



Durability Event: High Drive Torque

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 subject a vehicle (automatic transmission only) to high levels of driveline torque by executing forward (Drive) and reverse maneuvers.

1.2 Applicability. The test instructions covered in this standard are intended for use in passenger car and truck testing (equipped with an automatic transmission) and should be adapted at all major GM test sites:

- Cruz Alta Proving Ground – Brazil
- Desert Proving Ground Yuma – USA
- Dudenhofen Proving Ground – Germany
- Guangde Proving Ground – China
- Lang Lang Proving Ground – Australia
- Milford Proving Ground – USA
- Millbrook Proving Ground – England

This global test procedure is intended to document the test facility requirements and driving instructions necessary to properly execute this durability event. Regional test procedures exist in order to implement this global procedure at the various GM proving grounds. Each regional test procedure includes the driving instructions for the specific access roads to and from the test facility, references to local signs and landmarks, and any other region-specific information necessary to implement this GMW durability event.

2 References

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

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

GMW15444 GMW15445

2.3 Additional References.

2.3.1 Cruz Alta. DR.CA.1076

2.3.2 Dudenhofen. DR.DH.HDT

2.3.3 Guangde. DR.GD.IT

2.3.4 Lang Lang. DR.LL.HDT

2.3.5 Milford. DL.MF.IT, DR.MF.IT

2.3.6 Millbrook. DR.MB.R.25

2.3.7 Yuma. DR.YU.IT

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3 Resources

3.1 Facilities. This event is to be executed on a dry, smooth pad which is suitable and deemed safe for this type of operation.

The specific location/facility used at each proving ground varies. Refer to the appropriate parent specification.

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. Refer to the appropriate proving ground driving instruction document.

3.3 Test Vehicle/Test Piece. Not applicable.

3.4 Test Time. The time required to execute this event varies by proving ground. Refer to the appropriate proving ground driving instruction document.

3.5 Test Required Information. Not applicable.

3.6 Personnel/Skills. Refer to the appropriate proving ground driving instruction document.

4 Procedure

4.1 Preparation. Refer to the appropriate proving ground driving instruction document. (See 2.3)

4.2 Conditions.

4.2.1 Environmental Conditions. In situations where severe weather makes driving unsafe, this event should be postponed until conditions improve.

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. This event consists of 12 reversal maneuvers (Drive and Reverse rock cycles) at 1200 revolutions per minute (RPM). See Appendix A "Driving Instructions" for driving speeds and maneuvers relating to procedure.

5 Data

5.1 Calculations. Refer to the appropriate durability test standard.

5.2 Interpretation of Results. Refer to the appropriate durability test standard.

5.3 Test Documentation. Refer to the appropriate durability test standard.

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. Refer to GMW15444 Global Durability Test Instructions, for definitions of terms. Also, refer to GMW15445 Vehicle Ballast, for definitions of ballast related terms.

7.2 Acronyms, Abbreviations, and Symbols.

RPM Revolutions per Minute

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