

**Proposal  
for amendment  
of UN Regulation No. 92**

**(Replacement Exhaust Silencing Systems for Motorcycles)**

**submitted by ITALY**

74<sup>th</sup> GRBP  
15 September 2021

# Justification

①

To align UN Regulation No. 92 with the latest amendments made on UN Reg 41.

②

To reduce the number and amount of different exhaust types to be approved by NORESS manufacturers

→ An average reduction of **20 %** is estimated as feasible.

- Current UN R 92 require that an exhaust type is related to a single, precise drawing.
- Even a slight modification made on any performance/noise reduction related component requires to create a new exhaust type.
- This proposal is to allow to use different configurations of the same exhaust type on different vehicles, with the aim to reduce proliferation of exhaust types, thus bringing improvements in terms of logistic, organization, administrative and economical benefits
- Reducing the number of exhaust types and related type approval marking, will improve standardization for components.

This proposal takes into account the different needs between OEM motorcycle manufacturers and (NO)RESS producers

R41 applies to the homologation of 1 exhaust system for 1 vehicle, or for a vehicle type that may include different variant and versions, that are not necessarily all subject to testing)

This proposal is aimed at allowing a similar approach (on administrative requirements) currently in force for cars with R51 (noise for original exhausts) and R59 (replacing exhausts).

The ultimate objective is not to reduce the number of testing, rather to reduce the administrative burden, the number of NORESS homologation types, allowing several, similar mufflers (each one tested) under the same certificate.

## **Annex 5: criteria for NORESS configurations to belong to the same type**

Configurations belonging to the same type of non-original replacement exhaust silencing systems may be different with respect to one or more of the following features:

- (a) silencer / silencers **shape**, provided that the difference in volume does not exceed 15 %;
- (b) silencer / silencers **length**, provided that the difference in volume does not exceed 15 %;
- (c) design of **internal structure** (i.e. internal perforated pipe) with respect to dimensions (length, front/rear diameter), provided that the change in one or more dimensions does not exceed 20 %;
- (d) design of **components used** on silencer / silencers (i.e.: internal baffles), provided that components design does not cause the NORESS configuration to exceed noise limits specified for the vehicle for which the NORESS configuration is designed."

These criteria would be subject to the supervision and agreement of the Technical Service.

The ranges indicated (15 %, 20 %) for shape, length and internal dimensions ensure that exhaust configurations within them, have similar characteristics in terms of compliance to the noise legislative requirements.

# Rationale

CURRENT  
SITUATION

PROPOSED  
SITUATION

Bike 1:  
Road Enduro



NORESS Drawing 1  
(reference)

2 different  
exhaust  
Homologation types

1 exhaust  
Homologation  
Type,

If ANNEX 5  
conditions  
are fully complied

Bike 2:  
Naked



NORESS Drawing 2

Very small differences  
between the 2 NORESS  
systems/drawings

*THANK YOU FOR YOUR ATTENTION*