#### ANNEX II

## REQUIREMENTS FOR THE PURPOSE OF EU TYPE-APPROVAL OF VEHICLES, SYSTEMS, COMPONENTS OR SEPARATE TECHNICAL UNITS

### PART III

### List of regulatory acts setting out the requirements for the purpose of EU type-approval of special purpose vehicles

Appendix 1

Motor-caravans, ambulances and hearses

Item	Subject	Regulatory act reference	$M_1 \le 2$ $500 \text{ kg}^a$	$M_1 > 2$ $500 \text{ kg}^a$	M <sub>2</sub>	M <sub>3</sub>
1A	Sound level	Regulation (EU) No 540/2014	Н	G+H	G+H	G+H
2	Emissions (Euro 5 and Euro 6) light duty vehicles / access to information	Regulation (EC) No 715/2007	Q (¹)	G+Q (1)	G+Q (1)	
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UN Regulation No 34	F ( <sup>2</sup> )	F ( <sup>2</sup> )	F ( <sup>2</sup> )	F ( <sup>2</sup> )
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UN Regulation No 58	X	X	X	X
4A	Space for mounting and fixing	Regulation (EC) No 661/2009	X	X	X	X

a Technically permissible maximum laden mass.

	rear registration plates	Regulation (EU) No 1003/2010				
5A	Steering equipment	Regulation (EC) No 661/2009 UN Regulation No 79	X	G	G	G
6A	Vehicle access and manoeuvrab	Regulation (EC) No 166/1/2009 Regulation (EU) No 130/2012	Х	X		
6B	Door latches and door retention components	Regulation (EC) No 661/2009 UN Regulation No 11	В	G+B		
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UN Regulation No 28	X	X	X	X
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UN Regulation No 46	Х	G	G	G
9A	Braking of vehicles and trailers	Regulation (EC) No 661/2009 UN Regulation No 13			G ( <sup>3</sup> )	G ( <sup>3</sup> )
9B	Braking of passenger cars	Regulation (EC) No 661/2009 UN Regulation No 13-H	X (4)	G+A <sub>1</sub>		

a Technically permissible maximum laden mass.

10A	Electromagn		X	X	X	X
12A	Interior fittings	Regulation (EC) No 661/2009 UN Regulation No 21	С	G+C		
13A	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UN Regulation No 18			G ( <sup>4A</sup> )	G ( <sup>4A</sup> )
13B	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UN Regulation No 116	X	G		
14A	Protection of the driver against the steering mechanism in the event of impact	Regulation (EC) No 661/2009 UN Regulation No 12	X	G		
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UN Regulation No 17	D	G+D	G+D ( <sup>4B</sup> )	G+D ( <sup>4B</sup> )
15B	Seats of large passenger vehicles	Regulation (EC) No 661/2009 UN Regulation No 80			X	X
16A	External projections	Regulation (EC) No 661/2009	X for the cab; A +Z for the	G for the cab; A +Z for the		

		UN Regulation No 26	remaining part	remaining part		
17A	Vehicle access and manoeuvrabi	Regulation (EC) No 166/1/2009 Regulation (EU) No 130/2012	X	X	X	X
17B	Speedometer equipment including its installation	Regulation (EC) No 661/2009 UN Regulation No 39	X	X	X	X
18A	Manufacture statutory plate and VIN	rRegulation (EC) No 661/2009 Regulation (EU) No 19/2011	X	X	X	X
19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UN Regulation No 14	D	G+L	G+L	G+L
20A	Installation of lighting and light- signalling devices on vehicles	Regulation (EC) No 661/2009 UN Regulation No 48	A+N	A+G+N for the cab; A +N for the remaining part	A+G+N for the cab; A +N for the remaining part	A+G+N for the cab; A +N for the remaining part
21A	Retro- reflecting devices for power- driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 3	X	X	X	X
22A	Front and rear position lamps, stop-lamps	Regulation (EC) No 661/2009	X	X	X	X
a Technically	permissible maxin	num laden mass.				

	and end- outline marker lamps for motor vehicles and their trailers	UN Regulation No 7				
22B	Daytime running lamps for power- driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 87	X	X	X	X
22C	Side- marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 91	X	X	X	X
23A	Direction indicators for power- driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 6	X	X	X	X
24A	Illumination of rear-registration plates of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 4	X	X	X	X
25A	Power-driven vehicle's sealed-beam headlamps (SB) emitting an European asymmetrica passing beam or	Regulation (EC) No 661/2009 UN Regulation No 31	X	X	X	X

Technically permissible maximum laden mass.

	a driving beam or both					
25B	Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 37	X	X	X	X
25C	Motor vehicle headlamps equipped with gas- discharge light sources	Regulation (EC) No 661/2009 UN Regulation No 98	X	X	X	X
25D	Gas- discharge light sources for use in approved gas- discharge lamp units of power- driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 99	X	X	X	X
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/ or LED modules	No 112	X	X	X	X

Technically permissible maximum laden mass.

25F	Adaptive front-	Regulation (EC) No	X	X	X	X
	lighting systems (AFS) for motor vehicles	661/2009 UN Regulation No 123				
26A	Power- driven vehicle front fog lamps	Regulation (EC) No 661/2009 UN Regulation No 19	X	X	X	X
27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010	Е	Е	Е	Е
28A	Rear fog lamps for power- driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 38	X	X	X	X
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 23	X	X	X	X
30A	Parking lamps for power- driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 77	X	X	X	X
31A	Safety- belts, restraint systems, child restraint systems and Isofix child	Regulation (EC) No 661/2009 UN Regulation No 16	D	G+M	G+M	G+M

a Technically permissible maximum laden mass.

	restraint systems					
32A	Forward field of vision	Regulation (EC) No 661/2009 UN Regulation No 125	X	G		
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 1661/2009 UN Regulation No 121	X	X	X	X
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010	X	G ( <sup>5</sup> )	(5)	(5)
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010	X	G ( <sup>6</sup> )	(6)	(6)
36A	Heating systems	Regulation (EC) No 661/2009 UN Regulation No 122	X	X	X	X
37A	Wheel guards	Regulation (EC) No 661/2009 Regulation (EU) No 1009/2010	X	G		
38A	Head restraints (headrests), whether or not incorporated		D	G+D		

	in vehicle seats					
44A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	X	X		
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UN Regulation No 43	J	G+J	G+J	G+J
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011	X	G	G	G
46B	Pneumatic tyres for motor vehicles and their trailers (Class C <sub>1</sub> )	Regulation (EC) No 661/2009 UN Regulation No 30	X	G		
46C	Pneumatic tyres for commercial vehicles and their trailers (Classes C <sub>2</sub> and C <sub>3</sub> )	Regulation (EC) No 661/2009 UN Regulation No 54	_	G	G	G
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C <sub>1</sub> , C <sub>2</sub> and C <sub>3</sub> )	Regulation (EC) No 661/2009 UN Regulation No 117	X	G	G	G

a Technically permissible maximum laden mass.

46E	Temporary- use spare unit, run- flat tyres/ system and tyre pressure monitoring system	Regulation (EC) No 661/2009 UN Regulation No 64	X	G		
47A	Speed limitation of vehicles	Regulation (EC) No 661/2009 UN Regulation No 89			X	X
48A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012			X	X
50A	Mechanical coupling components of combination of vehicles	UN	X (10)	G ( <sup>10</sup> )	G ( <sup>10</sup> )	G ( <sup>10</sup> )
51A	Burning behaviour of materials used in the interior construction of certain categories of motor vehicles	Regulation (EC) No 661/2009 UN Regulation No 118				G for the cab; X for the remaining part
52A	M <sub>2</sub> and M <sub>3</sub> vehicles	Regulation (EC) No 661/2009 UN Regulation No 107			A	A
52B	Strength of the superstructur of large	Regulation (EC) No 661/2009			A	A

	passenger vehicles	UN Regulation No 66				
53A	Protection of occupants in the event of a frontal collision	Regulation (EC) No 661/2009 UN Regulation No 94	N/A	N/A		
54A	Protection of occupants in the event of lateral collision	Regulation (EC) No 661/2009 UN Regulation No 95	N/A	N/A		
58	Pedestrian protection	Regulation (EC) No 78/2009	X	N/A However, any frontal protection systems supplied with the vehicle shall comply and shall be marked		
59	Recyclability	Directive 2005/64/ EC	N/A	N/A		
61	Air- conditioning system	Directive 2006/40/ EC	X	G ( <sup>14</sup> )		
62	Hydrogen system	Regulation (EC) No 79/2009	Q	G+Q	G+Q	G+Q
63	General safety	Regulation (EC) No 661/2009	X (15)	X (15)	X (15)	X (15)
64	Gear shift indicators	Regulation (EC) No 661/2009 Regulation (EU) No 65/2012	X	G		

a Technically permissible maximum laden mass.

65	Advanced emergency braking system	Regulation (EC) No 661/2009 Regulation (EU) No 347/2012			N/A ( <sup>16</sup> )	N/A ( <sup>16</sup> )
66	Lane departure warning system	Regulation (EC) No 661/2009 Regulation (EU) No 351/2012			N/A ( <sup>17</sup> )	N/A (17)
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UN Regulation No 67	X	X	X	X
68	Vehicle alarm systems (VAS)	Regulation (EC) No 661/2009 UN Regulation No 97	X	G		
69	Electrical safety	Regulation (EC) No 661/2009 UN Regulation No 100	X	X	X	X
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UN Regulation No 110	X	X	X	X
72	eCall system	Regulation (EU) 2015/758	G	G	N/A	N/A

Technically permissible maximum laden mass.

The patient compartment of ambulances shall comply with the requirements of EN 1789:2007 +A1: 2010 +A2:2014 on Medical vehicles and their equipment – Road ambulances with the exception of section 6.5, list of equipment. Proof of compliance shall be provided with a test report of a technical service. If a wheelchair space is foreseen, the requirements of Appendix 3 relating to the wheelchair tie-down and occupant restraint systems shall apply.

# Appendix 2 Armoured vehicles

Item	Subje	cRegu act	la <b>M</b> ry	M <sub>2</sub>	M <sub>3</sub>	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>	$O_1$	$O_2$	$O_3$	$O_4$
		refere	ence									
1A	Sound level	Regula (EU) No 540/20		X	X	X	X	X				
2	Emissi (Euro 5 and Euro 6) light duty vehicle access to inform	No 715/20		A (1)		A (1)	A (1)					
3A	Prever of fire risks (liquid fuel tanks)	Regula	009	X ( <sup>2</sup> )	X	X	X	X				
3B	Rear underr protect devices (RUPI and their installar ear underr protect (RUP)	tiNo s661/20 DE)N Regula No afi8n; un tion	009	X	X	X	A	A	X	X	X	X

4A	Space Regulation (EC) mounting and 661/2009 fixing Regulation rear (EU) registration plates 1003/2010	X	X	X	X	X	X	X	X	X
5A	Steerin Regulation equipm(EnC)  No 661/2009  UN  Regulation  No 79	X	X	X	X	X	X	X	X	X
6A	VehicleRegulation access (EC) and No manoeu6(ra/2009) (steps, Regulation running(EU) boards No and 130/2012 handholds)	X	X	X	X	X				
6B	Door Regulation latches (EC) and No door 661/2009 retention N composite regulation No 11			X						
7A	Audible RegulationK warning EC) devices No and 661/2009 signals UN Regulation No 28	A+K	A+K	A+K	A+K	A+K				
8A	Device Regulation for (EC) indirect No vision 661/2009 and UN their Regulation installation 46	A	A	A	A	A				

9A	Brakin Regulation of (EC) vehicle No and 661/2009 trailers UN Regulation No 13	X ( <sup>3</sup> )	X ( <sup>3</sup> )	X ( <sup>3</sup> )	X ( <sup>3</sup> )	X ( <sup>3</sup> )	X ( <sup>3</sup> )	X ( <sup>3</sup> )	X ( <sup>3</sup> )	X ( <sup>3</sup> )
9B	Brakin Regulation of (EC) passengero cars 661/2009 UN Regulation No 13-H			X (4)						
10A	Electro Regulation compat(EiGl)y No 661/2009 UN Regulation No 10	X	X	X	X	X	X	X	X	X
12A	InteriorRegulation fittings (EC) No 661/2009 UN Regulation No 21									
13A	Protectiongulation of (EC) motor No vehicles61/2009 against UN unauth of tisgulation use No 18	X ( <sup>4A</sup> )	X ( <sup>4A</sup> )		X ( <sup>4A</sup> )	X ( <sup>4A</sup> )				
13B	Protectilongulation of (EC) motor No vehicles 61/2009 against UN unauth of isgulation use No 116			X						
14A	Protectiongulation of the (EC)			N/A						

	driver No against 661/2009 the UN steeringRegulation mechanism in the 12 event of impact							
15A	Seats, their (EC) anchorages and 661/2009 any UN head Regulation restrain No 17	D ( <sup>4B</sup> )	D ( <sup>4B</sup> )	D	D	D		
15B	Seats Regulation of (EC) large No passenger1/2009 vehicleUN Regulation No 80	D	D					
16A	External egulation projections) No 661/2009 UN Regulation No 26							
17A	VehicleRegulation access (EC) and No manoeu667a15009 (reverseRegulation gear) (EU) No 130/2012	X	X	X	X	X		
17B	SpeedoRnegenlatXon equipm(EnC) includinXo its 661/2009 installation Regulation No 39	X	X	X	X	X		

18A	Manufacture No statutor (EC) plate No and 661/2009 VIN Regulation (EU) No 19/2011	X	X	X	X	X	X	X	X	X
19A	Safety-Regulation belt (EC) anchorations, Isofix 661/2009 anchoration and No Isofix 14 top tether anchorages	A	A	A	A	A				
20A	InstallaRegulatAorN of (EC) lightingNo and 661/2009 light- UN signalliRegulation devicesNo on 48 vehicles	A+N								
21A	Retro-Regulation reflectingC) devicesNo for 661/2009 power-UN driven Regulation vehicleNo 3 and their trailers	X	X	X	X	X	X	X	X	X
22A	Front and (EC) rear No position 61/2009 lamps, stop-lamps and end-outline marker lamps	X	X	X	X	X	X	X	X	X

22B	for motor vehicles and their trailers  DaytimRegulatXon runningEC)	X	X	X	X	X				
	lamps No for 661/2009 power-UN driven Regulation vehicle No 87									
22C	Side-Regulation marker (EC) lamps No for 661/2009 motor UN vehicle Regulation and No their 91 trailers	X	X	X	X	X	X	X	X	X
23A	Directionegulation indicators:  for No power-661/2009 driven UN vehicles Regulation and No 6 their trailers	X	X	X	X	X	X	X	X	X
24A	Illumin Rtegn at Yon of (EC) rear- No registra 660 1/2009 plates UN of Regulation power- No 4 driven vehicles and their trailers	X	X	X	X	X	X	X	X	X
25A	Power-Regulation driven (EC) vehicle No sealed-661/2009 beam UN headlar Regulation	X	X	X	X	X				

	(SB) No emitting 1 an European asymmetrical passing beam or a driving beam or both									
25B	Filamentegulation lamps (EC) for No use 661/2009 in UN approved ap	X	X	X	X	X	X	X	X	X
25C	Motor Regulation vehicle (EC) headlarnins equipped 1/2009 with UN gas-Regulation discharge 98 sources	X	X	X	X	X				
25D	Gas-dischargeC) light No sources661/2009 for UN use Regulation in No approve9 gas-discharge lamp units of power-	X	X	X	X	X				

	driven vehicles									
25E	Motor Regulation vehicle (EC) headlarings emitting 61/2009 an UN asymmetrical ation passing No 112 beam or a driving beam or both and equipped with filament lamps and/or LED modules	X	X	X	X	X				
25F	Adapti Regulation front- (EC) lighting No system 661/2009 (AFS) UN for Regulation motor No 123 vehicles	X	X	X	X	X				
26A	Power-Regulation driven (EC) vehicleNo front 661/2009 fog UN lamps Regulation No 19	X	X	X	X	X				
27A	TowingRegulathon device (EC) No 661/2009 Regulation (EU) No 1005/2010	A	A	A	A	A				
28A	Rear Regulation fog (EC)	X	X	X	X	X	X	X	X	X

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	lamps for 661/200 power-UN driven Regulative vehicle No and 38 their trailers	ion									
29A	Reversinggulariant lights (EC) for No power-661/200 driven UN vehicle Regulation and No their 23 trailers	9	X	X	X	X	X	X	X	X	X
30A	ParkingRegular lamps (EC) for No power-661/200 driven UN vehicleRegulati No 77	9	X	X	X	X	X				
31A	Safety-Regulated belts, (EC) restrainNo system 661/200 child UN restrainRegulated system No and 16 Isofix child restraint systems	9	A	A	A	A	A				
32A	Forwar Regular field (EC) of No vision 661/200 UN Regulati No 125	9									
33A	Location legular and (EC) identification of 661/200 hand controls,		X	X	X	X	X				

	tell- UN									
	tales Regulation and No 121 indicators									
34A	WindscRægulatAon defrostittgC) and No demistitifg1/2009 systemsRegulation (EU) No 672/2010	(5)	(5)	(5)	(5)	(5)				
35A	WindscRægulatAon wiper (EC) and No washer 661/2009 system Regulation (EU) No 1008/2010	(6)	(6)	(6)	(6)	(6)				
36A	HeatingRegulation system (EC) No 661/2009 UN Regulation No 122	X	X	X	X	X	X	X	X	X
37A	Wheel Regulation (EC) No 661/2009 Regulation (EU) No 1009/2010									
38A	Head Regulation restrain(EC) (headresto), whethe 661/2009 or UN not Regulation incorpolated in 25 vehicle seats									
41A	Emissi chesgulation (Euro (EC) VI) No heavy 595/2009 duty	X ( <sup>9</sup> )	X	X (9)	X ( <sup>9</sup> )	X				

	vehicles/ access to information									
42A	Lateral Regulation protecticEC) of No goods 661/2009 vehicleUN Regulation No 73				X	X			X	X
43A	Spray Regulation suppression system No 661/2009 Regulation (EU) No 109/2011			X	X	X	X	X	X	X
44A	MassesRegulation and (EC) dimensions 661/2009 Regulation (EU) No 1230/2012									
45A	Safety Regulation glazing(EC) materialso and 661/2009 their UN installatogulation on No vehicles 3	N/A								
46A	InstallaRegulation of (EC) tyres No 661/2009 Regulation (EU) No 458/2011	A	A	A	A	A	A	A	A	A
46B	Pneumatingulation tyres (EC) for No motor 661/2009 vehicle UN and Regulation			A			A	A		

	their No trailers 30 (Class C <sub>1</sub> )									
46C	Pneumatingulation tyres (EC) for No comme66412009 vehicle UN and Regulation their No trailers 54 (Classes C2 and C3)	A	A	A	A	A			A	A
46D	Tyre rolling (EC) sound No emissions (M)/2009 adhesion No 117 surfaces and rolling resistance (Classes C <sub>1</sub> , C <sub>2</sub> and C <sub>3</sub> )	A	A	A	A	A	A	A	A	A
46E	Temportargulathon use (EC) (9A) spare No unit, 661/2009 run- UN flat Regulation tyres/ No system 64 and tyre pressure monitoring system			A (9A)						
47A	Speed Regulation limitation(NC) of No vehicle 661/2009	X	X		X	X				

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	UN Regulation No 89									
48A	MassesRegulation and (EC) dimensions 661/2009 Regulation (EU) No 1230/2012	X	X	X	X	X	X	X	X	X
49A	Commarcial lation vehicle (EC) with No regard 661/2009 to UN their Regulation externa No projections forward of the cab's rear panel			A	A	A				
50A	Mechanicalulation coupling (10) components of 661/2009 combinations of Regulation vehicle No 55	X (10)	X ( <sup>10</sup> )	X ( <sup>10</sup> )	X (10)	X (10)	X	X	X	X
50B	Close-Regulation coupling CC) device No (CCD);661/2009 fitting UN of an Regulation approved to type 102 of CCD				X ( <sup>10</sup> )	X ( <sup>10</sup> )			X (10)	X (10)
51A	Burnin Regulation behavior (FiC) of No		X							

	construction	ı	ı	1		I	I			
	of certain categories of motor vehicles									
52A	M <sub>2</sub> Regulation and (EC) M <sub>3</sub> No vehicle 661/2009 UN Regulation No 107	A	A							
52B	StrengtRegulation of the (EC) superstNoture of 661/2009 large UN passengegulation vehicleNo 66	A	A							
53A	Protection gulation of (EC) occupation in the 661/2009 event UN of a Regulation frontal No collision with the collision of th									
54A	Protectiongulation of (EC) occupation in the 661/2009 event UN of Regulation lateral No collisions			N/A						
56A	VehicleRegulation for (EC) the No carriag661/2009 of UN danger Regulation goods No 105			X (13)	X (13)	X (13)	X ( <sup>13</sup> )	X (13)	X (13)	X (13)
57A	Front Regulation underrutEC) protectiNo devices661/2009				X	X				

	(FUPDLI)N and Regular their No installa@n; front underrun protection (FUP)	tion									
58	PedestrRægulat protectiæC) No 78/2009				N/A						
59	Recyclabiletytiv 2005/64 EC				N/A						
61	Air- Directive conditi 2000/2/40 system EC				X ( <sup>14</sup> )						
62	Hydrogkngular system (EC) No 79/2009		A	A	A	A	A				
63	GeneraRegular Safety (EC) No 661/200	$\binom{15}{}$	X (15)	X (15)	X (15)	X (15)	X (15)	X ( <sup>15</sup> )	X (15)	X ( <sup>15</sup> )	X (15)
64	Gear Regular shift (EC) indicators 661/200 Regular (EU) No 65/2012	09 tion									
65	Advandedgular emerge(TeC) brakingNo system 661/200 Regular (EU) No 347/20	09 tion	(16)	(16)		(16)	(16)				
66	Lane Regular departu(EC) warnin No system 661/200 Regular (EU)	09	(17)	(17)		(17)	(17)				

	No 351/2012									
67	Specific Regulation componers (Ends) for No liquefic 661/2009 petrole with gases Regulation (LPG) No and 67 their installation on motor vehicles	X	X	X	X	X				
68	VehicleRegulation alarm (EC) system No (VAS) 661/2009 UN Regulation No 97			X						
69	Electrical Egulation (EC) No 661/2009 UN Regulation No 100	X	X	X	X	X				
70	Specific Regulation compone (E(f)) for No CNG 661/2009 and UN their Regulation installation 110 on motor vehicles	X	X	X	X	X				
72	eCall Regulation system (EU) 2015/758	N/A	N/A	G	N/A	N/A	N/A	N/A	N/A	N/A

### Appendix 3

### Wheelchair accessible vehicles

Item	Subject	Regulatory act	$\mathbf{M}_{1}$

1A	Sound level	Regulation (EU) No 540/2014	G+W <sub>9</sub>
2	Emissions (Euro 5 and Euro 6) light duty vehicles/access to information	Regulation (EC) No 715/2007	G+W <sub>1</sub>
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UN Regulation No 34	X+W <sub>2</sub>
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UN Regulation No 58	X
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Regulation (EU) No 1003/2010	X
5A	Steering equipment	Regulation (EC) No 661/2009 UN Regulation No 79	G
6A	Vehicle access and manoeuvrability (steps, running boards and handholds)	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X
6B	Door latches and door retention components	Regulation (EC) No 661/2009 UN Regulation No 11	X
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UN Regulation No 28	X
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UN Regulation No 46	X
9B	Braking of passenger cars	Regulation (EC) No 661/2009 UN Regulation No 13-H	G+A <sub>1</sub>
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UN Regulation No 10	X
12A	Interior fittings	Regulation (EC) No 661/2009 UN Regulation No 21	G+C

			ı
13B	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UN Regulation No 116	X
14A	Protection of the driver against the steering mechanism in the event of impact	Regulation (EC) No 661/2009 UN Regulation No 12	G
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UN Regulation No 17	G+W <sub>3</sub>
16A	External projections	Regulation (EC) No 661/2009 UN Regulation No 26	G+W <sub>4</sub>
17A	Vehicle access and manoeuvrability (reverse gear)	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X
17B	Speedometer equipment including its installation	Regulation (EC) No 661/2009 UN Regulation No 39	X
18A	Manufacturer's statutory plate and VIN	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011	X
19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UN Regulation No 14	X+W <sub>5</sub>
20A	Installation of lighting and lightsignalling devices on vehicles	Regulation (EC) No 661/2009 UN Regulation No 48	X
21A	Retro-reflecting devices for power- driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 3	X
22A	Front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 7	X

22B	Daytime running lamps for power-driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 87	X
22C	Side-marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 91	X
23A	Direction indicators for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 6	X
24A	Illumination of rear- registration plates of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 4	X
25A	Power-driven vehicle's sealed- beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	Regulation (EC) No 661/2009 UN Regulation No 31	X
25B	Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 37	X
25C	Motor vehicle headlamps equipped with gas-discharge light sources	Regulation (EC) No 661/2009 UN Regulation No 98	X
25D	Gas-discharge light sources for use in approved gas- discharge lamp units of power-driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 99	X
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	Regulation (EC) No 661/2009 UN Regulation No 112	X
25F	Adaptive front- lighting systems	Regulation (EC) No 661/2009	X

	(AFS) for motor vehicles	UN Regulation No 123	
26A	Power-driven vehicle front fog lamps	Regulation (EC) No 661/2009 UN Regulation No 19	X
27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010	E
28A	Rear fog lamps for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 38	X
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 23	X
30A	Parking lamps for power-driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 77	X
31A	Safety-belts, restraint systems, child restraint systems and Isofix child restraint systems	Regulation (EC) No 661/2009 UN Regulation No 16	X+W <sub>6</sub>
32A	Forward field of vision	Regulation (EC) No 661/2009 UN Regulation No 125	G
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UN Regulation No 121	X
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010	G ( <sup>5</sup> )
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010	G ( <sup>6</sup> )
36A	Heating systems	Regulation (EC) No 661/2009 UN Regulation No 122	X

37A	Wheel guards	Regulation (EC) No 661/2009 Regulation (EU) No 1009/2010	G
38A	Head restraints (headrests), whether or not incorporated in vehicle seats	Regulation (EC) No 661/2009 UN Regulation No 25	X
41A	Emissions (Euro VI) heavy duty vehicles/ access to information	Regulation (EC) No 595/2009	X+W <sub>1</sub> ( <sup>9</sup> )
44A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	X+W <sub>8</sub>
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UN Regulation No 43	G
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011	X
46B	Pneumatic tyres for motor vehicles and their trailers (Class C <sub>1</sub> )	Regulation (EC) No 661/2009 UN Regulation No 30	X
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C <sub>1</sub> , C <sub>2</sub> and C <sub>3</sub> )	Regulation (EC) No 661/2009 UN Regulation No 117	X
46E	Temporary-use spare unit, run-flat tyres/ system and tyre pressure monitoring system	Regulation (EC) No 661/2009 UN Regulation No 64	G ( <sup>9A</sup> )
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UN Regulation No 55	X (10)
53A	Protection of occupants in the event of a frontal collision	Regulation (EC) No 661/2009 UN Regulation No 94	N/A

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54A	Protection of occupants in the event of lateral collision	Regulation (EC) No 661/2009 UN Regulation No 95	N/A
58	Pedestrian protection	Regulation (EC) No 78/2009	G
59	Recyclability	Directive 2005/64/EC	N/A
61	Air-conditioning systems	Directive 2006/40/EC	G
62	Hydrogen system	Regulation (EC) No 79/2009	X
63	General Safety	Regulation (EC) No 661/2009	X (15)
64	Gear shift indicators	Regulation (EC) No 661/2009 Regulation (EU) No 65/2012	G
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UN Regulation No 67	X
68	Vehicle alarm systems (VAS)	Regulation (EC) No 661/2009 UN Regulation No 97	X
69	Electric safety	Regulation (EC) No 661/2009 UN Regulation No 100	X
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UN Regulation No 110	X
72	eCall system	Regulation (EU) 2015/758	G

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Additional requirements for testing the wheelchair tie-down and occupant restraint system. The following point 2 and either point 3 or 4 shall apply.

### 1. Definitions

- 1.1. Surrogate wheelchair (SWC) means a rigid, re-usable test wheelchair, as defined in section 3 of international standard ISO 10542-1:2012.
- 1.2. Point P means a representation of the position of the wheelchair occupant's hip when seated in the SWC, as defined in section 3 of international standard ISO 10542-1:2012.

- 2. General requirements
- 2.1. Each wheelchair location shall be provided with anchorages to which a wheelchair tie-down and occupant restraint system (WTORS) shall be fitted.
- 2.2. The wheelchair occupant's lower belt anchorages shall be located in accordance with UN Regulation No 14.07, paragraph 5.4.2.2, relative to Point P on the SWC, when placed in the travelling position designated by the manufacturer. The upper actual anchorage(s) shall be located at least 1 100 mm above the horizontal plane passing through the points of contact between the rear tyres of the SWC and the vehicle floor. That condition shall still be satisfied after the test carried out in accordance with point 3 of this Appendix.
- 2.3. An assessment shall be made of the WTORS occupant belt to ensure compliance with the UN Regulation No 16.06, paragraphs 8.2.2 to 8.2.2.4 and 8.3.1 to 8.3.4.
- 2.4. The minimum number of ISOFIX child seat anchorages need not to be provided. In the case of a multi-stage type-approval where an ISOFIX anchorage system has been affected by the conversion, either the system shall be re-tested or the anchorages shall be rendered unusable. In the latter case the ISOFIX labels shall be removed and appropriate information shall be given to the vehicle purchaser.
- 3. Static in-vehicle testing
- 3.1. Wheelchair occupant restraint anchorages
- 3.1.1. The wheelchair occupant restraint anchorages shall resist the static forces prescribed for occupant restraint anchorages in UN Regulation No 14.07, simultaneously with the static forces applied to the wheelchair tie-down anchorages as specified in point 3.2 of this Appendix.
- 3.2. Wheelchair tie-down anchorages

The wheelchair tie-down anchorages shall resist the following forces, for at least 0.2 seconds, applied via the SWC (or a suitable surrogate wheelchair having a wheelbase, seat height and tie-down attachment points in accordance with the specification for the SWC), at a height of 300 + 100 mm from the surface on which the SWC rests:

- 3.2.1. In the case of a forward-facing wheelchair, a simultaneous force, coincident with the force applied to the occupant restraint anchorages, of 24,5 kN, and
- 3.2.2. a second test applying a static force of 8,2 kN directed towards the rear of the vehicle.
- 3.2.3. In the case of a rearward-facing wheelchair, a simultaneous force, coincident with the force applied to the occupant restraint anchorages, of 8,2 kN, and
- 3.2.4. a second test applying a static force of 24,5 kN directed towards the front of the vehicle.
- 3.3. Components of the system
- 3.3.1. All components of the WTORS shall meet the relevant requirements of international standard ISO 10542-1:2012. However, the dynamic test specified in Annex A and paragraphs 5.2.2 and 5.2.3 of international standard ISO 10542-1:2012 shall be carried out on the complete WTORS using the vehicle anchorage geometry instead of the test geometry specified in Annex A of international standard ISO 10542-1:2012. This may be carried out within the vehicle structure or on a surrogate structure representative of

- the vehicle's WTORS anchorage geometry. The location of each anchorage shall lie within the tolerance provided for in paragraph 7.7.1 of UN Regulation No 16.06.
- 3.3.2. Where the occupant restraint part of the WTORS is approved in accordance with UN Regulation No 16.06, it shall be subject to the dynamic test of the complete WTORS specified in paragraph 3.3.1 of this Appendix but the requirements of paragraphs 5.1, 5.3 and 5.4 of international standard ISO10542-1:2012 shall be considered to have been met.
- 4. Dynamic in-vehicle testing
- 4.1. The full assembly of the WTORS system shall be tested by an in-vehicle dynamic test in accordance with paragraphs 5.2.2 and 5.2.3 and Annex A of international standard ISO 10542-1:2012, testing all components/anchorages simultaneously, using a vehicle body-in-white or representative structure.
- 4.2. The component parts of the WTORS shall meet the relevant requirements of international standard ISO 10542-1:2012, paragraphs 5.1, 5.3 and 5.4. These requirements shall be deemed to have been met in respect of the occupant restraint if it is approved in accordance with UN Regulation No 16.06.

AppendixOther special purpose vehicles(including special group, multi-equipment carrier and trailer caravans)

The exemptions provided for in this Appendix are only permitted if the manufacturer demonstrates to the satisfaction of the approval authority that the vehicle, due to the special function, cannot meet all the requirements set out in Part I of this Annex.

Item	Subje	ecRefei	·e <b>M</b> e	M <sub>3</sub>	$N_1$	N <sub>2</sub>	N <sub>3</sub>	$O_1$	$O_2$	$O_3$	$\overline{\mathbf{O_4}}$
		to regul act	atory								
1A	Sound level	Regula (EU) No 540/20		Н	Н	Н	Н	Н			
2	Emissi (Euro 5 and Euro 6) light duty vehicle access to inform	No 715/20 es/			Q +V <sub>1</sub> ( <sup>1</sup> )	Q +V <sub>1</sub> ( <sup>1</sup> )					
3A	Prever of fire risks (liquid	n <b>Ræg</b> ula (EC) No 661/20 UN Regula	)09	F	F	F	F	X	X	X	X

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	fuel tanks)	No 34									
3B	Rear undern protect devices (RUP) and their install rear undern protect (RUP)	tNe s661/20 DSJN Regul No asiSon; run tion	009	X	A	A	A	X	X	X	X
4A	for mount and fixing rear registr	(EC) iMgo 661/20 Regul (EU)	ation	A+R							
5A	Steering	nRegul n(thC) No 661/20 UN Regul No 79	009	X	X	X	X	X	X	X	X
6A	access and manoe	No Regul (EU) No 130/20	<b>Di09</b> ation	X	В	В	В				
6B	latches and door retenti	No 661/20	009		В						
7A	Audib warnii device		atXon	X	X	X	X				

	and No signals 661/2009 UN Regulation No 28								
8A	Device Regulation for (EC) indirect No vision 661/2009 and UN their Regulation install altion 46	X	X	X	X				
9A	Brakin Regulation (EC) vehicle No and 661/2009 trailers UN Regulation No 13	X ( <sup>3</sup> )	X ( <sup>3</sup> )	X +U <sub>1</sub> ( <sup>3</sup> )	X +U <sub>1</sub> ( <sup>3</sup> )	X	X	X ( <sup>3</sup> )	X ( <sup>3</sup> )
9B	Brakin Regulation of (EC) passen Reo cars 661/2009 UN Regulation No 13-H		X (4)						
10A	Electro Regulation compat(Edity No 661/2009 UN Regulation No 10	X	X	X	X	X	X	X	X
13A	ProtectRægulañon of (EC) ( <sup>4A</sup> ) motor No vehicle661/2009 againstUN unauthoregadation use No 18	X ( <sup>4A</sup> )		X ( <sup>4A</sup> )	X ( <sup>4A</sup> )				
13B	ProtectRægulation of (EC) motor No vehicle661/2009		X						

	agains unauth use	tUN <b>Aregad</b> No 116	ation						
14A	of the	Regula gNo nli3m	)09		X				
15A	their anchor and any	661/20 UN Regula	( <sup>4B</sup> )	D ( <sup>4B</sup> )	D	D	D		
15B	of large	Regula (EC) No Soft1/20 ekJN Regula No 80	)09	D					
17A	access and manoe	eRegula (EC) No selective in the interest of t	009 ation	X	X	X	X		
17B	Speed equipn includ its installa	i <b>nk</b> o 661/20	)09	X	X	X	X		

18A	VIN Reg	) /2009 ulation	X	X	X	X	X	X	X	X
	(EU No 19/2	2011								
19A	Safety-Reg belt (EC anchorages Isofix 661/ anchorages systemsReg and No Isofix 14 top tether anchorages	/2009 ulation	D	D	D	D				
20A	InstallaRog of (EC lightingNo and 661/ light- UN signalliRog devicesNo on 48 vehicles	) /2009	A+N							
21A	Retro-Reg reflecting C devices No for 661 power-UN driven Reg vehicles No and their trailers	) /2009 ulation	X	X	X	X	X	X	X	X
22A	Front Reg and (EC rear No position 61/l lamps, UN stop-lamps and end-outline marker lamps	) /2009 ulation	X	X	X	X	X	X	X	X

22B	for motor vehicles and their trailers  DaytimRegular on running EC lamps No for 661/2009 power-UN driven Regulation vehicle No 87	X	X	X	X				
22C	Side-Regulation marker(EC) lamps No for 661/2009 motor UN vehicleRegulation and No their 91 trailers	X	X	X	X	X	X	X	X
23A	Direction Direct	X	X	X	X	X	X	X	X
24A	IlluminRtigulation of (EC) rear- No registration/2009 plates UN of Regulation power-No 4 driven vehicles and their trailers	X	X	X	X	X	X	X	X
25A	Power-Regulation driven (EC) vehicleNo sealed-661/2009 beam UN headlarRpgulation	X	X	X	X				

	(SB) No emitting 1 an European asymmetrical passing beam or a driving beam or both								
25B	Filame Regulation lamps (EC) for No use 661/2009 in UN approve degulation No units 37 of power-driven vehicles and their trailers	X	X	X	X	X	X	X	X
25C	Motor Regulation vehicle(EC) headlarings equipped 1/2009 with UN gas-Regulation discharige 98 sources	X	X	X	X				
25D	Gas-dischargeC) light No sources661/2009 for UN use Regulation in No approv 99 gas- discharge lamp units of power-	X	X	X	X				

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	driven vehicles									
25E	Motor Regula vehicle(EC) headlar for a UN asymmetrical and passing No beam 112 or a driving beam or both and equipped with filament lamps and/or LED modules	09	X	X	X	X				
25F	Adapti Regula front- (EC) lightingNo system 661/20 (AFS) UN for Regula motor No vehicle \$23	09	X	X	X	X				
26A	Power-Regula driven (EC) vehicleNo front 661/20 fog UN lamps Regula No 19	09	X	X	X	X				
27A	TowingRegula device (EC) No 661/20 Regula (EU) No 1005/2	09 tion	A	A	A	A				
28A	Rear Regula fog (EC)	<b>X</b> on	X	X	X	X	X	X	X	X

	lamps No 661/2009 power-UN driven Regulation vehicleNo and 38 their trailers								
29A	Revers Regulation lights (EC) for No power-661/2009 driven UN vehicle Regulation and No their 23 trailers	X	X	X	X	X	X	X	X
30A	Parkin Regulation (EC) for No power-661/2009 driven UN vehicle Regulation No 77	X	X	X	X				
31A	Safety-Regulation belts, (EC) restrainNo system 661/2009 child UN restrainRegulation system No and 16 Isofix child restraint systems	D	D	D	D				
33A	Locationegulation and (EC) identification of 661/2009 hand UN control Regulation tell-No tales 121 and indicators	X	X	X	X				
34A	Windscreenlation defrost(list) and	(5)	(5)	(5)	(5)				

	demistiNg system 661/2009 Regulation (EU) No 672/2010								
35A	WindscRegulation wiper (EC) and No washer661/2009 system-Regulation (EU) No 1008/2010	(6)	(6)	(6)	(6)				
36A	HeatingRegulation system(EC) No 661/2009 UN Regulation No 122	X	X	X	X	X	X	X	X
38A	Head Regulation restrain(tEC) (headrests), whethe 661/2009 or UN not Regulation incorpolated in 25 vehicle seats								
41A	Emissionegulation (EC) VI) No heavy 595/2009 duty vehicles/ access to information	Н	H ( <sup>9</sup> )	H ( <sup>9</sup> )	Н				
42A	Lateral Regulation protect (GiC) of No goods 661/2009 vehicles JN Regulation No 73			X	X			X	X

43A	Spray Regulation suppression system No 661/2009 Regulation (EU) No 109/2011		X	X	X	X	X	X	X
45A	Safety Regulation glazing(EC) materialso and 661/2009 their UN installa Regulation on No vehicles 3	J	J	J	J	J	J	J	J
46A	InstallaRegulaRon of (EC) tyres No 661/2009 Regulation (EU) No 458/2011	X	X	X	X	X	X	X	X
46B	Pneum Riegulation tyres (EC) for No motor 661/2009 vehiclekJN and Regulation their No trailers 30 (Class C <sub>1</sub> )		X			X	X		
46C	Pneum Riegula Kon tyres (EC) for No commet 6 ib 2009 vehicle JN and Regulation their No trailers 54 (Classes C <sub>2</sub> and C <sub>3</sub> )	X	X	X	X			X	X
46D	Tyre Regulation rolling (EC) sound No emissions 1/2009	X	X	X	X	X	X	X	X

	adhesiddN on Regulation wet No surface\$17 and rolling resistance (Classes C1, C2 and C3)								
46E	Tempo Regulation use (EC) spare No unit, 661/2009 run- UN flat Regulation tyres/ No system 64 and tyre pressure monitoring system		X (9A)						
47A	Speed Regulation limitati(EDC) of No vehicles 61/2009 UN Regulation No 89	X		X	X				
48A	MassesRegulation and (EC) dimensions 661/2009 Regulation (EU) No 1230/2012	X	X	X	X	X	X	X	X
49A	Commercial		X	X	X				

	of the cab's rear panel								
50A	Mechanicallation coupling C) (10) compositions of 661/2009 combinations of Regulation vehicles No 55	X (10)	X (10)	X (10)	X (10)	X	X	X	X
50B	Close-Regulation coupling C) device No (CCD),661/2009 fitting UN of an Regulation approved type 102 of CCD			X (10)	X (10)			X (10)	X (10)
51A	Burnin Regulation behavion behavion No materia 1/2009 used UN in Regulation the No interior 118 construction of certain categories of motor vehicles	X							
52A	M <sub>2</sub> Regulation (EC) M <sub>3</sub> No vehicle 661/2009 UN Regulation No 107	X							
52B	StrengtRegulation of (EC) the No superstant/1009	X							

	of UN large Regulation passenge vehicle 66								
54A	ProtectRegulation of (EC) occupants in 661/2009 the UN event Regulation of No lateral 95 collision		A						
56A	Vehicle Regulation for (EC) the No carriag 661/2009 of UN danger Regulation goods No 105	1 1	X ( <sup>13</sup> )	X ( <sup>13</sup> )	X ( <sup>13</sup> )	X ( <sup>13</sup> )	X (13)	X ( <sup>13</sup> )	X (13)
57A	Front Regulation underruteC) protective devices661/2009 (FUPDE)N and Regulation their No installation; front underrun protection (FUP)			X	X				
58	Pedestrikargulation protect(GiC) No 78/2009		N/A ( <sup>2</sup> )						
59	Recyclabilitytive 2005/64/ EC		N/A						
61	Air- Directive conditi@006g40/system&C		X ( <sup>14</sup> )						
62	Hydrogengulation system (EC) No 79/2009	X	X	X	X				

63		aRegul (EC) No 661/20	(15)	X (15)							
65	emerg brakin		009 ation	N/A		N/A	N/A				
66	Lane depart warnii systen	Regulu(16C) 18No 1661/20 Regulu(EU) No 351/20	009 ation	N/A		N/A	N/A				
67	for liquef	No 6661/20 etifN Regul No 67 ation	009	X	X	X	X				
68	alarm systen		009		X						
69	Electr	Regul (EC) No 661/20 UN Regul No 100	009	X	X	X	X				

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70	for CNG and	No 661/20 UN Regula a <b>No</b> n 110	009	X	X	X	X				
72	eCall systen	Regula 1(EU) 2015/7		N/A	G	N/A	N/A	N/A	N/A	N/A	N/A

## Appendix 5

## **Mobile cranes**

Item	Subject	Reference to	$N_3$
1A	Sound level	Regulation (EU) No 540/2014	T+Z <sub>1</sub>
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UN Regulation No 34	X
3B	Rear underrun protective devices (RUPDs) and their installation; rear underrun protection (RUP)	Regulation (EC) No 661/2009 UN Regulation No 58	A
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Regulation (EU) No 1003/2010	X
5A	Steering equipment	Regulation (EC) No 661/2009 UN Regulation No 79	X Crab steering allowed
6A	Vehicle access and manoeuvrability (steps, running boards and handholds)	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	A
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UN Regulation No 28	X

8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UN Regulation No 46	X
9A	Braking of vehicles and trailers	Regulation (EC) No 661/2009 UN Regulation No 13	U ( <sup>3</sup> )
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UN Regulation No 10	X
13A	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UN Regulation No 18	X ( <sup>4A</sup> )
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UN Regulation No 17	X
17A	Vehicle access and manoeuvrability (reverse gear)	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X
17B	Speedometer equipment including its installation	Regulation (EC) No 661/2009 UN Regulation No 39	X
18A	Manufacturer's statutory plate and VIN	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011	X
19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UN Regulation No 14	X
20A	Installation of lighting and light-signalling devices on vehicles	Regulation (EC) No 661/2009 UN Regulation No 48	A+Y
21A	Retro-reflecting devices for power- driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 3	X
22A	Front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 7	X

22B	Daytime running lamps for power-driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 87	X
22C	Side-marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 91	X
23A	Direction indicators for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 6	X
24A	Illumination of rear- registration plates of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 4	X
25A	Power-driven vehicle's sealed- beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	Regulation (EC) No 661/2009 UN Regulation No 31	X
25B	Filament lamps for use in approved lamp units of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 37	X
25C	Motor vehicle headlamps equipped with gas-discharge light sources	Regulation (EC) No 661/2009 UN Regulation No 98	X
25D	Gas-discharge light sources for use in approved gas- discharge lamp units of power-driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 99	X
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	Regulation (EC) No 661/2009 UN Regulation No 112	X
25F	Adaptive front- lighting systems	Regulation (EC) No 661/2009	X

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siaius.	Thus is the origin	ai version ias	u was originau	v aaomear.

	(AFS) for motor vehicles	UN Regulation No 123	
26A	Power-driven vehicle front fog lamps	Regulation (EC) No 661/2009 UN Regulation No 19	X
27A	Towing device	Regulation (EC) No 661/2009 Regulation (EU) No 1005/2010	A
28A	Rear fog lamps for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 38	X
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 23	X
30A	Parking lamps for power-driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 77	X
31A	Safety-belts, restraint systems, child restraint systems and Isofix child restraint systems	Regulation (EC) No 661/2009 UN Regulation No 16	X
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UN Regulation No 121	X
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010	(5)
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010	(6)
36A	Heating systems	Regulation (EC) No 661/2009 UN Regulation No 122	X
41A	Emissions (Euro VI) heavy duty vehicles/ access to information	Regulation (EC) No 595/2009	V
42A	Lateral protection of goods vehicles	Regulation (EC) No 661/2009	A

		UN Regulation No 73	
43A	Spray suppression systems	Regulation (EC) No 661/2009 Regulation (EU) No 109/2011	$Z_1$
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UN Regulation No 43	J
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011	X
46C	Pneumatic tyres for commercial vehicles and their trailers (Classes C <sub>2</sub> and C <sub>3</sub> )	Regulation (EC) No 661/2009 UN Regulation No 54	X
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C <sub>1</sub> , C <sub>2</sub> and C <sub>3</sub> )	Regulation (EC) No 661/2009 UN Regulation No 117	X
47A	Speed limitation of vehicles	Regulation (EC) No 661/2009 UN Regulation No 89	X
48A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	A
49A	Commercial vehicles with regard to their external projections forward of the cab's rear panel	Regulation (EC) No 661/2009 UN Regulation No 61	A
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UN Regulation No 55	X ( <sup>10</sup> )
50B	Close-coupling device (CCD); fitting of an approved type of CCD	Regulation (EC) No 661/2009 UN Regulation No 102	X (10)
57A	Front underrun protective devices (FUPDs) and their installation; front	Regulation (EC) No 661/2009 UN Regulation No 93	X

	underrun protection (FUP)		
62	Hydrogen system	Regulation (EC) No 79/2009	X
63	General Safety	Regulation (EC) No 661/2009	X (15)
65	Advanced emergency braking system	Regulation (EC) No 661/2009 Regulation (EU) No 347/2012	N/A ( <sup>16</sup> )
66	Lane departure warning system	Regulation (EC) No 661/2009 Regulation (EU) No 351/2012	N/A ( <sup>17</sup> )
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UN Regulation No 67	X
69	Electric safety	Regulation (EC) No 661/2009 UN Regulation No 100	X
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UN Regulation No 110	X

## Appendix 6 **Exceptional load transport vehicles**

Item	Subject	Reference to regulatory act	N <sub>3</sub>	O <sub>4</sub>
1	Permissible sound level	Directive 70/157/EEC	Т	
3A	Prevention of fire risks (liquid fuel tanks)	Regulation (EC) No 661/2009 UN Regulation No 34	X	X
3B	Rear underrun protective devices (RUPDs) and their installation;	Regulation (EC) No 661/2009 UN Regulation No 58	A	A

	rear underrun protection (RUP)			
4A	Space for mounting and fixing rear registration plates	Regulation (EC) No 661/2009 Regulation (EU) No 1003/2010	X	A+R
5A	Steering equipment	Regulation (EC) No 661/2009 UN Regulation No 79	X Crab steering allowed	X
6A	Vehicle access and manoeuvrability (steps, running boards and handholds)	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X	
7A	Audible warning devices and signals	Regulation (EC) No 661/2009 UN Regulation No 28	X	
8A	Devices for indirect vision and their installation	Regulation (EC) No 661/2009 UN Regulation No 46	X	
9A	Braking of vehicles and trailers	Regulation (EC) No 661/2009 UN Regulation No 13	U ( <sup>3</sup> )	X ( <sup>3</sup> )
10A	Electromagnetic compatibility	Regulation (EC) No 661/2009 UN Regulation No 10	X	X
13A	Protection of motor vehicles against unauthorised use	Regulation (EC) No 661/2009 UN Regulation No 18	X ( <sup>4A</sup> )	
15A	Seats, their anchorages and any head restraints	Regulation (EC) No 661/2009 UN Regulation No 17	X	
17A	Vehicle access and manoeuvrability (reverse gear)	Regulation (EC) No 661/2009 Regulation (EU) No 130/2012	X	
17B	Speedometer equipment	Regulation (EC) No 661/2009	X	

	including its installation	UN Regulation No 39		
18A	Manufacturer's statutory plate and VIN	Regulation (EC) No 661/2009 Regulation (EU) No 19/2011	X	X
19A	Safety-belt anchorages, Isofix anchorages systems and Isofix top tether anchorages	Regulation (EC) No 661/2009 UN Regulation No 14	X	
20A	Installation of lighting and light-signalling devices on vehicles	Regulation (EC) No 661/2009 UN Regulation No 48	X	A+N
21A	Retro-reflecting devices for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 3	X	X
22A	Front and rear position lamps, stop-lamps and end-outline marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 7	X	X
22B	Daytime running lamps for power-driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 87	X	
22C	Side-marker lamps for motor vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 91	X	X
23A	Direction indicators for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 6	X	X
24A	Illumination of rear-registration plates of power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 4	X	X

25A	Power-driven vehicle's sealed- beam headlamps (SB) emitting an European asymmetrical passing beam or a driving beam or both	Regulation (EC) No 661/2009 UN Regulation No 31	X	
25B	Filament lamps for use in approved lamp units of power- driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 37	X	X
25C	Motor vehicle headlamps equipped with gas-discharge light sources	Regulation (EC) No 661/2009 UN Regulation No 98	X	
25D	Gas-discharge light sources for use in approved gas-discharge lamp units of power-driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 99	X	
25E	Motor vehicle headlamps emitting an asymmetrical passing beam or a driving beam or both and equipped with filament lamps and/or LED modules	Regulation (EC) No 661/2009 UN Regulation No 112	X	
25F	Adaptive front- lighting systems (AFS) for motor vehicles	Regulation (EC) No 661/2009 UN Regulation No 123	X	
26A	Power-driven vehicle front fog lamps	Regulation (EC) No 661/2009 UN Regulation No 19	X	
27A	Towing device	Regulation (EC) No 661/2009	A	

		Regulation (EU) No 1005/2010		
28A	Rear fog lamps for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 38	X	X
29A	Reversing lights for power-driven vehicles and their trailers	Regulation (EC) No 661/2009 UN Regulation No 23	X	X
30A	Parking lamps for power-driven vehicles	Regulation (EC) No 661/2009 UN Regulation No 77	X	
31A	Safety-belts, restraint systems, child restraint systems and Isofix child restraint systems	Regulation (EC) No 661/2009 UN Regulation No 16	X	
33A	Location and identification of hand controls, tell-tales and indicators	Regulation (EC) No 661/2009 UN Regulation No 121	X	
34A	Windscreen defrosting and demisting systems	Regulation (EC) No 661/2009 Regulation (EU) No 672/2010	(5)	
35A	Windscreen wiper and washer systems	Regulation (EC) No 661/2009 Regulation (EU) No 1008/2010	( <sup>6</sup> )	
36A	Heating systems	Regulation (EC) No 661/2009 UN Regulation No 122	X	
41A	Emissions (Euro VI) heavy duty vehicles/access to information	Regulation (EC) No 595/2009	X ( <sup>9</sup> )	
42A	Lateral protection of goods vehicles	Regulation (EC) No 661/2009 UN Regulation No 73	X	A

43A	Spray suppression systems	Regulation (EC) No 661/2009 Regulation (EU) No 109/2011	X	A
45	Safety glazing	Directive 92/22/ EEC	X	
45A	Safety glazing materials and their installation on vehicles	Regulation (EC) No 661/2009 UN Regulation No 43	X	
46A	Installation of tyres	Regulation (EC) No 661/2009 Regulation (EU) No 458/2011	X	I
46C	Pneumatic tyres for commercial vehicles and their trailers (Classes C <sub>2</sub> and C <sub>3</sub> )	Regulation (EC) No 661/2009 UN Regulation No 54	X	I
46D	Tyre rolling sound emissions, adhesion on wet surfaces and rolling resistance (Classes C <sub>1</sub> , C <sub>2</sub> and C <sub>3</sub> )	Regulation (EC) No 661/2009 UN Regulation No 117	X	I
47A	Speed limitation of vehicles	Regulation (EC) No 661/2009 UN Regulation No 89	X	
48A	Masses and dimensions	Regulation (EC) No 661/2009 Regulation (EU) No 1230/2012	A	A
49A	Commercial vehicles with regard to their external projections forward of the cab's rear panel	Regulation (EC) No 661/2009 UN Regulation No 61	A	
50A	Mechanical coupling components of combinations of vehicles	Regulation (EC) No 661/2009 UN Regulation No 55	X (10)	X

50B	Close-coupling device (CCD); fitting of an approved type of CCD	Regulation (EC) No 661/2009 UN Regulation No 102	X (10)	X ( <sup>10</sup> )
56A	Vehicles for the carriage of dangerous goods	Regulation (EC) No 661/2009 UN Regulation No 105	X ( <sup>13</sup> )	X ( <sup>13</sup> )
57A	Front underrun protective devices (FUPDs) and their installation; front underrun protection (FUP)	Regulation (EC) No 661/2009 UN Regulation No 93	A	
62	Hydrogen system	Regulation (EC) No 79/2009	X	
63	General Safety	Regulation (EC) No 661/2009	X (15)	X (15)
65	Advanced emergency braking system	Regulation (EC) No 661/2009 Regulation (EU) No 347/2012	N/A ( <sup>16</sup> )	
66	Lane departure warning system	Regulation (EC) No 661/2009 Regulation (EU) No 351/2012	N/A ( <sup>17</sup> )	
67	Specific components for liquefied petroleum gases (LPG) and their installation on motor vehicles	Regulation (EC) No 661/2009 UN Regulation No 67	X	
69	Electric safety	Regulation (EC) No 661/2009 UN Regulation No 100	X	
70	Specific components for CNG and their installation on motor vehicles	Regulation (EC) No 661/2009 UN Regulation No 110	X	

Explanatory Notes on the applicability of the requirements in this Part

X

The requirements set out in the relevant regulatory act are applicable. The series of amendments of the UN Regulations that apply on a compulsory basis are listed in Annex IV to Regulation (EC) No 661/2009. The series of amendments adopted subsequently are accepted as an alternative. Member States may grant extensions to existing type-approvals granted in accordance with the Directives repealed by Regulation (EC) 661/2009 under the conditions laid down in Article 13(14) of that Regulation.

N/A

This regulatory act is not applicable to this vehicle (no requirements).

(1) For vehicles with a reference mass not exceeding 2 610 kg. At the manufacturer's request, Regulation (EC) No 715/2007 may apply to vehicles with a reference mass not exceeding 2 840 kg.

With regard to access to information, for other parts (e.g. living compartment) than the base vehicle, it is sufficient that the manufacturer provides access to vehicle repair and maintenance information in a readily accessible and prompt manner.

- (2) In case of vehicles equipped with a LPG or CNG installation, a vehicle type-approval in accordance with UN Regulation No 67 or UN Regulation No 110 is required.
- (3) The fitting of an ESC system is required by Article 12 and Article 13 of Regulation (EC) No 661/2009. However, in accordance with UN Regulation No 13, the fitting of an ESC system is not required for special purpose vehicles of categories M<sub>2</sub>, M<sub>3</sub>, N<sub>2</sub> and N<sub>3</sub> and for vehicles for exceptional load transport and trailers with areas for standing passengers. N<sub>1</sub> vehicles may be approved in accordance with UN Regulations No 13 or No 13-H.
- (4) The fitting of an ESC system is required by Article 12 and Article 13 of Regulation (EC) No 661/2009. Therefore, the requirements set out in Part A of Annex 9 to UN Regulation No 13-H shall be fulfilled. N<sub>1</sub> vehicles may be approved in accordance with UN Regulation No 13 or UN Regulation No 13-H.
- (4A) If fitted, the protective device shall fulfil the requirements set out in UN Regulation No 18.
- (4B) This Regulation applies to seats not falling within the scope of UN Regulation No 80. For other options, see Article 2 of Regulation (EC) No 595/2009.
- (5) Vehicles of categories other than M<sub>1</sub> do not need to fully comply with Regulation (EU) No 672/2010 but shall be fitted with a windscreen defrosting and demisting device.
- (6) Vehicles of categories other than M<sub>1</sub> do not need to fully comply with Regulation (EU) No 1008/2010 but shall be fitted with a windscreen washing and wiping devices.
- (8) For vehicles with a reference mass exceeding 2 610 kg and that did not benefit from the possibility offered in note (1).
- (9) For vehicles with a reference mass exceeding 2 610 kg that are not type-approved (at the manufacturer's request and provided their reference mass does not exceed 2 840 kg) under Regulation (EC) No 715/2007. For other parts than the base vehicle, it is sufficient that the manufacturer provides access to vehicle repair and maintenance information in a readily accessible and prompt manner.

- (9A) Applies only where such vehicles are fitted with equipment covered by UN Regulation No 64. Tyre pressure monitoring system for M<sub>1</sub> vehicles applies on a compulsory basis in accordance with Article 9(2) of Regulation (EC) No 661/2009.
- ( $^{10}$ ) Applies only to vehicles equipped with coupling(s).
- (11) Applies to vehicles with a technically permissible maximum laden mass not exceeding 2,5 tonnes.
- Only applicable to vehicles where the 'Seating Reference Point ("R" point)' of the lowest seat is not more than 700 mm above the ground level.
- (13) Applies only where the manufacturer applies for type-approval of vehicles intended for the transport of dangerous goods.
- (14) Applies only for vehicles of category  $N_1$ , class I (reference mass  $\leq 1~305~kg$ ).
- (15) At the request of the manufacturer, a type-approval may be granted under this item, as an alternative to obtaining type-approvals under each individual item covered by Regulation (EC) No 661/2009.
- (16) The fitting of an advanced emergency braking system is not required for special purpose vehicles in accordance with Article 1 of Regulation (EU) No 347/2012.
- (17) The fitting of a lane departure warning system is not required for special purpose vehicles in accordance with Article 1 of Regulation (EU) No 351/2012.

The approval authority may only grant exemption(s) if the manufacturer demonstrates that the vehicle cannot meet the requirements due to its special purpose. The exemptions granted are to be described on the vehicle type-approval certificate and the certificate of conformity.

The fitting of ESC is not mandatory. In the case of multi-stage type-approvals, where the modifications made at a particular stage are likely to affect the function of the base vehicle's ESC system, the manufacturer may either disable the system or demonstrate that the vehicle has not been rendered unsafe or unstable. This may be demonstrated, e.g., by performing rapid double lane-change manoeuvres in each direction at 80 km/h with sufficient severity to cause intervention by the ESC system. These interventions are to be well-controlled and should improve the stability of the vehicle. The technical service has the right to request further testing if deemed necessary.

Application limited to doors giving access to the seats designated for normal use where the vehicle is used on a public road and where the distance between the R point of the seat and the average plane of the door surface, measured perpendicular to the longitudinal medium plane of the vehicle, does not exceed 500 mm.

Application limited to that part of the vehicle in front of the rearmost seat designated for normal use where the vehicle is used on a public road and also limited to the head impact zone as defined in the relevant regulatory act.

Application limited to seats designated for normal use where the vehicle is used on a public road. Seats that are not designated for use where the vehicle is used on the public road are to be clearly identified to users either by means of a pictogram or a sign with an appropriate text. The luggage retention requirements of UN Regulation No 17 do not apply.

A

 $A_1$ 

В

C

D

E	Front or	nly.
F	Modific	eation to the routing and length of the refuelling duct and re-
	position	ing of the tank inboard is permissible.
G	In case	of multi-stage type-approval, requirements according to the
	categor	y of the base/incomplete vehicle (e.g. the chassis of which was
		build the special purpose vehicle) may also be used.
Н		eation of exhaust system length after the last silencer not
		ng 2 m is permissible without any further test.
I		re to be type-approved in accordance with the requirements set
		JN Regulation No 54 even if the design speed of the vehicle
		han 80 km/h. The load capacity may be adjusted in relation to
		simum design speed of the trailer in agreement with the tyre
T	manufa	
J		window glazing other than driver's cab glazing (windshield and
		sses), the material may be either of safety glass or rigid plastic
V	glazing.	
K L		nal panic alarm devices are permitted.
L		tion limited to seats designated for normal use where the vehicle on a public road. At least anchorages for lap belts are required in
		seating positions. Seats that are not designated for use where the
		is used on a public road are to be clearly identified to users either
		ns of a pictogram or a sign with an appropriate text. ISOFIX is
		aired on ambulances and hearses.
M		tion limited to seats designated for normal use where the vehicle
		on a public road. At least lap belts are required in all rear seating
		s. Seats that are not designated for use when the vehicle is used
		blic road are to be clearly identified to users either by means of
	a pictog	gram or a sign with an appropriate text. ISOFIX is not required
	on amb	ulances and hearses.
N		d that all mandatory lighting devices are installed and that the
		ric visibility is not affected.
Q		eation of exhaust system length after the last silencer not
		ng 2 m is permissible without any further test. An EU type-
		al granted to the most representative base vehicle remains valid
D		tive of change in the reference weight.
R		d that the registration plates of all Member States can be
C		d and remain visible.
S		ht transmission factor is at least 60 % and the 'A' pillar tion angle is not more than 10 degrees.
T		be performed only with the complete/completed vehicle.
1		nicle can be tested in accordance with Directive 70/157/EEC.
		ning point 5.2.2.1 of Annex I to Directive 70/157/EEC, the
		ng limit values are applicable:
	10110 1111	is mine values are approache.
	(a)	81 dB(A) for vehicles with an engine power of less than
		75 kW;
	(b)	83 dB(A) for vehicles with an engine power of not less than
	· /	75 kW but less than 150 kW;
	( )	
	(c)	84 dB(A) for vehicles with an engine power of not less than

Test to be performed only with the complete/completed vehicle. Vehicles up to 4 axles are to comply with all the requirements laid down

U

in the relevant regulatory acts. Derogations are admitted for vehicles having more than 4 axles, provided that:

- they are justified by the particular construction; and (a)
- (b) all the braking performances, related to parking, service and secondary braking laid down in the relevant regulatory act are fulfilled.
- ABS is not mandatory for vehicles with hydrostatic drive.

Alternatively, Directive 97/68/EC may also apply.

Alternatively, Directive 97/68/EC may also apply to vehicles with hydrostatic drive.

> Modification of exhaust system length is permitted without any further test, provided that the back pressure is similar. If a new test is required, an extra 2dB(A) above the applicable limit is allowed.

> Modification in the exhaust system is permitted without any further test of tailpipe emissions and CO<sub>2</sub>/fuel consumption provided that the emission control devices, including particulate filters (if any), are not affected. If the evaporative control devices are kept as fitted by the manufacturer of the base vehicle, no new evaporative test is required on the modified vehicle.

> An EU type-approval granted to the most representative base vehicle remains valid irrespective of change in the reference mass.

> Modification of the routing, length of the refuelling duct, fuel hoses and fuel vapour pipes is permitted without further test. Re-location of the original fuel tank is permitted provided all requirements are met. However, further testing in accordance with Annex 5 to UN Regulation No 34 are not required.

> The longitudinal plane of the intended wheelchair-travelling position should be parallel to the longitudinal plane of the vehicle.

> Appropriate information is to be made available to the vehicle owner that, in order to withstand the forces transmitted by the tiedown mechanism during the various driving conditions, a wheelchair with a structure meeting the relevant part of ISO 7176-19:2008 is recommended.

> The seats of the vehicle may be adapted without further testing, provided it can be demonstrated to the technical service that their anchorages, mechanisms and head restraints provide the same level of performance.

> The luggage retention requirements set out in UN Regulation No 17 do not apply.

> Compliance with the relevant regulatory act(s) is required for the boarding aids when in the resting position.

> Each wheelchair location is to be provided with anchorages to which a wheelchair tie-down and occupant restraint system (WTORS) is to be fitted, and that complies with the additional provisions for testing the wheelchair tie-down and occupant restraint system set out in Appendix

> Each wheelchair location is to be provided with an occupant restraint belt that complies with the additional provisions for testing the wheelchair tie-down and occupant restraint system of set out in Appendix 3.

 $U_1$ 

 $V_1$ 

 $W_0$ 

 $W_1$ 

 $W_2$ 

 $W_3$ 

 $W_4$ 

 $W_5$ 

 $W_6$ 

When, due to the conversion, anchorage points for the safety belts need to be moved outside the tolerance provided for in paragraph 7.7.1 of UN Regulation No 16.06, the technical service is to check whether the alteration constitutes a worst case or not. If that is the case, the test provided for in paragraph 7.7.1. of UN Regulation No 16.06 is to be performed. Extension to the EU type-approval does not need to be issued. The test may be performed using components that have not undergone the conditioning test prescribed by UN Regulation No 16.06. For the purposes of calculations, the mass of the wheel-chair including the user is assumed to be 160 kg. The mass is to be concentrated at the P point of the surrogate wheelchair in its travelling position declared by the manufacturer.

Any limitation in the passenger capacity resulting from the use of wheelchair(s) is to be recorded in the owner's handbook, on side 2 of the EU type-approval certificate and in the certificate of conformity. Modification of the exhaust system length is permitted without the need for retesting, provided that the exhaust back pressure remains similar. Provided that all mandatory lighting devices are installed.

The requirements on the protrusion of open windows do not apply to the living compartment.

Mobile cranes with more than six axles are considered to be off-road vehicles ( $N_3G$ ) when at least three axles are driven and provided they meet the provisions of point 4.3(b)(ii) and (iii), as well as point 4.3(c) of Part A of Annex I.

 $W_8$ 

 $W_9$ 

Y

Z

 $\mathbf{Z}_1$