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

SURFACE VEHICLE RECOMMENDED PRACTICE

SAE J2208

ISSUED JUN93

Issued 1993-06

Submitted for recognition as an American National Standard

PARK STANDARD FOR AUTOMATIC TRANSMISSIONS

***Foreword*—**This Document has not changed other than to put it into the new SAE Technical Standards Board Format.

***1. Scope*—**To provide a Recommended Practice for validating the function and integrity of an automatic transmission park mechanism with its associated control system and environment.

1.1 Purpose—To define the requirements for parking mechanisms of automatic transmissions through evaluation in designed usages.

1.2 Vehicle Application—Encompasses all vehicle usages, up to maximum GVW, with all available production released axle ratios.

2. References

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

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

SAE HS J447—Prevention of Corrosion of Motor Vehicle Body and Chassis Components
SAE J1083—Unauthorized Starting or Movement of Machines
SAE J1145—Emissions Terminology and Nomenclature

2.1.2 FMVSS AND CMVSS PUBLICATIONS—Available from the Superintendent of Documents. U.S. Government Printing Office, Washington, DC 20402.

FMVSS 105/75
CMVSS 105

3. Definitions

3.1 Control System—Defined in SAE J1083 JUL85 (those systems which, when activated, impart motion to the machine or any of its working tools) is further defined here to include the hardware/logic (if applicable), shift lever/mechanism (operator actuator device), and as being external to the transmission.

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

3.2 **Ratchet—**The activity of the park pawl and gear which occurs with the transmission in Park detent and the pawl unable to engage the park gear due to the gear's rotating above a given velocity.

3.3 **Pull Out—**The operator-initiated action of disengaging the parking pawl from the parking gear.

3.4 **Gross Vehicle Weight (GVW)—**The manufacturer's gross weight rating, consisting of the curb weight plus payload (SAE J1145a).

4. Tests

4.1 **FMVSS 105/75, CMVSS 105—**Mandatory requirement for all portions relating to automatic transmission park mechanism (including impact barrier test).

4.2 Ratchet test is conducted:

a. To assure ratchet above a target speed.
b. To assure engagement.
c. As an "abuse" test.
d. As indicated in Table 1.

TABLE 1—RATCHET TEST, CURRENT INDUSTRY PRACTICE

Test Track	Level
Ratchet to Engagement	
Cycles	50 to 100 cycles
Vehicle Speed	5 to 40 mph
Engagement Speed (Target)	2 to 4 mph

4.3 Pull out effort test is conducted:

a. To assure pull out capable.
b. To assure engagement at or below targeted engagement speed.
c. As indicated in Table 2.

TABLE 2—PULL OUT EFFORT TEST, CURRENT INDUSTRY PRACTICE

Test	Practice
Test Track	30 to 32% Grade
Vehicle Application	Max GVW
Number of Cycles	40 to 200

4.4 Other tests are conducted as determined by the manufacturer to satisfy unique or specific conditions.

PREPARED BY THE SAE PARK SYSTEM COMMITTEE

Rationale—Not applicable.

Relationship of SAE Standard to ISO Standard—Not applicable.

Application—To provide a Recommended Practice for validating the function and integrity of an automatic transmission park mechanism with its associated control system and environment.

Reference Section

SAE HS J447—Prevention of Corrosion of Motor Vehicle Body and Chassis Components

SAE J1083—Unauthorized Starting or Movement of Machines

SAE J1145—Emissions Terminology and Nomenclature

FMVSS 105/75

CMVSS 105

Developed by the SAE Park System Committee

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

SURFACE VEHICLE RECOMMENDED PRACTICE

SAE J2208

ISSUED JUN93

Issued 1993-06

Submitted for recognition as an American National Standard

PARK STANDARD FOR AUTOMATIC TRANSMISSIONS

***Foreword*—**This Document has not changed other than to put it into the new SAE Technical Standards Board Format.

***1. Scope*—**To provide a Recommended Practice for validating the function and integrity of an automatic transmission park mechanism with its associated control system and environment.

1.1 Purpose—To define the requirements for parking mechanisms of automatic transmissions through evaluation in designed usages.

1.2 Vehicle Application—Encompasses all vehicle usages, up to maximum GVW, with all available production released axle ratios.

2. References

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

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

SAE HS J447—Prevention of Corrosion of Motor Vehicle Body and Chassis Components
SAE J1083—Unauthorized Starting or Movement of Machines
SAE J1145—Emissions Terminology and Nomenclature

2.1.2 FMVSS AND CMVSS PUBLICATIONS—Available from the Superintendent of Documents. U.S. Government Printing Office, Washington, DC 20402.

FMVSS 105/75
CMVSS 105

3. Definitions

3.1 Control System—Defined in SAE J1083 JUL85 (those systems which, when activated, impart motion to the machine or any of its working tools) is further defined here to include the hardware/logic (if applicable), shift lever/mechanism (operator actuator device), and as being external to the transmission.

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