

Item 3 – UN Regulation No. 51 (Noise of N of M category vehicles)

The **“ACEA - Tyre Performance Study Report”**, made by UTAC is now available as GRBP-74-09.

The findings of this study were earlier presented by UTAC as GRBP-70-25 – **“ACEA – Tyre Performance Study Noise VS other performances”**.

Submitted by the expert from OICA

Informal document GRBP-74-08
(74th GRBP, 15 to 17 September 2021
agenda item 3)

acea

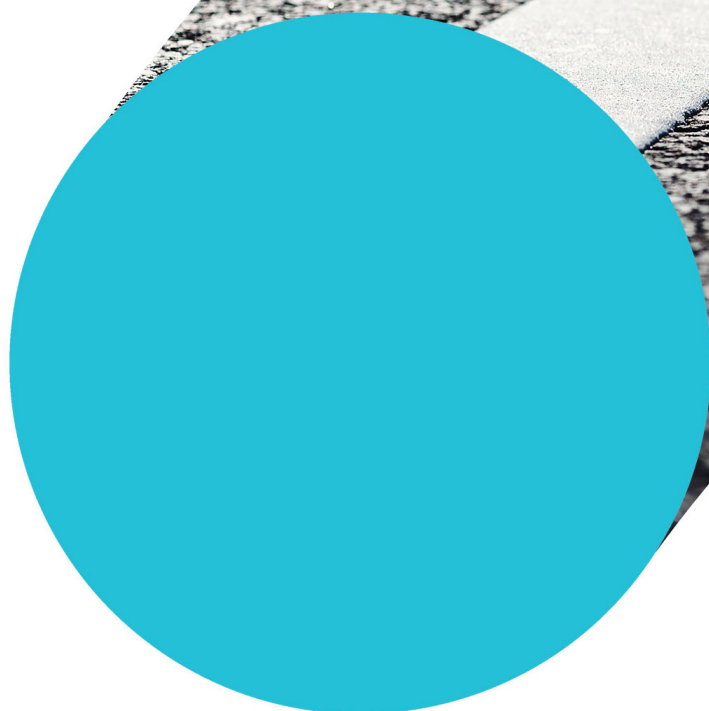
Aug 2021

ACEA Tyre Performance Study

Foreword to Informal document

GRBP-74-09

(74th GRBP, 15 to 17 September 2021 agenda item 3)





FOREWORD

With great pleasure, we would like to present the ACEA Tyre Performance Study executed with the support of UTAC CERAM in 2019. This unique study offers a comprehensive toolbox to evaluate the relationship between rolling noise and the main other tyre performances according to standard measurement protocols.

ACEA Tyre Performance Study aims at determining the inter-dependency between rolling noise, rolling resistance and the main safety performances by carrying out tests according to regulatory or standard procedures with accurate reliable and repeatable measurement methods. The study clearly outlines trade-offs between tyre rolling noise and other parameters essential for vehicle safety and CO2 reduction (braking performance, rolling resistance, etc.). In order to draw concrete conclusion, 16 different tyres most commonly used in the European market including snow and all season tyres were used.

It is evident from the study findings that obtaining a low level of rolling noise without jeopardizing other parameters essential for vehicle safety and CO2 emission reduction could not be proven as feasible. Preliminary study outcomes have been presented already in the UNECE Forum in 70th GRBP in Sep'2019 [ACEA UTAC Tyre Performance Study 2019](#) .

The statistical method “Principal Components Analysis” shows a conflict between rolling noise (UN-R117) and safety performances (wet grip, dry grip, lateral aquaplaning). Singular conclusions regarding one criteria, either rolling noise, rolling resistance or safety performance (longitudinal aquaplaning) cannot be drawn without looking to the consequences in the other areas.

We hope that policy makers and industry stakeholders alike will find great added value in this study evaluation and consider the conclusion drawn through this study in their legislative exercise. ACEA plans in a next step to extend the scope of the study with tyre wear life testing. We are in preparation of this study and even further in complementing the study in order to deliver a more complete picture of tyre parameters interdependence.

Eric-Mark Huitema

ACEA DIRECTOR GENERAL



ABOUT THE EU AUTOMOBILE INDUSTRY

- 14.6 million Europeans work in the auto industry (directly and indirectly), accounting for 6.7% of all EU jobs
- 11.5% of EU manufacturing jobs – some 3.7 million – are in the automotive sector
- Motor vehicles are responsible for €398.4 billion of tax revenue for governments across key European markets
- The automobile industry generates a trade surplus of €74 billion for the European Union
- The turnover generated by the auto industry represents more than 8% of the EU's GDP
- Investing €62 billion in R&D per year, automotive is Europe's largest private contributor to innovation, accounting for 33% of the EU total

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ACEA

European Automobile
Manufacturers' Association
+32 2 732 55 50
info@acea.auto
www.acea.auto



twitter.com/ACEA_auto



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