Transmitted by the expert from China

Informal document **GRB-57-07** (57th GRB, 5-7 February 2013, agenda item 3(b))

Vehicle Category	Sub-category	Limit value (Phase 1 <sup>st</sup> )	Limit value (Phase 2 <sup>nd</sup> )
M1*	GVM≤2 500kg	72	71
	GVM>2 500kg	73	72
M2**	GVW≤3 500 kg	74	73
	GVW>3 500 kg	76	75
M3**	Vehicle length≪7 500mm	78	76
	7 500mm <vehicle length<br="">≤ 10 000mm</vehicle>	80	79
	Vehicle length>10 000mm	81	80
N1*	Front axle drive	72	71
	Rear or two axles drive	74	73
N2**	GVW≤7 500 kg	78	77
	GVW>7 500 kg	79	78
N3**	GVW≤17 000 kg	81	80
	GVW>17 000 kg	82	81

Table	1: The sub-categories s	suggestion from	China (Chin	ese Style)

Additional items (All the three additional items upwards can be accumulated.):

**1.** Increased by 1 dB(A) for M1, M2 (GVW≤3.5t) and N1 equipped with a compression-ignition and directinjection internal combustion engine;

2. Increased by 1 dB(A) for M1 categories vehicles with the PMR values higher than 120 kW/t, and increased by 2dB(A) with the PMR values higher than 160 kW/t.

**3.** Increased by 1 dB(A) for M1 and N1 categories with rear axle drive or more than one drive axle;

4. \*\* Increased by 1 dB(A) for M2, M3, N2, N3 with more than one drive axle;

5. Increased by 1 dB(A) for All vehicle categories with more than two axles.

Vehicle Category	Sub-category	Limit value (Phase 1 <sup>st</sup> )	Limit value (Phase 2 <sup>nd</sup> )
M1*	Front axle drive	72	71
	Rear or two axles drive	73	72
M2**	GVW≤3 500 kg	74	73
	GVW>3 500 kg	76	75
	Vehicle length≪7 500mm	78	76
M3**	7 500mm <vehicle length<br="">≤ 10 000mm</vehicle>	80	79
	Vehicle length>10 000mm	81	80
N1*	Front axle drive	72	71
	Rear or two axles drive	74	73
N2**	GVW≤7 500 kg	78	77
	GVW>7 500 kg	79	78
N3**	GVW≤17 000 kg	81	80
	GVW>17 000 kg	82	81

## Table 2: The sub-categories suggestion from China (Chinese Style)

Additional items (All the three additional items upwards can be accumulated.):

**1.** Increased by 1 dB(A) for M1, M2 (GVW≤3.5t) and N1 equipped with a compression-ignition and directinjection internal combustion engine;

2. Increased by 1 dB(A) for M1 categories vehicles with the PMR values higher than 120 kW/t, and increased by 2dB(A) with the PMR values higher than 160 kW/t.

3. \*\* Increased by 1 dB(A) for M2, M3, N2, N3 with more than one drive axle;

4. Increased by 1 dB(A) for All vehicle categories with more than two axles.

(Not recommended but still can accept)			
Vehicle Category	Sub-category	Limit value (Phase 1 <sup>st</sup> )	Limit value (Phase 2 <sup>nd</sup> )
M1*	$PMR \leq 120 \text{ kW/t}$	72	71
	$120 < PMR \leq 160 \text{ kW/t}$	73	72
	<b>PMR &gt; 160 kW/t</b>	74	73
M2**	GVW≤3 500 kg	74	73
	GVW>3 500 kg	76	75
M3**	Pn≤ <mark>110kW</mark>	78	76
	110 <pn≤180kw< td=""><td>80</td><td>79</td></pn≤180kw<>	80	79
	Pn >180kW	81	80
	GVM≤2 500kg	72	71
N1*	GVM>2 500kg	73	72
N2**	Pn≤ <mark>75 kW</mark>	78	77
	Pn >75kW	79	78
N3**	Pn≤225 kW	81	80
	Pn>225 kW	82	81

 Table 3: The sub-categories suggestion from China (European or Japanese Style)

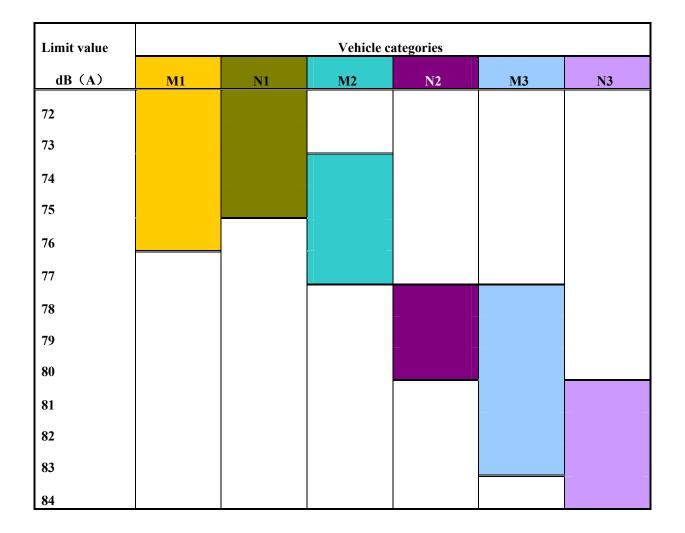
Additional items (All the three additional items upwards can be accumulated.):

**1.** Increased by 1 dB(A) for M1, M2 (GVW≤3.5t) and N1 equipped with a compression-ignition and directinjection internal combustion engine;

2. \* Increased by 1 dB(A) for M1 and N1 categories with rear axle drive or more than one drive axle;

3. \*\* Increased by 1 dB(A) for M2, M3, N2, N3 with more than one drive axle;

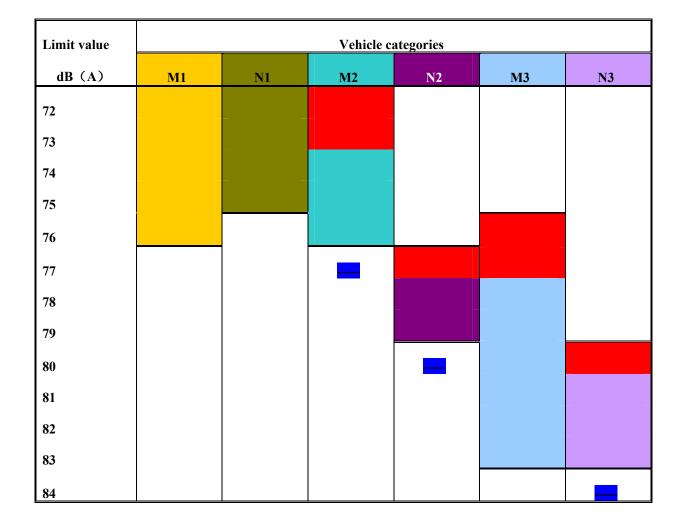
4. Increased by 1 dB(A) for All vehicle categories with more than two axles.



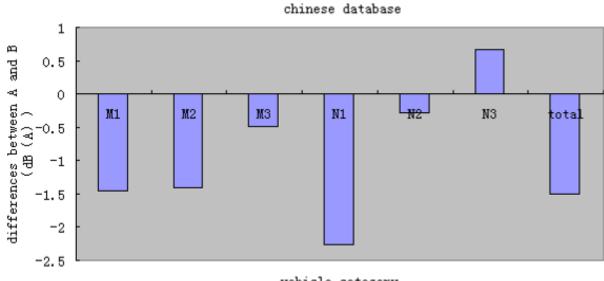
The limit value for different vehicle categories of Chinese suggestions

What has been considered for the limit value of China? :

- Data base of ECE R51 / 03 series
- Data base of ECE R51 / 02 series
- The implement of ECE R 51 / 02 series
- The relationship between the 02 and 03 series
- The relationship between different vehicle categories within the limit values system of 03 series we have built up.



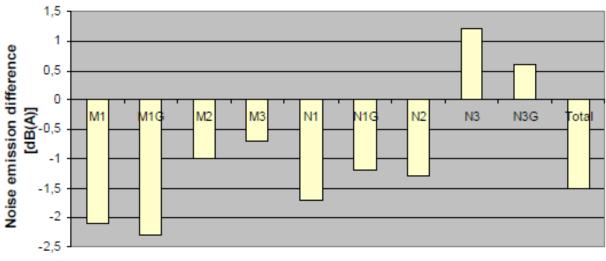
The limit value for different vehicle categories of Japan (GRB-56-01)



## The difference between method A and method B

vehicle category

The database of China (168 vehicles included)



Vehicle category

The database of Europe (from the TNO report)