MATCHLESS MOTORCYCLES



1937

MATCHLESS MOTOR CYCLES (COLLIERS) LTD.

44/45, PLUMSTEAD ROAD, LONDON, S.E. 18

Phone: Woolwich 1010 (4 lines) Grams: "Matchless, Woolwich"
Codes: A.B.C. 5th and 6th Editions and Bentleys

ALL PREVIOUS LISTS CANCELLED

All prices and specifications are subject to alteration without notice, and all motorcycles and/or sidecars, together with equipment, are sold subject to the limited guarantee printed on page sixteen of this catalogue



INTRODUCTION

The 1937 MATCHLESS Programme covers three distinct ranges of Motor Cycles of the most modern design.

First there is the "Clubman" Range, consisting of a series of 250 c.c., 350 c.c. and 500 c.c. O.H.V. Single Cylinder machines of outstanding appearance and performance.

The second range consists of the "Clubman Special" Models, which are specially modified editions of the Standard "Clubman" Machines, designed to be suitable for motor cycle competitions such as reliability trials, scrambles, etc.

The third is the "Tourist" Range, consisting of the "250" Tourist and "500" Tourist which are single-cylinder machines, with Side Valve engines, designed for every-day utility work to give absolute reliability with the minimum of attention. The third machine in the "Tourist" Range is a new MATCHLESS Big Twin with a 990 c.c. Side Valve Twin-cylinder engine.

THE "CLUBMAN" MODELS

The outstanding success of the MATCHLESS "Clubman" Models during the 1936 Season has ensured the continuance of these Models for 1937. The new Models incorporate numerous new features which will make the machines even more attractive to keen motor-cyclists. Among the most important of these new features are the re-designed cylinders and cylinder heads with scientifically shaped cooling fins, re-designed overhead rocker gear with mechanical lubrication from the main engine pump on all Models, handsome new rockerbox and cover plates, strengthened cradle frames with self-aligning steering head bearings, improved spring forks and fork dampers.

New handlebar mountings giving a wider range of adjustment, improved hubs with more powerful brakes and, on the 350 c.c. and 500 c.c. Models, quickly detachable rear wheels.

The 1937 "500" Clubman has already proved its reliability and high performance for two of these machines entered in the International Six Days' Trial held in September, 1936, completed the whole trial without losing a single mark and were awarded Gold Medals.



MATCHLESS "Clubman" Models of the 1936 series were famous for their perfect steering and road-holding qualities, and for their high speed capabilities as well as for their handsome appearance and complete specifications. The 1937 Models will place the reputation of the MATCHLESS "Clubman" Series still higher.

THE "CLUBMAN SPECIAL" MODELS

The "Clubman Special" Range has been produced with the co-operation of several famous competition riders, the machines incorporating every feature which is necessary to ensure success in strenuous competitions.

THE "TOURIST" MODELS

The "Tourist" Range continues the MATCHLESS reputation for providing motor cycles capable of undertaking the heaviest duty with absolute reliability and low maintenance costs. The two single-cylinder Models, the "250" Tourist and the "500" Tourist have an entirely new design of cylinder which ensures perfect cooling under all conditions, while at the same time giving easy accessibility to the valve gear and valve adjustment. Apart from the engines, these machines incorporate all the features of the "Clubman" Models, including, on the "500" Tourist, a quick detachable rear wheel.

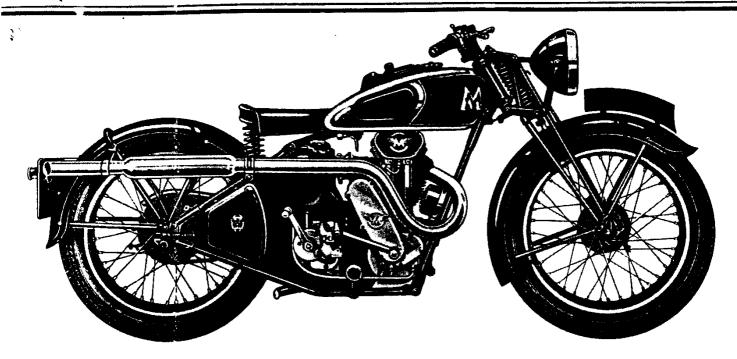
The "990" Sports Tourist is an entirely new Model Sports type Big Twin which has been designed to be suitable for solo riding or use with a single-seater sidecar. This Model is not intended for heavy two-seater sidecar or commercial sidecar work. It is notable for the fact that the wheelbase is shorter than that of many 500 c.c. single-cylinder machines, and consequently the machine handles and steers perfectly when ridden-solo. This Model also is fitted with a quick-detachable rear wheel.

It should be noted that all 1937 Models are fitted with positive stop foot gear change, hand gear change not being available. All Models have constant voltage control for the electrical system, ensuring correct charging of the battery under all conditions, and all Models, except the "250" Clubman and the "250" Tourist have chromium plated tanks with black panels with gold lines, and the chromium "M" on each side.

LIST OF 1937 MODELS

THE "CLUBMAN" RANGE:						£	s.	ď.	
Page 4 "250" Clubman							41	10	
" 5 "250" Clubman De Luxe	•••			•••	•••	•••	41	10	0
" 6 "350" Clubman		•••	•••		***	•••	45	5	0
7 " 500 " Clubman	•••	***	•••	•••	***	•••	54	0	0
,, 7 "500" Super Clubman	• • •	•••	• • •	•••	•••		57	0	0
" Super Clubman	***	•••	•••	•••		•••	62	0	0
THE "CLUBMAN SPECIA	\L"	RA	NGE	:					
Page 8. "250" Clubman Special		•••					FΛ		
,, 9. "350" Clubman Special			•••	•••	•••	•••	50	5	0
" 9. "500" Clubman Special				•••	•••	•••	59	0	0
" 9. "500" Super Clubman Sp	acial	•••	•••	• • •	•••	•••	62	0	0
-		•••	•••	. •••	• • •	• • •	67	0	0
THE "TOURIST" RANGE:	:								
Page 10. "250" Tourist									_
" II. "500" Tourist			• • • •	• • • •	• • •	• • •	39	15	0
,, 12. "990" Sports Tourist		•••	•••	• • • •	• • •	•••	50	0	0
50.00 1001130	•••	•••	• • • •	•••		•••	72	10	0





"250" CLUBMAN DE LUXE — Model 37/G2M

SPECIFICATION—continued

embossed "M" on each side. Wheel rims engine timing case. Large headlamp with parking light and with dipping switch on chromium plated with black centres and gold handlebar. Flush fitting instrument panel in lines. All usual bright parts heavily chromium tank carrying switch, ammeter and ignition plated. warning light and with provision for fitting of clock if required. Extra large battery Code Word Price

Clubman

Electric horn. FINISH. Petrol tank finished in glossy black enamel with gold lines and chromium plated

carried on special platform beneath saddle.

(Model 37/G2), complete with electric lighting and electric ... £41 10 0 YENKA horn

"250" CLUBMAN DE LUXE-Model 37/G2M.

" 250 "

This Model is generally similar to the standard "250" Clubman Model 37/G2 described above, with the following exceptions.

On the "De Luxe" Model ignition is by a separate high tension magneto mounted in a protected position behind the engine and driven by chain enclosed in a cast-aluminium chaincase formed integral with the engine timing cover. The lighting system consists of a large six-volt separate dynamo with constant voltage regulation, driven by roller chain enclosed in the main oilbath chaincase. Special provision is made for the lubrication of this chain which will run for at least 10,000 miles without adjustment so long as the correct oil level is maintained in the chaincase. The flush fitting instrument panel on top of the tank contains the switch, ammeter and space for a clock (30/- extra), together with a detachable inspection lamp which also serves to illuminate the ammeter for night riding purposes. A large Lucas headlamp is fitted, with parking light and with dipping switch on handlebar. A Lucas tail lamp is mounted on the rear number plate and an electric horn is fitted.

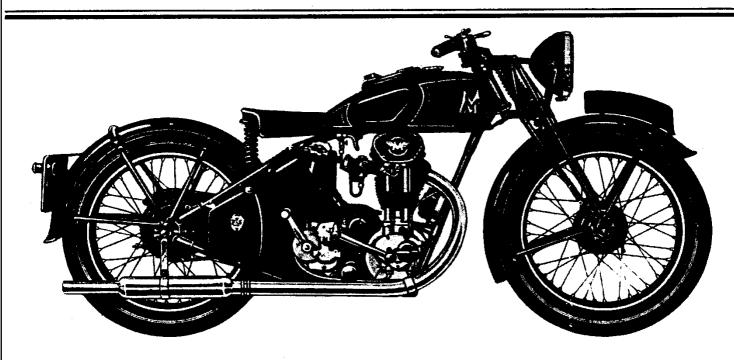
This Model is also fitted with a steering damper and the tank is chromium plated, with black panels and gold lines, and the embossed chromium "M" on each side. Price---Code Word

"250" Clubman De Luxe (Model 37/G2M), complete with electric **£45 5 0** YENLE lighting and electric horn ...

When ordering either of these models please specify clearly whether high or low exhaust pipe is required.



£45 . 5 . 0



"250" CLUBMAN - Model 37/G2

£41 . 10 . 0

SPECIFICATION

ENGINE. High efficiency 2.46-h.p. O.H.V. Sports Engine with new design cylinder and cylinder head, with exceptionally large cooling fins, new design overhead valve rocker gear flood lubricated from main engine oil pump, Lo-ex piston, double cam-shaft timing gear running in oil bath, single port cylinder head. Bore 62.5 mm. Stroke 80 mm. Capacity 246 c.c.

LUBRICATION. Full dry sump system; oil pressure fed to all working parts, including cylinder wall, big end bearing, mainshaft bearing and camshaft bearing, by duplex horizontal reciprocating rotary plunger pump. Surplus oil sucked from crankcase sump and returned to oil tank through fabric filter which entirely removes all impurities.

CARBURETTER. "Amal" two-lever semiautomatic with twist grip throttle control.

GEARBOX. Four-speed pivot mounted gearbox with enclosed positive stop foot gear change.

TRANSMISSION. Front chain enclosed in oil bath chaincase, rear chain protected by adequate guard with back panel. Shock absorber on engine shaft.

EXHAUST SYSTEM. Large diameter chromium plated exhaust pipe with tubular silencer. Either low exhaust pipe as illustrated above, or high exhaust pipe as illustrated on Model 37/G2M can be supplied at option without extra charge.

STAND. Spring-up centre prop stand.

TANKS. Large bulbous pressed steel petrol tank with capacity of 3 gallons. Graceful

design separate oil tank carried below saddle, capacity $\frac{1}{2}$ gallon.

FRAME. Rigid duplex cradle frame with triangulated straight twin down tubes, forged rear fork ends, self centreing head bearings, etc.

SPRING FORKS. New design tubular spring forks of graceful and sturdy design with all spindles locked in links at both ends and with built-in duplex fork dampers controlled by knob on left side.

BRAKES. Powerful brakes of internal expanding type, with dust and water excluders and with finger adjustment, on both wheels.

HANDLEBARS. Iin. diameter handlebars fitted with adjustable clip-on controls; external type twist grip control for throttle.

SADDLE. Lycett "Aero" spring seat.

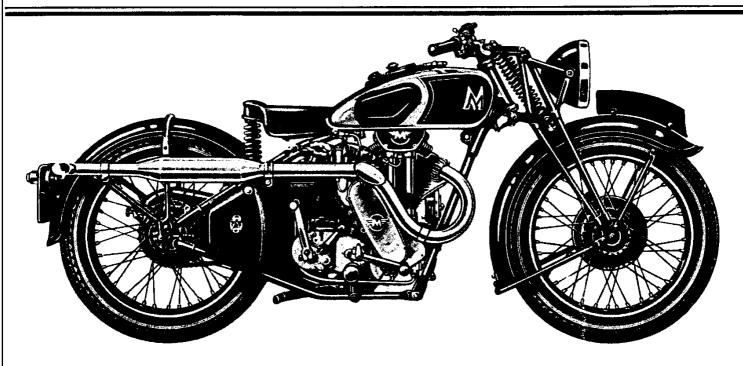
TYRES. 26 in. \times 3.25 in. Cord.

LUGGAGE CARRIER. Detachable luggage carrier can be supplied at 15/- extra.

MUDGUARDS. Deep section mudguards on both wheels with flared ends. Back portion of rear mudguard detachable to facilitate wheel removal or tyre repairs.

ELECTRICAL EQUIPMENT. 6-volt electric lighting and coil ignition system. 30-watt dynamo rigidly mounted on engine plates and driven by roller chain enclosed in main oil bath chaincase. Constant voltage control for dynamo ensuring properly regulated battery charging. Contact breaker built into





"350" CLUBMAN — Model 37/G3

£54 . O . O

SPECIFICATION

ENGINE. High efficiency 3.47-h.p. O.H.V. Sports Engine with new design cylinder and cylinder head with exceptionally generous finning. New design rockergear, flood lubricated from main oil pump, hairpin valve springs, Lo-ex piston, double camshaft timing gear running in oil, three-row roller big end bearing, mainshaft carried on two journal ball bearings on driving side and flood lubricated bronze bearing on timing side, single port cylinder head. Bore 69 mm. Stroke 93 mm. Capacity 347 c.c.

LUBRICATION. Full dry-sump system with fabric oil filter as described on page 4.

iGNITION. Separate Lucas high tension magneto driven by chain enclosed in cast-aluminium chaincase.

GEARBOX. Heavyweight pivot-mounted four-speed gearbox with enclosed positive-stop foot gear change. Gear ratios 5.73, 7.4, 8.7, 15.4.

TRANSMISSION. By chain throughout with oilbath front chaincase and effective guard with back panel for rear chain. Shock absorber on engine shaft.

EXHAUST SYSTEM. Large diameter high leve exhaust pipe with tubular silencer. Low exhaust pipe optional without extra charge.

FRAME. Heavyweight duplex cradle frame with triangulated straight twin down tubes, narrow angle.

STANDS. Spring-up centre stand and separate tubular front wheel stand.

TANKS. Large pressed steel all-welded petrol tank—capacity, 3 gallons. Separate oil tank carried below saddle, capacity ½ gallon.

HANDLEBARS. Fully adjustable, mounted on extension links behind steering damper. Adjustable controls and external type twist grip control for throttle.

SPRING FORKS. Heavyweight round taper-tube girders with all spindles locked in links at both ends and with built-in duplex fork dampers controlled by knob on left side. Steering damper.

BRAKES. Large diameter internal expanding brakes on both wheels. Both brake drums manufactured from chromidium, front brake drum heavily finned. Finger adjustment and quick detachable connections to both brakes.

WHEELS. Mounted on taper roller bearing hubs, rear wheel quickly detachable.

SADDLE. Large Lycett "Aero" Spring Seat with semi-roll back.

TYRES. 26 in. x 3.25 in. Cord.

LUGGAGE CARRIER. Detachable luggage carrier 15/- extra.

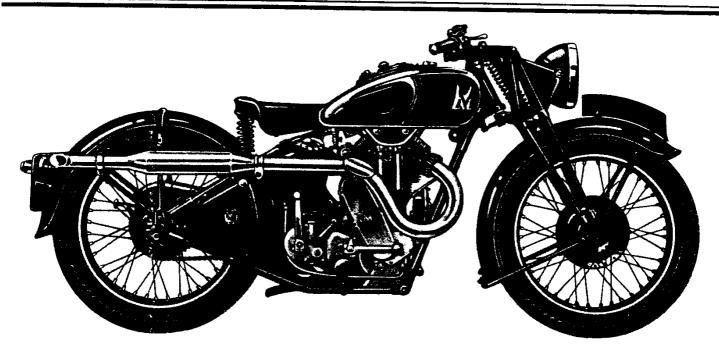
ELECTRICAL EQUIPMENT. Electric lighting provided by 30-watt Lucas dynamo with constant voltage control mounted in protected position behind engine and driven by chain enclosed in oilbath chaincase. Flush fitting instrument panel mounted on top of tank, with inspection lamp, ammeter, switches and provision for clock. High frequency electric horn.

FINISH. Petrol tank chromium plated with black panel with gold lines and embossed chromium "M" on each side. Chromium plated wheel rims with black centres and gold lines.

Price Code Word '' 350 '' Clubman (Model 37/G3), complete with electric lighting and electric horn 654 0 0 YENNO

When ordering this model please specify whether high or low exhaust pipe is required.





"500" CLUBMAN - MODEL 37/G80

£57 . 0 . 0

SPECIFICATION

ENGINE. Design generally similar to the famous 1936 "500" Clubman engine but with many important improvements, including re-designed cylinder and cylinder head with exceptionally large fin area to ensure perfect cooling, new rocker gear with mechanical lubrication from main engine pump, new design rocker box and cover, improved design three-row roller big end bearing, etc., etc. Other features include duplex hairpin valve springs, Lo-ex piston, twin camshaft timing gear running in oil bath. Two-port cylinder head. Compression ratio 6.2 to one. Bore 82.5 mm. Stroke 93 mm. Capacity 498 c.c. On the Super Clubman Model the compression ratio is 7.5 to one, and cylinder head, ports, connecting rod,

is 7.5 to one, and cylinder head, ports, connecting rod, flywheels, etc., are highly polished, and the engine is specially tuned.

LUBRICATION. Full dry-sump system with fabric type oil filter as described on page 4.

IGNITION. Separate Lucas high tension magneto driven by chain enclosed in cast aluminium chaincase.

GEARBOX. Heavyweight pivor mounted four-speed gearbox with enclosed positive stop foot gear change. Gear ratios 4.88, 6.3, 7.4, 13.1.

TRANSMISSION. Oilbath front chaincase and effective guard with back panel for rear chain. Shock absorber on engine shaft.

EXHAUST SYSTEM. Large diameter high level exhaust pipes with tubular silencers. Low exhaust pipes optional without extra charge.

FRAME. Heavyweight duplex cradle frame with triangulated straight twin down tubes, forged rear fork ends, self-centreing steering head bearings.

STANDS. Spring-up centre stand, separate tubular stand for front wheel.

TANKS. Large pressed steel all-welded petrol tank, capacity 3 gallons. Separate oil tank below saddle, capacity ½ gallon.

HANDLEBARS. Fully adjustable, carried on trailing links behind steering damper. All controls adjustable, external type twist grip control for throttle.

BRAKES. Large diameter internal expanding brakes on both wheels, with chromidium drums. Front brake drum heavily finned. Finger adjustment and quickly detachable connections to both braker

SPRING FORKS. Heavy weight type, as described on page 6.

WHEELS. Mounted on heavy taper roller bearing hubs, rear wheel quickly detachable.

SADDLE. Large Lycett "Aero" Spring Seat with semi-roli back.

TYRES. 26 in. x 3.25 in. Cord.

LUGGAGE CARRIER. Detachable luggage carrier 15/- extra.

ELECTRICAL EQUIPMENT. Electric lighting provided by 30-watt Lucas dynamo mounted in protected position behind engine and driven by chain enclosed position bening engine and driven by chain enclosed in oilbath chaincase. Constant voltage control for dynamo. Flush fitting instrument panel mounted on top of tank, with inspection lamp, ammeter, switches and provision for clock. High frequency electric horn.

FINISH. Petrol tank chromium plated with black panel with gold lines and embossed chromium "M" on each side . Chromium plated wheel rims with black centres and gold lines.

"500" Clubman (Model 37/G80), complete with electric lighting and electric horn 457 0 0 YEOXY

Price Code Word

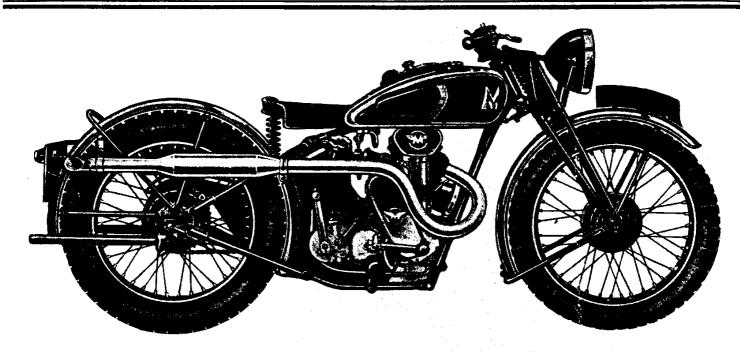
"500" SUPER CLUBMAN - Model 37/G90

This model is identical with the "500" Clubman described above, but is fitted with high compression specially tuned and polished engine, mentioned under the heading of ENGINE in the above specification.

Price Code Word

"500" Super Clubman (Model 37:G90) complete with electric lighting and electric horn £62 0 0 YEPAL

When ordering these models please specify if high or low exhaust pipes are required.



"250" CLUBMAN SPECIAL — Model 37/G2MC £50 . 5 . 0

SPECIFICATION

This is a specially equipped edition of the standard "250" Clubman De Luxe (Model 37/G2M) described on page 5. The special equipment is designed to make the macnine ideal for use in reliability trials, scrambles, etc., and incorporates the undermentioned features:

Heavyweight frame with exceptionally wide rear stays to give clearance for competition riding and prevent mud-clogging if the machine is used under exceptionally muddy conditions.

Heavyweight gearbox with special competition gear ratios and built-in positive stop foot gear change. Gear ratios 6.6, 9.9, 13.5 and 21 to 1.

Bolted-up rear stand and single arm prop stand on near side of machine.

Special shallow section mudguards, chromium plated all over. Exceptional mudguard clearance on both front and rear wheels.

Crankcase shield to protect crankcase from rocks if the machine is used for cross-country work.

26 in. \times 3 in. Sports or solo sports front tyre, 27 in. \times 4 in. Sports rear tyre.

Adjustable handlebars mounted on adjustable rearward extensions with adjustable controls. Specially tuned engine with polished cylinder head and ports.

Special front hub with large diameter brake. Heavyweight rear hub with quickly detachable rear wheel and large diameter brake.

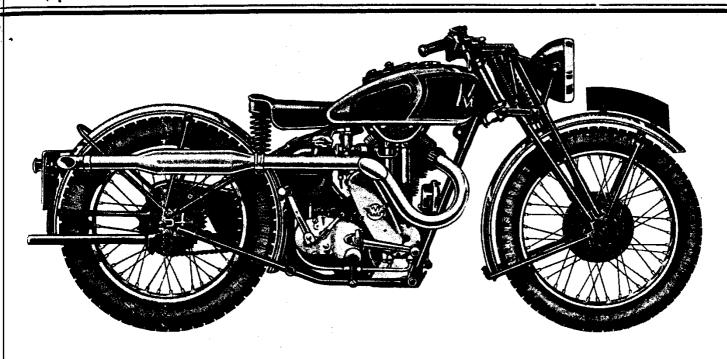
Price Code Word

"250" Clubman Special (Model 37/G2MC), complete with electric lighting and electric

horn £50 5 0 YENON

ONDO

This machine is supplied only with high exhaust pipe.



"350" CLUBMAN SPECIAL — Model 37/G3C "500" CLUBMAN SPECIAL - Model 37/G80C ... £62 . 0

SPECIFICATION

These two models are specially equipped editions of the "350" and "500" Clubman Models described on preceding pages. The special equipment is designed to make the machines ideal for use in reliability trials, scrambles, etc., and the practical nature of the specifications and the unusually good steering properties and high power output of the engines has already been shown by the results obtained by the 1936 Models in open competitions. The special features open competitions. include the following:

Special front fork springing with check springs.

Increased steering lock.

Special shallow section mudguards, chromium plated all over, with big mudguard clearance. Bolted-up rear stand, and single arm spring return prop stand instead of spring-up centre stand as used on the standard "Clubman Modele" Models.

Crankcase shield to protect the crankcase on bad road surfaces.

27 in. × 2.75 in. Sports or Solo Sports front tyre.

27 in. \times 4 in. Sports rear tyre.

Adjustable saddle spring mounting.

Special competition ratio gearbox.

Gear ratios: "350" Clubman Special, 6.1, 9.25, 12.5, 19.5.

" 500 " Clubman Special, 5.14,

7.8, 11.5, 16.4.

The engines are specially tuned with polished cylinder head and ports.

Price Code Word

" 350 " Clubman Special (Model 37/G3C), complete with electric lighting and electric horn ...

... £59 0 0 YENUP

"500" Clubman Special (Model 37/G80C), complete with electric lighting and electric horn

... £62 0 0 YEPEM

"500" SUPER CLUBMAN SPECIAL - Model 37/G90C

This is the "500" Clubman Special fitted with the Super Clubman engine with high compression ratio and special tuning as mentioned on previous page.

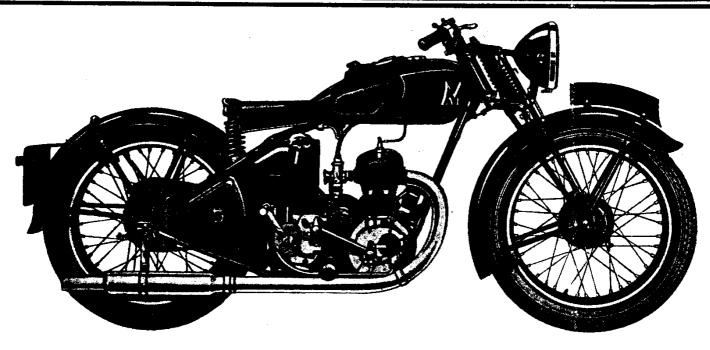
Price Code Word

"500" Super Clubman Special (Model 37/G90C) complete with electric lighting and electric horn

... £67 0 0 YEPOP

These Clubman Special Models are supplied only with high level exhaust pipes.





"250" TOURIST — Model 37/G7

15.0

SPECIFICATION

ENGINE. High efficiency four-stroke side valve engine with car type detachable cylinder head and semiturbulent combustion space. The cylinder is of entirely new design with dwarf tappet chest with valve springs mounted in steel thimbles insulated from the heat of the engine. Cylinder and cylinder head provided with exceptionally large cooling fins. Lo-ex piston, double camshaft timing gear running in oil bath. Bore 62.5 mm. Stroke 80 mm. Capacity 246 c.c.

LUBRICATION. Full dry sump system with fabric oil filter as described on page 4.

CARBURETTER. "Ama!" two-lever semi-automatic with twist grip throttle control.

GEARBOX. Four-speed pivot mounted gearbox with enclosed positive stop foot gear change.

TRANSMISSION. Front chain enclosed in oil bath chaincase, rear chain protected by adequate guard with back panel. Shock absorber on engine shaft.

EXHAUST SYSTEM. Large diameter chromium plated exhaust pipe with tubular silencer.

STANDS. Spring-up centre prop stand.

TANKS. Large bulbous pressed steel petrol tank with capacity of 3 gallons. Graceful design separate oil tank carried below saddle, capacity \(\frac{1}{2} \) gallon.

FRAME. Rigid duplex cradle frame with triangulated straight twin down tubes, forged rear fork ends, self centreing head bearings, etc.

SPRING FORKS. New design tubular spring forks of graceful and sturdy design with all spindles locked in links at both ends and with built-in duplex fork dampers controlled by knob on left side.

BRAKES. Powerful brakes of internal expanding type, with dust and water excluders and with finger adjustment, on both wheels.

HANDLEBARS. I in. diameter handlebars fitted with adjustable clip-on controls; external type twist grip control for throttle.

SADDLE. Lycett "Aero" Spring Seat.

TYRES. 26 in. x 3.25 in. Cord.

LUGGAGE CARRIER. Detachable luggage carrier can be supplied at 15/- extra.

MUDGUARDS. Deep section mudguards on both wheels with flared ends. Back portion of rear mudguard detachable to facilitate wheel removal or tyre repairs.

ELECTRICAL EQUIPMENT. 6-volt electric lighting and coil ignition system. 30-watt dynamo rigidly mounted on engine plates and driven by roller chain enclosed in main oil bath chaincase. Constant voltage control for dynamo ensuring properly regulated battery charging. Contact breaker built into engine timing case. Large headlamp with parking light and with dipping switch on handlebar. Flush fitting instrument panel on tank carrying switch, ammeter and ignition warning light and with provision for fitting of clock if required. Extra large battery carried on special platform beneath saddle. Electric horn.

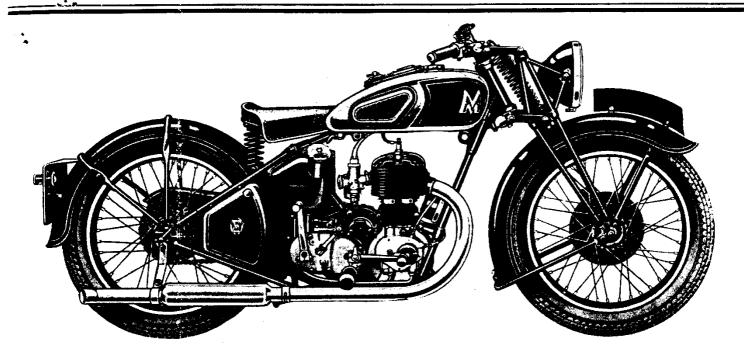
FINISH. Petrol tank finished in glossy black ename! with gold lines and chromium plated embossed "M" on each side. Wheel rims chromium placed with black centres and gold lines. All usual bright parts heavily chromium plated.

Price Code Word

" 250 " Tourist (Model 37/G7), complete with electric lighting and electric horn ...

... £39 15 0 YERRO





"500" TOURIST — Model 37/G5

SPECIFICATION

£50 . 0 . 0

ENGINE. High efficiency four-stroke side valve engine with car type detachable cylinder head and semi-turbulent combustion space. The cylinder is of entirely new design with dwarf tappet chest with valve springs mounted in steel thimbles insulated from the heat of the engine. Cylinder and cylinder head provided with exceptionally large cooling fins. Lo-ex piston, double camshaft timing gear running in oil bath. Bore 82.5 mm. Stroke 93 mm. Capacity 498 c.c.

LUBRICATION. Full dry-sump system with fabric oil filter as described on page 4.

GEARBOX. Heavyweight pivot mounted four-speed gearbox with enclosed positive stop foot gear change. Gear ratios 5.1, 6.6, 7.8 and 13.7.

TRANSMISSION. By chain throughout with oilbath front chaincase and effective guard with back panel for rear chain. Shock absorber on engine shaft.

EXHAUST SYSTEM. Large diameter chromium plated exhaust pipe with tubular silencer.

FRAME. Heavyweight duplex cradle frame with triangulated straight twin down tubes, narrow angle.

STANDS. Spring-up centre stand and separate tubular front wheel stand.

TANKS. Large pressed steel all-welded petrol tank—capacity 3 gallons. Separate oil tank carried below saddle, capacity ½ gallon.

HANDLE" \RS. Fully adjustable, mounted on extension links behind steering damper. Adjustable controls and external type twist grip control for throttle.

SPRING FORKS. Heavyweight round taper tube girders with all spindles locked in links at both ends

and with built-in duplex fork dampers controlled by knob on left side. Steering damper.

BRAKES. Large diameter internal expanding brakes on both wheels. Both brake drums manufactured from chromidium, front brake drum heavily finned. Finger adjustment and quick detachable connections to both brakes.

WHEELS. Mounted on taper roller bearing hubs, rear wheel quickly d. t:chable.

SADDLE. Large Lycett "Aero" Spring Seat with semi-roll back.

TYRES. 26 in. × 3.25 in. Cord.

LUGGAGE CARRIER. Detachable luggage carrier 15/- extra.

ELECTRICAL EQUIPMENT. 6-volt electric lighting and coil ignition system. 30-watt dynamo rigidly mounted on engine plates and driven by roller chain enclosed in main oil bath chaincase. Constant voltage control for dynamo. Contact breaker built into engine timing case. Large headlamp with parking light and with dipping switch on handlebar. Flush fitting instrument panel in tank carrying switch, ammeter and ignition warning light and with provision for fitting of clock if required. Extra large battery carried on special platform beneath saddle. Electric horn.

FINISH. Petrol tank chromium plated with black panel with gold lines and embossed chromium "M" on each side. Chromium plated wheel rims with black centres and gold lines.

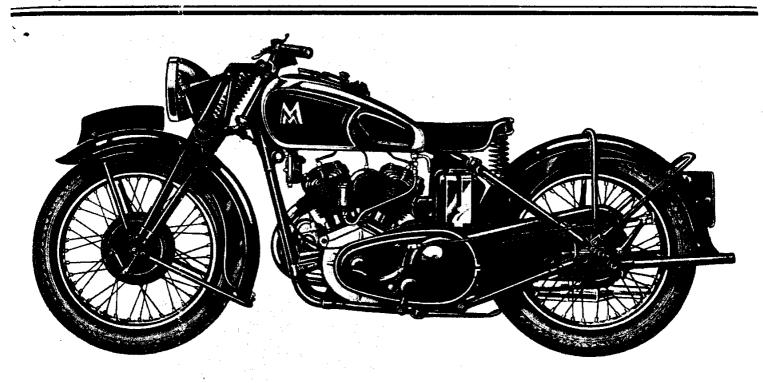
"500" Tourist (Model 37,G5), complete with electric lighting

and electric horn £50 0 0 YERT

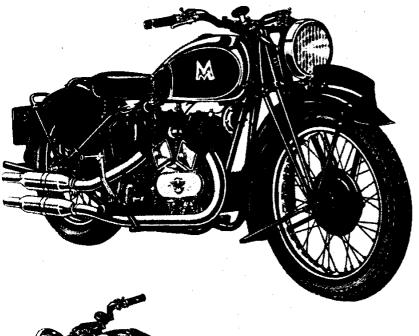
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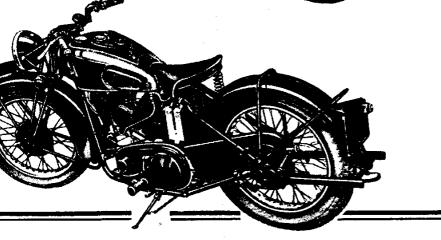
These illustrations of the Model 37/X, which is described on the opposite page, show clearly the sturdy and compact design of this new 'Matchless' Big Twin. Features of special interest include the oil bath front chain case, the very effective guard for the rear chain, the large air filter, and the rigid duplex frame, all of which can clearly be seen in the illustration above.



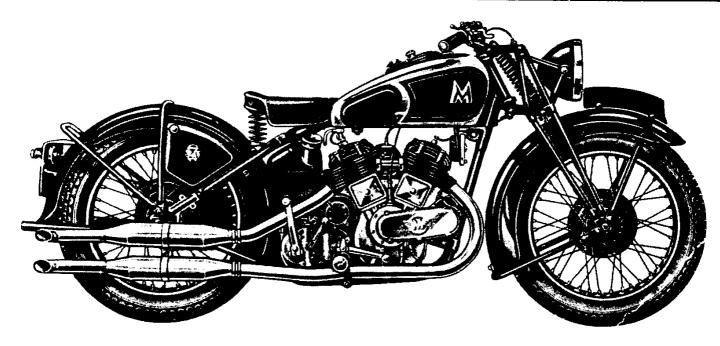
The centre illustration gives an excellent impression of the imposing appearance of the Model 37/X and illustrates clearly the effective mudguarding which is provided for both wheels.

The lower illustration shows the machine leaning on the single arm prop stand which is provided to give easy parking. Just a slight push with the foot and the stand is in action. To release the stand it is necessary merely to push the machine upright when the stand flies back into its normal position.

This compact machine, with its short wheelbase, is an ideal Motor Cycle for high speed solo riding, giving effortless running at high cruising speeds with a maximum exceeding 80 m.p.h., and astonishing acceleration. For the experienced rider it is undoubtedly an ideal solo mount. It is equally suitable for use with any ordinary type of sidecar, for which work the large reserve of power provided by the Big Twin Engine is invaluable.







"990" SPORTS TOURIST - Model 37/X

£72 . 10 . 0

SPECIFICATION

ENGINE. Matchless Big Twin Side Valve Engine with car-type detachable cylinder heads and enclosed valves. Cylinders of new design with wide angle exhaust ports. Cylinders and cylinder heads heavily finned to ensure perfect cooling, timing gears running in oil bath, large flywheels to ensure smooth running, exceptionally stiff crankshaft assembly, forked connecting rods. This engine is remarkable for its high power output, silence in operation and vibrationless running. Bore 85.5 mm. Stroke 85.5 mm. Capacity 990 c.c.

LUBRICATION. Full dry-sump system with fabric oil filter as described on page 4.

IGNITION. Separate Lucas high tension magneto mounted in protected position in front of engine and driven by short roller chain enclosed in cast-aluminium chaincase.

GEARBOX. Heavyweight pivot-mounted four-speed gearbox with enclosed positive stop foot gear change. Hand gear change cannot be supplied. Gear ratios 4.3, 5.4, 6.7, 11.4.

TRANSMISSION. By chain throughout with oilbath front chaincase and effective guard with back panel for rear chain. Shock absorber on engine shaft.

EXHAUST SYSTEM. Two large diameter chromium plated exhaust pipes with tubular silencers.

FRAME. New design heavyweight duplex cradle frame with triangulated straight twin down tubes, designed to give exceptional torsional rigidity. Short wheelbase—56참 in.

STANDS. Strong clip up rear stand, boited up tubular front stand and single arm side prop stand as illustrated on page 14.

TANKS. Large pressed steel all-welded petrol tank, capacity 4 gallons 3 pints. Separate oil tank carried below saddle, capacity ½ gallon.

HANDLEBARS. Fully adjustable, mounted on extension links behind steering damper. Adjustable controls and external type twist grip control for throttle.

SPRING FORKS. Heavyweight round taper tube girders with all spindles locked in links at both ends and with built-in duplex fork dampers controlled by knob on left side. Steering damper.

BRAKES. Large diameter internal expanding brakes on both wheels. Both brake drums manufactured from chromidium, front brake drum heavily finned. Finger adjustment and quick derachable connections to both brakes.

WHEELS. Mounted on taper roller bearing hubs, rear wheel quickly detachable.

MUDGUARDS. Wide section valanced mudguards with centre rib and flared ends. Rear guard hinged to facilitate wheel removal or tyre repairs.

SADDLE. Large Lycett "Aero" Spring Seat with semi-roll back.

TYRES. 27 im. x 4 in. Cord on rear wheel. 26 in. x 3.25 in. Cord on front wheel.

LUGGAGE CARRIER. Detachable luggage carrier

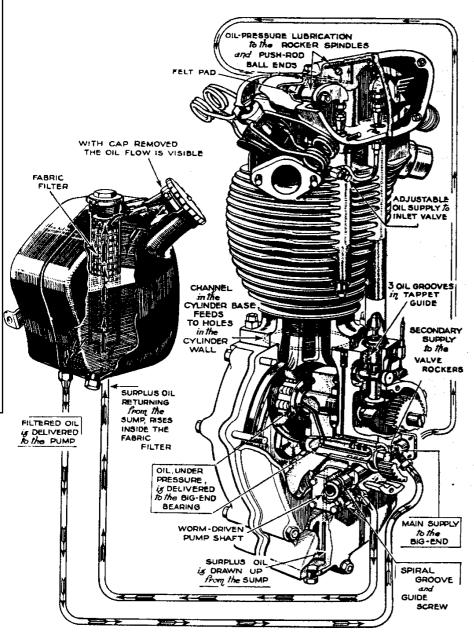
ELECTRICAL EQUIPMENT. Electric lighting provided by 30-watt Lucas dynamo with constant voltage control, mounted in protected position behind engine and driven by chain enclosed in oil-bath chaincase. Flush fitting instrument panel mounted on top of tank, with inspection lamp, ammeter, switches and provision for clock. High frequency electric horn.

FINISH. Petrol tank chromium plated with black panel with gold lines and embossed chromium "M" on each side. Chromium plated wheel rims with black centres and gold lines.

" 990 " Sports Tourist (Model

37/X), complete with electric lighting and electric horn ... £72 10 0 YERUS

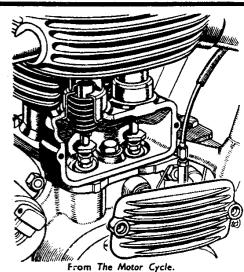




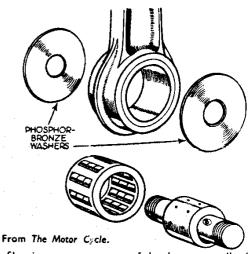
This sectional drawing shows the construction of the "350 Clubman" and "500 Clubman" engines and describes the operation of the dry sump lubrication system which is fitted to all Matchless Motor Cycles. The rotary reciprocating plunger pump which is driven by a worm from the crankshaft draws oil from the oil tank and forces it to all working parts of the engine. Surplus oil falls into the sump at the bottom of the crankcase and from there is drawn up by the return end of the oil pump and delivered again to the oil tank, passing on its way through a fabric filter which completely removes all impurities. Thus a constant circulation of cool clean oil is ensured, and this is largely responsible for the very long life which is given by all "Matchless" engines. Note the manner in which oil is forced to all moving parts in the overhead valve rocker gear and to the inlet valve guide.



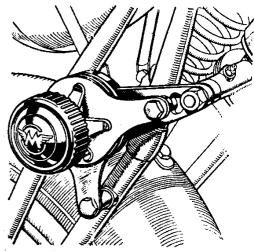
All 1937 models are fitted with fork dampers as illustrated. Thus, the rider is able to vary the amount of friction damping required by the spring forks on different types of road surface, this adjustment being unaffected by, and entirely without effect on, the adjustment of the fork spindles.



Showing the entirely new design of dwarf tappet chest fitted to sidevalve engines on the "250 Tourist" and "500 Tourist" models. Note the easily detached finned cover plate and the manner in which the valve springs are carried in steel thimbles, thus insulating the springs from the heat of the engine.



Showing component parts of the three row roller bigend bearing fitted to all 350 c.c. and 500 c.c. models for 1937. The crank pin is in two parts, the central portion made from heat treated alloy steel of great tensile strength, the outer part from case hardening alloy steel giving great surface hardness for resistance to wear. Rollers carried in duralumin cage.



From The Motor Cycle.

EQUIPMENT

All the 1937 Models listed in this catalogue are supplied complete with electric lighting and electric horn. A flush fitting instrument panel is mounted on top of the petrol tank, this panel carrying the electric lighting switch and the ammeter, and having provision for the fitting of a Smith 8-Day Clock, which can be supplied to order at an extra charge of 30/-.

Except in the case of the Models 37/G2, 37/G7 and 37/G5, this panel also includes a detachable inspection lamp which serves to illuminate the ammeter for night riding and is also, by reason of the long flex provided, extremely useful for carrying out adjustments, reading maps, etc., at night. On Models 37/G2, 37/G7 and 37/G5, which are fitted with coil ignition, the inspection lamp is replaced by a warning light which glows red should the ignition be left switched on when the engine is not running, so guarding against any possibility of the battery being accidentally discharged.

When a Speedometer is ordered on any model, it is mounted on a special bracket in front of the steering damper knob in the centre of the handlebars, in a position where it can easily be read when the machine is in motion without the rider having to remove his vision from the road ahead. Either a Trip or a Non-trip Speedometer can be fitted at the charges shown below, but if the type required is not specified, a non-trip type is supplied.

As stated in the various specifications given in preceding pages, the standard "Clubman" Models can be supplied with either high exhaust pipes or low exhaust pipes and it is important that the type required should be specified when the machine is ordered. On the "Clubman Special" Models high exhaust pipes only are available. All 1937 Models are fitted with positive stop foot gear change, and hand gear change cannot be supplied on any Model.

A list is given below of certain optional equipment which can be supplied at extra prices:

LIST OF OPTIONAL EQUIPMENT

Detachable Luggage Carrier on all models		 	£ s, 15	d. 0	
Eight-day Clock (mounted on the instrument panel)		 	1 10	_	
Gearbox drive speedometer—non-trip ,		 	_	.0	
Gearbox drive speedometer—trip		 	_	. 0	
Lucas stop light		 	5	0	
Exhaust pipe shield for Models 37/G2 or 37/G2M		 	3	6	
Pillion footrests-all models per pair	7 6		•	_	
Mudguard type pillion seat 12	. 6		10	Ç	3
Hutchinson "De Luxe" Pillion Seat (for fitting to luggage carrier, which must also be specified) 13	3 6		MATC	CHI	` [
Oversize Tyres:				- 11777	2
26 in. × 3.50 in.—Any model except 37/X per machine	0		₹V	۸ ۸	l
27 in, \times 4 in, on Model 37/X front wheel	0 0			M	ı

