

A.J.S. '63





## or cycles for 1963

Once again a wide variety of machines is available in the new range of A.J.S. motor cycles, from the established 250cc. lightweights to the redesigned large capacity models. Also included in the range are the successful and popular trials and scrambles machines.

Because of its increasing popularity the 250cc. Super Sports Model 14CSR is continued unchanged for 1963, as is the standard Model 14. The standard models of 350cc. and over have had the cycle parts completely redesigned, and have new frames, tanks and mudguards, smaller wheels and larger brakes, and new highly efficient large capacity silencers.

# 1962 successes

## A.J.S. in action



Trials and racing motor cycles receive far greater punishment and undergo far greater stressing in one day than standard machines are likely to receive under months of normal use. A.J.S. appreciate this fact and use the 350cc. factory development machines as mobile test-beds for components which, after proving that they are capable of withstanding such punishment, are later incorporated in production models. Some measure of the success of these machines can be gauged by the fact that motor cycles produced at the A.J.S. factory have won the International Scottish Six Days Trial on more occasions in the last sixteen years than all other makes put together.

### ROAD RACING

South Africa Grand Prix  
350cc. 1st G. Hocking  
500cc. 3rd G. Hocking

New Zealand Grand Prix  
350cc. 1st H. Anderson

Durban Centenary, S. Africa  
Unlimited Handicap } 1st G. Hocking  
350cc. 1st G. Hocking  
2nd P. Read  
500cc. 1st G. Hocking

Ohakea, New Zealand  
350cc. 1st P. Pawson  
2nd G. Molloy  
3rd H. Healey

Levin, New Zealand  
350cc. 1st W. Wetzel  
2nd M. Low

Oulton Park International (April)  
350cc. 1st A. Shepherd  
3rd A. King

Eifelrennen, Nurburgring  
350cc. 1st M. Duff

International North West "200"  
350cc. 1st A. Shepherd

Saar Grand Prix  
350cc. 1st M. Duff

### TRIALS

St. David's Cup  
350cc. M. Andrews

Belgian Trials Champ  
500cc. A. Colin

Victory Cup Trial  
350cc. G. Jackson

Wye Valley Traders  
350cc. G. Jackson

Bemrose Trophy  
Winner M. Andrew  
350cc. Cup — G. Jack

Scottish Six Days Tri  
Lochaber Cup and  
350cc. Cup G. Jackson

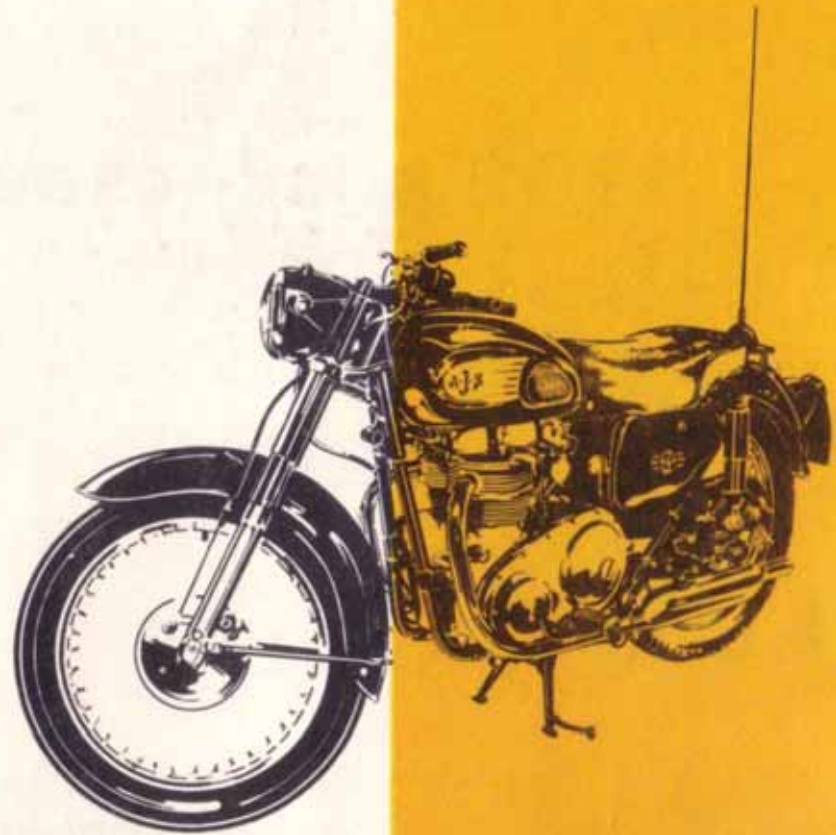
Welsh Three Days T  
Manufacturers Team  
350cc. Cup F. Billot

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# A.J.S.

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'force'



The complete range of A.J.S. machines is suitable for police duties. Every model can be supplied to a variety of specifications, with such additional equipment as radio communication systems, windscreen, legshields, safety bars or extra lights, whether it be the standard 250cc. single or the tuned 650cc. twin. In countries where police work is carried out on undeveloped land, the authorities have found the competition models, with their "cross-country" characteristics, to be ideal.



## the lightweight

The machines illustrated in the next few pages are the latest in the range of lightweight models of 250cc. These two models are particularly attractive to a wide variety of users for a variety of reasons.

For the man who is not a "dyed-in-the-wool" enthusiast, but who merely requires economical transport, they are ideal. They offer independence from the bugbears of public transport. Members of the fair sex use them because they are easy to handle, and, because of the "fussiness", are easy to maintain.

In Great Britain, a newcomer to motor cycling is restricted to machines of up to 250cc. The M.O.T. driving test is successfully taken on either range gives a choice of two models. Both have straightforward control layouts which are easy to learn, and also having brakes which offer the performance of the machine – a significant safety factor. If the problem is limited to the city, again the lightweight is the answer – low running costs, and road tax and insurance premiums kept to a minimum.

To assist newcomers to motor cycling to use their machines correctly, a booklet published by the Royal Society for the Prevention of Accidents and titled "Good Riding" is available from A.J.S. Motor Cycles, Plu...

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Standard lightweight 250cc. MODEL 14

# SAPPHIRE



A really superb two-fifty, the Sapphire has been described by the Press as an "attractive, well-finished, economical roadster with snappy performance, good roadholding and excellent handling".

Technically similar to the 14CSR, the standard Model 14 differs only in features which are retained in the interests of the motor cyclist who requires less sporting characteristics. Nevertheless, the Sapphire represents excellent value with numerous features, such as fully damped suspension (adjustable at the rear), full width hubs, fully enclosed rear chain, pillion footrests, stoplight, and many technical details, which will not be found all together as standard equipment on any other lightweight machine.

# technical details

## ENGINE

248c.c. o.h.v. single (70 m.m. bore x 65 m.m. stroke). Light alloy cylinder head with cast-in valve seats: chrome plated, stellite tipped valves: duplex hairpin valve springs: built-up rockers: hiduminium pushrods with hardened steel end-cups: lever type cam followers: both cams on single shaft: steel connecting rod: caged roller big-end bearing: built-up crankshaft supported by roller, ball and plain bearings: rotary reciprocating plunger oil pump: ignition by battery and coil with independent emergency start circuit.

## GEARBOX

Separate from engine, but polished side covers give appearance of unit construction with engine. 4 speeds, positive foot change, driven through multi-plate clutch incorporating rubber vane shock absorber: duplex primary chain adjusted by rotation of gearbox shell.

## FORKS

Telescopic, two way oil damped, with multi-rate springs.

## FRAME

Of brazed and bolted construction: single top and saddle tube: single front down tube: pressed steel engine under channel: short triangulated rear sub-frame: pivoted fork rear suspension controlled by Girling adjustable units.

## LIGHTING

6 volt, 54 watt, crankshaft mounted alternator: 11 a.h. battery: 6" headlamp with speedometer, ammeter and switches mounted in shell: combined rear and stoplight with integral reflector.

## WHEELS

17" diameter with 3.25" Dunlop tyres.

## BRAKES

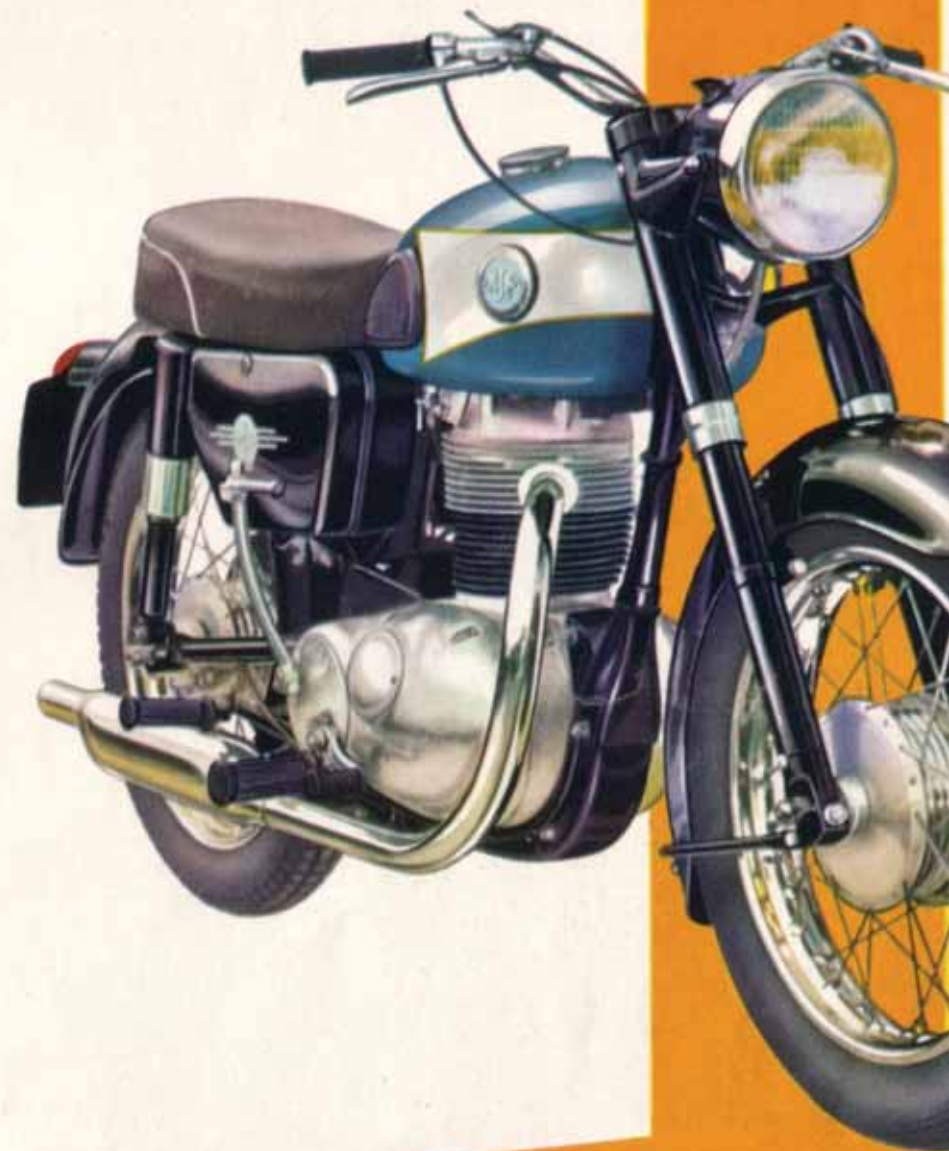
6" diameter at front and rear: full width hubs.

## TWINSEAT

Two level foam rubber with waterproof covering.

## COLOUR FINISH

Primarily black, with blue and white tank, and blue accessory covers: usual parts are chrome plated and most of the light alloy components are highly polished.



Introduced in May 1962, this model has well and truly established itself as the finest lightweight sports machine available. So successful and so popular has it become, that it is continued into the 1963 season absolutely unchanged.

## technical details



### ENGINE

Highly tuned 248cc. o.h.v. Single (70 m.m. bore x 65 m.m stroke)  
Light alloy cylinder head with cast-in valve seats: a large bore carburettor and a long inlet tract allied to the large diameter inlet valve provides the necessary gas flow to allow full use of the engine's potential: heavy poundage hairpin valve springs: built-up rockers: hiduminium pushrods: lever type cam followers: both cams on single shaft: high tensile steel connecting rod: caged roller big-end bearing: built-up crankshaft with steel flywheels supported by roller, ball and plain bearings: reciprocating plunger oil pump: maximum efficiency exhaust pipe: ignition by battery and coil, with independent emergency start circuit.

### GEARBOX

Separate from engine for primary drive adjustment: 4-speeds, positive foot change, driven through multi-plate clutch incorporating rubber vane shock absorber: Duplex primary chain.

### FORKS

Competition type Teledraulic forks, two way oil damped: multi-rate springs: light alloy sliders with chromed extensions.

### FRAME

Of brazed and bolted construction: single tubes with pressed steel engine under-channel: short rear sub-frame for rigidity: pivoted fork rear suspension controlled by Girling adjustable units.

### LIGHTING

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

### WHEELS

17" diameter with 3.25" Dunlop tyres.

### BRAKES

Front 6" x 1½" in light alloy full width hub.  
Rear 6" diameter with full width hub.

### TWINEAT

Two level foam rubber with waterproof covering.

### COLOUR FINISH

Black: petrol tank chromium plated and blue: mudguards, chainguard, handlebars, wheel rims, exhaust system, etc., chromium plated: engine side covers, primary chaincase, gearbox end cover, fork sliders, cylinder head, fin extremities, etc., are highly polished alloy: cylinder barrel finished with heat resistant aluminium enamel.



The 14CSR is produced for the customer who prefers, or perhaps is restricted to, a lightweight, yet requires more power than is usually available from such machines. Its engine is tuned for high power output throughout the entire rev-range, providing breathtaking acceleration from any cruising speed right up to the machine's high top speed. Competition type Teledraulic front forks iron out the bumps and give handling and roadholding of the highest order, whilst the large and powerful front brake, housed in a full width light alloy hub, stops the machine in the shortest possible distance.

\* The 14CSR is also illustrated on the lightweight introduction page.

## THE SPORTING LIGHTWEIGHT 250cc. MODEL 14CSR

# SAPPHIRE super spo







## the larger touring models

Having proved themselves eminently satisfactory, the engines and gearboxes of these machines are virtually unchanged for 1963, receiving only detail modifications in the interests of increased reliability. For example, the two oil pumps on the twin cylinder machines are double the capacity of their predecessors. Everything else on the touring models is redesigned. The duplex cradle frame has a shorter and stiffer rear sub-assembly, which, together with 18" wheels, not only enhances the roadholding qualities, but also gives a lower and more comfortable riding position.

Comfort is further improved by a flatter handlebar, slimmer twinseat and a newly designed petrol tank with recesses for the knees.

Brake lining areas are considerably increased to meet the extra power output available through the use of new high efficiency silencers. Exhaust noise is also reduced by the fitment of these silencers. It is important to note that any interference with the internal baffles of the new silencers to increase exhaust noise will result in a **CONSIDERABLE LOSS OF POWER.**

Maintenance of the rear chain is kept to a minimum with the fully enclosed chaincase which is available as an extra.

The suitability of these machines for sidecar work is well known among three-wheel enthusiasts, and to meet their requirements, sidecar lugs are built-in features of every machine of 350cc. and over. Sidecar gearing and suspension are also available at no extra cost if specified when a new machine is ordered.

BIG SINGLES

350cc. MODEL 16

s c e p t r e



Last year the redesigned engine of this model received its final development test in the International Six Days Trial, and it came through with flying colours, winning a Gold Medal for its rider.

Now this year the remainder of the machine is redesigned, so providing enthusiasts with a 350cc. model which is right up-to-date.

The short stroke engine develops its power right through the r.p.m. scale, and it is so smooth running that it is often difficult to realize that the machine is powered by an internal combustion engine and not a gas turbine engine.

Economy and reliability are synonymous with the Sceptre which, in spite of its ruggedness, is light and easy to handle.



# s t a t e s m a

Although being noted for its ruggedness and reliability, perhaps most outstanding feature of this machine is its ability to pull tremendously heavy loads at relatively high cruising speeds for hours a time. Allied to very economical fuel consumption, these features make the Statesman a very attractive proposition to the man who requires a high powered motor cycle for a minimum outlay.

## ENGINE

Model 16. 348 cc. o.h.v. Single (74 m.m. bore x 81 m.m. stroke)  
Model 18. 498 cc. o.h.v. Single (82.5 m.m. bore x 93 m.m. stroke)  
Light alloy cylinder head with cast-in valve seats: stellite tipped valves: duplex hairpin valve springs: built-up rockers: hiduminium pushrods: mushroom-type cam followers: separate cam wheels: built-up crankshaft supported by ball journal and plain bearings: triple row caged roller big-end bearings: forged steel connecting rod: reciprocating plunger oil-pump: ignition by battery and coil with independent emergency start circuit.

## GEARBOX

Separate from engine for adjustment of primary drive: 4-speeds, positive foot change, driven through multi-plate clutch incorporating rubber vane type shock absorber.

## FORKS

Heavy duty Teledraulic forks, 2-way oil damped with multi-rate springs. Alloy sliders and chromed extensions.

## FRAME

Twin tube duplex cradle of brazed and bolted construction: integral sidecar lugs: rear sub-frame loops are short and pivoted rear fork braced for rigidity. Rear suspension by Girling adjustable units.

## LIGHTING

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

## WHEELS

18" diameter with Dunlop tyres.

## BRAKES

7" diameter in full-width alloy hubs.

## TWINSEAT

Two level foam rubber with waterproof covering.

## COLOUR FINISH

Black, with usual parts chromium plated. Blue tanks and toolbox optional.

## OPTIONAL

Upswept handlebars: Sidecar gears and suspension.

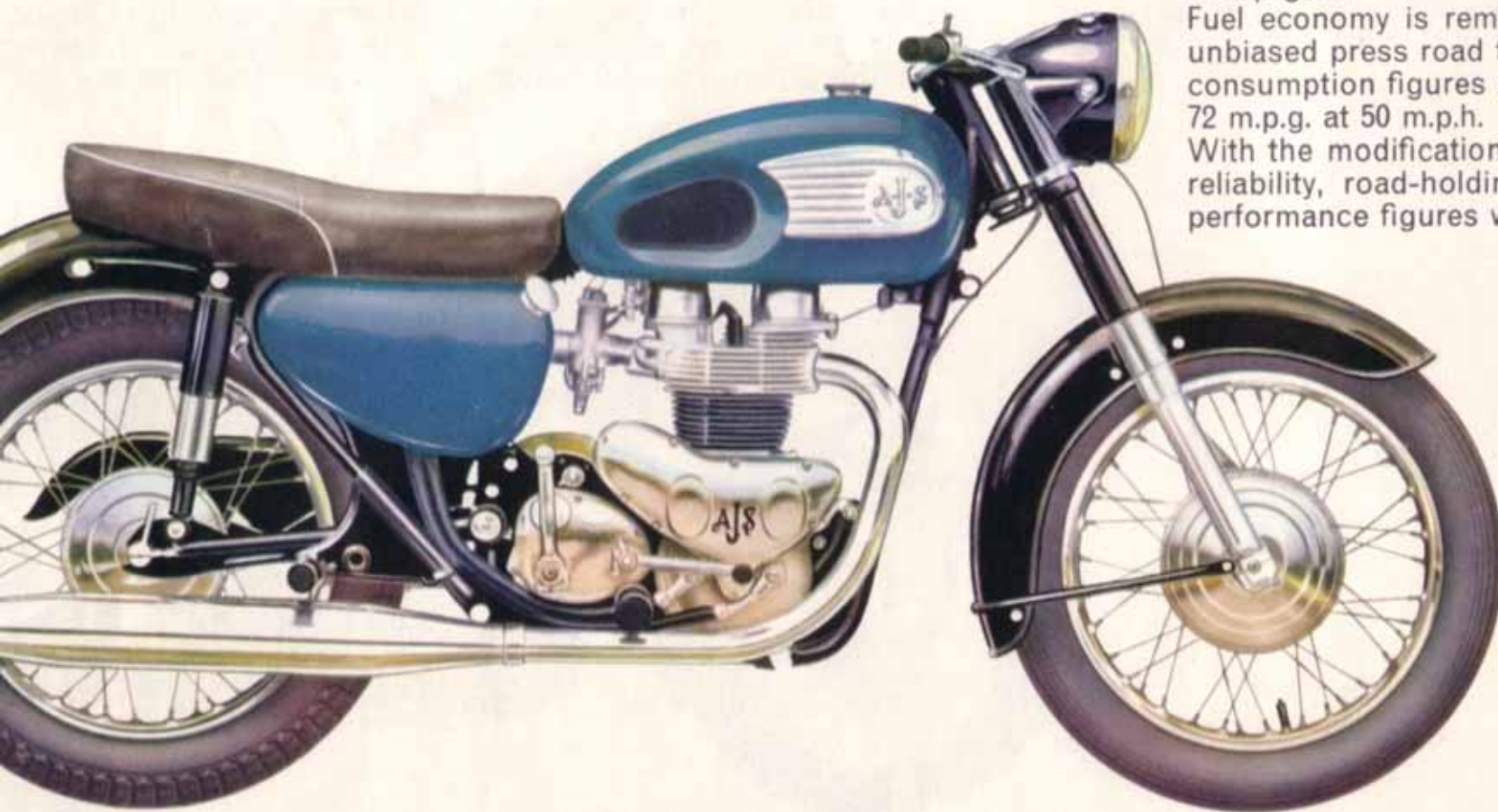
## OPTIONAL EXTRAS

Chromed mudguards and chainguard: fully enclosed rear chaincase: air cleaner: steering damper: steering lock: safety bars: luggage carrier: luggage panniers.



the BIG twin 650cc. MODEL 31

s w i f t



This twin cylinder machine has all the virtues that one would expect of such a large capacity motor cycle, plus some of the virtues normally associated with lightweights.

Speed and power it has in abundance, yet when used in town or dense traffic, it is as docile as a much smaller capacity machine. With the new silencers, which absorb less power than their predecessors, even more punch is forthcoming this year, and combining this with the engine's inherent flexibility, one has, in the Swift, a machine capable of pulling heavy loads at either low or high speeds in top gear.

Fuel economy is remarkable for a 650cc. twin. An unbiased press road test of a 1962 model returned consumption figures of 108 m.p.g. at 30 m.p.h., and 72 m.p.g. at 50 m.p.h.

With the modifications made to this year's model, reliability, road-holding, braking, and power and performance figures will be even better.

# technical details

## ENGINE

646 cc. o.h.v. vertical twin (72 m.m. bore x 79.3 m.m. stroke). Both the cylinder barrels and heads are separate for ease of maintenance. Barrels are deeply spigotted in crankcase for rigidity.

Light alloy cylinder heads with cast-in valve seats: stellite tipped valves: multi-rate coil valve springs: one piece rockers adjustable by eccentric spindles, which are mounted between pillars integral with heads: hiduminium push rods: lever cam followers with Deichrome pads: separate camshafts mounted fore and aft of barrels: one piece three bearing crankshaft supported by two large diameter roller bearings and plain centre bearing: indium flashed lead bronze big-end bearings: forged alloy connecting rods: forged alloy pistons: two large capacity gear type oil pumps: ignition by battery and coil, with independent emergency start circuit.

## GEARBOX

Separate from gearbox for primary drive adjustment: 4 speeds, positive foot change, driven through multi-plate clutch incorporating rubber vane type shock absorber:

## FORKS

Heavy duty Teledraulic forks: two way oil damped with multi-rate springs: alloy sliders and chromed extensions.

## FRAME

Twin tube duplex cradle of brazed and bolted construction: integral sidecar lugs: rear sub-frame loops are short and swinging fork braced for rigidity. Rear suspension by Girling adjustable units.

## LIGHTING

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

## WHEELS

18" diameter with Dunlop tyres.

## BRAKES

7" diameter; full width alloy hubs:

## TWINSEAT

Two level foam rubber with waterproof covering.

## COLOUR FINISH

Black, with usual parts chromium plated.  
Blue tanks and toolbox optional.

## OPTIONAL

Upswept handlebars: sidecar gears and suspension: siamezed exhaust.

## OPTIONAL EXTRAS

Magneto igniton: fully enclosed rear chaincase: air cleaner: steering damper: steering lock: safety bars: luggage carrier: luggage panniers.

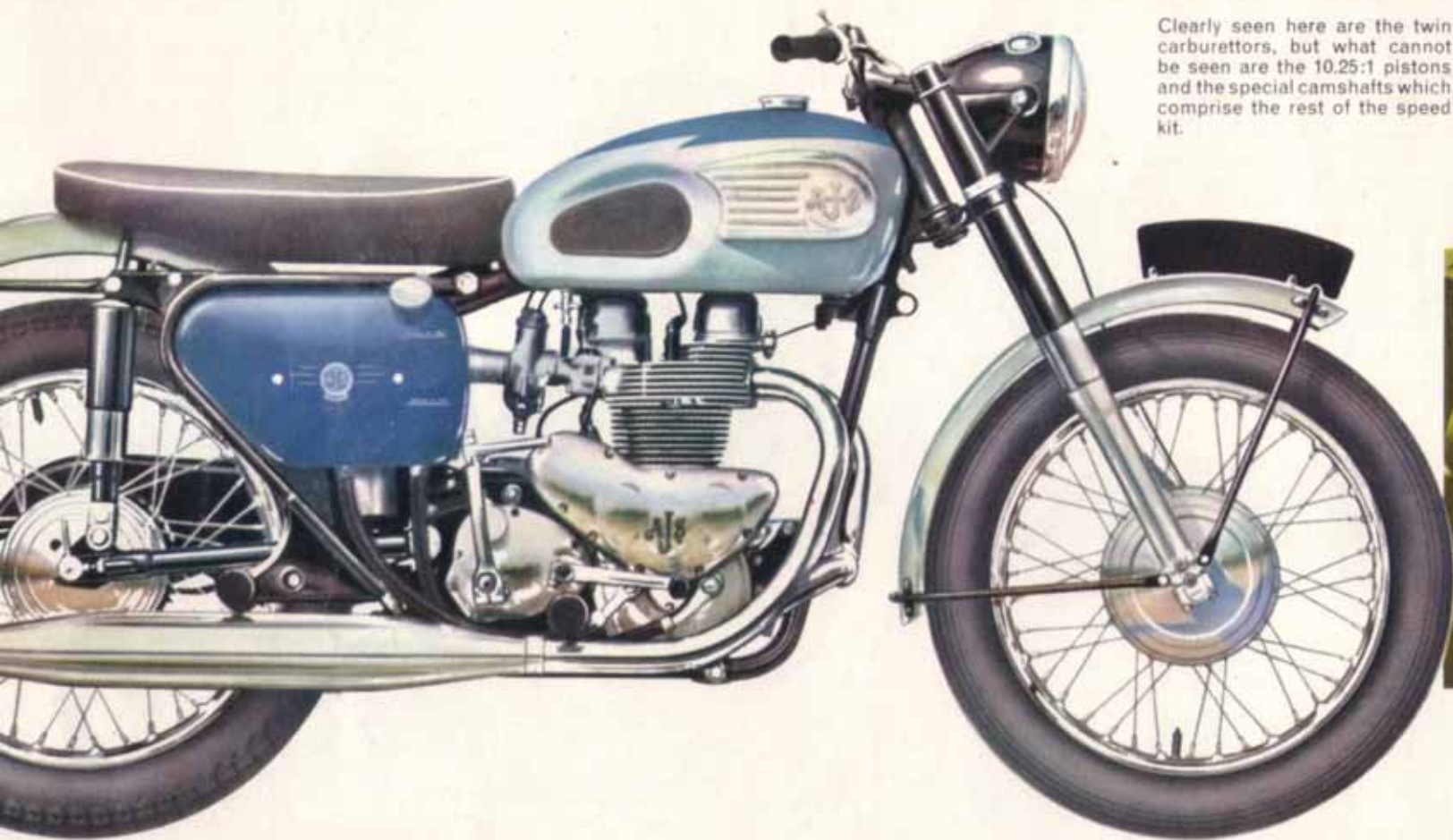


The Swift is particularly popular among three-wheel enthusiasts, and provision is made for sidecar attachment with lugs which are integral with the frame. Sidecar gears and suspension are also available at no extra charge.



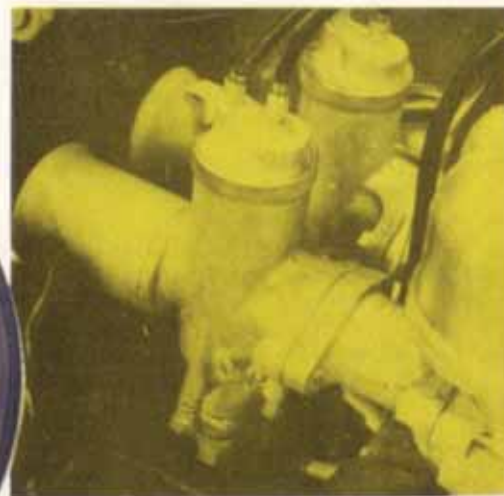
SPORTS twin 650cc. MODEL 31CSR

# hurricane



The handlebar cowl which fits neatly around the headlamp and houses the rev-counter, speedometer, ammeter and light switch. Headlamp adjustment is by three spring loaded screws.

Clearly seen here are the twin carburetors, but what cannot be seen are the 10.25:1 pistons and the special camshafts which comprise the rest of the speed kit.





The phenomenal performance of the Hurricane is improved by the fitment of the new high capacity silencer, but even more power is available if advantage is taken of the speed kit. Although the top speed is increased, the most impressive benefit of the speed kit is the considerable extra punch obtained in the middle and bottom ranges of the power scale. 19" wheels are retained for stability at maximum speeds, whilst the slimmer brakes are retained in the interests of unsprung weight. Specification is basically similar to the Model 31 SWIFT, but with various alterations as listed below:

**ENGINE**

Highly tuned: magneto ignition with manual advance and retard.

**FRAME**

Slightly longer rear sub-frame to accommodate larger wheels, but braced. Swinging fork is of new type.

**MUDGUARDS**

Polished light alloy.

**WHEELS**

19" diameter.

**BRAKES**

7" diameter: full width hubs.

**TWINSEAT**

Competition type.

**COLOUR FINISH**

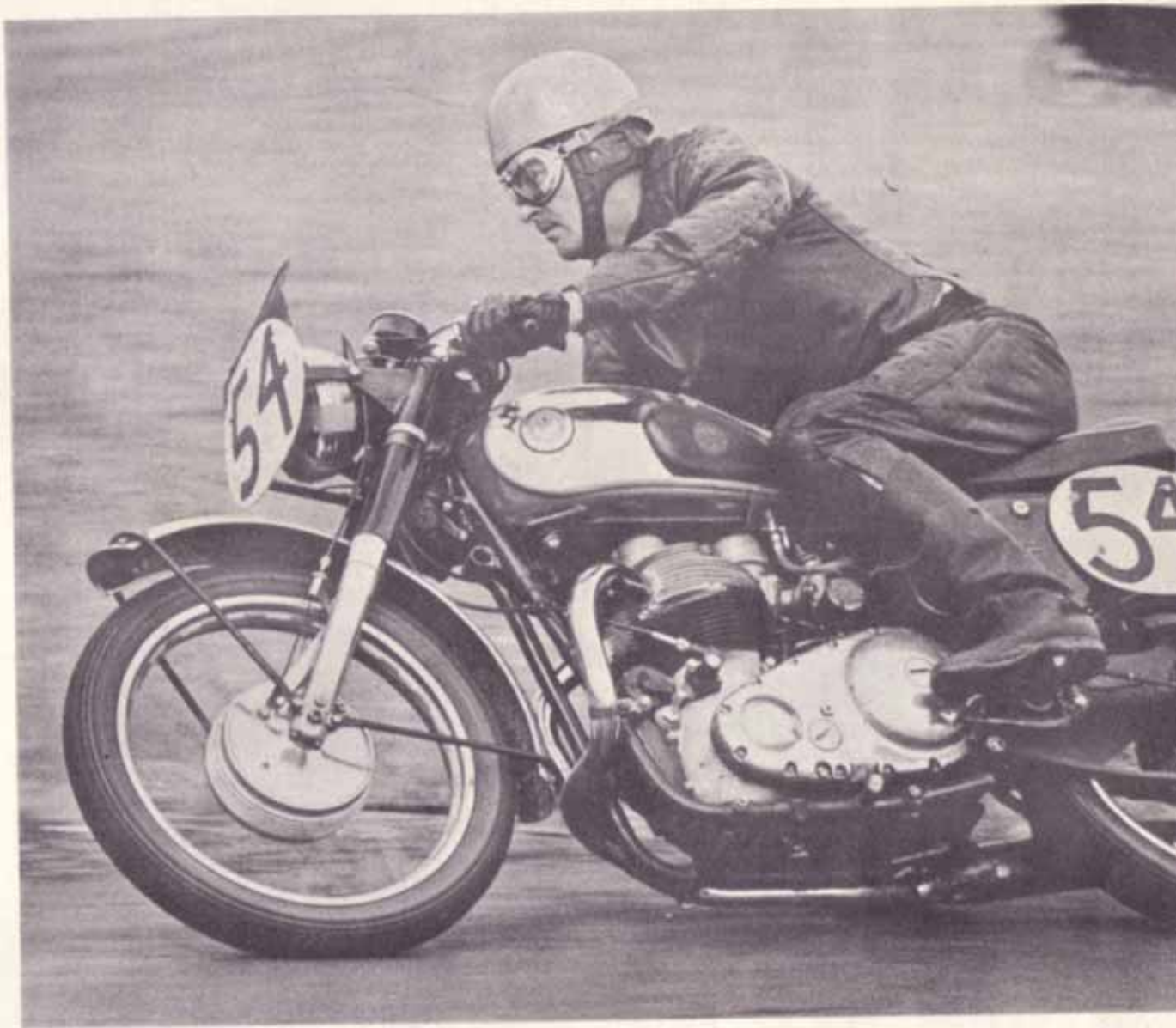
Black, with blue tanks and toolbox.

**OPTIONAL**

Upswept handlebars: sidecar gears and suspension.

**OPTIONAL EXTRAS**

Speedkit comprising twin carburettors, 10.25:1 pistons and special camshafts: rev-counter: headlamp cowling: steering damper: steering lock: safety bars: Q.D. rear wheel.

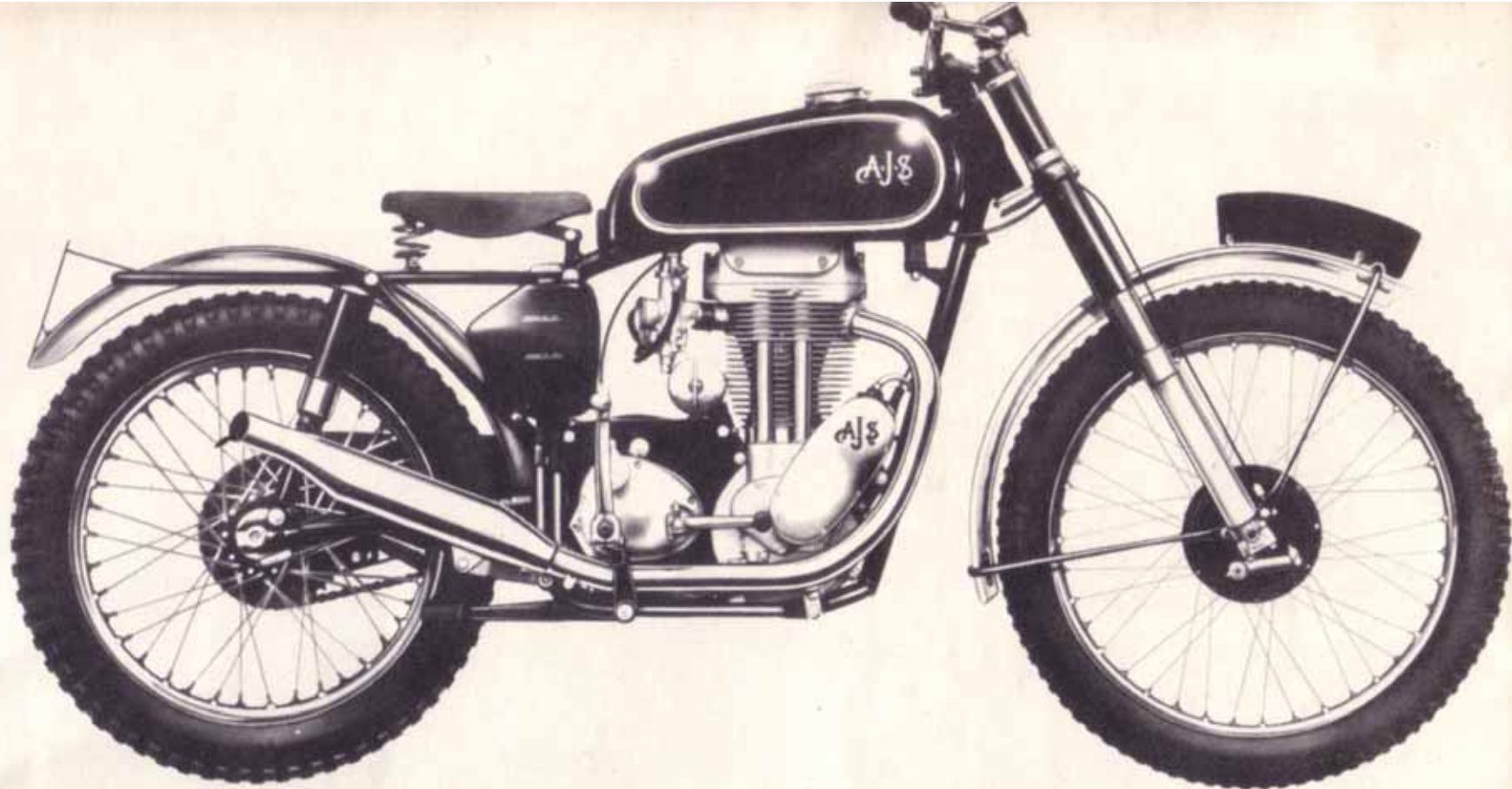


The 31CSR has been successfully raced in production machine events, and is also very popular among the Isle of Man T.T. travelling marshalls. Shown here is Bob Manns on the model he shared with co-rider Mick Gunyon in the 1962 Thruxton 500 Miles Production Machine Race.

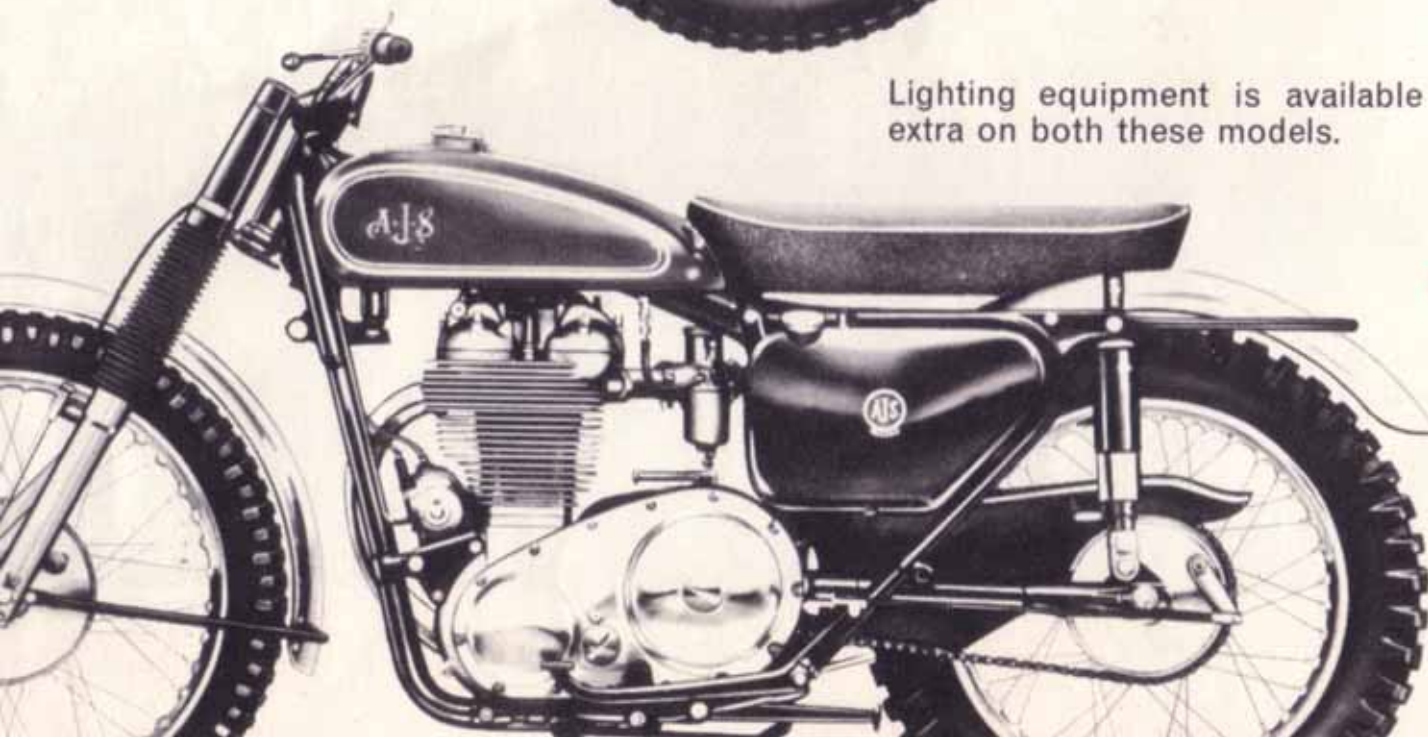
## MODEL 16C Trials

### experts

Successful trials machine ever to be available, and now the only 350cc. in production. Its record in the U.S. and other open trials speaks for itself.



Lighting equipment is available as an extra on both these models.



## 500cc. MODEL 18CS Scrambles

### southerner

For 1963, a bigger front brake and a more efficient air-cleaner. Add the optional 12:1 piston, and you have a machine virtually identical to the very successful Works scramblers.

		Sapphire	Sapphire Super Sports	Sceptre	Statesman	Swift	Hurricane	Experts
Capacity c.c.		248	248	348	498	646	646	347
Engine Type		Ohv Single	Ohv Single	Ohv Single	Ohv Single	Ohv Twin	Ohv Twin	Ohv Single
Bore & Stroke m.m.		70 × 65	70 × 65	74 × 81	82.5 × 93	72 × 79.3	72 × 79.3	69 × 93
COMPRESSION RATIO		7.8	8	8.5	7.3	7.5	8.5	6.5
GEAR RATIOS	Top	6.89	6.51	5.51	4.79	4.59	4.78	6.48
" "	3rd	8.95	8.46	6.72	5.85	5.6	5.83	10.10
" "	2nd	12.75	12.03	9.37	8.15	7.81	8.13	15.80
" "	1st	20.12	19.00	14.11	12.27	11.76	12.23	21.00
TYRES	Front	3.25 × 17	3.25 × 17	3.25 × 18	3.25 × 18	3.25 × 18	3.25 × 19	2.75 × 21
"	Rear	3.25 × 17	3.25 × 17	3.25 × 18	3.50 × 18	3.50 × 18	3.50 × 19	4.00 × 19
CARBURETTER	Amal	Monobloc	Monobloc	Monobloc	Monobloc	Monobloc	Monobloc	Monobloc
	Choke Size	1 $\frac{1}{16}$ "	1 $\frac{1}{8}$ "	1 $\frac{1}{4}$ "	1 $\frac{3}{16}$ "	1 $\frac{1}{4}$ "	1 $\frac{1}{4}$ "	1 $\frac{1}{16}$ "
BRAKES	Front	6"	6"	7"	7"	7"	7"	5 $\frac{1}{2}$ "
"	Rear	6"	6"	7"	7"	7"	7"	5 $\frac{1}{2}$ "
PETROL TANK	Gallons	3 $\frac{1}{4}$	3 $\frac{1}{2}$	4	4	4	4	2
OIL TANK	Pints	2 $\frac{1}{2}$	2 $\frac{1}{2}$	4	4	4	4 $\frac{1}{2}$	2 $\frac{1}{2}$
SEAT HEIGHT		29"	29 $\frac{1}{2}$ "	29 $\frac{1}{2}$ "	29 $\frac{1}{2}$ "	29 $\frac{1}{2}$ "	31"	32"
GROUND CLEARANCE		6"	6 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	10"
WEIGHT	lbs	325	328	382	394	403	390	306

## G U A R A N T E E

All A.J.S. Motor Cycles are sold by appointed dealers subject to the limited guarantee adopted by the British Cycle and Motor Cycle Industries Association Ltd. Shortage of space prevents it being printed in full in this leaflet, but a copy will be supplied on application.

\* Specific publication to alterations without price

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