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SERVICE SHEETS

BSA SERVICE SHEET No. 216

October 1956

A Group (Swinging Arm Frame)

USEFUL DATA

MODEL	A7	A7 Shooting Star	A10	A10 Road Rocket
Engine stroke	72.6 mm.	72.6 mm.	84 mm.	84 mm.
Engine bore	66 mm.	66 mm.	70 mm.	70 mm.
Engine capacity	497 c.c.	497 c.c.	646 c.c.	646 c.c.
Petrol tank capacity	2 or 4 galls.	2 or 4 galls.	2 or 4 galls.	2 or 4 galls.
Oil tank capacity	5½ pints	5½ pints	5½ pints	5½ pints
Gearbox capacity	1 pint	1 pint	1 pint	1 pint
Front fork capacity (each leg) ...	7½ fl. ozs. (213 c.c.)	7½ fl. ozs. (213 c.c.)	7½ fl. ozs. (213 c.c.)	7½ fl. ozs. (213 c.c.)
Chaincase capacity	8 fl. ozs. (225 c.c.)	8 fl. ozs. (225 c.c.)	8 fl. ozs. (225 c.c.)	8 fl. ozs. (225 c.c.)
Tappet clearance (engine cold)				
Inlet	.010 in.	.008 in.	.010 in.	.008 in.
Exhaust	.016 in.	.012 in.	.016 in.	.008 in.
Piston ring gap (compression) ...	.013 in.	.013 in.	.013 in.	.013 in.
Piston ring gap (oil control) ...	.011 in.	.011 in.	.011 in.	.011 in.
Piston ring side clearance	.002 in.	.002 in.	.002 in.	.002 in.
Piston clearance (bottom of skirt) ...	.0011/.0031 in.	.0011/.0031 in.	.0011/.0031 in.	.0011/.0031 in.
Ignition advance before T.D.C. ...	5/16 in.	¾ in.	11/32 in.	¾ in.
Contact breaker gap	.012 in.	.012 in.	.012 in.	.012 in.
Compression ratio	6.6-1	7.25-1	6.5-1	8.0-1
Spark plug (Champion)	L-10S	NA-10	L-10S	NA-10
Spark plug gap	.018/.020 in.	.018/.020 in.	.018/.020 in.	.018/.020 in.
Valve timing—Inlet				
Opens before T.D.C.	30°	42°	30°	42°
Closes after B.D.C.	70°	62°	70°	62°
Valve timing—Exhaust				
Opens before B.D.C.	65°	67°	65°	67°
Closes after T.D.C.	25°	37°	25°	37°
Carburettor	Std. Mono	Std. Mono	Std. Mono	10TT9
Bore	15/16 15/16	1 1	1-1/16 1-1/16	1-1/16
Main jet	140 210	160 270	170 240	360
Throttle valve	6/4 376/3½	6/4 376/3½	6/4 376/3½	6
Needle position	4 2	3 3	2 3	4
Needle jet	.107 .1065	.107 .1065	.107 .1065	9
Gear ratios				
Top	5.28	5.28	4.52	4.52
3rd	6.38	6.38	5.47	5.47
2nd	9.28	9.28	7.95	7.95
1st	13.62	13.62	11.67	11.67
Rear chainwheel, No. of teeth ...	42	42	42	42
Engine sprocket, No. of teeth ...	18	18	21	21
Clutch sprocket, No. of teeth ...	43	43	43	43
Gearbox sprocket, No. of teeth ...	19	19	19	19
Front chain ½ × .305 in.	68 pitches	68 pitches	69 pitches	69 pitches
Rear chain ⅝ × ⅝ in.	98 pitches	98 pitches	98 pitches	98 pitches
Tyres. Front	3.25 × 19	3.25 × 19	3.25 × 19	3.25 × 19
Rear	3.50 × 19	3.50 × 19	3.50 × 19	3.50 × 19
Tyre pressures (solo). Front ...	17 p.s.i.	17 p.s.i.	17 p.s.i.	17 p.s.i.
Rear	19 p.s.i.	18 p.s.i.	19 p.s.i.	19 p.s.i.
Total front fork movement	5½ in.	5½ in.	5½ in.	5½ in.
Rear suspension movement	4 in.	4 in.	4 in.	4 in.
Brake dimensions. Front (in.) ...	8 × 1½	8 × 1½	8 × 1½	8 × 1½
1954 and 1955 Rear (in.) ...	7 × 1½	7 × 1½	7 × 1½	7 × 1½
Brake dimensions. Front (in.) ...	7 × 1½	7 × 1½	7 × 1½	7 × 1½
1956. Rear (in.)	7 × 1½	7 × 1½	7 × 1½	7 × 1½

NOTE:—½ pint = 5 fl. ozs. = 8 tablespoons.

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