

BSA SERVICE SHEET No. 216

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A Group (Swinging Arm Frame)

USEFUL DATA

MODEL	A7	A7 Shooting Star	A10	A10 Road Rocket & Super Rocket
Engine Stroke (mm.)	72.6	72.6	84	84
Engine Bore (mm.)	66	66	70	70
Engine Capacity (mm.)	479	497	646	646
Petrol Tank Capacity (galls.)	2 or 4	2 or 4	2 or 4	2 or 4
Oil Tank Capacity (pints)	5½	5½	5½	5½
Gearbox Capacity (pint)	1	1	1	1
Gearbox Capacity—after 1956: (fluid ozs. and c.c.)	14 (400)	14 (400)	14 (400)	14 (400)
Front Fork Capacity—each leg (fl. ozs.) (c.c.)	7½ (213)	7½ (213)	7½ (213)	7½ (213)
Chaincase Capacity (fluid ozs.) (c.c.)	8 (225)	8 (225)	8 (225)	8 (225)
Note:—½ pint — 5 fl. ozs. — 8 tablespoons				
Tappet Clearance—engine cold (see note below)				
Inlet (in.)	.010	.008	.010	.008
Exhaust (in.)	.016	.012	.016	.008
Piston Ring Gap—compression (in.)	.013	.013	.013	.013
Piston Ring Gap—oil control (in.)	.011	.011	.011	.011
Piston Ring Side Clearance (in.)	.002	.002	.002	.002
Piston Clearance—split skirt (in.)	.0011—.0031	.0011—.0031	.0011—.0031	.0011—.0031
Piston Clearance—solid skirt (in.)	.002—.004	.0035—.005	.0035—.005	.004—.0055
Ignition Advance before T.D.C. (in.)	5/16	½	11/32	½
Ignition Advance—for machines with frame number prefixed "G.A." (in.)	5/16	½	13/32	13/32
Contact Breaker Gap (in.)	.012	.012	.012	.012
Compression Ratio	6.6 : 1	7.25 : 1	6.5 : 1	8.0 : 1
Compression Ratio—after 1957	6.6 : 1	8.0 : 1	7.25 : 1	8.26 : 1 S.R.
Compression Ratio—after 1959	7.25 : 1	8.0 : 1	7.25 : 1	8.26 : 1 S.R.
Sparking Plug—Champion	L.7	N.3	L.7	N.3
Sparking Plug Gap (in.)	.018—.020	.018—.020	.018—.020	.018—.020
Valve Timing—Inlet (deg.):				
Opens before T.D.C.	30	42	30	42
Closes after B.D.C.	70	62	70	62
Valve Timing—Exhaust (deg.):				
Opens before B.D.C.	65	67	65	67
Closes after T.D.C.	25	37	25	37

Note:—After engines numbers CA7—5232 and DA10—1647, the valve timing for the A7 and A10 is the same as the Shooting Star and Rocket machines. Tappet clearances for quiet running should be .008 in. Inlet; .010 in. Exhaust, but for maximum power .010 in. Inlet and .016 in. Exhaust.