

BSA SERVICE SHEET No. 312

B Group (Swinging Arm Frame)

USEFUL DATA

ALTERNATOR MODELS

Engine Stroke	...	...	88 mm.				
Engine Bore	...	...	B31 (71 mm.)	B33 (85 mm.)			
Engine capacity	...	...	B31 (348 c.c.)	B33 (499 c.c.)			
Petrol Tank capacity	...	...	3½ gallons			2 or 4 gallons	
Oil Tank capacity	...	...	5 pints			5½ pints	
Gearbox capacity	...	...	1 pint				
Front Fork capacity (each leg)	...	...	¾ pint (212 c.c.)				
Chaincase capacity	...	...	1/7 pint (80 c.c.)			½ pint S.A.E. 20	
Tappet clearance (engine cold)	...	...	.003 in. inlet and exhaust				
Piston Ring Gap	...	...	.010 in.				
Piston Ring side clearance	...	...	.002 in.				
Piston clearance (bottom of skirt)	...	...	B31 (.0005—.0016in.)	B33 (.0006—.00275in.)			
Ignition setting (fully advanced)	...	...	7/16 in. before T.D.C.	(¾ in. B33 model)			
Contact Breaker Gap	...	...	.012 in.				
Compression Ratio	...	...	B31 (6.5 : 1)	B33 (6.8 : 1)			
Sparking Plug	...	...	Champion L10S				
Sparking Plug Gap	...	...	.018—.020 in.				
Valve Timing: Inlet	...	...	Opens 25° before T.D.C.	Closes 65° after B.D.C.			
Exhaust	...	...	Opens 65° before B.D.C.	Closes 25° after T.D.C.			
Carburettor	...	...	B31 (Monobloc)	B33 (Monobloc)			
Bore	...	...	1 in.	1 in.	1½ in.	1½ in.	
Main Jet	...	...	150	260	200	260	
Throttle Valve	...	...	6/4	376/3½	29/4	376/3½	
Needle Position	...	...	3	2	3	3	
Needle Jet	...	...	.1065	.1065	.1065	.1065	
							SIDECAR
Gear Ratios	...	...	B31	B33	B31	B33	
Top	...	...	5.6	5.0	6.25	5.59	
3rd	...	...	6.77	6.05	7.55	6.76	
2nd	...	...	9.86	8.79	10.95	9.82	
1st	...	...	14.42	12.90	16.10	14.42	
Front Chain	½ × .305 in.	...	B31 (67 pitches)	B33 (68 pitches)			
Rear Chain	5/8 × ¼ in.	...	B31 (98 pitches)	B33 (98 pitches)	5/8 × 3/8 in. (97 Solo, 98 Sidecar)	5/8 × 3/8 in. (98 Solo and Sidecar)	
Tyres: Front	...	...	B31 (3.25 × 19)	B33 (3.25 × 19)			
Rear	...	...	B31 (3.25 × 19)	B33 (3.50 × 19)			
Tyre pressure (Solo)	...	...	Front: 16 lbs per sq. in. Rear: 18 lbs. per sq. in.				
Total Front Fork movement	...	...	5¾ in.				
Rear Suspension movement	...	...	4 in.				
Brake Dimension: Front	B31 (7 × 1½ in.)	B33 (8 × 1¾ in.)	B31 (7 × 1½ in.)	B33 (7 × 1½ in.)	
Rear	B31 (7 × 1½ in.)		B31 (7 × 1½ in.)	B33 (7 × 1½ in.)	

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