

ECE No. 51.02: Sound Emissions (Exterior Noise for 4wheels) Technical requirement

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JAPAN AUTOMOBILE STANDARDS INTERNATIONALIZATION CENTER

ECE No. 51.02: Sound Emissions (Exterior Noise for 4W)

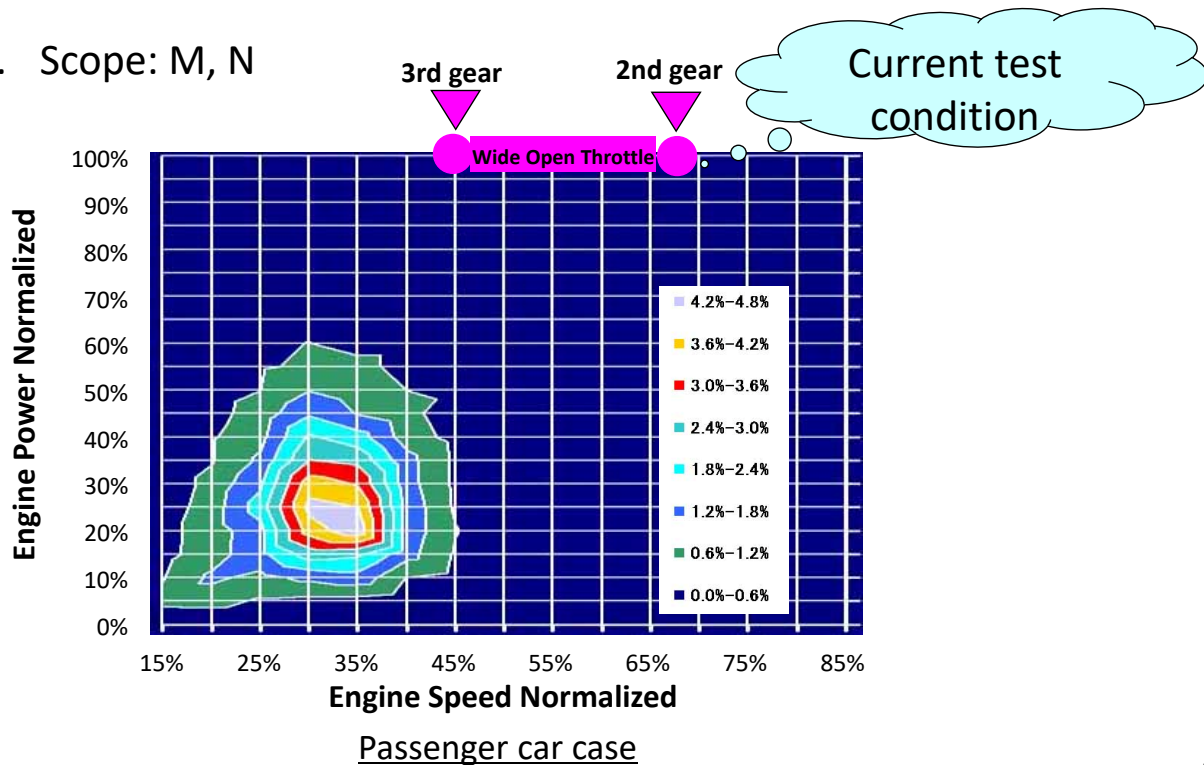


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1. The main purpose of this regulation
 - a. To reduce the pollution of the sound emission.

2. Scope: M, N



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3. Summary

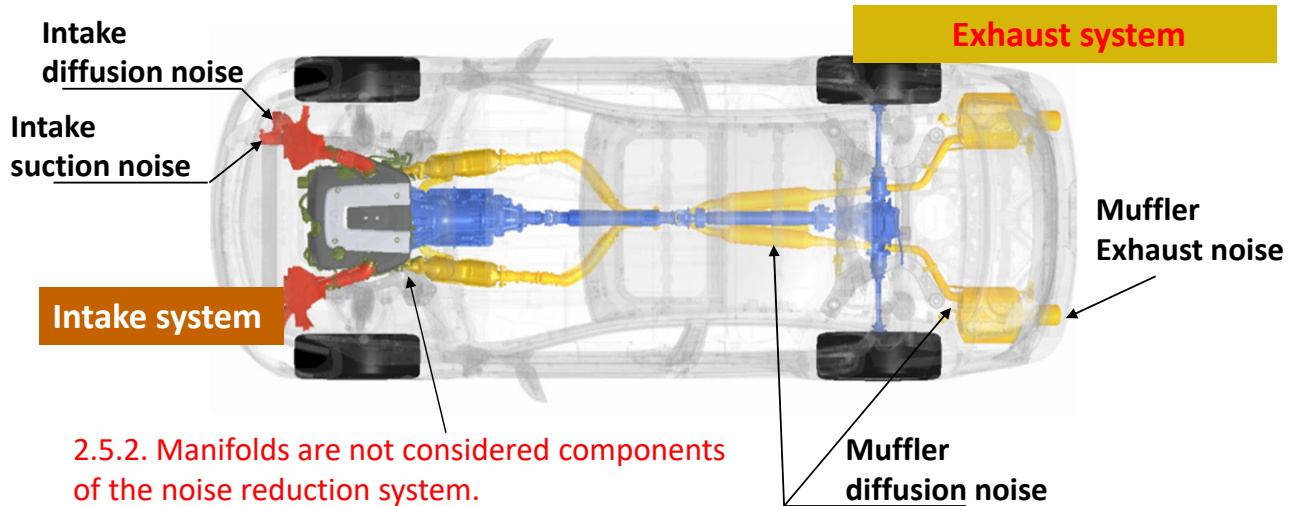
	Requirement	Regulation text
Marking	<ul style="list-style-type: none"> trade name or mark of the manufacturer manufacturer's trade description 	4
General	<ul style="list-style-type: none"> In normal use, despite the vibration to which it may be subjected, the system should be comply with the provisions. The system shall be so designed, constructed and assembled as to be able to reasonably resist the corrosive phenomena to which it is exposed having regard to the conditions of use of the vehicle. 	6.1
Sound limit	Refer to regulation text in detail	6.2
Exhaust systems containing fibrous materials	Annex 5	6.3

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4. Definition of noise reduction system

2.5 "Noise reduction system component" means one of the individual constituent parts whose assembly constitutes the noise reduction system.

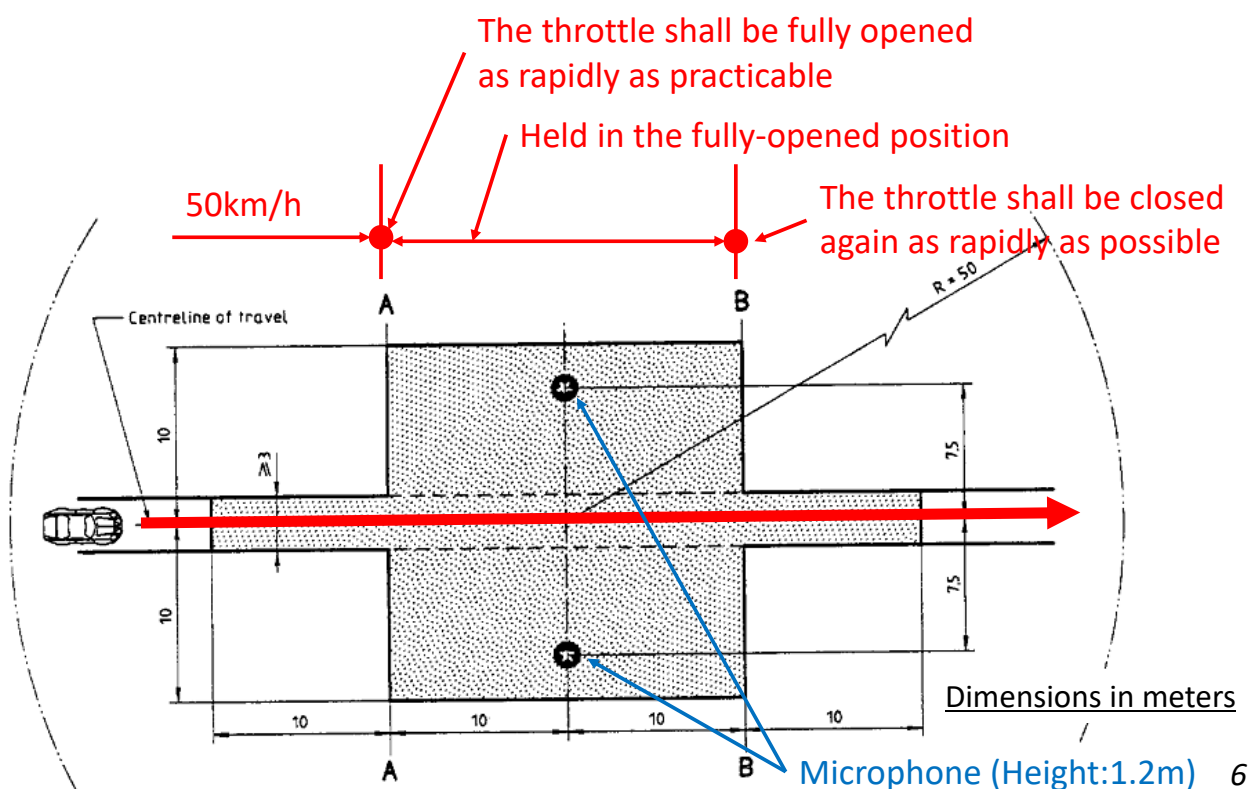
These components are, in particular: the exhaust pipings, the expansion chamber(s), the silencer(s) proper.



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5. Detail of characteristics requirement

Summary of test procedure



5. Detail of characteristics requirement – **Limit Value**

Category	Gross Vehicle Mass (ton)	Engine power (kW (ECE))	Limit (*1) (dB(A))	Regulation text
M1	-	-	74(*2)	6.2.2.1.1
M2	$GVM \leq 2.0$	-	76(*2)	6.2.2.1.3.1
M2	$2.0 < GVM \leq 3.5$	-	77(*2)	6.2.2.1.3.2
M2	$GVM > 3.5$	less than 150	78	6.2.2.1.2.1
	-	150 or above	80	6.2.2.1.2.2
M3	-	less than 150	78	6.2.2.1.2.1
	-	150 or above	80	6.2.2.1.2.2
N1	$GVM \leq 2.0$	-	76(*2)	6.2.2.1.3.1
N1	$2.0 < GVM \leq 3.5$	-	77(*2)	6.2.2.1.3.2
N2, N3	-	less than 75	77	6.2.2.1.4.1
	-	75 or above but less than 150	78	6.2.2.1.4.2
	-	150 or above	80	6.2.2.1.4.3

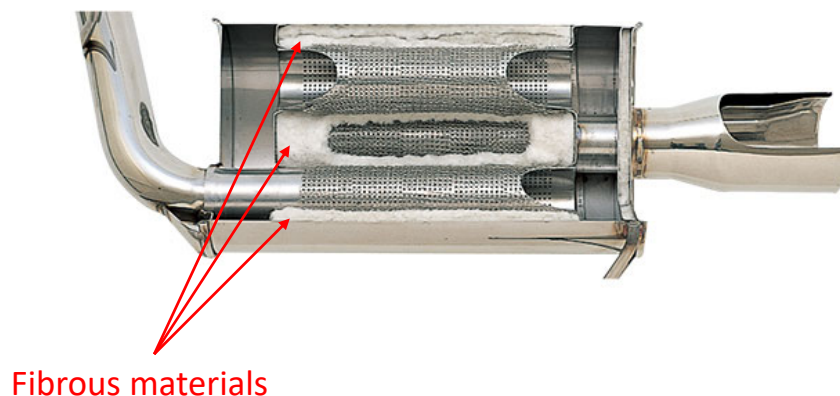
*1: For off road vehicle with Engine power < 150 kW: +1 dB(A)
 ≥ 150 kW (ECE) or above: +2 dB(A)

*2: For Compression-ignition, Direct-injection +1 dB(A)

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5. Detail of characteristics requirement – Fibrous materials

If the system is containing fibrous materials, the fibrous materials should have durability at least 10,000 km under Annex 5.



Thank you!