

## Draft Proposal for amendment of Regulation No. 90

### 1. Introduction

The Approval Authority which granted ECE R90 Type Approvals is obliged according ECE Regulation No. 90, chapter 8, "Conformity of Production", to verify annually the conformity control methods on replacement brake lining product and production process. Generally, these inspections are conducted directly by the Competent Authorities/respectively the Technical Services or delegated to accredited auditors (independent bodies) to ISO 9001 or ISO/TS 16949. Friction material manufacturers have to work with several Approval Authorities to overcome the ECE R90 approval workload. Due to this fact, many friction material manufacturers are now faced to celebrate multiple CoP inspections annually, as there is no mutual recognition between Approval Authorities of said inspections.

The intention of the proposal is to standardize the process by using a common CoP Inspection Questionnaire and thus reaching a mutual recognition of the CoP and Quality audits. The Questionnaire shall be added to ECE R90, chapter 8, "Conformity of Production".

### 2. Proposal

*Insert new paragraph 8.6 to read:*

" 8.6

Annual CoP inspection can be – alternatively – performed by any Audit Agency accredited to ISO 9001 or ISO/TS 16949"

*Insert new paragraph 8.7 to read:*

"8.7

In order to safeguard uniform quality of the annual CoP inspections a standard questionnaire according to Annex 14 to this Regulation shall be used"

*Insert new Annex 16 to read:*

"Annex 16

#### Specific Conformity of Production Inspection Questionnaire

No.	Requirements to the holder of an approval
1	<p><b>It is ensured that</b></p> <hr/> <ul style="list-style-type: none"> <li>- The approval holder is familiar with his rights and obligations</li> <li>- Only current internal and external documents are in use</li> <li>- The approval holder is familiar with the latest version of relevant standards/requirements</li> <li>- The approval holder is able to react on changes appropriately and in time</li> </ul>
2	<p><b>Extension of type approvals are applied at the Approval Authority</b></p> <hr/> <ul style="list-style-type: none"> <li>- Prior to design changes</li> <li>- In case of administrative changes</li> <li>- Prior to other alterations regarding the application</li> <li>- In case of replacement of suppliers (only if specified by the type approval or legally required)</li> </ul>

No.	Requirements to the holder of an approval
3	<p><b>Recall of risky products is guaranteed</b></p> <hr/> <ul style="list-style-type: none"> <li>- Sources of information (e.g. complaint management)</li> <li>- Responsibilities are defined</li> <li>- Control of information and escalation is defined</li> <li>- Further handling of products is defined</li> </ul>
4	<p><b>Immediate information to the Approval Authority</b></p> <hr/> <ul style="list-style-type: none"> <li>- Administrative changes</li> <li>- Suspension/termination of a certification/verification</li> <li>- In case of definitive cessation of production of approved products</li> <li>- In case of safety or environment relevant defects</li> </ul>
5	<p><b>CoP Tests and test records acc. ECE R90, Chapter 5, item 5.2.2. and Annex 9</b></p> <hr/> <ul style="list-style-type: none"> <li>- Testing personnel is defined; competence is guaranteed</li> <li>- Suitable test environment</li> <li>- Test equipment is suitable and in good condition (shear test machine, compresibility test machine and friction tester)</li> <li>- Test requirements according ISO 6310, ISO 6312, ISO 2039-2 and ECE R90 Annex 9 are fulfilled</li> <li>- Appropriate data retention period; further analysis is guaranteed</li> <li>- Adequate data storage conditions</li> </ul>
6	<p><b>CoP arrangements to ensure product conformity</b></p> <hr/> <ul style="list-style-type: none"> <li>- Procedures and responsibilities are defined</li> <li>- Test frequency and sample size are adequately defined</li> <li>- Procedures and arrangements are effective</li> <li>- Availability of test records for reporting to the Approval Authority is guaranteed</li> </ul>
7	<p><b>CoP Analysis of test results</b></p> <hr/> <ul style="list-style-type: none"> <li>- Responsibilities are assigned</li> <li>- Results within the accepted range</li> <li>- Adequate reaction on non-conformities</li> <li>- Testing is carried out on a statistically controlled basis</li> </ul>
8	<p><b>CoP Corrective action</b></p> <hr/> <ul style="list-style-type: none"> <li>- Root cause analysis</li> <li>- Immediate and adequate implementation/ realisation is guaranteed</li> <li>- Preventive reaction in case of tendencies</li> <li>- Effectiveness is analysed</li> </ul>
9	<p><b>Traceability of products according ECE R90, chapter 6</b></p> <hr/> <ul style="list-style-type: none"> <li>- Marking in production (e.g.date, batch number, source code)</li> <li>- Explicit recognisable and attributable</li> </ul>
10	<p><b>Approval compliant marking according ECE R90, chapter 6;</b> <b>Marking of product</b></p> <hr/> <ul style="list-style-type: none"> <li>- Complete in accordance with the type approval</li> <li>- Size</li> <li>- Readability</li> <li>- Durability</li> </ul>

No.	Requirements to the holder of an approval
11	<p><b>Approval compliant marking according ECE R90, chapter 6;</b></p> <p><b>Packaging of pad/shoe assemblies</b></p> <hr/> <ul style="list-style-type: none"> <li>- Manufacturer or Brand in the box or label</li> <li>- R90 number</li> <li>- Seal label</li> <li>- Set package</li> <li>- Fitting instructions inside box</li> </ul>

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### 3. Justification

In friction material industry it is state of the art to execute annually audits on management systems and production processes to maintain the QMS Certification according to ISO 9001 or ISO/TS 16949. Through the incorporation of an ECE R90 Standardized CoP Inspection Questionnaire into regular QMS audits and its reciprocal acceptance, the replications of audits can be avoided and an important amount of time and resources can be saved for both parties, the Competent Authorities as well as the friction material manufacturers. A standard questionnaire is appropriate to achieve a common quality standard for the annual inspection.