

SERVICE SHEET No. 312

Revised October 1955

B Group (Swinging Arm Frame)

USEFUL DATA

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.	
Oil tank capacity	.. .. .	5 pints.	
Gearbox capacity	.. .. .	1 pint.	
Front fork capacity (each leg)	.. .. .	¾ pint (212 c.c.)	
Chain case capacity	.. .. .	1/7 pint (80 c.c.)	
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 in. to .0016 in., B33—.0006 in. to .00275 in.	
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. 110S.	
Sparking plug gap	.. .. .	.018 to .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.
Main jet	.. .. .	150	260
Throttle valve	.. .. .	6/4	376/3½
Needle position	.. .. .	3	2
Needle jet	.. .. .	.1065	.1065
Gear ratios		B31	B33
Top	.. .. .	5.6	5.0
3rd	.. .. .	6.77	6.05
2nd	.. .. .	9.86	8.79
1st	.. .. .	14.42	12.90
Front chain.	½ × .305 in.	B31. (67 pitches).	B33. (68 pitches).
Rear chain.	¾ × ¼ in.	B31. (98 pitches).	B33. (98 pitches).
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	.. .. .	5½ ins.	
Rear suspension movement	.. .. .	4 ins.	
Brake dimension.	Front	B31. 7 × 1½ ins.	B33. 8 × 1½ ins.
	Rear	7 × 1½ ins.	