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EA Guidance
on the Application
of ISO/IEC 17020
in Periodic Inspection
of the Roadworthiness
of Motor Vehicles
and their Trailers

PURPOSE

This document has been produced by a work group consisting of experts from the motor vehicle inspection field and from accreditation bodies representing EA, the European co-operation for Accreditation. The purpose of this document is to provide guidance with a view to harmonise the application of *Conformity assessment – Requirements for the operation of various types of bodies performing inspection (ISO/IEC 17020:2012)* in the field of periodic inspection of the roadworthiness of motor vehicles and their trailers. ISO/IEC 17020:2012 remains the authoritative document. In case of dispute concerning application of this document, the individual accreditation bodies will adjudicate on unresolved matters.

Authorship

This publication was prepared by the EA Inspection Committee (IC) in co-operation with International Motor Vehicle Inspection Committee, CITA.

Official language

The text may be translated into other languages as required. The English language version remains the definitive version.

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By decision of the General Assembly in May 2013, this document has

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0. INTRODUCTION

- 0.1 Requirements for the operation of various types of bodies performing inspection are laid down in the International Standard Conformity assessment Requirements for the operation of various types of bodies performing inspection (ISO/IEC 17020:2012). These requirements apply to various types of inspection. ILAC has published, and EA has adopted, ILAC P15 where helpful information is provided to ensure consistent application of the Standard.
- O.2 This document provides information for the application of ISO/IEC 17020:2012 for the accreditation of inspection bodies in the field of periodic inspection of the roadworthiness of motor vehicles and their trailers. It is intended to be used by accreditation bodies assessing vehicle inspection bodies for accreditation as well as by vehicle inspection bodies seeking to manage their operations in a manner fulfilling the requirements for accreditation. It avoids addressing information that is specifically addressed in ILAC P15 and is not intended to subtract from or add to the requirements of the standard.
- 0.3 The structure of this document reflects that of the Standard, including titles of clauses and their numbering. The headings and clause numbers from the Standard are first printed in bold. For ease of reference, each application note is identified by the relevant clause number of ISO/IEC 17020:2012 and an appropriate suffix, e.g. 4.1.4a would be the first application note on the requirements of clause 4.1.4 of the standard.
- The term "shall" is used throughout this document to indicate those provisions which, reflecting the requirements of ISO/IEC 17020:2012, are considered to be mandatory. The term "should" is used to indicate those provisions which, although not mandatory, are provided by EA as a recognized means of meeting the requirements. The term "may" is used to indicate something which is permitted. The term "can" is used to indicate a possibility or a capability. Vehicle inspection bodies whose systems do not follow this EA publication in any respect will only be eligible for accreditation if they can demonstrate to the accreditation body that their solutions meet the relevant clause of ISO/IEC 17020:2012 in an equivalent or better way.
- 0.5 Guidance about established methods and principles important for vehicle inspection are developed by CITA, International Motor Vehicle Inspection Committee. Such best practices on different topics are published in CITA Recommendations. This experience should be taken into account by inspection bodies.
- 0.6 It is intended that after a certain period of use, the content of this document will be revised.

1 SCOPE

- This document is applicable to inspection bodies performing periodic inspection of the roadworthiness of motor vehicles and their trailers as required by EU legislation (see section REFERENCES). It can also be useful for other types of vehicle inspection, such as registration / first inspection and inspection after vehicle modifications.
- This document is not applicable for motor vehicle type approvals as defined in directive 2007/46/EC and it is not applicable for single vehicle approval.

2 NORMATIVE REFERENCES

3 TERMS AND DEFINITIONS

- For the purpose of this document, the terms and definitions given in ISO/IEC 17000:2004 and ISO/IEC 17020:2012 apply.
- 3.1a Note that the EU directive 2014/45/EU on periodic roadworthiness tests for motor vehicles and their trailers uses the word "test" throughout the document, although the meaning is "inspection" according to definitions in ISO/IEC 17000:2004. Throughout this EA-document the term "inspection" is used.
- **3.6a** For the purpose of this document, the EU directive 2014/45/EU on periodic roadworthiness tests for motor vehicles and their trailers is the basis for the inspection system.

4 GENERAL REQUIREMENTS

Impartiality and independence

- 4.1.2a In the cases where the inspection body has a discount policy for key account contracts, this policy shall be handled as a risk to its impartiality (see 4.1.3 4.1.4 in ISO/IEC 17020:2012).
- **4.1.3a** The inspection body should provide instructions to all personnel involved in inspection activities so they know how to identify risks, and what to do if a risk to impartiality is detected, in order to take part in the identification of risks. The inspection body shall keep records of risks detected and actions taken.
- **4.1.3b** Sometimes inspectors perform inspections on behalf of, and at the premises of, a client or workshop. In these cases the risks to impartiality shall be identified and eliminated or minimized according to clause 4.1.3 4.1.4 of ISO/IEC 17020:2012.
- **4.1.4a** One measure for the inspection body should be to have a detailed and practical code of conduct for its inspectors in order to empower them against possible conflicts of interests.

- **4.1.5a** The requirement in 4.1.5 also applies in the cases where the inspection body is deemed to be governmental.
- **4.1.6a** Requirements established by national legislation shall be taken into consideration. Such legislations may establish that the inspection body shall meet the criteria for a type A inspection body and there may be additional requirements for independence and impartiality.
- **4.1.6b** If the inspection body has any relation with organizations operating in the field of motor vehicles it shall establish and implement appropriate measures to prevent potential conflicts of interest or undue influence.
- **4.1.6c** If the inspection body has to meet the requirements for type A, the inspection body should not market its inspection services together with a party it shall be independent of.

Confidentiality

- 4.2.1a It is common in the periodic inspection of the roadworthiness that the inspection body does not have contractual agreements with each client. In these cases the inspection body shall have a documented statement to follow defined confidentiality terms.
- **4.2.1b** Information made available to national authorities, e.g. registering the results of the inspections to the database of the relevant authority, is not considered as information placed in the public domain.
- **4.2.1c** A legally enforceable commitment can for instance be a statement in the customer reception or on a web page, unless national legislation establishes otherwise.
- As a useful tool, the inspection body may publish brochures annually, or in other defined period, including information on inspection results of vehicles in general, in order to make public (users, purchasers etc. of vehicles) aware of vehicle inspection results and support improvements in the automotive and the related industry sectors.

5 STRUCTURAL REQUIREMENTS

Administrative requirements

- 5.1.3a The competence for performing periodic inspection of the roadworthiness should be described per inspection site and should make clear reference to vehicle categories.
- 5.1.4a Factors for establishing adequate provision can be:
 National legislation regarding liabilities, the volume of vehicles inspected, the categories of vehicles, the number of inspectors and inspection lanes, the geographic position of the inspection body's premises, number of claims occurred etc.

5.1.5a Contractual conditions of the inspection body, including its fees, terms of payment, procedures for disputes etc., should be available to all interested parties.

Organization and management

- **5.2.5a** Overall responsibility includes preconditions, resources, instructions etc., as opposed to the inspections themselves, where the inspector is fully responsible. Normally the technical manager should be responsible for the following:
 - Selection of equipment and implementation of maintenance schemes,
 - Selection and maintenance of inspection procedures,
 - Definition of competence criteria,
 - Overall performance of inspectors, including quality, reliability and impartiality,
 - Any technical issues not resolved by the inspectors.
- 5.2.5b The competence level should be based on an appropriate technical qualification (e.g. technician, engineer) and perennial experience in motor vehicle technology or equivalent. Technical managers should have appropriate experience and training in vehicle inspections.

6 RESOURCE REQUIREMENTS

Personnel

- **6.1.1a** Competence requirements shall take into account the categories of vehicles as defined in directive 2014/45/EU.
- **6.1.1b** Competence requirements defined in EU or national legislation shall be included.
- 6.1.2a The inspection body shall plan vehicle inspections, giving sufficient attention to the real availability of human and material resources, in order to allow the technical inspectors sufficient time to fulfil their duties in accordance with the requirements.
- **6.1.2b** The inspection body should be able to demonstrate the factors taken into account to justify the number of inspectors employed or contracted.
- 6.1.5a Procedures for selecting, training, authorizing and monitoring shall include (or correspond to) actions to be taken when competence or behaviour is found unsatisfactory.
- 6.1.8a The inspection body should assess which approach to monitoring and evaluation is most suitable, taking into account their management system, the way inspection is organized and the use to which the results are to be put.
- 6.1.8b The monitoring of inspectors should include both direct methods, like reinspections, mystery shopper vehicles, examination of inspection reports etc, and indirect methods, like statistical analyses, as described in CITA Recommendation no. 13.
- **6.1.9a** For each inspector observations or sufficient supporting evidence shall be related to all of the main categories of vehicles covered by his/her qualification.

6.1.11a Whenever relevant, the remuneration should be part of the risks identification (see 4.1.3-4.1.4).

Facilities and equipment

- 6.2.1a Sometimes inspectors perform inspections on behalf of, and at the premises of, a client or workshop. In these cases the inspection body shall ensure the requirements of clause 6.2 of ISO/IEC 17020:2012 are fulfilled. The inspection body shall keep records upon all equipment in use by its inspectors.
- **6.2.1b** EU and national legislation has to be considered.
- **6.2.1c** The premises, including any mobile inspection sites, used for vehicle inspections should:
 - be designed with sufficient space for the technical inspectors to perform vehicle inspections adequately and correctly and in safe and secure conditions;
 - where relevant, be provided with adequate lighting, heating and ventilation systems;
 - have suitable conditions for test driving.
- 6.2.1d The inspection body shall ensure that new inspection equipment is not released for use until it has been verified and, if relevant, calibrated. The verification should focus on the following items:
 - conformity of the construction and function to the stated specifications;
 - correct number, proper identification, no apparent damage;
 - presence of relevant supporting documentation and technical data.
- **6.2.4a** Normally, equipment not having a significant influence on the results are those which do not directly lead to any determination of conformity with requirements.

Examples of equipment having a significant influence on the results are:

- Brake tester
- Opacimeter
- Exhaust gas analyser

Examples of equipment normally not having significant influence are devices used to check:

Windscreen damage or opacity

In these cases the results depend on the professional judgment of the inspector, and the equipment is normally used only for assistance or quick reference.

- 6.2.6a The calibration programme or procedures should define the calibration processes, the environmental conditions when relevant, the frequency or other reasons for calibration, the acceptance criteria and the action to be taken when the results are found unsatisfactory and/or inadequate.
- 6.2.6b The programme of calibration should take into account the manufacturers' recommendation, the use that is made of the equipment, its history of calibration, in-service checks and also relevant elements which are defined in ILAC G24.

EU and national legislation has to be considered.

- 6.2.6c The calibration status should be shown clearly on relevant inspection equipment, preferably by means of suitable markers or labels, indicating when the last calibration was performed or when the next calibration is due.
- 6.2.9a The programme of in-service checks should take into account the manufacturers' recommendation, the use that is made of the equipment, the calibration programme etc.
- **6.2.9b** Inter-equipment comparisons can be considered as in-service checks.
- **6.2.11a** Verification of incoming goods is relevant for:
 - Stickers, forms, labels, etc. meant to show inspection results (verify contents),
 - Equipment for inspection (verify safety, proper functioning, sufficient documentation etc.).
- **6.2.13a** Commercial software generally accepted by vehicle inspection operators can normally be considered to be adequate for use without validation or revalidation by the inspection body. However, custom made software or commercial software which has been customised should be validated.
- **6.2.13b** When specific software is used there shall be relevant documentation for the proper use.
- **6.2.13c** When tablets, laptops or similar portable PCs are used during the inspections, attention shall be given for the integrity and security of data when transferred or processed.
- **6.2.14a** Examinations of the effect of defects on previous inspections, and actions taken, shall be documented.

7 PROCESS REQUIREMENTS

Inspection methods and procedures

7.1.1a The methods and procedures shall be based on relevant legislation, such as, but not limited to, the relevant EU directive, as implemented by national legislation.

The methods and procedures should also consider relevant national or international standards, or other normative documents, such as CITA Recommendations.

7.1.3a If the inspection body has to use or develop inspection methods that are non-standard, the process may include theoretical analysis and practical tests as well as exchange of experience with inspections bodies, garages, vehicle or equipment manufacturers.

The methods shall be appropriate, and permit the inspection activities to be carried out in a competent and safe manner, in order to judge if the vehicle meets the roadworthiness and environmental requirements.

When developing a periodical vehicle inspection method, the inspection body should consider for instance: if professional judgment and/or measurement results would be the most efficient way to decide if roadworthiness and environmental requirements are met, if the method is straightforward to understand and perform and, where relevant, the repeatability and measurement uncertainty of the method.

- **7.1.5a** The inspection body should have procedures for handling necessary re-planning based on the real availability of human resources.
- **7.1.6a** Information can for instance be supplied from the vehicle industry or the type approval authority.
- **7.1.7a** The inspection procedure shall ensure traceability of the inspection results to the inspected vehicles.
- **7.1.8a** Data transfer can be for instance the transfer of results and data of the inspections to the database of the relevant competent authority.

Inspection records

7.3.1a Recorded observations and data from the inspectors (see 7.1.7 of ISO/IEC 17020:2012) shall be retained for reference for a defined period (see also 8.4.1 of ISO/IEC 17020:2012).

Inspection reports and inspection certificates

- **7.4.1a** The requirements related to roadworthiness certificates in the EU directive on roadworthiness tests for motor vehicles and their trailers, as implemented by national legislation, have to be considered.
- **7.4.2a** The minimum contents of a roadworthiness certificate as required by the EU directive on roadworthiness tests for motor vehicles and their trailers, as implemented by national legislation, have to be considered.

In many countries the inspection reports or certificates are prescribed by the national regulations.

Even so, relevant requirements of ISO/IEC 17020:2012 need to be fulfilled.

Complaints and appeals

7.5.2a The description of the handling process can for instance be put on a web page or handed over on-site to the interested party.

Complaints and appeals process

7.6.5a If an appeal results in replacement of an inspection report and/or certificate, this shall be communicated also to the relevant national authorities, according to national legislation requirements.

8 MANAGEMENT SYSTEM REQUIREMENTS

Internal audits (Option A)

- **8.6.2a** One of the most important processes in vehicle inspection is the monitoring of the performance of inspectors. The audit program shall consider the importance of the monitoring process.
- **8.6.3a** The internal audits should include on-site visits, to cover the inspection activities.
- **8.6.5a** To ensure that internal audits are conducted by qualified personnel knowledgeable in inspection, at least one member of the auditor team should be qualified, or have demonstrated technical competence, in vehicle inspection, so that all procedures can be covered (see 8.6.3).

REFERENCES

Directive 2009/40/EC on roadworthiness tests for motor vehicles and their trailers (repealed with effect from 20 May 2018)

Directive 2014/45/EU on periodic roadworthiness tests for motor vehicles and their trailers and repealing Directive 2009/40/EC

Directive 2007/46/EC establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles

Conformity assessment – Vocabulary and general principles (ISO/IEC 17000:2004)

Conformity assessment – Requirements for the operation of various types of bodies performing inspection (ISO/IEC 17020:2012)

ILAC P15:06/2014 Application of ISO/IEC 17020:2012 for the Accreditation of Inspection Bodies

ILAC G24:2007 Guidelines for the determination of calibration intervals of measuring instruments

CITA Recommendation no. 13 – Quality measurement methods for vehicle inspection