Engine Flywheel Housings —SAE J617c

SAE Standard
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THIS IS A PREPRINT AND WILL
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ENGINE FLYWHEEL HOUSINGS—SAE J617c

SAE Standard

Report of Flywheel Division approved March 1916 and last revised by Construction Machinery Technical Committee June 1976.

Scope—This SAE standard defines flywheel housings and mating flange configuration for industry standardization, interchangeability, and compatibility.

Dimensions and tolerances shown are millimeter (inch).

Table 1 and the figure give dimensions for flywheel housings. The figure also shows spacing for eight, twelve, and sixteen bolt flange mounting patterns.

Mating Housing Flanges—The capscrew holes on the mating housing flanges shall be 1.19 (0.047) larger than the nominal diameter of the capscrews used on the flywheel housing.

The diameter of the pilot on the flange of the mating housing shall be the same as the nominal diameter of the bore in the flywheel housing; the tolerances shall be +0.000 and −0.13 (0.005), and the maximum eccentricity shall be 0.064 (0.0025) [indicated runout 0.13 (0.005)].

The mating housing flange pilot diameter shall be 6.4 (0.25) long, and its lead-in chamfer shall not exceed 2.0 (0.08) in length. The fillet radius between the mounting flange face and the pilot diameter shall not exceed 1.0 (0.04) R.

The maximum variation of the face of the mating housing flange from its true position, when rotated about its axis, shall be 0.064 (0.0025) [indicated runout 0.13 (0.005)].

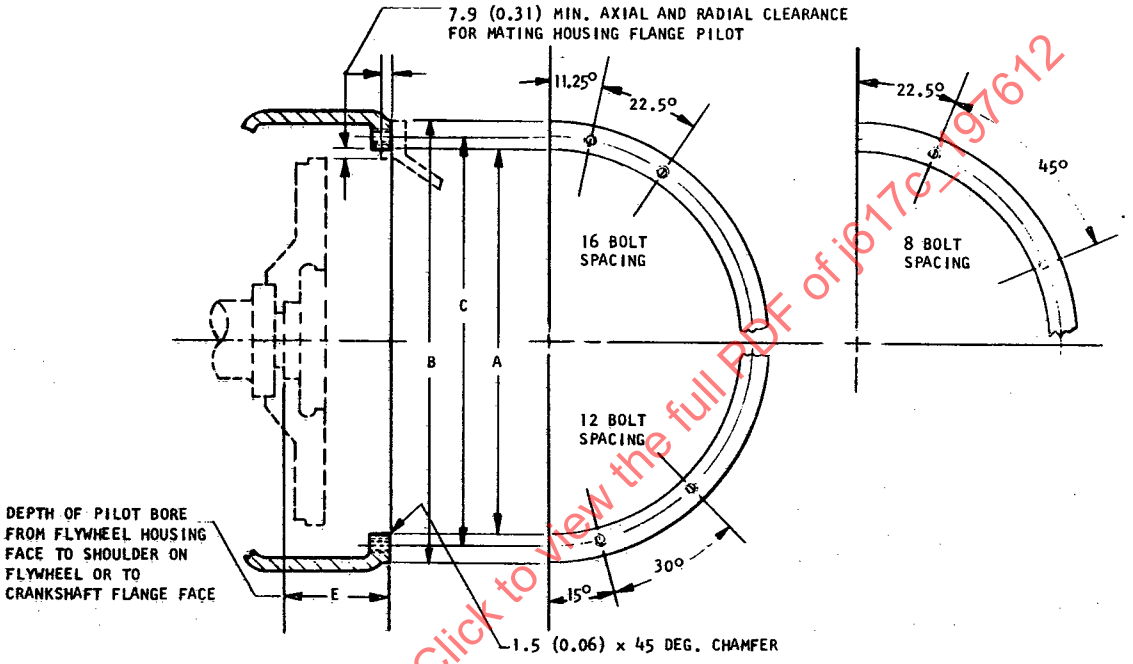

TABLE 1—FLYWHEEL HOUSING DIMENSIONS, mm (in)

SAE No.	A	Tolerance[a] Bore Diameter −0.000	Tolerance[a] Bore Eccentricity	Tolerance[a] Face Deviation	B	C	E[b]	Tapped Holes No.	Tapped Holes Size[c]
00	787.40 (31.000)	+0.25 (0.010)	0.30	(0.012)	882.6 (34.75)	850.90 (33.500)	100.1 (3.94)	16	1/2-13
0	647.70 (25.000)	+0.25 (0,010)	0.25	(0.010)	711.2 (28.00)	679.45 (26.750)	100.1 (3.94)	16	1/2-13
1/2	584.20 (23.000)	+0.20 (0.008)	0.25	(0.010)	647.7 (25.50)	619.12 (24.375)	100.1 (3.94)	12	1/2-13
1[d]	511.18 (20.125)	+0.13 (0.005	0.20	(0.008)	552.4 (21.75)	530.22 (20.875)	100.1 (3.94)	12	7/16-14
2	447.68 (17.625)	+0.13 (0.005)	0.20	(0.008)	489.0 (19.25)	466.72 (18.375)	100.1 (3.94)	12	3/8-16
3	409.58 (16.125)	+0.13 (0.005)	0.20	(0.008)	450.8 (17.75)	428.62 (16.875)	100.1 (3.94)	12	3/8-16
4	361.95 (14.250)	+0.13 (0.005)	0.15	(0.006)	403.4 (15.88)	381.00 (15.000)	100.1 (3.94)	12	3/8-16
5	314.32 (12.375)	+0.13 (0.005)	0.15	(0.006)	355.6 (14.00)	333.38 (13.125)	71.4 (2.81)	8	3/8-16
6	266.70 (10.500)	+0.13 (0.005)	0.15	(0.006)	307.8 (12.12)	285.75 (11.250)	71.4 (2.81)	8	3/8-16

[a] Suggested tolerances are to be measured on the assembled engine mounted on its supports. For measuring procedure, see SAE J1033. Figures shown for bore eccentricity and face deviation are total indicator readings.

[b] An "E" dimension of 133.4 (5.25) is optional for multiple-plate clutches in the No. 00, 0, 1/2, and 1 flywheel housings. An "E" dimension of 71.4 (2.81) is required with No. 6-1/2 or 7-1/2 overcenter clutch when used with the No. 4 housing. An "E" dimension of 100.1 (3.94) is required with No. 8 overcenter clutch when used with the No. 5 housing.

[c] Tapped holes shall be threaded in accordance wtih UNC Class 2B tolerances of ANSI B1.1 screw threads, and the minimum length of thread engagement shall be 1.5 times the nominal diameter for gray iron housings and 2 times the nominal diameter for aluminum housings. Tapped holes shall be spaced equally on each side of the vertical centerline.

[d] Prior to 1953, the No. 1 SAE housing specified holes for 3/8-16 screws. When service requires differentiation, the new SAE No. 1 as adopted since 1953 may be specified as SAE No. 1 (7/16) and the obsolete housing may be specified as SAE No. 1 (3/8).