

THE



ARISTOCRAT

OF THE

LIGHTWEIGHTS





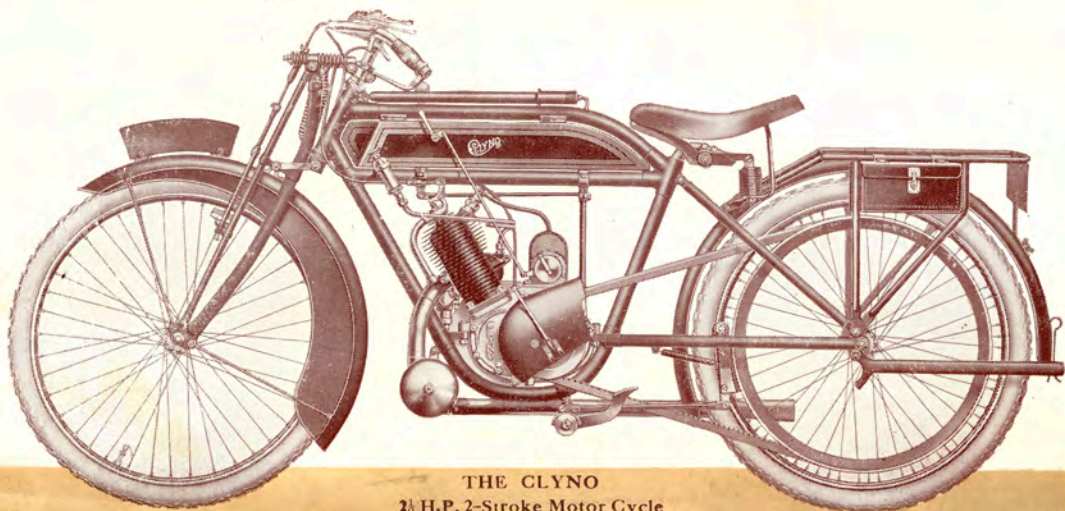
**I**N introducing the new "Aristocrat of the Lightweights" we are offering the public a machine entirely worthy of the reputation of its predecessor and — its name. Into this model is built an experience materially widened by our activities in the War period and the fact that immediately following its introduction, and at the first time of asking, it put up the following successes, should convince the potential Lightweight rider of its exceptional efficiency —

**London-Edinburgh**—One machine entered—**Gold Medal.** **Liverpool One Day Trial**—One of the most strenuous of such events—the CLYNO, the smallest engined and highest geared machine competing, completed the course and obtained certificate. At the date of publication other trials are in prospect and we have every confidence in asking you to watch results for further proof of the Aristocrat's remarkable reliability. The demand is considerable, deliveries are hampered at present by the abnormal condition of the labour and material market — therefore you should order early.

**THE CLYNO ENGINEERING CO.**  
**PELHAM ST., WOLVERHAMPTON**

**'Phone: 992 (2 lines) Wolverhampton**  
**Wires: "Clyno, Wolverhampton"**





THE CLYNO  
2½ H.P. 2-Stroke Motor Cycle

## SPECIFICATION

**Power Unit.** Special construction, engine and gear-box combined 70 m/m bore. 70 m/m stroke, 269 C.C. capacity. Two-speed gear giving a ratio of  $5\frac{3}{4}$ , and 10 to 1, and operated by a gate change on side of tank. Metal to metal multiple clutch housed in driving pulley of 6" diameter, and operated by L.H. handlebar lever. British-made high tension magneto, driven by gears. A.M.A.C. Two-lever Carburettor and Compression release, operated from the handle-bars.

**Frame.** Exceptionally strong, of loop type, built of weldless steel tube throughout, and fitted with Brampton biflex spring forks. Low and comfortable riding position. Footrests carried on supports from special frame lugs. Strong back stand.

**Wheels.** British standard rims, fitted with Dunlop 26" x 2" tyres, beaded edge. Hubs fitted with oil retaining rings and dust excluders.

**Brakes.** Hand-operated front brake; powerful rear wheel brake engaging the exterior of belt rim and operated by heel pedal.

**Transmission.**  $\frac{3}{4}$ " Dunlop rubber belt.

**Tank.** Heavy gauge steel, supported on special brackets brazed to lower horizontal tubes. Equipped with adjustable sight drip feed lubricator, and quickly detachable large diameter filler caps. Capacity  $1\frac{1}{4}$  gallons petrol, and  $2\frac{1}{2}$  pints lubricating oil.

**Carrier.** Strong and light weldless steel tubular construction.

**Silencer.** Extra large cylindrical, fitted with quickly detachable conical ends and supported in front of engine from the engine bracket.  $1\frac{1}{4}$ " diameter pipes from cylinder to silencer and to rear of machine.

**Tool Bag, Kit and Accessories.** Tool bag attached to carrier containing roll of tools. Tyre inflator carried on special centres on top tank tube.

**Finish.** The best throughout, black enamelled on cosletized surface with as few plated parts as possible. Maroon Tank with black panel.

**Dimensions and Weight.** Wheelbase 52", length overall 81", width over handle-bars 28", height to top of saddle 29". Petrol consumption approximately 100 miles per gallon. Weight approximately 130 lbs.

**PRICE** (complete with Tool Kit) **£58 16 0**

To facilitate quantity production the CLYNO policy of "one model only" has been adopted. No other models of this type machine are made—nor can any alteration in the above specification be entertained.

*(The Company reserve the right to amend specification and price without notice should it be found necessary to do so).*



## SPECIFICATION

**Power Unit.** Special construction, engine and gear-box combined 70 m/m bore. 70 m/m stroke, 269 C.C. capacity. Two-speed gear giving a ratio of 5½, and 10 to 1, and operated by a gate change on side of tank. Metal to metal multiple clutch housed in driving pulley of 6" diameter, and operated by L.H. handlebar lever. British-made high tension magneto, driven by gears. A.M.A.C. Two-lever Carburettor and Compression release, operated from the handle-bars.

**Frame.** Exceptionally strong, of loop type, built of weldless steel tube throughout, and fitted with Brampton biflex spring forks. Low and comfortable riding position. Footrests carried on supports from special frame lugs. Strong back stand.

**Wheels.** British standard rims, fitted with Dunlop 26" x 2" tyres, beaded edge. Hubs fitted with oil retaining rings and dust excluders.

**Brakes.** Hand-operated front brake; powerful rear wheel brake engaging the exterior of belt rim and operated by heel pedal.

**Transmission.** ¾" Dunlop rubber belt.

**Tank.** Heavy gauge steel, supported on special brackets brazed to lower horizontal tubes. Equipped with adjustable sight drip feed lubricator, and quickly detachable large diameter filler caps. Capacity 1¼ gallons petrol, and 2½ pints lubricating oil.

**Carrier.** Strong and light weldless steel tubular construction.

**Silencer.** Extra large cylindrical, fitted with quickly detachable conical ends and supported in front of engine from the engine bracket. 1¼" diameter pipes from cylinder to silencer and to rear of machine.

**Tool Bag, Kit and Accessories.** Tool bag attached to carrier containing roll of tools. Tyre inflator carried on special centres on top tank tube.

**Finish.** The best throughout, black enamelled on cosletized surface with as few plated parts as possible. Maroon Tank with black panel.

**Dimensions and Weight.** Wheelbase 52", length overall 81", width over handle-bars 28", height to top of saddle 29". Petrol consumption approximately 100 miles per gallon. Weight approximately 130 lbs.

**PRICE** (complete with Tool Kit) **£58 16 0**

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*(The Company reserve the right to amend specification and price without notice should it be found necessary to do so).*

## SPECIAL FEATURES

**Unit.** Engine clutch and two-speed gear box are in one unit, and are easily detachable from frame *en bloc*. Magneto and carburettor are fitted to the unit.

**Crankshaft.** One piece crankshaft and crank pin.

**Connecting Rod.** Fitted with Hoffman roller bearings in big end.

**Cylinder.** Inclined, giving maximum exposure for cooling and an easy passage for exhaust gases.

**Clutch.** Self-contained part of unit enclosed in large diameter belt pulley. Clutch is of multi-disc type with provision for lubrication.

**Flywheel.** Solid steel stamping enclosed in neat detachable cover.

**Lubrication.** Direct from oil compartment in tank to cylinder walls by means of an adjustable sight drip feed lubricator.

**Clutch Control.** Clutch is operated by Bowden cable from handlebar, giving complete control of the machine under all conditions.

**Transmission.** The pulley is enclosed in special cover making the machine quite suitable for lady drivers.

**Front Forks.** Brampton biflex.



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## SOME PERFORMANCES OF THE PRE-WAR ARISTOCRAT OF THE LIGHTWEIGHTS (1914)

ENGLISH 6 DAYS' TRIAL.

Gold Medal.

SCOTTISH 6 DAYS' TRIAL.

Gold Medal.

The only Two-Stroke Lightweight to gain GOLD MEDAL AWARDS in these arduous Trials.

PARIS TO NICE TRIAL (800 MILES).

Gold Medal.

Also awarded TWO SPECIAL PRIZES for best performance.

M.C.C. LONDON TO LANDS END AND BACK TRIAL.

Gold Medal.

Only ONE CLYNO Lightweight entered.

LONDON TO EDINBURGH AND BACK (800 MILES).

Two Gold Medals

Only TWO CLYNO Lightweights entered.

DUBLIN TO DONEGAL AND BACK 24 HOURS OPEN TRIAL.

Special Lightweight Prize.

The only Two-stroke Lightweight to climb all the hills and complete the course in this trial.

# TWO-SPEED GEAR & CLUTCH

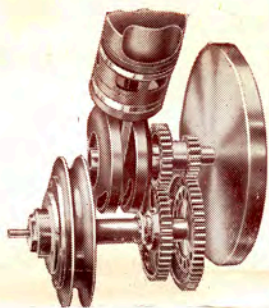


FIG. A.

The two-speed gear is contained in the main crank case casting of the engine, but is, of course, divided from the compartment in which the connecting rod and crank pin work by a wall of metal. The unique feature

of this gear is the small number of moving parts; there are only six gear wheels in the whole power unit, including the two-speed gear and those required for the magneto drive. A glance at the illustrations will show that on the crankshaft is mounted a double sleeve gear, the two gears being of different sizes. The smaller of these two gears is always in mesh with a large gear wheel which runs free on the secondary or clutch shaft. This shaft has double feather keys, and carries a sliding gear wheel which is moved backwards or forwards through suitable connections by means of the change gear lever on the right hand side of the tank. When the low gear is put into operation, the sliding gear is moved along the shaft outwards towards the large gear. This latter is provided with a ring of holes so situated that they mesh with four projecting studs on the sliding gear. The result is that the large outer gear transmits the

drive from the engine shaft through the sliding gear to the clutch shaft. When the gear control lever is moved from the low gear position (1) into top gear (2) past the neutral notch (0) in the quadrant, the sliding

gear is moved out of contact with the large gear on the clutch shaft, through the free position and into mesh with the inner and larger of the two gears on the engine shaft, the drive then being direct. See Figs. A. and B.



FIG. B.

**THE CLUTCH.** This is of the multiple disc type, one set of plates being secured to the clutch drum revolving with the secondary or clutch shaft, while the other is connected to the pulley. Frictional contact between the two sets of plates for driving is obtained by a strong spring which can be put out of operation by a lever on the left-hand handlebar. The advantages of this type of clutch are many. It is impossible to burn it up, it does not slip, and it is really "free" when disengaged. Ample provision has been made for lubrication.