GM WORLDWIDE ENGINEERING STANDARDS	Test Procedure	GMW15008

Drive Quality Procedure Automatic Transmission

1 Introduction

Note: Nothing in this standard supercedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose. To measure drive quality and other parameters by recording vehicle speed, time, acceleration, accelerator pedal force and displacement (travel), and engine speed.

1.2 Applicability. This procedure applies to passenger cars and light-duty trucks equipped with automatic transmissions.

1.3 Remarks. This procedure includes several measurable parameters related to vehicle drive quality. All dynamic tests are run using the Engine Control Unit Accelerator Pedal Sensor (ECU APS) as the primary signal for pedal measurement. Data is obtained that can be used to calculate several drive quality parameters for the Vehicle Technical Specification (VTS).

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

None

2.3 Additional References.

- CG4086, Accelerator Pedal Measurement for Part B.
- CG4087, Dynamic Vehicle Tests for Part A.
- Vehicle Technical Specification (VTS).

3 Resources

3.1 Facilities.

- Part A: See CG4087.
- Part B: See CG4086.

3.1.1 Calibration. The test facilities and equipment shall be in good working order and shall have a valid calibration label.

3.1.2 Alternatives. Alternative test facilities and equipment may also be used. However, all measuring variables as specified in this standard shall be determined correctly with respect to their physical definition.

3.2 Equipment.

3.2.1 Part A: See CG4087.

3.2.2 Part B: See CG4086.

3.3 Test Vehicle/Test Piece.

3.3.1 Part A: See CG4087.

3.3.2 Part B: See CG4086.

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3.4 Test Time. Check with the test facility for test duration and timing.

3.5 Test Required Information.

3.5.1 Part A: See CG4087.

3.5.2 Part B: See CG4086.

3.6 Personnel/Skills. Not applicable.

4 Procedure

4.1 Preparation.

4.1.1 Part A: See CG4087.

4.1.2 Part B: See CG4086.

4.2 Conditions.

4.2.1 Environmental Conditions.

4.2.1.1 Part A: See CG4087.

4.2.1.2 Part B: See CG4086.

4.2.2 Test Conditions. Deviations from the requirements of this standard shall have been agreed upon. Such requirements shall be specified on component drawings, test certificates, reports, etc.

4.3 Instructions.

4.3.1 Part A - Dynamic Vehicle Tests. See CG4087.

Tests consist of but are not limited to:

- Standing Start Acceleration Performance.
- Moving Start/Passing.
- Vehicle Speed/Distance Check (GM applications only).
- Blocked Accelerator Pedal.
- Steady-State Speed Control.
- Deceleration/Coastdown.

4.3.2 Part B - Accelerator Pedal Measurement. See CG4086.

Tests consist of but are not limited to:

- Accelerator Pedal Travel/Displacement.
- Pedal Force versus Travel.
- Off-Idle Test (competitive vehicles only).

5 Data

5.1 Calculations. Not applicable.

5.2 Interpretation of Results. Not applicable.

5.3 Test Documentation. Not applicable.

6 Safety

This standard may involve hazardous materials, operations, and equipment. This standard does not propose to address all the safety problems associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

7 Notes

7.1 Glossary. Not applicable.

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