



Durability Event: Compact Spare Wheel

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 provide a generic set of instructions as a guide to operation with a replacement compact spare road wheel and tire assembly over various road surfaces which are representative of customer usage.

1.2 Applicability. This standard is intended for use in passenger car and light duty truck testing when the vehicle will be marketed with a compact spare wheel and tire assembly (i.e., a wheel and tire assembly which differs in size to the regular road wheels). This test should be available at the major GM test sites:

- Cruz Alta Proving Ground (GM do Brasil)
- Dudenhofen Proving Ground (GM Europe)
- Guangde Proving Ground (GM Korea, PATAC)
- Lang Lang Proving Ground (GM Holden)
- Milford Proving Ground (GM North America)
- Millbrook Proving Ground (England)

1.3 Remarks. This standard provides a GM worldwide engineering standard to ensure uniformity of test inputs experienced by GM products being tested at various global test sites. It is intended as an optional event for inclusion in one of the general durability tests or as the basis for laboratory and analytical activities.

2 References

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

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

GMW3238	GMW3241	GMW15550	GMW15555
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2.3 Additional References.

2.3.1 Cruz Alta.

DR.CA.1060	DR.CA.1258	DR.CA.1313
DR.CA.1061	DR.CA.1298	DR.CA.1316

2.3.2 Dudenhofen.

DR.DH.16°	DR.DH.DR-2	DR.DH.Hill	DR.DH.RC
DR.DH.City	DR.DH.DR-3	DR.DH.PH-1&2	DR.DH.TTE1
DR.DH.DR-1	DR.DH.Freeway	DR.DH.RA-1	

2.3.3 Guangde (DR.GD.PR).

DR.GD.CY	DR.GD.PY	DR.GD.ZN
DR.GD.FR	DR.GD.SD	DR.GD.ZX
DR.GD.PX	DR.GD.ZD	DR.GD.ZY

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2.3.4 Lang Lang.

DR.LL.1FR	DR.LL.7A	DR.LL.8	DR.LL.BB40
DR.LL.42G0	DR.LL.7CS4	DR.LL.8PT	DR.LL.DW16

2.3.5 Milford (DR.MF.PR).

DR.MF.BB	DR.MF.NL	DR.MF.RH
DR.MF.CY	DR.MF.PX	DR.MF.SD
DR.MF.FR	DR.MF.PY	DR.MF.SL

2.3.6 Millbrook (DR.MB.R.39).

DR.MB.G0.4	DR.MB.R.3	DR.MB.R.5	DR.MB.R.8
DR.MB.R.2	DR.MB.R.4	DR.MB.R.6.1	DR.MB.R.19

3 Resources

3.1 Facilities. The inclusion of this procedure as an option in a durability test will include a number of facilities, refer to parent schedule.

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. Jack, associated wheel changing equipment, and compact spare wheel and tire assembly as delivered with the vehicle (available shop equipment may also be used).

3.3 Test Vehicle/Test Piece. Any passenger car or light truck to be marketed with a compact spare wheel and tire assembly.

3.4 Test Time. See Tables A1 thru A6 in Appendix A.

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. Not applicable.

4.2 Conditions. Not applicable.

4.2.1 Environmental Conditions. Not applicable.

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.

Note: Difficulties encountered (such as jack operation, stability, securing spare wheel and jack, etc.) if any, are to be recorded and reported.

4.3.1 Accurate and thorough records are to be maintained in regard to spare (or to production road) wheel and tire assembly identification, location, stowage, installation, or transport during or after tire change or tire rotation.

4.4 Ballast. The Events shown in Tables A1 through A6 should be performed at the defined Gross Vehicle Mass (GVM) ballast condition.

4.5 Events. The events with the replacement compact spare wheel and tire assembly are not to be in addition to those events specified in the applicable Durability Test. If the Durability Test does not contain the proper number of Driving Events to complete Tables A1 thru A6, those events should be omitted. Refer to Appendix A for the appropriate table. The Driving Instructions specified must be performed on all four wheel positions. It is recommended that the specified events be performed during 4 separate phases of the General Durability Test.

4.6 Maximum Speed. The maximum speed of the vehicle should not exceed 130 km/h (80 mph) with the compact spare wheel and tire installed.

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