

Article 6
Driving cycle testing and idle testing shall be performed to determine whether exhaust pipe emissions of motorcycles comply with CO, by drocarbon (HC), and nitrogen oxide (NO_x) emission standards; judgment by visual determination and instrument testing shall be performed to determine whether emission standards for particulate pollutants are met. Regulations are designated in the following table:

Transportation vehicle type	Date of Implementation	Class	Application	Emissions Standards								Remarks				
				Driving cycle testing				Idle testing		Judgment by visual determination			Instrument testing			
				CO (g/km)	HC (g/km)	NO _x (g/km)	HC+NO _x (g/km)	CO (%)	HC (ppm)	Particulate pollutant (% opacity)	Particulate pollutant (% opacity)					
Motorcycles	June 5, 1980	-	New vehicle class certification, new vehicle testing	-	-	-	-	4.5	7000	-	-	In-use Vehicle Testing	In-use motorcycles leaving the plant or imported on-ship 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 standards for models in mass production before December 31, 1987; those vehicles still in production on July 1, 1991 shall comply with standards for models in mass production after January 1, 1988; those vehicles still in production on July 1, 1993 shall comply with standards for models in mass production after July 1, 1991. 2. Domestic vehicles leaving the plant and imported vehicles on-ship after January 1, 1988 shall comply with standards for models in mass production after January 1, 1988. 3. The driving cycle test method shall comply with 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 model certification (prototype vehicles)	3.75	-	-	2.4	4.5	7000	-	15		New vehicle model certification and new vehicle testing: 1. New vehicle model certification shall include a durability test of 6,000 km and shall also comply with these Standards. 2. For domestic models in mass production before June 30, 1991, those vehicles leaving the plant after July 1, 1992 shall comply with these standards. 3. Domestic vehicles in mass production and imported vehicles on-ship after July 1, 1991 shall comply with these standards. 4. The driving cycle test method shall comply with 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				
	January 1, 1998			New vehicle model certification (prototype vehicles)	3.25	-	-	1.75	3.754	6000	-	15		1. New vehicle model certification and new vehicle testing: 1. New vehicle model certification shall include a durability test of 15,000 km and shall also comply with these Standards. 2. Domestic vehicles in mass production and imported vehicles on-ship after January 1, 1998 shall comply with these standards. 3. For motorcycle manufacturers and importers that have already implemented motorcycle air pollutant emission reduction measures, production or sales of those domestic vehicles in mass production and imported vehicles on-ship 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. 4. The driving cycle test method shall comply with CNS 11386. 2. From January 1, 2001, the yearly sales volume of electric motorcycles must reach 2% of a motorcycle manufacturer or importer's total 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&D for electric motorcycles.		
				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				
	January 1, 2002	Displacement less than 700 cc		New vehicle model certification (prototype vehicles)	3.25	-	-	1.75	3.754	6000	-	15		1. New vehicle model certification shall comply with these standards following a durability test of 15,000 km. Domestic vehicles in mass production and imported vehicles on-ship after January 1, 2002 shall comply with these standards. The driving cycle test method shall comply with CNS 11386. 2. If low-pollution motorcycles sold by motorcycle manufacturers and importers are equipped with electronic injection engines or fitted with catalytic converters, and have exhaust pollution values less than one-half of 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. 3. The foregoing motorcycle and low pollution motorcycle sales quantity statistics may be calculated by a cumulative method, but six years shall be the maximum number of years of accumulation.		
				New vehicle model certification (mass production vehicles), new vehicle testing	3.5	-	-	2.0	4.0	6000	-	15				
		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		1. New vehicle model certification and new vehicle testing: 1.1. New vehicle model certification comply with these Standards following a 15,000 km durability test; 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. 1.2. Domestic vehicles in mass production and imported vehicles on-ship after December 31, 2003 shall comply with these standards. 1.3. The driving cycle testing method with displacement less than 700 cc shall comply with "Testing method and procedure for motorcycle exhaust emissions". 2. In-use vehicle testing: In-use motorcycles leaving the plant or imported after December 31, 2003 shall comply with these standards. 3. 700 cc or more shall comply with standards and testing methods of January 1, 2002.		
				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			1. New vehicle model certification and new vehicle testing: 1.1. New vehicle model certification comply with these Standards following a 15,000 km durability test; the effective use period of the emission control system and the warranty period shall be 3 years or 15,000 km. 1.2. Domestic vehicles in mass production and imported vehicles on-ship after July 1, 2007 shall comply with these standards. 1.3. Domestic and imported vehicles that have already received vehicle model exhaust testing compliance verification and were mass produced before June 30, 2007 may continue production, shipping import or sales until December 31, 2008. 1.4. Driving cycle test method shall comply with "Testing method and procedure for motorcycle exhaust emissions". 2. In-use vehicle testing: In-use motorcycles leaving the plant or imported after July 1, 2007 must comply with these standards.
					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					
Date of Implementation	Class	Application	CO (mg/km)	THC (mg/km)	NMHC (mg/km)	NO _x (mg/km)	PM (mg/km)	CO (%)	HC (ppm)	Particulate pollutant (% opacity)	Particulate pollutant (% opacity)	Remarks				
January 1, 2017	Maximum vehicle speed under 130 km/hr	New vehicle model certification, new vehicle testing	1140	380	-	70	-	2.0	1000	-	15		1. New vehicle model certification and new vehicle testing: 1.1. For new motorcycle model 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 emission control systems' warranty is 5 years or 20,000 km travel mileage 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. 1.2. Domestic made vehicles in mass production and imported vehicles being shipping after January 1, 2017 shall comply with the standards and also required to be equipped with OBD (On Board Diagnostics) system. 1.3. Domestic made vehicles in mass production and imported vehicles being shipping and already obtained the emission certificates before December 31, 2016 may continue their production, import shipping, or sell till December 31, 2017. 1.4. The driving cycle testing and idle testing shall be in accordance with the "Testing method and procedure for motorcycle exhaust emissions". 1.5. Manufacturers or importers with their previous year's domestic new vehicle sales 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. 2. In-use vehicle inspection and testing: 2.1. The in-use motorcycles that comply with the driving cycle standards effective on January 1, 2017 shall comply with the standards and required to equip with OBD system. 2.2. Imported in-use motorcycles shall comply with emission standards by performing both driving cycle testing and idle testing as new motorcycle certification being required.			
		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					
Date of Implementation	Class	Application	CO (mg/km)	THC (mg/km)	NMHC (mg/km)	NO _x (mg/km)	PM (mg/km)	CO (%)	HC (ppm)	Particulate pollutant (% opacity)	Particulate pollutant (% opacity)	Remarks				
January 1, 2021		New vehicle model certification, new vehicle testing	1000	100	68	60	4.5	2.0	1000	-	15	1. New vehicle model certification and new vehicle testing: 1.1. For new motorcycle model 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 emission control systems' warranty is 5 years or 20,000 km travel mileage 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. 1.2. Domestic made vehicles in mass production and imported vehicles being shipping after January 1, 2021 shall comply with the standards and also required to be equipped with OBD (On Board Diagnostics) system. 1.3. Domestic made vehicles in mass production and imported vehicles being shipping and already obtained the emission certificates before				

			In-use Vehicle Testing	-	2.0	1000	30	30	<p>December 31, 2020 may continue their production, import shipping, or sell till December 31, 2021.</p> <p>1.4. The driving cycle testing and idle testing shall be in accordance with the "Testing method and procedure for motorcycle exhaust emissions".</p> <p>1.5. Manufacturers or importers with their previous year's domestic new vehicle sales 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>2. In-use vehicle inspection and testing:</p> <p>2.1. The in-use motorcycles that comply with the driving cycle standards effective on January 1, 2021 shall comply with the standards and required to equip with OBD system.</p> <p>2.2. Imported in-use motorcycles shall comply with emission standards by performing both driving cycle testing and idle testing as new motorcycle certification being required.</p>
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