AJS

1954

The Race-bred Motor Cycle

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A·J·S MODELS FOR 1954

Foreword

The fact that A.J.S. Motorcycles have won innumerable International Races, and hold more World speed records than any other make of British motorcycle, would serve no useful purpose whatsoever, but for the fact that the invaluable information gained by official participation in these events is clearly discernible in the standard models.

As a result, A.J.S. Motorcycles enjoy an outstanding reputation throughout the world among enthusiasts who are able to appreciate the advantages of owning a "Race Bred Motorcycle", and who know that the model of their choice is not only superbly finished, but provides an all-round performance and standard of reliability that is unsurpassed by any other motorcycle.

The qualities that enabled A.J.S. riders to win 19 of the 29 Silver replicas awarded in the 1953 Junior Isle of Man T.T. are inherent in every A.J.S. Motorcycle.

RIDE A·J·S AND ENSURE SUCCESS

A·J·S MOTOR CYCLES

Proprietors: ASSOCIATED MOTOR CYCLES LTD.

PLUMSTEAD ROAD · LONDON, S.E.18 · ENGLAND

Telephone: WOOlwich 1223 *Telegrams:* ICANHOPIT, WOL, LONDON

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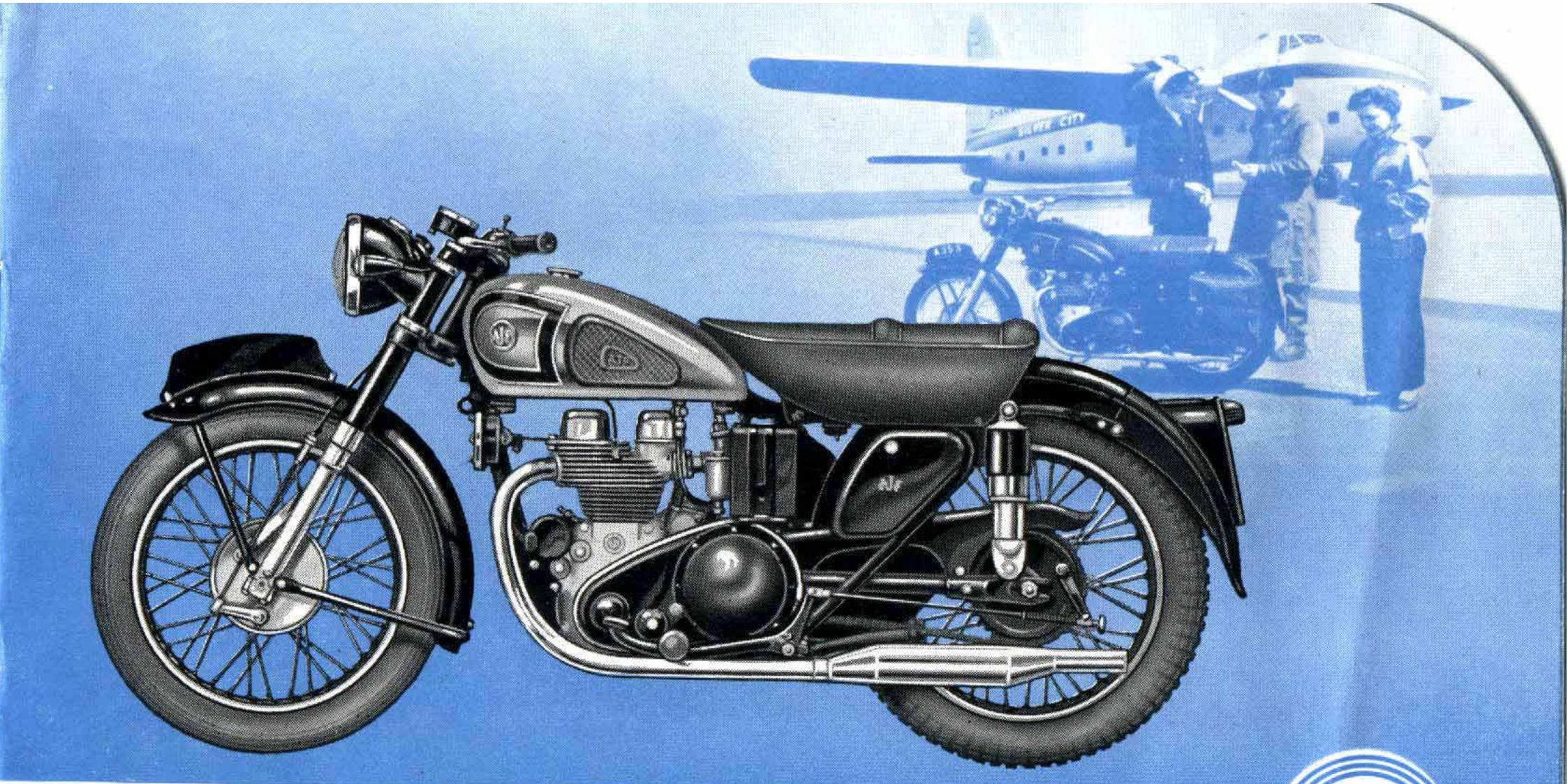

Model 20 "THE SPRINGTWIN" 498 c.c. O.H.V. VERTICAL TWIN

A model that provides mechanical and performance perfection

For full specification see page 10

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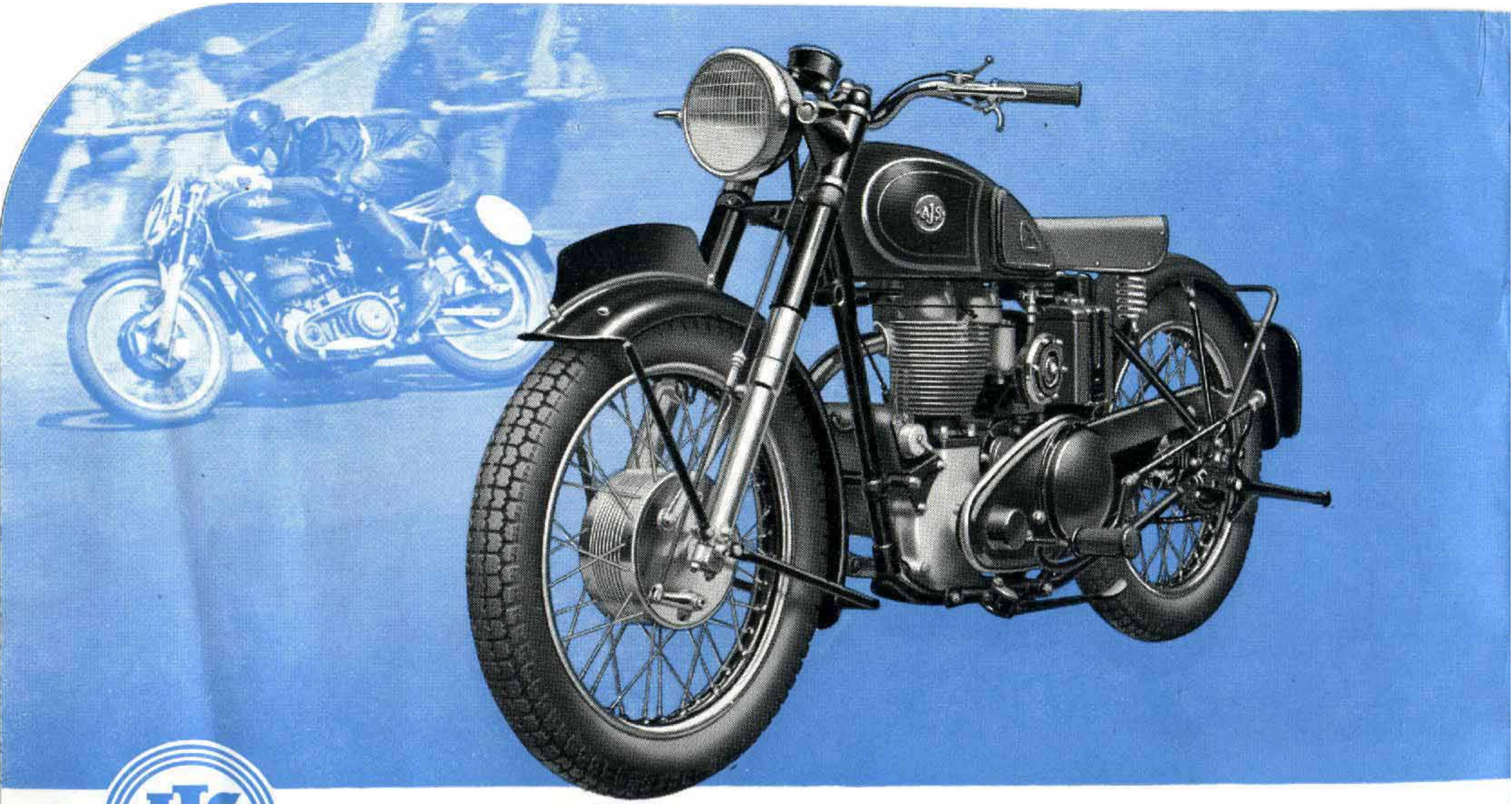

Model 16 M 347 c.c. O.H.V.

A fast, light, economical and superbly finished "350"

For full specification see page 10

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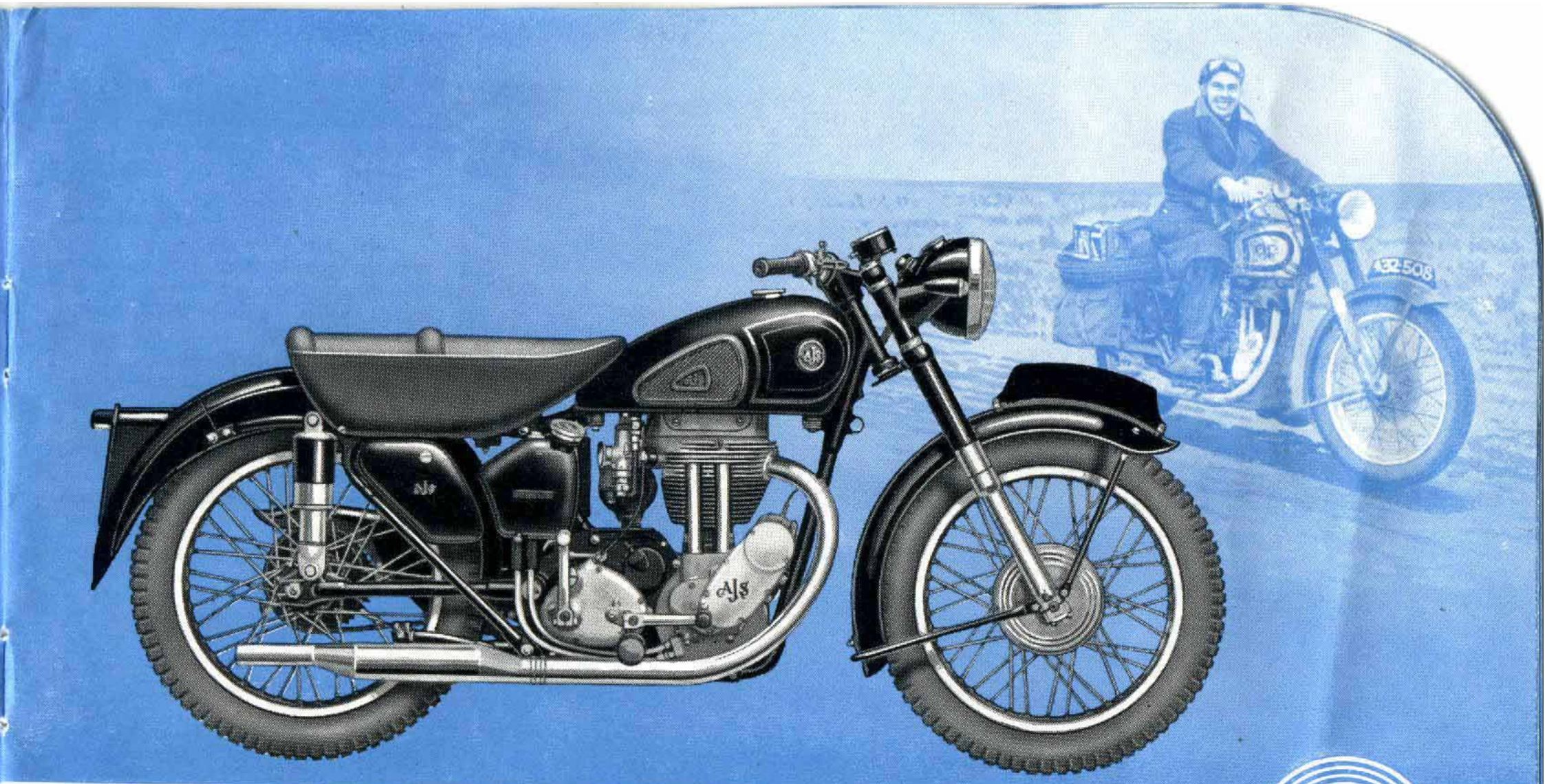

Model 18S 498 c.c. O.H.V.

Unsurpassed for high speed long distance riding

For full specification see page 10

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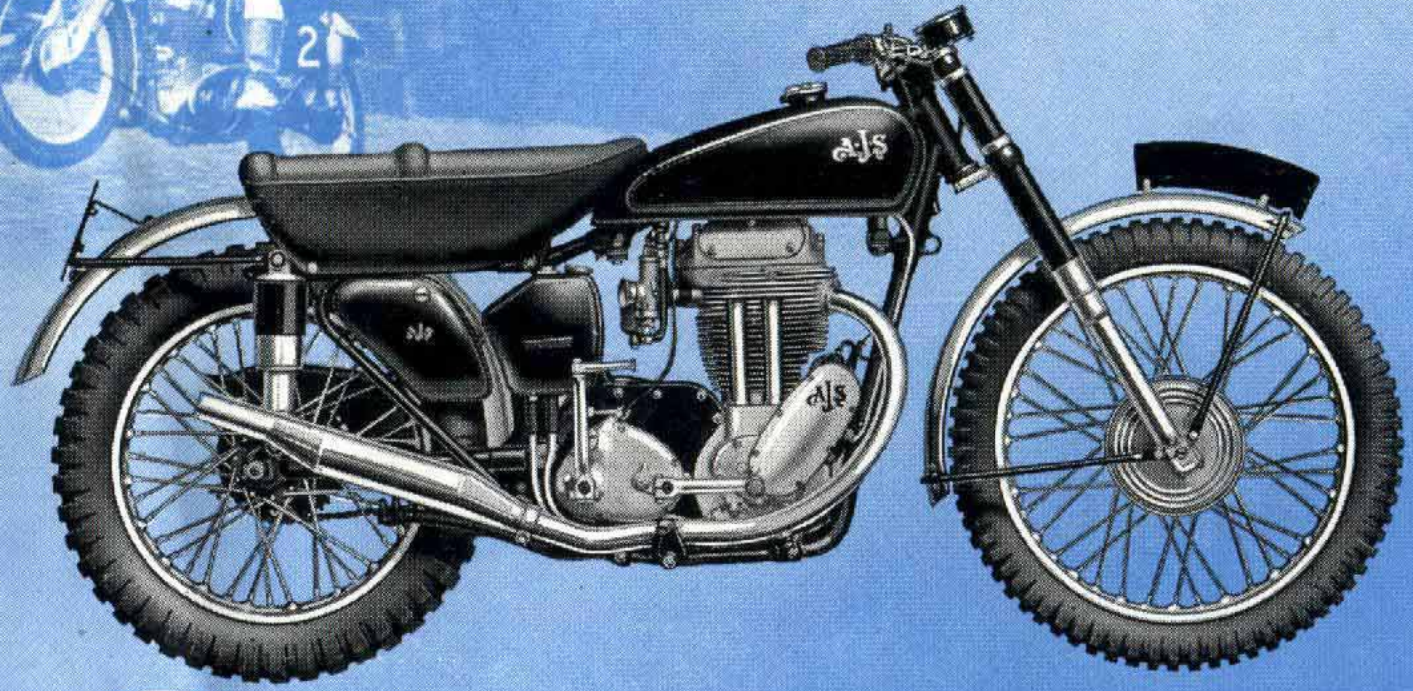

The Competi

For the 1954 Season the highly successful A.J.S. Competition Models have been still further improved, and in their latest form they are undoubtedly the most efficient machines manufactured for use in normal observed trials or high-speed cross-country scrambles.

As the Competition Models differ considerably from the standard specification, the following basic deviations are listed; The Rigid models are fitted with a new short wheelbase, high ground clearance frame of welded construction and special rear suspension units are fitted to the Spring frame models.

Both types are fitted with Light Alloy mudguards, cylinder barrel and 2 gall. petrol tank, waterproof magneto, 4.00″ x 19″ rear and 3.00″ x 21″ front Dunlop Trials Tyres, folding

Models 16 MCS 347 c.c. O.H.V. and 18 CS 498 c.c. O.H.V.

Models that have made history by winning

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ition Models

kickstarter, undershield, high-level exhaust system and cylindrical tool box.

The Spring frame models are supplied with racing cams, high compression piston, special footrests, standard ratio gear box and Twinseat.

The Rigid models are equipped with a wide ratio gear box and Dunlop waterproof saddle.

OPTIONAL EQUIPMENT

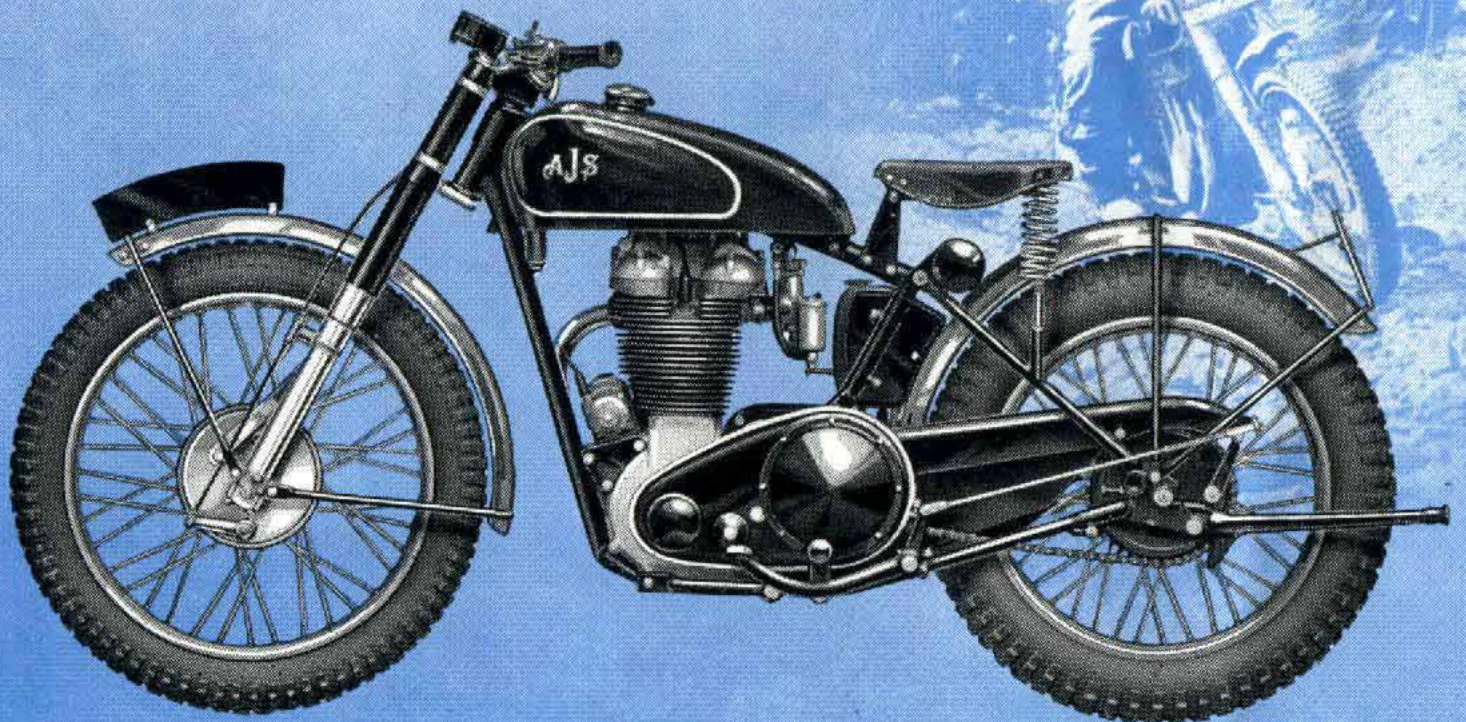
3 gall. steel tank, standard or wide ratio gears, standard rear wheel and cams.

OPTIONAL EXTRAS

Quickly detachable electrical equipment, Dunlop knobbly Tyres, exhaust pipe extension.

MODEL 7R

As in previous years, the 348 c.c.O.H.C. Racing Model 7R is covered by a separate pamphlet.



Models 16 MC 347 c.c. O.H.V. and 18 C 498 c.c. O.H.V.

four post-war Scottish Six Days Trials

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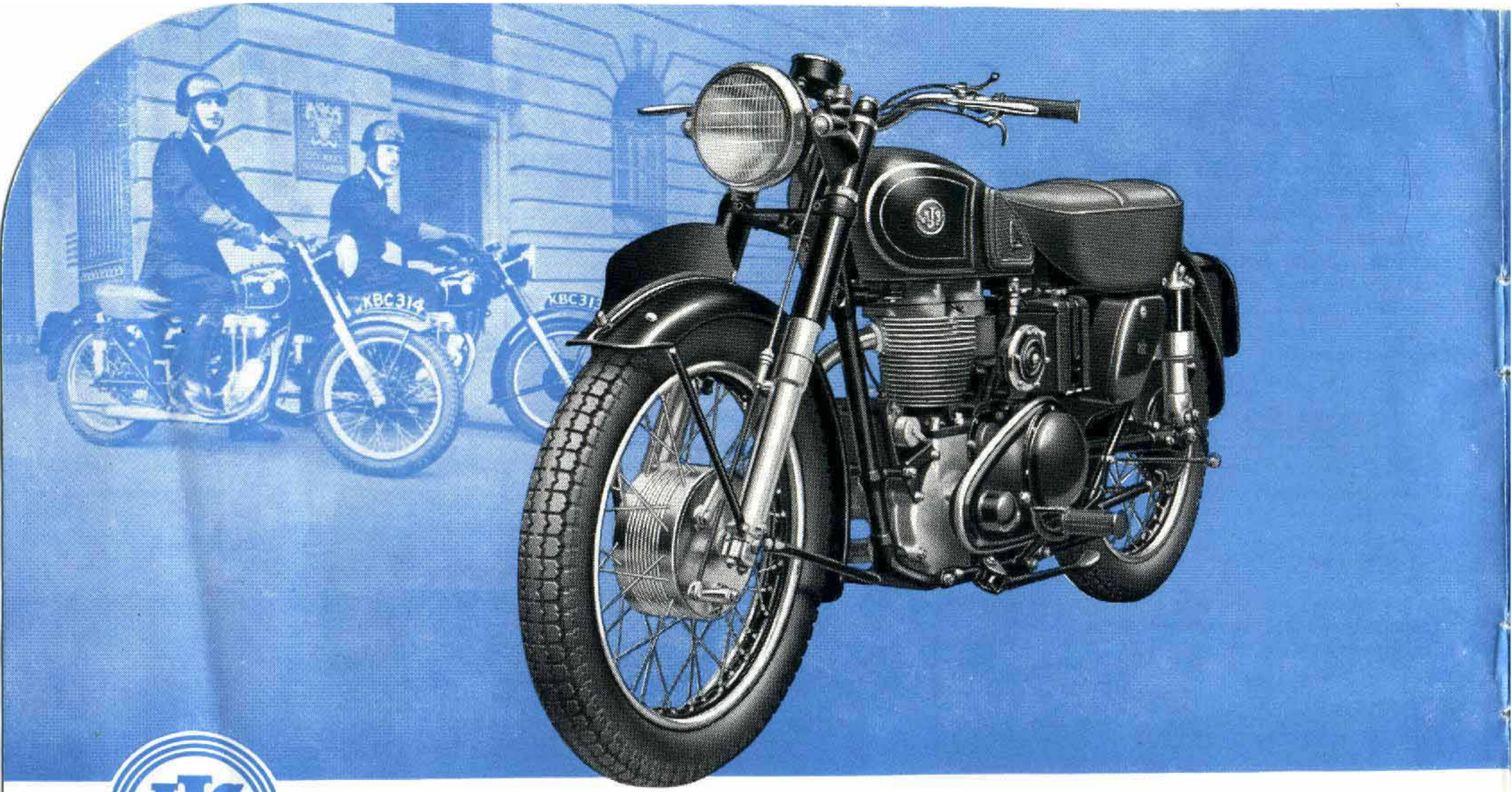

Model 16 MS 347 c.c. O.H.V.

The most efficient and popular 350 c.c. Spring frame motorcycle manufactured

For full specification see page 10

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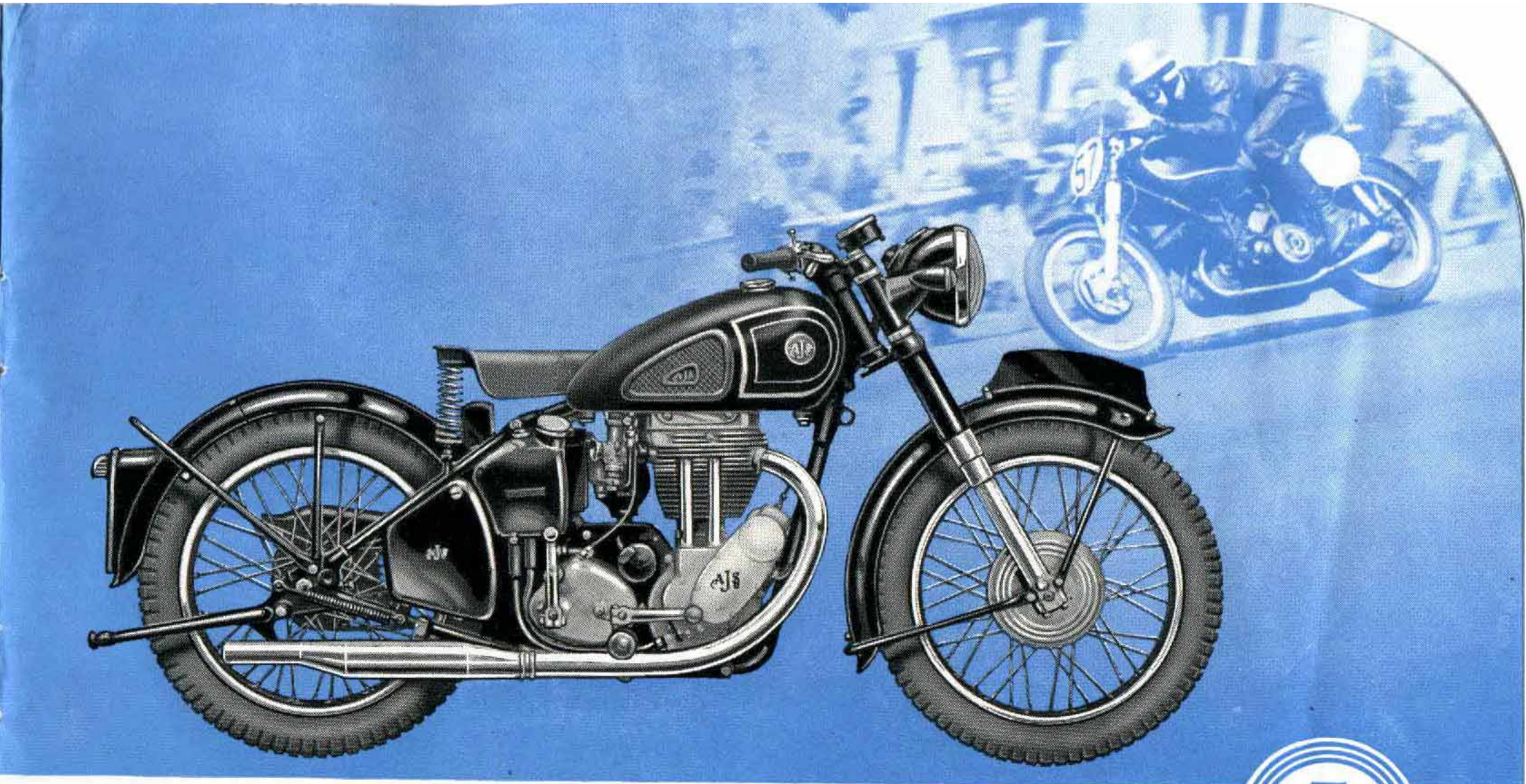

Model 18 498 c.c. O.H.V.

Quality, performance and economy for the solo or sidecar rider

For full specification see page 10

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SPECIFICATION

In view of the similarity that exists between the Single and Twin cylinder models, a general specification is provided with separate specifications for the engines which are of entirely different design.

ENGINE—Single Cylinder

Capacity 347 c.c. *Bore* 69 m.m. *Stroke* 93 m.m.
,, 498 c.c. ,, 82.5 m.m. ,, 93 m.m.

Light Alloy single port O.H.V. cylinder head, chromium plated Stellite tipped valves operated by Duralumin pushrods and twin cam wheels ; individually balanced flywheels, forged steel connecting rod ; two-piece crankpin, triple row caged roller big end bearing ; low clearance wire wound piston; twist grip operated Amal carburettor, thermally insulated from cylinder head, 32-watt dynamo and Lucas magneto with individually enclosed chain drive ; automatic ignition control on 500 c.c. models and manual on '350s'. Full dry sump lubrication system with separate tank, detachable fabric oil filter, large capacity duplex plunger pump and positive lubrication to all moving parts.

ENGINE—Twin Cylinder

Capacity 498 c.c. *Bore* 66 m.m. *Stroke* 72.8 m.m.

Three bearing Alloy iron crankshaft ; Light Alloy forged connecting rods, Vandervell big end and centre main bearings ; large dia. caged roller main bearings, spherical die cast crankcase, twin gear driven camshafts, deeply spigoted separate cylinders and separate deeply finned Light Alloy O.H.V. cylinder heads with cast-in valve seats ; tubular Duralumin pushrods, eccentric rocker spindle valve adjustment, wire wound pistons and chrome plated top piston rings. All moving parts totally enclosed and positively lubricated by full dry sump lubrication system operated by two camshaft driven gear pumps. Flange mounted gear-driven 45-watt dynamo and Lucas magneto, semi-automatic twist grip operated Amal carburettor and twin flexible petrol pipes.

GEAR BOX

Racing type heavyweight 4-speed, enclosed foot operated positive stop gear change and dry multi-plate clutch.

TRANSMISSION

Lubricated cam type engine shaft shock absorber, primary chain enclosed in oil bath with new clutch inspection cover, deep and efficient rear chain guard. Rear chain adjustment unaffected by wheel removal.

FRAME

The rigid frame is of brazed construction and duplex cradle type. Integral sidecar and pillion footrest lugs are provided in addition to rear, prop and front stands. The Spring frame is of similar basic type and construction, with a robust swinging arm, controlled by two oil damped Teledraulic suspension units.

TANKS

All steel of welded construction. Twin filter petrol taps, quick action filler caps, detachable oil filter.

Capacities : 350 c.c.—Petrol : 3 gall. Oil : 4 pints
500 c.c.—Petrol : 3¾ gall. Oil : 4 pints

FORKS

Patented self-lubricating, oil damped, Teledraulic.

MUDGUARDS

Improved deep section steel guards with central rib and tubular stays. Quickly detachable rear portion for wheel accessibility.

BRAKES

7″ dia. internal expanding front and rear with finger and secondary shim adjustment.

WHEELS AND TYRES

Full width cast Light Alloy front hub with straight spokes, fabricated steel rear hub of great strength, adjustable caged taper roller bearings.
350 c.c. Models—3.25″ x 19″ Dunlop Tyres front and rear
500 c.c. Models—3.25″ x 19″ front and 3.50″ x 19″ rear Dunlop Tyres

TWINSEAT AND SADDLE

Of exclusive A.J.S. design. Grained and piped Vynide-covered Dunlopillo of deep and comfortable section. Rigid models fitted with fully adjustable large size spring top saddle.

TOOL BOX

Twin pannier type on Spring frame models, and very deep section single box on Rigid models.

ELECTRIC LIGHTING

7″ dia. headlamp with twin pilot lights of new and efficient design. Large and brilliant plastic moulded rear light, new handlebar dipper switch, separate voltage control unit and electric horn.

FINISH

Three thicknesses of stoved black enamel of traditional A.J.S. quality, petrol tank hand-lined, polished fork sliders front hub, etc., and all permissible parts and Springtwin petrol tank heavily chromium plated. All ferrous parts Bonderised before enamelling.

EQUIPMENT

Illuminated speedometer, tool kit to cover all normal requirements, grease gun, tyre pump and comprehensive Maintenance Manual.
(Details of extra and optional equipment are provided on page 11 and in the Spares Book.)

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Guarantee

NOTICE

We do not appoint agents for the sale on our behalf of our motorcycles 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 representation, or incur any liability on our behalf.

GUARANTEE

We give the following guarantee with our motorcycles, motorcycle combinations and sidecars, which is given in place of any implied conditions, warranties or liabilities whatsoever, statutory or otherwise, all such implied conditions, warranties and liabilities being in all cases excluded. Any statement, description, condition or representation contained in any catalogue, advertisement, leaflet or other publication shall not be construed as enlarging, varying or overriding this guarantee. In the case of machines (a) which have been used for "hiring-out" purposes, or (b) any motorcycle 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 removed, no guarantee, condition or warranty of any kind is given or is to be implied.

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 date of purchase, and damages for which we make ourselves responsible under this guarantee are limited to the free supply of a new part in exchange for the part of the motorcycle, motorcycle combination or sidecar which may have proved defective. We do not undertake to replace or refix or bear the cost of replacing or refixing such new parts in the motorcycle, motorcycle combination or sidecar. We undertake subject to the conditions mentioned below, to make good at any time within six months any defects in these respects. As motorcycles, motorcycle combinations and sidecars are easily liable to derangement by neglect, or misuse, this guarantee does not apply to 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 motorcycle in such a manner as to cause damage or calculated to render the latter unsafe when ridden.

2. The use of a motorcycle or of a motorcycle 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 motorcycle by any form of attachment not provided, supplied or approved by us, or to a motorcycle which is not designed for such use.

Any motorcycle, motorcycle 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 or until the expiration of the six months above referred to, and this guarantee is in lieu and in exclusion of any common law or statute, warranty or condition, 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.

CONDITIONS OF GUARANTEE

If a defective part should be found in our motorcycles, motorcycle combinations or sidecars, or in any part supplied by way of exchange before referred to, 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 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. We do not guarantee specialities such as tyres, saddles, chains, electrical equipment, lamps, etc., or any component parts supplied to the order of the purchaser differing from standard specification, supplied with our motorcycles, motorcycle combinations, sidecars or otherwise.

LIST OF OPTIONAL EXTRA EQUIPMENT

Latex rubber or fully sprung Pillion Seat, folding Pillion Footrests, Luggage Carrier, Luggage Panniers, Air Cleaner, Stop Light.

THE A.J.S. FREE SERVICE SCHEME

It is strongly recommended that owners of new A.J.S. Motorcycles should avail themselves of the free Service Scheme operated by all home Dealers, full details of which are given on the card supplied with each machine.

NOTICE

All prices and specifications are subject to alteration without notice and all motorcycles and equipment are sold subject to the limited guarantee printed herein.

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TECHNICAL DATA

ITEM	16M	16MS	16MC	16MCS	18	18S	18C	18CS	20
Engine	347 c.c. O.H.V. SINGLE				498 c.c. O.H.V. SINGLE				498 c.c. O.H.V. Twin
Bore and Stroke	69 mm. × 93 mm.				82.5 mm. × 93 mm.				66 × 72.8mm.
Power	18 b.h.p. @ 5750 rpm			24 at 6000	24.4 b.h.p. @ 5500 rpm			30 at 5600	29@6800 rpm
Comp. Ratio	6.5 or 7.5	6.5 or 7.5	6.5 or 7.5	7.5	6.3 or 7.3	6.3 or 7.3	6.3 or 7.3	7.3	7.0 or 8.0
Carburettor	1 1/16"	1 1/16"	1 1/16"	1 1/16"	1 1/16"	1 1/16"	1 1/16"	1 1/16"	1"
Main Jet	150	150	150	150	180	180	180	180	180
Throttle Slide	6/4	6/4	6/4	6/4	29/4	29/4	29/4	29/4	6/4
Ignition Advance	37° or 7/16"	37° or 7/16"	37° or 7/16"	37° or 7/16"	37° or 7/16"	37° or 7/16"	37° or 7/16"	37° or 7/16"	39° or 3/8"
Engine Sprocket	18	18	16	16	21	21	18	18	20
Generator	6v 32w	6v 32w	—	—	6v 32w	6v 32w	—	—	6v 45w
Petrol	3G 13.6Lt.	3G 13.6Lt.	2G 9Lt.	2G 9Lt.	3¾G 16.9Lt.	3¾G 16.9Lt.	2G 9Lt.	2G 9Lt.	3¾G 16.9Lt.
Consumption	90 m.p.g.	90 m.p.g.	80 m.p.g.	80 m.p.g.	85 m.p.g.	85 m.p.g.	75 m.p.g.	75 m.p.g.	75 m.p.g.
Gear Ratios	5.8 7.6 9.9 & 15.4:1	5.8 7.6 9.9 & 15.4:1	6.6 10.4 16.1 & 21.1:1	6.6 8.6 11.2 & 17.3:1	5.0 6.5 8.5 & 13.3:1	5.0 6.5 8.5 & 13.3:1	5.8 9.1 14.1 & 18.9:1	5.8 7.6 9.9 & 15.4:1	5.3 6.9 8.9 & 13.9:1
Fork Oil	185 c.c. S.A.E. 20 OIL EACH LEG								
Suspension Oil	85 c.c. S.A.E. 20 OIL PER UNIT ALL SPRING FRAME MODELS								
Primary Chain	½" × 3/8" ALL MODELS								
Rear Chain	5/8" × ⅜" ALL MODELS								
Dyno. & Mag. Chain	3/8" × .225 ALL MODELS								
Wheelbase	54"	55½"	53"	55½"	54"	55½"	53"	55½"	55½"
Length	85"	86½"	82"	85½"	85	86½"	82"	85½"	86½"
Seat Height	30"	31½"	32½"	32½"	30"	31½"	32½"	32½"	31½"
Ground Clearance	5½"	5½"	6½"	6½"	5½"	5½"	6½"	6½"	5½"
Weight	344 lbs.	375 lbs.	293 lbs.	321 lbs.	354 lbs.	387 lbs.	296 lbs.	324 lbs.	394 lbs.

C.P. 1188/9/53/125M/K

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