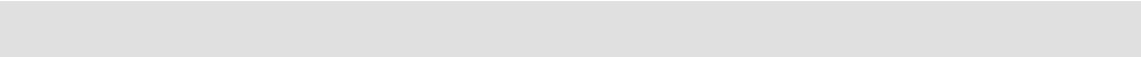




# **Mechanical Testing ISO/IEC 17025 Application Document**

## **Annex F: Vehicle safety tests**

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## Mechanical Testing Annex F: Vehicle safety tests

This document provides interpretative criteria and recommendations for the application of ISO/IEC 17025 for both applicant and accredited facilities conducting road vehicles, seatbelts and accessories testing under the field of Mechanical Testing.

Applicant and accredited facilities must also comply with the ISO/IEC 17025 standard and Mechanical Testing field application document and any field annexes, policies and/or technical circulars (refer to *NATA procedures for accreditation*).

The clause numbers in this document follow those of ISO/IEC 17025 but since not all clauses require interpretation the numbering may not be consecutive.

The scope of accreditation of this class of test mirror the numbering system of the Australian Design Rules (ADR) issued by the Vehicle Safety Standards Branch of the Department of Infrastructure, Transport, Regional Development and Local Government

Accreditation is available for tests on road vehicles and vehicle components performed to Australian Design Rules, Australian Standards or other recognised national or international standards.

The calibration and checking requirements for equipment used for tests on road vehicles and vehicle components have been extracted from ADR Circular 0-12-3, Issue 2.

Some equipment may have different calibration intervals and/or requirements to that listed in other NATA publications. For accreditation for ADR test methods the most stringent calibration interval applies. Should the circular be revised, the most recent publication will apply.

### 5.5.2 Common equipment performance checks

Facilities are responsible for establishing their own equipment assurance program. This is to ensure that all equipment used satisfies the need to produce consistent and reliable and where appropriate traceable results. In doing so facilities must ensure that where methods writing bodies have included equipment calibration and checking intervals in standard methods that these intervals must be followed if the methods are covered by the accreditation. Facilities should refer to the guidance documents available for equipment (General Equipment Table) for further information on calibrations and checks on equipment.

The following supplementary information pertains to equipment items having specific application to road vehicles, seatbelts and accessories testing and may not be directly described within the General Equipment Table.

Item of equipment	Calibrati on interval (years)	Checking interval (months)	Procedures and references
<b>Accelerometers (road vehicle testing)</b>			
Reference	5		
		24	Intercomparison.
Working	3		
		12	Intercomparison.
		Each use	Check by inversion ( $\pm$ one 'g').
<b>Angle measuring equipment (road vehicle testing)</b>	2		
<b>Inclinometer (road vehicle testing)</b>	2		
<b>Strain rate control or indicator tachometers</b>	2		
Mechanical			
- Reference	5		BS 3403
- Working		12	SAE (Australasia) – T5033

Item of equipment	Calibration interval (years)	Checking interval (months)	Procedures and references
Quartz oscillator		Before each measurement*	In-built check.
		On first commissioning or after major maintenance*	Strobe light against mains frequency.
<b>Vehicle distance (road vehicle testing)</b>			
By Fifth Wheel Mechanical		3	Check against surveyed road distance.
Electronic (by Doppler signal)		Each use*	Check against surveyed road distance.
<b>Vehicle speed (road vehicle testing)</b>			
By Fifth Wheel Mechanical		3	Check against surveyed road distance.
Electronic (by Doppler signal)		Each use*	Check against surveyed road distance.
<b>Velocity (road vehicle testing)</b>			
using 'gates' and timer		Each use*	Functional check.
Distance		Five years if fixed; each use if set up	Calibrated tape.
Timer		12*	Standard time signal.

\*Commonly conducted by laboratory staff

## References

This section lists publications referenced in this document. The year of publication is not included as it is expected that only current versions of the references shall be used.

### Standards

BS 3403 Specification for indicating tachometer and speedometer systems for industrial, railway and marine use

### Other

SAE – T5033

ADR Circular 0-12-3 General Requirements for Calibration of Test Equipment and Instrumentation

## Amendment Table

The table below provides a summary of changes made to the document with this issue.

<b>Section or Clause</b>	<b>Amendment</b>
Title	Title amended to be more generally applicable
Equipment performance checks table	Amended to include only those activities applicable to vehicle safety testing
References	Updated