



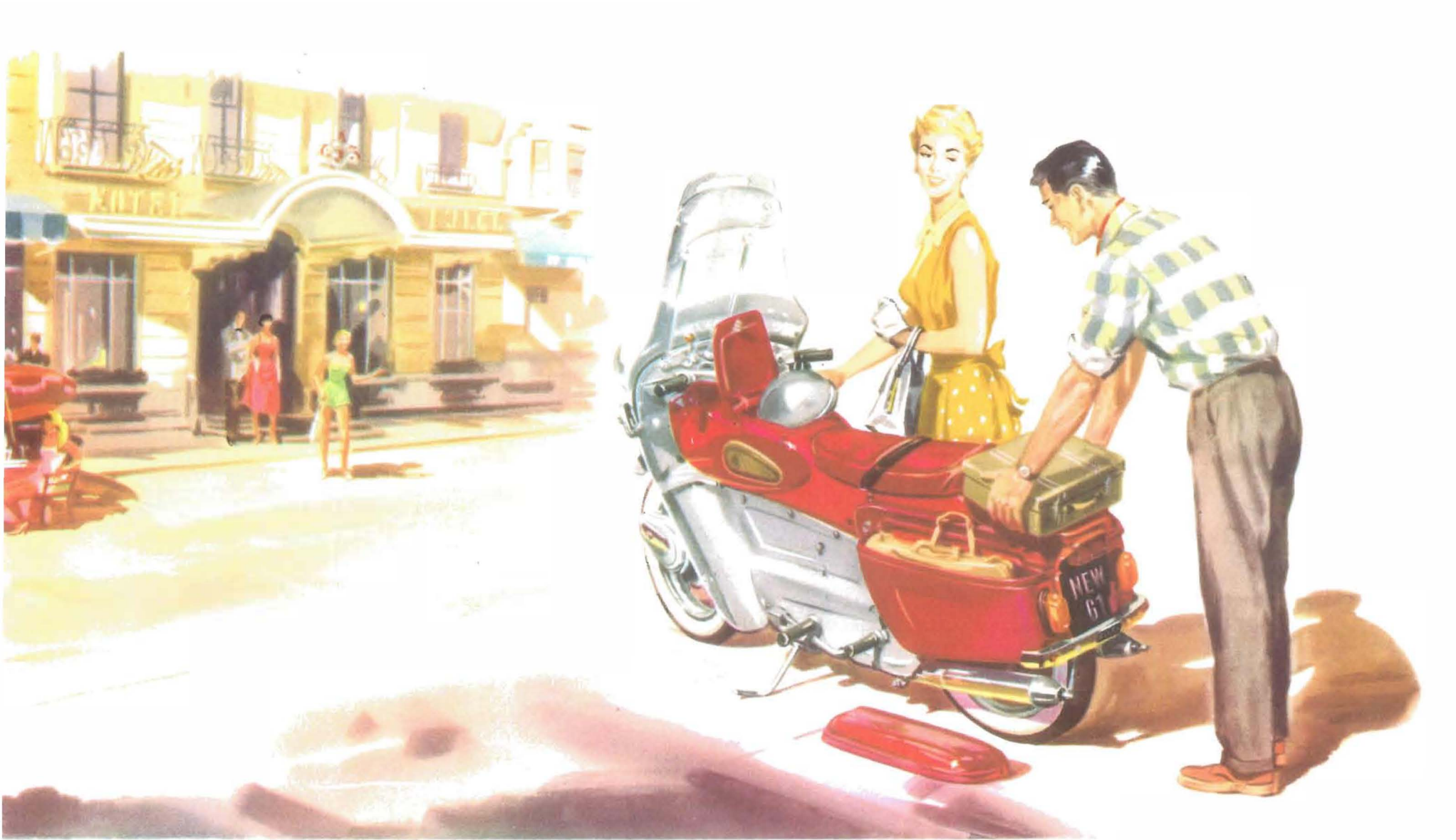
Ariel

Foreword

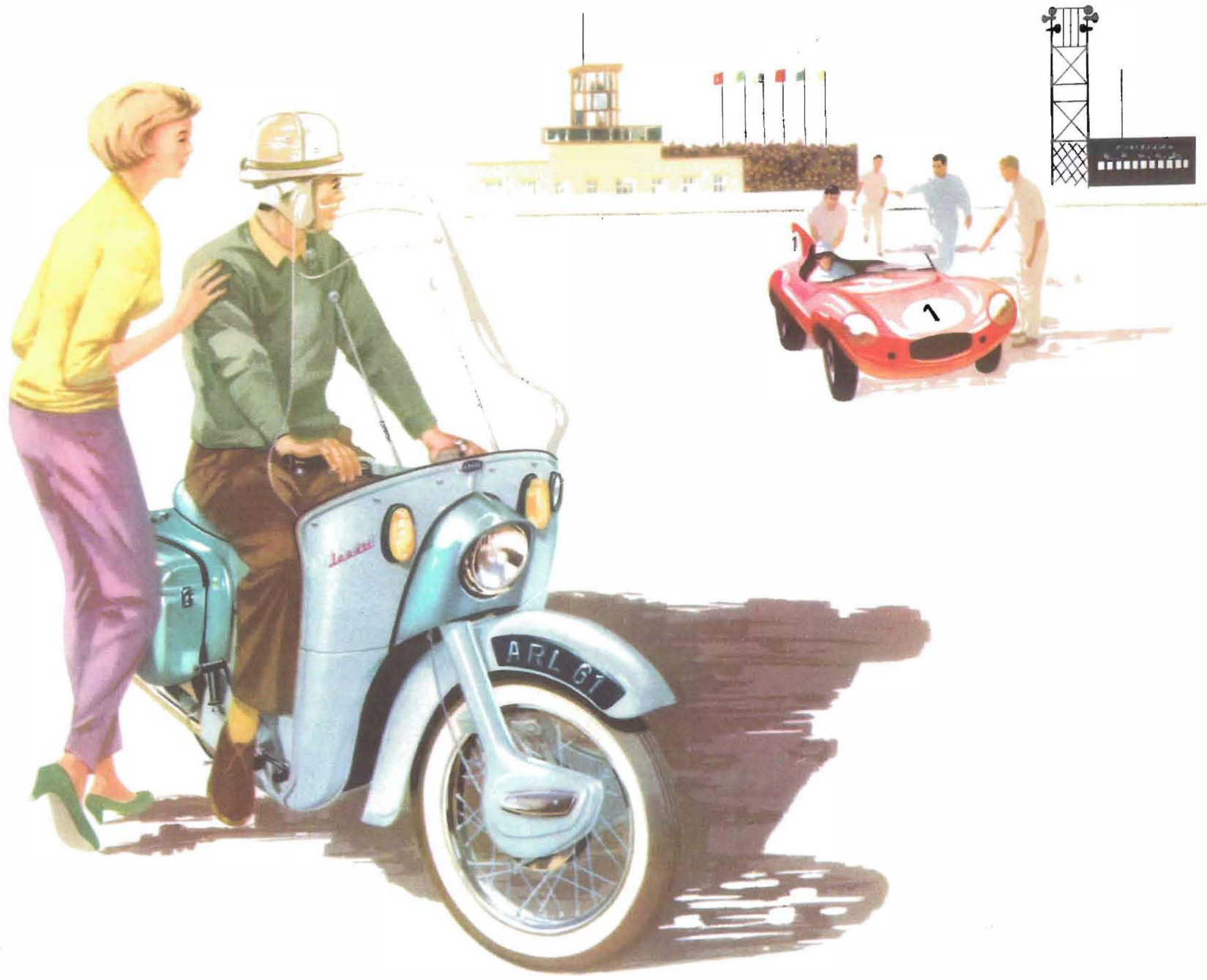
Thanks to the advanced design of the Leader and Arrow, our technicians, in preparing our new seasons programme, were able to devote almost their entire energies to performance and reliability with particular emphasis on road holding, braking and economy. For 1961, therefore, we offer two outstanding models, years ahead of their contemporaries and with a performance that will satisfy the most discriminating motor cyclist. In this brochure we have endeavoured to give as much detail as possible, but if there are any points which are not quite clear please let us know.

the revolutionary LEADER





motor cycling de-luxe





Engine: Robust 247 c.c. (15 cu. in.) twin cylinder two-stroke of Ariel design and manufacture, operating on the loop scavenging principle; has separate ported cast iron cylinders and alloy heads, with deep directional finning arranged for maximum cooling, each pair secured to the crankcase by four studs and high tensile steel sleeve nuts; built-up crankshaft of exceptional rigidity mounted on three heavy duty ball bearings; there is a taper and key coupling in the middle of the shaft, secured by a bolt, which is easily accessible through the hollow mainshaft for easy servicing; the crankcase pressure is held by four self-adjusting rubber oil seals; the crankcase-gearbox unit is of light alloy; the Lucas 50 watt A.C. generator is spigot mounted on the offside of the crankcase, with a twin contact breaker assembly on the nearside; the primary drive is by $\frac{3}{4}$ " pitch endless chain fitted with a rubber-covered, spring steel adjuster for silent running, and it has external adjustment; each big end has a double row roller bearing; the Amal Monobloc carburetter has a cold starting device, and lubrication is by the petrol system.

Gearbox and Transmission: Four speed with foot control; the Ariel patented clutch incorporates a rubber cush drive and is of the three-plate wet type; the $\frac{1}{2}$ " pitch rear chain is totally enclosed and automatically lubricated from the primary chaincase.

Frame and Fittings: Engine is secured to under-slung extension of the frame by three long bolts; the lower high tensile bolt also carries the swinging arm of the rear suspension, which is pivoted on rubber bushes. By unscrewing these three bolts the engine-gear box unit, with rear wheel and chaincase, can be withdrawn. The box type rear frame extension forms an air intake silencer, having the carburetter connection at the front and a large efficient air filter with easily replaceable element on the offside.

Front Forks: These are of the trailing link type, with long, coil suspension springs supporting two-way hydraulic dampers that are contained within the two large diameter stanchion tubes; the patented link motion gives a constant wheelbase, the action eliminating uneven tyre wear; all swivelling points have anti-friction nylon bushes.

Full Width Hubs: The hubs are fitted with heavy duty ball bearings, whilst the wheels are quickly detachable; the brakes are 6" diameter and are genuine full width.



LEADER specification

Mudguards: The front guard has a deep valance with concealed fixing to the fork stanchion tubes, and an anti-splash channel is formed round the inside edges; there is a small concealed rear guard to supplement the hinged tail member.

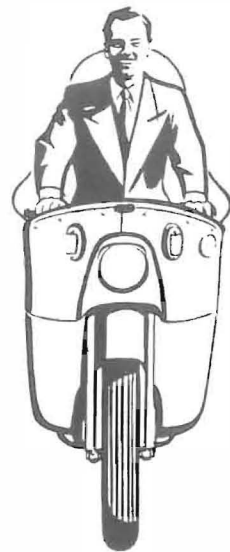
Dualseat: This has a scientifically designed sponge rubber interior for maximum comfort; upholstered in waterproof plastic in matching colours; complete with pillion rider's safety strap.

Tail Member: Carries rear number plate, stop-tail lamp and reflector, and hinges upwards for easy removal of rear wheel; when rear carrier and side carriers are fitted these also move with the tail member.

Standard Equipment: Easy lift central stand; retractable lifting handle; trip speedometer; ammeter; ignition and emergency switch; lighting switch; Ariel name badge; heavy duty 13 amp. hour 6 volt Lucas lightweight battery; A.C. rectifier; 6" diameter pre-focus headlamp with double filament and pilot bulb; electric horn; folding pillion footrests; licence holder; knee grips; complete set of tools and tyre inflator.

Finish: The machine has a remarkably fine finish in best quality stoving enamel with a choice of three colour combinations: Cherokee red and light Admiralty grey, oriental blue and light Admiralty grey or seal grey and light Admiralty grey; wheel rims, silencers, levers and other bright parts heavily chromium plated.

Optional Extras (see separate price list): Parking lamp and switch; inspection lamp; carrier with two straps; prop stand; detachable front stand; pannier cases; pannier bags; neutral gear indicator; flasher set; eight-day clock; dualseat waterproof cover; mirrors; windscreen extension; rear fender with reflectors.



LEADER data

Engine: Twin cylinder, two-stroke

Bore and stroke: 54 × 54 mm.
(2 $\frac{1}{8}$ " × 2 $\frac{1}{8}$ ")

Capacity: 247 c.c. (15 cu. in.)

Compression ratio: 10:1

Engine b.h.p.: 17.5

Engine r.p.m.: 7,000

Gear ratio, top: 5.9

Gear ratio, third: 7.8

Gear ratio, second: 11

Gear ratio, first: 19

Engine revs. top gear: 1,000
= 11 m.p.h. (18 km.h.)

Tyre, front: Ribbed, white wall,
16" × 3.25"

Tyre, rear: Studded, white wall,
16" × 3.25"

Wheelbase: 51" (130 cm.)

Overall length: 77" (195.5 cm.)

Overall width: 27" (68.5 cm.)

Dualseat height: 30" (76 cm.)

Ground clearance: 5" (12.5 cm.)

Weight (standard specification):
320 lb. (145 kg.)

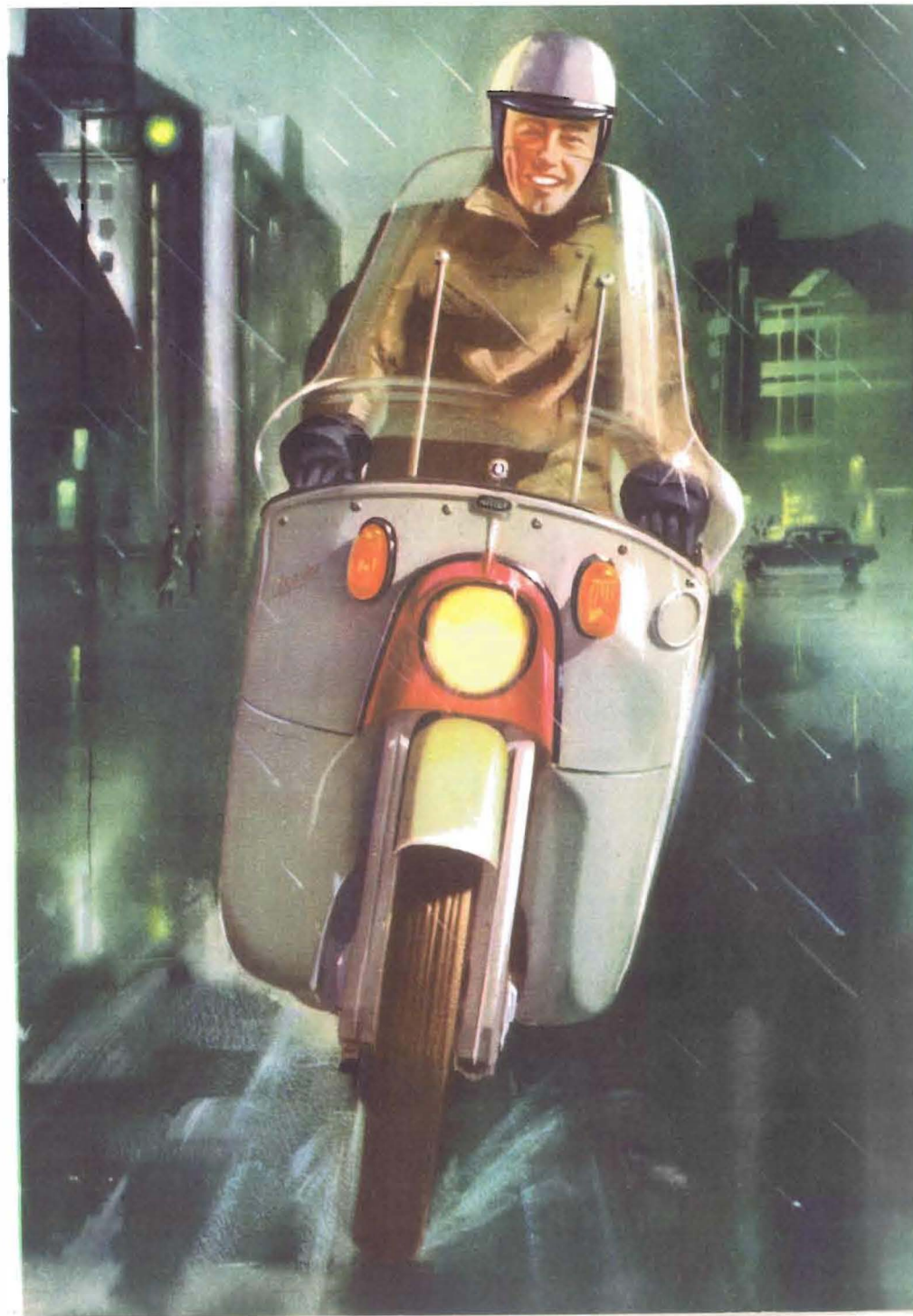
Petrol tank capacity: 3 gallons,
reserve $\frac{1}{2}$ gallon (13 $\frac{1}{2}$ litres)

Approximate petrol consumption:
80 m.p.g. (28 km.p.l.)

Approximate maximum speed:
70 m.p.h. (113 km.h.)

Note: Speed and petrol consumption figures apply to machines that have been run in for 1,000 miles (1,600 km.).

Petrol consumption figures are based on a steady speed of 40 m.p.h. (65 km.h.).

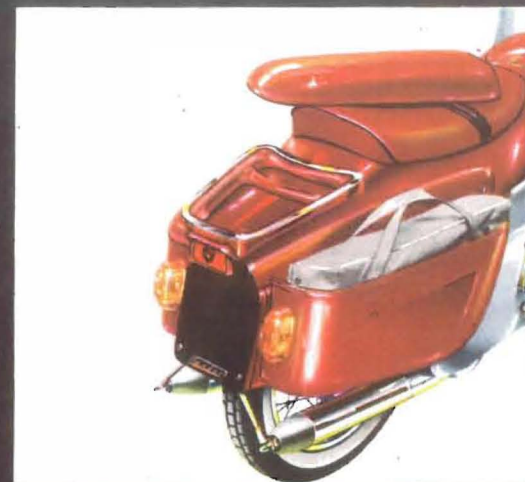


some
attractive

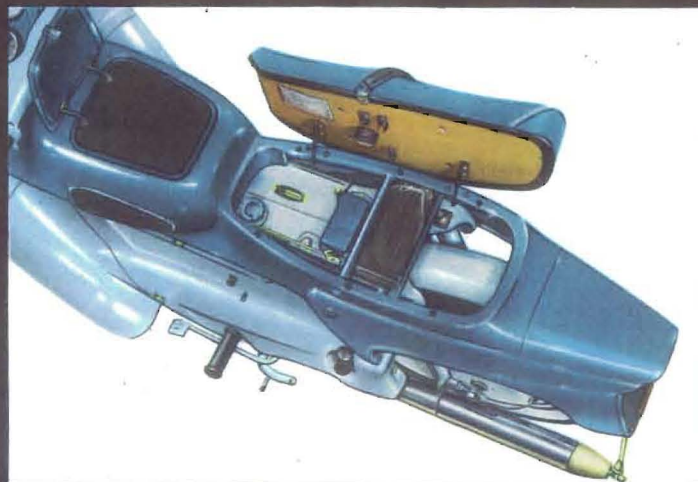


Most-attractive front panel fitted with the usual instruments. Provision is also made for eight-day clock, two-way parking lamp and switch, flasher and neutral indicator lamps. The handlebar and cables are completely enclosed and there is a spacious locker for parcels.

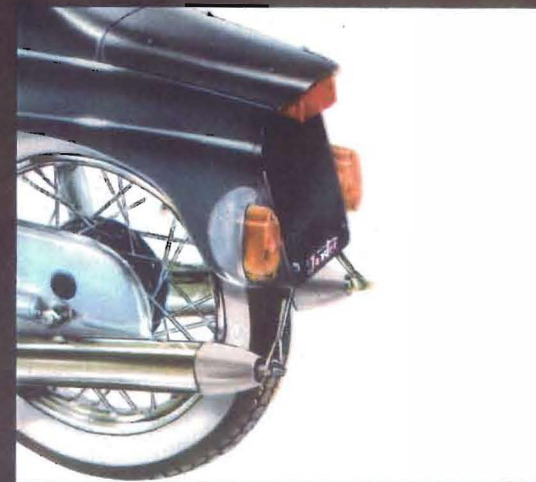
The metal panniers and rear carrier blend perfectly with the general styling of the machine and provide ample luggage space. The plastic holdalls can be pre-packed, fitted into the pannier, the lid replaced and locked. Front and rear flashers with handlebar switch can be fitted as an aid to safe driving.



LEADER features

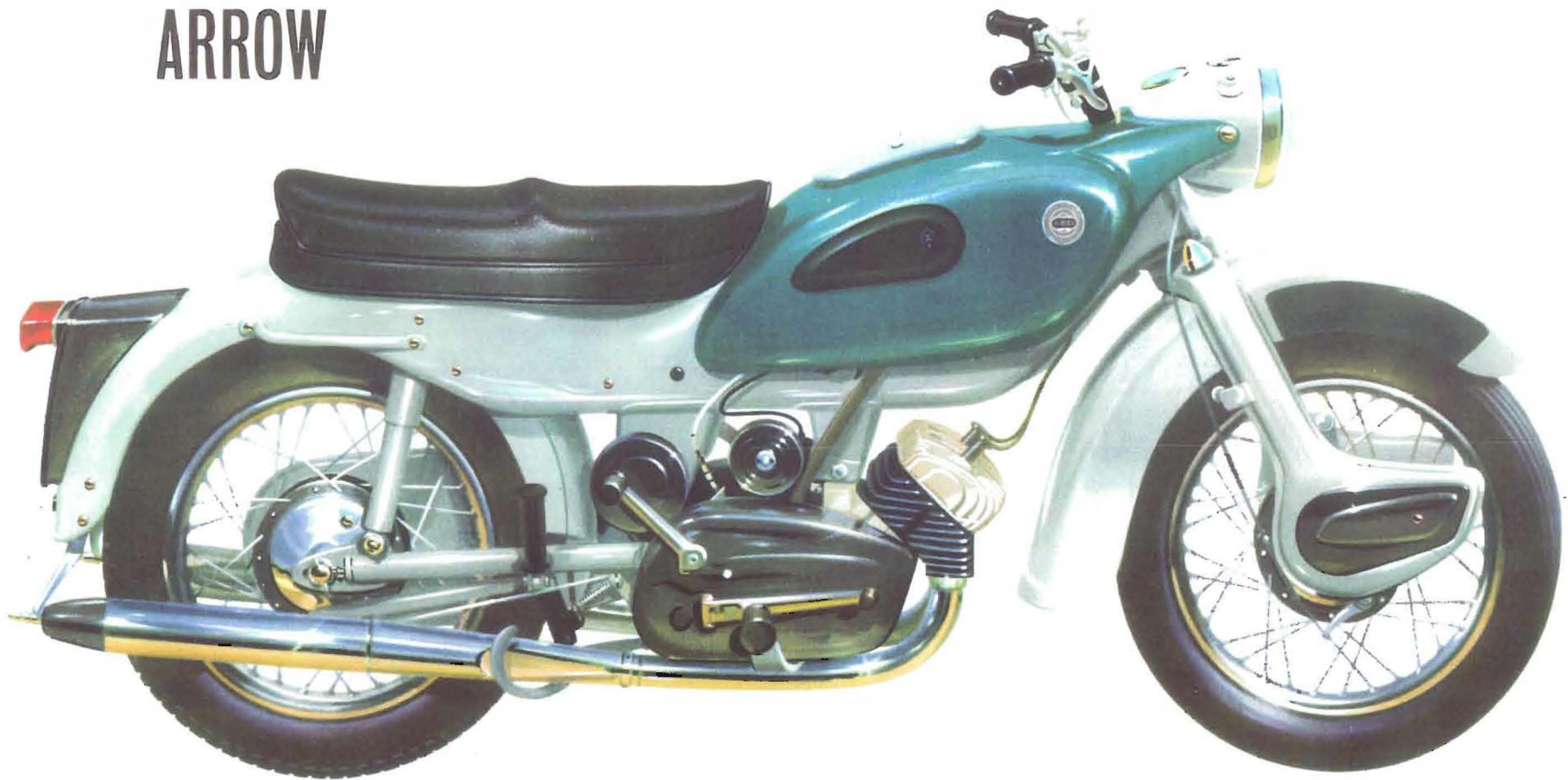


The petrol tank filler cap, battery, tyre inflator and tool kit are neatly arranged under the dual seat, which can be locked in the closed position.



Rear flashers can be supplied without pannier equipment if desired. (See illustration.)

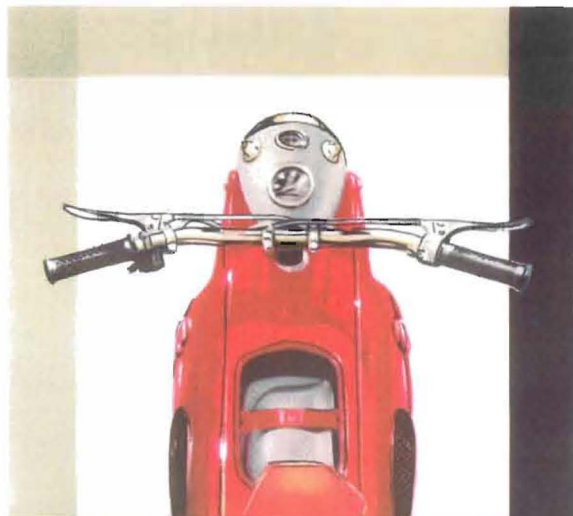
the
exhilarating
ARROW







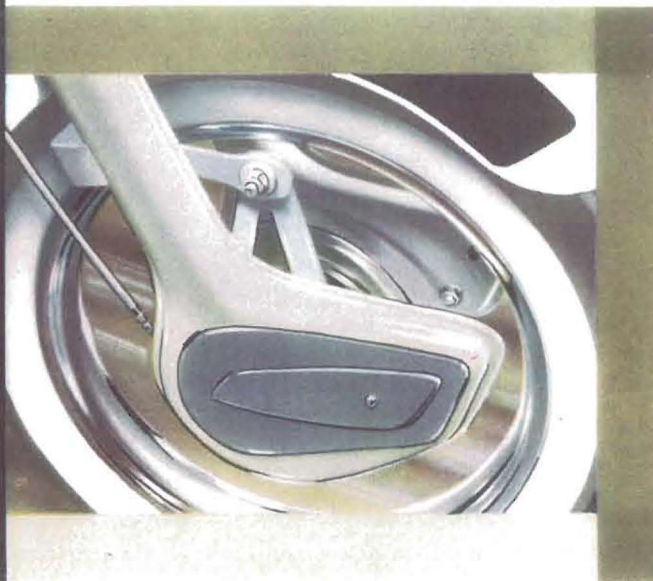
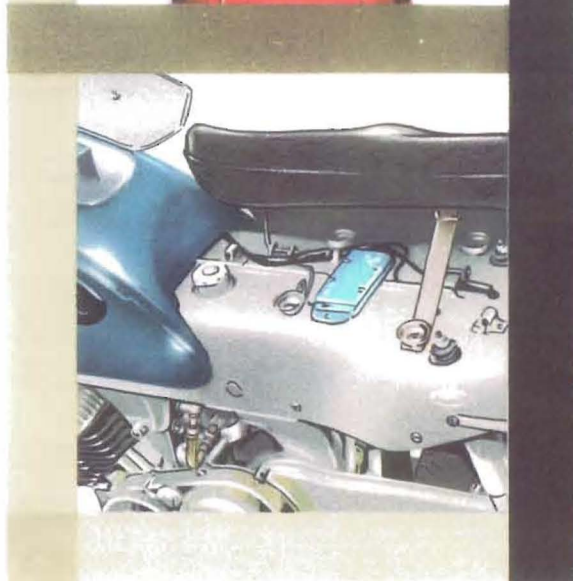
Compartment for detachable
toolbox, inflator, etc.




special ARROW features

Front suspension and brake
anchorage. White wall tyres
optional extra.

Dualseat hinges upwards to give
easy access to battery and
petrol filler cap.




ARROW specification



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Full Width Hubs: The hubs are fitted with heavy duty ball bearings, whilst the wheels are quickly detachable. The brakes are 6" diameter and are genuine full width.

Mudguards: The front guard has a deep valance with concealed fixing to the fork stanchion tubes. The rear tail section forms the rear guard; this is also of deep section.

Dualseat: Scientifically designed sponge rubber interior, shaped for maximum comfort and trimmed with best quality waterproof material.

Standard Equipment: Easy lift central stand, 100 m.p.h. speedometer, ammeter, ignition and lighting switch, lightweight 13 amp. hour 6 volt Lucas heavy duty battery, A.C. generator and rectifier, 6" diameter pre-focus headlamp with double filament and pilot bulb, electric horn, folding pillion footrests, licence holder, knee grips, set of tools and tyre inflator.

Finish: The machine has a remarkably fine finish in best quality stove enamel. Colours: two-tone light grey and seal grey, light grey and cherokee red or light grey and oriental blue. Wheel rims, silencers, levers and other bright parts heavily chromium plated.

Optional Extras (See separate price list): Prop stand; detachable front stand; carrier (pressed steel); dual-seat waterproof cover; windscreen; white wall tyres; dualseat strap; extra heavy rear springs.

ARROW data

Engine: Twin cylinder, two-stroke

Bore and stroke: 54×54 mm.
(2 $\frac{1}{8}$ "×2 $\frac{1}{8}$ ")

Capacity: 247 c.c. (15 cu. in.)

Compression ratio: 10:1

Engine b.h.p.: 17.5

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Gear ratio, top: 5.9

Gear ratio, third: 7.8

Gear ratio, second: 11

Gear ratio, first: 19

Engine revs. top gear: 1,000
= 11 m.p.h. (18 km.h.):

Tyre, front: Ribbed 16×3.25"

Tyre, rear: Studded 16×3.25"

Wheelbase: 51" (130 cm.)

Overall length: 77 $\frac{1}{2}$ " (196 cm.)

Overall width: 24" (61 cm.)

Dualseat height: 28 $\frac{1}{2}$ " (72.5 cm.)

Ground clearance: 5" (12.5 cm.)

Weight (standard specification):
275 lb. (125 kg.)

Petrol tank capacity: 3 gallons
(13 $\frac{1}{2}$ litres)

Approximate petrol consumption:
80 m.p.g. (28 km.p.l.)

Approximate maximum speed:
75 m.p.h. (120 km.h.)

Note: Speed and petrol consumption figures apply to machines that have been run in for 1,000 miles (1,600 km.).

Petrol consumption figures are based on a steady speed of 40 m.p.h. (65 km.h.).



LEADER



PROP STAND



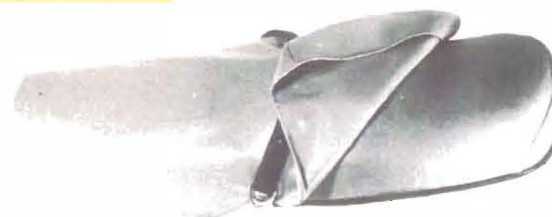
PARKING LAMP AND SWITCH



EIGHT-DAY CLOCK



FRONT STAND



DUALSEAT WATERPROOF COVER



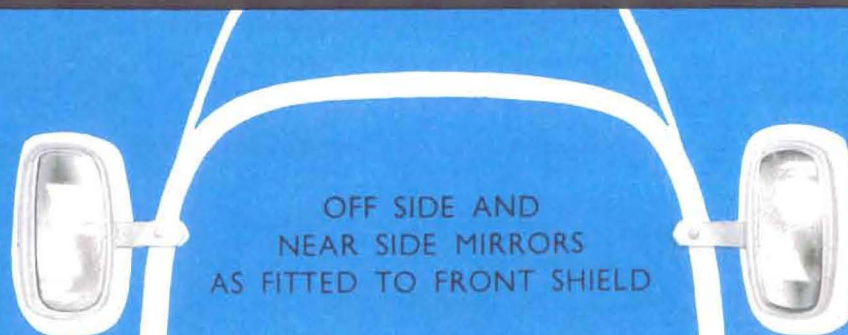
WINDSCREEN EXTENSION



INSPECTION LAMP

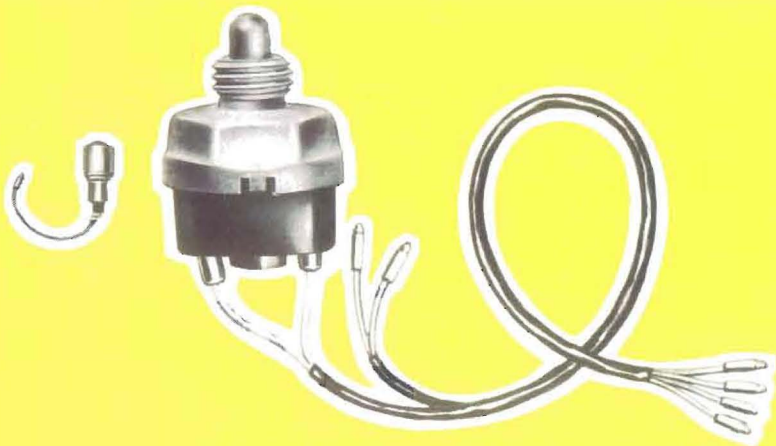


TINS OF ENAMEL FOR RETOUCHING

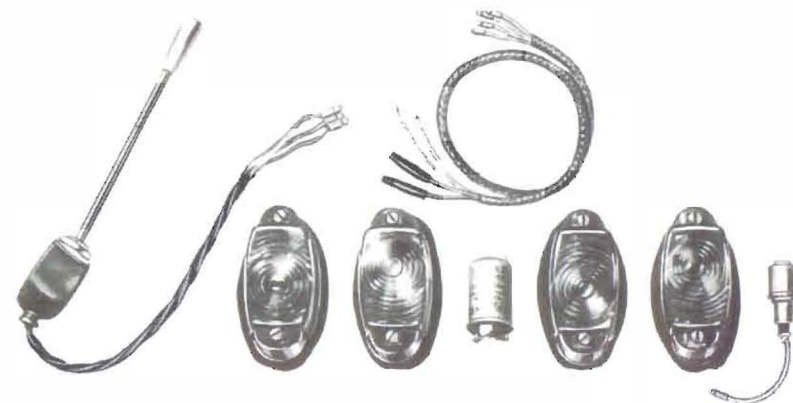


OFF SIDE AND NEAR SIDE MIRRORS AS FITTED TO FRONT SHIELD

optional extras



NEUTRAL GEAR INDICATOR SWITCH AND LAMP



FLASHER UNIT AND HARNESS



CARRIER WITH TWO STRAPS



PANNIER CASES AND PANNIER BAGS



REAR FENDER WITH REFLECTORS

ARROW optional extras

RESERVE
PETROL
TAP



CARRIER WITH TWO STRAPS

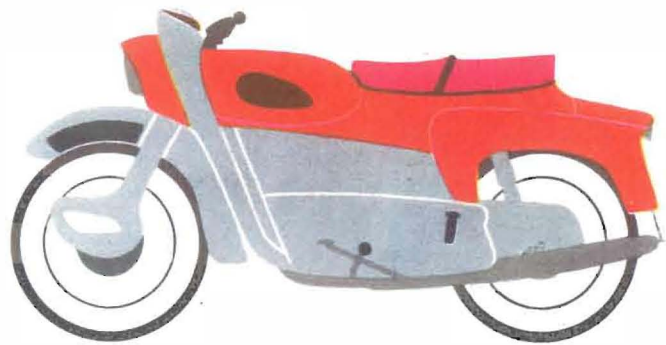
FRONT
STAND



PROP STAND

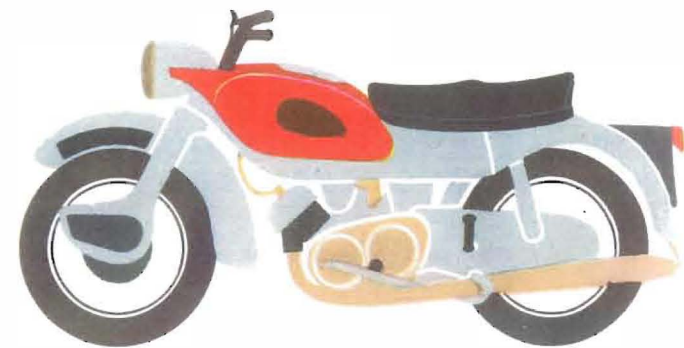


DUALSEAT WATERPROOF COVER
AND STRAP

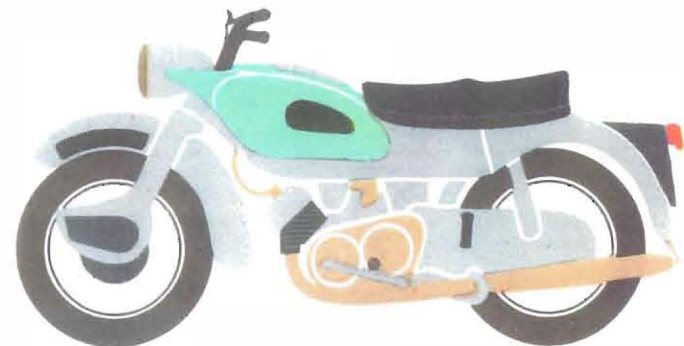


choice of colours

CHEROKEE RED
AND
LIGHT
ADMIRALTY GREY



ORIENTAL BLUE
AND
LIGHT
ADMIRALTY GREY



SEAL GREY
AND
LIGHT
ADMIRALTY GREY



Guarantee

TERMS AND CONDITIONS OF SALE AND GUARANTEE

1. In this Guarantee the word "machine" refers to the motor cycle, scooter, motor cycle combination or sidecar as the case may be purchased by the Purchaser.
2. In order to obtain the benefit of this Guarantee the Purchaser must correctly complete the registration form and return it to us within fourteen days of the purchase.
3. We will supply, free of charge, a new part in exchange for, or, if we consider repair sufficient, will repair free of charge any part proved within six months of the date of purchase of any new machine, or within three months of its renewal or repair in the case of a part already renewed or repaired, to be defective by reason of our faulty workmanship or materials. We do not undertake to bear the cost of fitting such new or repaired part or accessory.
4. Any part considered to be defective must be sent to our Works, carriage paid, accompanied by the following information:
 - (a) Name of purchaser and address;
 - (b) Date of purchase of machine;
 - (c) Name of dealer from whom the purchase was made;
 - (d) Engine and frame numbers, including prefix letters, of machine.
5. This Guarantee shall not extend to defects or damage appearing after misuse, neglect, abnormal stress or strain, or the incorporation or affixing of unsuitable attachments or parts and in particular:
 - (a) Hiring out;
 - (b) Racing and competition;
 - (c) Adaptation or alteration of any part or parts after leaving our Works;
 - (d) The attaching of a sidecar in a manner not approved by us to an unsuitable motor cycle.

This Guarantee shall not extend to machines whose trade mark, name or manufacturing number has been altered or removed, or on which has been used any part not supplied or approved by us, or to tyres, saddles, chains, speedometers, revolution counters and electrical equipment or to parts supplied to the order of the Purchaser and different from our standard specification.

6. Our liability and that of our dealer who sells the machine shall be limited to that set out in paragraph 3 and no other claims, including claims for consequential damage or injury to person or property, shall be admissible.

All other conditions and warranties statutory or otherwise and whether express or implied are hereby excluded and no guarantee other than that expressly herein contained applies to the machine to which this Guarantee relates or any accessory or part thereof.

REPAIRS GUARANTEE

1. Whilst the highest standard of workmanship and materials is aimed at, we cannot accept liability for any defects appearing more than three months after the machine, assembly or component has left our Works after being repaired.
2. We will repair or replace at our option free of charge any defective work, materials or parts relating to the repairs carried out by us appearing within that time but shall not be under any further or other liability for any other loss or damage whether direct or consequential and our liability shall be limited to the cost of so making good. We do not undertake to bear the cost of fitting such new or repaired part or accessory.
3. We do not accept liability in respect of parts of proprietary manufacture, e.g. tyres, saddles, chains, speedometers, revolution counters and electrical equipment which may be used by us in effecting a repair. All other conditions and warranties statutory or otherwise express or implied are hereby excluded.

ARIEL MOTORS LTD.
BIRMINGHAM 29 ENGLAND

