



**VOLVO**

# WORKSHOP BULLETINS

CARS

Re.	<b>Specifications</b>	Product
		<b>P</b>
	<b>Engines in production</b>	Group
		<b>20</b>
Date	<b>July 1968</b>	No.
		<b>1A</b>

Designation	B 18 A type I	B 18 A type II	B 18 B type III	B 18 B type II	B 18 B type III	B 18 D type I	B 18 D type II	B 18 D type III
Type	Carburettor engine. Straight	Carburettor engine. Straight	Carburettor engine. Straight	Carburettor engine. Straight	Carburettor engine. Straight	Carburettor engine. Straight	Carburettor engine. Straight	Carburettor engine. Straight
Fuel system	Down-draught carburettor	Down-draught carburettor	Horizontal carburettors (2)	Horizontal carburettors (2)	Down-draught carburettors (2)	Horizontal carburettors (2)	Horizontal carburettors (2)	Down-draught carburettors (2)
Valve arrangement	O.H.V.	O.H.V.	O.H.V.	O.H.V.	O.H.V.	O.H.V.	O.H.V.	O.H.V.
Number of cylinders	4	4	4	4	4	4	4	4
Output, h.p. at r.p.m.	75/4500	85/5000	100/5000	108/5800	115/6000	90/5000	95/5400	100/5700
Torque, kgm (lb.ft.) at r.p.m.	14(101)/2800	15(108)/3000	15(108)/4000	15.2(110)/4000	15.5(112)/4000	14.5(104.6)/3500	14.8(107)/3500	15(108)/3500
Capacity, total, litres	1.78	1.78	1.78	1.78	1.78	1.78	1.78	1.78
Bore, mm	84.14	84.14	84.14	84.14	84.14	84.14	84.14	84.14
Stroke, mm	80	80	80	80	80	80	80	80
Compression ratio	8.5:1	8.7:1	9.5:1	10.0:1	10.0:1	8.5:1	8.7:1	8.7:1
Firing order	1-3-4-2	1-3-4-2	1-3-4-2	1-3-4-2	1-3-4-2	1-3-4-2	1-3-4-2	1-3-4-2
Compression pressure, kg/cm <sup>2</sup> (lb./sq.in.) at 200 r.p.m.	11.0-13.0 (146-185)	11.0-13.0 (146-185)	12.0-14.0 (170-199)	12.0-14.0 (170-199)	12.0-14.0 (170-199)	11.0-13.0 (146-185)	11.0-13.0 (146-185)	11.0-13.0 (146-185)
Fuel pump pressure, kg/cm <sup>2</sup> (lb./sq.in.)	0.11-0.25 (1.6-3.5)	0.11-0.25 (1.6-3.5)	0.11-0.25 (1.6-3.5)	0.11-0.25 (1.6-3.5)	0.11-0.25 (1.6-3.5)	0.11-0.25 (1.6-3.5)	0.11-0.25 (1.6-3.5)	0.11-0.25 (1.6-3.5)
Valve clearance, inlet <sup>1)</sup> mm (inches)	0.40-0.45 (0.016-0.018)	0.40-0.45 (0.016-0.018)	0.50-0.55 (0.020-0.022)	0.50-0.55 (0.020-0.022)	0.50-0.55 (0.020-0.022)	0.40-0.45 (0.016-0.018)	0.50-0.45 (0.020-0.022)	0.50-0.55 (0.020-0.022)
Valve clearance, exhaust <sup>1)</sup> mm (inches)	0.40-0.45 (0.016-0.018)	0.40-0.45 (0.016-0.018)	0.50-0.55 (0.022-0.022)	0.50-0.55 (0.020-0.022)	0.50-0.55 (0.020-0.022)	0.40-0.45 (0.016-0.018)	0.50-0.55 (0.020-0.022)	0.50-0.55 (0.020-0.022)
Sparking plug gap, mm (inches)	0.7-0.8 (0.028-0.032)	0.7-0.8 (0.028-0.032)	0.7-0.8 (0.028-0.032)	0.7-0.8 (0.028-0.032)	0.7-0.8 (0.028-0.032)	0.7-0.8 (0.028-0.032)	0.7-0.8 (0.028-0.032)	0.7-0.8 (0.028-0.032)
Contact breaker gap, mm (inches)	0.4-0.5 (0.016-0.020)	0.4-0.5 (0.016-0.020)	0.4-0.5 (0.016-0.020)	0.4-0.5 (0.016-0.022)	0.4-0.5 (0.016-0.020)	0.4-0.5 (0.016-0.020)	0.4-0.5 (0.016-0.020)	0.4-0.5 (0.016-0.020)
Dwell angle, degrees.	57-63°	59-65°	57-63°	59-65°	59-65°	57-63°	59-65°	59-65°
Ignition setting, B.T.D.C. <sup>2)</sup>	21-23°	21-23°	17-19°	17-19°	17-19°	22-24°	17-19°	17-19°
Vacuum governor disconnected. (Research Method octane rating)	1500 r.p.m. (97)	1500 r.p.m. (97)	1500 r.p.m. (97)	1500 r.p.m.	1500 r.p.m. (100)	1500 r.p.m. (97)	1500 r.p.m. (97)	1500 r.p.m. (97)
Idling speed, r.p.m., warm engine	500-700	500-700	600-800	600-800	600-800	500-700	500-800	600-800
Camshaft setting, inlet valve opening, degrees at check clearance of mm (inches)	10° A.T.D.C. /1.1(0.043)	10° A.T.D.C. /1.1(0.043)	0°/1.45 (0.045)	0°/1.45 (0.057)	0°/1.45 (0.057)	10° A.T.D.C. /1.1(0.043)	10° A.T.D.C. /1.15(0.045)	10° A.T.D.C. /1.15(0.045)
Oil pressure, kg/cm <sup>2</sup> (lb./sq.in.) at engine r.p.m. (warm engine)	2.5-6.0 (36-85) 2000	2.5-6.0 (36-85) 2000	2.5-6.0 (36-85) 2000	2.5-6.0 (36-85) 2000	2.5-6.0 (36-85) 2000	2.5-6.0 (36-85) 2000	2.5-6.0 (36-85) 2000	2.5-6.0 (36-85) 2000
Oil change quantity, including oil cleaner, litres Imp. pints, US pints	3.75 6 5/8 7 7/8	3.75 6 5/8 7 7/8	3.75 6 5/8 7 7/8	3.75 6 5/8 7 7/8	3.75 6 5/8 7 7/8	3.75 6 5/8 7 7/8	3.75 6 5/8 7 7/8	3.75 6 5/8 7 7/8

1) With engine equally cold or warm.

2) B 18 has no vacuum governor.

3) For B 18 B with exhaust emission control: 3-5° B.T.D.C. at 850 r.p.m.

800-850 r.p.m. - mechanical gearbox.

700-750 r.p.m. - automatic transmission.