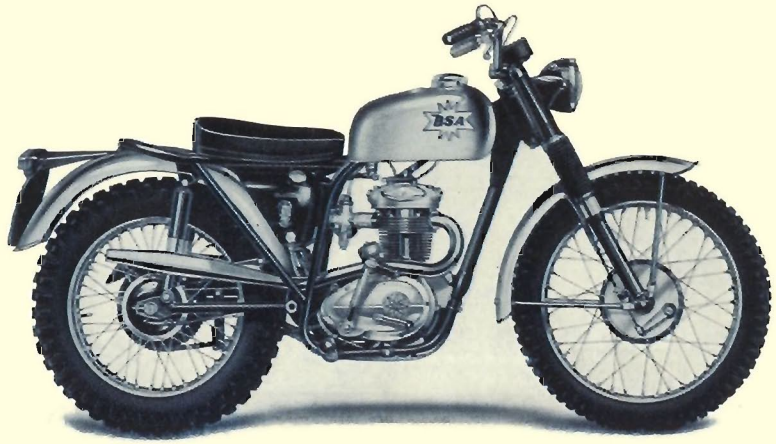
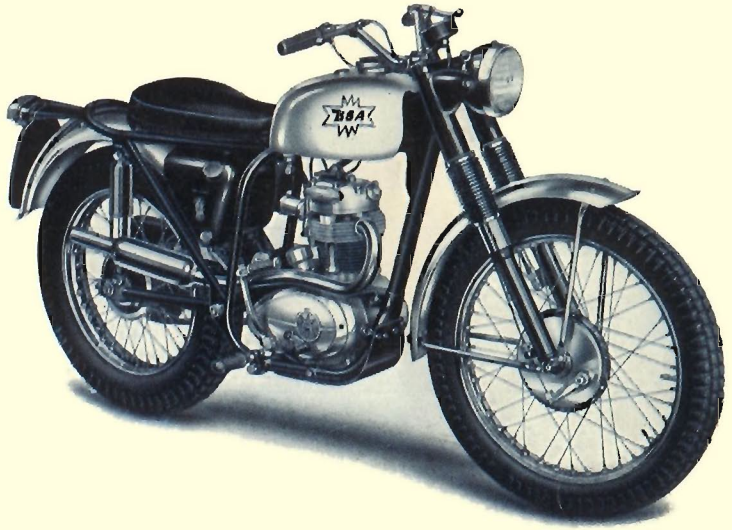


STARFIRE SCRAMBLER (MODEL CI5-S)

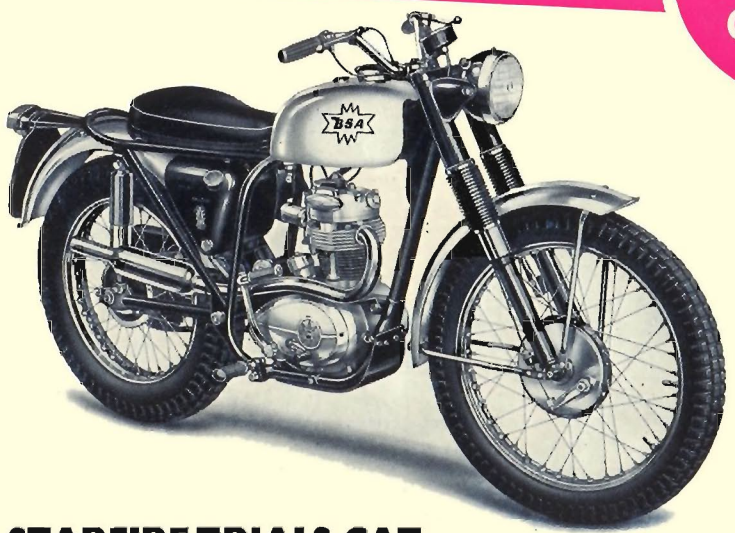
A **full-power** *equipped 250 scrambles model, has 10 to 1 piston, racing camshaft, racing megaphone type exhaust, heavy-duty roller bearing big-end with steel flywheels. Finish: Alloy racing tank, chrome fenders, black frame, full direct lighting. Ready with* **winning** *performance for you.*



STARFIRE ROADSTER (MODEL CI5-SR)

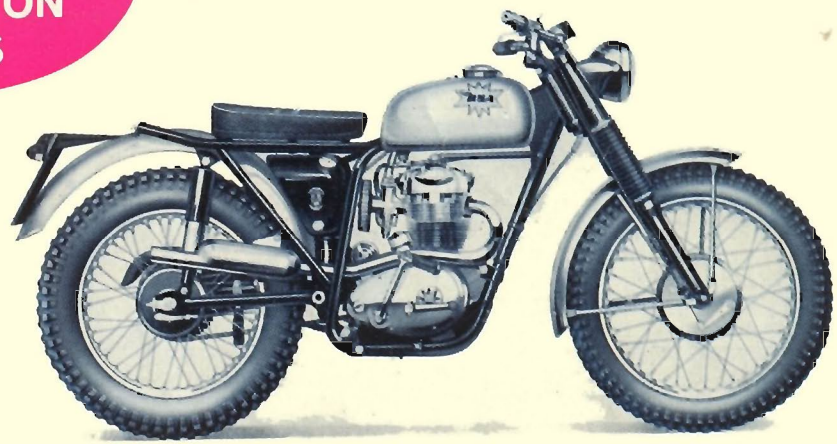
Has same power equipment as Starfire Scrambler, and is equipped for the road with road muffler, road tires, and road gearing. Has full direct lighting. Can easily be changed to scrambles trim by change of sprocket. A special model for the rider who wants a many-purpose machine. Finish: Alloy tank, chrome fenders, black frame.

BSA LIGHTWEIGHT COMPETITION MODELS



STARFIRE TRIALS-CAT (MODEL CI5-T)

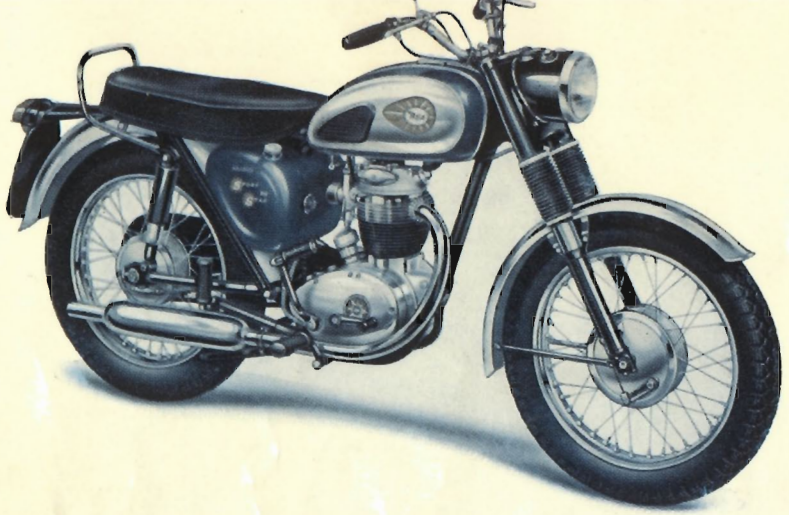
Specially set up 250 c.c. engine, wide ratio gearbox for trials, enduro, cross-country. Low compression piston and trials cams make for cool running under difficult conditions. Has special extra-low gearing for off-road running. Easily converts to road riding trim by quick change of sprockets. Has full direct lighting. Finish: Alloy tank, chrome, fenders, black frame.



ENDURO STAR (MODEL B40-ES)

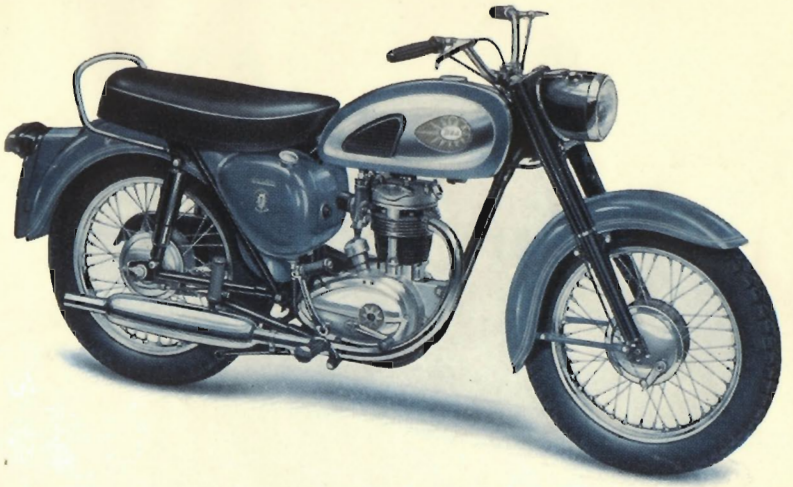
1963 Jack Pine Lightweight Champion !

Designed and built to **go anywhere!** *Special endurance run, cross-country model has 350 engine with low compression piston, trials cams, wide-ratio gearbox, full direct lighting, high ground clearance, many other features. Send for special literature. Finish: Alloy tank, chrome fenders, black frame.*



B40 350 c.c. SPORTSMAN

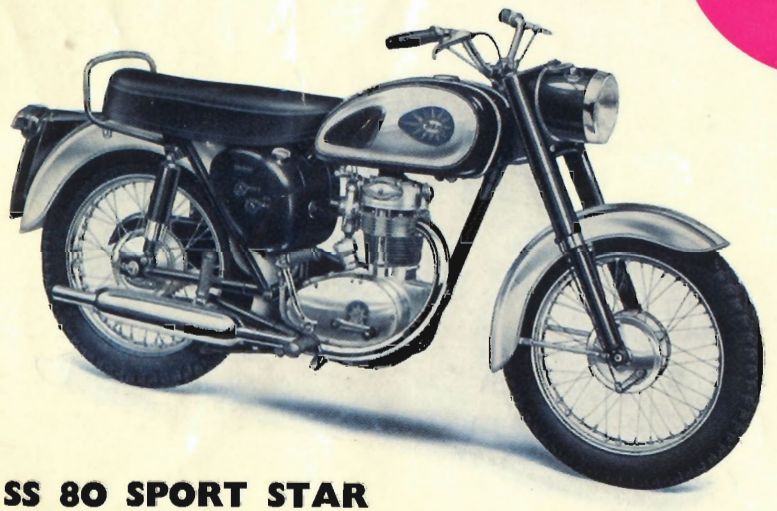
Fast 350. Light, easy to handle, has extremely zestful performance, and speeds to 90 m.p.h. Equipment includes high compression piston, competition-type camshaft large-bore carburetor, and new heavy-duty connecting rod with rugged new Hoffman roller bearings. Starts quickly, easily with battery ignition, cruises powerfully at any legal speed. Finished in bright metallic blue with many parts in brilliant chrome or highly polished alloy.



250 c.c. STAR

Lowest priced 250 in the BSA line, and has complete equipment, bright finish. Quick-start battery ignition, hydraulically controlled suspension front and rear, is supplied with dual seat and passenger footrests. Finished in sapphire blue with lots of chrome. A good looking, dependable motorcycle.

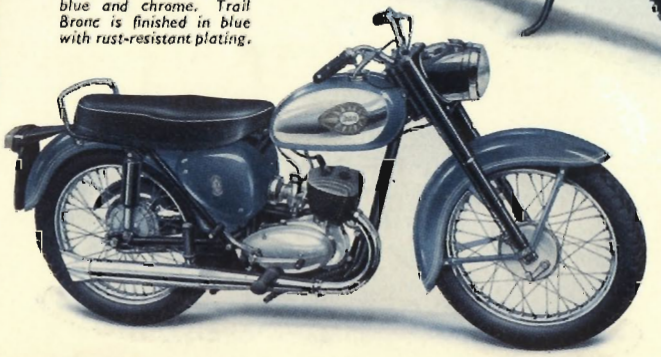
BSA LIGHTWEIGHT MODELS



SS 80 SPORT STAR

Light and lively 250 road sportster. Has high-powered engine with competition camshaft, high-compression piston, and like the 350 Sportsman, a new, more rugged connecting rod and roller bearing big end. Has quick-start battery ignition. Brightly finished in metallic red with lots of chrome and polished alloy. Lots of zip, lots of go in this smart lightweight!

New Trail Bronc, a stripped-down, go-any-where trail machine. (Send for special Trail Bronc literature). Famous BSA Super Bantam, rugged, reliable 175 cc two stroke has been sold in hundreds of thousands all over the world; finished in blue and chrome. Trail Bronc is finished in blue with rust-resistant plating.



TRAIL BRONC AND SUPER BANTAM

SPECIFICATIONS ON STARLITE MODEL
SEE INSIDE FRONT COVER

SPECIFICATIONS ON

CAPACITY ▶	650c.c.				500 c.c.			350 c.c.		250 c.c.					175 c.c.		
MODEL ▶	Spitfire Hornet A65-2 SPH	Lightning Rocket A65-2 L	Thunderbolt Rocket A65-1T	Royal Star 650 A65	Cyclone A50-2 C	Cyclone Comp. A50-2 CC	Royal Star 500 A50	350 Sports B40	Enduro Star B40 T	Starfire Scrambler C15 S	Starfire Roadster C15 SR	Starfire Trails-Cat C15 T	Sport Star SS80	250 Star C15	Super Bantam D7 DIR	Super Bantam D7 BAT	Trail Bronc D7 TB
Bore (mm.)	75	75	75	75	65·5	65·5	65·5	79	79	67	67	67	67	67	61·5	61·5	61·5
Stroke (mm.)	74	74	74	74	74	74	74	70	70	70	70	70	70	70	58	58	58
Cam design	Full Race	Full Race	Full Race	Touring	Sports	Full Race	Touring	Scrambles	Trials	Scrambles	Scrambles	Trials	Scrambles	Scrambles	—	—	—
Compression ratio	9 to 1	9 to 1	9 to 1	9 to 1	9 to 1	10½ to 1	9 to 1	9 to 1	7 to 1	10 to 1	10 to 1	8 to 1	10 to 1	8 to 1	7·4 to 1	7·4 to 1	7·4 to 1
Carburetor size	(2) 1⅛	(2) 1⅛	1⅛	1⅛	(2) 1 1/16	(2) 1 1/16	1	1⅛	1 1/16	1 1/16	1 1/16	⅞	1 1/16	1	⅞	⅞	⅞
Ignition type	Energy Transfer	Twin Coil	Twin Coil	Twin Coil	Energy Transfer	Energy Transfer	Twin Coil	Coil	Energy Transfer	Energy Transfer	Energy Transfer	Energy Transfer	Coil	Coil	Magneto	Magneto	Magneto
Full battery lighting equipment	No	Yes	Yes	Yes	No	No	Yes	Yes	No	No	No	No	Yes	Yes	No	Yes	No
Full direct lighting equipment	No	No	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes	No	No	Yes	No	No
Lighting coils only, no other equipment	Yes	No	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No	Yes
Exhaust type	Upswept	Down-swept	Down-swept	Down-swept	Down-swept	Upswept	Down-swept	Down-swept	Upswept	Upswept	Upswept	Upswept	Down-swept	Down-swept	Down-swept	Down-swept	Semi-Upswept
Silencer or megaphone	None	Silencer	Silencer	Silencer	Silencer	None	Silencer	Silencer	Silencer	Megaphone	Silencer	Silencer	Silencer	Silencer	Silencer	Silencer	Silencer
Gearbox type, internally	Close Ratio	Touring	Touring	Touring	Standard	Close Ratio	Touring	Touring	Trials	Scrambles	Scrambles	Trials	Touring	Touring	Touring	Touring	Touring
Top gear (: 1)	4·93	4·36	4·36	4·36	4·93	4·93	5·12	5·48	5·88	9	6·33	9	6·36	6·36	6·58	6·58	7·5
3rd gear	5·60	4·98	4·98	4·98	5·63	5·60	5·84	6·58	9·58	10·8	7·60	14·67	8·14	8·14	—	—	—
2nd gear	6·10	6·96	6·96	6·96	7·89	6·10	8·19	9·00	14·40	14·94	10·51	22·05	11·19	11·19	11·0	11·0	12·60
1st gear	10·00	10·92	10·92	10·92	12·37	10·00	12·85	11·56	18·58	19·0	13·36	28·53	16·98	16·98	20·6	20·6	23·47
Engine sprocket	28	28	28	28	28	28	28	23	23	23	23	23	23	23	17	17	17
Clutch sprocket	58	58	58	58	58	58	58	52	52	52	52	52	52	52	38	38	38
Gearbox sprocket	21	20	20	20	21	21	17	19	20	15	20	15	16	16	16	16	14
Rear sprocket	50	42	42	42	50	50	42	46	52	60	56	60	45	45	47	47	47 80
Bolt on rear sprocket	Yes	No	No	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No	No	No	Yes
Footrests	Folding	Fixed	Fixed	Fixed	Folding	Folding	Fixed	Fixed	Folding	Folding	Folding	Folding	Fixed	Fixed	Fixed	Fixed	Folding
Centre stand	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	No
Skid plate	Yes	No	No	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No	No	No	No

1964 BSA MOTORCYCLES

CAPACITY ▶	650c.c.				500 c.c.			350c.c.		250 c.c.					175 c.c.		
MODEL ▶	Spitfire Hornet A65-2 SPH	Lightning Rocket A65-2 L	Thunderbolt Rocket A65-1 T	Royal Star 650 A65	Cyclone A50-2 C	Cyclone Comp. A50-2 CC	Royal Star 500 A50	350 Sports B40	Enduro Star B40 T	Starfire Scrambler C15 S	Starfire Roadster C15 SR	Starfire Trials-Cat C15 T	Sport Star SS80	250 Star C15	Super Bantam D7 DIR	Super Bantam D7 BAT	Trail Bronc D7 TB
Handlebar type	Western	Western	Western	Western	Western	Flat Scrambles	Western	Western	Trials	Western	Western	Western	Western	Western	Western	Western	Western
Front tire	350/19 Trials	325/19 Gold Seal	325/18 Gold Seal	325/18 Gold Seal	325/19 Trials	325/19 Trials	325/18 Gold Seal	325/18 Gold Seal	325/19 Trials	325/19 Trials	325/19 Trials	325/19 Trials	325/17 Gold Seal	325/17 Gold Seal	300/18 Gold Seal	300/18 Gold Seal	300/19 Sports
Rear tire...	400/18 Trials	350/19 Gold Seal	350/18 Gold Seal	350/18 Gold Seal	400/18 Trials	400/18 Trials	350/18 Gold Seal	350/18 Gold Seal	400/18 Trials	400/18 Trials	350/18 Trials	400/18 Trials	325/17 Gold Seal	325/17 Gold Seal	300/18 Gold Seal	300/18 Gold Seal	300/19 Sports
Front hub	Gold Star	Gold Star	Full width	Full width	Gold Star	Gold Star	Full width	Full width	Com-petition	Com-petition	Com-petition	Com-petition	Full width	Full width	Standard	Standard	Standard
Rear hub	Single Bolt Q/D	Single Bolt Q/D	Full width	Full width	Single Bolt Q/D	Single Bolt Q/D	Full width	Full width	Single Bolt Q/D	Single Bolt Q/D	Single Bolt Q/D	Single Bolt Q/D	Full width	Full width	Standard	Standard	Standard
Front brake (ins.)	8	8	8	8	8	8	7	7	7	7	7	7	6	6	5·5	5·5	5·5
Rear brake (ins.)	7	7	7	7	7	7	7	6	6	6	6	6	6	6	5·5	5·5	5·5
Petrol tank	2 Gal. Fibre Glass	3 Gal. Sports	3 or 4 Gal.	3 or 4 Gal.	3 Gal. Sports	3 Gal. Sports	3 or 4 Gal.	3·6 Gal. Sports	2·6 Gal. Alloy	2·6 Gal. Alloy	2·6 Gal. Alloy	2·6 Gal. Alloy	3·6 Gal. Sports	3·6 Gal. Sports	2·6 Gal.	2·6 Gal.	2·6 Gal.
Tank finish	Red	Red	Blue	Red	Red	Red	Blue	Blue	Polished	Polished	Polished	Polished	Red	Blue	Blue	Blue	Blue
Mudguards	Sports Chrome	Sports Chrome	Valanced Chrome	Valanced Painted	Sports Chrome	Sports Chrome	Valanced Painted	Sports Chrome	Sports Chrome	Sports Chrome	Sports Chrome	Sports Chrome	Valanced Chrome	Valanced Painted	Valanced Painted	Valanced Painted	Rear Only
Chainguard	Top Run	Top Run	Fully Enclosed	Fully Enclosed	Top Run	Top Run	Fully Enclosed	Top Run	Top Run	Top Run	Top Run	Top Run	Top Run	Top Run	Top Run	Top Run	None
Speedometer	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Tachometer	No	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Dual seat type	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Sports	Sports	Sports	Sports	Standard	Standard	Standard	Standard	Standard
Chrome handrail	No	No	No	No	No	No	No	Yes	No	No	No	No	Yes	Yes	No	No	No
Pillion footrests	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Wheelbase (ins.)	56	56	54	54	56	56	54	54	52	52	52	52	51	51	51	51	51
Ground clearance	8	8	7	7	8	8	7	7	8	8	8	8	5	5	5	5	6
Weight (lbs.)	370	390	390	390	385	365	385	299	290	264	264	264	280	280	224	224	198

GENERAL SPECIFICATIONS

ALL MODELS — Common to all models are Amal carburetors with twist grip controls, Dunlop tires, Lucas electrical systems (except D7 models), Smiths instruments (where supplied), new max. OV pistons, multiplate clutches, positive stop foot change, unit power plant/gearbox construction, swinging arm frame, telescopic forks, heavy triple chrome on appropriate plated parts, side stands, folding starter pedals (except D7 and D7 TB), toolkits (except D7 TB), air cleaners.

4-STROKE — Common to all 4-stroke models are dry-sump lubrication with double gear oil pump, alloy cylinder heads with cast-in valve seats, hi-duty variable rate valve springs, enclosed valve gear, heavy duty ball bearings on driveside, heavy duty bi-metal on timing side, cushion drive on clutch, 4-speed transmission.

500-650 TWINS — Common to all twin cylinder models is full pressure lubrication to oversize, heavy duty crankshaft, light alloy connecting rods with micro-babbit, steel-backed big-end bearings.

250-350 SINGLES — 250/350c.c. singles have new maximum service roller bearings in big end except C15 Star which employs full pressure lubrication to copper alloy big end. C15 Sport Series all with oversize valves.

175 SINGLES — 175c.c. Series are all 2-stroke engines with petroil lubrication, roller bearing big end, needle bearing piston pin, ball bearing main and timing side bearings, Wico-Pacy electrical systems, 3-speed transmission.

All weight, dimensions clearances, etc., are approximate. All specifications subject to change without notice.