Lovely to look at ... delightful to ride

ARIEL

www.oldmotorbrochures.com

FOREWORD

In presenting this 1953 catalogue, Ariel offer a range of outstanding Motor Cycles headed by a new 1,000 c.c. Four Port Square Four, and a new 500 c.c. Hunter Twin with light alloy engine identical to that used so successfully by the Ariel member of The British Trophy Team in the International Six Days Trial.

A great deal of thought has been given not only to the design of these two new models, but to the whole range, with the result that we offer with the utmost confidence, Four, Twin and Single cylinder machines, knowing full well whichever model is chosen, the rider is assured of obtaining a product embodying only that which is best in modern Motor Cycle design and construction.

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GENERAL SPECIFICATION

Frame Full cradle type, built of Aero quality tubing. All joints brazed, ensuring great strength and torsional stiffness. Built-in lugs provide for either near or offside sidecar attachment. Sidecar lugs on model VCH to special order.

Forks Ariel design. Telescopic with hydraulic control. Large bearing surfaces automatically lubricated, 6¼ inches total travel. Steering damper incorporated.

Mudguards Wide D section with tubular stays. Rear guard can be lifted for easy removal of wheel. (Not applicable to model VCH Competition).

Brakes Ariel design of great power, ensuring positive and progressive action. Fulcrum adjustment.

Gearbox Four speed, foot control. Three plate dry clutch.

Transmission Engine shaft shock absorber. Polished aluminium oilbath primary chain case. Rear chain fully protected and lubricated.

Stands Forged steel girder spring-up rear and strong tubular front. Lifting handle on rear guard. Prop stands on all models with the exception of model VB.

Footrests Adjustable. Special lugs provided for pillion footrests.

Handlebar and Controls Adjustable. Twist grip for throttle. Clutch control lever. Front brake control lever. Headlamp dipper switch and horn push button. (Ignition, exhaust lifter and air lever on single cylinder models).

Petrol Tank Rubber insulated, incorporating quick release cam operated petrol filler cap.

Speedometer 120 m.p.h. 180 k.p.h.

Electrical Equipment All models 7½ inch headlamp incorporating lighting switch and ammeter. 6 volt battery. (Not applicable to model VCH). Stop and tail lamp on all models except NH, VB and VCH.

Equipment Steel tool box with complete kit of tools and grease gun. Tyre inflator.

The modern Ariel factory, Selly Oak, Birmingham, England

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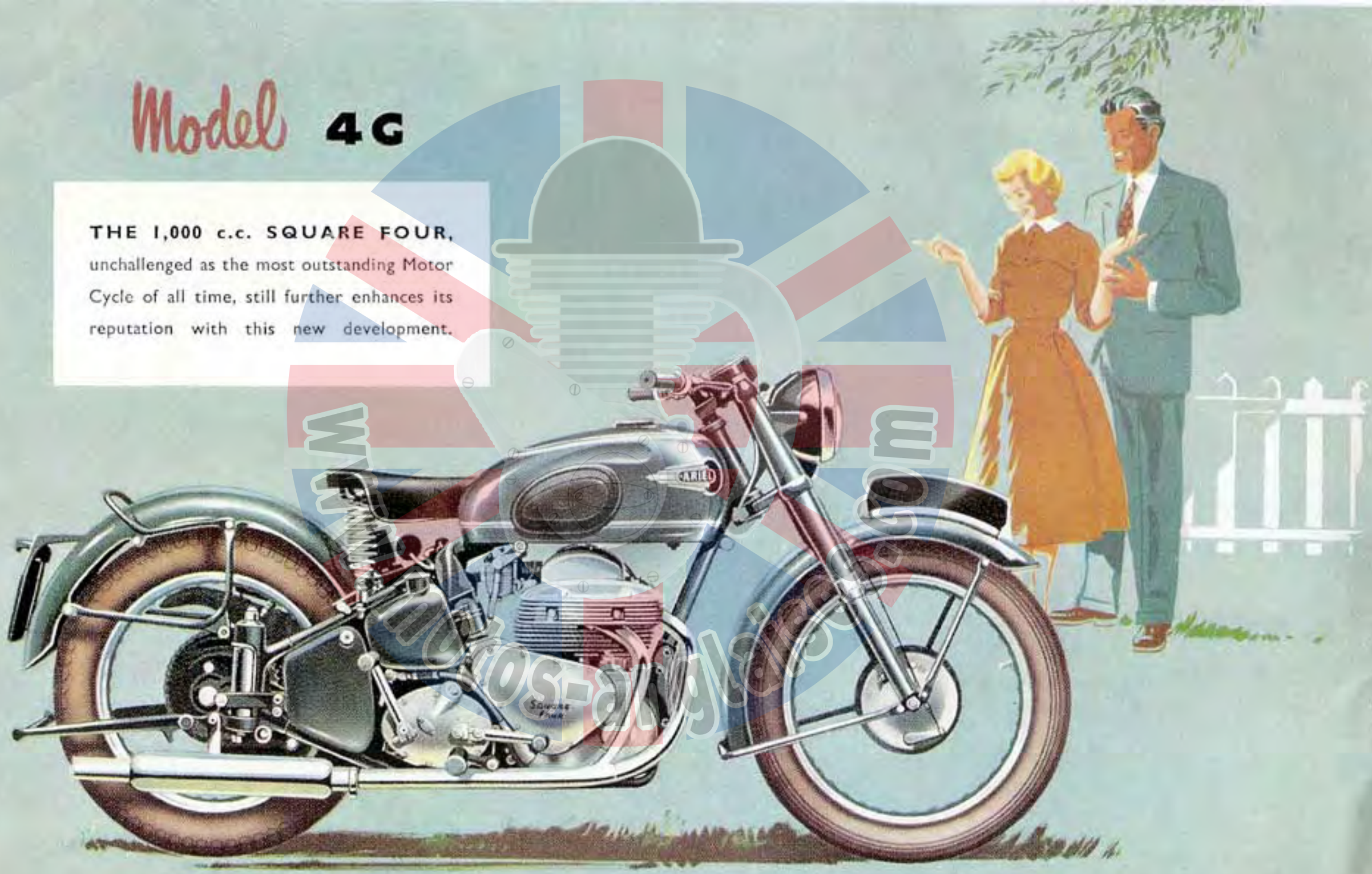
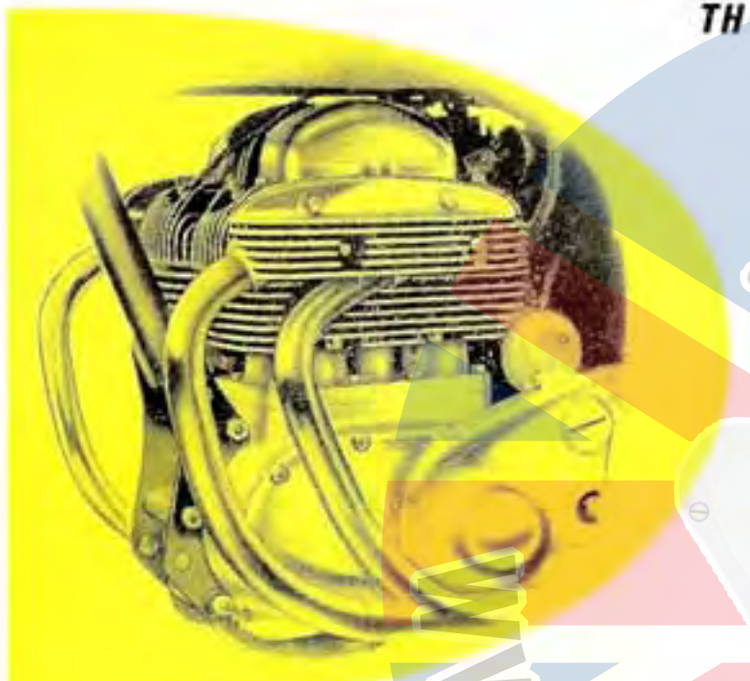
Model 4C

THE 1,000 c.c. SQUARE FOUR, unchallenged as the most outstanding Motor Cycle of all time, still further enhances its reputation with this new development.



THE SQUARE FOUR, 4 PORT, 1,000 c.c., MODEL 4G, Mk. II



Power unit of the 4G Mk. II

ENGINE: Exclusive high powered 4 cylinder O.H.V., free from vibration, and exceptionally cool running; attractively finished in polished aluminium alloy. 65×75 mm. = 997 c.c. (2.56×2.95 = 60.8 cubic inches). Deep finned aluminium alloy cylinder with wear resisting detachable sleeves. Aluminium alloy cylinder head with valve seat inserts. Two double port exhaust manifolds. Polished ports. Valve rocker levers mounted in pairs on steel brackets, all enclosed and automatically lubricated. Twin counterbalanced alloy steel crankshafts coupled by hardened and ground gears. RR.56 alloy connecting rods with white metal liners. Aluminium alloy pistons, 6.7 compression ratio (7.2 ratio supplied to order for use with 80 octane fuel).

LUBRICATION: Oil circulated by double pump. The supply pump feeds oil under pressure to all bearings and the scavenger pump returns filtered oil to a separate ¾ gallon (3.4 litres) tank.

ELECTRICAL EQUIPMENT: 70 watt voltage controlled dynamo with built-in distributor and automatic ignition control. Six volt coil. Ignition switch and warning light. 20 amp. hour battery.

WHEELS: Quickly detachable rear. Dunlop studded rear tyre, 4.00×18; ribbed front, 3.25×19. 8 inch rear and 7 inch front brake.

FUEL TANK: 5 gallons (22½ litres) capacity, fitted with main supply and reserve tap with filter. Rubber knee pads.

Standard finish throughout. Wedgwood Blue enamel, white lining, chromium plating and polished aluminium (Deep Claret enamel with gold lining optional).

Model 4G Mk. I. 1,000 c.c. Square Four with two port head engine. Specification similar to above; also available in Wedgwood Blue or Deep Claret enamel.

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THE HUNTER TWINS 500 c.c.

Models KH & KHA

—THE ARISTOCRATS OF TWINS

Light alloy engine of the 500 c.c. Hunter Twin model KHA

ENGINE KH: Powerful vertical O.H.V., with deep finned cast iron cylinder and head.

ENGINE KHA: Powerful vertical O.H.V., with polished aluminium alloy cylinder with wear resisting detachable sleeves. Aluminium alloy cylinder head with valve seat inserts.

ENGINES KH and KHA: 63 × 80 mm. = 498 c.c. (2.48 × 3.15 = 30.4 cubic inches). Forged steel crankshaft with counterbalanced weights, carried on a large roller bearing on drive side, white metal lined bearing on timing side. RR.56 alloy connecting rods with white metal liners. Twin camshafts driven by adjustable Duplex roller chain. Aluminium alloy pistons, 6.8 compression ratio (7.5 ratio supplied to order for use with 80 octane fuel). Polished ports. Specially bench tested and tuned.

LUBRICATION: Oil circulates by double gear pump. The supply pump feeds oil under pressure to all bearings and the scavenger pump returns filtered oil to a separate ¾ gallon (3.4 litre) tank.

ELECTRICAL EQUIPMENT: 56 watt gear driven voltage controlled dynamo. Magneto with automatic ignition control.

WHEELS: Dunlop studded rear tyre, 3.50 × 19; ribbed front, 3.00 × 20. 7 inch diameter brakes.

FUEL TANK: 4 gallons (18 litres) capacity, fitted with main supply and reserve tap with filter. Rubber knee pads.

MODEL KH: Finished throughout in Deep Claret enamel, gold lining and chromium plating.

MODEL KHA: Finished throughout in Wedgwood Blue enamel, white lining, chromium plating and polished aluminium.

The above colour finishes are interchangeable if desired.

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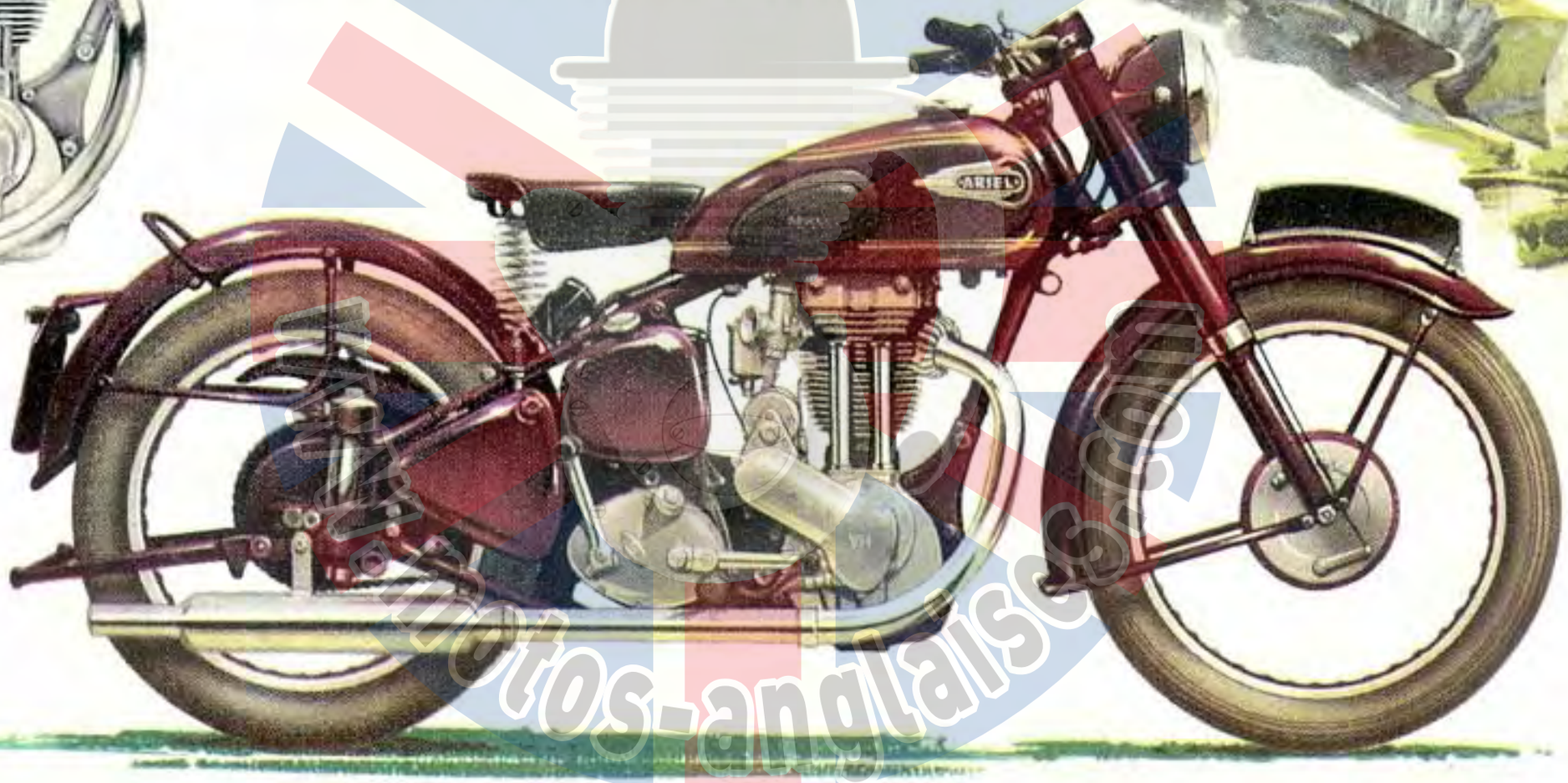
THE HUNTER SINGLE CYLINDERS 500 c.c.

Models VH & VHA

—THE IDEAL SPORTS MACHINES

Light alloy engine of the 500 c.c. Hunter single cylinder model VHA



ENGINE VH: Powerful O.H.V., with cast iron cylinder and single port head.

ENGINE VHA: Powerful O.H.V., with polished aluminium alloy cylinder with wear resisting detachable sleeve. Aluminium alloy single port cylinder head with valve seat inserts.

ENGINES VH and VHA: 81.8 × 95 mm. = 497 c.c. (3.22 × 3.74 = 30.4 cubic inches). Large diameter mainshafts mounted on two heavy duty roller bearings and one ball bearing. Double row roller connecting rod big end bearing. Aluminium alloy piston, 6.8 compression ratio (7.5 ratio supplied to order for use with 80 octane fuel). Ground and polished ports. Specially bench tested and tuned.

LUBRICATION: Oil circulates by dual plunger pump. Separate oil tank ¾ gallon (3.4 litres) capacity.

ELECTRICAL EQUIPMENT: 56 watt voltage controlled magdyno.

WHEELS: Dunlop studded rear tyre, 3.25 × 19; ribbed front, 3.00 × 20. 7 inch diameter brakes.

FUEL TANK: 3½ gallons (16 litres) capacity, fitted with main supply and reserve tap with filter. Rubber knee pads.

MODEL VH: Finished throughout in Deep Claret enamel, gold lining and chromium plating.

MODEL VHA: Finished throughout in Wedgwood Blue enamel, white lining, chromium plating and polished aluminium.

The above colour finishes are interchangeable if desired.

Model VH with two port head engine, specification otherwise as above; see separate Price List.

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THE HUNTER SINGLE CYLINDER 350 c.c. Model NH

—EXCELLENT FOR PILLION WORK

ENGINE: Robust O.H.V., with cast iron cylinder and single port head. 72 × 85 mm. = 347 c.c. (2.83 × 3.34 = 21.2 cubic inches). Heavy duty ball bearings on both sides of mainshaft. Large double row roller connecting rod big end bearing. Aluminium alloy piston, 6.2 compression ratio. Ground and polished ports. Specially bench tested and tuned.

LUBRICATION: Oil circulates by dual plunger pump. Separate oil tank ¾ gallon (3.4 litres) capacity.

ELECTRICAL EQUIPMENT: 56 watt voltage controlled magdyno.

WHEELS: Dunlop studded rear tyre, 3.25 × 19; ribbed front, 3.00 × 20, 7 inch diameter brakes.

FUEL TANK: 2¾ gallons (12.5 litres) capacity, fitted with main supply and reserve tap with filter. Rubber knee pads.

FINISH: Deep Claret enamel petrol tank with gold lining. Frame and fittings in high lustre black enamel, other parts chromium plating. Can be supplied finished throughout in Deep Claret or Wedgwood Blue enamel at extra charge.

Model NH with two port head engine, specification otherwise as above; see separate Price List.

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THE SIDE VALVE DE LUXE
SINGLE CYLINDER 600 c.c.

Model VB —FOR THE FAMILY MAN

ENGINE: Specially designed for solo or heavy duty sidecar work. 86.4 × 102 mm. = 598 c.c. (3.4 × 4.01 = 36.5 cubic inches). Polished aluminium alloy cylinder head and cast iron cylinder barrel with deep cooling fins. Totally enclosed valve gear. Double row roller connecting rod big end bearing. Aluminium alloy piston. 5.0 compression ratio.

LUBRICATION: Oil circulates by dual plunger pump. Separate oil tank ¾ gallon (3.4 litres) capacity.

ELECTRICAL EQUIPMENT: 56 watt voltage controlled magdyno.

WHEELS: Dunlop studded tyres, 3.25 × 19. 7 inch diameter brakes.

FUEL TANK: 3½ gallons (16 litres) capacity with main supply and reserve tap and filter. Rubber knee pads.

Finished throughout in high lustre black enamel, gold lining. (Petrol tank in Wedgwood Blue or Ariel green optional). Also available in all Wedgwood Blue or Deep Claret enamel at extra charge.

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COMPETITION HUNTER
SINGLE CYLINDER 500 c.c.

Model VCH

Specially designed for competition work in which light weight and ease of handling over the most arduous courses are the prime considerations.

ENGINE: Powerful O.H.V., fitted with polished aluminium alloy cylinder with wear resisting detachable sleeve. Polished aluminium alloy cylinder head with valve seat inserts. Designed to develop exceptional power at low speeds with high maximum speed. 81.8 × 95 mm. = 497 c.c. (3.22 × 3.74 = 30.4 cubic inches). Forged steel flywheels. Large diameter mainshafts mounted on two heavy duty roller bearings and one ball bearing. Double row roller connecting rod big end bearing. Aluminium alloy piston, 6.8 compression ratio. (7.5 ratio supplied to order for use with 80 octane fuel). Ground and polished ports. Specially bench tested and tuned.

LUBRICATION: Oil circulates by dual plunger pump. Separate oil tank ½ gallon (2.26 litres) capacity.

IGNITION: Lucas racing magneto.

GEARBOX: Wide ratio gears, two plate Neoprene clutch (close ratio and three plate Neoprene clutch for scramble machines).

FRAME: Short wheel base, high ground clearance. Polished duralumin mudguards. Low level exhaust pipe with upswept silencer.

WHEELS: Dunlop Trials Universal tyres, 4.00 × 19 rear; 3.00 × 21 front. (Sports tyres to special order).

FUEL TANK: 2½ gallons (11.25 litres) capacity, fitted with main supply and reserve tap with filter. Rubber knee pads.

Finished throughout in Deep Claret enamel, gold lining, chromium plating and polished aluminium. Magdyno lighting set optional extra; see separate Price List.

Spring frame with standard 56 inch wheel base, 5½ inch ground clearance to special order at extra charge.

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TECHNICAL DATA

MODEL	4G Mk. I	4G Mk. II	KH	KHA	VH	VHA	NH	VB	VCH
TYPE	O.H.V.	O.H.V.	O.H.V.	O.H.V.	O.H.V.	O.H.V.	O.H.V.	S.V.	O.H.V.
Number of cylinders	4	4	2	2	1	1	1	1	1
Bore and stroke	65×75	65×75	63×80	63×80	81.8×95	81.8×95	72×85	86.4×102	81.8×95
Cylinder capacity	997	997	498	498	497	497	347	598	497
Compression ratio	6.0	6.7	6.8	6.8	6.8	6.8	6.2	5.0	6.8
B.H.P. and R.P.M. (72 Octane)	35 at 5400	40 at 5600	27 at 6200	28 at 6200	25 at 6000	26 at 6000	19.4 at 5600	17 at 4400	26 at 6000
Engine Sprocket—No. of teeth, Solo	24	26	21	21	23	23	19	23	19
Engine Sprocket—No. of teeth, Sidecar	22	23	19	19	19	19	—	19	—
Solo Gear Ratio—Top	4.5	4.18	5.18	5.18	4.74	4.74	5.72	4.74	5.72
Solo Gear Ratio—Third	5.88	5.46	6.77	6.77	6.20	6.20	7.50	6.20	8.45
Solo Gear Ratio—Second	7.65	7.1	8.81	8.81	8.05	8.05	9.72	8.05	11.50
Solo Gear Ratio—First	11.92	11.07	13.72	13.72	12.55	12.55	15.15	12.55	17.90
Sidecar Gear Ratio—Top	4.95	4.74	5.72	5.72	5.72	5.72	—	5.72	—
Sidecar Gear Ratio—Third	6.47	6.20	7.50	7.50	7.50	7.50	—	7.50	—
Sidecar Gear Ratio—Second	8.42	8.05	9.72	9.72	9.72	9.72	—	9.72	—
Sidecar Gear Ratio—First	13.10	12.55	15.15	15.15	15.15	15.15	—	15.15	—
Chain—No. of Links, Front (Solo) ½" Pitch	72	72	81	81	81	81	80	81	80
Chain—No. of Links, Rear (Solo) ⅝" pitch	91	92	95	95	95	95	95	95	91
Wheelbase (inches)	56	56	56	56	56	56	56	56	54
Overall Length (inches)	86	86	86	86	86	86	86	86	84
Handlebar Width (inches)	27	27	27	27	27	27	27	27	27
Saddle Height (inches)	30	30	30	30	30	30	30	30	30
Ground Clearance (inches)	5½	5½	5½	5½	5½	5½	5½	5½	6½
Weight Fully Equipped (pounds)	425	425	384	370	375	360	348	362	300
Petrol Tank Capacity (gallons)	4	5	4	4	3½	3½	2¾	3½	2½
Oil Tank Capacity (pints)	6	6	6	6	6	6	6	6	4

Model VCH with close ratio gearbox has 21T engine sprocket. Gear ratio (solo): Top 5.18; Third 6.77; Second 8.81; First 13.75.

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Guarantee

We give the following Guarantee with our Motor Cycles and Sidecars in place of and to the exclusion of any implied conditions or warranties or any liabilities whatsoever statutory or otherwise.

We guarantee 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. The damages for which we make ourselves responsible under this Guarantee are limited to the free repair of or supply of a new part in exchange for the part which may have proved defective. We do not undertake to bear the cost of replacing or refixing any such new part. As Motor Cycles and Sidecars are easily liable to derangement by neglect or misuse this Guarantee does not apply to defects caused by wear and tear, neglect or misuse. We do not guarantee Tyres, Saddles, Chains, Electrical Equipment or any other Specialities of Accessory Manufacturers.

If a defective part should be found in our Motor Cycles or Sidecars 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 and the date of purchase.

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