

Flywheels for Single Bearing Engine Mounted Power Generators—SAE J162a

SAE Recommended Practice
Last Revised August 1976

THIS IS A PREPRINT AND WILL
APPEAR IN THE NEXT EDITION
OF THE SAE HANDBOOK

Society of Automotive Engineers, Inc.
400 COMMONWEALTH DRIVE, WARRENDALE, PA. 15096



PREPRINT

SAENORM.COM : Click to view the full PDF of j162a_197608

The ϕ symbol is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. If the symbol is next to the report title, it indicates a complete revision of the report.

FLYWHEELS FOR SINGLE BEARING ENGINE MOUNTED POWER GENERATORS—SAE J162a

SAE Recommended Practice

Report of Construction and Industrial Machinery Technical Committee approved March 1970 and last revised August 1976.

Scope—This recommended practice incorporates recommended dimensions for flywheels for use with single bearing power generators in the range of 10-500kW, operating at speeds of 1000-1800 rpm.

Driving torque, fastener strength, and rotative speeds shall be consistent with good design practice.

TABLE I - DIMENSIONS OF FLYWHEELS, mm (INCH)

Generator Flywheel No.	A	B ^a	C	D	G ^b	H
521 ^d	584.2 (23.00)	673.10 (26.500)	641.35 (25.250)	-	0.0 (0.00)	31.8 (1.25)
518 ^e	498.3 (19.62)	571.50 (22.500)	542.92 (21.375)	-	15.7 (0.62)	31.8 (1.25)
514 ^f	409.4 (16.12)	466.72 (18.375)	438.15 (17.250)	222.2 (8.75)	25.4 (1.00)	28.4 (1.12)
511 ^g	314.5 (12.38)	352.42 (13.875)	333.38 (13.125)	203.2 (8.00)	39.6 (1.56)	28.4 (1.12)
500	276.4 (10.88)	314.32 (12.375)	295.28 (11.625)	196.8 (7.75)	25.4 (1.00)	28.4 (1.12)

Generator Flywheel No.	J	Tapped Holes ^c		Normally Used With SAE Housing Size
		No.	Size	
521 ^d	31.8 (1.25)	12	5/8-11	00
518 ^e	31.8 (1.25)	6	5/8-11	00,0
514 ^f	22.4 (0.88)	8	1/2-13	0, 1/2, 1
511 ^g	22.4 (0.88)	8	3/8-16	2, 3
500	12.7 (0.50)	8	3/8-16	4

φ Note: Suggested tolerances shall be measured on the assembled engine. See SAE J1033

φ ^a Diameter tolerance of flywheel coupling pilot bore is +0.13 (0.005), -0.000; maximum eccentricity is 0.13 (0.005) total indicator reading; face runout is 0.013 (0.0005) maximum total indicator reading times the diameter. Diameter tolerance for mating coupling pilot diameter is +0.000, -0.13 (0.005).

φ ^b Tolerance for mating coupling face locating dimension is +1.30 (0.050), -1.30 (0.50).

^c Tapped holes should be threaded in accordance with 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.

^d Similar to clutch size 21 in SAE J620

^e Similar to clutch size 18 in SAE J620

^f Similar to clutch size 14 in SAE J620

^g Similar to clutch size 11-1/2 in SAE J620

