



SURFACE VEHICLE RECOMMENDED PRACTICE

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Flywheel Dimensions for Truck and Bus Applications

RATIONALE

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1. Scope—Although not limited to, these flywheels are normally used on trucks considered as Medium-Duty (Class 6 and 7), as well as Heavy-Duty (Class 8) trucks.

1.1 Purpose—This SAE Recommended Practice defines flywheel configurations to promote standardization of clutch installation and mounting dimensions for flywheels used with pull type single- and twin-plate truck clutches.

2. References

2.1 Applicable Publications—The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAEJ1033—Procedure for Measuring Bore and Face Runout of Flywheels, Flywheel Housings, and Flywheel Housings Adapters

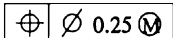
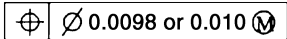
SAE J1731—Pilot Bearings for Truck and Bus Applications

SAE J1806—Clutch Dimensions for Truck and Bus Applications

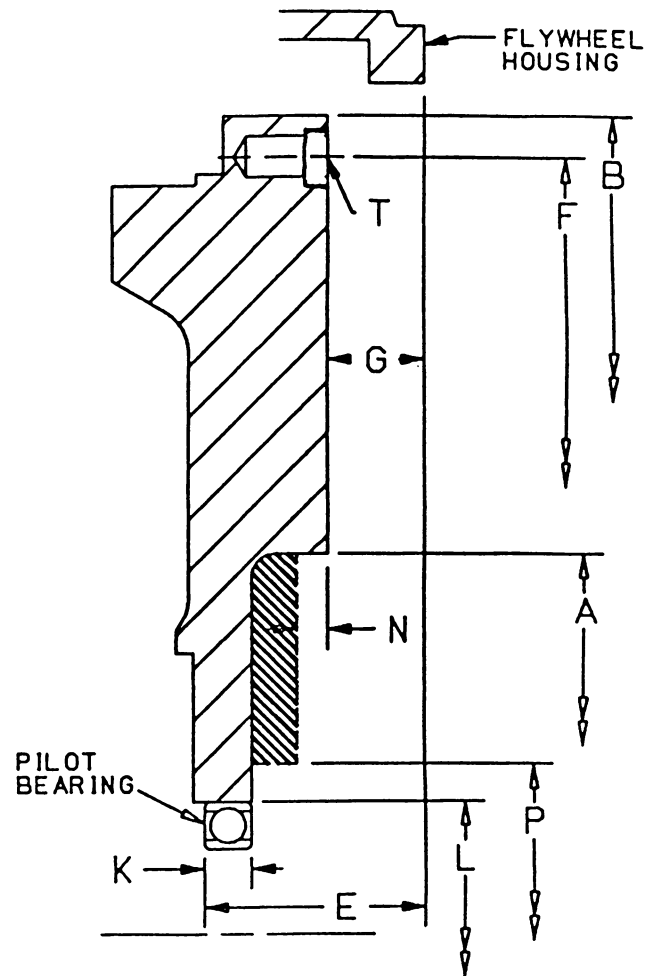
3. Flywheel Specifications—This section covers recommended flywheel dimensional specifications for several different clutch and flywheel combinations. Unless otherwise specified, dimensions listed are nominal. This document applies to new flywheels and does not attempt to provide service machining limits for remachined flywheels.

3.1 Flat Type Flywheels for Use with 14-in Single- and Twin-Plate Clutches (Typically Medium-Duty Applications)—See Table 1 and Figure 1.

**TABLE 1—FLAT TYPE FLYWHEELS FOR USE WITH 14-in SINGLE-
AND TWIN-PLATE CLUTCHES—FLYWHEEL DIMENSIONS
(REFERENCE FIGURE 1)**

	mm	in	Reference Note
A	180 - 184.25	7.09 - 7.25	
B	420.0 Min	16.54 Min	(1)(2)
E	100.1	3.94	(3)
F	393.7	15.50	
G	66.5	2.62	
K	16.0	0.63	(4)(5)
L	62.0	2.44	(4)(5)
N	6.6 Min	0.260 Min	(6)
P	62.0 Min	2.44 Min	(7)
T	3/8-16 NC-2B √20 Min 12 Holes Equally Spaced Counterbore y 9.54 to 9.60	3/8-16 NC-2B √0.79 Min 12 Holes Equally spaced Counterbore y 0.376 to 0.378	(8)
			

1. Clutch is located with mounting screws and no pilot lip is required. B gives outer diameter of flat face required to seat the clutch against the flywheel.
2. Face runout is 0.013 mm (0.0005 in) TIR per inch of diameter and applies between diameter A and B. Reference SAE J1033.
3. Preferred dimensions. Optional design: 105.0 mm (4.13 in).
4. Pilot bearing dimensions. Reference SAE J1731 for flywheel pilot bearing bore tolerances.
5. Preferred bearing. Optional Bearing: K = 15.0 mm (0.59 in) and L = 52.0 mm (2.05 in).
6. N is the clearance required for clutch dampers, including the maximum clutch face wear. Refer to SAE J1806 for specific details of the clutch envelopes.
7. P is the clearance required for the clutch and transmission shaft.
8. Clutch to be piloted by using shoulder cap screws. Contact clutch manufacturers for the clutch mounting bolt dimensions and tolerances.



NOTE—The shaded area denotes space available for flywheel mounting cap screw heads and for flywheel material. The clutch envelope should not encroach on this area.

FIGURE 1—FLAT FLYWHEEL FOR 14-in SINGLE- AND TWIN-PLATE CLUTCHES