

EUROMED Workshop on Vehicle Regulations

Cairo

22 – 24 October 2018

UN Vehicle Agreements
Periodic Technical Inspection
World Forum for Harmonization of Vehicle Regulations,
WP.29

Walter NISSLER

Chief of Vehicle Regulations and Transport Innovation Section
(Secretary of the World Forum for Harmonization of Vehicle Regulations)



Content

- I. Why Periodic Technical Inspection
- II. Periodic Technical Inspections(PTI): the 1997 Agreement
 - a) The 1997 Agreement and proposed amendments
 - b) Rule 1 and Rule 2
 - c) Resolution R.E.6
- III. Technical Roadside Inspections / vehicle import



Content

- I. *Why Periodic Technical Inspection*
- II. Periodic Technical Inspections(PTI): the 1997 Agreement
 - a) The 1997 Agreement and proposed amendments
 - b) Rule 1 and Rule 2
 - c) Resolution R.E.6
- III. Technical Roadside Inspections / vehicle import

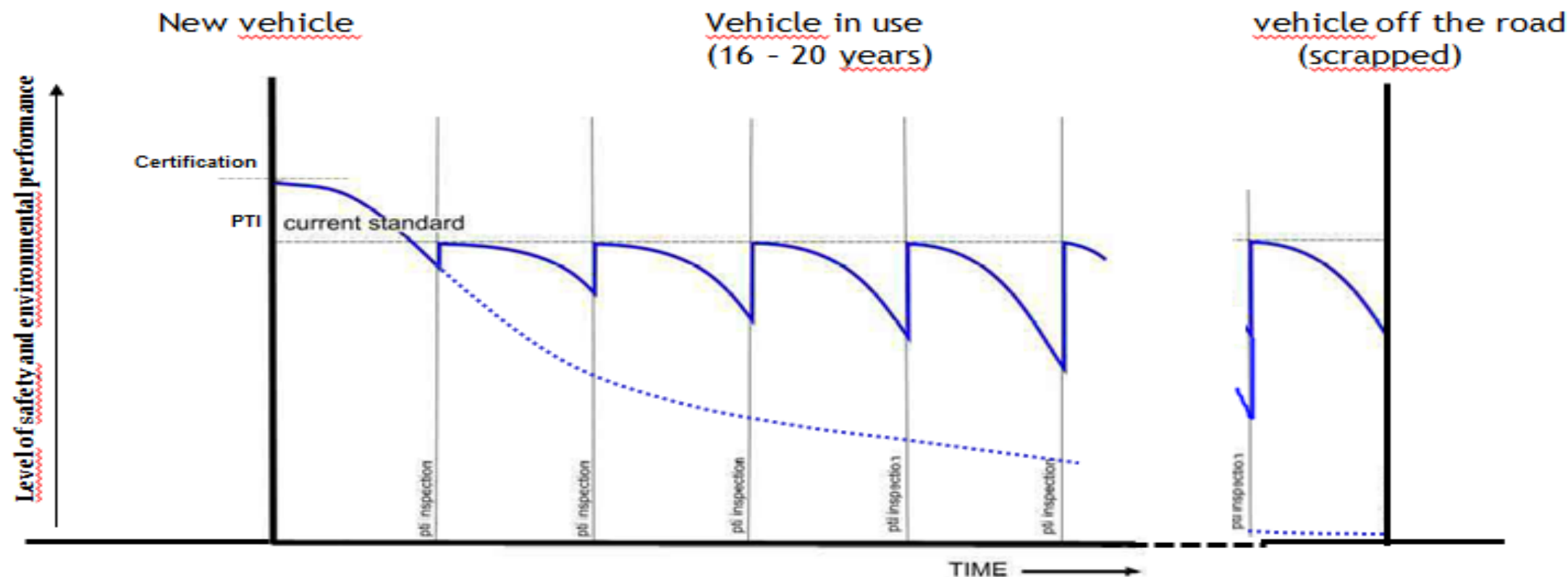


Why Periodic Technical Inspections

Vehicle Lifecycle

Vehicle certification

Periodic Technical Inspection



TRANSPORT



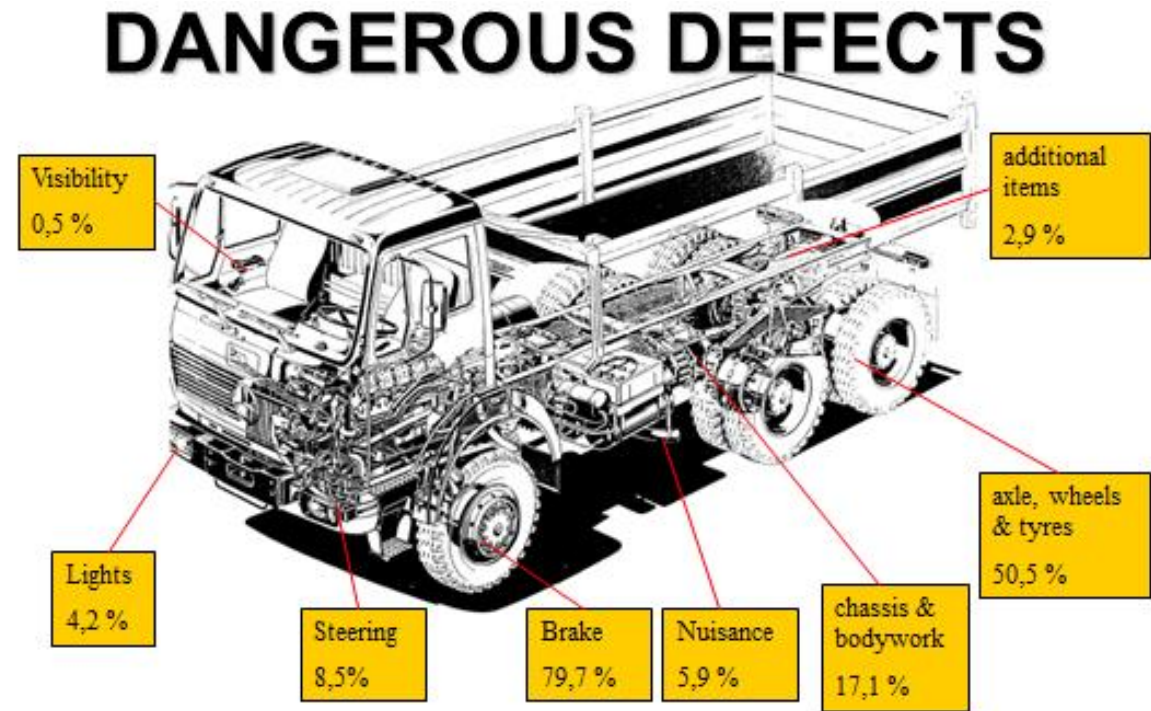
Why Periodic Technical Inspections

- Evidence base:
 - Technical defects related to fatal accidents (based on in-depth accident analysis)
 - 8 to 15% in high income countries (EU)
 - 15 to 25% in middle income countries

- Potential for Egypt

➔ 1800 to 3000 fatalities less

Example of results of technical roadside inspections
(Austria '08)



Why Periodic Technical Inspections

- So called “low hanging fruit”
- Immediate effect on road safety
- Covers existing fleet



Content

- I. Why Periodic Technical Inspection
- II. Periodic Technical Inspections(PTI): the 1997 Agreement**
 - a) The 1997 Agreement and proposed amendments**
 - b) Rule 1 and Rule 2**
 - c) Resolution R.E.6**
- III. Technical Roadside Inspections / vehicle import



1997 Agreement main provisions

- Treaty body Administrative Committee AC.4
 - Quorum
 - Election of Chair and Vice-Chair
 - Body where votes take place
- Provisions on establishing /amending Rules
 - Amendments voted in AC.4 and submitted to Secretary General (NY) by secretariat
 - Notification by Secretary General
 - Contracting Parties six month following notification for rejection (1/3 of CPs)
 - Entry into force immediately after end of six month notification
- Rules shall cover
 - Scope and frequency; items (equipment and/or parts) to be inspected; test methods; conditions for granting inspection certificate and date of entry into force



1997 Agreement main provisions (cont.)

- Provisions on amending the agreement
 - Amendments to be proposed by a Contracting Party to Secretary General (NY)
 - Notification by Secretary General
 - Contracting Parties six month following notification for rejection
 - Entry into force three month following end of 6 month notification period only if NO Contracting Party rejected
- Reciprocal recognition of Inspection Certificates in international traffic
- Harmonized International vehicle Inspection Certificate (incl. specimem)
- Accession to agreement and application of rules
- Disputes and arbitration procedures



1997 Agreement main provisions (cont.)

- Proposed amendments to the agreement
 - Including definitions of roadworthiness and approval,
 - Deficiencies, inspector, competent authority
 - Test center and supervising body
 -
- Possibility of electronic Inspection Certificates
- Amendment to content of inspection certificate (mileage at test)
- New Appendix on Conformity of periodic technical inspection process
 - System for authorisation, supervision, withdrawal, suspension or cancellation of authorisation including requirements for
 - Testing facilities and equipment; testing centres, inspectors and supervision



1997 Agreement – Rules Nos. 1 and 2

- Rule 1 focuses on environmental issues
 - Pollutant emissions, noise and leakages
- Rule 2 focuses safety related issues
 - Identification of the vehicle;
 - Braking equipment;
 - Steering;
 - Visibility;
 - Lighting equipment and parts of electric system;
 - Axles, wheels, tyres, suspension;
 - Chassis and chassis attachments;
 - Other equipment;
 - Additional inspections of vehicles for the commercial carriage of passengers.
- Contains: scope, test frequency, inspection items, test methods, reason for failures and guidance on assessment of defects



1997 Agreement – Rules Nos. 1 and 2

- Latest amendments to the Rules
 - Extend scope to M1 and N1 vehicles
 - Maximum intervals between two consecutive inspections (M1, N1: 4-2-2; N2,N3,M2,M3,O3,O4 and taxis & ambulances 1-1-1)
 - System of severity of defects (minor-major dangerous)
 - Clear assessment of defects according to their severity
 - Final assessment of vehicle in accordance to the most severe defect (taking into consideration combined effects of defects)
 - Introduce testing of electronic controlled systems



1997 Agreement – Rule 1 & Rule 2

3. Periodicity of technical inspections

<i>Vehicle Categories</i>	<i>Maximum Inspection Intervals</i>
Passenger-carrying motor vehicles: M₁, except taxis and ambulances Goods vehicles: N₁	Four years after the first entry into service of the first registration and every two years thereafter
Passenger-carrying motor vehicles: M₁ used as taxi or ambulances, M₂ and M₃ Goods vehicles: N₂ and N₃ Trailers: O₃ and O₄	One year after the first entry into service of the first registration and annually thereafter-



1997 Agreement – Rule 1 & Rule 2

7.2. Deficiencies that are found during periodic testings of vehicles shall be categorised in one of the following groups:

- (a) "*Minor deficiencies*" having no significant effect on the safety of the vehicle or impact on the environment, and other minor non-compliances;
- (b) "Major deficiencies" that may prejudice the safety of the vehicle or have an impact on the environment or put other road users at risk, or other more significant non-compliances;
- (c) "Dangerous deficiencies", constituting a direct and immediate risk to road safety or having an impact on the environment which justifies that, a Member State or its competent authorities may prohibit the use of the vehicle on public roads.

7.3. A vehicle having deficiencies falling into more than one of the deficiency groups referred to in paragraph 7.2. above shall be classified in the group corresponding to the more serious deficiency. A vehicle showing several deficiencies within the same inspection area as identified in the scope of the test referred to in paragraph 2 of Annex I, may be classified in the next most serious deficiency group if it can be demonstrated that the combined effect of those deficiencies results in a higher risk to road safety.



1997 Agreement – Rule 1 & Rule 2

			Minor	Major	Dangerous
2.1.2. Steering gear casing attachment	With vehicle on a pit or hoist and the weight of the vehicle road wheels on the ground, rotate steering / handle bar wheel clockwise and anticlockwise or using a specially adapted wheel play detector. Visual inspection of the attachment of gear casing to chassis.	(a) Steering gear casing not properly attached. Attachments dangerously loose or relative movement to chassis/bodywork visible.		X	X
		(b) Elongated fixing holes in chassis. Attachments seriously affected.		X	X
		(c) Missing or fractured fixing bolts. Attachments seriously affected.		X	X
		(d) Steering gear casing fractured. Stability or attachment of casing affected.		X	X
2.1.3. Steering linkage condition	With the vehicle over a pit or on a hoist and with the road wheel on the ground, rock steering wheel clockwise and anticlockwise or using a specially adapted wheel play detector. Visual inspection of steering components for wear, fractures and security.	(a) Relative movement between components which should be fixed. Excessive movement or likely to unlink.		X	X
		(b) Excessive wear at joints. A very serious risk of unlinking.		X	X
		(c) Fractures or deformation of any component. Affecting function.		X	X
		(d) Absence of locking devices.		X	
		(e) Misalignment of components (e.g. Track rod or drag link).		X	
		(f) Unsafe modification ⁽³⁾ .		X	



1997 Agreement – Resolution R.E.6

- Establishes minimum requirements for a PTI regime and details specific administrative and technical provisions for PTI
- Minimum requirements for technical inspection facilities and test equipment
 - Test lane with pit or lift
 - Equipment for brake testing; wheel play detector; sound meter; emission test devices (4-gas analyser / smoke meter); headlamp aiming device; tread depth meter; OBD scan tool and LPG/CNG/LNG leakage detector
 - Calibration requirements



1997 Agreement – Resolution R.E.6 (cont.)

- Minimum requirements concerning competence, training and certification of inspectors
 - Areas of knowledge and experience
 - Initial and refresher training / examination
 - Certificate of competence
- Supervising bodies
 - tasks and activities of supervising bodies
 - requirements concerning supervising bodies
 - Contents of rules and procedures

Content

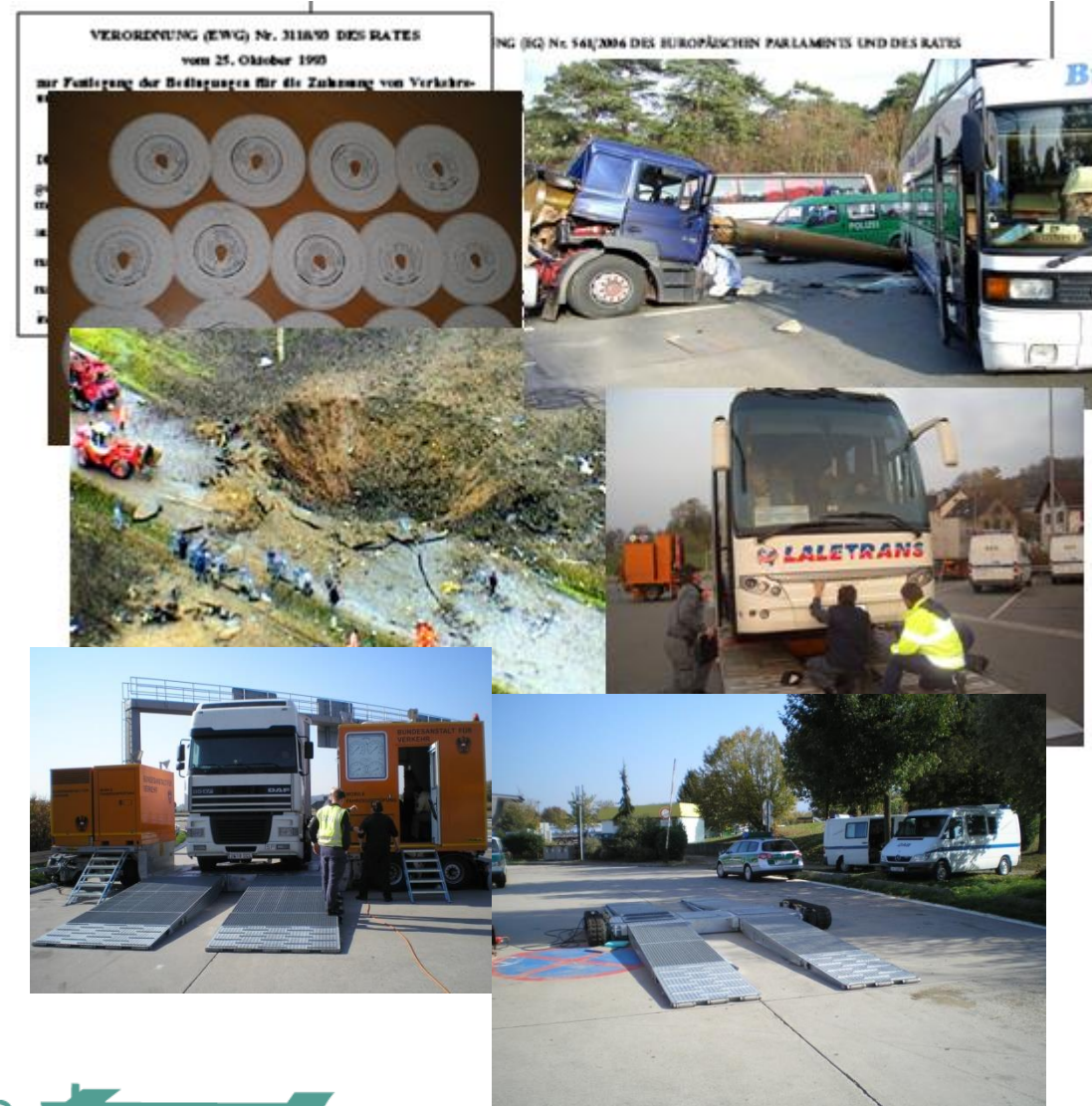
- I. Why Periodic Technical Inspection
- II. Periodic Technical Inspections(PTI): the 1997 Agreement
 - a) The 1997 Agreement and proposed amendments
 - b) Rule 1 and Rule 2
 - c) Resolution R.E.6
- III. Technical Roadside Inspections / vehicle import***



Technical Roadside Inspections

Mainly, but not only, for commercial transport
Different areas to be covered

- Driver permit
- Transport license
- Vehicle registrations
- Weights and dimensions
- Driving time and Resting time (AETR)
- Transport of dangerous goods (ADR)
- Technical condition of vehicles
- Securing of cargo



➔ **need for specialised body & good cooperation with police**

➔ **need for specialised equipment
need for intelligent selection tool
(risk rating)**

Technical Roadside Inspections

THE AIM
TO IMPROVE
ROAD-SAFETY
BY ENFORCEMENT



TRANSPORT



Vehicle import

- **New vehicle**

- Approved type

- National TA document
- Vehicle registration

- Not approved type

- Individual approval (IA)
 - Documentation
 - Testing
- National IA document
- Vehicle registration

- **Used vehicle**

- Approved type

- Individual approval based on TA
- National IA document
- Periodic technical Inspection
- Vehicle registration

- Not approved type

- Individual approval based
 - Documentation
 - Testing
- National IA document
- Periodic technical Inspection
- Vehicle registration



Vehicle Registration

- **Main purpose**
 - Final permission to use in road traffic
 - Identification of vehicle by issuing a registration plate and a corresponding registration certificate
- **Preconditions for registration:**
 - Vehicle approval
 - Periodic technical inspection
 - Third party liability insurance
 - Payment of duties and fees



**THANK YOU
FOR YOUR ATTENTION**

UNECE Sustainable Transport Division

<http://www.unece.org/trans>

walter.nissler@unece.org

