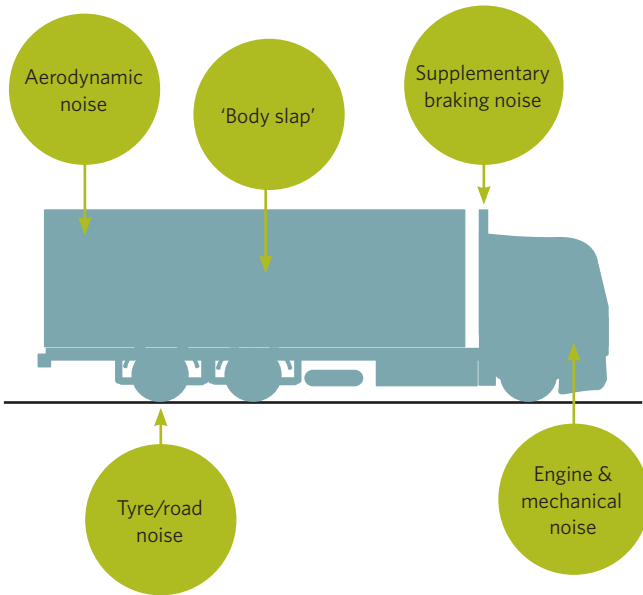


Heavy vehicle noise

Noise from heavy vehicles comes from several sources, as shown on the diagram below. Supplementary braking systems, such as engine brakes, are only one of the sources of heavy vehicle noise. The loudest source of noise at any particular moment depends on the type of heavy vehicle and the speed it is travelling. Below about 50km/h, the engine noise is usually the loudest component. At higher speeds the noise from the tyres on the road surface becomes louder.



Some types of engine brakes are significantly louder and more disturbing than normal heavy vehicle noise, whereas other types of supplementary brakes cannot be distinguished from the general engine noise. It is therefore important to identify the source of the noise causing disturbance, before taking action.

An exhaust silencer/muffler reduces the sound of engine brakes through a resonant system and does not significantly affect the brake or engine performance. Modified or missing silencers can result in disturbing engine braking noise.



Further information

NZTA transport noise website

www.acoustics.nzta.govt.nz

Land Transport (Road Safety and Other Matters) Amendment Act 2011

www.legislation.govt.nz/act/public/2011/0013/latest/DLM3231153.html

Land Transport Rule: Vehicle Equipment Amendment 2007. Ministry of Transport.

www.nzta.govt.nz/resources/rules/vehicle-equipment-amendment-2007.html

Traffic note 19: Engine braking controls: Guidelines. NZTA.

www.nzta.govt.nz/resources/traffic-notes/docs/traffic-note-19-rev1.pdf

Review of noise generated by heavy vehicle exhaust/engine brake. Austroads.

www.onlinepublications.austroads.com.au/items/AP-101-93



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ENGINE BRAKING NOISE

What are the types of noise from heavy vehicles? Why do heavy vehicles need supplementary brakes? How do we manage noise from engine braking?

