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Concerning Development of Type Approval Procedures Related to Verification of Conformity of Certified Parameters

Transmitted by Russian Federation

A. BACKGROUND

Russian Federation had presented the informal document No. 8 of the 126th WP.29 session, which contained the proposals related to development of the document “Enforcement of the type approval and conformity of production standards for motor vehicles” transmitted by the United Kingdom (document TRANS/WP.29/2002/28).

Although no formal comments were received in regards to the said document, WP.29 at its 128th session concluded that incorporating durability requirements into certain ECE Regulations might be a desirable step towards improving quality and reliability and invited the delegations to consider suitable provisions for selected Regulations (TRANS/WP.29/885, para. 113).

As it was fairly said, a general requirement of satisfactory operation of type-approved products during the time of their usage exists in the ECE Regulations. However the ECE Regulations in most cases do not establish the procedure of confirming maintenance of certified performance features at the time of vehicle utilization, although some unclear indications may be found (Regulations No. 13, pp. 5.1.1.1., 5.1.1.2., Regulations No. 79, p. 5.1.4., etc.). In some of the ECE Regulations (Nos. 10, 13, 51, and 101) the specified parameters are established for the “normal conditions of usage”.

As a positive exception, the reference can be made to the Regulations No. 83-02 (and latest revisions), which Annex 8 prescribes conduction of special “endurance test for verifying the durability of pollution control devices” – (Type V Test) by 80 thousand km drive with periodical (every 10 thousand km) checking emission levels.

After entering into force of the Euro-3 requirements prescribing specifications for on-board diagnostic system for emission control and checking of performance of that system by 80 thousand km drive test carrying out by the manufacturer, the related test shall be inspected by the authorities issuing the communications on type approval with respect to requirements of the Regulations No. 83.

The important problem is inspection of emissions of trucks and buses equipped with diesel engines during exploitation. The ECE Regulations No. 49 specify certain regimes of bench testing of new diesel engines, but at the time of usage engine emission shall be evaluated on a vehicle, where such engine is mounted. Thus essentiality of development of endurance test procedures for trucks and buses equipped with diesel engines and establishment of parameters, which can be correlated with those set by the ECE Regulations No. 49, becomes actual.

Another essential element of compliance verification of the certified parameters is provision of conformity of production with the sample that was submitted for homologation tests. Unfortunately, with reference to this matter, the ECE Regulations mostly contain general provisions and do not stipulate particular procedures.

In this regard one can refer to the positive experience of the European Union. The Framework Directive 70/156/EC stipulating the mandatory and uniform for all the EU countries procedure of the whole vehicle type approval, includes Annex X that contains conformity of production procedures to be executed by type approval authorities and manufacturers. In particular, manufacturers must ensure that for each type of product the necessary checks prescribed in the Framework Directive and in the separate Directives contained in the list set out in the Framework Directive, applicable for the said product. The relevant check results data must remain available for a period to be agreed by the type approval authorities. For such checks the manufacturers must have access to the necessary testing equipment.

The several EC Directives contain the requirements for the said checks. For example, the Directive 70/157/EC stipulates measurement of pass by vehicle noise using the similar test method as prescribed by the said Directive for the type approval purpose. The tests have to be carried out one time every two years. The volume and periodicity of the relevant checks is also stipulated by the Directives 70/220/EC (Emissions), 72/245/EC (Electromagnetic compatibility) and some others. It should be noted that the mentioned EC Directives are equivalent to the ECE Regulations Nos. 51, 83 and 10 (in the order of reference).

The requirements of the EC Directives could be considered as a basis for development of the similar procedures in the ECE Regulations related to provision of conformity of production.

B. PROPOSALS

The Russian delegation would like especially to emphasize importance of maintenance of regulated parameters at the time of utilization of the officially type-approved product.

Putting into certification practice Type V Test of ECE Regulations No. 83 is considered as the first effective step to the direction of inspection of certified performance features during product utilization. Taking the Regulations No. 83 as an example, the other ECE Regulations have to be complemented by the instruments allowing verification of maintenance of certified parameters by periodic measurements of the said parameters at the time of endurance tests of the set mileage.

Taking the EC Directives as an example, the ECE Regulations have to establish the volume and the periodicity of the inspection tests of the product to be carried out by the manufacturer within the framework of conformity of production procedures with presence of the relevant results to the type approval authorities.

As the next step in resolving the problem of provision of maintenance of the performance features of the certified product, Russian Federation proposes development of the relevant supplements to the Regulations Nos. 13, 24, 49 and 51, which firstly have to be submitted for consideration of the Working Groups GRRF, GRPE and GRB respectively.