

MATCHLESS MOTOR CYCLES





ARE DESIGNED TO GO PLACES ... IN MORE WAYS THAN ONE!

The name Matchless is as old as the British motor cycle industry itself. Matchless machines were winning championships before even the fathers of their present day riders were born. And winning is a habit Matchless finds hard to break. It's due to this inherent flair for designing successful sporting machines over the years that the Matchless Company today can boast the most skilled and experienced team of motor cycle technicians in the country under one banner.

The result is a range of truly modern motor cycles for 1964 that can proudly hold their own, class by class, with any in the world. With the exception of the extremely popular 250 c.c. Super Sports lightweight, every Matchless model has been redesigned to incorporate ultra-efficient 'Road-holder' forks and hubs. The singles have new engines developed from the scrambler. The twins have 12 volt electrics. Detail modifications are made to the competition machines. These refinements increase still further the Matchless safety margin at fast speeds, enhancing road-holding, braking and reliability. And proving, as if proof were needed, that Matchless move with the times. And fast!

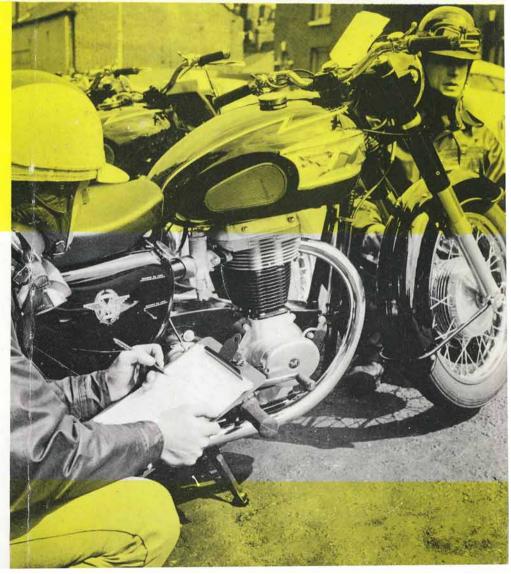
The lessons learnt in production machine races, trials and scrambles added to matchless Matchless experience ensure that, one way or another, Matchless is going places in 1964.

TESTED BY THE MOST EXPERIENCED TEAM IN THE BUSINESS



Jim Walby, Brian Slark—and other Matchless road testers, between them, take every single machine made by Matchless as it comes off the line and road test it for you. The fact that every Matchless motor cycle is put through its paces for you by an expert 'on the open road' gives you some idea of the thoroughness and attention to detail that Matchless brings to standard motor cycle production.

These expert road tests are completely comprehensive. Each individual machine is tested for stability, handling, braking, roadholding, mechanical efficiency and general roadworthiness. And it is only after a machine has been tested and proved fit for the road—and for you to ride—that it is allowed to leave the factory.



MEET THE MATCHLESS 250 c.c. MONITOR SUPER SPORTS



The Monitor Super Sports is developed, as reported in "Motor Cycling", to give speed without temperament. The well mannered yet forceful engine is matched by handling qualities which inspire confidence in even the newest-comer to motor cycling. Allied to semi-dropped bars, lavish chrome and a stylish red and black colour scheme these features make a cycle tailored to the sports rider.

ENGINE. Highly tuned 248 c.c. o.h.v. single (70 mm. bore x 65 m.m. stroke): Deeply finned light alloy cylinder head with cast-in valve seats: large bore carburettor and a long inlet tract allied to a large diameter inlet valve provides the necessary gas flow to allow full use of the engine's potential: heavy poundage duplex hairpin valve springs: built-up rockers housed in detachable light alloy rocker box: hiduminium push-rods with hardened steel end-cups: lever type cam followers: both cams on single shaft: built-up crankshaft with steel flywheels and two-piece crankpin, supported by roller, ball and plain main bearings: duralumin caged roller big-end bearing: high tensile steel connecting rod: forged alloy piston with three rings: cast- iron barrel: crankshaft driven reciprocating plunger oil-pump: ignition by battery and coil, with an independent emergency start circuit.

GEARBOX. Separate from engine, and clamped to crankcase by two flexible steel straps. Engine side covers give appearance of unit construction. Four speeds operated by positive selector mechanism. Driven through multi-plate clutch incorporating rubber vane shock absorber. Duplex primary chain adjusted by rotation of gearbox within clamping straps. Folding kickstarter.

FRAME. Brazed and bolted construction: Single front down tube, continuous single top and saddle tube, pressed steel engine under-channel: short triangulared rear sub-frame for rigidity: large lug at base of saddle tube houses lubricated pivot bush for rear swinging fork.

REAR SUSPENSION. Swinging fork: off-side arm pressed on, and welded to, heat treated steel pivot shaft: drive-side arm cottered to shaft: tube ends pinched and welded for wheel spindle slots. Fork movement controlled by adjustable Girling hydraulic units.

FORKS. Competition type "Teledraulic" forks, with progressive two-way oil damping: large diameter heat-treated tubular steel stanchions: multi-rate springs: light alloy sliders with chromed steel extension.

WHEELS. 17" diameter chrome plated steel rims: heavy duty spokes. Fitted with 3.25" Dunlop high hysteresis tyres.

HUBS & BRAKES. Full width light alloy front hub with cast-in 6" diameter drum: 1\frac{3}{8}" wide linings and shoes mounted on webbed light alloy brake plate. Full width rear hub with 6" diameter brake drum and integral sprocket bolted to hub.

LIGHTING. 6 volt. 54 watt, crankshaft mounted alternator; 11 a.h battery: 6" headlamp: combined rear and stoplight with integral reflector.

TWINSEAT. Two level touring seat: pressed steel base: foam rubber padding: waterproof Vynide covering.

PETROL TANK. 3.25 gallon pressed steel completely rubber mounted.

OIL TANK. Cast alloy container bolted up to crankcase side and separate from flywheel compartment.

HANDLEBARS. Fully adjustable, as are the control levers. Upswept handlebars optional.

DIMENSIONS. Seat height 29.5": ground clearance 6.5": weight 307 lbs.

COLOUR FINISH. Jet black primarily: petrol tank chrome plated and polychromatic red: accessory covers polychromatic red: mudguards, chainguard, wheels, rims, exhaust system, etc., chrome plated: engine cover, primary chaincase: gearbox cover, fork sliders, cylinder head fin extremities etc., are highly polished.

OPTIONAL EXTRA. Range of Dolphin fairings.

1964's TOP SPORTING LIGHTWEIGHT



MEET THE MATCHLESS 350 c.c. MERCURY AND 500 c.c. MAJOR

MERCURY A snappy performer with a low, comfortable riding position. Robust, reliable, easy on fuel consumption, you'll get many miles of enjoyable motor cycling behind the Mercury's handlebars.

MAJOR For sheer slogging power at low engine speeds, you'll have to go a long way to find a machine that compares with the Major. A rugged dependable performer, here's the ideal bike for touring the countryside in comfort.





ENGINE. Model G3. 348 c.c. o.h.v. single (72 mm. bore x 85.5 mm. stroke) Model G80. 497 c.c. o.h.v. single (86 mm. bore x 85.5 mm. stroke) Light alloy cylinder head with cast-in valve seats: chrome plated, stellite tipped valves: exhaust valve lifter fitted: duplex hairpin valve springs: built-up rockers housed in detachable light alloy rocker box separate inspection cover: hiduminium pushrods with hardened steel end-cups: mushroom type cam followers: separate cam wheels: built-up crankshaft, with individually balanced steel fly wheels and two-piece crankpin, supported by ball, roller and plain main bearings: duralumin caged roller big-end bearing with improved direct oil feed: high tensile steel connecting rod: forged alloy piston: cast iron cylinder barrel with integral pushrod tunnels: new gear type oil pump driven off timing side crankshaft: ignition by battery and coil with independent emergency start circuit.

GEARBOX. Separate four speed box: light alloy shell and covers: wide tooth heavy duty pinions: multi-plate clutch with integral rubber vane shock absorber: primary drive housed in cast alloy oil bath.

LIGHTING. 6 volt. 60 watt crankshaft mounted alternator: 11 a.h. battery: 7" headlamp: combined rear and stoplight with integral reflector.

DIMENSIONS. Seat height 29.5": ground clearance 5.5": weight 394 lbs.

COLOUR FINISH. All black and chrome. Polychromatic red is optional for petrol tank, oil tank and toolbox.

OPTIONAL. Sidecar specification-special forks, gears and suspension.

OPTIONAL EXTRAS. Range of dolphin fairings. Full enclosed rear chaincase. Air cleaner. Steering damper, Front and rear safety bars.

CYCLE PARTS as 650 c.c. Swift.

MEET THE MATCHLESS 650 c.c. MAJESTIC

An apt name for a truly big bike if appearances count—and they do! A twin cylinder machine featuring many technical refinements unique in motor cycle design. Gives you all the power and speed you could wish for on the open road—yet handles like a lightweight in heavy traffic. And just as versatile in sidecar form.



ENGINE. 646 c.c. o.h.v. vertical twin (72 mm. bore x 79.3 mm. stroke). Both the barrels and heads are separate for ease of maintenance. Light alloy cylinder heads with cast-in valve seats: chrome plated stellite tipped valves: multi-rate coil valve springs: one plece rockers adjustable by eccentric spindles which are mounted between pillars integral with heads: hiduminium pushrods with hardened steel end-cups: lever cam followers: separate gear-driven camshafts mounted fore and aft of barrels: one piece three bearing crankshaft supported by two large diameter roller journal bearings and plain metal centre bearing: plain big-end bearings: two piece forged alloy connecting rods: forged alloy pistons: separate fine grain cast-iron cylinder barrels: two camshaft driven gear type oil pumps: ignition by battery and coil, with dual contact breakers, and independent emergency start circuit.

GEARBOX. Separate four speed box: light alloy shell and covers: wide tooth heavy duty pinions: multi-plate clutch with integral rubber vane shock absorber: primary drive housed in cast alloy oil bath.

FRAME. Brazed and bolted construction, with integral sidecar lugs: twin tube duplex cradle: single top and saddle tubes: large robust lug at base of saddle tube houses self lubricating pivot bush for rear swinging fork: rear sub-frame loops are short and rear swinging fork braced for rigidity: rear suspension controlled by fully adjustable oil damped Girling units.

FORKS. New "Roadholder" forks with built-in thief proof lock: progressive two way oil damping: single rate springs housed within large diameter heat treated tubular stanchions: light alloy sliders, with chromed steel extensions.

WHEELS. 18" diameter chrome plated steel rims; heavy duty spokes. Fitted with Dunlop high hysteresis tyres.

HUBS & BRAKES. New-large diameter die cast light alloy hubs, with deep cooling fins and internal strengthening webs: front brake drum cast into hub: one piece rear drum and sprocket separate from hub (necessary as rear wheel is Q.D.) ball journal bearings support hubs on high tensile steel spindles. Brake sizes—front 8" x 1½".

TWINSEAT. Two level touring seat: pressed steel base: foam rubber padding: waterproof Vynide covering.

TANKS. 4 gallon pressed steel petrol tank, completely rubber mounted: at front by expanding rubber bushes, at rear by rubber bands—tank rests on foam rubber pads: single two-level tap. 4 pint pressed steel oil tank bolted up to rear sub-frame.

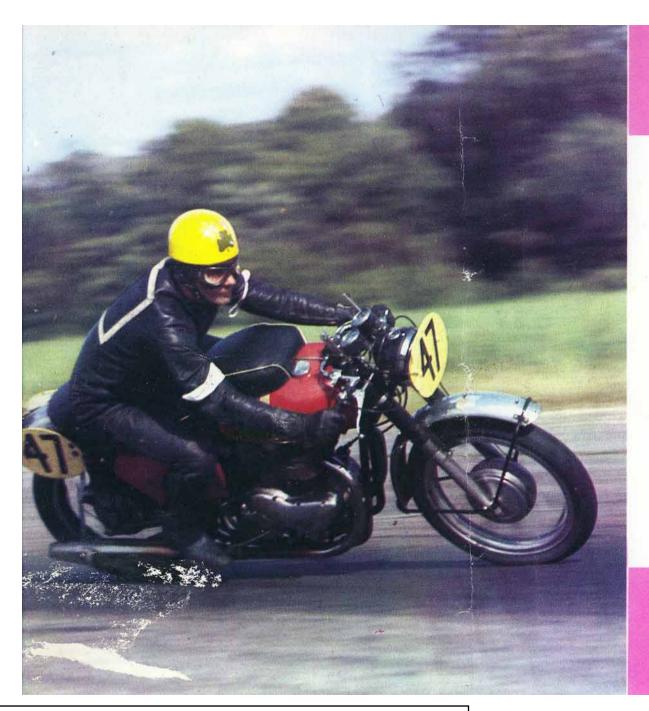
LIGHTING. 12 volt. Crankshaft mounted alternator: two 6 volt batteries connected in series: Zener diode: adjustable 7" headlamp with 50w/40w double filament head bulb: combined rear and stop light with integral reflector.

DIMENSIONS. Seat height 29.5": ground clearance: 5.5": weight 410 lbs.

COLOUR FINISH. All black and chrome. Polychromatic red is optional for petrol tank, oil tank and toolbox.

OPTIONAL. Sidecar spec.—special forks, gears suspension. Siamesed exhaust.

OPTIONAL EXTRAS. Range of dolphin fairings. Magneto ignition. Steering damper. Air cleaner. Front and rear safety bars, Fully enclosed rear chaincase.

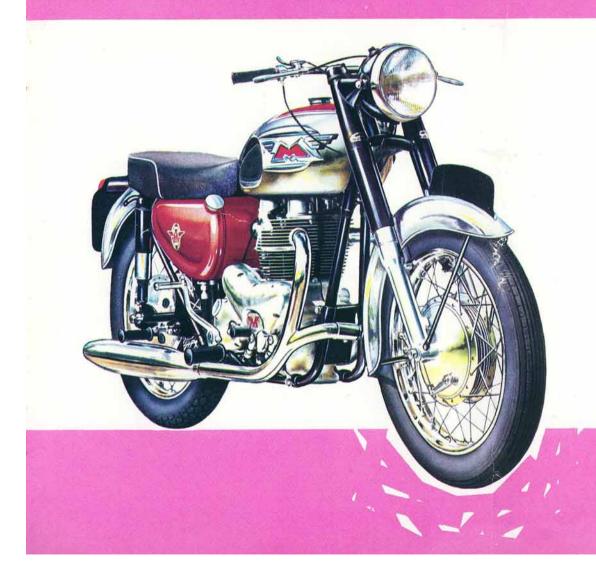


MEET THE

King of the Roads indeed! And a right royal performer in open competition; A Matchless Monarch. driven by Joe Dunphy and Paddy Driver won the 1963 BEMSEE 1,000 km production touring race at an average speed of 76.29 m.p.h. - an amazing average for a fully equipped road machine, thrashed mercilessly round a road circuit for over eight hours. Designed to full sports specification with the experienced rider in mind, the Monarch is a firm favourite with travelling marshals in the Isle of Man T.T. And small wonder. High cruising speeds plus effortless manoeuvrability make it a bike with everything to commend it.

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MATCHLESS 650 c.c. MONARCH



Specification is similar in many respects to the standard 650 c.c. twin but, with the following alterations.

ENGINE. Highly tuned with 8.5:1 compression ratio. Magneto ignition.

MUDGUARDS. Chrome plated steel blades.

COLOUR FINISH. Black frame, fork covers, etc., with polychromatic red and chrome petrol tank, and polychromatic red oil tank and toolbox.

OPTIONAL EXTRAS. Range of Dolphin fairings. Speedkit comprising twin carburettors, h.c. pistons and special camshafts. Rev-counter. Steering damper. A racing magneto and separate exhaust system can be fitted if the speedkit is supplied as original equipment.

MEET THE MATCHLESS 'SPORTSTERS'

MAESTRO



The 350 c.c. Trials MAESTRO. One of the few machines initially designed as a trials model—and now fitted with the works type short-stroke engine.

The 500 c.c. Scrambler MARKSMAN. All it needs is an optional 12:1 c.r. piston installed—and you can race with an engine identical to those used by the works riders.

Lighting equipment, at extra cost, is available for the Marksman.

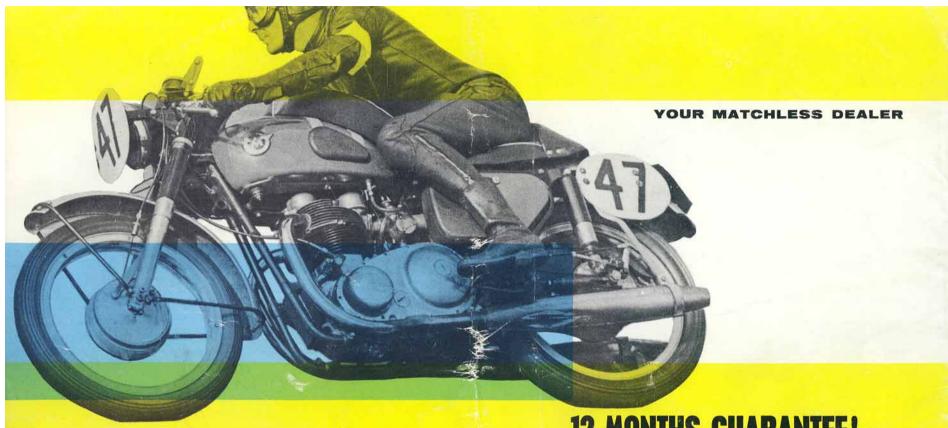
MARKSMAN



TECHNICAL SPECIFICATION

Capacity c.c.		MONITOR Super Sports 248	MERCURY 348	MAJOR 498	MAJESTIC 646	MONARCH 646	MAESTRO 347	MARKSMAN									
Engine Type Bore & Stroke m.m. Compression Ratio		Ohv Single 70 x 65	Ohv Single 72 x 85.5	Ohv Single 86 x 85.5 7.3	Ohv Twin 72 x 79.3 7.5	Ohv Twin 72 x 79.3 8.5	72 x 85.5	Ohv Single 86 x 85.5									
									Gear Ratios	Тор	6.51	5.51	4.79	4.59	4.3	6.48	5.8
										3rd	8.46	6.72	5.85	5.6	5.27	10.10	7.08
										2nd	12.03	9.37	8.15	7.81	7.35	15.80	9.85
1st	19.00	14.11	12.27	11.76	11.07	21.00	14.85										
Tyres	Front	3.25 x 17	3.25 x 18	3.25 x 18	3.25 x 18	3.25 x 18	2.75 x 21	3.00 x 21									
	Rear	3.25 x 17	3.25 x 18	3.50 x 18	3.50 x 18	3.50 x 18	4.00 x 19	4.00 x 19									
Carburettor	Amal Choke	Monobloc	Monobloc	Monobloc	Monobloc	Monobloc	Monobloc	Grand Prix									
	Size	1 1 "	1븅"	1 5 "	18"	1#″	116"	13/									
Brakes	Front	6″	8″	8″	8"	8″	5½″	7″									
	Rear	6"	7″	7″	7″	7″	5½"	7″									
Petrol Tank	Galls	34	4	4	4	4	. 2	2									
Oil Tank	Pints	21/2	4	4	4	4½	2 3	41/2									
Seat Height		29½″	29½″	29½″	29½″	29≟″	30 <u>1</u> ″	32"									
Ground clearance		6½"	5½″	5 <u>1</u> ″	5½"	5½″	10″	6½"									
Weight	lbs	328	392	398	410	396	306	345									

N.B. All Matchless Machines can be fitted with Avon Fairings for streamlined appearance, improved performance and additional weather protection.



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12 MONTHS GUARANTEE!

All Matchless Motor cycles are sold by appointed dealers subject to the general terms of the limited guarantee adopted by the British Cycle and Motor Cycle Industries Association Ltd.—except that period of guarantee has been extended to a full 12 months. Guarantee terms are available from your local Matchless dealer.

MATCHLESS ARE MADE BY THE A.M.C. GROUP - FIRST AND FOREMOST MAKERS OF MOTOR CYCLES

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