The Engineering Society For Advancing Mobility Land Sea Air and Space®
SAE INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

SURFACE VEHICLE RECOMMENDED PRACTICE

SAE J1073

REAF. JUL95

Issued 1973-12
Reaffirmed 1995-07

Superseding J1073 JUN90

Submitted for recognition as an American National Standard

SPRING-LOADED CLUTCH SPIN TEST PROCEDURE

***Foreword*—**This Reaffirmed Document has been changed only to reflect the new SAE Technical Standards Board format.

1. ***Scope*—**This SAE Recommended Practice applies to spring-loaded clutches such as are used with manual shift type transmissions.

1.1 **Purpose—**This document is intended to provide a uniform test procedure for spring-loaded clutches to determine rotative speeds at which they will either burst or withstand a specified limiting speed.

2. ***References***

2.1 **Applicable Publication—**The following publication forms a part of this specification to the extent specified herein. Unless otherwise specified, the latest issue of SAE publications shall apply.

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

SAE J1240—Flywheel Spin Test Procedure

3. ***Test Equipment*—**Refer to SAE J1240 for a description of typical test equipment requirements.

4. ***Test Procedure***

4.1 Prior to spin testing, the item to be tested is to be identified, checked for material and dimensional defects, and balanced to print specification.

4.2 Test should be performed in a minimum ambient temperature of 15 °C (60 °F). Record ambient temperature.

4.3 **Mounting—**Test sample is to be mounted on a spin arbor. The arbor may be operated in a vertical or horizontal position; the arbor design must be such that vibration will be minimized.

4.3.1 COVER ASSEMBLIES—Mount the cover assembly on a steel test flywheel in the position it would be when engaged with a new driven disc. To simulate the driven disc thickness, suitable spacers between the flywheel and pressure plate may be used, or the flywheel may be machined to effectively position the pressure plate in the new position.

QUESTIONS REGARDING THIS DOCUMENT: (724) 772-8512 FAX: (724) 776-0243
TO PLACE A DOCUMENT ORDER; (724) 776-4970 FAX: (724) 776-0790
SAE WEB ADDRESS http://www.sae.org

4.3.2 PRESSURE PLATE OR INTERMEDIATE PLATE OF MULTIPLE-PLATE CLUTCHES—Mount the plate on a test fixture piloting by wither the same method as used in the cover assembly or flywheel such as drive pins or by the I.D. Use enough clamping force to hold the test piece in place but not enough to counteract centrifugal force.

4.4 Cover Assemblies, Pressure Plates, and Intermediate Plates

4.4.1 Spin test sample to 2000 rpm, then accelerate at a rate not to exceed 80 rpm/s until the predetermined limiting speed is attained, vibration becomes excessive, or burst occurs.

4.5 Driven Disc Assemblies

4.5.1 Subject driven discs with organic facing material to 260 °C ± 3 °C (500 °F ± 5°F) for 15 min. The maximum elapsed time between removal from the heat chamber and initial acceleration shall be 25 s. Driven discs with inorganic facing material may be spun at room temperature.

4.5.2 Accelerate at a rate of approximately 300 rpm/s until the predetermined limiting speed is attained, vibration becomes excessive, or burst occurs.

PREPARED BY THE SAE CLUTCH, FLYWHEEL AND HOUSING STANDARDS COMMITTEE