

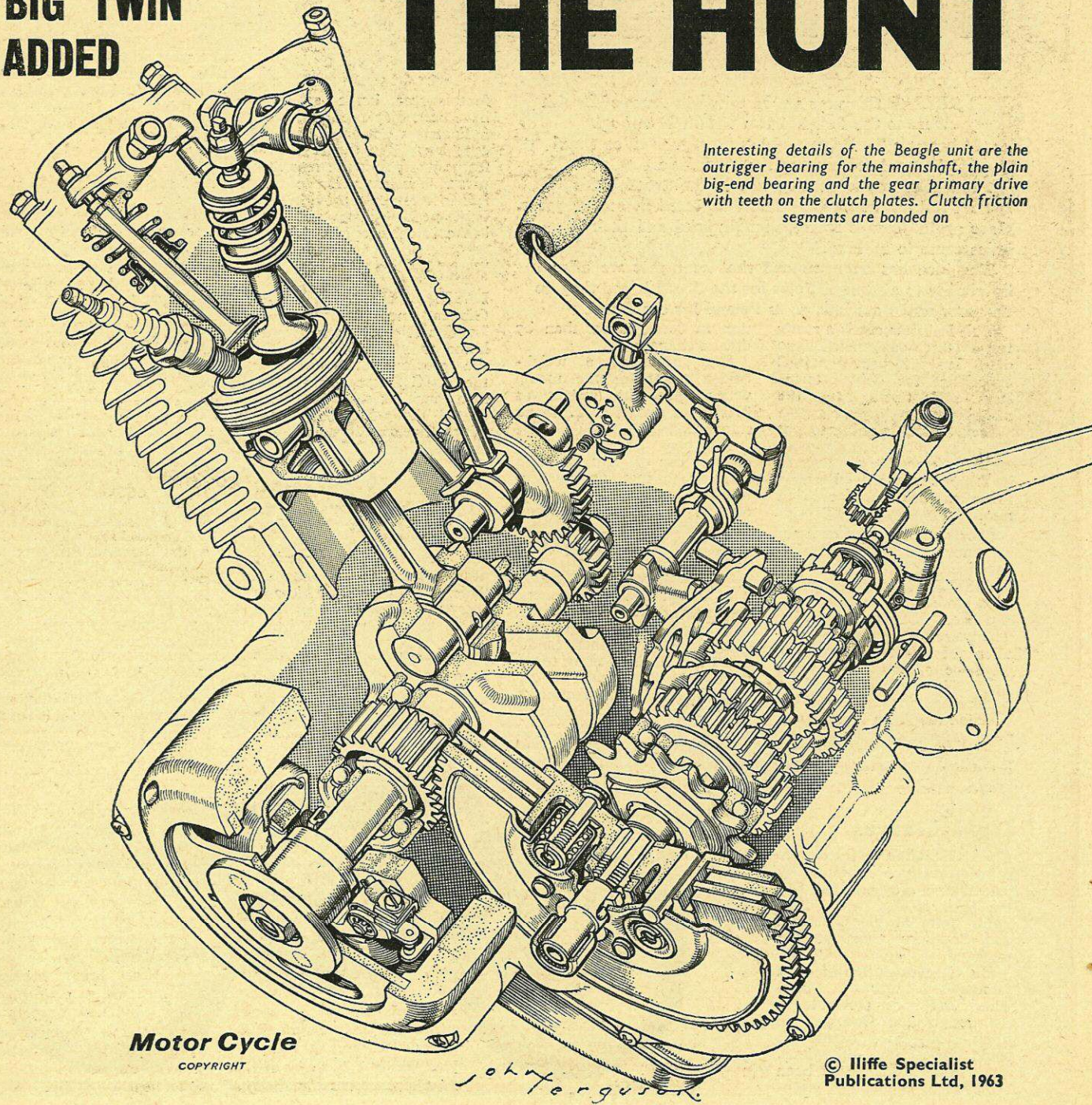
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**NEW BSA
LIGHTWEIGHT
IN PRODUCTION
SPORTS
BIG TWIN
ADDED**

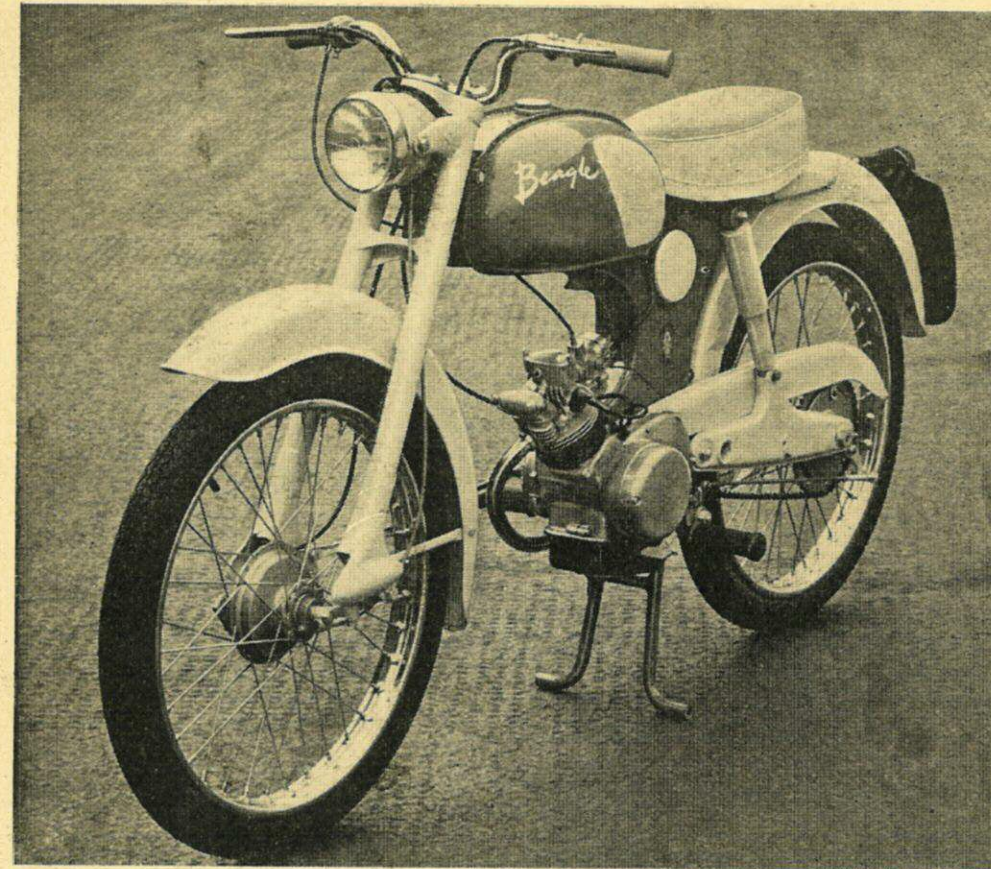
BEAGLE JOINS THE HUNT

Interesting details of the Beagle unit are the outrigger bearing for the mainshaft, the plain big-end bearing and the gear primary drive with teeth on the clutch plates. Clutch friction segments are bonded on

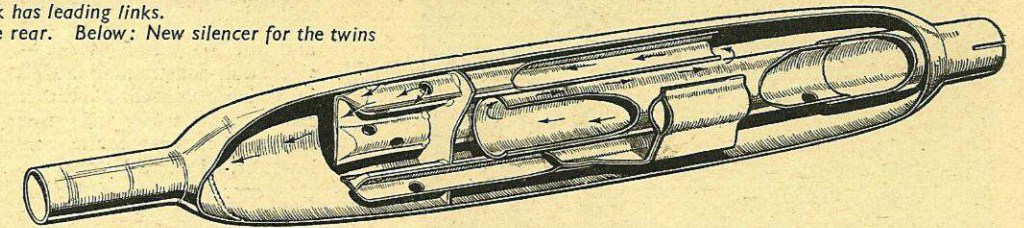


Motor Cycle
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The Beagle complete. Front fork has leading links. Girling units are employed at the rear. Below: New silencer for the twins



tool kit; the matching position on the right is occupied by an electric horn. Tyres are 2.25 x 19in section, and the wheels have 4½in front and 5in rear brakes.

Several unusual features are embodied in the four-speed, 74.8 cc engine-gear unit, notably the bolted-on, pressed-steel sump and the use of gear primary drive with teeth formed on the periphery of the two clutch friction plates. To ensure a straight push on the clutch thrust rod, rack and pinion mechanism is incorporated.

QUIETER

On the left, a flywheel magneto with direct-lighting coils is mounted outboard of the engine-shaft pinion. Finish of the model is in mist green and cream.

Sole BSA two-stroke motor cycle (there is a scooter, of course) is the 173 cc Bantam Super, now with improved silencing but otherwise, in standard form, unchanged.

However, coil ignition is now featured on the de luxe version, for which improve-

HAVEN'T seen any Beagles around as yet? No, but they'll be getting about in ever-increasing numbers from now on, for the production line has been given the thumbs-up signal. That marks the end of an intensive development period for the sporty little 75 cc overhead-valve BSA which, in prototype form, was first seen at the 1962 London Show. Meanwhile, at the upper end of the capacity scale, there is another Small Heath newcomer in the A65 Rocket, a high-performance version of the unit-construction 654 cc twin.

The latest Smiths magnetic speedometers, with integral anti-vibration mountings, are adopted throughout the range, as are number plates suitable for seven-character registrations. And to cope with the forthcoming noise-level limits, new silencer internals have been devised for the Bantam Super two-stroke and for the twins.

Withdrawn, pending possible reintroduction in modified form, is the famous 123 cc Bantam. Another absentee is the 646 cc A10 Rocket Gold Star, but plans for a replacement are well in hand.

Design of the Beagle has changed in detail since the early prototype. The more obvious modifications include the use of Girling damper units, instead of open coil springs, to control the rear fork; a longer seat is fitted and there is a more convenient location, at the rear of the cylinder, for the moulded-nylon sump dipstick.

Steel pressings form the backbone frame, which supports the power unit at three points. Seam-welded, oval-section pressings are employed in the pivoted rear fork; the front fork has tubular stanchions with, at the lower end, forged-steel leading links controlled by coil springs.

On the left, a cavity in the frame mid-section houses the

ments in starting and fuel consumption are claimed; the system is unorthodox, for while the headlamp is supplied with ac current direct from the alternator, the ignition coil, horn and pilot light draw current from a rectifier-charged battery.

An emergency start circuit is embodied—and so that the entire alternator output can then be passed to the ignition coil, the headlamp must be switched off.

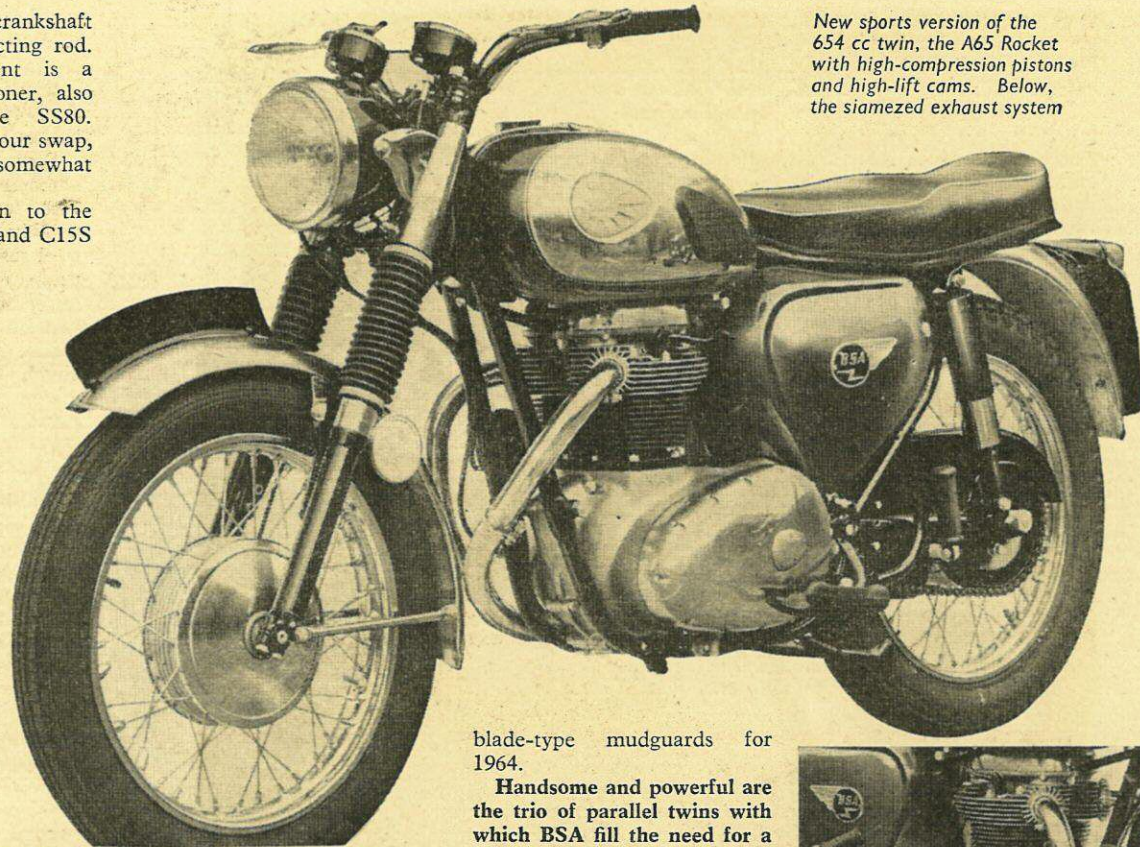
Basic model of the group of overhead-valve singles is the C15 250 Star, previously equipped with a plain big-end bearing but now brought into line with the more sporting SS80 and the competitions versions by the adoption of a roller bearing. This, in turn,

has meant a new crankshaft assembly and connecting rod.

Another refinement is a primary chain tensioner, also inherited from the SS80. Finally, there is a colour swap, from fuchsia to the somewhat richer royal red.

Principal alteration to the 249 cc C15T Trials and C15S Scrambles models is in the telescopic front fork, on which dust-excluding rubber bellows are now fitted. And there is a touch of becoming modesty in the scrambler, where shrouds now clothe the previously bare fork upper works.

Remaining C-group machine is the SS80 Sport Star, a high-performance version of the C15 provided with large-bore carburettor, sports camshaft and



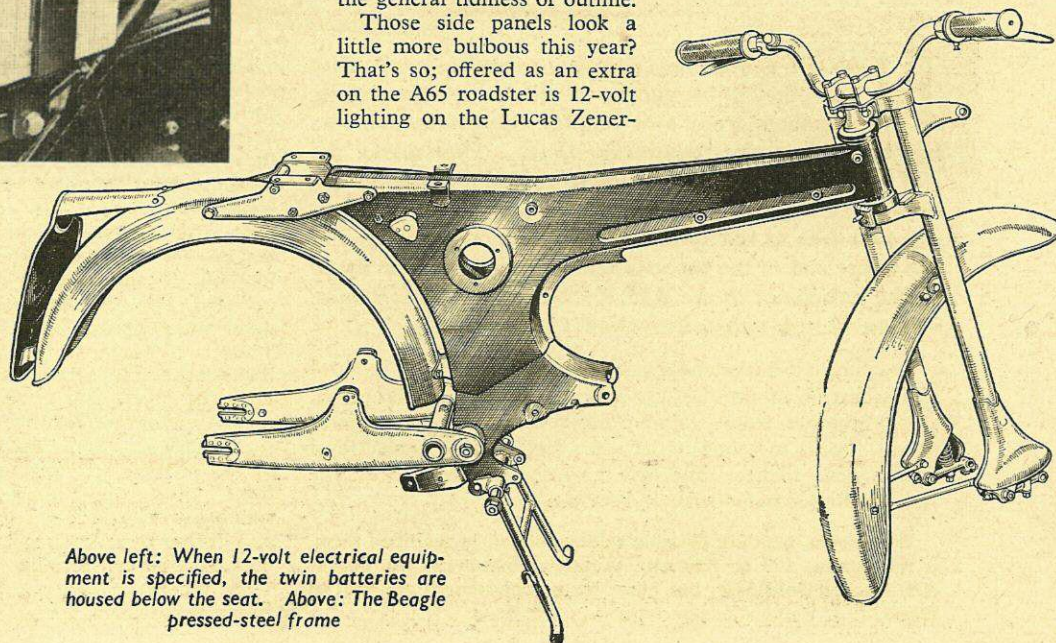
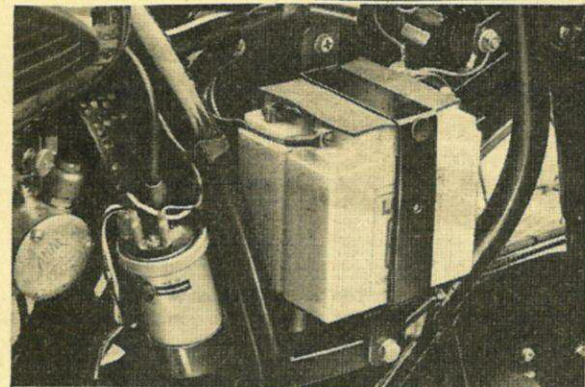
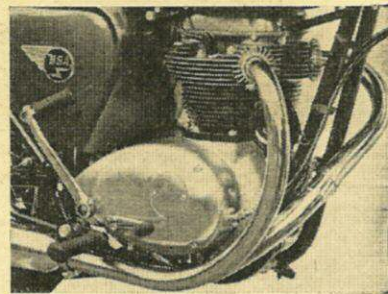
New sports version of the 654 cc twin, the A65 Rocket with high-compression pistons and high-lift cams. Below, the siamezed exhaust system

blade-type mudguards for 1964.

Handsome and powerful are the trio of parallel twins with which BSA fill the need for a bigger-capacity model.

Alike in design, they are the 499 cc A50, the 654 cc A65 and the new A65 Rocket—sleek, unit-construction models in which valanced, cantilever rear mudguards and side panels that encase the carburettor, all add their quota to the general tidiness of outline.

Those side panels look a little more bulbous this year? That's so; offered as an extra on the A65 roadster is 12-volt lighting on the Lucas Zener-



Above left: When 12-volt electrical equipment is specified, the twin batteries are housed below the seat. Above: The Beagle pressed-steel frame

high-compression piston; a minor change, more in keeping with the model's nature, is the substitution of blade-type mudguards for the previous valanced guards.

Developed from the two-fifties (recognition point: the pushrods operate in tunnels cast into the cylinder barrel, instead of in an external tube) are the pair of 343 cc models—B40 roadster and SS90 sports. No change for the B40, but the SS90, like its smaller-capacity sister, adopts

diode principle—and the more rounded covers provide room for the extra bulk of twin batteries.

Externally, the silencers may seem as before, but in place of glass-wool absorption material there is a newly designed system of steel baffles.

PEPPED-UP

Latest sports twin from Small Heath, the A65 Rocket is (as the name implies) derived from the roadster model, but there is a considerable step-up in power output. High-compression (9 to 1 ratio) pistons are specified, together with high-lift cams and strengthened valve springs;

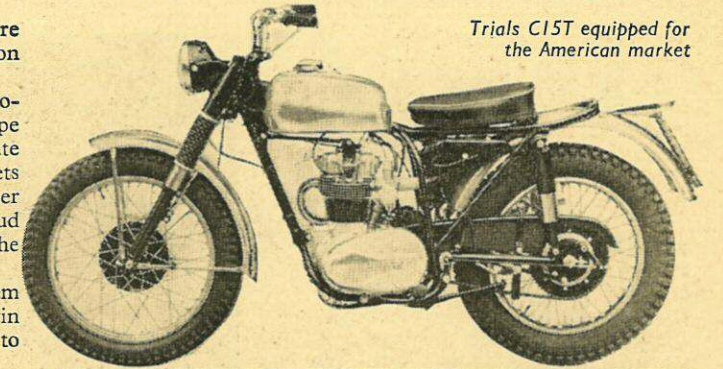
accordingly, clutch plates are faced with heavy duty friction material.

Trimmings include chromium-plated, sports-type mudguards and a separate headlamp carried on brackets from the fork shrouds. Rubber bellows exclude dust and mud from the sliding joints of the front fork.

A siamezed exhaust system is normally fitted, but twin pipes can be supplied to special order.

Revmetre? Yes, that's an optional extra and, when fitted, is carried together with the speedometer in a bracket from the fork top yoke.

If you want a revmetre, order it when you order the bike; reason is that the drive



Trials C15T equipped for the American market

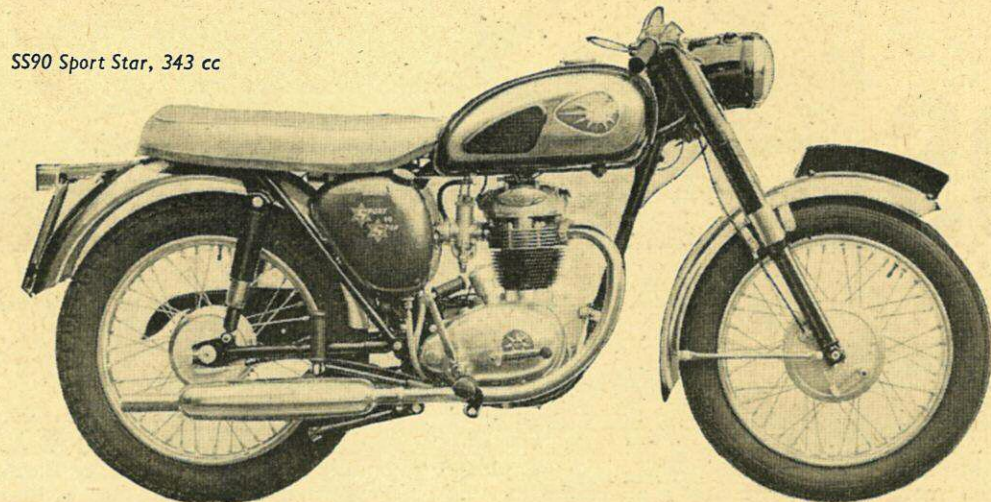
is taken from the oil-pump spindle, and that involves the fitting of a special oil pump and modified inner and outer timing-side covers. Far easier

(and less expensive) to have the model built like that from the start, than to convert it later.

Completing the list are three models well established in the affections of scooterists everywhere, for they are the 173 cc B1, and 249 cc B2 and B2S Sunbeams. Identical bodywork is employed for all three, with steel panels clothing a tubular frame—but the power units are very different.

For the B1 power comes from a single-cylinder two-stroke (based on the Bantam Super unit), while the remaining pair have a unique overhead-valve, vertical-twin engine; the B2S has the further distinction of a car-type electric starter engaging with teeth on the flywheel rim.

SS90 Sport Star, 343 cc



BSA	CAPACITY, BORE, STROKE AND TYPE OF ENGINE	CR	IGNITION	GEAR RATIOS				CAPACITY		SUSP		SIZE OF TYRES		Wt lb	PRICE WITH TAX		
				BOTTOM	SECOND	THIRD	TOP	FUEL	OIL	FRONT	REAR	FRONT	REAR		£	s	d
K1 BEAGLE	75 cc (47.6 x 42mm) ohv	9.5	M	34.4	23.8	15.1	11.52	1 1/2 g	1 1/2 pt	LL	PF	2.25 x 19	2.25 x 19	140	95	0	0
D7 BANTAM SUPER	173 cc (61.5 x 58mm) ts	7.4	M	20.6	11	—	6.58	2 g	—	T	PF	3.00 x 18	3.00 x 18	224	134	14	0
D7 BANTAM SUPER D/L	173 cc (61.5 x 58mm) ts	7.4	M	20.6	11	—	6.58	2 g	—	T	PF	3.00 x 18	3.00 x 18	225	138	0	0
C15 250 STAR	249 cc (67 x 70mm) ohv	7.25	M	15.9	10.54	7.65	5.98	2 1/2 g	4 pt	T	PF	3.25 x 17	3.25 x 17	280	193	19	0
C15T TRIALS	249 cc (67 x 70mm) ohv	6.4	M	28.5	22.05	14.67	9	2 g	4 pt	T	PF	3.00 x 20	4.00 x 18	275	210	0	0
C15S SCRAMBLES	249 cc (67 x 70mm) ohv	10	M	19	14.94	11.8	9	2 g	4 pt	T	PF	3.00 x 20	3.25 x 19	265	210	18	0
SS80 SPORT STAR	249 cc (67 x 70mm) ohv	8.75	M	12.6	9.9	7.19	5.98	3 g	4 pt	T	PF	3.25 x 17	3.25 x 17	280	210	0	0
B40 350 STAR	343 cc (79 x 70mm) ohv	7	M	14.25	9.4	6.78	5.22	3 g	4 pt	T	PF	3.25 x 18	3.50 x 18	300	220	4	0
SS90 SPORT STAR	343 cc (79 x 70mm) ohv	8.75	M	12.3	9.6	6.93	5.78	3 g	4 pt	T	PF	3.25 x 18	3.50 x 18	295	231	0	0
A50 500 STAR	499 cc (65.5 x 74mm) ohv twin	7.5	M	13.1	8.44	6.04	5.12	4 g	6 pt	T	PF	3.25 x 18	3.50 x 18	385	286	19	0
A65 650 STAR	654 cc (75 x 74mm) ohv twin	7.5	M	11.1	7.18	5.13	4.35	4 g	6 pt	T	PF	3.25 x 18	3.50 x 18	390	293	0	0
A65R ROCKET	654 cc (75 x 74mm) ohv twin	9	M	11.1	7.18	5.13	4.35	4 g	6 pt	T	PF	3.25 x 18	3.50 x 18	390	308	11	0
B1 SUNBEAM	173 cc (61.5 x 58mm) ts	7.4	M	13.6	9.1	5.81	4.55	1 1/2 g	—	TA	PA	3.50 x 10	3.50 x 10	220	152	17	0
B2 SUNBEAM	249 cc (56 x 50.6mm) ohv twin	6.5	M	12	8	5.2	4	1 1/2 g	2 1/2 pt	TA	PA	3.50 x 10	3.50 x 10	240	184	10	0
B2S SUNBEAM	249 cc (56 x 50.6mm) ohv twin	6.5	M	12	8	5.2	4	1 1/2 g	2 1/2 pt	TA	PA	3.50 x 10	3.50 x 10	250	198	0	0

MANUFACTURERS: BSA Motor Cycles Ltd, Armoury Road, Small Heath, Birmingham, 11.
EXTRAS: For K1: speedometer, £3 3s; legshields, £4; windscreen, £4 10s; panniers (price to be announced). For D7 and C15: chromium-plated tank, £3 16s 10d; prop stand, £1 2s 6d. For C15T: direct lighting, £5 11s 4d.

For C15 and B40: legshields (glass fibre), £5 16s. For SS80: chromium-plated mudguards, £3 10s 6d.
For A50, A65 and A65R: prop stand, £1 6s 5d. For A65: 12-volt lighting, £4; flamboyant red finish, £2 19s 5d.
For A65R: revmetre, £8 18s 6s; ball-end levers, 10s 10d. Legshields (metal) for D7, £2 5s; for C15, £4 3s 5d.

NOTE: K1 with single-seat and rear carrier, in lieu of dual-seat; no extra cost.
ABBREVIATIONS: CR, compression ratio; M, magneto; C, coil; LL, leading-link fork; T, telescopic fork; PF, pivoted fork; TA, telescopic arm; PA, pivoted arm. Tyre sizes are in inches.

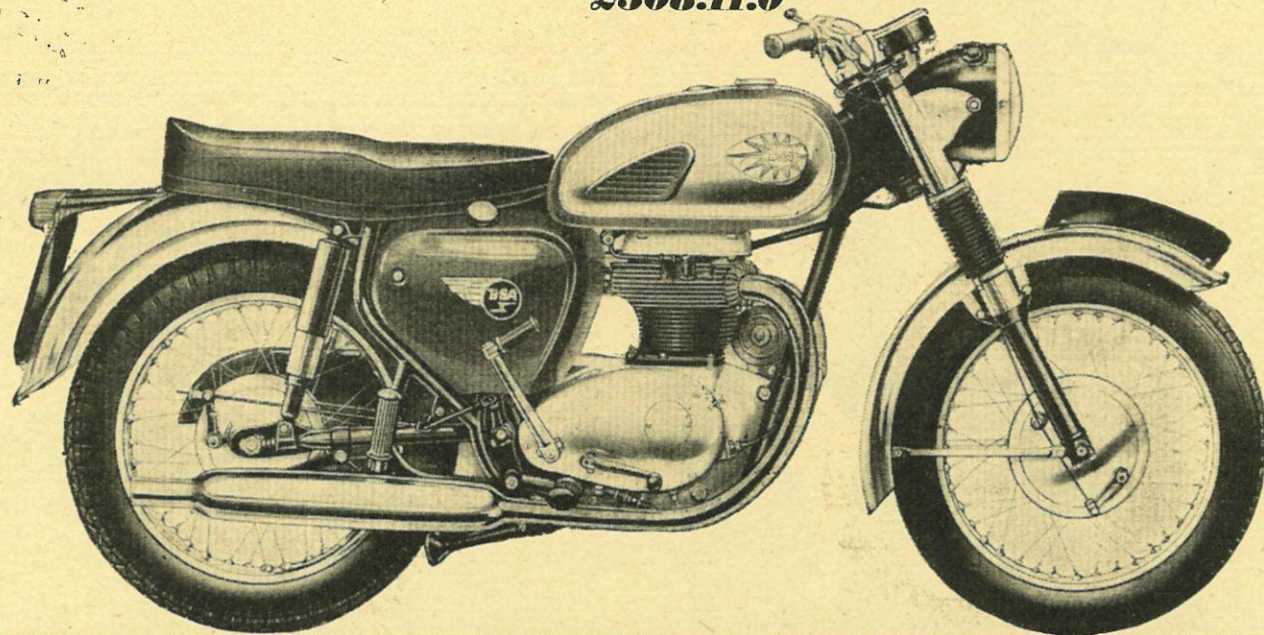
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250 Sport Trials Special C15 T	£210. 0. 0
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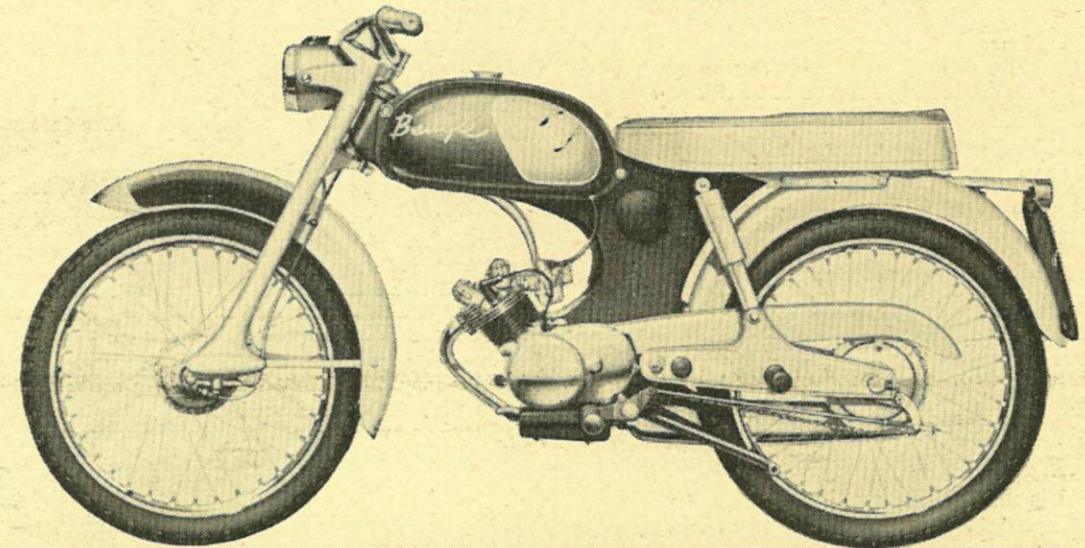
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