



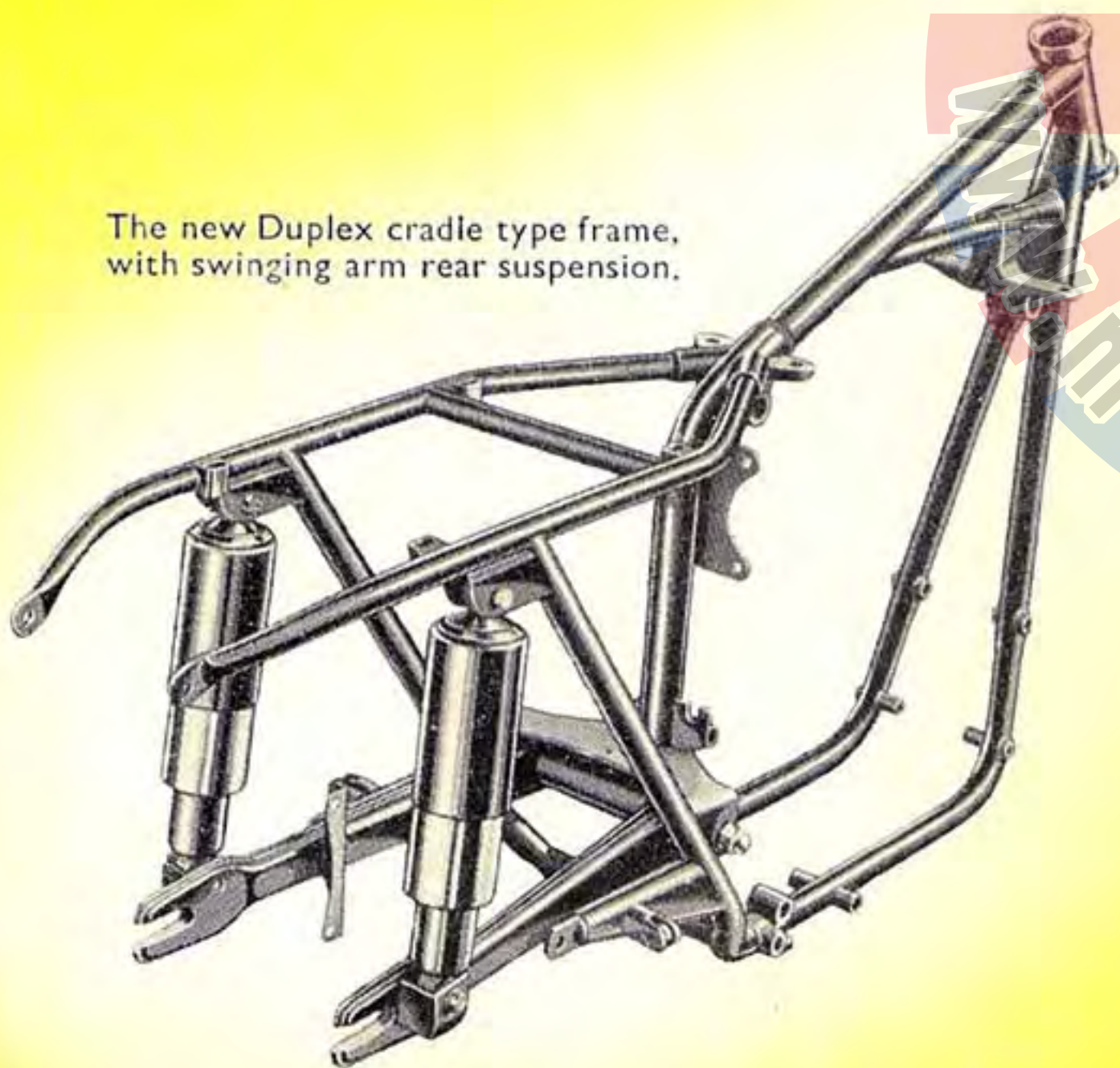
ARIEL

the modern motor cycle

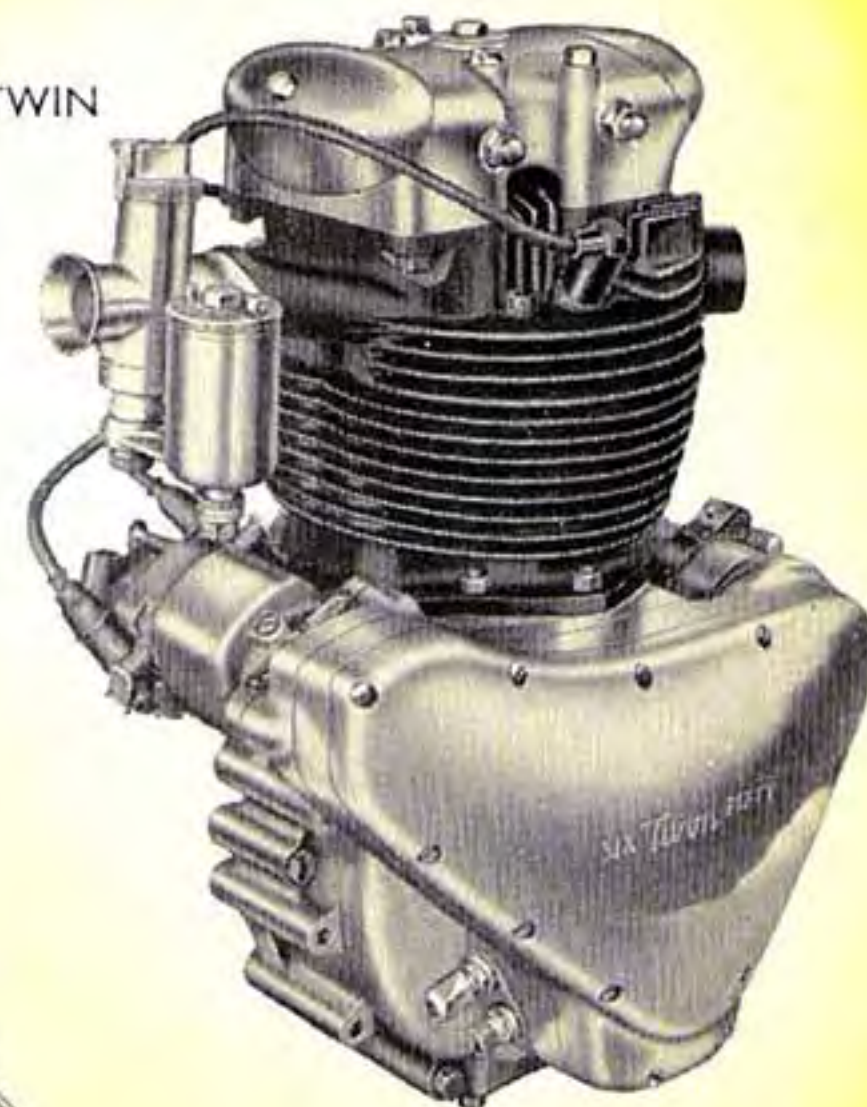
Foreword

Wherever Motor Cycles are ridden you will find an ARIEL—wherever Motor Cyclists foregather you will find ARIEL enthusiasts. In every corner of Great Britain, in the most distant outposts of the Empire, the remotest Foreign Lands, ARIEL Motor Cycles are rendering loyal service to their owners. The reason for our world-wide reputation is that well over 50 years ago we were producing the best Motor Cycles of the day. Since then, year by year, we have progressed, always maintaining our enviable reputation of "Leaders of Design", and a study of this catalogue will convince prospective buyers that for 1954 we are again offering a range of high-class machines unequalled in the Motor Cycle industry.

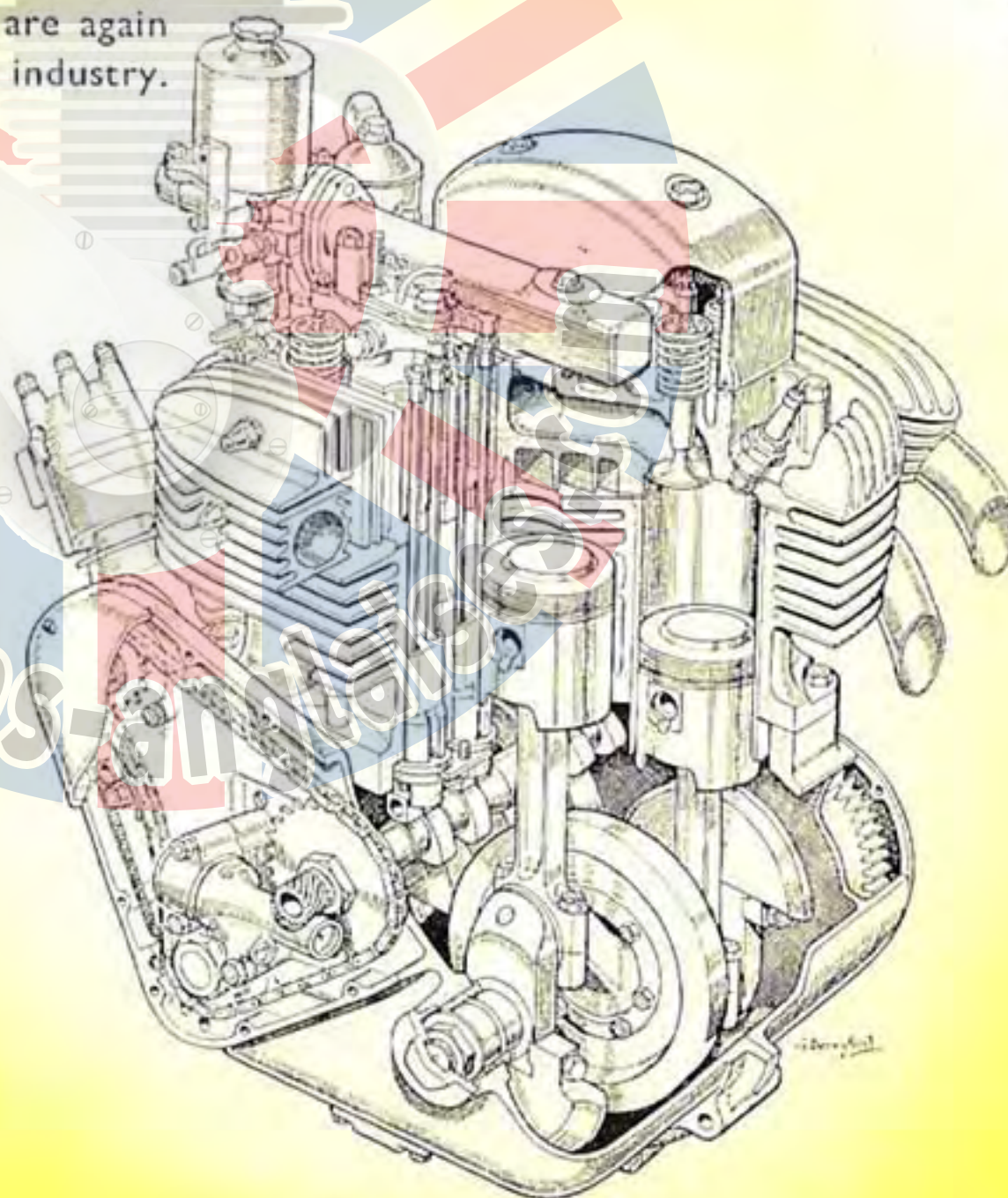
The new Duplex cradle type frame, with swinging arm rear suspension.



POWER UNIT OF THE
650 c.c. HUNTMASTER TWIN



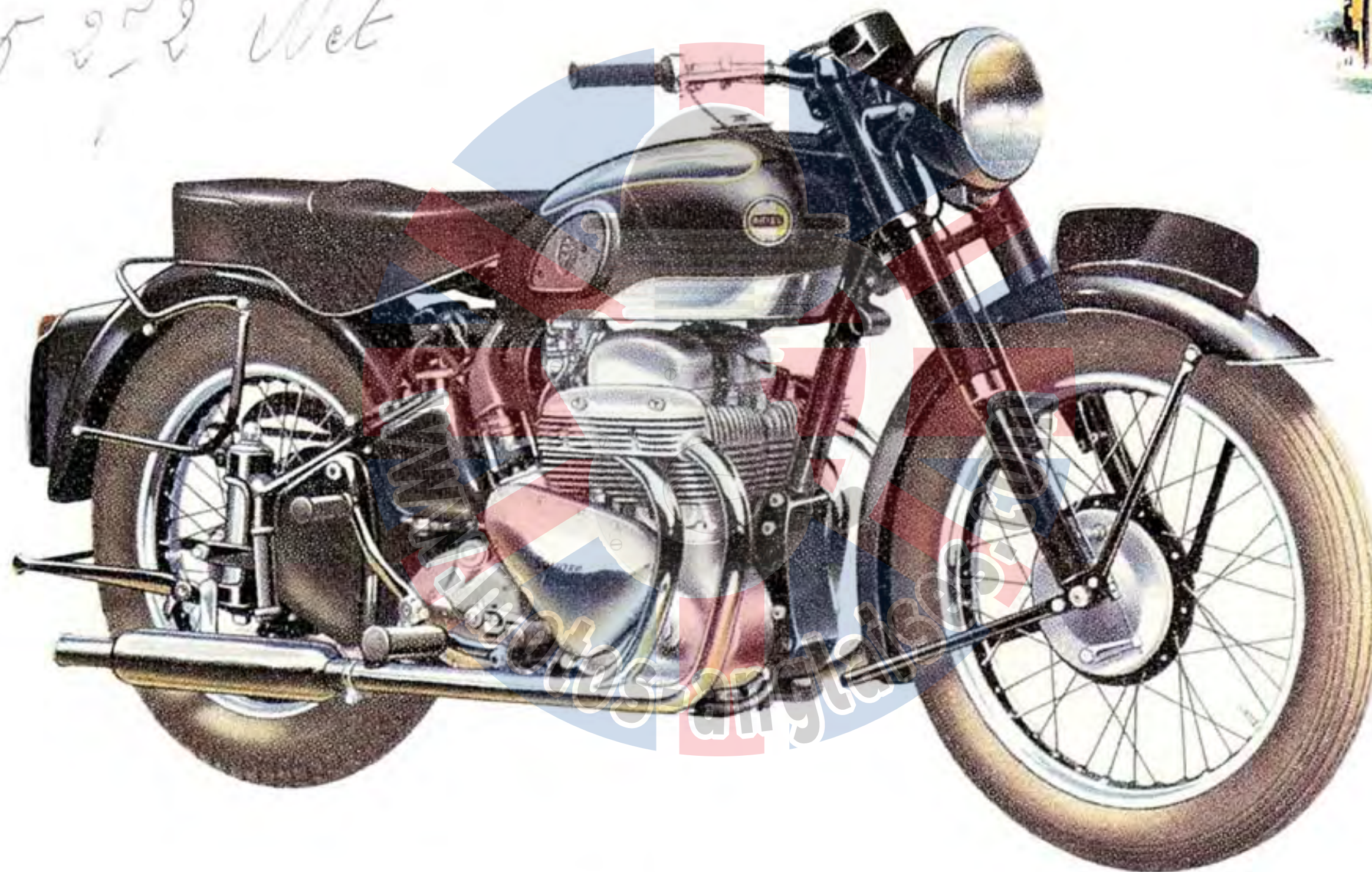
POWER UNIT OF THE
WORLD-FAMOUS SQUARE FOUR



MODEL 4G

1000 c.c. SQUARE FOUR

Des: H45 252 Net



ENGINE: Four cylinder O.H.V. 65 x 75 mm. = 997 c.c. (2.56 x 2.95 = 60.8 cubic inches). Aluminium alloy cylinder with wear resisting detachable sleeves. Aluminium alloy cylinder head with valve seat inserts. Twin counterbalanced alloy steel crankshafts coupled by hardened and ground gears. Light alloy connecting rods with white metal liners. S.U. variable choke carburettor with air cleaner. Double gear oil pump. Lucas coil ignition incorporating 70 watt voltage controlled dynamo with built-in distributor and

automatic ignition control. 6 volt 20 amp. hour battery.

FRAME: Full cradle type with lugs for sidecar attachment either side. Ariel patented plunger rear suspension. Forged steel girder spring-up rear and strong tubular front stands, also prop stand.

MUDGUARDS: Wide D section with tubular stays. Rear guard can be lifted for easy wheel removal.

BRAKES: Ariel design of great power, ensuring positive and progressive action. 8 inch diameter rear, 7 inch diameter front. Car type fulcrum adjustment.

LIGHTING EQUIPMENT: 7½ inch headlamp incorporating lighting switch and ammeter. 6 volt battery. Stop and tail lamp. Electric horn.

FINISH: Superbly finished throughout in best quality black enamel

MODEL FH

650 c.c. HUNTMASTER TWIN

for 351, 952 Net



ENGINE: Vertical O.H.V. 70×84 mm.=646 c.c. (2.76×3.30=39.3 cubic inches). Cast iron twin cylinders and heads. Forged steel crankshaft with counter-balanced weights, carried on a large roller bearing on drive side, white metal lined bearing on timing side. Light alloy connecting rods with lead-bronze liners. Camshaft gear driven from engine shaft operates O.H.V. rockers by means of tappets and push rods. Mechanical crankcase breather. Amal carburettor with air cleaner. Double gear oil pump. Lucas magneto with automatic ignition control.

FRAME: Duplex cradle type, fully triangulated, ensuring great strength and rigidity, with lugs for sidecar attachment either side. Swinging arm rear suspension with hydraulic damping. 3½ inch wheel movement. All pivot points rubber bushed. Easy-lift spring-up central and strong tubular front stands, also prop stand.

MUDGUARDS: Wide D section with tubular stays. Back end of rear guard detachable for easy wheel removal.

BRAKES: Ariel design of great power, ensuring positive and progressive action. 7 inch diameter front and rear. Car type fulcrum adjustment.

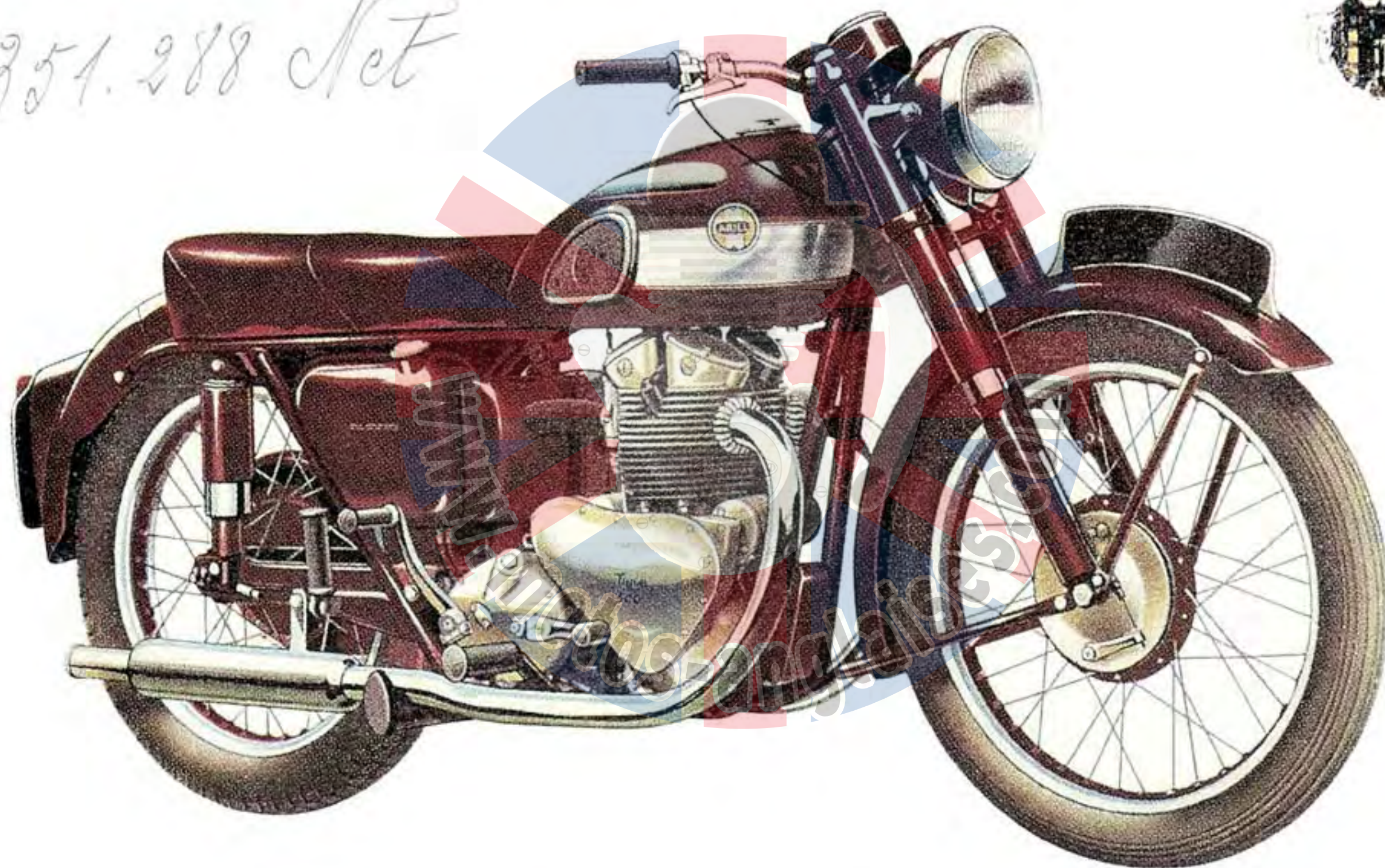
LIGHTING EQUIPMENT: 7½ inch headlamp incorporating lighting switch and ammeter. 56 watt voltage controlled dynamo. 6 volt battery. Stop and tail lamp. Electric horn.

FINISH: Superbly finished throughout in best quality Deep Claret enamel.

MODEL KH

500 c.c. HUNTER TWIN

Price 354.288 Net



ENGINE: Vertical O.H.V. 63×80 mm.—498 c.c. (2.48×3.15=30.4 cubic inches). Cast iron twin cylinder and polished aluminium alloy cylinder head, with valve seat inserts. Forged steel crankshaft with counterbalanced weights, carried on a large roller bearing on drive side, white metal lined bearing on timing side. Light alloy connecting rods with white metal liners. Twin camshafts driven by adjustable Duplex roller chain. Amal carburettor with air cleaner. Double gear oil pump. Lucas magneto with automatic ignition control.

FRAME: Duplex cradle type, fully triangulated, ensuring great strength and rigidity, with lugs for sidecar attachment either side. Swinging arm rear suspension with hydraulic damping. 3½ inch wheel movement. All pivot points rubber bushed. Easy-lift spring-up central and strong tubular front stands, also prop stand.

MUDGUARDS: Wide D section with tubular stays. Back end of rear guard detachable for easy wheel removal.

BRAKES: Ariel design of great power, ensuring positive and progressive action. 7 inch diameter front and rear. Car type fulcrum adjustment.

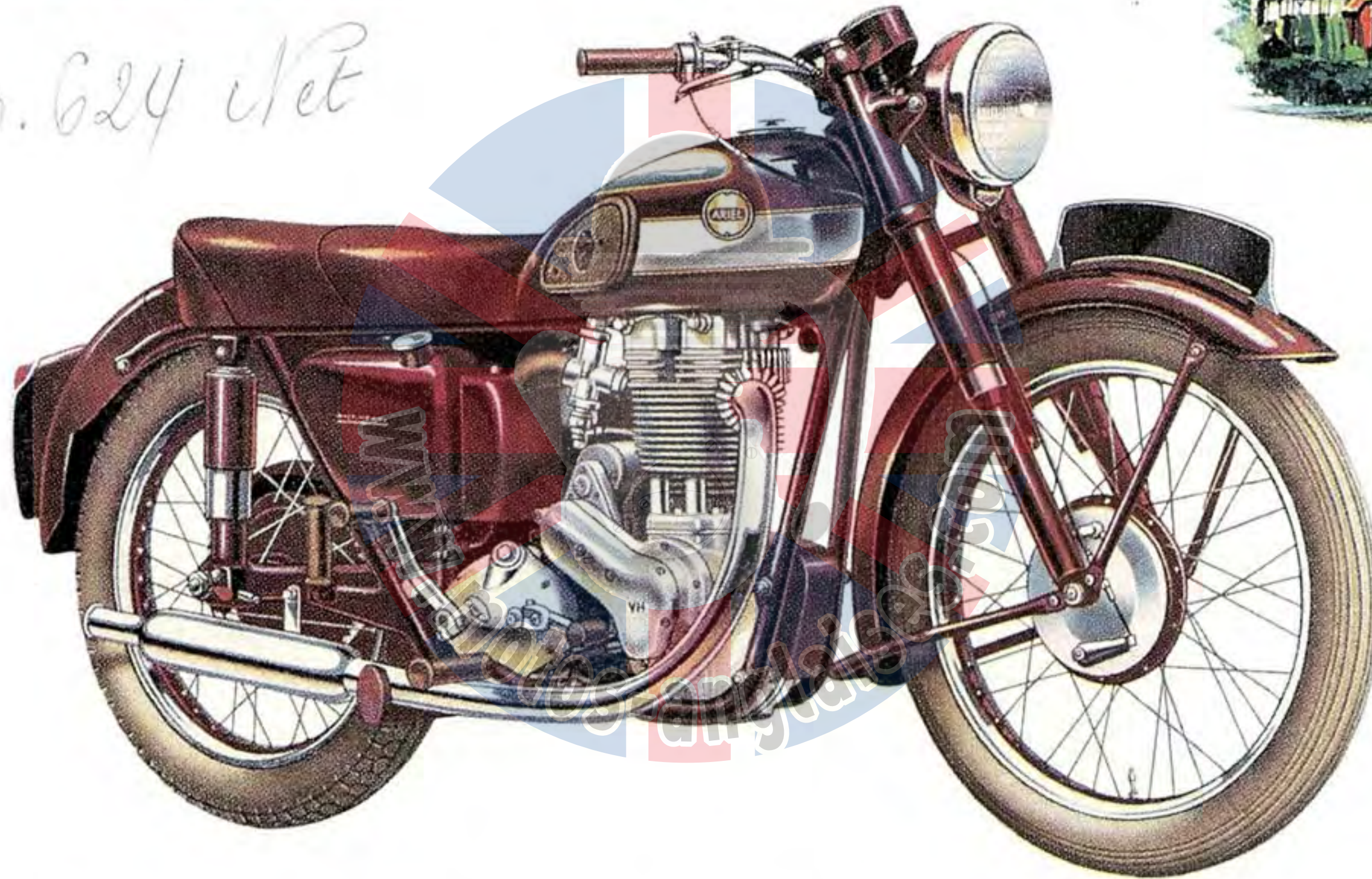
LIGHTING EQUIPMENT: 7½ inch headlamp incorporating lighting switch and ammeter. 56 watt voltage controlled dynamo. 6 volt battery. Stop and tail lamp. Electric horn.

FINISH: Superbly finished throughout in best quality Deep Claret enamel.

MODEL VH

500 c.c. HUNTER SINGLE

As: 330.624 net



ENGINE: Vertical O.H.V. 81.8×95 mm.—497 c.c. (3.22×3.74=30.4 cubic inches). Cast iron cylinder and polished aluminium alloy cylinder head with valve seat inserts. Large diameter mainshafts mounted on two heavy duty roller bearings and one ball bearing. Double row roller big end bearing. Amal carburettor with air cleaner. Dual plunger oil pump. Lucas manual ignition control.

FRAME: Duplex cradle type, fully triangulated, ensuring great strength and rigidity, with lugs for

sidecar attachment either side. Swinging arm rear suspension with hydraulic damping. 3½ inch wheel movement. All pivot points rubber bushed. Easy-lift spring-up central and strong tubular front stands, also prop stand.

MUDGUARDS: Wide D section with tubular stays. Back end of rear guard detachable for easy wheel removal.

BRAKES: Ariel design of great power, ensuring positive and progressive action. 7 inch diameter front and rear. Car type fulcrum adjustment.

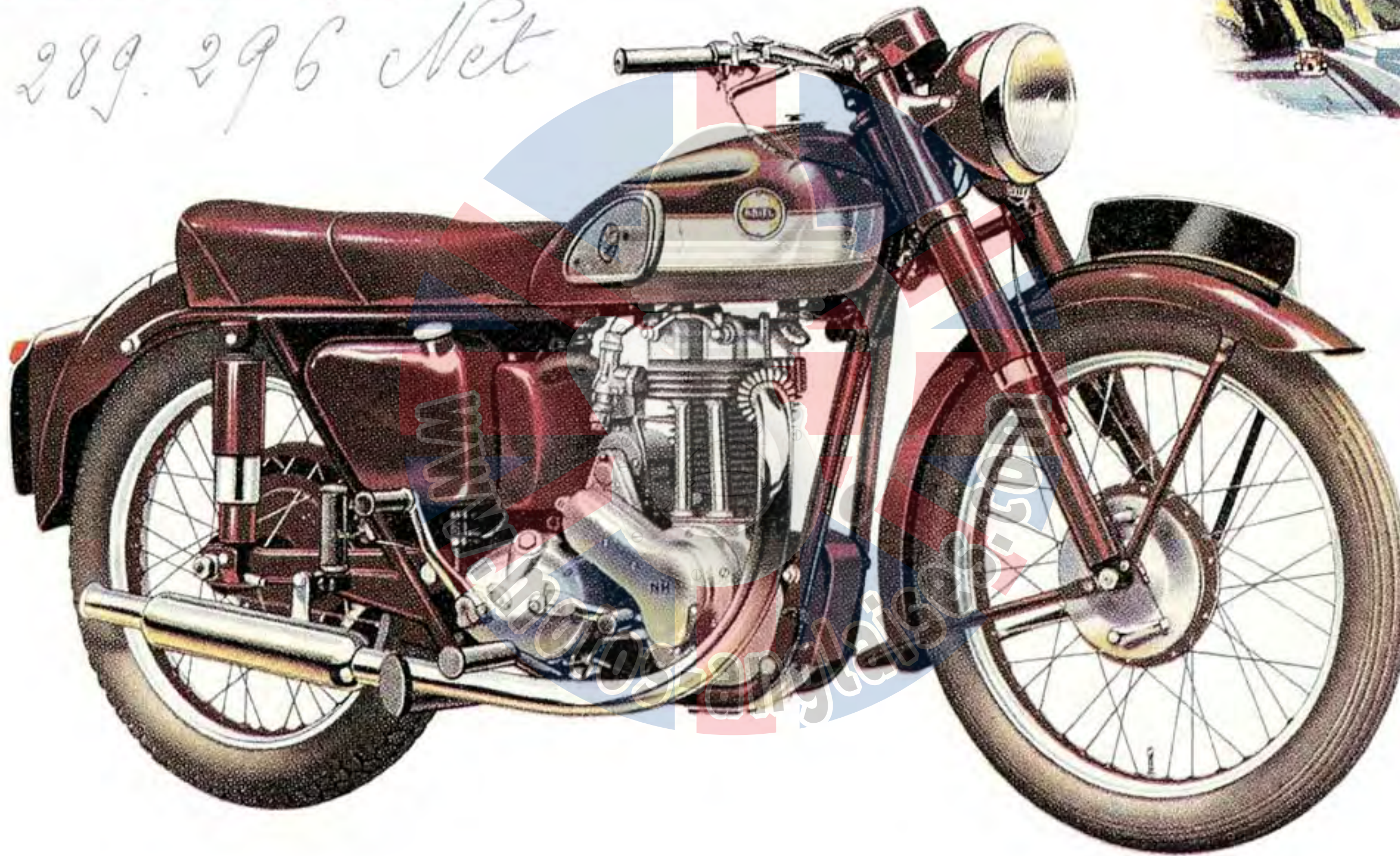
LIGHTING EQUIPMENT: 7½ inch headlamp incorporating lighting switch and ammeter. 56 watt voltage controlled magdyno. 6 volt battery. Stop and tail lamp. Electric horn.

FINISH: Superbly finished throughout in best quality Deep Claret enamel.

MODEL NH

350 c.c. HUNTER SINGLE

Price: 289. 296 Net



ENGINE: Vertical O.H.V. 72×85 mm.=347 c.c. (2.83×3.34=21.2 cubic inches). Cast iron cylinder and head. Heavy duty ball bearings on both sides of mainshaft. Double row roller big end bearing. Amal carburettor with air cleaner. Dual plunger oil pump. Lucas manual ignition control.

FRAME: Duplex cradle type, fully triangulated, ensuring great strength and rigidity, with lugs for

sidecar attachment either side. Swinging arm rear suspension with hydraulic damping. 3½ inch wheel movement. All pivot points rubber bushed.

MUDGUARDS: Wide D section with tubular stays. Back end of rear guard detachable for easy wheel removal.

BRAKES: Ariel design of great power, ensuring

positive and progressive action. 7 inch diameter front and rear. Car type fulcrum adjustment.

LIGHTING EQUIPMENT: 7½ inch headlamp incorporating lighting switch and ammeter. 56 watt voltage controlled magdyno. 6 volt battery. Stop and tail lamp. Electric horn.

FINISH: Superbly finished throughout in best quality Deep Claret enamel.

MODEL LH

200 c.c. COLT



ENGINE: Vertical O.H.V. 60×70 mm.=197 c.c. (2.36×2.75=12.18 cubic inches). Cast iron cylinder and aluminium alloy cylinder head with valve seat inserts. Heavy duty ball bearings on drive side, plain bearing on timing side of mainshaft. Double row roller big end bearing. Totally enclosed overhead valves, push rod operated. Double gear oil pump. Amal carburettor with air cleaner. 6 volt 48 watt A.C. generator mounted on drive side. Contact breaker with automatic ignition control mounted on timing side of crankcase. Rectifier, coil and emergency switch for direct starting.

FRAME: Robust tubular construction, fully triangulated, with all-welded joints. Plunger rear suspension. 2½ inch wheel movement. Easy-lift spring-up central stand.

FORKS: Telescopic with hydraulic control, automatically lubricated, giving 4 inch total movement.

MUDGUARDS: D section with deep valance on rear.

GEARBOX: Four-speed, foot control. Two-plate clutch with built-in shock absorber.

TRANSMISSION: ½ inch × .305 inch front. ½ inch × .205 inch rear roller chains. Primary chain enclosed in oil bath; rear chain fully protected and lubricated.

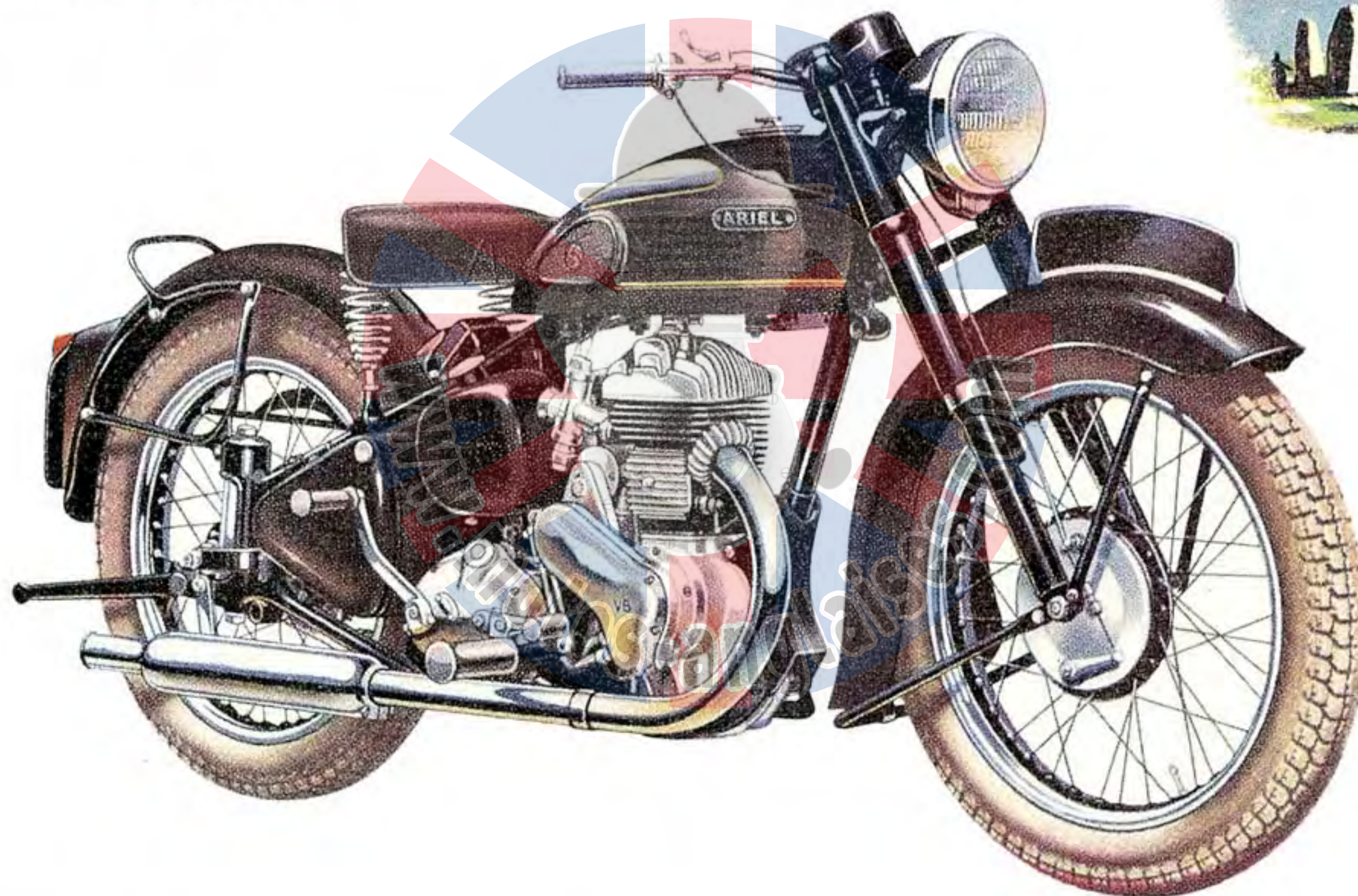
HANDLEBAR CONTROLS: Clutch and brake control levers; twist grip throttle control; horn push and dip switch.

LIGHTING EQUIPMENT: 6 inch headlamp with attractive cowling. 9 amp. battery. Stop and tail lamp. Electric horn.

FINISH: Superbly finished throughout in Deep Brunswick Green enamel.

MODEL VB

600 c.c. SIDE VALVE



ENGINE: Specially designed for solo or heavy duty sidecar work. 86.4x102 mm. - 598 c.c. (3.4x4.01 = 36.5 cubic inches). Cast iron cylinder barrel with polished aluminium alloy cylinder head. Heavy duty ball bearings on both sides of mainshaft. Totally enclosed valve gear. Double row roller connecting rod big end bearing. Amal carburettor. Dual plunger oil pump. Lucas manual ignition control.

FRAME: Full cradle type, rigid, with lugs for sidecar attachment either side. (Ariel patented plunger rear suspension at extra.) Forged steel girder spring-up rear and strong tubular front stands.

MUDGUARDS: Wide D section with tubular stays. Rear guard can be lifted for easy wheel removal.

BRAKES: Ariel design of great power, ensuring positive and progressive action. 7 inch diameter front and rear. Car type fulcrum adjustment.

LIGHTING EQUIPMENT: 7½ inch headlamp incorporating lighting switch and ammeter. 56 watt voltage controlled magdyno. 6 volt battery. Stop and tail lamp. Electric horn.

FINISH: Superbly finished throughout in best quality black enamel.

TECHNICAL INFORMATION

MODEL	4G	FH	KH	VH	NH	LH	VB
TYPE	O.H.V.	O.H.V.	O.H.V.	O.H.V.	O.H.V.	O.H.V.	S.V.
Number of Cylinders	4	2	2	1	1	1	1
Bore and Stroke	65×75	70×84	63×80	81.8×95	72×85	60×70	86.4×102
Cylinder Capacity	997	646	498	497	347	197	598
Compression Ratio	7.2	6.5	6.8	6.8	6.2	7.5	5
Engine B.H.P.	42	35	28	26	18	10	18
Engine R.P.M.	5,800	5,600	6,200	6,000	5,600	5,600	4,400
Engine Sprocket: No. of Teeth—Solo	26	24	21	23	19	17	23
Sidecar	23	22	19	19	—	—	19
Solo Gear Ratio—Top	4.18	4.35	5.18	4.74	5.72	7.0	4.74
Third	5.46	5.70	6.77	6.20	7.50	8.5	6.20
Second	7.1	7.40	8.81	8.05	9.72	11.6	8.05
First	11.07	11.55	13.72	12.55	15.15	17.5	12.55
Sidecar Gear Ratio—Top	4.74	4.73	5.72	5.72	—	—	5.72
Third	6.20	6.19	7.50	7.50	—	—	7.50
Second	8.05	8.04	9.72	9.72	—	—	9.72
First	12.55	12.35	15.15	15.15	—	—	15.15
Tyre Size: Dunlop—Front	3.25×19	3.00×20	3.00×20	3.00×20	3.00×20	2.75×19	3.25×19
Rear	4.00×18	3.50×19	3.50×19	3.25×19	3.25×19	2.75×19	3.25×19
Wheelbase (inches)	56	56	56	56	56	51½	56
Overall Length (inches)	86	86	86	86	86	80	86
Handlebar Width (inches)	27	27	27	27	27	27	27
Dual Seat Height (inches)	31	31	31	31	31	29½	*30
Ground Clearance (inches)	5½	5½	5½	5½	5½	5½	5½
Weight: fully equipped (lbs.)	435	410	390	375	365	270	362
Petrol Tank Capacity (gallons)	5	4	4	4	4	2½	4
Oil Tank Capacity (pints)	6	6	6	6	6	4	6
Petrol Consumption (M.P.G.)	65–70	65–70	75–80	75–80	80–85	120–130	65–70
Approximate Maximum Speed (M.P.H.)	95–100	90–95	85–90	80–85	70–75	60	65

*Saddle

NOTE. Speed and petrol consumption figures do not apply to new machines that have covered less than 2,000 miles.
Petrol consumption figures are based on a maintained speed of 45 m.p.h.

GENERAL SPECIFICATION

FORKS

Ariel design. Telescopic with hydraulic control. Large bearing surfaces automatically lubricated. $6\frac{1}{4}$ inches total travel. Steering damper incorporated. (Applicable to all models except 200 c.c. Colt.)

GEARBOX

Four-speed foot control. Three-plate dry clutch. (Applicable to all models except 200 c.c. Colt.)

TRANSMISSION

Engine shaft shock absorber. Polished aluminium oil bath primary chain case with separate oil-free compartment for clutch. Rear chain fully protected and lubricated. (Applicable to all models except 200 c.c. Colt.)

SEATING

Ariel design dual seat and pillion footrests on all models except VB.

HANDLEBAR CONTROLS

Adjustable. Twist grip for throttle. Clutch control lever. Front brake control lever. Headlamp dipper switch and horn push button on all models. Additional controls on Single Cylinder models for ignition, exhaust lifter and air lever. (Not applicable to 200 c.c. Colt.)

PETROL TANK

Rubber insulated, incorporating quick-release cam-operated filler cap. Attractive chromium plated flutes. Rubber knee pads.

SPEEDOMETER

120 m.p.h. (180 k.p.h.). Model LH 200 c.c. Colt 70 m.p.h. (120 k.p.h.).

EQUIPMENT

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



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.

**ARIEL MOTORS LIMITED
BIRMINGHAM 29, ENGLAND**

