

ARIEL

The Modern Motorcycle

1958



GUARANTEE



We give the following guarantee with our motor cycles, motor cycle combinations and sidecars including all accessories and component parts other than tyres, saddles, chains and lighting and electrical equipment, and other than accessories and component parts supplied to the order of the Purchaser and differing from those comprised in the standard specifications supplied with our motor cycles, motor cycle combinations and sidecars, but including accessories and parts supplied by way of exchange as hereinafter provided. This guarantee is given in place of any implied conditions or warranties or any liabilities whatsoever statutory or otherwise; no guarantee except that hereinafter contained and no condition or warranty whatsoever statutory or otherwise is given or is to be implied nor are we to be under any liability whatsoever except under the guarantee hereinafter contained. Any statement, description, condition or representation contained in any catalogue, advertisement, leaflet or other publication shall not be construed as enlarging, varying or overriding anything herein contained. In the case of machines (a) which have been used for "hiring out" purposes or (b) any motor cycle and/or sidecar used for any dirt track, cinder track or grass track racing or competitions (or any competition of any kind within an enclosure for which a charge is made for admission to take part in or view the competition) or (c) machines from which the trade mark, name or manufacturing number has been altered or removed or (d) any machine in which parts have been used not supplied by or approved by the motor cycle manufacturer, or (e) any machine from which the silencing system as fitted by the manufacturer has been partially or wholly removed or interfered with, no guarantee, condition or warranty of any kind statutory or otherwise is given or is to be implied nor are we to be under any liability whatsoever in respect of any such machine.

We guarantee, subject to the conditions mentioned below, 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, or date of exchange in case of any accessory or part supplied by way of exchange as hereinafter provided, and damages for which we make ourselves responsible under this guarantee are limited to the free repair of or supply of a new part or accessory in exchange for the part of the motor cycle, motor cycle combination or sidecar or accessory which may have proved defective. We undertake, subject to the conditions mentioned below, to make good in manner aforesaid any part or accessory covered by this guarantee which has proved defective within the said period of six months. We do not undertake to replace or refix, or bear the cost of replacing or refixing any such new part or accessory in the motor cycle, motor cycle combination or sidecar. As motor cycles, motor cycle combinations and sidecars are easily liable to derangement by neglect or misuse, this guarantee does not apply to the defects caused by wear and tear, misuse or neglect.

The term "misuse" shall include amongst others the following acts:

1. The attaching of a sidecar to a motor cycle in such a manner as to cause damage or calculated to render the latter unsafe when ridden.
2. The use of the motor cycle or of a motor cycle and sidecar combined when carrying more persons or a greater weight than that for which the machine was designed by the manufacturers.
3. The attaching of a sidecar to a motor cycle by any form of attachment not provided, supplied or approved by the manufacturers, or to a motor cycle which is not designed for such use.

We do not guarantee tyres, saddles, chains or lighting and electrical equipment, or any accessories or component parts supplied to the order of the Purchaser differing from those comprised in the standard specifications supplied with our motor cycles, motor cycle combinations or sidecars. As regards all such tyres, saddles, chains, lighting and electrical equipment, accessories and component parts, no guarantee, condition or warranty of any kind statutory or otherwise is given or is to be implied, and we are to be under no liability whatsoever in respect thereof.

CONDITIONS OF GUARANTEE. If a defective part or accessory should be found in our motor cycles, motor cycle combinations or sidecars, or in any part or accessory supplied by way of exchange as before provided, 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, the date of the purchase or the date when the alleged defective part or accessory was exchanged as the case may be.

Failing compliance with the above, such articles will lie here at the risk of the owner, and this guarantee and any implied guarantee, warranty or condition shall not be enforceable.

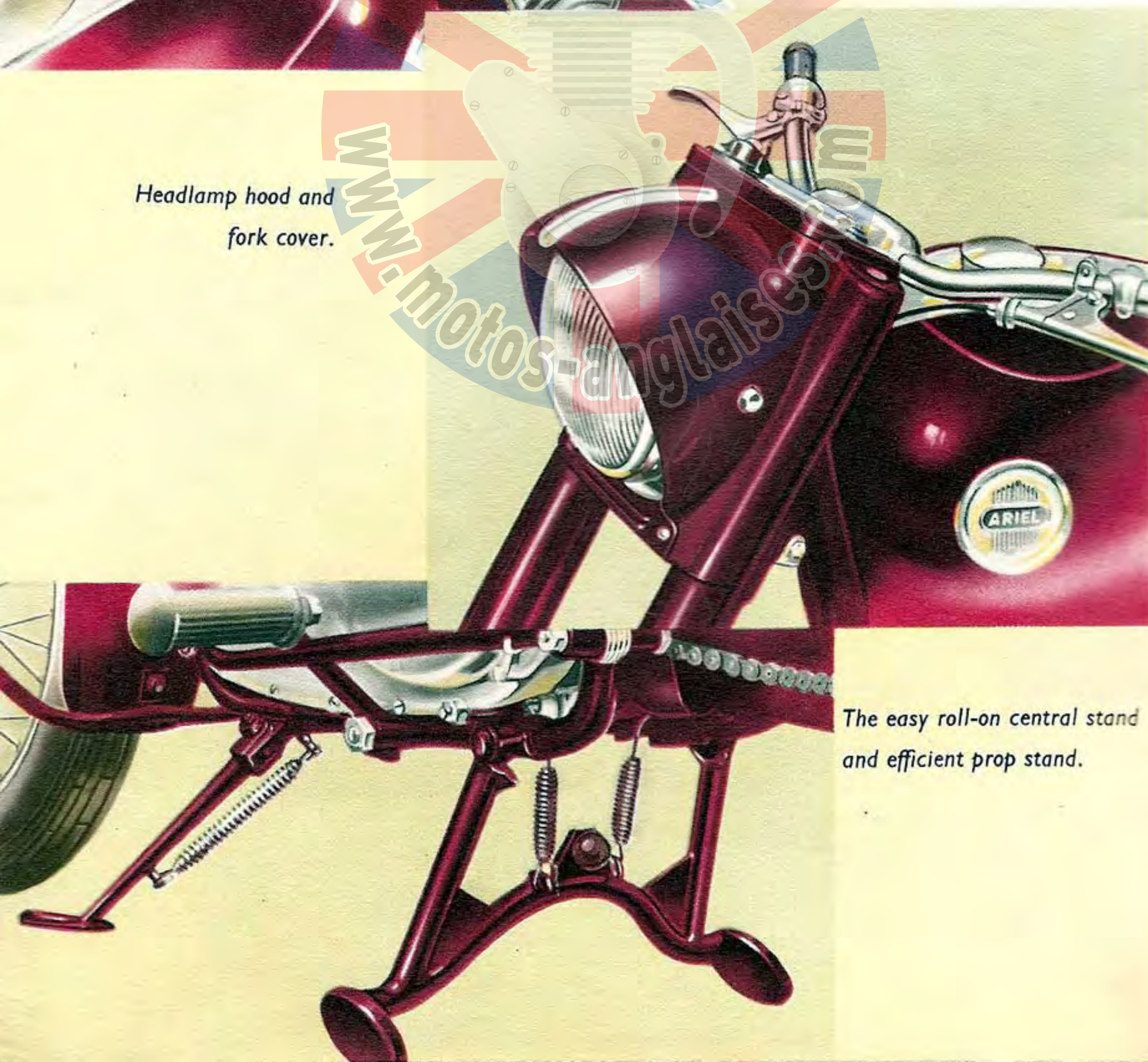
REPAIRS. Any motor cycle, motor cycle combination or sidecar sent to us to be plated, enamelled or repaired will be repaired upon the following conditions, i.e., we guarantee that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship, such guarantee to extend and be in force for three months only from the time such work shall have been executed, and this guarantee is in lieu and in exclusion of all conditions and warranties statutory or otherwise and all liabilities whatsoever and the damages recoverable are limited to the cost of any further work which may be necessary to amend and make good the work found to be defective.

NOTICE. We do not appoint agents for the sale on our behalf of our motor cycles or other goods, but we assign to motor cycle Dealers areas in which we supply to such Dealers exclusively for re-sale in such areas. No such Dealer is authorised to transact any business, give any warranty, make any such representation or incur any liability on our behalf.





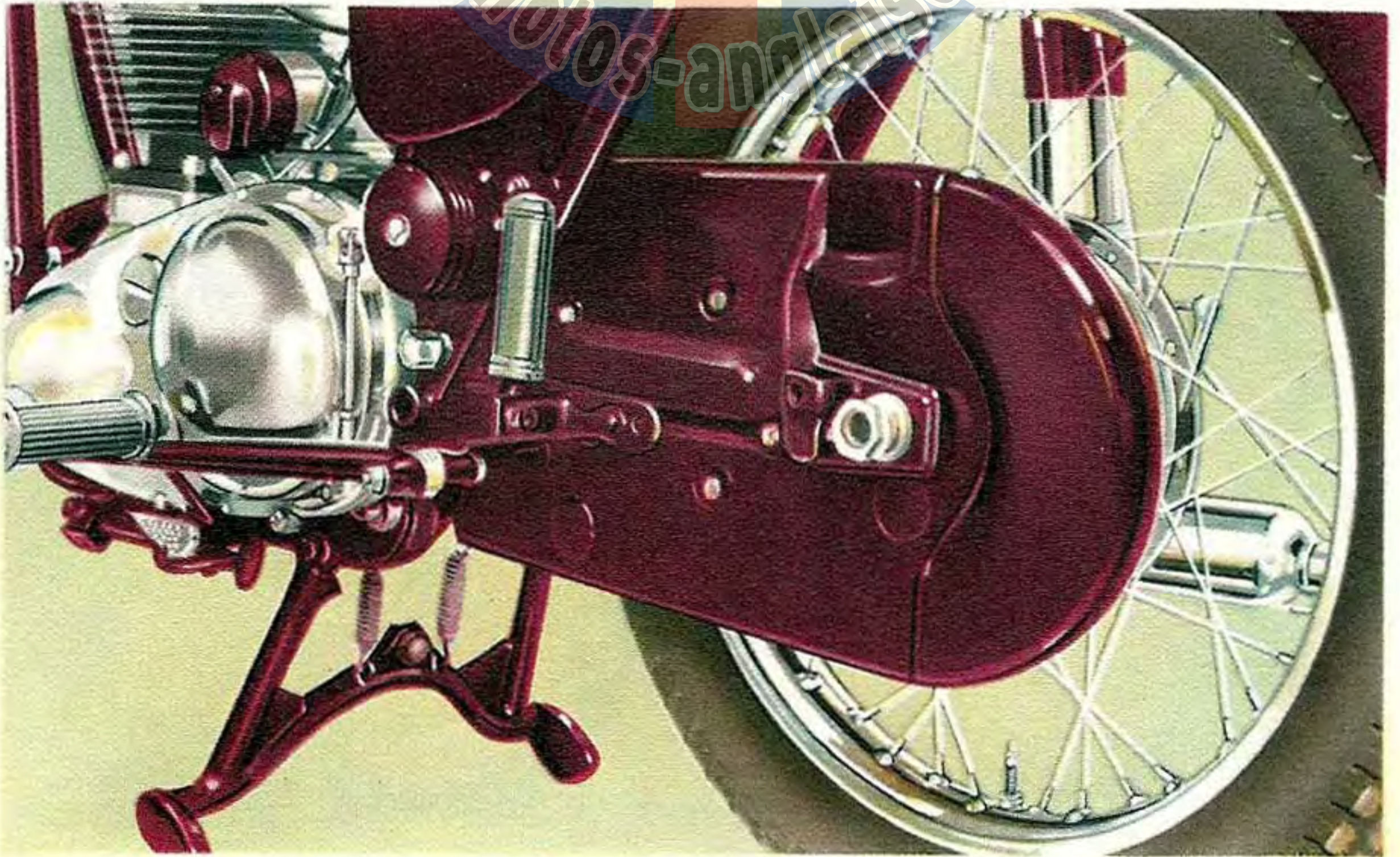
Built-in instrument panel containing lighting switch, illuminated speedometer and ammeter.



Headlamp hood and fork cover.

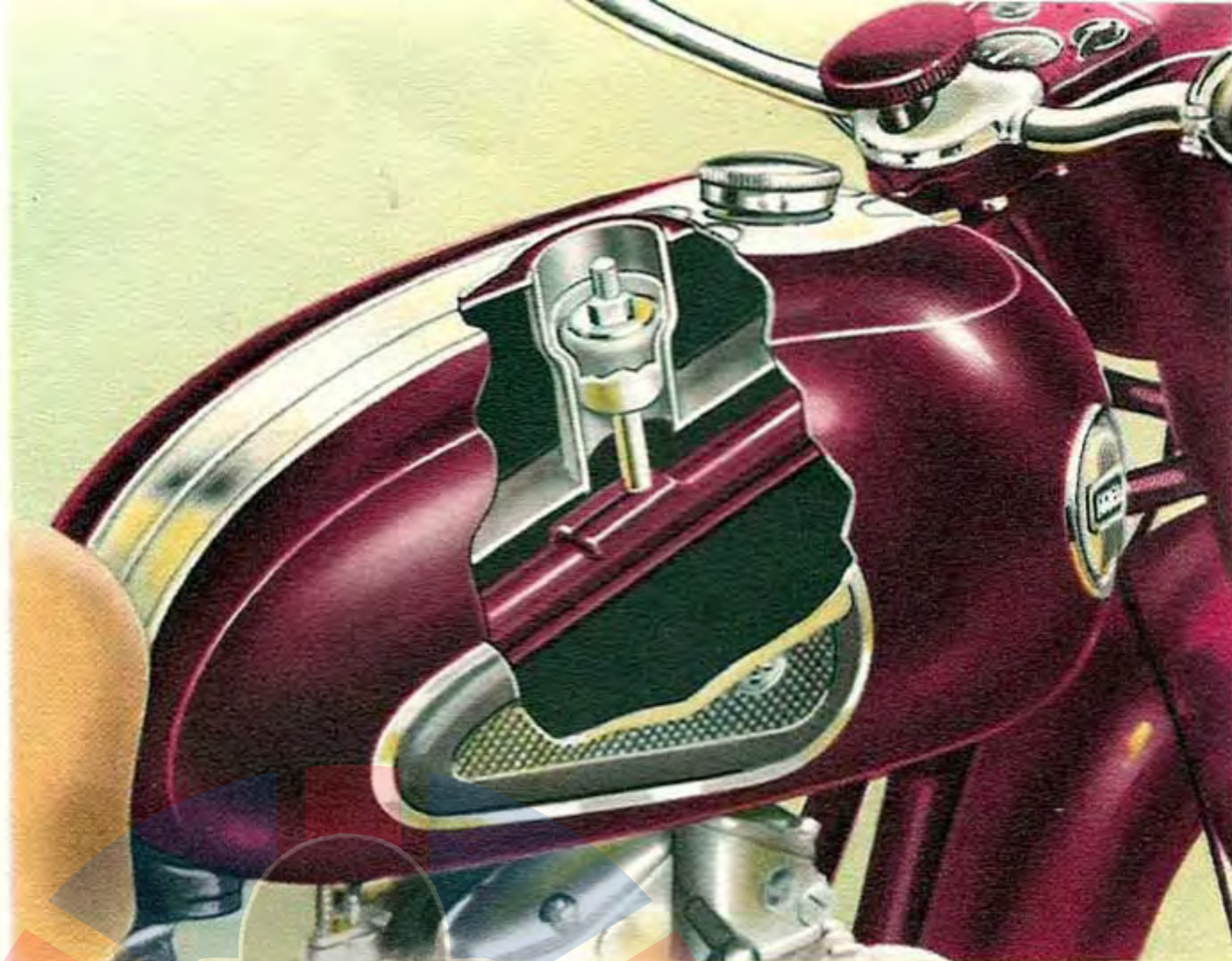
The easy roll-on central stand and efficient prop stand.

Outstanding Features of
ARIEL
the Modern Motorcycle



All enclosed rear chain case available for all swinging arm models at extra charge.

Single bolt fixing petrol tank
for all swinging arm models.



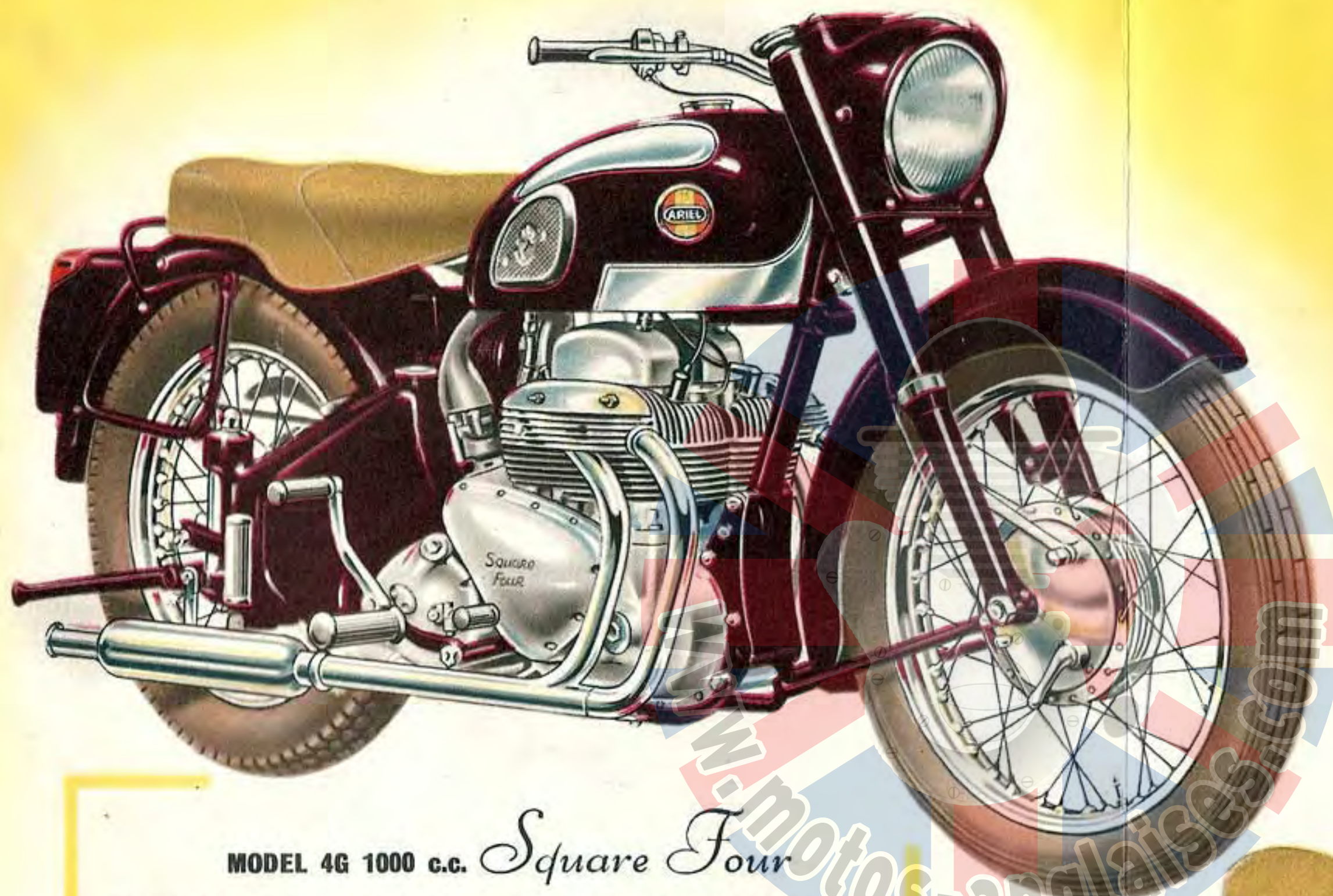
Quickly detachable rear wheel for all
swinging arm models.



ARIEL



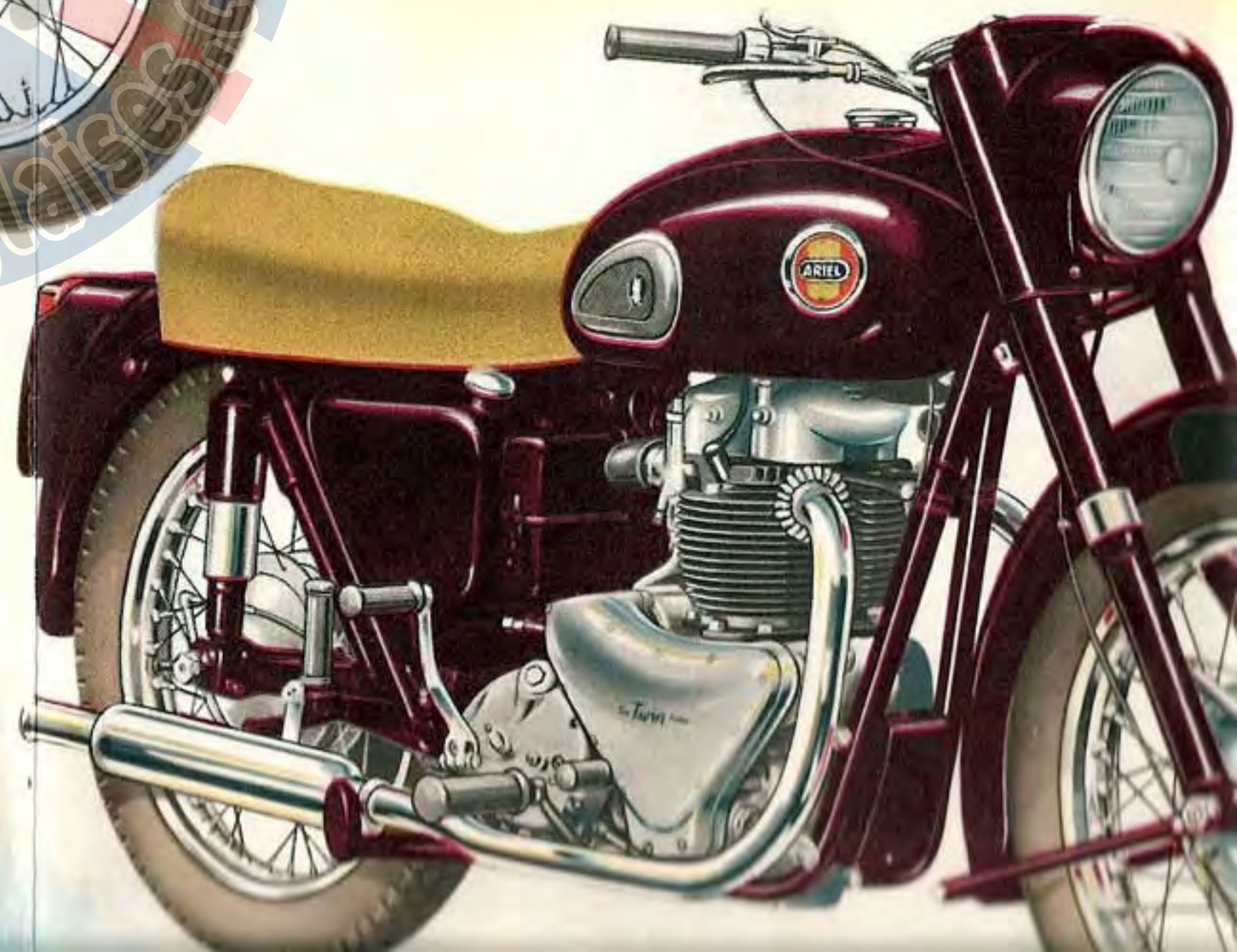
the
modern
motorcycle



AR

MODEL 4G 1000 c.c. *Square Four*

Engine: Four cylinder O.H.V. 65×75 mm. = 997 c.c. ($2.56 \times 2.95 = 60.8$ cubic inches). Aluminium alloy cylinders with wear resisting sleeves. Aluminium alloy cylinder heads with valve seat inserts. Vachrome top piston rings. Twin crankshafts mounted on heavy duty roller and white metal lined bearings, coupled by hardened and ground gears. Light alloy connecting rods with white metal liners. Lubrication: double gear pump. S.U. variable choke carburetter with air cleaner. Lucas coil ignition, incorporating 70 watt voltage controlled dynamo. Distributor and automatic advance. 20 amp. battery. **Frame:** Full cradle type. Lugs for sidecar attachment either side. Ariel patented plunger rear suspension. Thief-proof steering lock. Stands: forged steel girder spring-up rear and strong tubular front, also foot-operated prop stand. **Front Forks:** Telescopic with hydraulic damping. Attractive headlamp hood and fork cover with built-in illuminated instrument panel, containing speedometer, ammeter and lighting switch. **Hubs:** Full width polished light alloy front with central brake and powerful 8 in. diameter rear brake, with non-fade linings. Car type fulcrum adjustment. Heavy duty ball bearings throughout. Quickly detachable rear wheel. **Transmission:** Four-speed gearbox, foot control. Three-plate dry clutch. Engine shaft shock absorber. Polished aluminium oil bath primary chain case. Rear chain fully protected and lubricated. **Handlebars and Controls:** Adjustable, chromium plated, $\frac{7}{8}$ in. diameter. **Petrol Tank:** Rubber mounted, enamelled and lined, with chromium plated motifs. Quick action filler cap. **Mudguards:** Rear: wide D section: back end detachable for easy wheel removal. Front: deep valanced. **Equipment:** Basic price includes air cleaner; prop stand; thief-proof steering lock; quickly detachable rear wheel; Ariel design dualseat and pillion footrests; trip speedometer, 120 m.p.h. (180 km.p.h.); $7\frac{1}{2}$ in. headlamp; stop and tail lamp incorporating reflector; electric horn; tool box and tools; tyre inflator. **Finish:** Superbly finished in best quality Deep Claret or Black Enamel.





MODEL FH 650 c.c.

Flux
Engine: Vertical O.H.V. 70x84 mm. (2.75x3.30=39.3 cubic inches). Cast iron cylinder. Vachrome top piston rings. Forged connecting rod mounted on heavy duty roller and ball bearing. Light alloy connecting rod liners. Gear driven camshaft. Push rod operated overhead valves. Mechanical crankcase double gear pump. Magneto with Amal 'Monobloc' carburettor with

See also General Specifications

MODEL VH 500

Engine: Vertical O.H.V. 60x70 mm. (2.36x2.75=12.18 cubic inches). Polished aluminium alloy cylinder head with valve seat inserts. Cast iron cylinder. Crankshaft mounted on heavy duty ball bearing and plain bronze bearing. Roller big end bearing. Gear driven camshaft. Push rod operated overhead valves. Lubrication: double gear pump. 48 watt A.C. generator mounted on drive side. Contact breaker on timing side with automatic ignition control. Amal 'Monobloc' carburettor with air cleaner.

MODEL NH 350

Engine: Vertical O.H.V. 60x70 mm. (2.36x2.75=12.18 cubic inches). Polished aluminium alloy cylinder head with valve seat inserts. Cast iron cylinder. Crankshaft mounted on heavy duty ball bearing and plain bronze bearing. Roller big end bearing. Gear driven camshaft. Push rod operated overhead valves. Lubrication: double gear pump. 48 watt A.C. generator mounted on drive side. Contact breaker on timing side with automatic ignition control. Amal 'Monobloc' carburettor with air cleaner.

MODEL LH 200 c.c.

Colt

Engine: Vertical O.H.V. 60x70 mm. (2.36x2.75=12.18 cubic inches). Polished aluminium alloy cylinder head with valve seat inserts. Cast iron cylinder. Crankshaft mounted on heavy duty ball bearing and plain bronze bearing. Roller big end bearing. Gear driven camshaft. Push rod operated overhead valves. Lubrication: double gear pump. 48 watt A.C. generator mounted on drive side. Contact breaker on timing side with automatic ignition control. Amal 'Monobloc' carburettor with air cleaner. **Frame:** Robust tubular construction, fully triangulated, with all-welded joints. Plunger rear suspension. Easy-lift spring-up central stand. **Front Forks:** Telescopic with hydraulic control. **Brakes:** Powerful with non-fade linings. **Transmission:** Four-speed gearbox, foot control. Two-

plate clutch with built-in shock absorber. Primary drive chain. Rear chain protected. Handlebars and grips chromium plated, 7/8 in. diameter. Petrol Tank: 12 litres. Quick release filler cap. Mudguards: Dual design. Rear stay quickly detachable for easy wheel removal. Price includes air cleaner; Ariel design dual seat speedometer, 70 m.p.h. (120 km.p.h.); rectifier, coil for direct starting; 6 in. headlamp; ammeter; 9 amp lamp incorporating reflector; electric horn; tool kit; inflator. Finish: Superbly finished in best quality Enamel.

MODEL FH 650 c.c. *Huntmaster* TWIN

Engine: Vertical O.H.V. 70×84 mm. = 646 c.c. ($2.76 \times 3.30 = 39.3$ cubic inches). Cast iron cylinders and heads. Vachrome top piston rings. Forged steel crankshaft mounted on heavy duty roller and white metal lined bearing. Light alloy connecting rods with lead-bronze liners. Gear driven camshaft. Push rod operated overhead valves. Mechanical crankcase breather. Lubrication: double gear pump. Magneto with automatic advance. Amal 'Monobloc' carburetter with air cleaner.

See also General Specification

MODEL VH 500 c.c. *Red Hunter* SINGLE

Engine: Vertical O.H.V. 81.8×95 mm. = 497 c.c. ($3.22 \times 3.74 = 30$ cubic inches). Aluminium alloy cylinder head with valve seat inserts. Cast iron cylinder. Vachrome top piston ring. Crankshaft mounted on two heavy duty roller bearings and one ball bearing. Double row roller big end. Gear driven camshaft. Push rod operated overhead valves. Lubrication: double plunger pump. Chain driven magdyno. Manual ignition control. Amal 'Monobloc' carburetter with air cleaner.

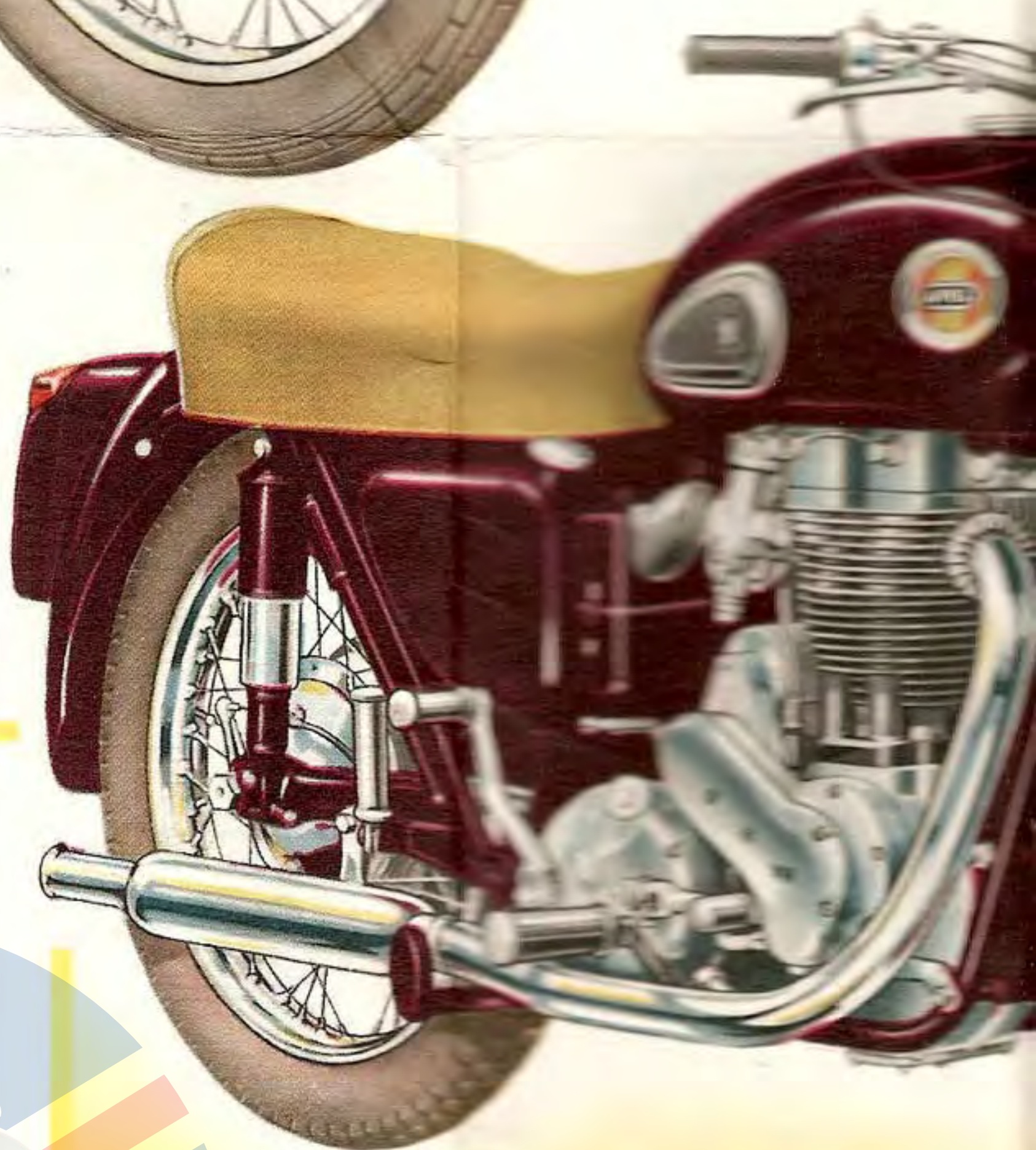
See also General Specification

MODEL NH 350 c.c. *Red Hunter* SINGLE

Engine: Vertical O.H.V. 72×85 mm. = 347 c.c. ($2.83 \times 3.34 = 21.2$ cubic inches). Aluminium alloy cylinder head with valve seat inserts. Cast iron cylinder. Vachrome top piston ring. Crankshaft mounted on three heavy duty ball bearings. Double row roller big end. Gear driven camshaft. Push rod operated overhead valves. Lubrication: double plunger pump. Chain driven magdyno. Manual ignition control. Amal 'Monobloc' carburetter with air cleaner.

See also General Specification

with built-in shock absorber. Primary chain enclosed in oil chain protected. **Handlebars and Controls:** Adjustable, $\frac{7}{8}$ in. diameter. **Petrol Tank:** Attractive polished top release filler cap. **Mudguards:** Deep half-round section. Easily detachable for easy wheel removal. **Equipment:** Basic air cleaner; Ariel design dual seat and pillion footrests; 70 m.p.h. (120 km.p.h.); rectifier, coil and emergency switching; 6 in. headlamp; ammeter; 9 amp. battery; stop and tail lighting reflector; electric horn; tool box and tools; tyre pump. Superbly finished in best quality Deep Claret or Black

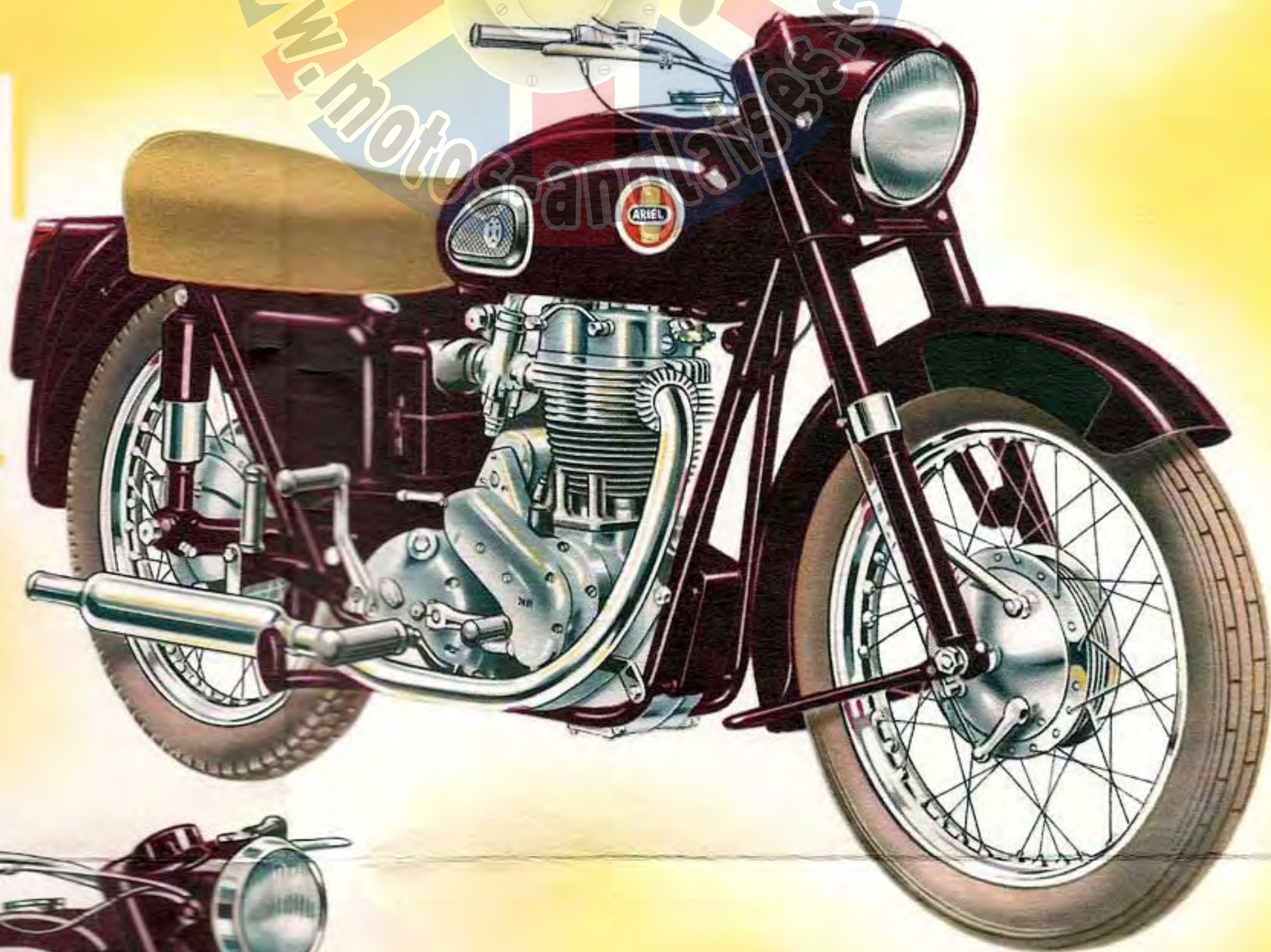
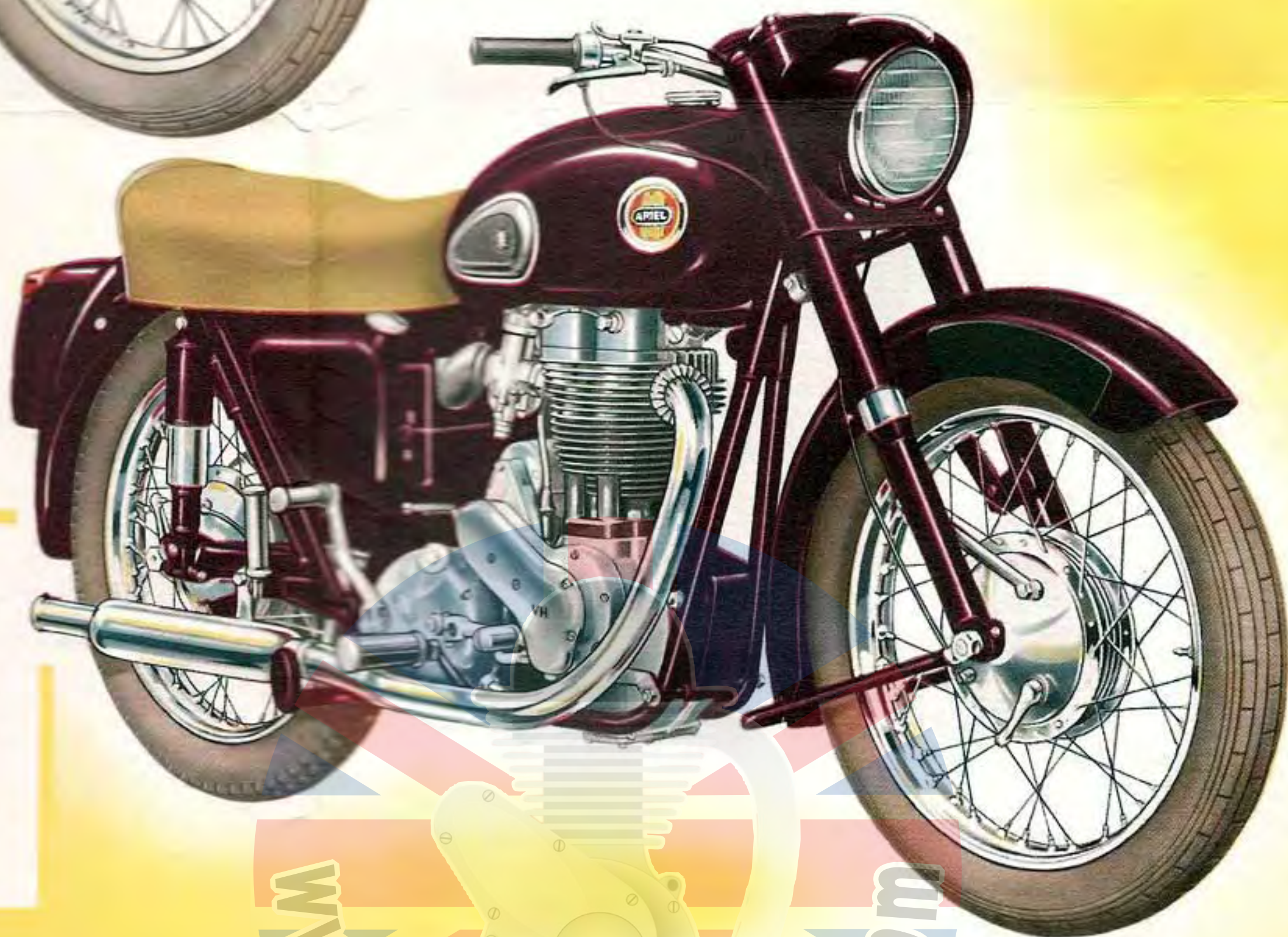


er SINGLE

cc. (3.22 x
cylinder head
Vachrome
heavy duty
row roller
erated over-
ump. Chain
Amal "Mono-

er SINGLE

cc. (2.83 x
cylinder head
Vachrome
three heavy
end. Gear
head valves.
in magdyno.
carburetter



MODEL LH 200 c.c. *Colt*

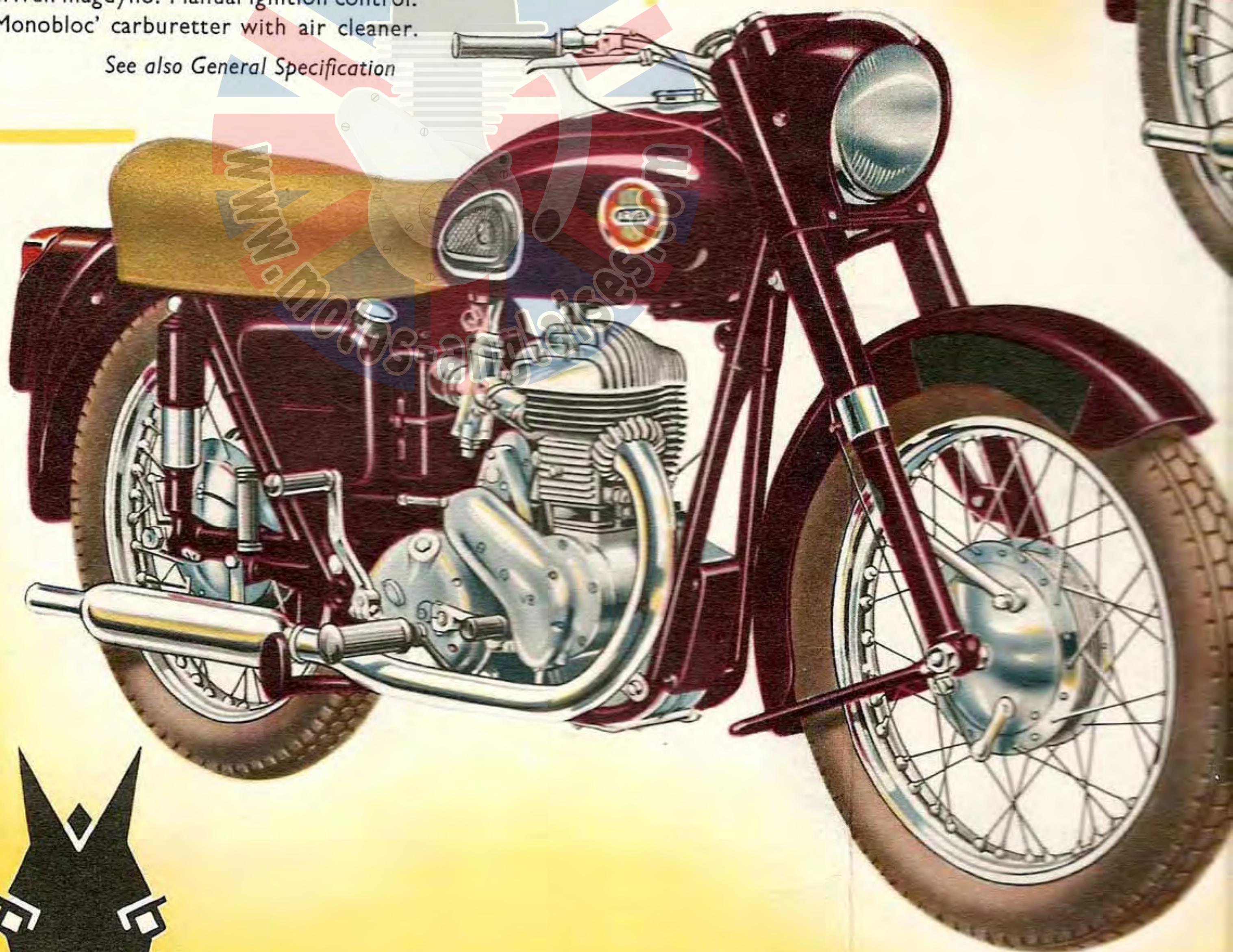
Engine: Vertical O.H.V. 60×70 mm.=197 c.c. (2.36×2.75=12.18 cubic inches). Polished aluminium alloy cylinder head with valve seat inserts. Cast iron cylinder. Crankshaft mounted on heavy duty ball bearing and plain bronze bearing. Roller big end bearing. Gear driven camshaft. Push rod operated overhead valves. Lubrication: double gear pump. 48 watt A.C. generator mounted on drive side. Contact breaker on timing side with automatic ignition control. Amal 'Monobloc' carburetter with air cleaner. **Frame:** Robust tubular construction, fully triangulated, with all-welded joints. Plunger rear suspension. Easy-lift spring-up central stand. **Front Forks:** Telescopic with hydraulic control. **Brakes:** Powerful with non-fade linings. **Transmission:** Four-speed gearbox, foot control. Two-

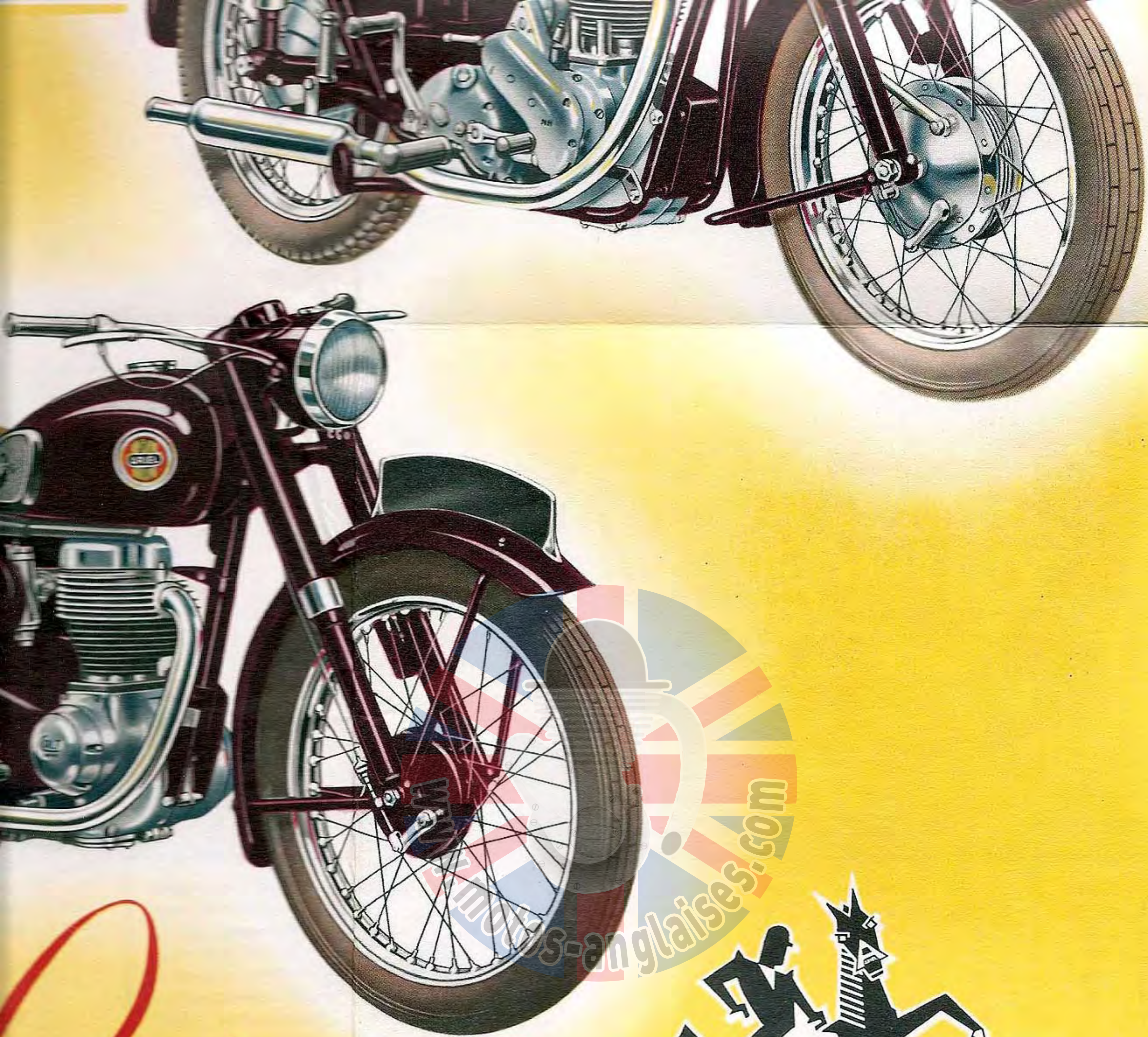
plate clutch with built-in shock absorber. Primary bath. Rear chain protected. **Handlebars** and **chromium plated**, $\frac{7}{8}$ in. diameter. **Petrol Tank:** panel. Quick release filler cap. **Mudguards:** Rear stay quickly detachable for easy wheel removal. price includes air cleaner; Ariel design dual seat speedometer, 70 m.p.h. (120 km.p.h.); rectifier, coil for direct starting; 6 in. headlamp; ammeter; 9 amp lamp incorporating reflector; electric horn; tool inflator. **Finish:** Superbly finished in best quality Enamel.

MODEL VB 600 c.c. SIDE VALVE

Engine: 86.4×102 mm.=598 c.c. (3.4×4.01=36.5 cubic inches). Aluminium alloy cylinder head. Cast iron cylinder. Vachrome top piston ring. Crankshaft mounted on two heavy duty roller bearings and one ball bearing. Double row roller big end. Gear driven camshaft. Lubrication: double plunger pump. Chain driven magdyno. Manual ignition control. Amal 'Monobloc' carburetter with air cleaner.

See also General Specification





Readers of Design



For your
EXTRA COMFORT

*An adjustable windscreen.
Substantial safety bars.*



General Specification

MODELS FH, VH, NH and VB

Frame: Duplex cradle type, fully triangulated, ensuring great rigidity; swinging arm rear suspension; hydraulic damping; rubber bushed pivots; lugs for sidecar attachment either side; thief-proof steering lock. **Stands:** Easy-lift spring-up central and strong tubular front; also foot-operated prop stand.

Front Forks: Telescopic with hydraulic damping; attractive headlamp hood and fork cover, with built-in illuminated instrument panel containing speedometer, ammeter and lighting switch.

Hubs: Full width polished light alloy, fitted with heavy duty ball bearings front and rear; powerful central brakes with non-fade linings; car type fulcrum adjustment; quickly detachable rear wheel.

Transmission: Four-speed gearbox, foot control; three-plate dry clutch; engine shaft shock absorber; polished aluminium oilbath

primary chain case; rear chain protected and lubricated (NH Two-plate dry clutch).

Handlebars and controls: Adjustable, chromium plated; $\frac{7}{8}$ inch diameter.

Petrol Tank: Single bolt fixing; enamelled and lined; decorative chrome top panel; quick action filler cap.

Mudguards: Rear: Wide 'D' section; back end detachable for easy wheel removal. Front: Deep valanced.

Equipment: Basic price includes air cleaner; prop stand; thief-proof steering lock; quickly detachable rear wheel; Ariel design dual seat and pillion footrests; trip speedometer, 120 m.p.h. (180 km.p.h.); $7\frac{1}{2}$ inch headlamp; 56 watt dynamo; 12 amp. battery; stop and tail lamp incorporating reflector; electric horn; tool box and tools; tyre inflator.

Finish: Superbly finished in best quality Deep Claret or Black Enamel.

All enclosed rear chaincase as illustrated available for all swinging arm models at extra charge.



TECHNICAL INFORMATION

MODEL	4G	FH	VH	NH	LH	VB
TYPE	O.H.V.	O.H.V.	O.H.V.	O.H.V.	O.H.V.	S.V.
Number of Cylinders	4	2	1	1	1	1
Bore and Stroke	65×75	70×84	81.8×95	72×85	60×70	86.4×102
Cylinder Capacity	997	646	497	347	197	598
Compression Ratio	7.2	6.5	7	7	7.5	6
Engine B.H.P.	42	35	26	19	10	18
Engine R.P.M.	5,800	5,600	6,000	5,600	5,600	4,400
Engine Sprocket: No. of Teeth—Solo	25	24	23	19	17	23
Sidecar	22	21	19	17	—	19
Solo Gear Ratio—Top	4.36	4.53	4.74	5.72	7.0	4.74
Third	5.70	5.93	6.20	7.50	8.5	6.20
Second	7.40	7.71	8.05	9.72	11.6	8.05
First	11.55	12.01	12.55	15.15	17.5	12.55
Sidecar Gear Ratio—Top	4.95	5.18	5.72	6.4	—	5.72
Third	6.50	6.78	7.50	8.37	—	7.50
Second	8.42	8.81	9.72	10.88	—	9.72
First	13.10	13.74	15.15	16.96	—	15.15
Tyre Size—Front	3.25×19	3.25×19	3.25×19	3.25×19	3.00×19	3.25×19
Rear	4.00×18	3.50×19	3.25×19	3.25×19	3.00×19	3.25×19
Wheelbase (inches)	56	56	56	56	51½	56
Overall Length (inches)	86	86	86	86	80	86
Handlebar Width (inches)	27	27	27	27	27	27
Dualseat Height (inches)	31	31	31	31	29½	31
Ground Clearance (inches)	5½	5½	5½	5½	5½	5½
Weight Fully Equipped (lbs.)	435	410	375	365	270	370
Petrol Tank Capacity (gallons)	5	4½	4½	4½	2½	4½
Oil Tank Capacity (pints)	8	6	6	6	4	6
Petrol Consumption (M.P.G.)	70–75	65–70	75–80	85–90	100–110	70–75
Approx. Mean and Max. Speeds (M.P.H.)	100–105	90–95	80–85	75–80	55–60	70–75

Specification

VH, NH and VB

primary chain case; rear chain protected and lubricated (NH Two-plate dry clutch).

Handlebars and controls: Adjustable, chromium plated; $\frac{7}{8}$ inch diameter.

Petrol Tank: Single bolt fixing; enamelled and lined; decorative chrome top panel; quick action filler cap.

Mudguards: Rear: Wide 'D' section; back end detachable for easy wheel removal. Front: Deep valanced.

Equipment: Basic price includes air cleaner; prop stand; thief-proof steering lock; quickly detachable rear wheel; Ariel design dualseat and pillion footrests; trip speedometer, 120 m.p.h. (180 km.p.h.); $7\frac{1}{2}$ inch headlamp; 56 watt dynamo; 12 amp. battery; stop and tail lamp incorporating reflector; electric horn; tool box and tools; tyre inflator.

Finish: Superbly finished in best quality Deep Claret or Black Enamel.

ble for all swinging arm models at extra charge.

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.; Model LH at 35 m.p.h. With child-adult sidecar fitted, reduce above m.p.g. figures approximately by 20.

→ *The first name in motorcycling*



foreword

We are proud to record that Ariel Motor Cycles were being made at Selly Oak well over fifty years ago, and many of our present day technicians are sons of the pioneers of those early days. The valuable experience gained during this period is reflected in the motor cycles being produced today, and it is significant that the Square Four is still accepted by knowledgeable riders as "The World's most outstanding motor cycle of all time". Whether your choice is a Four, Twin or Single Cylinder motor cycle our 1958 range will provide a machine to satisfy your most exacting requirements, and we wish all motor cyclists happy motor cycling during 1958.

