

Early s.v. and o.h.v. crankpins have a fitting diameter of 1 in. in the flywheel; later engines are 1.020 in. but otherwise identical. The 1.020 in. pins may be fitted either by boring out the wheels or grinding down the pin.

Take care not to bruise connecting rods by rough handling; these are highly stressed parts and external bruising may lead to fracture.

If the cast-in tie bar on a twin crankcase becomes cracked it may be cut down—this also facilitates removal and fitting of crankshaft.

## 5. CARBURETTERS AND CARBURATION

DURING the period covered by this booklet there has been very little basic change in carburetters. All models were equipped with an Amal instrument of one type or another, except for a few 1928 machines, which may have had Binks, Amac, or B. and B. carburetters. There would be very few of these machines left and it is proposed to deal only with Amal carburetters.

Models and carburetter types are listed below.

DATE AND MODEL	CARBURETTER TYPE	BORE (IN.)	JET	THROTTLE VALVE	FLOAT CHAMBER
<b>1928-29</b>					
18	76/022	1 $\frac{1}{16}$	150	6/5	64/079
19	76/022	1 $\frac{1}{16}$	170	6/4	64/079
16H	76/011	1	150	6/5	64/079
" Big 4 "	76/011	1	130	6/5	64/079
CS1	49/022	1 $\frac{1}{16}$	140 main 40 pilot	9/-	64/069
ES2	49/022	1 $\frac{1}{16}$	140 main 40 pilot	9/-	64/069
<b>1930</b>					
CJ and JE	76/012	1	150	6/4	64/079
20 and 22	76/022	1 $\frac{1}{16}$	180	6/4	64/069
(Other models as 1929)					
<b>1931</b>					
CS1	76/022	1 $\frac{1}{16}$	180	6/4	64/069
(Other models as 1930)					
<b>1932</b>					
18 and ES2	76/022	1 $\frac{1}{16}$	160	6/4	64/069
19	76/022	1 $\frac{1}{16}$	170	6/4	64/069
16H	76/011	1	160	6/4	64/069
" Big 4 "	76/011	1	160	6/4	64/069
CS1	89/001	1 $\frac{3}{32}$	180	29/4	64/069
CJ	76/012	1	170	6/4	64/069
20	76/022	1 $\frac{1}{16}$	180	6/4	64/064
30	T10TT32	1 $\frac{1}{8}$	56	4	14/064
40	T15TT32	1 $\frac{1}{8}$	51	5	14/064

DATE AND MODEL	CARBURETTER TYPE	BORE (IN.)	JET	THROTTLE VALVE	FLOAT CHAMBER
<b>1933-34</b>					
19	76/002	1 $\frac{1}{16}$	160	6/4	64/069
20	76/022	1 $\frac{1}{16}$	200	6/4	64/069
50 and 55	76/012	1	170	6/4	64/069
(Models 18, ES2, 16H, " Big 4," CS1, CJ, 30 and 40 as 1932)					
<b>1935</b>					
30	T10TT34	1 $\frac{1}{8}$	310	5	14/064
40	T15TT34	1 $\frac{1}{8}$	260	4	14/064
(Models 18, 19, ES2, 16H, " Big 4," CS1, 50 and 55 as 1934)					
<b>1936</b>					
16H	76/011	1	170	6/4	64/069
" Big 4 "	76/011	1	170	6/4	64/069
30	10TT34	1 $\frac{5}{32}$	310	5	14/064
40	10TT34	1 $\frac{1}{16}$	260	4	14/064
(Models 18, 19, ES2, CS1, 20, 50 and 55 as 1935)					
<b>1937</b>					
(Settings for all models as 1936)					
<b>1938</b>					
16H and " Big 4 "	76/011	1	170	6/4	64/069
30	10TT36	1 $\frac{5}{32}$	460	7	14/064
40	10TT36	1 $\frac{1}{16}$	350	6	14/064
(Models 18, 19, ES2, CS1, 20, 50 and 55 as 1937)					
<b>1939</b>					
16H and " Big 4 "	76/011	1	160	6/5	64/069
30	10TT38	1 $\frac{5}{32}$	460	7	14/064
40	10TT38	1 $\frac{1}{32}$	350	6	14/064
<b>1940-45</b>					
W.-D. 16H	276/AE/IBE	1	170	6/4	64/156B
W.-D. " Big 4 "	276/FV/IDJ	1	170	6/4	64/156B
<b>1946</b>					
16H	276/AT/IBE	1	160	6/5	64/156B
18	276/AU/IBE	1 $\frac{1}{16}$	160	6/4	64/156B
<b>1947-48</b>					
ES2	276/AU/IBE	1 $\frac{1}{16}$	160	6/4	64/156B
" Big 4 "	276/AT/IBE	1	160	6/5	64/156B
30	T10TT	1 $\frac{5}{32}$	350	7	14/064
40	T10TT	1 $\frac{1}{32}$	350	6	14/064
(Models 16H and 18 as 1946)					
<b>1949-52</b>					
7	76/AK/IAT	1	170	6/3 $\frac{1}{2}$	64/192
(Models 16H, 18, ES2, " Big 4," 30 and 40 as 1948)					
<b>1953-54</b>					
16H	276/FU/IDJ	1	160	6/5	64/156B
" Big 4 "	276/FV/IDJ	1	170	6/4	64/156B
(Models 18, ES2, 30, 40, 7 as 1952)					