

Emission limit values for different vehicle types in Europe

Table A2.1 Emission limit values for different vehicle types in Europe since 1990. (Dates of implementation refer to new registrations.)

	Directive		Date of implementation		Test cycle	Units	NO _x	HC	NO _x + HC	PM
Petrol cars	91/441/EEC	Euro I	1/7/1992		ECE15 + EUDC	g km ⁻¹	—	—	0.97	—
	94/12/EC	Euro II	1/1/1997		ECE15 + EUDC	g km ⁻¹	—	—	0.5	—
	98/69/EC	Euro III	1/1/2001		ECE15 + EUDC	g km ⁻¹	0.15	0.20	—	—
	98/69/EC	Euro IV	1/1/2006		ECE15 + EUDC	g km ⁻¹	0.08	0.10	—	—
Diesel cars	91/441/EEC	Euro I	1/7/1992		ECE15 + EUDC	g km ⁻¹	—	—	—	0.14
	94/12/EC	Euro II	1/1/1997	IDI	ECE15 + EUDC	g km ⁻¹	—	—	0.7	0.08
				DI	ECE15 + EUDC	—	—	—	0.9	0.1
	98/69/EC	Euro III	1/1/2001		ECE15 + EUDC	g km ⁻¹	0.5	—	0.56	0.05
	98/69/EC	Euro IV	1/1/2006		ECE15 + EUDC	g km ⁻¹	0.25	—	0.3	0.025
	Petrol vans	93/59/EEC	Euro I	1/10/1994	<1305 kg	ECE15 + EUDC	g km ⁻¹	—	—	—
1/10/1994				1305-1760 kg	—	—	—	—	—	
1/10/1994				>1760 kg	—	—	—	—	—	
96/69/EEC		Euro II	1/1/1998	<1305 kg	ECE15 + EUDC	g km ⁻¹	—	—	0.5	—
			1/1/1998	1305-1760 kg	—	—	—	0.65	—	
			1/1/1998	>1760 kg	—	—	—	0.8	—	
98/69/EC		Euro III	1/1/2001	<1305 kg	ECE15 + EUDC	g km ⁻¹	0.1	—5 0.2	—	—
			1/1/2002	13055-1760 kg	—	—	0.18	0.25	—	—
			1/1/2002	>1760 kg	—	—	0.21	0.29	—	—
98/69/EC		Euro IV	1/1/2006	<1305 kg	ECE15 + EUDC	g km ⁻¹	0.08	0.1	—	—
	1/1/2006		13055-1760 kg	—	—	0.1	0.13	—	—	
	1/1/2006		>1760 kg	—	—	0.11	0.16	—	—	

Directive		Date of implementation	Test cycle	Units	NO _x	HC	NO _x + HC	PM		
Diesel vans	93/59/EEC	Euro I	1/10/1994	<1305 kg	ECE15 + EUDC	g km ⁻¹	—	—	0.97	0.14
			1/10/1994	1305–1760 kg			—	—	1.4	0.19
			1/10/1994	>1760 kg			—	—	1.7	0.25
	96/69/EEC	Euro II	1/1/1998	<1305 kg	ECE15 + EUDC	g km ⁻¹	—	—	0.60	0.1
			1/1/1998	1305—1760 kg			—	—	1.1	0.15
			1/1/1998	>1760 kg			—	—	1.3	0.2
	98/69/EC	Euro III	1/1/2001	<1305 kg	ECE15 + EUDC	g km ⁻¹	0.5	—	0.56	0.05
			1/1/2002	1305—1760 kg			0.65	—	0.72	0.07
			1/1/2002	>1760 kg			0.78	—	0.86	0.1
98/69/EC	Euro IV	1/1/2006	<1305 kg	ECE15 + EUDC	g km ⁻¹	0.25	—	0.3	0.025	
		1/1/2006	1305–1760 kg			0.33	—	0.39	0.04	
		1/1/2006	>1760 kg			0.39	—	0.46	0.06	
Heavy duty vehicles	91/542/EEC	Euro I	1/10/1993		ECE R49	g kW ⁻¹ h ⁻¹	8	1.1	—	0.36
			1/10/1996		ECE R49	g kW ⁻¹ h ⁻¹	7	1.1	—	0.15
	99/96/EC	Euro III	1/10/2001		ESC + ELR	g kW ⁻¹ h ⁻¹	5	0.66	—	0.1
					ETC	g kW ⁻¹ h ⁻¹	5	0.78	—	0.16
	99/96/EC	Euro IV	1/10/2006		ESC + ELR	g kW ⁻¹ h ⁻¹	3.5	0.46	—	0.02
					ETC	g kW ⁻¹ h ⁻¹	3.5	0.55	—	0.03
	99/96/EC	Euro IV (Pt 2)	1/10/2008		ESC + ELR	g kW ⁻¹ h ⁻¹	2	0.46	—	0.02
					ETC	g kW ⁻¹ h ⁻¹	2	0.55	—	0.03