

Article 6: The exhaust emissions standards of carbon monoxide (CO), hydrocarbon (HC), nitrogen oxides (NOx) and particulate matter (PM) emitted by motorcycles measured by the driving cycle test, idle test, visual determination and instrumentation measurement are stipulated in the following table:

Type of Mobile Source	Date of implementation	Vehicle type	Application	Emission Standards						Remarks		
				Driving Cycle Testing				Idle Testing			Judgment by visual determination	Instrument measurement
				CO (g/km)	HC (g/km)	NOx (g/km)	HC+NOx (g/km)	CO (%)	HC(ppm)		Particulate matter (opacity %)	Particulate matter (opacity %)
Motorcycle	June 5, 1980		New vehicle model certification New vehicle testing	—				4.5	7000	—	—	In-use Vehicle Testing: In-use motorcycles leaving the plant or imported before October 31, 1984 shall comply with these Standards.
			In-use Vehicle Testing	—				4.5	9000	—	—	
	January 1, 1988		New vehicle model certification (prototype vehicles) (models in mass production after January 1, 1988)	7.3	—	4.4	4.5	7000	—	15	New vehicle model certification and new vehicle testing: (1) For models in mass production before December 31, 1987, those vehicles leaving the plant after January 1, 1988 shall comply with the standards for models in mass production before December 31, 1987. Those vehicles still in production on July 1, 1991 shall comply with the standards for models in mass production after January 1, 1988. Those vehicles still in production on July 1, 1993 shall comply with the standards for models in mass production after July 1, 1991. (2) Domestic vehicle models entering mass production and imported vehicles on board after July 1, 1988 shall comply with the standards for the vehicle models entering mass production after January 1, 1988. (3) Driving cycle testing methods shall comply with the CNS 11386.	
			New vehicle model certification (mass production vehicles), new vehicle testing (models in mass production after January 1, 1988)	8.8	—	5.5	4.5	7000	—	15		
			New vehicle model certification, new vehicle testing (models in mass production before December 31, 1987)	10.2	—	6.5	4.5	7000	—	15		
			In-use Vehicle Testing	—				4.5	9000	30		30
	July 1, 1991		New vehicle testing (prototype)	3.75	—	2.4	4.5	7000	—	15	(1) New vehicle model certification shall include a durability test of 6,000 km and comply with these Standards. (2) Domestic vehicle models in mass production before June 30, 1991 but leaving the plant after July 1, 1991 shall comply with these Standards. (3) Domestic vehicle models entering mass production and imported vehicles on board after July 1, 1991 shall comply with these Standards. (4) Driving cycle testing methods shall comply with the CNS 11386.	
			New vehicle model certification (mass production vehicles), new vehicle testing	4.5	—	3.0	4.5	7000	—	15		
			In-use Vehicle Testing	—				4.5	9000	30		30
	July 1, 1998		New vehicle testing (prototype)	3.25	—	1.75	3.75	6000	—	15	I. New vehicle model certification and new vehicle testing: (1) New vehicle model certification shall include a durability test of 15,000 km and comply with these Standards. (2) Domestic vehicle models entering mass production and imported vehicles on board after July 1, 1998 shall comply with these Standards. (3) For motorcycle manufacturers and importers that have already implemented motorcycle air pollutant emission	
New vehicle model certification (mass production vehicles), new vehicle testing			3.5	—	2.0	4.0	6000	—	15			

			In-use Vehicle Testing		—	4.5	9000	30	30	<p>reduction measures, production or sales of those domestic vehicles in mass production and imported vehicles on board before January 1, 1998 may continue to December 31, 1998. However, the manufacturer or importer shall apply in advance for prior case-by-case approval of production or sales volume.</p> <p>(4) Driving cycle testing methods shall comply with the CNS 11386.</p> <p>II. From January 1, 2000, the annual domestic sales volume of electric motorcycles must reach 2% of a motorcycle manufacturer or importer's total domestic sales production or import volume. However, before January 1, 1998, the central competent authority may review and revise the above percentage figure in view of R&amp;D for electric motorcycles.</p>	
January 1, 2002	Displacement less than 700 cc	New vehicle testing (prototype)	3.25	—	1.75	3.75	6000	—	15	<p>I. New vehicle model certification and new vehicle testing:</p> <p>(1) New vehicle model certification shall include a durability test of 15,000 km and comply with these Standards.</p> <p>(2) Domestic vehicle models entering mass production and imported vehicles on board after July 1, 2002 shall comply with these Standards.</p> <p>(3) Driving cycle testing methods shall comply with the CNS11386.</p> <p>II. If low-polluting motorcycles sold by motorcycle manufacturers and importers are equipped with electronic injection engines and fitted with catalytic converters, and have exhaust pollution values less than one-half of the motorcycle emission standards implemented January 1, 2004, the quantity of pollution reduction compared with the average pollution values of motorcycles sold during that year may be subtracted from the quantity of pollution reduction expected for the number of motorcycles sold during that year.</p> <p>III. Said motorcycle and low-polluting motorcycle sales quantity statistics may be calculated by a cumulative method, but six years shall be the maximum number of years of accumulation.</p>	
		New vehicle model certification (mass production vehicles), new vehicle testing	3.5	—	2.0	4.0	6000	—	15		
		In-use Vehicle Testing		—		4.5	9000	30	30		
	Displacement over 700 cc	New vehicle model certification New vehicle testing	10.0	—	2.5	4.0	6000	—	15		
		In-use Vehicle Testing		—		4.5	9000	30	30		
January 1, 2004	Displacement less than 700 cc	Two-stroke motorcycles	New vehicle model certification New vehicle testing	7.0	—	1.0	3.0	2000	—	15	<p>I. New vehicle model certification and new vehicle testing:</p> <p>(1) New vehicle model certification shall include a durability test of 15,000 km and comply with these Standards. The effective use period of the emission control system and the warranty period shall both be 2 years and six months or 15,000 km.</p> <p>(2) Domestic vehicle models entering mass production and imported vehicles on board after July 1, 2004 shall comply with these Standards.</p> <p>(3) The driving cycle testing method with displacement less than 700 cc shall comply with the "Testing method and procedure for motorcycle exhaust emissions."</p> <p>II. In-use vehicle testing: In-use motorcycles leaving the plant or imported before January 1, 2004 shall comply with these Standards.</p> <p>III. 700 cc or more shall comply with standards and testing methods of January 1, 2002.</p>
			In-use Vehicle Testing		—		3.5	2000	30	30	
		Four-stroke motorcycles	New vehicle model certification New vehicle testing	7.0	—	2.0	3.0	2000	—	15	
			In-use Vehicle Testing		—		3.5	2000	30	30	

	July 1, 2007	Displacement less than 150 cc	New vehicle model certification New vehicle testing	2.0	0.8	0.15	—	3.0	1600	—	15	<p>I. New vehicle model certification and new vehicle testing:</p> <p>(1) New vehicle model certification shall include a durability test of 15,000 km and comply with these Standards. The warranty period for the effective use period of the emission control system and mileage shall be 3 years or 15,000 km.</p> <p>(2) Domestic vehicle models entering mass production and imported vehicles on board after July 1, 2007 shall comply with these Standards.</p> <p>(3) Domestic and imported vehicles that have already received vehicle model exhaust testing compliance verification entering mass production before June 30, 2007 may be produced, shipped, imported or sold continuously until December 31, 2008.</p> <p>(4) The driving cycle testing method shall comply with the "Testing method and procedure for motorcycle exhaust emissions."</p> <p>II. In-use vehicle testing: In-use motorcycles leaving the plant or imported before July 1, 2007 shall comply with these Standards.</p>
			In-use Vehicle Testing	—				3.5	1600	30	30	
		Displacement over 150 cc	New vehicle model certification New vehicle testing	2.0	0.3	0.15	—	3.0	1600	—	15	
			In-use Vehicle Testing	—				3.5	1600	30	30	

Type of Mobile Source	Date of implementation	Vehicle type	Application	Emission Standards						Remarks	
				Driving Cycle Testing			Idle Testing		Judgment by visual determination		Instrument measurement
				CO (mg/km)	HC (mg/km)	NOx (mg/km)	CO (%)	HC (ppm)	Particulate matter (opacity %)		Particulate matter (opacity %)
Motorcycle	January 1, 2017	Maximum vehicle speed under 130 km/hr	New vehicle model certification New vehicle testing	1140	380	70	2.0	1000	—	15	<p>I. New vehicle model certification and new vehicle testing:</p> <p>(1) For new motorcycle models with maximum speed under 130 km/hr, a 20,000 km durability test is required, and the final test results shall comply with the standards. For new motorcycle model with maximum speed over 130 km/hr, a 35,000 km durability test is required, and the final test results shall comply with the standards. The warranty period for the effective use period of the emission control system and mileage is 5 years or 20,000 km, whichever comes first, for motorcycles with maximum speed under 130 km/hr. The emission control systems' warranty is 5 years or 35,000 km travel mileage, whichever comes first, for motorcycles with maximum speed over 130 km/hr.</p> <p>(2) Domestic vehicle models leaving plant and imported vehicles on board after January 1, 2017 shall comply with these Standards and shall also be equipped with On Board Diagnostics (OBD).</p> <p>(3) Domestic and imported vehicles that have already received vehicle model exhaust testing compliance verification entering mass production before December 31, 2016 may be produced, shipped, imported or sold continuously until December 31, 2017.</p> <p>(4) The driving cycle testing method and idle testing shall comply with the "Testing method and procedure for motorcycle exhaust emissions."</p> <p>(5) Manufacturers or importers with their previous year's domestic sales for new car models over 10,000 units are required to produce or import motorcycles with idle-stop function or hybrid electric motorcycles or electric motorcycles. The total number of units with combination of idle-stop equipped or hybrid electric motorcycle engine families and electric motorcycles type configurations must account for over 20% of the manufacturer's domestic motorcycle engine families' sales in that year.</p> <p>II. In-use vehicle testing:</p> <p>(1) The in-use motorcycles that comply with the driving cycle standards effective on January 1, 2017 shall comply with these Standards and required to equip with OBD system.</p> <p>(2) Imported foreign in-use motorcycles shall comply with the "driving cycle testing" and "idle testing" standards for new motorcycle testing.</p>
			In-use Vehicle Testing	—	—	—	2.0	1000	30	30	
		Maximum vehicle speed over 130 km/hr	New vehicle model certification New vehicle testing	1140	170	90	2.0	1000	—	15	
			In-use Vehicle Testing	—	2.0	1000	30	30	—	—	

Type of Mobile Source	Date of implementation	Vehicle type	Application	Emission Standards								Remarks	
				Driving Cycle Testing					Idle Testing		Judgment by visual determination		Instrument measurement
				CO (mg/km)	THC (mg/km)	NMHC (mg/km)	NOx (mg/km)	PM (mg/km)	CO (%)	HC (ppm)	Particulate matter (opacity %)		Particulate matter (opacity %)
Motorcycle	January 1, 2021		New vehicle model certification New vehicle testing	1000	100	68	60	4.5	2.0	1000	—	15	<p>I. New vehicle model certification and new vehicle testing:</p> <p>(1) For new motorcycle models with maximum speed under 130 km/hr, a 20,000 km durability test is required, and the final test results shall comply with the standards. For new motorcycle model with maximum speed over 130 km/hr, a 35,000 km durability test is required, and the final test results shall comply with the standards. The warranty period for the effective use period of the emission control system and mileage is 5 years or 20,000 km, whichever comes first, for motorcycles with maximum speed under 130 km/hr. The emission control systems' warranty is 5 years or 35,000 km travel mileage, whichever comes first, for motorcycles with maximum speed over 130 km/hr.</p> <p>(2) Domestic vehicle models entering mass production and imported vehicles on board after January 1, 2021 shall comply with these Standards and shall also be equipped with the On Board Diagnostics (OBD).</p> <p>(3) Domestic and imported vehicles that have already received vehicle model exhaust testing compliance verification entering mass production before December 31, 2020 may be produced, shipped, imported or sold continuously until December 31, 2021.</p> <p>(4) The driving cycle testing method and idle testing shall comply with the "Testing method and procedure for motorcycle exhaust emissions."</p> <p>(5) The particulate matter (PM) standards are only applicable to the direct injection engine vehicles.</p> <p>(6) Manufacturers or importers with their previous year's domestic sales for new car models over 10,000 units are required to produce or import motorcycles with idle-stop function or hybrid electric motorcycles or electric motorcycles. The total number of units with combination of idle-stop equipped or hybrid electric motorcycle engine families and electric motorcycles type configurations must account for over 50% of the manufacturer's domestic motorcycle engine families' sales in that year.</p> <p>II. In-use vehicle testing:</p> <p>(1) The in-use motorcycles that comply with the driving cycle standards effective on January 1, 2021 shall comply with these Standards and should have the OBD system.</p> <p>(2) Imported foreign in-use motorcycles shall comply with the "driving cycle testing" and "idle testing" standards for new motorcycle testing.</p>
			In-use Vehicle Testing				—			2.0	1000	30	