Three Gold Medals and two Silver Medals.

London-Edinburgh Run. Gold Medal.

Irish End-to-End Trial, Gold Medal.

Western Australian Motor Cycling Association.

Three days' reliability trial.

Three Velocettes started-three finished mechanically sound.

Brughon Bay Speed Trials.

First in Mile Sprint, 350 c.c. First in 4 miles, 350 c.c. First in 4 miles, 600 c.c. First in 4 miles, unlimited. First in 25 miles, 350 c.c.

Grand Prix Races at Syston Park.

Alec. Bowerman gained 4 cups, and won both the Amateur and Expert Classes.

Takapuna Race (New Zealand). First in Open Handicap : Mr. Ratcliffe.

Brooklands. 200 miles solo race, 350 c.c. class, A. P. Hamilton second and winner of Private Owners' award.

Saltburn Speed Trials.

Second 10 mile Championship Race. Third 50 mile. Third 20 mile. Also fastest time 350 class 81.6 m.p.h. Rider, F. W. Denney.

London Eagle M.C. American Hill Climb. Held at Astridge Park. Rickards makes fastest time, 28 3/5 sec.

Carnarvonshire and Anglesey M.C. Speed Trial.

Standing Mile (General), First. Flying Half-mile (General), First. Standing Mile (Unlimited General), First. Flying Half-mile (Unlimited General), First. Rider, G. N. Milton.

Birmingham Motor Cycle Club Freak Hill Climb. Price Cup, G. B. Goodman. H.R.D. Trophy, R. W. Burgess.

Sand Racing at Lossiemouth.

350 O.H.V. Flying Half-mile: First, Mr. Duncan. Also First 5 mile 350 c.c. and 500 c.c. races. First 10 mile unlimited class. First Halfmile Standing Start 350 c.c. Record for the course.

Yorkshire Centre 24 hour Trial-York-Edinburgh. Gold Medal.

Lowestoft Speed Trials. 7 Firsts. 1 Second. 1 Third. F. Fison.

London-Holyhead Trial. Silver Cup.

London-Barnstaple Trial. Silver Cup.

London-Cheddar-London Trial.

Visitors Cup, L. A. Dearth. Silver Cup, R. R. Hole.

Bury St. Edmund's District M.C. Speed Trials. First, 350 c.c. class, also 750 c.c. class; Second, unlimited c.c. class.

R. A. Fison.

GUARANTEE

E give the following guarantee with our bicycles, motor cycles, motor cycle combinations and sidecars, which is given in place of any implied conditions, warranties or liabilities whatsoever, statutory or otherwise, all such implied conditions, warranties and liabilities being in all cases excluded. Any statement, description, condition or representation contained in any catalogue, advertisement, leaflet or other publication shall not be construed as enlarging, varying or overriding this guarantee. In the case of machines which have been used for "hiring out" purposes, or from which the trade mark name or manufacturing number has been removed, no guarantee of any kind is given or is to be implied.

We guarantee, subject to the conditions mentioned below, that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship, but this guarantee is to extend and be in force for six months only from the date of purchase, and damages for which we make ourselves responsible under this guarantee are limited to the free supply of a new part in exchange for the part of the bicycle, motor cycle, motor cycle combination or sidecar which may have proved defective. We do not undertake to replace or refix, or bear cost of replacing or refixing, such new part in the bicycle, motor cycle, motor cycle combination or sidecar. We undertake, subject to the conditions mentioned below, to make good at any time within six months any defects in these respects. As bicycles, motor cycles, motor cycle combinations and sidecars are easily liable to derangement by neglect or misuse this guarantee does not apply to defects caused by wear and tear misuse or neglect.

The term "misuse" shall include amongst others the following acts:-

 The attaching of a sidecar to the motor cycle in such a manner as to cause damage or calculated to render the latter unsafe when ridden.

2. The use of a bicycle, motor cycle or of a motor cycle and sidecar combined, when carrying more persons or a greater weight than that for which the machine was designed by the manufacturers.

3. The attaching of a sidecar to a motor cycle by any form of attachment not provided or supplied by the manufacturers or to a motor cycle which is not designed for such use.

Any bicycle, motor cycle or motor cycle combination or sidecar sent to us to be plated, enamelled or repaired will be repaired upon the following conditions, i.e., we guarantee that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship, such guarantee to extend and be in force for three months only from the time such work shall have been executed or until the expiration of the six months above referred to, and this guarantee is in lieu and in exclusion of any common law or statute warranty or condition, and the damages recoverable are limited to the cost of any further work which may be necessary to amend and make good the work found to be defective.

CONDITIONS OF GUARANTEF

It a defective part should be found in our bicvcles, motor cycles, motor cycle combinations or sidecars, or in any part supplied by way of exchange before referred to, it must be sent to us CARRIAGE PAID, and accompanied by an intimation from the owner that he desires to have it repaired or exchanged free of charge under our guarantee, and he must also furnish us at the same time with the number of the machine, the date of the purchase, or the date when the alleged defective part was exchanged as the case may be.

Failing compliance with the above, such articles will lie here AT THE RISK OF THE OWNER, and this guarantee and any implied guarantee, warranty or condition shall not be enforceable.

We do not guarantee specialities such as tyres, saddles, chains, lamps, etc., or any component parts supplied to the order of the purchaser differing from standard specification supplied with our bicycles, motor cycles, motor cycle combinations, sidecars or otherwise.

