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COVER NOTE

From:	Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director
date of receipt:	21 June 2022
To:	General Secretariat of the Council
No. Cion doc.:	C(2022) 3823 final, ANNEXES 1 to 4
Subject:	ANNEXES to the Commission Delegated Regulation amending Annexes I, II, IV and V to Regulation (EU) 2018/858 of the European Parliament and of the Council as regards the technical requirements for vehicles produced in unlimited series, vehicles produced in small series, fully automated vehicles produced in small series and special purpose vehicles, and as regards software update

Delegations will find attached document C(2022) 3823 final, ANNEXES 1 to 4.

Encl.: C(2022) 3823 final, ANNEXES 1 to 4

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Brussels, 20.6.2022 C(2022) 3823 final

ANNEXES 1 to 4

ANNEXES

to the

Commission Delegated Regulation

amending Annexes I, II, IV and V to Regulation (EU) 2018/858 of the European Parliament and of the Council as regards the technical requirements for vehicles produced in unlimited series, vehicles produced in small series, fully automated vehicles produced in small series and special purpose vehicles, and as regards software update

EN EN

ANNEX I

Annex I to Regulation (EU) 2018/858 is amended as follows:

(1) in Part C, point 5, in the table, the following entries are added:

' 5.5.	DF	Link semi- trailer	A semi-trailer with a fifth wheel mounted at the rear such that the link semi-trailer could tow another semi-trailer.
5.6.	DG	Link drawbar trailer	A drawbar trailer with a fifth wheel mounted at the rear such that the link trailer could tow another semi-trailer.

		,

- in Appendix 2, the following row 32 is inserted:
- '32 Drop-side tarpaulin;'.

ANNEX II

Annex II to Regulation (EU) 2018/858 is amended as follows:

(1) Part I is replaced by the following:

'PART I

Regulatory acts for EU type-approval of vehicles produced in unlimited series

EXPLANATORY NOTES

to the table for vehicles produced in unlimited series

X: Applies to the vehicle category, separate technical unit or component in accordance with the regulatory act as indicated

IF: Applies only if the system, separate technical unit or component is fitted to the vehicle in the respective vehicle category

Item	Subject	Regulatory act	M ₁	M ₂	M 3	N ₁	N ₂	N ₃	O ₁	O ₂	О3	O ₄	STU	Compo nent
A	RESTRAINT SYSTEM	MS, CRASH TESTING, FUEI	SYSTI	EM INTE	GRITY A	ND HIGH	VOLTA	GE ELEC	TRICAL	SAFETY				
A1	Interior fittings	Regulation (EU) 2019/2144	X											
A2	Seats and head restraints	Regulation (EU) 2019/2144	X	X	X	X	X	X						
A3	Bus seats	Regulation (EU) 2019/2144		X	X									X
A4	Safety-belt anchorages	Regulation (EU) 2019/2144	X	X	X	X	X	X						
A5	Safety-belts and restraint systems	Regulation (EU) 2019/2144	X	X	X	X	X	X					X	X
A6	Safety-belt reminders	Regulation (EU) 2019/2144	X	X	X	X	X	X						
A7	Partitioning systems	Regulation (EU) 2019/2144											X	
A8	Child restraint anchorages	Regulation (EU) 2019/2144	X	IF X	IF X	IF X	IF X	IF X						
A9	Child restraint systems (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X					X	X
A10	Enhanced child restraint systems (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X					X	X
A11	Front underrun protection	Regulation (EU) 2019/2144					X	X					X	X
A12	Rear underrun protection	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X	X	X
A13	Lateral protection	Regulation (EU) 2019/2144					X	X			X	X		
A14	Fuel tank safety (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X	X	
A15	Liquified petroleum gas safety (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X						X
A16	Compressed and liquified natural gas safety (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X						X
A17	Hydrogen safety (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X						X
A18	Hydrogen system material qualification (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X						X
A19	In-use electric safety	Regulation (EU) 2019/2144	X	X	X	X	X	X						X

Item	Subject	Regulatory act	M ₁	M ₂	M 3	Nı	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	STU	Compo nent
	(IF)													
A20	Frontal off-set impact	Regulation (EU) 2019/2144	X			X								
A21	Frontal full-width impact	Regulation (EU) 2019/2144	X			X								
A22	Protective steering	Regulation (EU) 2019/2144	X			X							X	
A23	Replacement airbag	Regulation (EU) 2019/2144											X	
A24	Cab impact	Regulation (EU) 2019/2144				X	X	X						
A25	Side impact	Regulation (EU) 2019/2144	X			X								
A26	Pole side impact	Regulation (EU) 2019/2144	X			X								
A27	Rear impact	Regulation (EU) 2019/2144	X			X								
A28	112-based eCall invehicles systems	Regulation (EU) 2015/758	X			X							X	X
В		D USERS, VISION AND VIS	IBILITY	7	•	•		•	•	•		•		
B1	Pedestrian leg and head protection	Regulation (EU) 2019/2144	X			X								
B2		Regulation (EU) 2019/2144	X			X								
В3	Frontal protection system	Regulation (EU) 2019/2144	X			X							X	
B4	Advanced emergency braking for pedestrians and cyclists ahead	Regulation (EU) 2019/2144	X			X								
В5	Pedestrian and cyclist collision warning	Regulation (EU) 2019/2144		X	X		X	X					X	
В6	Blind spot information system	Regulation (EU) 2019/2144		X	X		X	X					X	
B7	Reversing detection	Regulation (EU) 2019/2144	X	X	X	X	X	X					X	
B8	Forward vision	Regulation (EU) 2019/2144	X			X								
В9	Heavy-duty vehicles direct vision	Regulation (EU) 2019/2144		X	X		X	X						
B10	Safety glazing	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X		X
B11	Defrost/demist	Regulation (EU) 2019/2144	X	X	X	X	X	X						
B12	Wash/wipe	Regulation (EU) 2019/2144	X	X	X	X	X	X					X	
B13	Indirect vision	Regulation (EU) 2019/2144	X	X	X	X	X	X						X

Item	Subject	Regulatory act	M ₁	M ₂	M ₃	Nı	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	STU	Compo nent
B14	devices Acoustic Vehicle Alerting Systems	Regulation (EU) No 540/2014	X	X	X	X	X	X						
C		BRAKING, TYRES AND ST												
C1	Steering equipment	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X		
C2	Lane departure warning	Regulation (EU) 2019/2144		X	X		X	X						
C3	Emergency lane keeping	Regulation (EU) 2019/2144	X			X								
C4	Braking	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X		
C5	Replacement braking parts	Regulation (EU) 2019/2144											X	
C6	Brake assist	Regulation (EU) 2019/2144	X			X								
C7	Stability control	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X		
C8	Advanced emergency braking on heavy- duty vehicles	Regulation (EU) 2019/2144		X	X		X	X						
С9	Advanced emergency braking on light-duty vehicles	Regulation (EU) 2019/2144	X			X								
C10	Tyre safety and environmental performance	Regulation (EU) 2019/2144												X
C11	Spare wheels and run- flat systems (IF)	Regulation (EU) 2019/2144	X			X								
C12	Retreaded tyres	Regulation (EU) 2019/2144												X
C13	Tyre pressure monitoring for light— duty vehicles	Regulation (EU) 2019/2144	X			X								
C14	Tyre pressure monitoring for heavy- duty vehicles	Regulation (EU) 2019/2144		X	X		X	X			X	X		
C15	Tyre installation	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X		
C16	Replacement wheels	Regulation (EU) 2019/2144												X
D	ON-BOARD INSTRU	MENTS, ELECTRICAL SYS	TEM, V	'EHICLE	LIGHTIN	G AND	PROTECT	TION AG	AINST U	NAUTHO	ORISED U	SE, INCL	UDING	

Item	Subject	Regulatory act	M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	STU	Compo nent
	CYBERATTACKS				<u>,</u>	N		W		<u> </u>	<u>, </u>	u u	<u>, </u>	,
D1	Audible warning	Regulation (EU) 2019/2144	X	X	X	X	X	X						X
D2	Radio interference (electromagnetic compatibility)	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X	X	X
D3	Protection against unauthorised use, immobiliser and alarm systems	Regulation (EU) 2019/2144	X	IF X	IF X	X	IF X	IF X					X	X
D4	Protection of vehicle against cyberattacks	Regulation (EU) 2019/2144	X	X	X	X	X	X					X	X
D5	Speedometer	Regulation (EU) 2019/2144	X	X	X	X	X	X						
D6	Odometer	Regulation (EU) 2019/2144	X	X	X	X	X	X						
D7	Speed limitation devices	Regulation (EU) 2019/2144		X	X		X	X						X
D8	Intelligent speed assistance	Regulation (EU) 2019/2144	X	X	X	X	X	X					X	
D9	Identification of controls, tell-tales and indicators	Regulation (EU) 2019/2144	X	X	X	X	X	X						
D10	Heating systems	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X		X
D11	Light signalling devices	Regulation (EU) 2019/2144												X
D12	Road illumination devices	Regulation (EU) 2019/2144												X
D13	Retro-reflective devices	Regulation (EU) 2019/2144												X
D14	Light sources	Regulation (EU) 2019/2144												X
D15	Installation of light signalling, road illumination and retro-reflective devices	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X		
D16	Emergency stop signal	Regulation (EU) 2019/2144	X	X	X	X	X	X						

Item	Subject	Regulatory act	M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	Оз	O ₄	STU	Compo nent
D17	Headlamp cleaners (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X						X
D18	Gear shift indicator	Regulation (EU) 2019/2144	X											
Е	DRIVER AND SYSTE													
E1	Alcohol interlock installation facilitation		X	X	X	X	X	X						
E2	Driver drowsiness and attention warning	Regulation (EU) 2019/2144	X	X	X	X	X	X						
E3	Advanced driver distraction warning	Regulation (EU) 2019/2144	X	X	X	X	X	X						
E4	Driver availability monitoring system (in case of automated vehicles)	Regulation (EU) 2019/2144	X	X	X	X	X	X						
E5	Event data recorder	Regulation (EU) 2019/2144	X	X	X	X	X	X					X	
E6	Systems to replace driver's control (in case of automated vehicles)	Regulation (EU) 2019/2144	X	X	X	X	X	X						
E7	Systems to provide the vehicle with information on state of vehicle and surrounding area (in case of automated vehicles)	Regulation (EU) 2019/2144	X	X	X	X	X	X						
E8	Platooning (IF)	Regulation (EU) 2019/2144		X	X		X	X						
Е9	Systems to provide safety information to other road users (in case of automated vehicles)	Regulation (EU) 2019/2144	X	X	X	X	X	X						
F	GENERAL VEHICLE	CONSTRUCTION AND FE	ATURE	S										
F1	Registration plate space	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X		

Item	Subject	Regulatory act	M ₁	M ₂	M ₃	Nı	N ₂	N ₃	O ₁	O ₂	О3	O ₄	STU	Compo nent
F2	Reversing motion	Regulation (EU) 2019/2144	X	X	X	X	X	X						
F3	Door latches and hinges	Regulation (EU) 2019/2144	X			X								
F4	Door entry steps, handholds and running boards	Regulation (EU) 2019/2144	X			X	X	X						
F5	External projections	Regulation (EU) 2019/2144	X											
F6	External projections of commercial vehicle cabs	Regulation (EU) 2019/2144				X	X	X						
F7	Statutory plate and vehicle identification number	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X		
F8	Towing devices	Regulation (EU) 2019/2144	X	X	X	X	X	X						
F9	Wheel guards	Regulation (EU) 2019/2144	X											
F10	Spray suppression systems	Regulation (EU) 2019/2144				X	X	X	X	X	X	X	X	
F11	Masses and dimensions	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X		
F12	Mechanical couplings	Regulation (EU) 2019/2144	IF X	IF X	IF X	IF X	IF X	IF X	X	X	X	X	X	X
F13	Vehicles intended for the transportation of dangerous goods (IF)	Regulation (EU) 2019/2144				X	X	X	X	X	X	X		
F14	General bus construction	Regulation (EU) 2019/2144		X	X									
F15	Bus strength of superstructure	Regulation (EU) 2019/2144		X	X									
F16	Flammability in buses	Regulation (EU) 2019/2144			X									X
G	ENVIRONMENTAL I	PERFORMANCE AND EMIS	SSIONS	•	•	•	•			•	•		•	
G1	Sound level	Regulation (EU) No 540/2014	X	X	X	X	X	X					X	
G2	Tailpipe emissions of vehicle in lab	Regulation (EC) No 715/2007	X	X		X	X							X
G2a	Determination of specific CO ₂	Regulation (EC) No 715/2007	X	X		X	X							X

Item	Subject	Regulatory act	\mathbf{M}_1	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	STU	Compo nent
	emissions and fuel consumption of vehicle and device for monitoring on board the vehicle the consumption of fuel and/or electric energy													
G3	Tailpipe emissions of engine in lab	Regulation (EC) No 595/2009	X	X	X	X	X	X					X	
G3a	Determination of specific CO ₂ emissions and fuel consumption of vehicle	Regulation (EC) No 595/2009			X		X	X						
G3b	Determination of specific energy efficiency performance of trailer	Regulation (EC) No 595/2009									X	X		
G4	Tailpipe emissions on the road	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	X					X	
G5	Durability of tailpipe emissions	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	X					X	
G6	Crankcase emissions	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	X					X	
G7	Evaporative emissions	Regulation (EC) No 715/2007	X	X		X	X							
G8	Low-temperature tailpipe emissions in lab	Regulation (EC) No 715/2007	X	X		X	X							
G9	On-board diagnostics	Regulation (EC)	X	X	X	X	X	X					X	

Item	Subject	Regulatory act	M ₁	M ₂	M ₃	Nı	N ₂	N ₃	O ₁	O ₂	O ₃	O ₄	STU	Compo nent
		No 715/2007 Regulation (EC) No 595/2009												
G10	Absence of defeat device	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	X					X	
G11	Auxiliary emissions strategies	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	X					X	
G12	Anti-tampering	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	X						
G13	Recyclability	Directive 2005/64/EC	X			X								
G14	Air-conditioning systems	Directive 2006/40/EC	X			X								X
Н	ACCESS TO VEHICI	E INFORMATION AND SOI	FTWAR	E UPDA	ГЕ			•	•					
H1	Access to vehicle OBD information and vehicle repair and maintenance information	Regulation (EU) 2018/858, Articles 61 to 66 and Annex X.	X	X	X	X	X	X	X	X	X	X		
H2	Software update	Regulation (EU) 2018/858, Annex IV UN Regulation No 156	X	X	X	X	X	X	X	X	X	X		

The item and subject entries listed in the table above shall apply for the purpose of information to be provided in accordance with Commission Implementing Regulation (EU) 2020/683, Annex II, Part III from [OP please insert the date of entry into force of this Regulation] for new wholevehicle type-approvals and from [OP please insert date of 24 months after the date of entry into force of this Regulation] for existing approvals.

Compliance with Regulation (EU) 2019/2144 is mandatory, however, a separate type-approval under that Regulation is not foreseen as it represents the collection of individual items.

Compliance with items from G2 to G12 is mandatory, however, only one type-approval either under Regulation (EC) No 715/2007 or under Regulation (EC) 595/2009 is foreseen depending on the scope.

(2) Appendix 1 to Part I is replaced by the following:

'Appendix 1

EXPLANATORY NOTES

to the tables for vehicles produced in small series

The requirements laid down in table 1 for "Small series scheme I" apply provided that:

- the vehicle type is not based on or derived from a vehicle produced in large series, including those for EU or third markets; and
- the manufacturer's combined number of units, of all its categories M and N vehicle types registered, made available on the market or entered into service annually in the Union does not exceed 1 500.

In all other cases, the requirements laid down in table 1 for "Small series scheme II" and in table 2 apply.

X: Full application of the regulatory act as follows:

- (a) a type-approval certificate shall be required;
- (b) tests and checks shall be conducted by the technical service or the manufacturer under the conditions laid down in Articles 67 to 81;
- (c) the test report shall be drafted in accordance with Annex III;
- (d) Conformity of Production shall be ensured.
- A: Application of the regulatory act as follows:
 - (a) all requirements of the regulatory act shall be fulfilled unless otherwise stated;
 - (b) a type-approval certificate is not required;
 - (c) tests and checks shall be conducted by the technical service or the manufacturer under the conditions laid down in Articles 67 to 81;
 - (d) the test report shall be drafted in accordance with Annex III;
 - (e) Conformity of Production shall be ensured.
- B: Application of the regulatory act as follows:

Same as for explanatory note "A" with the exception that the tests and checks may be performed by the manufacturer themselves, subject to the agreement of the approval authority.

C: Application of the regulatory act as follows:

- (a) the technical requirements from the regulatory act shall be fulfilled, but with different transitional provision;
- (b) a type-approval certificate is not required;
- (c) tests and checks shall be conducted by the technical service or the manufacturer under the conditions laid down in Articles 67 to 81;
- (d) the test report shall be drafted in accordance with Annex III;
- (e) Conformity of Production shall be ensured.

IF: Systems, separate technical units or components shall meet the requirements if fitted to the vehicle

n/a: Not applicable

The specific provisions set out in table 1 and table 2 cannot be mixed or combined.

Table 1: Regulatory acts for EU type-approval of manually driven vehicles produced in small series pursuant to Article 41

			Small series scheme I		Small series scheme II	
Item	Subject	Regulatory act	M_1	N_1	M ₁	N ₁
A	RESTRAINT SY	STEMS, CRASH T	ESTING, FUEL SYSTEM INTEGRI	TY AND HIGH VOLTAGE ELEC	TRICAL SAFETY	•
A1	Interior fittings	Regulation (EU) 2019/2144	В	not in scope	В	not in scope
		2013/21	(a) Interior arrangement			
			(i) Radii and protrusion			
			requirements for switches, pull-			
			knobs and the like, controls and			
			general interior fittings The			
			requirements of paragraphs 5.1 to			
			5.6 of UN Regulation No 21 may			
			be waived at the request of the			
			manufacturer.			
			The requirements of paragraph			
			5.2 of UN Regulation No 21 with			
			the exception of paragraphs			
			5.2.3.1, 5.2.3.2 and 5.2.4 of that			
			Regulation shall apply.			
			(ii) Energy absorption tests on the			
			upper dashboard Energy			
			absorption tests on the upper			
			dashboard shall only be			
			performed when the vehicle is not			
			fitted with at least two front			
			airbags or two static four-point			
			harnesses.			
			(iii) Energy absorption test on the			
			rear part of the seats: not			
			applicable			
			(b) Power-operation of windows,			
			roof-panel systems and partition			
			systems All requirements of			
			paragraph 5.8 of UN Regulation			
			No 21 shall apply.			

			Small series scheme I		Small series scheme II	
	Subject	Regulatory act	\mathbf{M}_1	N_1	M_1	N_1
A2	Seats and head	Regulation (EU)	В	В	В	В
	restraints	2019/2144				
			(a) General requirements			
			(i) Specifications Requirements of			
			paragraph 5.2 of UN Regulation			
			No 17 shall apply with the			
			exception of paragraph 5.2.3 of			
			that Regulation.			
			(ii) Strength tests for seat backrest			
			and head restraints The			
			requirements of paragraph 6.2 of			
			UN Regulation No 17 shall apply.			
			(iii) Unlocking and adjustment			
			tests The test shall be performed			
			in accordance with the			
			requirements of Annex 7 to UN			
			Regulation No 17.			
			(b) Head restraints			
			(i) Specifications Requirements of			
			paragraphs 5.4, 5.5, 5.6, 5.10,			
			5.11 and 5.12 of UN Regulation			
			No 17 shall apply with the			
			exception of paragraph 5.5.2 of			
			that Regulation.			
			(ii) Strength tests on head			
			restraints The test prescribed in			
			paragraph 6.4 of UN Regulation			
			No 17 shall be performed. (c) Special requirements			
			regarding the protection of			
			occupants from displaced luggage			
			The requirements of Annex 9 to			
			UN Regulation No 17 may be			
			waived at the request of the			
			manufacturer.			
A3	Bus seats	Regulation (EU)	not in scope	not in coope	not in scope	not in soone
AJ	Dus scars	regulation (EU)	mor in scope	not in scope	not in scope	not in scope

			Small series scheme I		Small series scheme II	
Item	Subject	Regulatory act	M_1	N_1	\mathbf{M}_1	N_1
		2019/2144				
A4	Safety-belt anchorages	Regulation (EU) 2019/2144	В	В	В	В
A5	Safety-belts and restraint systems	Regulation (EU) 2019/2144	(a) Components X (b) Installation requirements B	(a) Components X(b) Installation requirements B	(a) Components X(b) Installation requirements B	(a) Components X(b) Installation requirements B
A6	Safety-belt reminders	Regulation (EU) 2019/2144	В	В	В	В
A7	Partitioning systems	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment
A8	Child restraint anchorages	Regulation (EU) 2019/2144	В	IF B	В	IF B
A9	Child restraint systems (IF)	Regulation (EU) 2019/2144	X	X	X	X
A10	Enhanced child restraint systems (IF)	Regulation (EU) 2019/2144	X	X	X	X
A11	Front underrun protection	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
A12	Rear underrun protection	Regulation (EU) 2019/2144	В	В	В	В
A13	Lateral protection	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
A14	Fuel tank safety (IF)	Regulation (EU) 2019/2144	B (a) Liquid fuel tanks	B (a) Liquid fuel tanks	B (a) Liquid fuel tanks	B (a) Liquid fuel tanks
			(b) Installation in vehicle	(b) Installation in vehicle	(b) Installation in vehicle	(b) Installation in vehicle
A15	Liquified petroleum gas safety (IF)	Regulation (EU) 2019/2144	(a) Components X (b) Installation B	(a) Components X (b) Installation B	(a) Components X (b) Installation B	(a) Components X (b) Installation B
A16	Compressed and liquified natural gas safety (IF)	Regulation (EU) 2019/2144	(a) Components X (b) Installation B	(a) Components X (b) Installation B	(a) Components X (b) Installation B	(a) Components X (b) Installation B
A17	Hydrogen safety (IF)	Regulation (EU) 2019/2144	X	X	X	X
A18	Hydrogen system	Regulation (EU)	(a) Components X	(a) Components X	(a) Components X	(a) Components X

	Small series scheme I		Small series scheme II			
Item	Subject	Regulatory act	\mathbf{M}_1	N_1	M_1	N ₁
	material qualification (IF)	2019/2144	(b) Installation B	(b) Installation B	(b) Installation B	(b) Installation B
A19	In-use electric safety (IF)	Regulation (EU) 2019/2144	В	В	В	В
A20		Regulation (EU) 2019/2144	Shall apply to vehicles fitted with front airbags. May comply with A21 Frontal full-width impact instead, at the choice of the manufacturer. Vehicles not fitted with airbags shall comply with A22 Protective steering (in full)	Shall apply to vehicles fitted with front airbags. May comply with A21 Frontal full-width impact instead, at the choice of the manufacturer. Vehicles not fitted with airbags shall comply with A22 Protective steering (in full) Completed vehicles are deemed to comply with the frontal off-set impact requirements provided that compliance has been demonstrated for at least the van or chassis-cab configuration, with appropriate powertrain, as part of a previous-stage type-approval, irrespective of the mass in running order increase and the relevant restraint systems have not been modified to the extent that it would result in a decrease of the level of safety, as agreed by		Completed vehicles are deemed to comply with the frontal off-set impact requirements provided that compliance has been demonstrated for at least the van or chassis-cab configuration, with appropriate powertrain, as part of a previous-stage type-approval, irrespective of the mass in running order increase and the relevant restraint systems have not been modified to the extent that it would result in a decrease of the level of safety, as agreed by the technical service.
A21	Frontal full-width impact	Regulation (EU) 2019/2144	B On violantoni hoois	B On voluntary basis	В	В
			On voluntary basis	On voluntary basis Completed vehicles are deemed to comply with the frontal full-		Completed vehicles are deemed to comply with the frontal full-width impact requirements provided that compliance has

			Small series scheme I		Small series scheme II	
Item	Subject	Regulatory act	M_1	N_1	M ₁	N ₁
				width impact requirements		been demonstrated for at least the
				provided that compliance has		van or chassis-cab configuration,
				been demonstrated for at least the		with appropriate powertrain, as
				van or chassis-cab configuration,		part of a previous-stage type-
				with appropriate powertrain, as		approval, irrespective of the mass
				part of a previous-stage type-		in running order increase and the
				approval, irrespective of the mass		relevant restraint systems have
				in running order increase and the		not been modified to the extent
				relevant restraint systems have		that it would result in a decrease
				not been modified to the extent		of the level of safety, as agreed by
				that it would result in a decrease		the technical service.
				of the level of safety, as agreed by		
				the technical service.		
A22	Protective steering	Regulation (EU) 2019/2144	В	В	В	В
	steering	2019/2144	Shall apply to vehicles that do not	Shall apply to vehicles that do not		
			comply with A20 Frontal off-set	comply with A20 Frontal off-set		
			impact or A21 Frontal full-width	impact or A21 Frontal full-width		
			impact of A21 Profital full-width	impact of A21 Frontal full-width		
A23	Replacement	Regulation (EU)	equipment	equipment	equipment	equipment
AZS	airbag	2019/2144	equipment	equipment	ечиринен	equipment
A24	Cab impact	Regulation (EU) 2019/2144	not in scope	В	not in scope	В
				Test A is required for vehicles		Test A is deemed to be fulfilled
				with a maximum permissible		by means of A20 Frontal off-set
				mass of 1 500 kg or more if		impact, A21 Frontal full-width
				compliance with A20 Frontal off-		impact or A22 Protective steering.
				set impact, A21 Frontal full-width		
				impact or A22 Protective steering		Test C is required only for
				was not demonstrated.		vehicles which have a separate
				Tot Circumsia 1 1 C		cab.
				Test C is required only for		Commission of subsider one decreed
				vehicles which have a separate		Completed vehicles are deemed
				cab.		to comply with cab impact
				Commisted reshiples and decree 4		requirements provided that
				Completed vehicles are deemed		compliance has been

			Small series scheme I		Small series scheme II	
Item	Subject	Regulatory act	M ₁	N ₁	M_1	N ₁
				to comply with cab impact requirements provided that compliance has been demonstrated for at least the van or chassis-cab configuration, with appropriate powertrain, as part of a previous-stage type-approval, irrespective of the mass in running order increase.		demonstrated for at least the van or chassis-cab configuration, with appropriate powertrain, as part of a previous-stage type-approval, irrespective of the mass in running order increase.
A25	Side impact	Regulation (EU) 2019/2144	technical service with suitable information concerning a possible impact of the head of the dummy	Head form test The manufacturer shall supply the technical service with suitable information concerning a possible impact of the head of the dummy against the structure of the vehicle or the side glazing, if made of laminated glazing. When such impact is proven likely to happen, then the partial test using the head form test described in paragraph 3.1. of Annex 8 to UN Regulation No 95 shall be conducted and the criterion specified in paragraph 5.2.1.1. of UN Regulation No 95 shall be met. In agreement with the technical service, the test procedure described in Annex 4 to UN Regulation No 21 may be used as an alternative to the test of UN Regulation No 95. Alternatively, a full-scale test in		Completed vehicles are deemed to comply with side impact requirements provided that compliance has been demonstrated for at least the van or chassis-cab configuration, with appropriate powertrain, as part of a previous-stage type-approval, irrespective of the mass in running order increase and the relevant restraint systems have not been modified to the extent that it would result in a decrease of the level of safety, as agreed by the technical service.

		Small series scheme I		Small series scheme II		
Item	Subject	Regulatory act	M_1	N_1	M_1	N_1
			accordance with UN Regulation No 95 may be carried out.	accordance with UN Regulation No 95 may be carried out. Completed vehicles are deemed to comply with side impact requirements provided that compliance has been demonstrated for at least the van or chassis-cab configuration, with appropriate powertrain, as part of a previous-stage type-approval, irrespective of the mass in running order increase and the relevant restraint systems have not been modified to the extent that it would result in a decrease of the level of safety, as agreed by the technical service.		
A26	Pole side impact	Regulation (EU) 2019/2144	n/a	n/a	В	Completed vehicles are deemed to comply with the pole side impact requirements provided that compliance has been demonstrated for at least the van or chassis-cab configuration, with appropriate powertrain, as part of a previous-stage type-approval, irrespective of the mass in running order increase and the relevant restraint systems have not been modified to the extent that it would result in a decrease of the level of safety, as agreed by the technical service.
A27	Rear impact	Regulation (EU)	n/a	n/a	В	В

			Small series scheme I		Smun series scheme 11	
Item	Subject	Regulatory act	M_1	N_1	M_1	N_1
		2019/2144				Completed vehicles are deemed to comply with rear impact requirements provided that compliance has been demonstrated for at least the van or chassis-cab configuration, with appropriate powertrain, as part of a previous-stage type-approval, irrespective of the mass in running order increase.
A28	112-based eCall in-vehicles systems	Regulation (EU) 2015/758	n/a	n/a	n/a	n/a
В	VULNERABLE F	ROAD USERS, VISIO	ON AND VISIBILITY			
B1	Pedestrian leg and head protection	Regulation (EU) 2019/2144	Date for refusal to grant EU type- approval: 7 January 2026 Date for the prohibition of the registration of vehicles: 7 July 2034	Date for refusal to grant EU type- approval: 7 January 2026 Date for the prohibition of the registration of vehicles: 7 July 2034	Date for refusal to grant EU type- approval: 7 January 2026 Date for the prohibition of the registration of vehicles: 7 July 2034	C Date for refusal to grant EU type- approval: 7 January 2026 Date for the prohibition of the registration of vehicles: 7 July 2034
B2	Enlarged head impact zone	Regulation (EU) 2019/2144	C Date for refusal to grant EU type- approval: 7 January 2026 Date for the prohibition of the registration of vehicles: 7 July 2034	C Date for refusal to grant EU type- approval: 7 January 2026 Date for the prohibition of the registration of vehicles: 7 July 2034	C Date for refusal to grant EU type- approval: 7 January 2026 Date for the prohibition of the registration of vehicles: 7 July 2034	C Date for refusal to grant EU type- approval: 7 January 2026 Date for the prohibition of the registration of vehicles: 7 July 2034
В3	Frontal protection system	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment
B4	Advanced emergency braking for	Regulation (EU) 2019/2144		IF B Date for refusal to grant EU	B Not required for vehicles without	B Not required for vehicles without

Small series scheme I

Small series scheme II

			Small series scheme I		Small series scheme II	
Item	Subject	Regulatory act	M ₁	N ₁	M_1	N ₁
Tem .	pedestrians and cyclists ahead	Regulatory act	type- approval: 7 July 2026 Date for the prohibition of the registration of vehicles: 7 July 2028	type- approval: 7 July 2026 Date for the prohibition of the registration of vehicles: 7 July 2028	a windscreen, with a foldable windscreen or with a windscreen where the maximum vertical distance between the top edge and lowest edge of the transparent surface does not exceed 300 mm (assessed excluding areas with less than 70% transparency shade bands, dot-printed areas, text,	a windscreen, with a foldable windscreen or with a windscreen where the maximum vertical distance between the top edge and lowest edge of the transparent surface does not exceed 300 mm (assessed excluding areas with less than 70% transparency shade bands, dot-printed areas, text,
					regulatory sight lines) and where the R-point of the driver seat is not more than 450 mm from the ground level.	graphics and transparent slots for regulatory sight lines) and where the R-point of the driver seat is not more than 450 mm from the ground level. Date for refusal to grant EU type- approval: 7 July 2026 Date for the prohibition of the registration of vehicles: 7 July 2028
В5	Pedestrian and cyclist collision warning	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
В6	Blind spot information system	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
В7	Reversing detection	Regulation (EU) 2019/2144	n/a	n/a	В	В
В8	Forward vision	Regulation (EU) 2019/2144	В	B Date for refusal to grant EU type- approval: 7 July 2026 Date for the prohibition of the	В	B Date for refusal to grant EU type- approval: 7 July 2026 Date for the prohibition of the

			Small series scheme I		Small series scheme II	
Item	Subject	Regulatory act	M_1	N_1	M_1	N_1
				registration of vehicles: 7 July 2028		registration of vehicles: 7 July 2028
В9		Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
B10	Safety glazing	Regulation (EU) 2019/2144	(a) Components X(b) Installation B	(a) Components X(b) Installation B	(a) Components X (b) Installation B	(a) Components X(b) Installation B
B11	Defrost/demist	Regulation (EU) 2019/2144	B Vehicles shall be fitted with an adequate windscreen defrosting and demisting device	B Vehicles shall be fitted with an adequate windscreen defrosting and demisting device	B Vehicles shall be fitted with an adequate windscreen defrosting and demisting device	B Vehicles shall be fitted with an adequate windscreen defrosting and demisting device
B12	Wash/wipe	Regulation (EU) 2019/2144	B Vehicles shall be fitted with adequate windscreen washing and wiping devices	B Vehicles shall be fitted with	B Vehicles shall be fitted with	B Vehicles shall be fitted with adequate windscreen washing and wiping devices
B13	Indirect vision devices		(a) Components X (b) Installation on vehicle B	(a) Components X (b) Installation on vehicle B	(a) Components X (b) Installation on vehicle B	(a) Components X (b) Installation on vehicle B
B14	Acoustic Vehicle Alerting Systems	Regulation (EU) No 540/2014	A	A	A	A
С			RES AND STEERING			
C1	Steering	Regulation (EU) 2019/2144	В	В	В	В
C2		Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
C3		Regulation (EU) 2019/2144	IF B	IF B	B Not required for vehicles without a windscreen, with a foldable windscreen or with a windscreen where the maximum vertical distance between the top edge and lowest edge of the transparent surface does not exceed 300 mm	B Not required for vehicles without a windscreen, with a foldable windscreen or with a windscreen where the maximum vertical distance between the top edge and lowest edge of the transparent surface does not exceed 300 mm

			Small series scheme I		Small series scheme II		
Item	Subject	Regulatory act	\mathbf{M}_1	N ₁	\mathbf{M}_1	N_1	
					(assessed excluding areas with less than 70% transparency shade bands, dot-printed areas, text,	(assessed excluding areas with less than 70% transparency shade bands, dot-printed areas, text,	
					graphics and transparent slots for regulatory sight lines) and where	graphics and transparent slots for regulatory sight lines) and where	
					the R-point of the driver seat is	the R-point of the driver seat is	
					not more than 450 mm from the ground level.	not more than 450 mm from the ground level.	
C4	Braking	Regulation (EU) 2019/2144	A	A	A	A	
C5	Replacement braking parts	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	
C6	Brake assist	Regulation (EU) 2019/2144	IF B	IF B	В	В	
C7	Stability control	Regulation (EU) 2019/2144	IF B	IF B	В	В	
C8	Advanced emergency braking on heavy-duty vehicles	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope	
С9	Advanced emergency braking on light- duty vehicles	Regulation (EU) 2019/2144	IF B	IF B	Not required for vehicles without a windscreen, with a foldable windscreen or with a windscreen where the maximum vertical distance between the top edge and lowest edge of the transparent surface does not exceed 300 mm (assessed excluding areas with less than 70% transparency shade bands, dot-printed areas, text, graphics and transparent slots for regulatory sight lines) and where the R-point of the driver seat is	Not required for vehicles without a windscreen, with a foldable windscreen or with a windscreen where the maximum vertical distance between the top edge and lowest edge of the transparent surface does not exceed 300 mm (assessed excluding areas with less than 70% transparency shade bands, dot-printed areas, text, graphics and transparent slots for regulatory sight lines) and where the R-point of the driver seat is	

			Small series scheme I		Small series scheme II	
Item	Subject	Regulatory act	\mathbf{M}_1	N_1	\mathbf{M}_1	N_1
					not more than 450 mm from the ground level.	not more than 450 mm from the ground level.
C10	environmental performance	Regulation (EU) 2019/2144	X	X	X	X
C11	Spare wheels and run-flat systems (IF)	Regulation (EU) 2019/2144	X	X	X	X
C12	Retreaded tyres	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment
C13		Regulation (EU) 2019/2144	n/a	n/a	В	В
C14	Tyre pressure monitoring for heavy-duty vehicles	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
C15		Regulation (EU) 2019/2144	В	В	В	В
C16		Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment
D	ON-BOARD INS	TRUMENTS, ELEC	TRICAL SYSTEM, VEHICLE LIC	GHTING AND PROTECTION AG	AINST UNAUTHORISED USE, IN	NCLUDING CYBERATTACKS
D1	Audible warning	Regulation (EU) 2019/2144	(a) Components X (b) Installation on vehicle B	(a) Components X (b) Installation on vehicle B	(a) Components X (b) Installation on vehicle B	(a) Components X (b) Installation on vehicle B
D2	Radio interference (electromagnetic compatibility)	Regulation (EU) 2019/2144	В	В	В	В
D3	Protection against unauthorised use, immobiliser and alarm systems	Regulation (EU) 2019/2144	A The provisions of paragraph 8.3.1.1.1. of UN Regulation No 116 may be applied instead of	A The provisions of paragraph 8.3.1.1.1. of UN Regulation No 116 may be applied instead of	A The provisions of paragraph 8.3.1.1.1. of UN Regulation No 116 may be applied instead of	A The provisions of paragraph 8.3.1.1.1 of UN Regulation No 116 may be applied instead of
			paragraph 8.3.1.1.2. of that	paragraph 8.3.1.1.2. of that	paragraph 8.3.1.1.2. of that	paragraph 8.3.1.1.2. of that

			Small series scheme I		Small series scheme II	
Item	Subject	Regulatory act	\mathbf{M}_1	N_1	M_1	N_1
			Regulation regardless of the type	Regulation regardless of the type	Regulation regardless of the type	Regulation regardless of the type
			of powertrain.	of powertrain.	of powertrain.	of powertrain.
			XX 4 G	T. A. G.	111.0	L. C.
			VAS:	VAS:	VAS:	VAS:
			(a) Components X	(a) Components X	(a) Components X	(a) Components X
			(b) Installation B	(b) Installation B	(b) Installation B	(b) Installation B
D4	Protection of vehicle against	Regulation (EU) 2019/2144	В	В	В	В
	cyberattacks		Only for vehicles fitted with lane	Only for vehicles fitted with lane		
			keeping system, adaptive cruise	keeping system, adaptive cruise		
			control or other likewise systems	control or other likewise systems		
D5	Speedometer	Regulation (EU) 2019/2144	В	В	В	В
D6	Odometer	Regulation (EU) 2019/2144	В	В	В	В
D7	Speed limitation devices	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
D8	Intelligent speed assistance	Regulation (EU) 2019/2144	n/a	n/a	В	В
					Not required for vehicles without	Not required for vehicles without
					a windscreen, with a foldable	a windscreen, with a foldable
					windscreen or with a windscreen	windscreen or with a windscreen
					where the maximum vertical	where the maximum vertical
					distance between the top edge and	distance between the top edge and
					lowest edge of the transparent	lowest edge of the transparent
					surface does not exceed 300 mm	surface does not exceed 300 mm
					(assessed excluding areas with	(assessed excluding areas with
					less than 70% transparency shade	less than 70% transparency shade
					bands, dot-printed areas, text,	bands, dot-printed areas, text,
					graphics and transparent slots for	graphics and transparent slots for
					regulatory sight lines) and where	regulatory sight lines) and where the R-point of the driver seat is
					the R-point of the driver seat is not more than 450 mm from the	not more than 450 mm from the
						ground level.
D9	Identification of	Population (ELI)	Α	A	ground level. A	i
DУ	ruentification of	regulation (EU)	A	A	Α	A

			Small series scheme I		Small series scheme II	
Item	Subject	Regulatory act	M_1	N_1	M_1	N_1
	controls, tell-	2019/2144				
	tales and					
	indicators					
D10	Heating systems	Regulation (EU) 2019/2144	В	В	В	В
D11	Light signalling devices	Regulation (EU) 2019/2144	X	X	X	X
D12	Road illumination devices	Regulation (EU) 2019/2144	X	X	X	X
D13	Retro-reflective devices	Regulation (EU) 2019/2144	X	X	X	X
D14	Light sources	Regulation (EU) 2019/2144	X	X	X	X
D15	Installation of light signalling,	Regulation (EU) 2019/2144	В	В	В	В
	road illumination and retro- reflective devices		Daytime Running Lamps (DRL) shall be fitted to a new type of vehicle	Daytime Running Lamps (DRL) shall be fitted to a new type of vehicle	Daytime Running Lamps (DRL) shall be fitted to a new type of vehicle	Daytime Running Lamps (DRL) shall be fitted to a new type of vehicle
D16	Emergency stop	Regulation (EU)	B	В	В	В
	signal	2019/2144	Only for vehicles fitted with electronically controlled anti-lock braking system	Only for vehicles fitted with electronically controlled anti-lock braking system		
D17	Headlamp cleaners (IF)	Regulation (EU) 2019/2144	IF B	IF B	IF B	IF B
D18	Gear shift indicator	Regulation (EU) 2019/2144	n/a	not in scope	n/a	not in scope
Е	DRIVER AND ST	 YSTEM BEHAVIOU	JR			
E1	Alcohol interlock installation facilitation		A	A	A	A
E2	Driver drowsiness and	Regulation (EU) 2019/2144	n/a	n/a	В	В

			Small series scheme I		Small series scheme II			
Item	Subject	Regulatory act	\mathbf{M}_1	N_1	M_1	N_1		
	attention warning							
E3	Advanced driver distraction warning	Regulation (EU) 2019/2144	No requirement yet	No requirement yet	No requirement yet	No requirement yet		
E4	Driver availability monitoring system (in case of automated vehicles)	Regulation (EU) 2019/2144	IF B	IF B	IF B	IF B		
E5	Event data recorder	Regulation (EU) 2019/2144	n/a	n/a	В	В		
E6	Systems to replace driver's control (in case of automated vehicles)	Regulation (EU) 2019/2144	IF B	No requirement yet	IF B	No requirement yet		
E7	Systems to provide the vehicle with information on state of vehicle and surrounding area (in case of automated vehicles)	Regulation (EU) 2019/2144	IF B	No requirement yet	IF B	No requirement yet		
E8	Platooning (IF)	Regulation (EU) 2019/2144	No requirement yet	No requirement yet	No requirement yet	No requirement yet		
E9	Systems to provide safety information to other road users (in case of automated vehicles)	Regulation (EU) 2019/2144	No requirement yet	No requirement yet	No requirement yet	No requirement yet		

			Small series scheme I		Small series scheme II	
Item	Subject	8	M_1	N_1	M_1	N_1
F	GENERAL VEHI	CLE CONSTRUCTION	ON AND FEATURES			
F1	Registration plate space	Regulation (EU) 2019/2144	В	В	В	В
F2	Reversing motion	Regulation (EU) 2019/2144	В	В	В	В
			Statement of compliance	Statement of compliance	Statement of compliance	Statement of compliance
F3	Door latches and hinges	Regulation (EU) 2019/2144	В	В	В	В
			(a) General requirements	(a) General requirements		
			(Paragraph 5 of UN Regulation	(Paragraph 5 of UN Regulation		
			No 11) All the requirements shall	No 11) All the requirements shall		
			apply.	apply.		
			(b) Performance requirements	(b) Performance requirements		
			(Paragraph 6 of UN Regulation	(Paragraph 6 of UN Regulation		
			No 11) Only the requirements of	No 11) Only the requirements of		
			paragraph 6.1.5.4 and paragraph	paragraph 6.1.5.4 and paragraph		
			6.3 of UN Regulation No 11 shall	6.3 of UN Regulation No 11 shall		
F4	Door outro stone		apply.	apply.	В	В
Г4	Door entry steps, handholds and	Regulation (EU) 2019/2144	В	В	В	В
	running boards	2019/2144				
F5	External	Regulation (EU)	В	not in scope	В	not in scope
1.3	projections	2019/2144	В	not in scope	В	not in scope
	r		(a) General specifications The		(a) General specifications The	
			requirements of paragraph 5 of		requirements of paragraph 5 of	
			UN Regulation No 26 shall apply.		UN Regulation No 26 shall apply.	
			(b) Particular specifications The		(b) Particular specifications The	
			requirements of paragraph 6 of		requirements of paragraph 6 of	
			UN Regulation No 26 shall apply.		UN Regulation No 26 shall apply.	
F6	External		not in scope	В	not in scope	В
	projections of	2019/2144				
	commercial			(a) General specifications The		(a) General specifications The
	vehicle cabs			requirements of paragraph 5 of		requirements of paragraph 5 of
				UN Regulation No 61 shall apply		UN Regulation No 61 shall apply
				(b) Particular specifications The		(b) Particular specifications The
				requirements of paragraph 6 of		requirements of paragraph 6 of

			Small series scheme I		Small series scheme II	
Item	Subject	Regulatory act	M ₁	N ₁	M ₁	N ₁
				UN Regulation No 61 shall apply.		UN Regulation No 61 shall apply.
F7	Statutory plate and vehicle identification number	Regulation (EU) 2019/2144	В	В	В	В
F8	Towing devices	Regulation (EU) 2019/2144	В	В	В	В
F9	Wheel guards	Regulation (EU) 2019/2144	В	not in scope	В	not in scope
F10	Spray suppression systems	Regulation (EU) 2019/2144	not in scope	В	not in scope	В
F11	Masses and dimensions	Regulation (EU) 2019/2144	B The hill start ability test of Regulation (EU) 2021/535, Annex XIII, Part 2, Section B, Point 5. may be waived at the request of the manufacturer.	B The hill start ability test of Regulation (EU) 2021/535, Annex XIII, Part 2, Section B, Point 5. may be waived at the request of the manufacturer.	В	В
F12	Mechanical couplings	Regulation (EU) 2019/2144	IF (a) Components X (b) Installation B	IF (a) Components X (b) Installation B	IF (a) Components X (b) Installation B	IF (a) Components X (b) Installation B
F13	Vehicles intended for the transportation of dangerous goods (IF)	Regulation (EU) 2019/2144	not in scope	A	not in scope	A
F14	General bus construction	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
F15	Bus strength of superstructure	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
F16	Flammability in buses	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope

			Small series scheme I	Small series scheme II		
Item			M_1	N_1	M_1	N_1
G1	Sound level	Regulation (EU) No 540/2014		A	A	A
G2	Tailpipe emissions of vehicle in lab	Regulation (EC) No 715/2007	Where the vehicle manufacturer uses an engine from another manufacturer, bench test data from the engine manufacturer are accepted provided that the engine management system is identical (i.e. having at least the same electronic control unit (ECU)).	Where the vehicle manufacturer uses an engine from another manufacturer, bench test data from the engine manufacturer are accepted provided that the engine management system is identical (i.e. having at least the same electronic control unit (ECU)).	A	A
G20	Determination of	December (EC) No.	the power loss in the transmission.	The power output test may be performed on a chassis dynamometer, taking into account the power loss in the transmission.		
G2a	specific CO ₂ emissions and fuel consumption of vehicle and device for monitoring on board the vehicle the consumption of fuel and/or electric energy	Regulation (EC) No 715/2007		A	A	A
G3	Tailpipe emissions of engine in lab	Regulation (EC) No 595/2009	Where the vehicle manufacturer uses an engine from another manufacturer, bench test data from the engine manufacturer are accepted provided that the engine management system is identical	Where the vehicle manufacturer uses an engine from another manufacturer, bench test data from the engine manufacturer are accepted provided that the engine management system is identical	A	A

	Small series scheme I		Small series scheme II			
Item	Subject	Regulatory act	M_1	N_1	M_1	N_1
			(i.e. having at least the same electronic control unit (ECU)). The power output test may be performed on a chassis dynamometer, taking into account the power loss in the transmission.	(i.e. having at least the same electronic control unit (ECU)). The power output test may be performed on a chassis dynamometer, taking into account the power loss in the transmission.		
G3a	specific CO ₂ emissions and fuel consumption of vehicle	Regulation (EC) No 595/2009		A	A	A
G3b		Regulation (EC) No 595/2009	not in scope	not in scope	not in scope	not in scope
G4	emissions on the road	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009		A	A	A
G5	tailpipe emissions	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009		A	A	A
G6	emissions	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	A	A	A	A
G7		Regulation (EC) No 715/2007	A	A	A	A
G8	tailpipe emissions in lab	Regulation (EC) No 715/2007		A	A	A
G9		Regulation (EC) No 715/2007	The vehicle shall be fitted with an OBD system that shall be	The vehicle shall be fitted with an OBD system that shall be	A	A

			Small series scheme I	mall series scheme I		Small series scheme II	
Item	Subject	Regulatory act	M_1	N_1	M_1	N_1	
			designed, constructed and	designed, constructed and			
		595/2009	installed as to enable it to identify	installed as to enable it to identify			
			types of deterioration or	types of deterioration or			
			malfunction over the entire life of				
			the vehicle and record at least the	the vehicle and record at least the			
			malfunction of the engine	malfunction of the engine			
			management system.	management system.			
			The OBD-interface shall be able	The OBD-interface shall be able			
			to communicate with commonly	to communicate with commonly			
			available diagnostic tools.	available diagnostic tools.			
G10	Absence of	Regulation (EC) No	A	A	A	A	
	defeat device	715/2007					
		Regulation (EC) No					
G11		595/2009					
G11	Auxiliary	Regulation (EC) No	A	A	A	A	
	emissions	715/2007					
	strategies	Regulation (EC) No					
G12	A4: 4	595/2009 Regulation (EC) No	<u> </u>	<u> </u>	 	<u> </u>	
G12	Anti-tampering	715/2007	A	A	A	A	
		Regulation (EC) No					
		595/2009					
G13	Recyclability	Directive	n/a	n/a	n/a	n/a	
013	Recyclability	2005/64/EC	II/a	II/a	II/ a	II/a	
		2003/04/EC	However Anney V on prohibition	However Anney V on prohibition	However Anney V on prohibition	However, Annex V on prohibition	
			of reuse of the specified	of reuse of the specified	of reuse of the specified	of reuse of the specified	
			component parts shall apply.	component parts shall apply.	component parts shall apply.	component parts shall apply.	
G14	Air-conditioning	Directive	A	A	A	A	
GIT	systems	2006/40/EC					
Н	1 7		ON AND SOFTWARE UPDATE	<u> </u>			
H1	Access to vehicle		X	X	X	X	
111		2018/858, Articles				-	
	and vehicle	61 to 66 and Annex					
	repair and	X					
	maintenance						
<u> </u>	mannenance	1					

			Small series scheme I		Small series scheme II	
Item	Subject	Regulatory act	M_1	N_1	M_1	N_1
	information					
H2	_	Regulation (EU) 2018/858 UN Regulation No 156	X	X	X	X

Table 2: Regulatory acts for EU type-approval of fully automated vehicles (as defined in Article 3(22) of Regulation (EU) 2019/2144) produced in small series pursuant to Article 41

Item	Subject	Regulatory act(the scope of the regulatory act remains unchanged)	Fully automated vehicles of categories N ₁ , N ₂ and N ₃ without driver seat and without occupants		Dual mode vehicles: vehicles with a driver seat designed and constructed to be driven by the driver in the "manual driving mode" and to be driven by the automated driving system (ADS) without any driver supervision in the "fully automated driving mode"	Specific provisions to be applied if letter A is used (i.e. the approval is not possible under the regulatory act because it does not yet include specific requirements for fully automated vehicles) No provision shall apply if the vehicle category is not in the scope of the base regulatory act.
A	RESTRAINT SYST	TEMS, CRASH TEST	TING, FUEL SYSTEM IN	TEGRITY AND HIGH	VOLTAGE ELECTRICAL SA	AFETY
A1	Interior fittings	Regulation (EU) 2019/2144	not in scope	A	X for manual driving mode. A for fully automated driving mode	All windows, roof-panels and partitions for use by occupants shall be equipped with an auto-reversing device in order to make a driver-controlled switch redundant. For bidirectional vehicles (i.e. vehicles with no distinguishable rear/front and that can be driven in both directions), requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
A2	Seats and head restraints	Regulation (EU) 2019/2144	n/a	X A (for bidirectional vehicles)	X	For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the typeapproval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
A3	Bus seats	Regulation (EU) 2019/2144	n/a	X A (for bidirectional vehicles)	X	For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-

						approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
A4	Safety-belt anchorages	Regulation (EU) 2019/2144	n/a	A	X	For vehicle with no driver seat, any seat in the first seat row shall be considered to be a front passenger seat. Paragraphs 5.1.6.2.1. and 5.1.6.2.2. of UN Regulation No 14 are not applicable.
A5	Safety-belts and restraint systems	Regulation (EU) 2019/2144	n/a	A	X	For vehicles without driver seat, any seat in the first seat row shall be considered to be a front passenger seat.
A6	Safety-belt reminders	Regulation (EU) 2019/2144	n/a	A	X	For vehicles without driver seat, any seat in the first seat row shall be considered to be a front passenger seat.
						The safety-belt reminder signal shall be transmitted to the automated driving system (ADS) and the remote intervention operator (if applicable) as defined in Commission Implementing Regulation (EU) 2022/ [to insert reference when published].
A7	Partitioning systems	Regulation (EU) 2019/2144	equipment	equipment	equipment	
A8	Child restraint anchorages	Regulation (EU) 2019/2144	n/a	X	X	
A9	Child restraint systems (IF)	Regulation (EU) 2019/2144	n/a	X	X	
A10	Enhanced child restraint systems (IF)	Regulation (EU) 2019/2144	n/a	X	X	
A11	Front underrun protection	Regulation (EU) 2019/2144	X A (for bidirectional vehicles)	X A (for bidirectional vehicles)	X	For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
A12	Rear underrun protection	Regulation (EU) 2019/2144	X A (for bidirectional vehicles)	X A (for bidirectional vehicles)	X	For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the

						bidirectional use.
A13	Lateral protection	Regulation (EU) 2019/2144	X A (for bidirectional vehicles)	X A (for bidirectional vehicles)	X	For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
A14	Fuel tank safety (IF)	Regulation (EU) 2019/2144	X	X	X	
A15	Liquified petroleum gas safety (IF)	Regulation (EU) 2019/2144	A	A	X (for manual driving mode) A (for fully automated driving mode)	The required malfunction or fault indication shall be replaced by a signal transmitted to the automated driving system and remote intervention operator (if applicable).
A16	Compressed and liquified natural gas safety (IF)	Regulation (EU) 2019/2144	X	X	X	
A17	Hydrogen safety (IF)	Regulation (EU) 2019/2144	X	X	X	
A18	Hydrogen system material qualification (IF)	Regulation (EU) 2019/2144	X	X	X	
A19	In-use electric safety (IF)	Regulation (EU) 2019/2144	A	A	X (for manual driving mode) A (for fully automated driving mode)	The requirements for passenger compartment shall not apply to N vehicles with no passenger. The indications normally given to the driver 'shall be sent to the ADS and the remote intervention operator (if applicable)
A20	Frontal off-set impact	Regulation (EU) 2019/2144	Not applicable	A n/a for vehicles below 30 km/h	X	The "R" point of the driver shall be considered to be the "R" point of the foremost passenger. If the vehicle has no steering wheel or pedal cluster, the positioning of the steering wheel and pedal cluster shall not be taken into account. If the vehicle does not contain a driver or/and a co-driver seat, these positions should not be tested. For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-

						approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
A21		Regulation (EU) 2019/2144	n/a	A n/a for vehicles below 30 km/h	X	The "R" point of the driver shall be considered to be the "R" point of the foremost passenger.
						For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
A22	Protective steering	Regulation (EU) 2019/2144	n/a	n/a	X	
A23		Regulation (EU) 2019/2144	n/a	equipment	equipment	
A24		Regulation (EU) 2019/2144	n/a	X A (for bidirectional vehicles)	X	For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
A25	Side impact	Regulation (EU) 2019/2144	n/a	A n/a for vehicles below 30 km/h	X	The collision test will be carried out on the side or sides as agreed between the manufacturer and type approval authority.
						For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
A26		Regulation (EU) 2019/2144	n/a	A n/a for vehicles below 30 km/h	X	The "R" point of the driver's seat shall be considered to be the "R" point of the foremost passenger seat. The dynamic pole side impact test will be carried out on the side or sides as agreed between the manufacturer and type approval authority.

A27	Rear impact	Regulation (EU) 2019/2144	n/a	X A (for bidirectional vehicles)	X	For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use. For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the
A28	112-based eCall in-vehicles systems	Regulation (EU) 2015/758	n/a	A	X (for manual drivingmode) A (for fully automated driving mode)	For fully automated driving mode, the ADS takes care of the functionality.
В			ON AND VISIBILITY	T	T	
В1	Pedestrian leg and head protection	Regulation (EU) 2019/2144	X A(for bidirectional vehicles)	X A (for bidirectional vehicles)	X	For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
B2	Enlarged head impact zone	Regulation (EU) 2019/2144	X A(for bidirectional vehicles)	X A(for bidirectional vehicles)	X	For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the typeapproval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
В3	Frontal protection system	Regulation (EU) 2019/2144	equipment	equipment	equipment	
B4	Advanced emergency braking for pedestrians and cyclists ahead		n/a (functionality to be covered by the ADS)	n/a (functionality to be covered by the ADS)	X (for manual driving mode) n/a (for fully automated driving mode) (functionality to be covered by the ADS)	

B5	Pedestrian and cyclist collision warning	Regulation (EU) 2019/2144	n/a (functionality to be covered by the ADS)	n/a (functionality to be covered by the ADS)	X (for manual driving mode) n/a (for fully automated driving mode) (functionality to be covered by the ADS)	
В6	Blind spot information system	Regulation (EU) 2019/2144	n/a (functionality to be covered by the ADS)	n/a (functionality covered by the ADS)	X (for manual driving mode) n/a (for fully automated driving mode) (functionality covered by the ADS)	
В7	Reversing detection	Regulation (EU) 2019/2144	n/a (functionality covered by the ADS)	n/a (functionality covered by the ADS)	X (for manual driving mode) n/a (for fully automated driving mode) (functionality to be covered by the ADS)	
В8	Forward vision	Regulation (EU) 2019/2144	n/a	n/a	X (for manual driving mode) n/a (for fully automated driving mode) (functionality covered by the ADS)	
В9	Heavy-duty vehicles direct vision	Regulation (EU) 2019/2144	n/a (functionality covered by the ADS)	n/a (functionality covered by the ADS)	X (for manual driving mode) n/a (for fully automated driving mode)	
B10	Safety glazing	Regulation (EU) 2019/2144	n/a	A	X	Point 4.1.3 of Annex 24 is not applicable (no R-point available in relation to the installation of the windscreen). Any front exterior forward-facing glazing shall be regarded as windscreen. For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
B11	Defrost/demist	Regulation (EU) 2019/2144	n/a	n/a	X (for manual driving mode) n/a (for fully automated	

B12	Wash/wipe	Regulation (EU) 2019/2144	n/a	n/a	driving mode) (functionality covered by the ADS) X (for manual driving mode) n/a (for fully automated driving mode)	
B13	Indirect vision devices	Regulation (EU) 2019/2144	n/a (functionality covered by the ADS)	n/a (functionality covered by the ADS)	X (for manual driving mode) n/a (for fully automated driving mode)	
B14	Acoustic Vehicle Alerting Systems	Regulation (EU) No 540/2014		X	X	
C	VEHICLE CHASS	IS, BRAKING, TYRI	ES AND STEERING			
C1	Steering equipment	Regulation (EU) 2019/2144	A	A	X (for manual driving mode) A (for fully automated driving mode)	The basic steering (mechanical) requirements apply however: - the requirements applicable to the steering control (e.g. max steering forces) are not applicable; - the failure provisions and performance at 5.3 are not relevant if there's no driver but the failure notification should be made (digitally) available to the ADS and the remote intervention operator (if applicable) The provisions of Annex 6-complex electronic systems need to be fulfilled and may be covered by the ADS safety concept. The ADS shall take care of the tasks assigned to the driver and driver steering assistance system.
C2	Lane departure warning	Regulation (EU) 2019/2144	n/a (functionality covered by the ADS)	n/a (functionality covered by the ADS)	X (for manual driving mode) n/a (for fully automated driving mode) (functionality covered by the ADS)	
C3	Emergency lane keeping		n/a (functionality covered by the ADS)	n/a (functionality covered by the ADS	X (for manual driving mode) n/a (for fully automated driving mode)	
C4	Braking	Regulation (EU) 2019/2144	A	A		Activation of the brakes managed by the ADS in replacement of the driver and driver assistant systems.

i	İ	I	1	İ	mode)	1
					mode)	Each vehicle shall be fitted where applicable with
						- a service braking system
						- a secondary braking system
						- a parking braking system
						- an endurance braking system. (for vehicle categories
						covered by UN Regulation No 13)
						All Annexes to UN Regulation No 13, except for Annex 5
						(Additional provisions applicable to certain vehicles as
						specified in the ADR), shall remain applicable.
						All muscular generated performances (e.g. secondary
						brake) shall be replaced by alternative supply. (to be
						performed by the ADS- need for a special test mode). Issue
						of failure to be covered (no driver as fallback).
						All the tell tales, indicators, warnings and information in
						accordance to UN Regulation No 13 or UN Regulation No
						13-H (depending on the vehicle category) shall be sent to
						the ADS and the remote intervention operator (if applicable).
						approunts.
						When more than one control is required in UN Regulation
						No13 (e.g. paragraph 5.2.1.2.1) this shall be replaced by
						two independent power sources. e.g. service brake
						activation and parking braking brake shall be activated by
						actuators with separated energy reserves, actuators and logic.
						The ADS safety concept shall cover the electronic systems
						of the braking system (including the interfaces and
						interactions with any other affected electronic systems of the vehicle).
						The ADS takes care of the tasks assigned to the driver and
						braking assistance systems.
C5	Replacement	Regulation (EU)	equipment	equipment	equipment	,
	braking parts	2019/2144				

C6	Brake assist	Regulation (EU) 2019/2144	n/a (functionality covered by the ADS	n/a(functionality covered by the ADS)	X (for manual driving mode) n/a (for fully automated driving mode) (functionality covered by the ADS)	
C7	Stability control	Regulation (EU) 2019/2144	n/a (functionality covered by the ADS	n/a (functionality covered by the ADS	X (for manual driving mode) n/a (for fully automated driving mode) (functionality covered by the ADS)	
C8	Advanced emergency braking on heavy-duty vehicles	Regulation (EU) 2019/2144	n/a (functionality covered by the ADS	n/a (functionality covered by the ADS	X (for manual driving mode) n/a (for fully automated driving mode) (functionality covered by the ADS)	
C9	Advanced emergency braking on light-duty vehicles	Regulation (EU) 2019/2144	n/a (functionality covered by the ADS)	n/a (functionality covered by the ADS)	X for manual driving mode Not applicable for fully automated driving mode (functionality covered by the ADS)	
C10	Tyre safety and environmental performance	Regulation (EU) 2019/2144	X	X	X	
C11	Spare wheels and run-flat systems (IF)	Regulation (EU) 2019/2144	A	A	X (for manual driving mode) A (for fully automated mode)	In the case of vehicles equipped with a Run-Flat Warning System the warning signal and the run-flat malfunction signal shall be replaced by signals transmitted to the ADS and the remote intervention operator (if applicable).
C12	Retreaded tyres	Regulation (EU) 2019/2144	equipment	equipment	equipment	
C13	Tyre pressure monitoring for light-duty vehicles	Regulation (EU) 2019/2144	A	A	X (for manual driving mode) A (for fully automated driving mode)	The warning signal shall be sent to the ADS and the remote intervention operator (if applicable).
C14	Tyre pressure monitoring for heavy-duty vehicles	Regulation (EU) 2019/2144	A	A	X (for manual driving mode) A (for fully automated driving mode)	The warning signal shall be sent to the ADS and the remote intervention operator (if applicable).
C15	Tyre installation	Regulation (EU)	A	A	X	The maximum speed warning label (in vehicle) shall not

		2019/2144				be required. The ADS shall not exceed the maximum speed capability of the tyres prescribed by the vehicle manufacturer.
C16	Replacement wheels	Regulation (EU) 2019/2144	equipment	equipment	equipment	
D	ON-BOARD INST			LE LIGHTING AND PI	ROTECTION AGAINST UNA	UTHORISED USE, INCLUDING CYBERATTACKS
D1	Audible warning	Regulation (EU) 2019/2144	X	X	X	
D2		Regulation (EU) 2019/2144	A	A	X (for manual driving mode) A (for fully automated driving mode)	Test mode needed. In addition to the requirements EMC tests described in Annexes 4 to 22 to UN Regulation No 10, the following procedure before and during initial EMC tests shall be followed: 1. When a fully automated vehicle with an ADS is EMC tested, the ADS functions should be switched on and also work in active mode. However certain limitations in use case can be observed. Therefore, before executing the EMC test, the type-approval authority needs to be consulted about the test program to agree about the Pass/Fail criteria proposal made by the EMC lab according to paragraph 6.1.2 of UN Regulation No 10. Before testing the Technical Service has to prepare a test plan in conjunction with the manufacturer, which contains at least mode of operation, stimulated function(s), monitored function(s), pass/fail criterion (criteria) and intended emissions. 3. The manufacturer of the vehicle or Electric/electronic subassembly (ESA) shall fill in the information according to UN Regulation 10, Annex 2A or 2B. The EMC lab shall make this available as an annex to the test report." 4. In case if a remote intervention is used and could influence the behaviour of the vehicle the remote intervention should be part of the EMC test plan.

						5. When it's needed during the initial test, to install Ferrite blocks or aluminium foil on several elements to pass the EMC tests, it proves that the EMC design was weak and potentially prone to variation. Therefore the initial tests can never be used for further revision or extension for further vehicles or adding/changing ESA's (Electronic Sub-Assemblies) to the vehicle / DUT's.
D3	Protection against unauthorised use, immobiliser and alarm systems	Regulation (EU) 2019/2144	X	X	X	
D4	Protection of vehicle against cyberattacks	Regulation (EU) 2019/2144	X	X	X	
D5	Speedometer	Regulation (EU) 2019/2144	A	A	X (for manual driving mode) A (for fully automated driving mode)	Requirements are not applicable except that the speed signal shall be send to the ADS
D6	Odometer	Regulation (EU) 2019/2144	A	A		The odometer signal shall be send to the ADS
D7	Speed limitation devices	Regulation (EU) 2019/2144	A	A	X (for manual driving mode A for fully automated) driving mode	Test mode needed. The speed management and limitation shall be ensured by ADS.
D8	Intelligent speed assistance	Regulation (EU) 2019/2144	n/a	n/a	X (for manual driving mode) n/a (for fully automated driving mode) (functionality covered by the ADS)	
D9	Identification of controls, tell-tales and indicators	Regulation (EU) 2019/2144	n/a	n/a	X (for manual driving mode) n/a (for fully automated driving mode)	
D10	Heating systems	Regulation (EU) 2019/2144	n/a	A	X (for manual driving mode) A (for fully automated driving mode)	In the case of part or parts of the heating system in the passenger compartment, and in the case of overheating, the temperature of the parts shall not exceed 110 °C (70°C for M_2 and 80°C for M_3).

						The activation and adjustment of the heating system can be managed by the ADS and/or passengers or remote intervention operator (if applicable).
D11	Light signalling devices	Regulation (EU) 2019/2144	X	X	X	
D12	Road illumination devices	Regulation (EU) 2019/2144	X	X	X	
D13	Retro-reflective devices	Regulation (EU) 2019/2144	X	X	X	
D14	Light sources	Regulation (EU) 2019/2144	X	X	X	
D15	Installation of light signalling, road illumination and retro-reflective devices	Regulation (EU) 2019/2144	A	A	X (for manual driving mode) A (for fully automated driving mode)	The requirements shall remain the same, but in case of malfunctioning, the information shall be sent to ADS and the remote intervention operator (if applicable). The activation of the lights is managed by the ADS. For bidirectional vehicles, requirements shall be met in both directions unless it is incompatible with the use in agreement with the type-approval authority.
D16	Emergency stop signal	Regulation (EU) 2019/2144	X	X	X	agreement with the type-approval authority.
D17	Headlamp cleaners (IF)		A	A	X (for manual driving mode) A (for fully automated driving mode)	The control of the headlamp cleaner shall be managed by the ADS.
D18	Gear shift indicator	Regulation (EU) 2019/2144	n/a	n/a	X (for manual driving mode) n/a (for fully automated mode)	not in scope
Б	DDIVED AND CV	<u> </u> STEM BEHAVIOUR				
E E1	Alcohol interlock installation facilitation	Regulation (EU) 2019/2144	n/a	n/a	X (for manual driving mode) n/a (for fully automated driving mode)	
E2	Driver drowsiness and attention warning	Regulation (EU) 2019/2144	n/a	n/a	X (for manual driving mode) n/a (for fully automated driving mode)	

E3	Advanced driver distraction warning	Regulation (EU) 2019/2144	No requirement yet	No requirement yet	No requirement yet	
E4	Driver availability monitoring system (in case of automated vehicles)	Regulation (EU) 2019/2144	n/a	n/a	X	
E5	Event data recorder	Regulation (EU) 2019/2144	A	A	A for fully automated driving mode X for manual driving mode	Specific ADS data elements are covered in Commission Implementing Regulation (EU) 2022/
E6	Systems to replace driver's control (in case of automated vehicles)		X	X	X	Covered by Commission Implementing Regulation (EU) 2022/[insert reference to ADS act when published]
E7	Systems to provide the vehicle with information on state of vehicle and surrounding area (in case of automated vehicles)	2019/2144	X	X	X	Covered by Commission Implementing Regulation (EU) 2022/ [insert reference to ADS act when published]
E8	Platooning (IF)	Regulation (EU) 2019/2144	No requirement yet	No requirement yet	No requirement yet	No requirement yet
E9	Systems to provide safety information to other road users (in case of automated vehicles)	2019/2144	X	X	X	Covered by Commission Implementing Regulation (EU) 2022/[insert reference to ADS act when published]
F			N AND FEATURES			
F1	Registration plate space	Regulation (EU) 2019/2144	A	A	A (for fully automated driving mode)	For bidirectional vehicles, requirements shall be met in both directions unless it is incompatible with the use in agreement with the type-approval authority.
F2	Reversing motion	Regulation (EU) 2019/2144	A	A	X (for manual driving mode) A (for fully automated driving mode)	The ADS shall also be tested for manouvrability (reverse gear). The ADS shall take care of the tasks assigned to the driver (e.g. activation of the reverse gear).

F3	Door latches and hinges	Regulation (EU) 2019/2144	n/a	A	X (for manual driving mode) A (for fully automated driving mode)	The visual signal of the door closure warning system shall be replaced by a signal transmitted to the ADS and the remote intervention operator (if applicable). The equipment of side doors with locking devices shall be subject to the discretion of the manufacturer. The primary door controls which normally would be accessible by the driver, would need to be accessible either from a primary seating position (if applicable) or adjacent to each door. The ADS shall ensure that the vehicle can only move if
						doors are closed.
F4	Door entry steps, handholds and running boards	Regulation (EU) 2019/2144	A	X	X	Vehicle access requirements do not apply where there is no vehicle cab.
F5	External projections	Regulation (EU) 2019/2144	not in scope	A	A (for fully automated driving mode)	Sensors fitted to the ADS vehicle which are necessary to perform the Dynamic Driving Task can be excluded in a similar manner as camera monitor systems devices if they meet the general requirements on camera monitor devices in paragraph 6.2.2.1. of UN Regulation 46.
						The "R" point of the driver referred shall be considered to be the "R" point of the foremost passenger in case there is no driver seat.
						For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
F6	External projections of commercial	Regulation (EU) 2019/2144	A	A	A	Sensors fitted to the ADS vehicle which are necessary to perform the Dynamic Driving Task can be excluded in a similar manner as camera monitor systems devices if they

	vehicle cabs					meet the general requirements on camera monitor devices in paragraph 6.2.2.1. of UN Regulation 46.
						The "R" point of the driver referred shall be considered to be the "R" point of the foremost passenger in case there is no driver seat.
						For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the typeapproval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
F7	Statutory plate and vehicle identification number	Regulation (EU) 2019/2144	X A for bidirectional vehicles	X A for bidirectional vehicles		For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the type-approval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
F8	Towing devices	Regulation (EU) 2019/2144	X	X	X	
F9	Wheel guards	Regulation (EU) 2019/2144	Not in scope	A		Fully applicable. For bidirectional vehicles, requirements shall be met in both directions. Alternative requirements leading to an equivalent level of safety to the satisfaction of the typeapproval authority are permitted if meeting all the requirements in both directions is incompatible with the bidirectional use.
F10	Spray suppression systems	Regulation (EU) 2019/2144	X	X	X	
F11	Masses and dimensions	Regulation (EU) 2019/2144	A	A.	X (for manual driving mode)	Mass in running order shall exclude mass of the driver if there is no on-board operator. The ADS sensors above 2 meters are not included in the maximum dimensions in accordance with the provisions of Regulation (EU) 2021/535, Annex XIII.
F12	Mechanical	Regulation (EU)	A	A	X (for manual driving mode)	The indication to driver that the mechanical coupling is

	couplings	2019/2144			A (for fully automated driving mode)	locked/unlocked shall be addressed to the ADS and the remote intervention operator (if applicable).
F13	for the transportation of dangerous goods (IF)	Regulation (EU) 2019/2144	Not in scope	Not in scope	Not in scope	Fully automated vehicles intended for the transportation of dangerous goods cannot be approved.
F14	General bus construction	Regulation (EU) 2019/2144	Not in scope	A	X (for manual driving mode) A (for fully automated mode)	Buses without a roof and trolley buses are out of scope. In general the tasks normally expected by the driver under UN Regulation No 107 shall be covered in the ADS safety concept. The requirements of paragraphs 7.2.2.1.1, 7.2.2.1.2 and 7.2.2.1.3 as defined in Annex 3 to UN-Regulation No 107 shall not apply. All required information normally displayed or noticed to the driver or information to passengers in case of an emergency shall be transferred to the ADS, the on-board operator and the remote intervention operator (e.g. fire suppression system) The ADS shall take care of power operated doors. The ADS shall take care of the reaction to fire as part of the ADS safety concept (e.g. emergency manoeuvre and transfer to the safe state), doors automatically unlocked when safe to do so. In case of emergency, the ADS shall take care of the emergency lighting system as part of the ADS safety concept. Once activated, the emergency lighting system shall remain active for at least 30 minutes. This active function shall be displayed as well to the remote intervention operator who may deactivate the emergency lighting system.

						The kneeling system shall in ADS operation automatically be actuated to achieve required step height. Also prevention system shall be part of the ADS safety concept to prevent the feet/legs of passengers boarding the vehicle from geting stuck underneath the vehicle during lowering process.
	Bus strength of superstructure	Regulation (EU) 2019/2144	Not in scope	X	X	
		Regulation (EU) 2019/2144	Not in scope	X	X	
	ENVIRONMENTA	L PERFORMANCE	AND EMISSIONS			
G1	Sound level	Regulation (EU) No 540/2014	A	A	driving mode)	Test mode necessary. Manufacturer to define how to perform the test in accordance with the technical justification in agreement with technical service. Highest value measured in manual or / and in autonomous mode shall be considered for type approval. Vehicles having overall sound levels complying with the requirements in paragraph 6.2.8 of UNECE Regulation No 138(1) with a margin of +3 dB(A), are not required to be equipped with Acoustic Vehicle Alerting System (AVAS). The requirements laid down in paragraph 6.2.8 of that Regulation for one-third octave bands and the requirements laid down in paragraph 6.2.3 of that Regulation for the frequency shift as defined in paragraph 2.4 of that Regulation ("frequency shift") shall not apply to those vehicles to determine the need for AVAS independent whether the vehicles is driven in manual or autonomous mode during the test. The R point of the driver seat shall be considered to be the lowest R point of the passenger seats in the 1st seat row. Used test procedure/special arrangement to be recorded in the test report.
G2	Tailpipe emissions of vehicle in lab	Regulation (EC) No 715/2007	A	A	X (for manual driving mode) A (for fully automated driving mode)	The manufacturer shall define a test mode in order to allow testing on a chassis dynamometer and communicate the method to the relevant approval authorities.

					The required driver warning and inducement system shall be replaced by signals transmitted to the automated driving system, and remote intervention operator (if applicable). It shall be clearly indicated to the remote intervention operator when the inducement will be activated.
	Regulation (EC) No 715/2007	A	A	X (for manual driving mode) A (for fully automated driving mode)	The manufacturer shall define a test mode in order to allow testing on a chassis dynamometer and communicate the method to the relevant approval authorities.
	Regulation (EC) No 595/2009	A	A	X (for manual driving mode) A (for automated driving mode)	The required driver warning and inducement system shall be replaced by signals transmitted to the automated driving system and remote intervention operator (if applicale). It shall be clearly indicated to the remote intervention operator when the inducement will be activated.
	Regulation (EC) No 595/2009	A	A	X (for manual driving mode) A (for automated driving mode)	The manufacturer shall define a test mode in order to perform the verification testing procedure and communicate the method to the relevant approval authorities.
specific energy efficiency performance of trailer	Regulation (EC) No 595/2009	•	Not in scope	Not in scope	Not in scope
Tailipipe emissions on the road	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	A	A	X (for manual driving mode) A (for automated driving mode)	The manufacturer shall define a test mode in order to allow testing on the road and communicate the method to the relevant approval authorities. The required driver warning and inducement system shall be replaced by signals transmitted to the automated driving

						system, and remote intervention operator (if applicable). It shall be clearly indicated to the remote intervention operator when the inducement will be activated.
G5	Durability of tailpipe emissions	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009		A	X (for manual driving mode)	The manufacturer shall define a test mode in order to allow testing on the road and communicate the method to the relevant approval authorities.
G6	Crankcase emissions	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009		X	X	
G7	Evaporative emissions	Regulation (EC) No 715/2007	X	X	X	
G8	Low- temperaturetailpipe emissions in lab	Regulation (EC) No 715/2007	A	A	X (for manual driving mode) A (for automated driving mode)	The manufacturer shall define a test mode in order to allow testing on a chassis dynamometer and communicate the method to the relevant approval authorities.
						The required driver warning and inducement system shall be replaced by signals transmitted to the automated driving system and remote intervention operator (if applicale). It shall be clearly indicated to the remote intervention operator when the inducement will be activated.
G9	On-board diagnostics	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	A	A	X (for manual driving mode) A (for automated driving mode)	The required Malfunction Indicator Light (MIL) shall be replaced by a signal transmitted to the automated driving system, and remote intervention operator (if applicable).
G10	device	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009		X	X	
G11	Auxiliary emissions strategies	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009		X	X	
G12	Anti-tampering	Regulation (EC) No 715/2007 Regulation (EC) No		X	X	

		595/2009				
G13	Recyclability	Directive	X	X	X	
		2005/64/EC				
G14	Air-conditioning	Directive	n/a	X	X	
	systems	2006/40/EC				
Н	ACCESS TO VEHI	ICLE INFORMATIO	N AND SOFTWARE UPI	DATE		
H1	Access to vehicle	Regulation (EU)	X	X	X	
		2018/858, Articles				
	and vehicle repair	61 to 66 and Annex				
	and maintenance	X				
	information					
H2	Software update	Regulation (EU)	X	X	X	
		2018/858				
		UN Regulation No				
		156				

- (3) Part II is amended as follows:
- (a) The following paragraph is added after the second paragraph below the title:

'Installation requirements laid down in a Directive or Regulation in the table of Part I shall apply also to components and separate technical units approved in accordance with the UN Regulations listed in the following table.'

(b) The table is replaced by the following:

Item	Subject	UN Regulation	Series of amendments
B14	Acoustic vehicle alerting system	138	01
G1	Sound level	51 59	03 01
G13	Recyclability(*) (*) The requirements set out in Annex I to Directive 2005/64/EC shall apply	133	00

(4) Part III and its Appendices 1 to 6 are replaced by the following:

'PART III

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

EXPLANATORY NOTES

to the tables in Appendices 1 to 6

- X: Compliance with the regulatory act is required according to the vehicle category for which type-approval is sought. Any specific provisions noted in addition to this explanatory note shall be taken into account.
- G: In case of multi-stage approval, compliance with the regulatory act according to which the base vehicle (e.g. the chassis of which was used to build the special purpose vehicle) has been type-approved shall be accepted. In this case, any vehicle systems, their features, parts, equipment, components and separate technical units that have been modified or added by the manufacturer, may be assessed against the base vehicle's requirements. Any specific provisions noted in addition to this explanatory note shall be taken into account.
- A: The approval authority may agree to fully or partly grant exemptions upon the condition that the manufacturer demonstrates to the satisfaction of the technical service that the vehicle cannot meet the full set of requirements due to its special purpose. The manufacturer shall however endeavour to meet the requirements to the largest possible extent taking into account proportionality. Those exemptions shall be described in Part 2 of the vehicle EU type-approval certificate as well as under "remarks" in the Certificate of Conformity. Any specific provisions noted in addition to this explanatory note shall be taken into account.

Appendix 1
Motor-caravans, ambulances and hearses

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M ₃
A	RESTRAINT SYS	TEMS, CRASH TE	ESTING, FUEL SYSTEM IN	TEGRITY AND HIGH VOL	ГАGE ELECTRICAL SAF	ЕТҮ
	<u> </u>		Application is limited to the passenger compartment in front of the transverse plane passing through the torso reference line of the 3-D H machine placed on the rearmost seat designated for normal use when the vehicle is used on a public road, as well as to the respective reference zones of each seating position designated for normal use as defined in the regulatory act when the vehicle type is subject to the requirements applicable to vehicle category M ₁ . It does not apply to the patient compartment of ambulances Additional requirements for	TEGRITY AND HIGH VOL G Application is limited to the passenger compartment in front of the transverse plane passing through the torso reference line of the 3-D H machine placed on the rearmost seat designated for normal use when the vehicle is used on a public road, as well as to the respective reference zones of each seating position designated for normal use as defined in the regulatory act when the vehicle type is subject to the requirements applicable to vehicle category M ₁ . It does not apply to the patient compartment of ambulances Additional requirements for	n/a for the passenger or patient compartment Additional requirements for new types of ambulances: The patient compartment of ambulances shall comply with the requirements of EN 1789:2020 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 the technical service and may be based on an assessment carried out by subcontractors or subsidiaries of the technical service in accordance with the provisions of Article 71.	n/a for the passenger or patient compartment Additional requirements for new types of ambulances: The patient compartment of ambulances shall comply with the requirements of EN 1789:2020 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 the technical service and may be based on an assessment carried out by subcontractors or subsidiaries of the technical service in accordance with the provisions of Article 71.
			new types of ambulances: The patient compartment of ambulances shall comply	ambulances shall comply	If a wheelchair space is foreseen, the requirements for wheelchair accessible	requirements for
			with the requirements of EN 1789:2020 on Medical vehicles and their equipment – Road	with the requirements of EN 1789:2020 on Medical vehicles and their equipment – Road	vehicles (code SH) relating to the wheelchair tie-down and occupant restraint systems shall	wheelchair accessible vehicles (code SH) relating to the wheelchair tie-down and occupant

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M_3
			ambulances with the exception of section 6.5, list of equipment. Proof of compliance shall be provided with a test report of the technical service and may be based on an assessment carried out by subcontractors or subsidiaries of the technical service in accordance with the provisions of Article 71. If a wheelchair space is foreseen, the requirements for wheelchair accessible vehicles (code SH) relating to the wheelchair tie-down and occupant restraint systems shall also apply.	ambulances with the exception of section 6.5, list of equipment. Proof of compliance shall be provided with a test report of the technical service and may be based on an assessment carried out by subcontractors or subsidiaries of the technical service in accordance with the provisions of Article 71. If a wheelchair space is foreseen, the requirements for wheelchair accessible vehicles (code SH) relating to the wheelchair tie-down and occupant restraint systems shall also apply.	also apply.	restraint systems shall also apply.
A2	Seats and head restraints	Regulation (EU) 2019/2144	Application is limited to seats designated for normal use when the vehicle is used on a public road. Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a pictogram or a sign with an appropriate text. The energy dissipation and radii requirements are checked in accordance with paragraphs 5.2.3./5.2.4.2.	Application is limited to seats designated for normal use when the vehicle is used on a public road. Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a pictogram or a sign with an appropriate text. The energy dissipation and radii requirements are checked in accordance with paragraphs 5.2.3./5.2.4.2.	Application limited to seats designated for normal use when the vehicle is used on a public road. Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a pictogram or a sign with an appropriate text.	Application limited to seats designated for normal use when the vehicle is used on a public road. Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a pictogram or a sign with an appropriate text.

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M ₃
			and 5.2.4. of UN Regulation No 17 when the vehicle type is subject to the requirements applicable to vehicle category M ₁ .	type is subject to the		
			The luggage retention requirements of UN Regulation No 17 (para. 1, point (c) and Annex 9) do not apply.	The luggage retention requirements of UN Regulation No 17 (para. 1, point (c) and Annex 9) do not apply.		
A3	Bus seats	Regulation (EU) 2019/2144	not in scope	not in scope	X	X
					Application limited to seats designated for normal use when the vehicle is used on a public road.	Application limited to seats designated for normal use when the vehicle is used on a public road.
					Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a pictogram or a sign with an appropriate text.	Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a pictogram or a sign with an appropriate text.
A4	Safety-belt anchorages	Regulation (EU) 2019/2144	X	G	X	X
			Application limited to seats designated for normal use when the vehicle is used on a public road.	designated for normal use when the vehicle is used on a public road. At least anchorages for lap	Application limited to seats designated for normal use when the vehicle is used on a public road.	Application limited to seats designated for normal use when the vehicle is used on a public road.
				belts are required in the rear seating positions.	At least anchorages for lap belts are required in	At least anchorages for lap belts are required in

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M_3
					the rear seating positions.	the rear seating positions.
A5	Safety-belts and restraint systems	Regulation (EU) 2019/2144	X	G	G	G
			Application limited to seats designated for normal use when the vehicle is used on a public road.	designated for normal use when the vehicle is used on a public road.	Application limited to seats designated for normal use when the vehicle is used on a public road.	Application limited to seats designated for normal use when the vehicle is used on a public road.
				At least lap belts are required in the rear seating positions.	At least lap belts are required in the rear seating positions.	At least lap belts are required in the rear seating positions.
A6	Safety-belt reminders	Regulation (EU) 2019/2144	X	X	X	X
			Not required for rear seats	Not required for rear seats	Not required for rear seats	Not required for rear seats
A7	Partitioning systems	Regulation (EU) 2019/2144	equipment	equipment	Equipment	equipment
A8	Child restraint anchorages	Regulation (EU) 2019/2144	G	G	IF	IF
			ISOFIX is not required on ambulances and hearses	ISOFIX is not required on ambulances and hearses		
A9	Child restraint systems (IF)	Regulation (EU) 2019/2144	equipment	equipment	Equipment	equipment
A10	Enhanced child restraint systems (IF)	Regulation (EU) 2019/2144	equipment	equipment	Equipment	equipment
A11	Front underrun protection	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
A12	Rear underrun protection	Regulation (EU) 2019/2144	X	X	X	X
A13	Lateral protection	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope

Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M_3
Fuel tank safety (IF)	Regulation (EU) 2019/2144	X	X	x	X
		Modification to the routing and length of the refuelling duct and re-positioning of the original tank inboard is permissible provided all installation requirements are met.	Modification to the routing and length of the refuelling duct and re-positioning of the original tank inboard is permissible provided all installation requirements are met.	Modification to the routing and length of the refuelling duct and repositioning of the original tank inboard is permissible provided all installation requirements are met.	Modification to the routing and length of the refuelling duct and repositioning of the original tank inboard is permissible provided all installation requirements are met.
Liquified petroleum gas safety (IF)	Regulation (EU) 2019/2144	X	G	G	X
Compressed and liquified natural gas safety (IF)	Regulation (EU) 2019/2144	X	G	G	X
Hydrogen safety (IF)	Regulation (EU) 2019/2144	X	G	G	X
Hydrogen system material qualification (IF)	Regulation (EU) 2019/2144	X	X	X	X
In-use electric safety (IF)	Regulation (EU) 2019/2144	X	G	X	X
Frontal off-set impact	Regulation (EU) 2019/2144	X	Completed vehicles are deemed to comply with the frontal off-set impact requirements provided that compliance has been demonstrated for at least the van or chassis-cab configuration, with	not in scope	not in scope
	Fuel tank safety (IF) Liquified petroleum gas safety (IF) Compressed and liquified natural gas safety (IF) Hydrogen safety (IF) Hydrogen system material qualification (IF) In-use electric safety (IF) Frontal off-set	Fuel tank safety (IF) Regulation (EU) 2019/2144 Liquified petroleum gas safety (IF) Compressed and liquified natural gas safety (IF) Hydrogen safety (IF) Hydrogen safety (IF) Hydrogen system material qualification (IF) In-use electric safety (IF) Regulation (EU) 2019/2144 Fuel tank safety (IF) Regulation (EU) 2019/2144 Modification to the routing and length of the refuelling duct and re-positioning of the original tank inboard is permissible provided all installation requirements are met. Liquified petroleum gas safety (IF) Compressed and liquified natural gas safety (IF) Hydrogen safety (IF) Regulation (EU) X 2019/2144 Regulation (EU) X 2019/2144 Regulation (EU) X In-use electric safety (IF) Regulation (EU) X Fuel tank safety (IF) Regulation (EU) 2019/2144 Regulation (EU) 2019/2144 Modification to the routing and length of the refuelling duct and re-positioning of the original tank inboard is permissible provided all installation requirements are met. Liquified petroleum gas safety (IF) Compressed and liquified natural gas safety (IF) Hydrogen safety (IF) Regulation (EU) 2019/2144 Regulation (EU) 2019/2144 Regulation (EU) X G G G G Hydrogen safety (IF) In-use electric safety (IF) Regulation (EU) 2019/2144 Frontal off-set impact Regulation (EU) 2019/2144 Frontal off-set impact Regulation (EU) 2019/2144 Completed vehicles are deemed to comply with the frontal off-set impact requirements provided that compliance has been demonstrated for at least the	Fuel tank safety (IF) Regulation (EU) 2019/2144 Modification to the routing and length of the refuelling duct and re-positioning of the original tank inboard is permissible provided all installation requirements are met. Liquified petroleum gas safety (IF) Compressed and liquified natural gas safety (IF) Hydrogen safety (IF) Regulation (EU) 2019/2144 Regulation (

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M_3
				irrespective of the mass in running order increase, as part of a previous-stage type-approval and the relevant restraint systems have not been modified to the extent that it would result in a decrease of the level of safety, as agreed by the technical service. Completed vehicles on the basis of a type-approved incomplete chassis-cowl configuration are exempted from the full-scale crash test. However, it shall be demonstrated to the satisfaction of the technical service that there is no unacceptable risk of fuel system integrity failure or unacceptable risk of direct contact with live parts of high voltage propulsion systems, after a frontal impact. Virtual testing methods may be used in accordance with Annex VIII to Regulation		
A21	Frontal full-width impact	Regulation (EU) 2019/2144	G	(EU) 2018/858. G Completed vehicles are deemed to comply with the	not in scope	not in scope

tem	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$		M_2	M_3
				requirements provided that		
				compliance has been		
				demonstrated for at least the		
				van or chassis-cab		
				configuration, with		
				appropriate powertrain,		
				irrespective of the mass in		
				running order increase, as		
				part of a previous-stage		
				type-approval and the		
				relevant restraint systems		
				have not been modified to		
				the extent that it would		
				result in a decrease of the		
				level of safety, as agreed by		
				the technical service.		
				Completed vehicles on the		
				basis of a type-approved		
				incomplete chassis-cowl		
				configuration are exempted		
				from the full-scale crash		
				test. However, it shall be		
				demonstrated to the		
				satisfaction of the technical		
				service that there is no		
				unacceptable risk of fuel		
				system integrity failure or		
				unacceptable risk of direct		
				contact with live parts of		
				high voltage propulsion		
				systems, after a frontal impact.		
				mpact.		
				Virtual testing methods may		
				be used in accordance with		
				Annex VIII to Regulation		
				(EU) 2018/858		

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M ₃
A22	Protective steering	Regulation (EU) 2019/2144	X	G	not in scope	not in scope
A23	Replacement airbag	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment
A24	Cab impact	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
A25	Side impact	Regulation (EU) 2019/2144	X	Completed vehicles are deemed to comply with the side impact requirements provided that compliance has been demonstrated for at least the van or chassiscab configuration, with appropriate powertrain, irrespective of the mass in running order increase, as part of a previous-stage type-approval. Completed vehicles on the basis of a type-approved incomplete chassis-cowl configuration are exempted from the full-scale crash test. However, it shall be demonstrated to the satisfaction of the technical service that there is no unacceptable risk of fuel system integrity failure or unacceptable risk of direct contact with live parts of high voltage propulsion systems, after a side impact.	not in scope	not in scope

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M ₂	M ₃
				Virtual testing methods may be used in accordance with Annex VIII to Regulation (EU) 2018/858.		
A26	Pole side impact	Regulation (EU) 2019/2144	n/a	n/a	not in scope	not in scope
A27	Rear impact	Regulation (EU) 2019/2144	X	G	not in scope	not in scope
				Completed vehicles are deemed to comply with rear impact requirements provided that compliance has been demonstrated for at least the van or chassiscab configuration, with appropriate powertrain, as part of a previous-stage type-approval, irrespective of the mass in running order increase		
A28	112-based eCall in-vehicles systems	Regulation (EU) 2015/758	G	G	not in scope	not in scope
В	VULNERABLE RO	OAD USERS, VIS	ION AND VISIBILITY			
B1	Pedestrian leg and head protection	Regulation (EU) 2019/2144	X	G	not in scope	not in scope
B2	Enlarged head impact zone	Regulation (EU) 2019/2144	X	Modifications to the interior fittings directly behind the windscreen do not have to be taken into account.	not in scope	not in scope

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M ₃
В3	Frontal protection system	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment
B4	Advanced emergency braking for pedestrians and cyclists ahead	Regulation (EU) 2019/2144	X	G	not in scope	not in scope
B5	Pedestrian and cyclist collision warning	Regulation (EU) 2019/2144	not in scope	not in scope	X	X
В6	Blind spot information system	Regulation (EU) 2019/2144	not in scope	not in scope	X	X
В7	Reversing detection	Regulation (EU) 2019/2144	X	X	X	X
В8	Forward vision	Regulation (EU) 2019/2144	X	G	not in scope	not in scope
В9	Heavy-duty vehicles direct vision	Regulation (EU) 2019/2144	not in scope	not in scope	no requirements yet	no requirements yet
B10	Safety glazing	Regulation (EU) 2019/2144	For all glazing other than the windscreen and side windows located forward of the driver's eye points, the material may be either of safety glass or rigid plastic glazing.	For all glazing other than the windscreen and side windows located forward of the driver's eye points, the material may be either of safety glass or rigid plastic glazing.	For all glazing other than the windscreen and side windows located forward of the driver's eye points, the material may be either of safety glass or rigid plastic glazing.	For all glazing other than the windscreen and side windows located forward of the driver's eye points, the material may be either of safety glass or rigid plastic glazing.
B11	Defrost/demist	Regulation (EU) 2019/2144	G	G	X Vehicles shall be fitted with an adequate windscreen defrosting and demisting device	X Vehicles shall be fitted with an adequate windscreen defrosting and demisting device

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M ₃
B12	Wash/wipe	Regulation (EU) 2019/2144	G	G	X Vehicles shall be fitted with adequate windscreen washing and wiping	X Vehicles shall be fitted with adequate windscreen washing and wiping
					devices	devices
B13	Indirect vision devices	Regulation (EU) 2019/2144	X	G	G	G
B14	Acoustic Vehicle Alerting Systems	Regulation (EU) No 540/2014	X	X	X	X
С	VEHICLE CHASS	IS, BRAKING, TY	RES AND STEERIN	G		
C1	Steering equipment	Regulation (EU) 2019/2144	X	G	G	G
C2	Lane departure warning	Regulation (EU) 2019/2144	not in scope	not in scope	n/a	n/a
С3	Emergency lane keeping	Regulation (EU) 2019/2144	X	May be a C2 Lane departure warning system in case this was applicable for the base vehicle.	not in scope	not in scope
C4	Braking	Regulation (EU) 2019/2144	G	G	G	G
C5	Replacement braking parts	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment
C6	Brake assist	Regulation (EU) 2019/2144	X	G	not in scope	not in scope
C7	Stability control	Regulation (EU) 2019/2144	X	In the case of modifications to the stability control system, included as part of	n/a	n/a

Item	Subject	Regulatory act	$M_1 \leq 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M_3
				a previous stage type- approval, that are likely to affect the function of that base vehicle's stability control system, it shall be demonstrated that the vehicle has not been rendered unsafe or unstable. This shall be proven by tests e.g. performing rapid double lane-change manoeuvres in each direction at 80 km/h with sufficient severity to cause intervention by the stability control system. These interventions shall be well- controlled and shall improve the stability of the vehicle under those driving conditions in comparison to the stability of the vehicle with a disabled stability control system. All tests are subject to the agreement between the manufacturer		
C8	Advanced emergency braking on heavy-duty vehicles	Regulation (EU) 2019/2144	not in scope	not in scope	n/a	n/a
C9	Advanced emergency braking on light-duty vehicles	Regulation (EU) 2019/2144	Х	G	not in scope	not in scope
C10	Tyre safety and	Regulation (EU)	X	G	G	G

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M_3
	environmental performance	2019/2144			-	
C11	Spare wheels and run-flat systems (IF)	Regulation (EU) 2019/2144	X	X	not in scope	not in scope
C12	Retreaded tyres	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment
C13	Tyre pressure monitoring for light-duty vehicles	Regulation (EU) 2019/2144	X	G	not in scope	not in scope
C14	Tyre pressure monitoring for heavy-duty vehicles	Regulation (EU) 2019/2144	not in scope	not in scope	X	X
C15	Tyre installation	Regulation (EU) 2019/2144	X	G	G	G
C16	Replacement wheels	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment
D	ON-BOARD INST INCLUDING CYB		CTRICAL SYSTEM, VEHIC	LE LIGHTING AND PROTE	ECTION AGAINST UNAU	THORISED USE,
D1	Audible warning	Regulation (EU) 2019/2144	X	X	X	X
D2	Radio interference (electromagnetic compatibility)	Regulation (EU) 2019/2144	X	X	X	Х
D3	Protection against unauthorised use, immobiliser and alarm systems	Regulation (EU) 2019/2144	X	G	IF G	IF G
D4	Protection of vehicle against	Regulation (EU) 2019/2144	X	X	X	X

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M ₃
	cyberattacks					
D5	Speedometer	Regulation (EU) 2019/2144	X	X	X	X
D6	Odometer	Regulation (EU) 2019/2144	X	X	X	X
D7	Speed limitation devices	Regulation (EU) 2019/2144	not in scope	not in scope	X	X
D8	Intelligent speed assistance	Regulation (EU) 2019/2144	X	X	X	X
D9	Identification of controls, tell-tales and indicators	Regulation (EU) 2019/2144	X	X	X	X
D10	Heating systems	Regulation (EU) 2019/2144	X	X	X	X
D11	Light signalling devices	Regulation (EU) 2019/2144	X	X	X	X
D12	Road illumination devices	Regulation (EU) 2019/2144	X	X	X	X
D13	Retro-reflective devices	Regulation (EU) 2019/2144	X	X	X	X
D14	Light sources	Regulation (EU) 2019/2144	X	X	X	X
D15	Installation of light signalling, road illumination and	Regulation (EU) 2019/2144	A Provided that all mandatory	A + G for the cab A for the remaining part	A + G for the cab A for the remaining part	A + G for the cab A for the remaining part
	retro-reflective devices		lighting devices are installed and that the geometric visibility is not affected	Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected	Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected	Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M ₃
D16	Emergency stop signal	Regulation (EU) 2019/2144	Х	X	X Only for vehicles fitted with electronically controlled anti-lock braking system	X Only for vehicles fitted with electronically controlled anti-lock braking system
D17	Headlamp cleaners (IF)	Regulation (EU) 2019/2144	IF	IF	IF	IF
D18	Gear shift indicator	Regulation (EU) 2019/2144	G	G	not in scope	not in scope
Е	DRIVER AND SYS	STEM BEHAVIO	UR			
E1	Alcohol interlock installation facilitation	Regulation (EU) 2019/2144	X	X	X	X
E2	Driver drowsiness and attention warning	Regulation (EU) 2019/2144	X	X	X	X
E3	Advanced driver distraction warning	Regulation (EU) 2019/2144	no requirement yet	no requirement yet	no requirement yet	no requirement yet
E4	Driver availability monitoring system (in case of automated vehicles)	Regulation (EU) 2019/2144	IF	IF	not in scope	not in scope
E5	Event data recorder	Regulation (EU) 2019/2144	X	G	no requirement yet	no requirement yet
E6	Systems to replace driver's control (in case of automated vehicles)	Regulation (EU) 2019/2144	IF	IF	no requirement yet	no requirement yet
E7	Systems to provide the vehicle with	Regulation (EU) 2019/2144	IF	IF	no requirement yet	no requirement yet

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M_3						
	information on state of vehicle and surrounding area (in case of automated vehicles)											
E8	Platooning (IF)	Regulation (EU) 2019/2144	no requirement yet	no requirement yet	no requirement yet	no requirement yet						
E9	Systems to provide safety information to other road users (in case of automated vehicles)	Regulation (EU) 2019/2144	no requirement yet	no requirement yet	no requirement yet	no requirement yet						
F	GENERAL VEHIC	GENERAL VEHICLE CONSTRUCTION AND FEATURES										
F1	Registration plate space	Regulation (EU) 2019/2144	X	X	X	X						
F2	Reversing motion	Regulation (EU) 2019/2144	X	X	X	X						
F3	Door latches and hinges	Regulation (EU) 2019/2144		Application limited to doors giving access to seats designated for normal use when 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.	not in scope	not in scope						

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M ₂	M ₃
				Completed vehicles on the basis of a type-approved incomplete chassis-cowl configuration are exempted from the general and performance requirements.		
F4	Door entry steps, handholds and running boards	Regulation (EU) 2019/2144	X	X	not in scope	not in scope
F5	External projections	Regulation (EU) 2019/2144	G for the cab A for the remaining part The requirements on the protrusion of open windows do not apply to the living compartment	G for the cab A for the remaining part The requirements on the protrusion of open windows do not apply to the living compartment	not in scope	not in scope
F6	External projections of commercial vehicle cabs	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
F7	Statutory plate and vehicle identification number	Regulation (EU) 2019/2144	X	Х	X	Х
F8	Towing devices	Regulation (EU) 2019/2144	X Required for the front only, to be tested if fitted at the rear	X Required for the front only, to be tested if fitted at the rear	X Required for the front only, to be tested if fitted at the rear	X Required for the front only, to be tested if fitted at the rear
F9	Wheel guards	Regulation (EU) 2019/2144	G	G	not in scope	not in scope

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M_3
F10	Spray suppression systems	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope
F11	Masses and dimensions	Regulation (EU) 2019/2144	X	X	X	X
F12	Mechanical couplings	Regulation (EU) 2019/2144	IF X	IF G	IF G	IF G
F13	Vehicles intended for the transportation of dangerous goods (IF)	the 2019/2144 sportation of gerous goods		not in scope not in scope		not in scope
F14	General bus construction	Regulation (EU) 2019/2144	not in scope	not in scope	A	A
F15	Bus strength of superstructure	Regulation (EU) 2019/2144	not in scope	not in scope	A	A
F16	Flammability in buses	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	G for the cab X for the remaining part
G	ENVIRONMENTA	AL PERFORMANO	CE AND EMISSIONS			
G1	Sound level	Regulation (EU) No 540/2014	X	G	G	G
		10010/2011	Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.	Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.	Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.	Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.
G2	Tailpipe emissions Regulation (E		G	G	G	not in scope
of vehicle in lab		No 715/2007	Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.	Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.	Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.	

Item	Subject	Regulatory act	$M_1 \leq 2 500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M_3
			In the case of ambulances, an EU type-approval granted to the most representative base vehicle remains valid irrespective of a change in the reference weight.	In the case of ambulances, an EU type-approval granted to the most representative base vehicle remains valid irrespective of a change in the reference weight.	In the case of ambulances, an EU type-approval granted to the most representative base vehicle remains valid irrespective of a change in the reference weight.	
			Motor-caravans and hearses:	Motor-caravans and hearses:	Motor-caravans and hearses:	
			a vehicle (e.g. in a multi- stage type-approval process), the manufacturer responsible for the conversion needs to consult the original (complete or incomplete) vehicle manufacturer to get confirmation that the converted vehicle is covered by the emission approval of the original (complete or incomplete) vehicle. It is allowed for the reference mass of the	In the case of conversion of a vehicle (e.g. in a multistage type-approval process), the manufacturer responsible for the conversion needs to consult the original (complete or incomplete) vehicle manufacturer to get confirmation that the converted vehicle is covered by the emission approval of the original (complete or incomplete) vehicle. It is allowed for the reference mass of the converted vehicle to exceed 2840 kg.	In the case of conversion of a vehicle (e.g. in a multi-stage type-approval process), the manufacturer responsible for the conversion needs to consult the original (complete or incomplete) vehicle manufacturer to get confirmation that the converted vehicle is covered by the emission approval of the original (complete or incomplete) vehicle. It is allowed for the reference mass of the converted vehicle to exceed 2840 kg.	
G2a	Determination of specific CO ₂ emissions and fuel consumption of vehicle and device for monitoring on board the vehicle the consumption of fuel and/or electric	Regulation (EC) No 715/2007	In the case of multi-stage type-approval, the new CO ₂ value shall be calculated in accordance with the CO ₂ interpolation method, using the relevant data from the completed vehicle.	G In the case of multi-stage type-approval, the new CO ₂ value shall be calculated in accordance with the CO ₂ interpolation method, using the relevant data from the completed vehicle.	G In the case of multi-stage type-approval, the new CO ₂ value shall be calculated in accordance with the CO ₂ interpolation method, using the relevant data from the	Not in scope

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M_3
	energy		Alternatively, the new CO ₂ value shall be calculated on the basis of the parameters of the completed vehicle as specified in paragraph 3.2.4. of Annex B7 to UN Regulation 154 and using the road load matrix tool supplied by the manufacturer of the base vehicle. If the tool is not available or CO ₂ interpolation is impractical, the CO ₂ value of Vehicle High from the base vehicle	Alternatively, the new CO ₂ value shall be calculated on the basis of the parameters of the completed vehicle as specified in paragraph 3.2.4. of Annex B7 to UN Regulation 154 and using the road load matrix tool supplied by the manufacturer of the base vehicle. If the tool is not available or CO ₂ interpolation is impractical, the CO ₂ value of Vehicle High from the base vehicle	completed vehicle. Alternatively, the new CO ₂ value shall be calculated on the basis of the parameters of the completed vehicle as specified in paragraph 3.2.4. of Annex B7 to UN Regulation 154 and using the road load matrix tool supplied by the manufacturer of the base vehicle. If the tool is not available or CO ₂ interpolation is impractical, the CO ₂ value of Vehicle High from the base vehicle shall be used, at the request of the manufacturer responsible for the conversion, and with the agreement of the approval authority.	
G3	Tailpipe emissions of engine in lab	Regulation (EC) No 595/2009	not in scope	Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.	Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.	Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.
G3a	Determination of specific CO ₂ emissions and fuel consumption of vehicle	Regulation (EC) No 595/2009	Not in scope	Not in scope	Not in scope	Not in scope

Item	Subject	U U		$M_1 > 2500 \text{ kg}$	M_2	\mathbf{M}_3
G3b	specific energy efficiency performance of trailer		Not in scope Not in scope		Not in scope	Not in scope
G4	Tailipipe emissions on the	Regulation (EC) No 715/2007	G Modification of exhaust	G Modification of exhaust	G	G
	road	Regulation (EC) No 595/2009	system length after the last silencer not exceeding 2.0 m is permissible without any further test.	system length after the last silencer not exceeding 2.0 m is permissible without any further test.		
	In the an E gran reprint rem		In the case of ambulances, an EU type-approval granted to the most representative base vehicle remains valid irrespective of a change in the reference weight.	In the case of ambulances, an EU type-approval granted to the most representative base vehicle remains valid irrespective of a change in the reference weight.		
			Motor-caravans and hearses:	Motor-caravans and hearses:		
			a vehicle (e.g. in a multi- stage type-approval process), the manufacturer responsible for the	In the case of conversion of a vehicle (e.g. in a multi- stage type-approval process), the manufacturer responsible for the conversion needs to consult the original (complete or incomplete) vehicle manufacturer to get confirmation that the converted vehicle is covered by the emission approval of the original (complete or incomplete) vehicle. It is allowed for the		

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M_3
			the reference mass of the converted vehicle to exceed 2840 kg.	reference mass of the converted vehicle to exceed 2840 kg.		
G5	Durability of tailpipe emissions	Regulation (EC) No 715/2007	G	G	G	G
		Regulation (EC) No 595/2009				
G6	Crankcase emissions	Regulation (EC) No 715/2007	G	G	G	G
		Regulation (EC) No 595/2009				
G7	Evaporative emissions	Regulation (EC) No 715/2007	G	G	G	not in scope
G8	Low- temperaturetailpipe emissions in lab	Regulation (EC) No 715/2007	G	G	G	not in scope
G9	On-board diagnostics	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	G	G	G	G
G10	Absence of defeat device	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	G	G	G	G
G11	Auxiliary emissions strategies	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	G	G	G	G
G12	Anti-tampering	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	G	G	G	G

Item	Subject	Regulatory act	$M_1 \le 2500 \text{ kg}$	$M_1 > 2500 \text{ kg}$	M_2	M ₃
G13	Recyclability	Directive 2005/64/EC	n/a	n/a	not in scope	not in scope
	However, Annex V on prohibition of reuse of the specified component parts shall apply.			However, Annex V on prohibition of reuse of the specified component parts shall apply.		
G14	Air-conditioning systems	Directive 2006/40/EC	G	G	not in scope	not in scope
Н	ACCESS TO VEH	ICLE INFORMAT	ION AND SOFTWARE UPI	DATE		
H1	Access to vehicle OBD information and vehicle repair and maintenance information	Access to vehicle OBD information and vehicle repair and maintenance Regulation (EU) X 2018/858, Articles 61 to 66 and Annex X		X	X	X
Н2	Software update Regulation (EU) X 2018/858 UN Regulation No 156		X	X	X	

Appendix 2

Armoured vehicles

Item	Subject	Regulatory act	\mathbf{M}_1	M_2	M ₃	N_1	N_2	N ₃	O_1	O_2	O ₃	O ₄
A	RESTRAINT SY	STEMS, CRASH TE	ESTING, FUEL	SYSTEM INTE	EGRITY AND I	HIGH VOLT	ΓAGE ELECTRI	CAL SAFETY				
Al	Interior fittings	Regulation (EU) 2019/2144	A	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope		not in scope
A2	Seats and head restraints	Regulation (EU) 2019/2144	normal use when the vehicle is used on a public road. Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a pictogram or a	normal use when the vehicle is used on a public road. Seats that are not designated as such shall be clearly and permanently identified to users, either	used on a public road. Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a	for normal use when the vehicle is used on a public road. Seats that are not designated as such shall be clearly and permanent	limited to seats designated for normal use when the vehicle is used on a public road. Seats that are not designated as such shall be clearly and	Application limited to seats designated for normal use when the vehicle is used on a public road. Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a pictogram or a sign with an appropriate text.	not in scope	not in scope		not in scope

Item	Subject	Regulatory act	M_1	M ₂	M ₃	N_1	N_2	N ₃	O_1	O_2	O ₃	O ₄
						with an appropriat e text.						
A3	Bus seats	Regulation (EU) 2019/2144	not in scope	Application limited to seats designated for normal use when the vehicle is used on a public road. Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a pictogram or a sign with an appropriate text.	used on a public road. Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a	not in scope	not in scope	not in scope	not in scope	not in scope		not in scope
A4	Safety-belt anchorages	Regulation (EU) 2019/2144	A	A	A	A	A	A	not in scope	not in scope		not in scope
A5	Safety-belts and restraint systems		A	A	A	A	A	A	not in scope	not in scope		not in scope
A6	Safety-belt reminders	Regulation (EU) 2019/2144	A	A	A	A	A	A	not in scope	not in scope		not in scope
A7	Partitioning systems	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipment	equipment	equipm ent		equipm ent

Item	Subject	Regulatory act	\mathbf{M}_1	M_2	M_3	N_1	N_2	N_3	O_1	O_2	O_3	O_4
A8	Child restraint anchorages	Regulation (EU) 2019/2144	A	IF	IF	IF	IF	IF	not in scope	not in scope		not in scope
A9	Child restraint systems (IF)	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipment	equipment	equipm ent	equip ment	equipm ent
A10	Enhanced child restraint systems (IF)	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipment	equipment	equipm ent	equip ment	equipm ent
A11	Front underrun protection	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope	X	X	not in scope	not in scope		not in scope
A12	Rear underrun protection	Regulation (EU) 2019/2144	X	X	X	X	A	A	X	X	X	X
A13	Lateral protection	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope	X	X	not in scope	not in scope	X	X
A14	Fuel tank safety (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X
A15	Liquified petroleum gas safety (IF)	Regulation (EU) 2019/2144	A	A	A	A	A	A	not in scope	not in scope		not in scope
A16	Compressed and liquified natural gas safety (IF)	Regulation (EU) 2019/2144	A	A	A	A	A	A	not in scope	not in scope		not in scope
A17	Hydrogen safety (IF)	Regulation (EU) 2019/2144	A	A	A	A	A	A	not in scope	not in scope		not in scope
A18	Hydrogen system material qualification (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X	not in scope	not in scope		not in scope
A19	In-use electric safety (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X	not in scope	not in scope		not in scope
A20	Frontal off-set	Regulation (EU)	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in	not in	not in	not in

Item	Subject	Regulatory act	M ₁	M ₂	M ₃	N_1	N ₂	N ₃	O_1	O_2	O ₃	O_4
	impact	2019/2144							scope	scope	scope	scope
A21	Frontal full-	Regulation (EU)	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in	not in	not in	not in
	width impact	2019/2144							scope	scope	scope	scope
A22	Protective	Regulation (EU)	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in	not in	not in	not in
	steering	2019/2144							scope	scope	scope	scope
A23	Replacement	Regulation (EU)	equipment	equipment	equipment	equipment	equipment	equipment	equipment	equipm	equip	equipm
	airbag	2019/2144								ent	ment	ent
A24	Cab impact	Regulation (EU)	not in scope	not in scope	not in scope	n/a	n/a	n/a	not in	not in	not in	not in
	1	2019/2144	1	1	1				scope	scope	scope	scope
A25	Side impact	Regulation (EU)	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in	not in	not in	not in
		2019/2144							scope	scope		
A26	Pole side impact	Regulation (EU)	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in	not in	not in	not in
1120	Total state impact	2019/2144	11/ 04	not in scope	not in scope	11/ 4	not in scope	not in scope	scope	scope	scope	
A27	Rear impact	Regulation (EU)	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in	not in	not in	not in
112/	Real Impact	2019/2144	11/ 4	not in scope	not in scope	III/ a	not in scope	not in scope	scope	scope	scope	
A28	112-based eCall	Regulation (EU)	G	not in scope	not in scope	G	not in scope	not in scope	not in	not in	not in	
A20	in-vehicles	2015/758	u	not in scope	not in scope	U	not in scope	not in scope	scope	scope	scope	scope
	systems								- · · F	F	· F	- · · I
В	VULNERABLE	ROAD USERS, VIS	ION AND VISI	BILITY								
В1	Pedestrian leg	Regulation (EU)	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in	not in	not in	not in
DI	and head	2019/2144	11/a	not in scope	not in scope	11/a	not in scope	not in scope	scope	scope		scope
	protection								зеоре	весре	зооро	весре
B2	Enlarged head	Regulation (EU)	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in	not in	not in	not in
D2	impact zone	2019/2144	11/ 4	not in scope	not in scope	III/ a	not in scope	not in scope	scope	scope		
В3	Frontal	Regulation (EU)	aguinmant	aguinmant	aguinmant	aguinmant	aguinmant	a quin ma ant				
БЭ	protection	2019/2144	equipment	equipment	equipment	equipment	equipment	equipment	equipment	equipm ent	equip ment	equipm ent
	system	2017/2111									inont	Cit
B4	Advanced	Regulation (EU)	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in	not in	not in	not in
D4	emergency	2019/2144	11/ a	not in scope	not in scope	11/ a	not in scope	not in scope	scope	scope	scope	
	braking for									P*		r-

Item	Subject	Regulatory act	\mathbf{M}_1	M ₂	M ₃	N ₁	N_2	N ₃	O_1	O_2	O ₃	O ₄
	pedestrians and cyclists ahead	9 1					-					
B5	Pedestrian and cyclist collision warning	Regulation (EU) 2019/2144	not in scope	May be partly exempted if the necessary devices cannot be placed in the optimal position as to prevent them from being damaged, which prevents full compliance with the requirements and may be fully exempted if it is impossible to meet these requirements	May be partly exempted if the necessary devices cannot be placed in the optimal position as to prevent them from being damaged, which prevents full compliance with the requirements and may be fully exempted if it is impossible to meet these requirements	not in scope	May be partly exempted if the necessary devices cannot be placed in the optimal position as to prevent them from being damaged, which prevents full compliance with the requirements and may be fully exempted if it is impossible to meet these requirements	prevents full compliance with the requirements and may be	not in scope	not in scope		not in scope
B6	Blind spot information system	Regulation (EU) 2019/2144	not in scope	May be partly exempted if the necessary devices cannot be placed in the optimal position as to prevent them	A May be partly exempted if the necessary devices cannot be placed in the optimal position as to prevent them	not in scope	May be partly exempted if the necessary devices cannot be placed in the optimal position as to prevent them from being	May be partly exempted if the necessary devices cannot be placed in the optimal position as to prevent them from being	not in scope	not in scope		not in scope

Item	Subject	Regulatory act	\mathbf{M}_1	M_2	M_3	N_1	N_2	N_3	O_1	O_2	O_3	O_4
				from being	from being		damaged,	damaged,				
				damaged,	damaged,		which prevents	which				
				which	which		full	prevents full				
				prevents full	prevents full		compliance	compliance				
				compliance	compliance		with the	with the				
				with the	with the		requirements	requirements				
				requirements	requirements		and may be	and may be				
				and may be	and may be		fully exempted					
				fully	fully		if it is	if it is				
				exempted if it	exempted if it		impossible to	impossible to				
				is impossible	is impossible		meet these	meet these				
				to meet these	to meet these		requirements	requirements				
				requirements	requirements		1	1				
B7	Reversing	Regulation (EU)	A	A	A	A	A	A	not in	not in	not in	not i
ן ע	detection	2019/2144	Λ	Λ	Λ	Λ	Λ	Λ	scope	scope	scope	
	detection	2019/2144	May be partly	May be partly	May be partly	May be	May be partly	May be partly	scope	scope	scope	scope
			exempted if	exempted if	exempted if	partly	exempted if	exempted if				
			the necessary	the necessary	the necessary	exempted	the necessary	the necessary				
			devices	devices	devices	if the		devices cannot				
			cannot be	cannot be	cannot be	necessary	be placed in	be placed in				
			placed in the	placed in the	placed in the	devices	the optimal	the optimal				
			optimal	optimal	optimal	cannot be	position as to	position as to				
			position as to	position as to	position as to	placed in	prevent them	prevent them				
			prevent them	prevent them	prevent them	the	from being	from being				
			from being	from being	from being	optimal	damaged,	damaged,				
			damaged,	damaged,	damaged,	position as		which				
			which	which	which	to prevent	full	prevents full				
			prevents full	prevents full	prevents full		compliance	compliance				
			compliance	compliance	compliance	being	with the	with the				
			with the	with the	with the	damaged,	requirements	requirements				
			requirements	requirements	requirements	which	and may be	and may be				
			and may be	and may be	and may be	prevents	fully exempted					
			fully	fully	fully	full	if it is	if it is				
			exempted if it	exempted if it	exempted if it	complianc	impossible to	impossible to				
			is impossible	is impossible	is impossible	e with the	meet these	meet these				
			to meet these	to meet these	to meet these	requireme	requirements	requirements				
			requirements	requirements	requirements	nts and						

Item	Subject	Regulatory act	\mathbf{M}_1	M_2	M ₃	N ₁	N ₂	N ₃	O_1	O_2	O ₃	O ₄
	•	J				may be fully exempted if it is impossible to meet these requireme nts						
B8	Forward vision	Regulation (EU) 2019/2144	The light transmission factor is at least 60 % and the "A" pillar obstruction angle is not more than 10 degrees.	not in scope		The light transmissi on factor is at least 60 % and the "A" pillar obstruction angle is not more than 10 degrees.	not in scope	not in scope	not in scope	not in scope		not in scope
В9	Heavy-duty vehicles direct vision	Regulation (EU) 2019/2144	not in scope	no requirements yet	no requirements yet	not in scope	no requirements yet	no requirements yet	not in scope	not in scope		not in scope
B10	Safety glazing	Regulation (EU) 2019/2144	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B11	Defrost/demist	Regulation (EU) 2019/2144	A	X Vehicles shall be fitted with an adequate windscreen defrosting and demisting	an adequate windscreen	X Vehicles shall be fitted with an adequate windscree	X Vehicles shall be fitted with an adequate windscreen defrosting and demisting	X Vehicles shall be fitted with an adequate windscreen defrosting and demisting	not in scope	not in scope		not in scope

Item	Subject	Regulatory act	M_1	M_2	M_3	N_1	N_2	N_3	O_1	O_2	O_3	O_4
				device	device	n defrosting and demisting device	device	device				
B12	Wash/wipe	Regulation (EU) 2019/2144	A	X Vehicles shall be fitted with adequate windscreen washing and wiping devices	washing and wiping	X Vehicles shall be fitted with adequate windscree n washing and wiping devices	X Vehicles shall be fitted with adequate windscreen washing and wiping devices	X Vehicles shall be fitted with adequate windscreen washing and wiping devices	not in scope	not in scope		not in scope
B13	Indirect vision devices	Regulation (EU) 2019/2144	A	A	A	A	A	A	not in scope	not in scope		not in scope
B14	Acoustic Vehicle Alerting Systems	Regulation (EU) No 540/2014	X	X	X	X	X	X	not in scope	not in scope		not in scope
C	VEHICLE CHAS	SSIS, BRAKING, TY	RES AND STE	EERING								
C1	Steering equipment	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X
C2	Lane departure warning	Regulation (EU) 2019/2144	not in scope	n/a	n/a	not in scope	n/a	n/a	not in scope	not in scope		not in scope
C3	Emergency lane keeping	Regulation (EU) 2019/2144	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope
C4	Braking	Regulation (EU) 2019/2144	G	G	G	G	G	G	X	X	X	X
C5	Replacement braking parts	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipment	equipment	equipm ent	equip ment	equipm ent

Item	Subject	Regulatory act	M_1	M_2	M_3	N_1	N_2	N_3	O_1	O_2	O_3	O_4
C6	Brake assist	Regulation (EU) 2019/2144	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope
C7	Stability control	Regulation (EU) 2019/2144	X	n/a	n/a	X	n/a	n/a	not in scope	not in scope	X	X
C8	Advanced emergency braking on heavy-duty vehicles	Regulation (EU) 2019/2144	not in scope	n/a	n/a	not in scope	n/a	n/a	not in scope	not in scope		not in scope
C9	Advanced emergency braking on light-duty vehicles	Regulation (EU) 2019/2144	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in scope	not in scope		not in scope
C10	Tyre safety and environmental performance	Regulation (EU) 2019/2144	A	A	A	A	A	A	A	A	A	A
C11	Spare wheels and run-flat systems (IF)	Regulation (EU) 2019/2144	A	not in scope	not in scope	A	not in scope	not in scope	not in scope	not in scope		not in scope
C12	Retreaded tyres	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipment	equipment	equipm ent	equip ment	equipm ent
C13	Tyre pressure monitoring for light-duty vehicles	Regulation (EU) 2019/2144	n/a	not in scope	not in scope	n/a	not in scope	not in scope	not in scope	not in scope		not in scope
C14	Tyre pressure monitoring for heavy-duty vehicles	Regulation (EU) 2019/2144	not in scope	n/a	n/a	not in scope	n/a	n/a	not in scope	not in scope	n/a	n/a
C15	Tyre installation	Regulation (EU) 2019/2144	A	A	A	A	A	A	A	A	A	A

Item	Subject	Regulatory act	\mathbf{M}_1	M_2	M ₃	N_1	N_2	N ₃	O_1	O_2	O ₃	O ₄
C16	Replacement wheels	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipment	equipment	equipm ent	equip ment	equipm ent
D	ON-BOARD INS	STRUMENTS, ELEG	CTRICAL SYS	ГЕМ, VEHICLI	E LIGHTING A	ND PROTE	CTION AGAIN	NST UNAUTHO	RISED USE	, INCLU	JDING	
D1	Audible warning	Regulation (EU) 2019/2144	A Additional panic alarm devices are permitted	A Additional panic alarm devices are permitted	A Additional panic alarm devices are permitted	A Additional panic alarm devices are permitted	A Additional panic alarm devices are permitted	A Additional panic alarm devices are permitted	not in scope	not in scope		not in scope
D2	Radio interference (electromagnetic compatibility)	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X
D3	Protection against unauthorised use, immobiliser and alarm systems	Regulation (EU) 2019/2144	X	IF G	IF G	X	IF G	IF G	not in scope	not in scope		not in scope
D4	Protection of vehicle against cyberattacks	Regulation (EU) 2019/2144	X	X	X	X	Х	X	not in scope	not in scope		not in scope
D5	Speedometer	Regulation (EU) 2019/2144	X	X	X	X	X	X	not in scope	not in scope		not in scope
D6	Odometer	Regulation (EU) 2019/2144	X	X	X	X	X	X	not in scope	not in scope		not in scope
D7	Speed limitation devices	Regulation (EU) 2019/2144	not in scope	X	X	not in scope	X	X	not in scope	not in scope	not in scope	not in scope
D8	Intelligent speed	Regulation (EU)	n/a	n/a	n/a	n/a	n/a	n/a	not in	not in	not in	not in

Item	Subject	Regulatory act	M_1	M ₂	M ₃	N ₁	N_2	N_3	O_1	O_2	O_3	O_4
	assistance	2019/2144	-	-					scope	scope	scope	_
D9	Identification of controls, tell-tales and indicators	Regulation (EU) 2019/2144	X	Х	Х	X	X	X	not in scope	not in scope		not in scope
D10	Heating systems	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X
D11	Light signalling devices	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X
D12	Road illumination devices	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X
D13	Retro-reflective devices	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X
D14	Light sources	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X
D15	Installation of light signalling, road illumination and retro-reflective devices	Regulation (EU) 2019/2144	A Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected	A Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected	A Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected	A Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected	A Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected	A Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected	A Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected	ed that	mand atory lighti ng devic es are instal led and that the	A Provide d that all mandat ory lighting devices are installe d and that the geomet ric visibilit y is not affecte

.		D										
Item	Subject	Regulatory act	M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O ₁	O ₂ not affecte d	O ₃ etric visibi lity is not affect ed	O ₄
D16	Emergency stop signal	Regulation (EU) 2019/2144	X	Only for vehicles fitted with electronically controlled anti-lock braking system	Only for vehicles fitted with electronically controlled anti-lock braking system	X	Only for vehicles fitted with electronically controlled antilock braking system	Only for vehicles fitted with electronically controlled anti-lock braking system	not in scope	not in scope	not in scope	
D17	Headlamp cleaners (IF)	Regulation (EU) 2019/2144	IF	IF	IF	IF	IF	IF	not in scope	not in scope	not in scope	
D18	Gear shift indicator	Regulation (EU) 2019/2144	G	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	
Е	DRIVER AND S	YSTEM BEHAVIOU	UR									
E1	Alcohol interlock installation facilitation	Regulation (EU) 2019/2144	A	A	A	A	A	A	not in scope	not in scope	not in scope	
E2	Driver drowsiness and attention warning	Regulation (EU) 2019/2144	A	A	A	A	A	A	not in scope	not in scope	not in scope	
E3	Advanced driver distraction warning	Regulation (EU) 2019/2144	no requirement yet	no requirement yet	no requirement yet	no requireme nt yet	no requirement yet	no requirement yet	not in scope	not in scope	not in scope	
E4	Driver	Regulation (EU)	IF	not in the	not in the	IF	not in the	not in the	not in	not in	not in	not in

										1_		
Item	availability monitoring system (in case of automated vehicles)	Regulatory act 2019/2144	M ₁	M ₂ scope	M ₃ scope	N ₁	N ₂ scope	N ₃ scope	O ₁ scope	O ₂	O ₃	O ₄ scope
E5	Event data recorder	Regulation (EU) 2019/2144	A	no requirement yet	no requirement yet	A	no requirement yet	no requirement yet	not in scope	not in scope		not in scope
Е6	Systems to replace driver's control (in case of automated vehicles)	Regulation (EU) 2019/2144	IF	no requirement yet	no requirement yet	no requireme nt yet	no requirement yet	no requirement yet	not in scope	not in scope		not in scope
E7	Systems to provide the vehicle with information on state of vehicle and surrounding area (in case of automated vehicles)	Regulation (EU) 2019/2144	IF	no requirement yet	no requirement yet	no requireme nt yet	no requirement yet	no requirement yet	not in scope	not in scope		not in scope
E8	Platooning (IF)	Regulation (EU) 2019/2144	no requirement yet	no requirement yet	no requirement yet	no requireme nt yet	no requirement yet	no requirement yet	not in scope	not in scope	not in scope	not in scope
E9	Systems to provide safety information to other road users (in case of automated vehicles)	Regulation (EU) 2019/2144	no requirement yet	no requirement yet	no requirement yet	no requireme nt yet	no requirement yet	no requirement yet	not in scope	not in scope		not in scope
F	GENERAL VEH	IICLE CONSTRUCT	ION AND FEA	TURES								
F1	Registration	Regulation (EU)	X	X	X	X	X	X	X	X	X	X

Item	Subject	Regulatory act	M_1	M_2	M_3	N_1	N_2	N_3	O_1	O_2	O_3	O_4
	plate space	2019/2144										
F2	Reversing motion	Regulation (EU) 2019/2144	X	X	X	X	X	X	not in scope	not in scope		not in scope
F3	Door latches and hinges	Regulation (EU) 2019/2144	X	not in scope	not in scope	X	not in scope	not in scope	not in scope	not in scope		not in scope
F4	Door entry steps, handholds and running boards	Regulation (EU) 2019/2144	X	not in scope	not in scope	X	X	X	not in scope	not in scope		not in scope
F5	External projections	Regulation (EU) 2019/2144	A	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope		not in scope
F6	External projections of commercial vehicle cabs	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	A	A	A	not in scope	not in scope		not in scope
F7	Statutory plate and vehicle identification number	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X
F8	Towing devices	Regulation (EU) 2019/2144	A	A	A	A	A	A	not in scope	not in scope		not in scope
F9	Wheel guards	Regulation (EU) 2019/2144	G	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope		not in scope
F10	Spray suppression systems	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	X	X	X	X	X	X	X
F11	Masses and dimensions	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X	X
F12	Mechanical couplings	Regulation (EU) 2019/2144	IF X	IF X	IF X	IF X	IF X	IF X	X	X	X	X
F13	Vehicles	Regulation (EU)	not in scope	not in scope	not in scope	X	X	X	X	X	X	X

Item	Subject	Regulatory act	M_1	M_2	M_3	N_1	N_2	N_3	O_1	O_2	O_3	O_4
	intended for the transportation of dangerous goods (IF)	2019/2144										
F14	General bus construction	Regulation (EU) 2019/2144	not in scope	A	A	not in scope	not in scope	not in scope	not in scope	not in scope		not in scope
F15	Bus strength of superstructure	Regulation (EU) 2019/2144	not in scope	A	A	not in scope	not in scope	not in scope	not in scope	not in scope		not in scope
F16	Flammability in buses	Regulation (EU) 2019/2144	not in scope	not in scope	X	not in scope	not in scope	not in scope	not in scope	not in scope		not in scope
G	ENVIRONMEN	TAL PERFORMANO	CE AND EMISS	SIONS								
G1	Sound level	Regulation (EU) No 540/2014	X	X	X	X	X	X	not in scope	not in scope		not in scope
G2	Tailpipe emissions of vehicle in lab	Regulation (EC) No 715/2007	At the manufacturer's request Regulation (EC) No	At the manufacturer's request Regulation (EC) No 715/2007 may apply to vehicles with a reference mass exceeding 2 840 kg. The approval authority may only grant exemption(s) if the manufacturer demonstrates	not in scope	At the manufactu rer's request Regulation (EC) No 715/2007 may apply to vehicles with a reference mass exceeding 2 840 kg. The approval authority may only	At the manufacturer's request Regulation (EC) No 715/2007 may apply to vehicles with a reference mass exceeding 2 840 kg. The approval authority may only grant exemption(s) if the manufacturer demonstrates that the vehicle	not in scope	not in scope	not in scope		not in scope

Item	Subject	Regulatory act	M_1	M_2	M ₃	N_1	N_2	N ₃	O_1	O_2	O ₃	O_4
			that the	that the		exemption	cannot meet					
			vehicle cannot	vehicle cannot		(s) if the	the					
			meet the	meet the		manufactu	requirements					
			requirements	requirements		rer	due to its					
			due to its	due to its		demonstra	special					
			special	special		tes that the	purpose. The					
			purpose. The	purpose. The		vehicle	exemptions					
			exemptions	exemptions		cannot	granted are to					
			granted are to	granted are to		meet the	be described					
			be described	be described		requireme	on the vehicle					
			on the vehicle	on the vehicle		nts due to	type-approval					
			type-approval	type-approval		its special	certificate and					
			certificate and	certificate and		purpose.	the certificate					
			the certificate	the certificate		The	of conformity.					
			of conformity.	of conformity.		exemption						
						s granted						
						are to be						
						described						
						on the						
						vehicle						
						type-						
						approval						
						certificate						
						and the						
						certificate						
						of						
						conformit						
						y.						
G2a	Determination	Regulation (EC) No	$ _{\mathbf{X}}$	$ _{\mathbf{X}}$	not in scope	X	$ _{\mathbf{X}}$	not in scope	not in	not in	not in	not in
32u	of specific CO ₂	715/2007	**	1	list in scope	*	1.	not in scope	scope	scope		scope
	emissions and	, 15, 2007	At the	At the		At the	At the		Sope	СССРС	Scope	Sope
	fuel			manufacturer's								
	consumption of		request	request		rer's	request					
	vehicle and		Regulation	Regulation		request	Regulation					
	device for		(EC) No	(EC) No		Regulation						
	monitoring on			715/2007 may		(EC) No	715/2007 may					
	board the		apply to	apply to		715/2007	apply to					

											_	T_
Item	Subject	Regulatory act	M ₁	M ₂	M ₃	N ₁	N ₂	N ₃	O_1	O_2	O ₃	O_4
	vehicle the		vehicles with	vehicles with		may apply	vehicles with a					
	consumption of		a reference	a reference			reference mass					
	fuel and/or		mass	mass		with a	exceeding 2					
	electric energy		exceeding 2	exceeding 2		reference	840 kg.					
			840 kg.	840 kg.		mass	The approval					
			The approval	The approval		exceeding	authority may					
			authority may	authority may		2 840 kg.	only grant					
			only grant	only grant		The	exemption(s) if					
			exemption(s)	exemption(s)		approval	the					
			if the	if the		authority	manufacturer					
			manufacturer	manufacturer		may only	demonstrates					
			demonstrates	demonstrates		grant	that the vehicle					
			that the	that the		-	cannot meet					
				vehicle cannot		(s) if the	the					
			meet the	meet the			requirements					
			requirements	requirements		rer	due to its					
			due to its	due to its		demonstra						
			special	special			purpose. The					
			purpose. The	purpose. The		vehicle	exemptions					
			exemptions	exemptions		cannot	granted are to					
				granted are to		meet the	be described					
			be described	be described		requireme	on the vehicle					
			on the vehicle	on the vehicle		nts due to	type-approval					
			type-approval	type-approval		its special	certificate and					
				certificate and		purpose.	the certificate					
			the certificate	the certificate		The	of conformity.					
			of conformity.	of conformity.		exemption						
						s granted						
						are to be						
						described						
						on the						
						vehicle						
						type-						
						approval						
						certificate						
						and the						
						certificate						

Item	Subject	Regulatory act	M_1	M_2	M ₃	N ₁	N_2	N ₃	O_1	O_2	O ₃	O_4
						of conformit y.						
G3	Tailpipe emissions of engine in lab	Regulation (EC) No 595/2009	X	X	X	X	X	X	not in scope	not in scope		not in scope
G3a	Determination of specific CO ₂ emissions and fuel consumption of vehicle	Regulation (EC) No 595/2009	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope		not in scope
G3b	Determination of specific energy efficiency performance of trailer	Regulation (EC) No 595/2009	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope		not in scope
G4	Tailipipe emissions on the road	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	Х	Х	X	X	X	not in scope	not in scope		not in scope
G5	Durability of tailpipe emissions	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	X	not in scope	not in scope		not in scope
G6	Crankcase emissions	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	х	X	X	X	х	X	not in scope	not in scope		not in scope
G7	Evaporative emissions	Regulation (EC) No 715/2007	X	X	not in scope	X	X	not in scope	not in scope	not in scope		not in scope

Item	Subject	Regulatory act	M_1	M_2	M ₃	N_1	N_2	N_3	O_1	O_2	O_3	O_4
G8	Low- temperaturetailp ipe emissions in lab	Regulation (EC) No 715/2007	X	X	not in scope	X	X	not in scope	not in scope	not in scope		not in scope
G9	On-board diagnostics	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	Х	X	X	X	not in scope	not in scope		not in scope
G10	Absence of defeat device	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	Х	X	X	X	not in scope	not in scope		not in scope
G11	Auxiliary emissions strategies	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	Х	X	Х	X	not in scope	not in scope		not in scope
G12	Anti-tampering	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	Х	X	X	X	not in scope	not in scope		not in scope
G13	Recyclability	Directive 2005/64/EC	n/a However, Annex V on prohibition of reuse of the specified component parts shall apply.	not in scope	not in scope	n/a However, Annex V on prohibitio n of reuse of the specified componen t parts shall apply.	not in scope	not in scope	not in scope	not in scope		not in scope
G14	Air- conditioning	Directive 2006/40/EC	X	not in scope	not in scope	X	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M_1	M_2	M ₃	N_1	N_2	N ₃	O_1	O_2	O_3	O ₄
	systems											
Н	ACCESS TO VE	HICLE INFORMAT	ION AND SOF	TWARE UPDA	TE							
Н1	vehicle OBD	Regulation (EU) 2018/858, Articles 61 to 66 and Annex X	X	X	X	X	X	X	X	X	X	X
H2		Regulation (EU) 2018/858 UN Regulation No 156	X	X	X	X	X	X	X	X		

Appendix 3

Wheelchair accessible vehicles

Item	Subject	Regulatory act	M_1
A		TEMS, CRASH TEST	TING, FUEL SYSTEM INTEGRITY AND HIGH VOLTAGE
A1	Interior fittings	Regulation (EU) 2019/2144	Note G may be applied to those fittings in the interior of the vehicle that are not significantly affected by the modification, however, any added or modified fittings in the interior shall comply with the requirements as applicable for vehicle category M ₁ Application is limited to the passenger compartment in front of the transverse plane passing through the torso reference line of the 3-D H-point machine placed on the rearmost seat designated for normal use when the vehicle is used on a public road, as well as to the respective reference zones of each seating position designated for normal use as defined in the regulatory act when the vehicle type is
A2	Seats and head restraints	Regulation (EU) 2019/2144	Subject to the requirements applicable to vehicle category M ₁ . G Note G may be applied to seats and head restraints of the vehicle that are not significantly affected by the modification, however, any added or modified fittings concerning seats and head restraints shall comply with the requirements as applicable for vehicle category M ₁ The energy dissipation and radii requirements of seats and head restraints are checked in accordance with paragraphs 5.2.3./5.2.4.2. and 5.2.4. of UN Regulation No 17 when the vehicle type is subject to the requirements applicable to vehicle category M ₁ . The longitudinal plane of the intended wheelchair-travelling position shall 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/Amd 1:2015 (or later revisions) is recommended. The seats of the vehicle may be adapted without further testing, provided it can be demonstrated to the satisfaction of the technical service that their anchorages, mechanisms and head restraints provide an adequate level of performance. The luggage retention requirements of UN Regulation No 17 ((para. 1, point (c) and Annex 9) do not apply.
A3	Bus seats	Regulation (EU) 2019/2144	not in scope
A4	Safety-belt anchorages	Regulation (EU) 2019/2144	X Each wheelchair location shall be provided with anchorages to which a wheelchair tie-down and occupant restraint system

Item	Subject	Regulatory act	M_1
			(WTORS) is to be fitted, and that complies with the additional
			provisions for testing the wheelchair tie down and occupant
			restraint system set out below.
			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. At the request of the
			manufacturer, a heavier surrogate wheelchair may be used,
			provided it has the same dimensional characteristics and centre of
			gravity position as the prescribed version. The pneumatic tyres may
			be replaced with solid or foam-filled versions in the same size.
			1.3. WTORS means a wheelchair tie-down and occupant restraint system.
			2. General requirements
			2.1. Each wheelchair location shall be provided with anchorages to
			which a WTORS can be fitted.
			2.2. The wheelchair occupant's lower belt anchorages shall be
			located in accordance with paragraph 5.4.2.2 UN Regulation No 14,
			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 points
			3. or 4. below.
			Either point 3. or 4. shall apply.
			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, simultaneously with the static forces applied to
			the wheelchair tie-down anchorages as specified in point 3.2. 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, coinciding 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

Item	Subject	Regulatory act	M_1
			towards the front of the vehicle 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 points 5.2.2. and 5.2.3. and Annex A to international standard ISO 10542-1:2012, testing all components/anchorages simultaneously, using a vehicle body-in-white or representative structure.
A5	Safety-belts and restraint systems	Regulation (EU) 2019/2144	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 below. 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, the technical service shall 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 shall be performed. The test may be performed using components that have not undergone the conditioning test prescribed by UN Regulation No 16. 1. Definitions 1.1. Surrogate wheelchair (SWC) means a rigid, re-usable test wheelchair, as defined in section 3 of international standard ISO.
			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. At the request of the manufacturer, a heavier surrogate wheelchair may be used, provided it has the same dimensional characteristics and centre of gravity position as the prescribed version. The pneumatic tyres may be replaced with solid or foam-filled versions in the same size. 1.3. WTORS means a wheelchair tie-down and occupant restraint system.
			2.1. An assessment shall be made of the WTORS occupant belt to ensure compliance with paragraphs 8.2.2. to 8.2.2.4. and 8.3.1 to 8.3.4 of UN Regulation No 16. Either point 3. or 4. shall apply.
			3. Static in-vehicle testing 3.1. Components of the system 3.1.1. Where the WTORS anchorages have been tested statically in the vehicle, 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 to, and points 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 to international standard ISO 10542-1:2012. This may be carried out within the vehicle structure or on a surrogate structure

Item	Subject	Regulatory act	M_1
			representative of the vehicle's WTORS anchorage geometry. The location of each anchorage used for the test shall lie within the tolerance provided for in paragraph 7.7.1. of UN Regulation No 16, of its true position relative to Point P. 3.1.2. Where the occupant restraint part of the WTORS is approved in accordance with UN Regulation No 16, it shall be subject to the dynamic test as part of the complete WTORS specified in point 3.1.1., however, the requirements of points 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. Where the WTORS anchorages have been tested dynamically in the vehicle, the component parts of the WTORS shall meet the relevant requirements of international standard ISO 10542-1:2012, points 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.
A6	Safety-belt reminders	Regulation (EU) 2019/2144	n/a
A7	Partitioning systems	Regulation (EU) 2019/2144	equipment
A8	Child restraint anchorages	Regulation (EU) 2019/2144	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 provided in the vehicle owner's manual for the completed vehicle.
A9	Child restraint systems (IF)	Regulation (EU) 2019/2144	equipment
A10	Enhanced child restraint systems (IF)	Regulation (EU) 2019/2144	equipment
A11	Front underrun protection	Regulation (EU) 2019/2144	not in scope
A12	Rear underrun protection	Regulation (EU) 2019/2144	X
A13	Lateral protection	Regulation (EU) 2019/2144	not in scope
A14	Fuel tank safety (IF)	Regulation (EU) 2019/2144	Modification of the routing, length of the refuelling duct, fuel hoses and fuel vapour pipes as well as re-positioning of the original tank and evaporative control devices provided by the manufacturer of the base vehicle is permissible without further testing provided the installation requirements of paragraphs 5.4., 5.5., 5.6., 5.7., 5.8., and 5.11. of UN Regulation No 34 are met, and provided that the technical service is satisfied, by visual inspection, that the essential requirements of paragraph 5.10. of that Regulation have been satisfied. In cases involving re-positioning of the original plastic tank, further testing in accordance with Annex 5 to UN Regulation No 34 is not required.

	Subject	Regulatory act	M_1
A15	Liquified	Regulation (EU)	G
	petroleum gas	2019/2144	
A16	safety (IF) Compressed and	Regulation (EU)	G
AIO	liquified natural	2019/2144	G .
	gas safety (IF)		
A17	Hydrogen safety (IF)	Regulation (EU) 2019/2144	G
A18	Hydrogen system	Regulation (EU)	X
	material qualification (IF)	2019/2144	
A19	In-use electric	Regulation (EU)	G
AI	safety (IF)	2019/2144	G .
A20	Frontal off-set	Regulation (EU)	G
	impact	2019/2144	Altermeticals a suitable territor of Conserted in subject to survey in
			Alternatively, a suitable torsion stiffness test, in which a torque is applied to the vehicle as close as practicable to the spring mounting
			points, with all doors, hatches and bonnet opened, shall demonstrate
			that the torsional stiffness is within $\pm 75\%$ of that of the unmodified
			previous-stage vehicle body. In addition, a bending stiffness test
			shall be carried out with the vehicle on level ground, in which all side
			and rear doors and hatches shall open normally when the vehicle is
A21	Frontal full-width	Regulation (EU)	loaded to its technically maximum permissible laden mass. G
AZI	impact	2019/2144	U
	F		Alternatively, a suitable torsion stiffness test, in which a torque is
			applied to the vehicle as close as practicable to the spring mounting
			points, with all doors, hatches and bonnet opened, shall demonstrate
			that the torsional stiffness is within \pm 75% of that of the unmodified previous-stage vehicle body. In addition, a bending stiffness test
			shall be carried out with the vehicle on level ground, in which all side
			and rear doors and hatches shall open normally when the vehicle is
			loaded to its technically maximum permissible laden mass.
A22	Protective steering	Regulation (EU) 2019/2144	G
			n/a in case of modified steering systems for drivers with special
A 22	Donlo constit	December (EII)	needs
A23	Replacement airbag	Regulation (EU) 2019/2144	equipment
A24	Cab impact	Regulation (EU) 2019/2144	not in scope
A25	Side impact	Regulation (EU) 2019/2144	G
			Alternatively, a suitable torsion stiffness test, in which a torque is
			applied to the vehicle as close as practicable to the spring mounting
			points, with all doors, hatches and bonnet opened, shall demonstrate that the torsional stiffness is within \pm 75% of that of the unmodified
			previous-stage vehicle body. In addition, a bending stiffness test
			shall be carried out with the vehicle on level ground, in which all side
			and rear doors and hatches shall open normally when the vehicle is
			loaded to its technically maximum permissible laden mass.
A26	Pole side impact	Regulation (EU) 2019/2144	n/a

Item	Subject	Regulatory act	M_1
A27	Rear impact	Regulation (EU) 2019/2144	n/a
A28	112-based eCall in-vehicles systems	Regulation (EU) 2015/758	G
В		OAD USERS, VISION	AND VISIBILITY
B1	Pedestrian leg and head protection	Regulation (EU) 2019/2144	G
B2	Enlarged head impact zone	Regulation (EU) 2019/2144	G
			Modifications to the interior fittings directly behind the windscreen do not have to be taken into account.
В3	Frontal protection system	Regulation (EU) 2019/2144	equipment
B4	Advanced emergency braking	Regulation (EU) 2019/2144	G
	for pedestrians and cyclists ahead		n/a in case of modified braking systems for drivers with special needs
B5	Pedestrian and cyclist collision warning	Regulation (EU) 2019/2144	not in scope
В6	Blind spot information system	Regulation (EU) 2019/2144	not in scope
В7	Reversing detection	Regulation (EU) 2019/2144	A
			May be partly exempted if equipment for special needs passengers prevents full compliance with the requirements and may be fully exempted if it is impossible to meet these requirements
В8	Forward vision	Regulation (EU) 2019/2144	G
В9	Heavy-duty vehicles direct vision	Regulation (EU) 2019/2144	not in scope
B10	Safety glazing	Regulation (EU) 2019/2144	G
B11	Defrost/demist	Regulation (EU) 2019/2144	G
B12	Wash/wipe	Regulation (EU) 2019/2144	G
B13	Indirect vision devices	Regulation (EU) 2019/2144	X
B14	Acoustic Vehicle Alerting Systems	Regulation (EU) No 540/2014	X
С	VEHICLE CHASSI TYRES AND STEE		·
C1	Steering equipment	Regulation (EU) 2019/2144	G
C2	Lane departure warning	Regulation (EU) 2019/2144	not in scope
СЗ	Emergency lane keeping	Regulation (EU) 2019/2144	G
			n/a in case of modified steering systems for drivers with special needs, or in case of modified braking system if the ELKS of the base vehicle acts on the braking system instead.

Item	Subject	Regulatory act	M_1
C4	Braking	Regulation (EU) 2019/2144	G
C5	Replacement braking parts	Regulation (EU) 2019/2144	equipment
C6	Brake assist	Regulation (EU) 2019/2144	G
			n/a in case of modified braking systems for drivers with special needs
C7	Stability control	Regulation (EU) 2019/2144	In case of modifications to the stability control system included as part of a previous stage type-approval, which are likely to affect the
			function of that base vehicle's stability control system, it shall be demonstrated that the vehicle has not been rendered unsafe or unstable. This shall be proven by tests e.g. performing rapid double lane-change manoeuvres in each direction at 80 km/h with sufficient severity to cause intervention by the stability control
			system. These interventions shall be well-controlled and shall improve the stability of the vehicle under those driving conditions in comparison to the stability of the vehicle with, where practicable, a disabled stability control system. All tests are subject to the agreement between the manufacturer and technical service.
C8	Advanced emergency braking on heavy-duty vehicles	Regulation (EU) 2019/2144	not in scope
С9	Advanced emergency braking on light-duty vehicles	Regulation (EU) 2019/2144	G n/a in case of modified braking systems for drivers with special needs
C10	Tyre safety and environmental performance	Regulation (EU) 2019/2144	X
C11	Spare wheels and run-flat systems (IF)	Regulation (EU) 2019/2144	X
C12	Retreaded tyres	Regulation (EU) 2019/2144	equipment
C13	Tyre pressure monitoring for light-duty vehicles	Regulation (EU) 2019/2144	G
C14	Tyre pressure monitoring for heavy-duty vehicles	Regulation (EU) 2019/2144	not in scope
C15	Tyre installation	Regulation (EU) 2019/2144	X
C16	Replacement wheels	Regulation (EU) 2019/2144	equipment
D			ICAL SYSTEM, VEHICLE LIGHTING AND PROTECTION LUDING CYBERATTACKS
D1	Audible warning	Regulation (EU) 2019/2144	X

	Subject	Regulatory act	M_1
D2	Radio interference (electromagnetic compatibility)	Regulation (EU) 2019/2144	X
D3	Protection against unauthorised use, immobiliser and alarm systems	Regulation (EU) 2019/2144	X
D4	Protection of vehicle against cyberattacks	Regulation (EU) 2019/2144	X
D5	Speedometer	Regulation (EU) 2019/2144	X
D6	Odometer	Regulation (EU) 2019/2144	X
D7	Speed limitation devices	Regulation (EU) 2019/2144	not in scope
D8	Intelligent speed assistance	Regulation (EU) 2019/2144	A May be partly exempted if equipment for special needs passengers prevents full compliance with the requirements and may be fully exempted if it is impossible to meet these requirements
D9	Identification of controls, tell-tales and indicators	Regulation (EU) 2019/2144	X
D10	Heating systems	Regulation (EU) 2019/2144	X
D11	Light signalling devices	Regulation (EU) 2019/2144	X
D12	Road illumination devices	Regulation (EU) 2019/2144	X
D13	Retro-reflective devices	Regulation (EU) 2019/2144	X
D14	Light sources	Regulation (EU) 2019/2144	X
D15	Installation of light signalling, road illumination and retro-reflective devices	Regulation (EU) 2019/2144	X
D16	Emergency stop signal	Regulation (EU) 2019/2144	Only for vehicles fitted with electronically controlled anti-lock braking system
D17	Headlamp cleaners (IF)	Regulation (EU) 2019/2144	IF
D18	Gear shift indicator		G
Е	DRIVER AND SYS	STEM BEHAVIOUR	<u> </u>
E1	Alcohol interlock installation facilitation	Regulation (EU) 2019/2144	A
E2	Driver drowsiness and attention	Regulation (EU) 2019/2144	A

Item	Subject	Regulatory act	M_1
	warning		May be partly exempted if equipment for special needs passengers prevents full compliance with the requirements and may be fully exempted if it is impossible to meet these requirements
ЕЗ	Advanced driver distraction warning	Regulation (EU) 2019/2144	No requirement yet
E4	Driver availability monitoring system (in case of automated vehicles)	Regulation (EU) 2019/2144	IF
E5	Event data recorder	Regulation (EU) 2019/2144	A May be partly exempted if equipment for special needs passengers prevents full compliance with the requirements and may be fully exempted if it is impossible to meet these requirements
E6	Systems to replace driver's control (in case of automated vehicles)	Regulation (EU) 2019/2144	IF
E7	Systems to provide the vehicle with information on state of vehicle and surrounding area (in case of automated vehicles)	Regulation (EU) 2019/2144	IF
E8	Platooning (IF)	Regulation (EU) 2019/2144	No requirement yet
E9	Systems to provide safety information to other road users (in case of automated vehicles)	Regulation (EU) 2019/2144	No requirement yet
F		LE CONSTRUCTION	AND FEATURES
F1	Registration plate space	Regulation (EU) 2019/2144	X
F2	Reversing motion	Regulation (EU) 2019/2144	X
F3	Door latches and hinges	Regulation (EU) 2019/2144	X
F4	Door entry steps, handholds and running boards	Regulation (EU) 2019/2144	X
F5	External projections	Regulation (EU) 2019/2144	G Any boarding aids are considered only in the stowed position
F6	External projections of commercial vehicle cabs	Regulation (EU) 2019/2144	not in scope
F7	Statutory plate and	Regulation (EU)	X

Item	Subject	Regulatory act	M_1
	vehicle	2019/2144	
	identification		
	number		
F8	Towing devices	Regulation (EU) 2019/2144	X
			Required for the front only, to be tested if fitted at the rear
F9	Wheel guards	Regulation (EU) 2019/2144	G
F10	Spray suppression systems	Regulation (EU) 2019/2144	not in scope
F11	Masses and dimensions	Regulation (EU) 2019/2144	X
			For the purposes of calculations, the mass of the wheel-chair including the user is assumed to be 160 kg. The mass is
			concentrated at the P point of the surrogate wheelchair in its
			travelling position as declared by the manufacturer.
			It is permitted to temporarily limit the overall passenger capacity and to restrict the use of normal seating positions as a result of the actual transport of wheelchairs, with their users. In such case, the
			affected normal seating positions shall be clearly and permanently identified to users, either by means of a pictogram or a sign with an appropriate text. This shall be noted in Part 2 of the EU type-
			approval certificate as well as under "remarks" in the Certificate of Conformity as to allow inclusion of this information in on-board
			vehicle registration papers. In addition, the following shall be explained in the owner's manual for the completed vehicle: The
			meaning of any pictograms used to mark the affected seating positions, as well as a more detailed description of the specific
E10	3.6 1 1 1	D 1 .: (FII)	restrictions, if necessary.
F12	Mechanical couplings	Regulation (EU) 2019/2144	IF X
F13	Vehicles intended for the	Regulation (EU) 2019/2144	not in scope
	transportation of	2019/2111	
	dangerous goods		
	(IF)		
F14	General bus	Regulation (EU)	not in scope
	construction	2019/2144	
F15	Bus strength of	Regulation (EU)	not in scope
	superstructure	2019/2144	
F16	Flammability in	Regulation (EU)	not in scope
	buses	2019/2144	
G			AND EMISSIONS
G1	Sound level	Regulation (EU) No 540/2014	G
			Modification of the exhaust system length is permitted without the
			need for retesting, provided that the exhaust back pressure remains similar.
G2	Tailpipe emissions of vehicle in lab	Regulation (EC) No 715/2007	G
			Modification in the exhaust system is permitted without any further test of tailpipe emissions provided that the emission control devices,
	L	l .	the or improve emissions provided that the emission control devices,

Item	Subject	Regulatory act	M_1
	3		including particulate filters (if any), are not affected.
G2a	Determination of	Regulation (EC) No	In case of conversion of a vehicle (e.g. in a multi-stage type-approval process), the manufacturer responsible for the conversion needs to consult the original (complete or incomplete) vehicle manufacturer to get confirmation that the converted vehicle is covered by the emission approval of the original (complete or incomplete) vehicle. In such a case it is acceptable if the reference mass of the converted vehicle will exceed 2840 kg.
	specific CO ₂ emissions and fuel consumption of vehicle and device for monitoring on board the vehicle the consumption of	715/2007	Modification in the exhaust system is permitted without any further test of CO ₂ /fuel consumption provided that the emission control devices, including particulate filters (if any), are not affected. In the case of multi-stage type-approval, the new CO ₂ value shall be calculated in accordance with the CO ₂ interpolation method, using
	fuel and/or electric energy		the relevant data from the completed vehicle. Alternatively, the new CO_2 value shall be calculated on the basis of the parameters of the completed vehicle as specified in paragraph 3.2.4. of Annex B7 to UN Regulation 154 and using the road load matrix tool supplied by the manufacturer of the base vehicle. If the tool is not available or CO_2 interpolation is impractical, the CO_2 value of Vehicle High from the base vehicle shall be used, at the request of the manufacturer responsible for the conversion, and with the agreement of the approval authority.
G3	Tailpipe emissions of engine in lab	Regulation (EC) No 595/2009	Modification in the exhaust system is permitted without any further test of tailpipe emissions and CO ₂ /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 original (complete or incomplete) vehicle, no new evaporative test is required on the modified vehicle.
G3a	Determination of specific CO ₂ emissions and fuel consumption of vehicle	Regulation (EC) No 595/2009	Not in scope
G3b	Determination of specific energy efficiency performance of trailer	Regulation (EC) No 595/2009	Not in scope
G4	Tailipipe emissions on the road	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	In case of conversion of a vehicle (e.g. in a multi-stage type-approval process), the manufacturer responsible for the conversion needs to consult the original (complete or incomplete) vehicle manufacturer to get confirmation that the converted vehicle is covered by the emission approval of the original (complete or incomplete) vehicle. In such a case it is acceptable if the reference mass of the converted vehicle will exceed 2840 kg.

Item	Subject	Regulatory act	M_1
G5	Durability of	Regulation (EC) No	G
	tailpipe emissions	715/2007	
		Regulation (EC) No 595/2009	
G6	Crankcase	Regulation (EC) No	G
Go	emissions	715/2007	G .
	CHIBSIONS	Regulation (EC) No	
		595/2009	
G7	Evaporative	Regulation (EC) No	G
	emissions	715/2007	
			If the evaporative control devices are kept as fitted by the
			manufacturer of the original (complete or incomplete) vehicle, no
G8	Low-	Regulation (EC) No	new evaporative test is required on the modified vehicle. G
Go	temperaturetailpipe	715/2007	U
	emissions in lab	713/2007	
G9	On-board	Regulation (EC) No	G
	diagnostics	715/2007	
		Regulation (EC) No	
		595/2009	
G10	Absence of defeat	Regulation (EC) No	G
	device	715/2007	
		Regulation (EC) No 595/2009	
G11	Auxiliary	Regulation (EC) No	G
	emissions	715/2007	
	strategies	Regulation (EC) No	
		595/2009	
G12	Anti-tampering	Regulation (EC) No	G
		715/2007 Regulation (EC) No	
		595/2009	
G13	Recyclability	Directive	n/a
		2005/64/EC	
			However, Annex V on prohibition of reuse of the specified
			component parts shall apply.
G14	Air-conditioning	Directive	G
	systems	2006/40/EC	LAND COPERAL DE LINDA EL
H H1			X AND SOFTWARE UPDATE
Lu I	Access to vehicle OBD information	Regulation (EU) 2018/858, Articles	^
	and vehicle repair	61 to 66 and Annex	
	and maintenance	X	
	information		
H2	Software update	Regulation (EU)	X
		2018/858, Annex IV	
		UN Regulation No	
		156	

Appendix 4 Other special purpose vehicles (including special group, multi-equipment carrier and trailer caravans)

Item	Subject	Regulatory act	M ₂	M ₃	N_1	N_2	N ₃	O_1	O_2	O ₃	O ₄
A	RESTRAINT SY	STEMS, CRASH	TESTING, FUE	L SYSTEM IN	ΓEGRITY ANI	O HIGH VOLTA	GE ELECTRIC	CAL SAF	ETY		
A 1	Interior fittings	Regulation (EU)	not in scope	not in scope	not in scope	not in scope	not in scope	not in	not in	not in	not in
		2019/2144						scope	scope	scope	scope
A2	Seats and head	Regulation (EU)	X	X	X	X	X	not in	not in	not in	not in
	restraints	2019/2144						scope	scope	scope	scope
			Application	Application	Application	Application	Application				
			limited to	limited to	limited to	limited to seats	limited to				
			seats	seats	seats	designated for	seats				
			designated	designated for	designated	normal use	designated				
			for normal	normal use	for normal	when the	for normal				
			use when the	when the	use when the	vehicle is used	use when the				
			vehicle is	vehicle is used	vehicle is	on a public	vehicle is				
			used on a	on a public	used on a	road.	used on a				
			public road.	road.	public road.		public road.				
						Seats that are					
			Seats that are	Seats that are	Seats that are	not designated	Seats that are				
			not	not designated	not	as such shall be	not				
			designated as	as such shall	designated as	clearly and	designated as				
			such shall be	be clearly and	such shall be	permanently	such shall be				
			clearly and	permanently	clearly and	identified to	clearly and				
			permanently	identified to	permanently	users, either by	permanently				
			identified to	users, either	identified to	means of a	identified to				
			users, either	by means of a	users, either	pictogram or a	users, either				
			by means of a	pictogram or a	by means of a	sign with an	by means of a				
			pictogram or	sign with an	pictogram or	appropriate	pictogram or				
			a sign with an	appropriate	a sign with an	text.	a sign with an				
			appropriate	text.	appropriate		appropriate				
			text.		text.		text.				
.3	Bus seats	Regulation (EU)	X	X	not in scope	not in scope	not in scope	not in	not in	not in	not in
		2019/2144					1.	scope	scope	scope	scope
			Application	Application				1	1	1	1

Item	Subject	Regulatory act	M ₂	M_3	N ₁	N_2	N ₃	O_1	O_2	O_3	O ₄
	,		limited to	limited to							
			seats	seats							
			designated	designated for							
			for normal	normal use							
			use when the	when the							
			vehicle is	vehicle is used							
			used on a	on a public							
			public road.	road.							
			Seats that are	Seats that are							
			not	not designated							
			designated as	as such shall							
			such shall be	be clearly and							
			clearly and	permanently							
			permanently	identified to							
			identified to	users, either							
			users, either	by means of a							
				pictogram or a							
			pictogram or	sign with an							
			a sign with an								
			appropriate	text.							
	0.0.1.1	D 1 ((EII)	text.	37	37	37	37	, .			
A4	Safety-belt anchorages	Regulation (EU) 2019/2144	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
	unenorages	2017/2144	Application	Application	Application	Application	Application	scope	scope	scope	зеоре
			limited to	limited to	limited to	limited to seats	limited to				
			seats	seats	seats	designated for	seats				
			designated	designated for	designated	normal use	designated				
			for normal	normal use	for normal	when the	for normal				
			use when the	when the	use when the	vehicle is used	use when the				
			vehicle is	vehicle is used	vehicle is	on a public	vehicle is				
			used on a	on a public	used on a	road.	used on a				
			public road.	road.	public road.		public road.				
A5		Regulation (EU)	X	X	X	X	X	not in	not in	not in	not in
	restraint systems	2019/2144	A mulionei a m	Amuliantian	A martinastia ::	Amuliantian	A1;	scope	scope	scope	scope
			Application limited to	Application limited to	Application limited to	Application limited to seats	Application limited to				
								1			
			seats	seats	seats	designated for	seats	l			

Item	Subject	Regulatory act	M ₂	M ₃	N_1	N_2	N ₃	O_1	O_2	O_3	O_4
			designated		designated	normal use	designated				
			for normal	normal use	for normal	when the	for normal				
			use when the	when the	use when the	vehicle is used	use when the				
			vehicle is	vehicle is used	vehicle is	on a public	vehicle is				
			used on a	on a public	used on a	road.	used on a				
			public road.	road.	public road.		public road.				
A6	Safety-belt	Regulation (EU)	X	X	X	X	X	not in	not in	not in	not in
	reminders	2019/2144						scope	scope	scope	scope
A7	Partitioning systems	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipme nt	equipment	equipment	equipment
A8	Child restraint	Regulation (EU)	IF	IF	IF	IF	IF	not in	not in	not in	not in
	anchorages	2019/2144						scope	scope	scope	scope
A9	Child restraint systems (IF)	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipme nt	equipment	equipment	equipment
A10	Enhanced child restraint systems (IF)	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipme nt	equipment	equipment	equipment
A11	Front underrun protection	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	X	X	not in scope	not in scope	not in scope	not in scope
A12	Rear underrun protection	Regulation (EU) 2019/2144	X	X	A	A	A	X	X	X	X
A13	Lateral protection	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	X	X	not in scope	not in scope	X	X
A14	Fuel tank safety (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
			Modification	Modification	Modification	Modification to	Modification				
			to the routing	to the routing	to the routing	the routing and	to the routing				
				and length of	and length of	length of the	and length of				
				the refuelling	the refuelling	refuelling duct	the refuelling				
			duct and re-	duct and re-	duct and re-	and re-	duct and re-				
			positioning of	positioning of	positioning of	positioning of	positioning of				
			the original	the original	the original	the original	the original				
			tank inboard	tank inboard is	tank inboard	tank inboard is	tank inboard				
			is permissible	permissible	is permissible	permissible	is permissible				
			provided all	provided all	provided all	provided all	provided all				
			installation	installation	installation	installation	installation				
			requirements	requirements	requirements	requirements	requirements				
			are met.	are met.	are met.	are met.	are met.				

Item	Subject	Regulatory act	M ₂	M ₃	N ₁	N ₂	N ₃	O_1	O_2	O_3	O ₄
A15	Liquified petroleum gas safety (IF)	Regulation (EU) 2019/2144	G	X	G	G	X	not in scope	not in scope	not in scope	not in scope
A16	liquified natural gas safety (IF)	Regulation (EU) 2019/2144	G	X	G	G	X	not in scope	not in scope	not in scope	not in scope
A17	Hydrogen safety (IF)	Regulation (EU) 2019/2144	G	X	G	G	X	not in scope	not in scope	not in scope	not in scope
A18	Hydrogen system material qualification (IF)	Regulation (EU) 2019/2144	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
A19	In-use electric safety (IF)	Regulation (EU) 2019/2144	G	X	G	G	X	not in scope	not in scope	not in scope	not in scope
A20	Frontal off-set impact	Regulation (EU) 2019/2144	not in scope	not in scope	Completed vehicles are deemed to comply with the frontal off-set impact requirements provided that compliance has been demonstrated for at least the van or chassis-cab configuration, with appropriate powertrain, as part of a previous-stage type-		not in scope	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M_2	M_3	N_1	N_2	N_3	O_1	O_2	O_3	O_4
					irrespective						
					of the mass in						
					running order						
					increase.						
A21	Frontal full-	Regulation (EU)	not in scope	not in scope	G	not in scope	not in scope	not in	not in	not in	not in
	width impact	2019/2144	1	1		1	1	scope	scope	scope	scope
	1				Completed			1	1	1	1
					vehicles are						
					deemed to						
					comply with						
					the frontal						
					full-width						
					impact						
					requirements						
					provided that						
					compliance						
					has been						
					demonstrated						
					for at least						
					the van or						
					chassis-cab						
					configuration,						
					with						
					appropriate						
					powertrain,						
					as part of a						
					previous-						
					stage type-						
					approval,						
					irrespective						
					of the mass in						
					running order						
					increase.		<u> </u>				
A22	Protective	Regulation (EU)	not in scope	not in scope	G	not in scope	not in scope	not in	not in	not in	not in
	steering	2019/2144						scope	scope	scope	scope
A23	Replacement	Regulation (EU)	equipment	equipment	equipment	equipment	equipment	equipme	equipment	equipment	equipment
	airbag	2019/2144						nt			
A24	Cab impact	Regulation (EU)	not in scope	not in scope	A + G	A	A	not in	not in	not in	not in

Item	Subject	Regulatory act	M ₂	M ₃	N ₁	N ₂	N ₃	O_1	O_2	O ₃	O ₄
		2019/2144						scope	scope	scope	scope
					Completed			1			
					vehicles are						
					deemed to						
					comply with						
					cab impact						
					requirements						
					provided that						
					compliance						
					has been						
					demonstrated						
					for at least						
					the van or						
					chassis-cab						
					configuration,						
					with						
					appropriate						
					powertrain,						
					as part of a						
					previous-						
					stage type-						
					approval,						
					irrespective						
					of the mass in						
					running order						
					increase.						
A25	Side impact	Regulation (EU) 2019/2144	not in scope	not in scope	G	not in scope	not in scope	not in	not in	not in	not in
		2019/2144			Completed			scope	scope	scope	scope
					vehicles are						
					deemed to						
					comply with						
					side impact						
					requirements						
					provided that						
					compliance						
					has been						
					demonstrated				1		

Item	Subject	Regulatory act	M_2	M_3	N_1	N_2	N ₃	O_1	O_2	O_3	O_4
	· ·				for at least						
					the van or						
					chassis-cab						
					configuration,						
					with						
					appropriate						
					powertrain,						
					as part of a						
					previous-						
					stage type-						
					approval,						
					irrespective						
					of the mass in						
					running order						
					increase.						
A26	Pole side impact	Regulation (EU) 2019/2144	not in scope	not in scope	A + G	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope
					Completed			1	1	1	1
					vehicles are						
					deemed to						
					comply with						
					pole side						
					impact						
					requirements						
					provided that						
					compliance						
					has been						
					demonstrated						
					for at least						
					the van or						
					chassis-cab						
					configuration,						
					with						
					appropriate						
					powertrain,						
					as part of a						
					previous-						
					stage type-		1				

Item	Subject	Regulatory act	M ₂	M_3	N ₁	N ₂	N ₃	O_1	O_2	O_3	O_4
	•	· ·			approval,						
					irrespective						
					of the mass in						
					running order						
					increase.						
A27	Rear impact	Regulation (EU)	not in scope	not in scope	A + G	not in scope	not in scope	not in	not in	not in	not in
		2019/2144						scope	scope	scope	scope
					Completed						
					vehicles are						
					deemed to						
					comply with						
					rear impact						
					requirements						
					provided that						
					compliance						
					has been						
					demonstrated						
					for at least						
					the van or						
					chassis-cab						
					configuration,						
					with						
					appropriate						
					powertrain,						
					as part of a						
					previous-						
					stage type-						
					approval,						
					irrespective						
					of the mass in						
					running order						
4.20	1121 1 0 11	D 1. (FII)		, .	increase.			, .			
A28		Regulation (EU)	not in scope	not in scope	G	not in scope	not in scope	not in	not in	not in	not in
	in-vehicles	2015/758						scope	scope	scope	scope
D	systems	DOAD HOEBO 37	GION AND TH	CIDILITY							
B		ROAD USERS, VI			14	I , ·	1 , .	1 , .		1 , .	1 ,
B1	Pedestrian leg	Regulation (EU)	not in scope	not in scope	A	not in scope	not in scope	not in	not in	not in	not in
	and head	2019/2144						scope	scope	scope	scope

Item	Subject	Regulatory act	M_2	M ₃	N_1	N_2	N ₃	O_1	O_2	O_3	O_4
	protection										
B2	Enlarged head impact zone	Regulation (EU) 2019/2144	not in scope	not in scope	A	not in scope	not in scope	not in	not in	not in	not in
В3	Frontal	Regulation (EU)	equipment	equipment	equipment	equipment	equipment	scope equipme	scope equipment	scope equipment	scope
ВЗ	protection	2019/2144	equipment	equipment	equipment	equipment	equipment	nt	equipment	equipment	equipment
B4	system Advanced	Regulation (EU)			A				not in		not in
В4	emergency braking for pedestrians and cyclists ahead	2019/2144	not in scope	not in scope	May be partly exempted if non-removable equipment on the front of the cab prevents full compliance with the requirements and may be fully exempted if it is impossible to meet these		not in scope	not in scope	scope	not in scope	not in scope
					requirements						
B5	Pedestrian and cyclist collision warning	Regulation (EU) 2019/2144	X	X	not in scope	A May be partly exempted if non-removable equipment on the front of the cab prevents full compliance with the requirements and may be fully exempted	the cab prevents full compliance	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M_2	M_3	N_1	N_2	N ₃	O_1	O ₂	O ₃	O ₄
						if it is impossible to meet these requirements	requirements and may be fully exempted if it is impossible to meet these requirements				
В6	Blind spot information system	Regulation (EU) 2019/2144	X	X	not in scope	X	X	not in scope	not in scope	not in scope	not in scope
В7	Reversing detection	Regulation (EU) 2019/2144	X	X	exempted if non-removable equipment on the rear of the vehicle prevents full compliance with the requirements and may be fully exempted if it	prevents full compliance with the requirements and may be fully exempted if it is	May be partly exempted if non-removable equipment on the rear of the vehicle prevents full compliance with the requirements and may be fully exempted if it is impossible to meet these requirements		not in scope	not in scope	not in scope
В8	Forward vision	Regulation (EU) 2019/2144	not in scope	not in scope	A May be partly exempted if non-removable equipment on the front of	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M_2	M ₃	N ₁	N_2	N ₃	O_1	O_2	O ₃	O ₄
					the cab						
					prevents full						
					compliance						
					with the						
					requirements						
					and may be						
					fully						
					exempted if it						
					is impossible						
					to meet these						
					requirements						
B9	Heavy-duty	Regulation (EU)	no	no	not in scope	no	no	not in	not in	not in	not in
	vehicles direct	2019/2144	requirements	requirements		requirements	requirements	scope	scope	scope	scope
	vision		yet	yet		yet	yet				
B10	Safety glazing	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
			For all	For all glazing	For all	For all glazing	For all	Glazing	Glazing	Glazing	Glazing
			glazing other	other than the	glazing other	other than the	glazing other	material	material	material	material
			than the	windscreen	than the	windscreen and	than the	may be	may be	may be	may be
			windscreen	and side	windscreen	side windows	windscreen	either of	either of	either of	either of
			and side	windows	and side	located forward	and side	safety	safety	safety	safety
			windows	located	windows	of the driver's	windows	glass or	glass or	glass or	glass or
			located	forward of the	located	eye points, the	located	rigid	rigid	rigid	rigid
			forward of	driver's eye	forward of	material may	forward of	plastic	plastic	plastic	plastic
			the driver's	points, the	the driver's	be either of	the driver's	glazing.	glazing.	glazing.	glazing.
			eye points,	material may	eye points,	safety glass or	eye points,				
			the material	be either of	the material	rigid plastic	the material				
			may be either	safety glass or	may be either	glazing.	may be either				
			of safety	rigid plastic	of safety		of safety				
			glass or rigid	glazing.	glass or rigid		glass or rigid				
			plastic		plastic		plastic				
			glazing.		glazing.		glazing.				
B11	Defrost/demist	Regulation (EU)	X	X	X	X	X	not in	not in	not in	not in
		2019/2144						scope	scope	scope	scope
			Vehicles	Vehicles shall		Vehicles shall	Vehicles				
				be fitted with			shall be fitted				
			with an	an adequate	an adequate	an adequate	with an				
			adequate	windscreen	windscreen	windscreen	adequate				

Item	Subject	Regulatory act	M_2	M ₃	N_1	N ₂	N ₃	O_1	O ₂	O ₃	O_4
		-	windscreen		defrosting	defrosting and	windscreen				
			defrosting	demisting	and demisting		defrosting				
			and	device	device	device	and				
			demisting				demisting				
			device				device				
B12	Wash/wipe	Regulation (EU) 2019/2144	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
			Vehicles shall be fitted with adequate windscreen washing and wiping devices	be fitted with	Vehicles shall be fitted with adequate windscreen washing and wiping devices		Vehicles shall be fitted with adequate windscreen washing and wiping devices				
B13	Indirect vision devices	Regulation (EU) 2019/2144	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
B14	Acoustic Vehicle Alerting Systems	Regulation (EU)	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
С		SSIS, BRAKING, T	YRES AND S	TEERING	•	•	•	<u>I</u>	U	•	<u> </u>
C1	Steering equipment	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
C2	Lane departure warning	Regulation (EU) 2019/2144	n/a	n/a	not in scope	n/a	n/a	not in scope	not in scope	not in scope	not in scope
C3	Emergency lane keeping	Regulation (EU) 2019/2144	not in scope	not in scope	May be partly exempted if non-removable equipment on the front of the cab prevents full compliance with the requirements and may be	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M ₂	M ₃	N ₁	N ₂	N ₃	O_1	O_2	O_3	O_4
	V				fully exempted if it is impossible to meet these requirements						
C4	Braking	Regulation (EU) 2019/2144	G	G	G	Anti-lock braking system is not mandatory for vehicles with hydrostatic drive.	Anti-lock braking system is not mandatory for vehicles with hydrostatic drive.	X	X	X	X
C5	Replacement braking parts	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipme nt	equipment	equipment	equipment
C6	Brake assist	Regulation (EU) 2019/2144	not in scope	not in scope	A	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope
C7	Stability control	Regulation (EU) 2019/2144	n/a	n/a	n/a	n/a	n/a	not in scope	not in scope	X	X
C8	Advanced emergency braking on heavy-duty vehicles	Regulation (EU) 2019/2144	n/a	n/a	not in scope	n/a	n/a	not in scope	not in scope	not in scope	not in scope
C9	Advanced emergency braking on light-duty vehicles	Regulation (EU) 2019/2144	not in scope	not in scope	A May be partly exempted if non-removable equipment on the front of the cab prevents full compliance with the		not in scope	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M ₂	M ₃	N_1	N_2	N ₃	O_1	O_2	O ₃	O ₄
					requirements and may be fully exempted if it is impossible to meet these requirements						
C10	Tyre safety and environmental performance	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
C11	Spare wheels and run-flat systems (IF)	Regulation (EU) 2019/2144	not in scope	not in scope	X	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope
C12	Retreaded tyres	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipme nt	equipment	equipment	equipment
C13	Tyre pressure monitoring for light-duty vehicles	Regulation (EU) 2019/2144	not in scope	not in scope	A	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope
C14	Tyre pressure monitoring for heavy-duty vehicles	Regulation (EU) 2019/2144	X	X	not in scope	X	X	not in scope	not in scope	X	X
C15	Tyre installation	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
C16	Replacement wheels	Regulation (EU) 2019/2144	equipment	equipment	equipment	equipment	equipment	equipme nt	equipment	equipment	equipment
D	ON-BOARD INS	STRUMENTS, ELF KS	ECTRICAL SY	STEM, VEHIC	LE LIGHTING	AND PROTEC	TION AGAINS	ST UNAU	THORISED	USE, INCL	UDING
D1	Audible warning	Regulation (EU) 2019/2144	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
D2	Radio interference (electromagnetic compatibility)	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
D3	Protection against unauthorised	Regulation (EU) 2019/2144	IF G	IF G	X	IF G	IF G	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M ₂	M ₃	N_1	N_2	N ₃	O_1	O_2	O ₃	O ₄
	use, immobiliser and alarm systems										
D4	Protection of vehicle against cyberattacks	Regulation (EU) 2019/2144	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
D5	Speedometer	Regulation (EU) 2019/2144	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
D6	Odometer	Regulation (EU) 2019/2144	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
D7	Speed limitation devices	Regulation (EU) 2019/2144	X	X	not in scope	X	X	not in scope	not in scope	not in scope	not in scope
D8	Intelligent speed assistance	Regulation (EU) 2019/2144	A	A	A	A	A	not in scope	not in scope	not in scope	not in scope
			May be partly exempted if non-removable	May be partly exempted if non-removable equipment on	exempted if non-removable	May be partly exempted if non-removable equipment on the front of the	May be partly exempted if non-removable				
			equipment on the front of the cab prevents full			cab prevents full compliance with the requirements	equipment on the front of the cab prevents full				
			compliance with the requirements and may be	with the requirements and may be fully	with the requirements and may be fully	and may be fully exempted if it is impossible to	compliance with the requirements and may be				
			fully	exempted if it is impossible to meet these requirements	exempted if it is impossible to meet these requirements	meet these requirements	fully exempted if it is impossible to meet these requirements				
D9	Identification of controls, tell-tales and indicators	Regulation (EU) 2019/2144	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
D10		Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X

Item	Subject	Regulatory act	M ₂	M ₃	N_1	N ₂	N ₃	O_1	O_2	O_3	O_4
D11	Light signalling devices	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
D12	Road illumination devices	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
D13	Retro-reflective devices	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
D14	Light sources	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
D15	Installation of light signalling,	Regulation (EU) 2019/2144	A	A	A	A	A	A	A	A	A
	road illumination and retro-reflective devices		all mandatory lighting devices are installed and that the geometric visibility is not affected	Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected	Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected	all mandatory lighting devices are installed and that the geometric visibility is not affected	lighting devices are installed and that the geometric visibility is not affected	that all mandato ry lighting devices are installed and that the geometri c visibility is not affected	that all mandatory lighting devices are installed and that the geometric visibility is not affected	lighting devices are installed and that the geometric visibility is not affected	Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected
D16	Emergency stop signal	Regulation (EU) 2019/2144	Only for vehicles fitted with electronically controlled anti-lock braking system	Only for vehicles fitted with electronically controlled anti-lock braking system	with electronically controlled anti-lock braking system	Only for vehicles fitted with electronically controlled anti- lock braking system	Only for vehicles fitted with electronically controlled anti-lock braking system	not in scope	not in scope	not in scope	not in scope
D17	Headlamp cleaners (IF)	Regulation (EU) 2019/2144	IF	IF	IF	IF	IF	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M_2	M ₃	N_1	N_2	N ₃	O_1	O_2	O ₃	O ₄
D18	Gear shift	Regulation (EU)	not in scope	not in scope	not in scope	not in scope	not in scope	not in	not in	not in	not in
	indicator	2019/2144						scope	scope	scope	scope
Е		SYSTEM BEHAVI		1			1	_	_		
E1	Alcohol interlock installation facilitation	Regulation (EU) 2019/2144	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
E2	Driver drowsiness and attention warning	Regulation (EU) 2019/2144	A	A	A	A	A	not in scope	not in scope	not in scope	not in scope
E3		Regulation (EU)	no .	no .	no .	no requirement	no .	not in	not in	not in	not in
	distraction warning	2019/2144	requirement yet	requirement yet	requirement yet	yet	requirement yet	scope	scope	scope	scope
E4	Driver availability monitoring system (in case of automated vehicles)	Regulation (EU) 2019/2144	not in scope	not in scope	IF	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope
E5	Event data recorder	Regulation (EU) 2019/2144	no requirement yet	no requirement yet	A	no requirement yet	no requirement yet	not in scope	not in scope	not in scope	not in scope
E6	Systems to replace driver's control (in case of automated vehicles)	Regulation (EU) 2019/2144	no requirement yet	no requirement yet	no requirement yet	no requirement yet	no requirement yet	not in scope	not in scope	not in scope	not in scope
E7	Systems to provide the vehicle with information on state of vehicle and surrounding area (in case of automated vehicles)	Regulation (EU) 2019/2144	no requirement yet	no requirement yet	no requirement yet	no requirement yet	no requirement yet	not in scope	not in scope	not in scope	not in scope
E8	Platooning (IF)	Regulation (EU)	no	no	no	no requirement	no	not in	not in	not in	not in

Item	Subject	Regulatory act	M ₂	M ₃	N_1	N ₂	N ₃	O_1	O_2	O_3	O ₄
		2019/2144	requirement yet	requirement yet	requirement yet	yet	requirement yet	scope	scope	scope	scope
E9	Systems to provide safety information to other road users (in case of automated vehicles)	Regulation (EU) 2019/2144	no requirement yet	no requirement yet	no requirement yet	no requirement yet	no requirement yet	not in scope	not in scope	not in scope	not in scope
F		IICLE CONSTRUC			137	37	37	T37	37	37	37
F1	Registration plate space	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
F2	Reversing motion	Regulation (EU) 2019/2144	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
F3	Door latches and hinges	Regulation (EU) 2019/2144	not in scope	not in scope	Application limited to doors giving access to seats designated for normal use when 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		not in scope	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M ₂	M ₃	N_1	N ₂	N ₃	O_1	O_2	O_3	O_4
					longitudinal medium plane of the vehicle, does not exceed 500 mm.						
F4	Door entry steps, handholds and running boards	Regulation (EU) 2019/2144	X	X	В	В	В	not in scope	not in scope	not in scope	not in scope
F5	External projections	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope
F6	External projections of commercial vehicle cabs	Regulation (EU) 2019/2144	not in scope	not in scope	X	X	X	not in scope	not in scope	not in scope	not in scope
F7	Statutory plate and vehicle identification number	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
F8	Towing devices	Regulation (EU) 2019/2144	A	A	A	A	A	not in scope	not in scope	not in scope	not in scope
F9	Wheel guards	Regulation (EU) 2019/2144	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope
F10	Spray suppression systems	Regulation (EU) 2019/2144	not in scope	not in scope	X	X	X	X	X	X	X
F11	Masses and dimensions	Regulation (EU) 2019/2144	X	X	X	X	X	X	X	X	X
F12	Mechanical couplings	Regulation (EU) 2019/2144	IF X	IF X	IF X	IF X	IF X	X	X	X	X
F13	Vehicles intended for the transportation of dangerous goods (IF)	Regulation (EU) 2019/2144	not in scope	not in scope	X	X	X	X	X	X	X
F14	General bus construction	Regulation (EU) 2019/2144	X	X	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M ₂	M ₃	N ₁	N_2	N ₃	O_1	O_2	O_3	O_4
F15	Bus strength of	Regulation (EU)	X	X	not in scope	not in scope	not in scope	not in	not in	not in	not in
	superstructure	2019/2144						scope	scope	scope	scope
F16	Flammability in	Regulation (EU)	not in scope	X	not in scope	not in scope	not in scope	not in	not in	not in	not in
	buses	2019/2144						scope	scope	scope	scope
G	ENVIRONMEN'	TAL PERFORMAN	NCE AND EMI	SSIONS							
G1	Sound level	Regulation (EU)	G	G	G	G	G	not in	not in	not in	not in
		No 540/2014						scope	scope	scope	scope
			Modification	Modification		Modification of					
			of exhaust	of exhaust	of exhaust		of exhaust				
				system length			system length				
			after the last	after the last	after the last	last silencer not					
			silencer not	silencer not	silencer not	exceeding 2.0	silencer not				
				exceeding 2.0	exceeding 2.0		exceeding 2.0				
			m is	m is	m is	permissible	m is				
			permissible	permissible	permissible	without any	permissible				
			without any	without any	without any	further test.	without any				
			further test.	further test.	further test.		further test.				
G2	Tailpipe	Regulation (EC)	X	not in scope	X	X	not in scope	not in	not in	not in	not in
	emissions of	No 715/2007						scope	scope	scope	scope
	vehicle in lab		Modification			Modification of					
			of exhaust		of exhaust	exhaust system					
			system length			length after the					
			after the last		after the last	last silencer not					
			silencer not		silencer not	ex ceeding 2.0					
			exceeding 2.0		ex ceeding	m is					
			m is		2.0 m is	permissible					
			permissible		permissible	without any					
			without any		without any	further test.					
			further test.		further test.						
						Alternatively,					
					Alternatively,						
					Regulation	(EU)					
					(EU)	2016/1628 may					
					2016/1628	also apply to					
					may also	vehicles with					
					apply to	hydrostatic					
					vehicles with	drive.					
					hydrostatic						

Item	Subject	Regulatory act	M_2	M_3	N_1	N_2	N ₃	O_1	O_2	O_3	O_4
	•	<u> </u>			drive.						
G2a	Determination of specific CO ₂ emissions and fuel consumption of vehicle and device for monitoring on board the vehicle the consumption of fuel and/or	Regulation (EC) No 715/2007	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope
G3	Tailpipe emissions of engine in lab	Regulation (EC) No 595/2009	X Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.	X Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.	X Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test. Alternatively, Regulation (EU) 2016/1628 may also apply to vehicles with hydrostatic drive.	permissible without any further test. Alternatively, Regulation (EU) 2016/1628 may also apply to vehicles with hydrostatic	of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test. Alternatively, Regulation		not in scope	not in scope	not in scope
G3a	Determination of specific CO ₂	Regulation (EC) No 595/2009	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope

Item	Subject	Regulatory act	M ₂	M ₃	N ₁	N_2	N ₃	O_1	O_2	O ₃	O ₄
	emissions and fuel consumption of										
	vehicle										
G3b	Determination of specific energy efficiency performance of trailer	Regulation (EC) No 595/2009	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope	Not in scope
G4	Tailipipe emissions on the road	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	of exhaust system length after the last silencer not	Modification of exhaust system length after the last silencer not exceeding 2.0 m is permissible without any further test.	Modification of exhaust system length after the last silencer not ex ceeding 2.0 m is permissible without any further test. Alternatively, Regulation (EU) 2016/1628 may also apply to vehicles with hydrostatic	length after the last silencer not ex ceeding 2.0 m is permissible without any further test. Alternatively,	of exhaust system length after the last silencer not ex ceeding 2.0 m is permissible without any further test. Alternatively, Regulation (EU) 2016/1628 may also apply to vehicles with hydrostatic	not in scope	not in scope	not in scope	not in scope
G5	Durability of tailpipe emissions	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	of exhaust system length	X Modification of exhaust system length after the last	drive. X Modification of exhaust system length after the last	X Modification of exhaust system length after the last silencer not	of exhaust system length	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M_2	M ₃	N_1	N_2	N_3	O_1	O_2	O ₃	O_4
			silencer not exceeding 2.0 m is	m is	silencer not exceeding 2.0 m is	permissible	silencer not exceeding 2.0 m is				
			permissible without any further test.	permissible without any further test.	permissible without any further test.	without any further test.	permissible without any further test.				
G6	Crankcase emissions	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
G7	Evaporative emissions	Regulation (EC) No 715/2007	X	not in scope	X	X	not in scope	not in scope	not in scope	not in scope	not in scope
G8	Low- temperature tailpipe emissions in lab	Regulation (EC) No 715/2007	X	not in scope	X	X	not in scope	not in scope	not in scope	not in scope	not in scope
G9	On-board diagnostics	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
G10	Absence of defeat device	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
G11	Auxiliary emissions strategies	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
G12	Anti-tampering	Regulation (EC) No 715/2007 Regulation (EC) No 595/2009	X	X	X	X	X	not in scope	not in scope	not in scope	not in scope
G13	Recyclability	Directive 2005/64/EC	not in scope	not in scope	n/a However, Annex V on prohibition of reuse of the specified	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope

Item	Subject	Regulatory act	M_2	M ₃	N_1	N ₂	N_3	O_1	O ₂	O ₃	O_4
					component parts shall apply.						
G14	Air- conditioning systems	Directive 2006/40/EC	not in scope	not in scope	X	not in scope	not in scope	not in scope	not in scope	not in scope	not in scope
Н	ACCESS TO VE	EHICLE INFORMA	TION AND SO	OFTWARE UPI	DATE						
H1	vehicle repair and maintenance information	Regulation (EU) 2018/858, Articles 61 to 66 and Annex X		X	X	X	X	X	X	X	X
H2	Software update	Regulation (EU) 2018/858, Annex IV UN Regulation No 156	X	X	X	X	X	X	X		

Appendix 5

Mobile cranes

Item	Subject	Regulatory act	N_3
A	RESTRAINT SYS	TEMS, CRASH	TESTING, FUEL SYSTEM INTEGRITY AND HIGH VOLTAGE
	ELECTRICAL SA	FETY	
A1	Interior fittings	Regulation (EU) 2019/2144	not in scope
A2	Seats and head restraints	Regulation (EU) 2019/2144	Application limited to seats designated for normal use when the vehicle is used on a public road. Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a pictogram or a sign with an appropriate text.
A3	Bus seats	Regulation (EU) 2019/2144	not in scope
A4	Safety-belt anchorages	Regulation (EU) 2019/2144	Application limited to seats designated for normal use when the vehicle is used on a public road.
A5	Safety-belts and restraint systems	Regulation (EU) 2019/2144	Application limited to seats designated for normal use when the vehicle is used on a public road.
A6	Safety-belt reminders	Regulation (EU) 2019/2144	X
A7	Partitioning systems	Regulation (EU) 2019/2144	equipment
A8	Child restraint anchorages	Regulation (EU) 2019/2144	IF B
A9	Child restraint systems (IF)	Regulation (EU) 2019/2144	equipment
A10	Enhanced child restraint systems (IF)	Regulation (EU) 2019/2144	equipment
A11	Front underrun protection	Regulation (EU) 2019/2144	A Not required for vehicles meeting the provisions Annex I, Part A, point 4.3(b)(ii) and (iii), as well as point 4.3(c).
A12	Rear underrun protection	Regulation (EU) 2019/2144	A
A13	Lateral protection	Regulation (EU)	A

Item	Subject	Regulatory act	N_3
		2019/2144	
A14	Fuel tank safety (IF)	Regulation (EU) 2019/2144	A
A15	Liquified petroleum gas safety (IF)	Regulation (EU) 2019/2144	X
A16	Compressed and liquified natural gas safety (IF)	Regulation (EU) 2019/2144	X
A17	Hydrogen safety (IF)	Regulation (EU) 2019/2144	X
A18	Hydrogen system material qualification (IF)	Regulation (EU) 2019/2144	X
A19	In-use electric safety (IF)	Regulation (EU) 2019/2144	X
A20	Frontal off-set impact	Regulation (EU) 2019/2144	not in scope
A21	Frontal full-width impact	Regulation (EU) 2019/2144	not in scope
A22	Protective steering	Regulation (EU) 2019/2144	not in scope
A23	Replacement airbag	Regulation (EU) 2019/2144	equipment
A24	Cab impact	Regulation (EU) 2019/2144	A
A25	Side impact	Regulation (EU) 2019/2144	not in scope
A26	Pole side impact	Regulation (EU) 2019/2144	not in scope
A27	Rear impact	Regulation (EU) 2019/2144	not in scope
A28	112-based eCall in-vehicles systems	Regulation (EU) 2015/758	not in scope
В		OAD USERS, VI	SION AND VISIBILITY
B1	Pedestrian leg and head protection	Regulation (EU) 2019/2144	not in scope
B2	Enlarged head impact zone	Regulation (EU) 2019/2144	not in scope

Item	Subject	Regulatory act	N_3
В3	Frontal protection system	Regulation (EU) 2019/2144	equipment
B4	Advanced emergency braking for pedestrians and cyclists ahead	Regulation	not in scope
B5	Pedestrian and cyclist collision warning	Regulation (EU) 2019/2144	A
В6	Blind spot information system	2019/2144	A
В7	Reversing detection	Regulation (EU) 2019/2144	A
B8	Forward vision	Regulation (EU) 2019/2144	not in scope
B9	Heavy-duty vehicles direct vision	Regulation (EU) 2019/2144	no requirements yet
B10	Safety glazing	Regulation (EU) 2019/2144	X For all glazing other than the windscreen and side windows located forward of the driver's eye points, the material may be either of safety glass or rigid plastic glazing.
B11	Defrost/demist	Regulation (EU) 2019/2144	X Vehicles shall be fitted with an adequate windscreen defrosting and demisting device
B12	Wash/wipe	Regulation (EU) 2019/2144	X Vehicles shall be fitted with adequate windscreen washing and wiping devices
B13	Indirect vision devices	Regulation (EU) 2019/2144	X
B14	Acoustic Vehicle Alerting Systems	Regulation (EU) No 540/2014	X
С	VEHICLE CHASS		TYRES AND STEERING
C C1	Steering equipment	Regulation (EU) 2019/2144	X Crab steering allowed
C2	Lane departure warning	Regulation (EU) 2019/2144	n/a
C3	Emergency lane keeping	Regulation (EU) 2019/2144	not in scope
C4	Braking	Regulation (EU)	G

Item	Subject	Regulatory act	N_3
		2019/2144	Test to be performed only with the complete/completed vehicle. Vehicles up to 4 axles shall comply with all the requirements laid down in the relevant regulatory acts. Derogations are admitted for vehicles having more than 4 axles, provided that: (a) they are justified by the particular construction; and (b) all the braking performances, related to parking, service and secondary braking laid down in the relevant regulatory act are
			fulfilled.
			Anti-lock braking system is not mandatory for vehicles with hydrostatic drive.
C5	Replacement braking parts	Regulation (EU) 2019/2144	equipment
C6	Brake assist	Regulation (EU) 2019/2144	not in scope
C7	Stability control	Regulation (EU) 2019/2144	n/a
C8	Advanced emergency braking on heavy-duty vehicles	Regulation (EU) 2019/2144	n/a
C9	on light-duty vehicles	Regulation (EU) 2019/2144	not in scope
C10	Tyre safety and environmental performance	Regulation (EU) 2019/2144	X
C11	Spare wheels and run-flat systems (IF)	Regulation (EU) 2019/2144	not in scope
C12	Retreaded tyres	Regulation (EU) 2019/2144	equipment
C13	Tyre pressure monitoring for light-duty vehicles	Regulation (EU) 2019/2144	not in scope
C14	Tyre pressure monitoring for heavy-duty vehicles	Regulation (EU) 2019/2144	n/a
C15	Tyre installation	Regulation (EU) 2019/2144	X
C16	Replacement wheels	Regulation (EU) 2019/2144	equipment
D		RUMENTS, ELI	ECTRICAL SYSTEM, VEHICLE LIGHTING AND PROTECTION , INCLUDING CYBERATTACKS
D1	Audible warning	Regulation	X

Item	Subject	Regulatory act	N_3
		(EU)	
		2019/2144	
D2	Radio interference	Regulation	X
	(electromagnetic compatibility)	(EU) 2019/2144	
D3	Protection against	Regulation	IF G
DJ	unauthorised use,	(EU)	
	immobiliser and	2019/2144	
	alarm systems		
D4	Protection of	Regulation	X
	vehicle against	(EU)	/ · · · · · · · · · · · · · · · · · · ·
D.F	cyberattacks	2019/2144	n/a in case of complete vehicle
D5	Speedometer	Regulation (EU)	X
		2019/2144	
D6	Odometer	Regulation	X
		(EU)	
		2019/2144	
D7	Speed limitation	Regulation	X
	devices	(EU) 2019/2144	
D8	Intelligent speed	Regulation	A
Do	assistance	(EU)	
		2019/2144	Only to be applied in case of a chassis-cab base vehicle and n/a in all
			other cases.
D9	Identification of	Regulation	X
	controls, tell-tales	(EU)	
D10	and indicators Heating systems	2019/2144 Regulation	X
DIU	Treating systems	(EU)	A
		2019/2144	
D11	Light signalling	Regulation	X
	devices	(EU)	
D10	D 1:11 ' .:	2019/2144	v
D12	Road illumination devices	Regulation (EU)	X
	devices	2019/2144	
D13	Retro-reflective	Regulation	X
-	devices	(EU)	
		2019/2144	
D14	Light sources	Regulation	X
		(EU) 2019/2144	
D15	Installation of light	Regulation	A
נוע	signalling, road	(EU)	
	illumination and	2019/2144	Provided that all mandatory lighting devices are installed
	retro-reflective		
	devices	D 1	**
D16	Emergency stop	Regulation	X
	signal	(EU) 2019/2144	Only for vehicles fitted with electronically controlled anti-lock
		2017/2174	braking system
D17	Headlamp cleaners	Regulation	IF

Item	Subject	Regulatory act	N_3
	(IF)	(EU)	
D18	Gear shift indicator	2019/2144 Regulation	not in scope
D10	Gear shift indicator	(EU)	not in scope
		2019/2144	
E	DRIVER AND SYS		
E1	Alcohol interlock installation	Regulation (EU)	A
	facilitation	2019/2144	Only to be applied in case of a chassis-cab base vehicle and n/a in all other cases.
E2	Driver drowsiness	Regulation	n/a
	and attention	(EU)	
	warning	2019/2144	
E3	Advanced driver distraction warning	Regulation	no requirement yet
	distraction warning	(EU) 2019/2144	
E4	Driver availability	Regulation	not in the scope
	monitoring system	(EU)	
	(in case of	2019/2144	
	automated vehicles)		
E5	Event data	Regulation	no requirement yet
	recorder	(EU)	
E.C.	G	2019/2144	
E6		Regulation (EU)	no requirement yet
	case of automated	2019/2144	
	vehicles)		
E7	Systems to provide		no requirement yet
	the vehicle with information on	(EU) 2019/2144	
	state of vehicle and	2019/2144	
	surrounding area		
	(in case of		
	automated		
E8	vehicles) Platooning (IF)	Regulation	no requirement yet
LU	1 14001111115 (11)	(EU)	and requirement yet
		2019/2144	
E9		Regulation	no requirement yet
	safety information to other road users	(EU) 2019/2144	
	(in case of	2017/21 11	
	automated		
	vehicles)		
F			CTION AND FEATURES
F1	Registration plate space	Regulation (EU)	X
	space	(EO) 2019/2144	
F2	Reversing motion	Regulation	X
		(EU)	
F3	Door latches and	2019/2144 Regulation	not in scope
1.7	Door faciles and	regulation	not in scope

Item	Subject	Regulatory act	N_3
	hinges	(EU)	
F4	Door entry steps,	2019/2144 Regulation	A
Г4	handholds and	(EU)	A
	running boards	2019/2144	
F5	External	Regulation	not in scope
	projections	(EU)	
F6	External	2019/2144 Regulation	A
го	projections of	(EU)	A
	commercial	2019/2144	
	vehicle cabs		
F7		Regulation	X
	vehicle	(EU)	
	identification number	2019/2144	
F8	Towing devices	Regulation	A
		(EU)	
		2019/2144	
F9	Wheel guards	Regulation	not in scope
		(EU) 2019/2144	
F10	Spray suppression	Regulation	A
	systems	(EU)	
		2019/2144	Not required for vehicles meeting the provisions Annex I, Part A, point 4.3(b)(ii) and (iii), as well as point 4.3(c).
F11	Masses and	Regulation	A
	dimensions	(EU)	
F12	M11	2019/2144	IF V
F12	Mechanical couplings	Regulation (EU)	IF X
	Couplings	2019/2144	
F13	Vehicles intended	Regulation	n/a
	for the	(EU)	
	transportation of	2019/2144	
	dangerous goods (IF)		
F14	General bus	Regulation	not in scope
	construction	(EU)	
		2019/2144	
F15	Bus strength of	Regulation	not in scope
	superstructure	(EU) 2019/2144	
F16	Flammability in	Regulation	not in scope
110	buses	(EU)	
		2019/2144	
G	4		NCE AND EMISSIONS
G1	Sound level	Regulation	G
		(EU) No 540/2014	Test to be performed only with the complete/completed vehicle. The
		J+0/2014	vehicle can be tested in accordance with Directive 70/157/EEC, UN
			Regulation No 51.02 or Regulation (EC) No 540/2014. The
			following limit values are applicable, irrespective of the vehicle

Item	Subject	Regulatory act	N_3
			conditions such as engine type, gearbox type and any sub- classifications: (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 150 kW.
G2	Tailpipe emissions of vehicle in lab	Regulation (EC) No 715/2007	not in scope
G2a	Determination of specific CO ₂ emissions and fuel consumption of vehicle and device for monitoring on board the vehicle the consumption of fuel and/or electric energy	Regulation (EC) No 715/2007	not in scope
G3	Tailpipe emissions of engine in lab	Regulation (EC) No 595/2009	X Alternatively, Regulation (EU) 2016/1628 may apply.
G3a	Determination of specific CO ₂ emissions and fuel consumption of vehicle	Regulation (EC) No 595/2009	Not in scope
G3b	Determination of specific energy efficiency performance of trailer	Regulation (EC) No 595/2009	Not in scope
G4	Tailipipe emissions on the road	Regulation Regulation (EC) No 595/2009	X Alternatively, Regulation (EU) 2016/1628 may apply.
G5	Durability of tailpipe emissions	Regulation (EC) No 595/2009	not in scope
G6	Crankcase emissions	Regulation (EC) No 595/2009	X Alternatively, Regulation (EU) 2016/1628 may apply.
G7	Evaporative emissions	Regulation (EC) No 715/2007	not in scope
G8	Low- temperaturetailpipe emissions in lab	Regulation	not in scope
G9	On-board diagnostics	Regulation (EC) No 595/2009	X Alternatively, Regulation (EU) 2016/1628 may apply.

Item	Subject	Regulatory act	N_3
G10	Absence of defeat	Regulation	X
	device	(EC) No	
		595/2009	Alternatively, Regulation (EU) 2016/1628 may apply.
G11	Auxiliary	Regulation	X
	emissions	(EC) No	
	strategies	595/2009	Alternatively, Regulation (EU) 2016/1628 may apply.
G12	Anti-tampering		X
		Regulation	
		(EC) No	Alternatively, Regulation (EU) 2016/1628 may apply.
		595/2009	
G13	Recyclability	Directive	not in scope
		2005/64/EC	
G14	Air-conditioning	Directive	not in scope
	systems	2006/40/EC	
Н	ACCESS TO VEHI	CLE INFORMA	ATION AND SOFTWARE UPDATE
H1	Access to vehicle	Regulation	X
	OBD information	(EU)	
	and vehicle repair	2018/858,	
	and maintenance	Articles 61 to	
	information	66 and Annex	
		X	
H2	Software update	Regulation	X
		(EU)	
		2018/858,	
		Annex IV	
		UN Regulation	
		No 156	

Appendix 6
Exceptional load transport vehicles

Item	Subject	Regulatory acts	N_3	O_4
A	RESTRAINT SYS	STEMS, CRASH TE	ESTING, FUEL SYSTEM INTEGR	ITY AND HIGH VOLTAGE
	ELECTRICAL SA			
A1	Interior fittings	Regulation (EU) 2019/2144	not in scope	not in scope
A2	Seats and head restraints	Regulation (EU) 2019/2144	X	not in scope
			Application limited to seats designated for normal use when the vehicle is used on a public road.	
			Seats that are not designated as such shall be clearly and permanently identified to users, either by means of a pictogram or a sign with an appropriate text.	
A3	Bus seats	Regulation (EU) 2019/2144	not in scope	not in scope
A4	Safety-belt anchorages	Regulation (EU) 2019/2144	X	not in scope
			Application limited to seats designated for normal use when the vehicle is used on a public road.	
A5	Safety-belts and restraint systems	Regulation (EU) 2019/2144	X	not in scope
			Application limited to seats designated for normal use when the vehicle is used on a public road.	
A6	Safety-belt reminders	Regulation (EU) 2019/2144	X	not in scope
A7	Partitioning systems	Regulation (EU) 2019/2144	equipment	equipment
A8	Child restraint anchorages	Regulation (EU) 2019/2144	IF B	not in scope
A9	Child restraint systems (IF)	Regulation (EU) 2019/2144	equipment	equipment
A10	Enhanced child restraint systems (IF)	Regulation (EU) 2019/2144	equipment	equipment
A11	Front underrun protection	Regulation (EU) 2019/2144	A	not in scope
A12	Rear underrun protection	Regulation (EU) 2019/2144	A	A
A13	Lateral protection	Regulation (EU) 2019/2144	X	A

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Item	Subject	Regulatory acts	N_3	O_4
A14	Fuel tank safety	Regulation (EU)	A	A
	(IF)	2019/2144		
A15	Liquified	Regulation (EU)	X	not in scope
	petroleum gas	2019/2144		
	safety (IF)			
A16	Compressed and	Regulation (EU)	X	not in scope
	liquified natural	2019/2144		
	gas safety (IF)			
A17	Hydrogen safety	Regulation (EU)	X	not in scope
7117	(IF)	2019/2144		not in scope
A18	\ /	Regulation (EU)	X	not in scope
Alo	material	2019/2144	A	not in scope
		2019/2144		
1.10	qualification (IF)	D 1 ((EII)	N/	
A19	In-use electric	Regulation (EU)	X	not in scope
	safety (IF)	2019/2144		
A20	Frontal off-set	Regulation (EU)	not in scope	not in scope
	impact	2019/2144		
A21	Frontal full-width		not in scope	not in scope
	impact	2019/2144		
A22	Protective	Regulation (EU)	not in scope	not in scope
	steering	2019/2144	-	-
A23	Replacement	Regulation (EU)	equipment	equipment
	airbag	2019/2144	1.1	Tar
A24	Cab impact	Regulation (EU)	A	not in scope
	cuo impuet	2019/2144		not in scope
A25	Side impact	Regulation (EU)	not in scope	not in scope
A23	Side impact	2019/2144	not in scope	not in scope
126	D.1			
A26	Pole side impact	Regulation (EU)	not in scope	not in scope
107	D : .	2019/2144		
A27	Rear impact	Regulation (EU)	not in scope	not in scope
1.00	1121 1 2 1	2019/2144		
A28	112-based eCall	Regulation (EU)	not in scope	not in scope
	in-vehicles	2015/758		
	systems			
В	VULNERABLE R	OAD USERS, VISI	ON AND VISIBILITY	
B1	Pedestrian leg	Regulation (EU)	not in scope	not in scope
	and head	2019/2144		
	protection			
B2	Enlarged head	Regulation (EU)	not in scope	not in scope
	impact zone	2019/2144		
В3	Frontal protection		equipment	equipment
دم	system	2019/2144	- Janpinom	-darburant
B4	Advanced	Regulation (EU)	not in scope	not in scope
D4		2019/2144	not in scope	not in scope
	emergency braking for	2017/21 44		
	pedestrians and			
D.5	cyclists ahead	D 1 (CETT)	77	
B5	Pedestrian and	Regulation (EU)	X	not in scope
	cyclist collision	2019/2144		
	warning			
B6	Blind spot	Regulation (EU)	X	not in scope
	information	2019/2144		
	system			
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Item	Subject	Regulatory acts	N_3	O_4
В7	Reversing detection	Regulation (EU) 2019/2144	X	not in scope
В8	Forward vision	Regulation (EU) 2019/2144	not in scope	not in scope
В9	Heavy-duty vehicles direct vision	Regulation (EU) 2019/2144	no requirements yet	not in scope
B10	Safety glazing	Regulation (EU) 2019/2144	X	X Glazing material may be either of safety glass or rigid plastic glazing.
B11	Defrost/demist	Regulation (EU) 2019/2144	X Vehicles shall be fitted with an adequate windscreen defrosting and demisting device	not in scope
B12	Wash/wipe	Regulation (EU) 2019/2144	X Vehicles shall be fitted with adequate windscreen washing and wiping devices	not in scope
B13	Indirect vision devices	Regulation (EU) 2019/2144	X	not in scope
B14	Acoustic Vehicle Alerting Systems	Regulation (EU) No 540/2014		not in scope
<u>C</u> C1	VEHICLE CHASS	SIS, BRAKING, TYR	RES AND STEERING	
C1	Steering equipment	Regulation (EU) 2019/2144	X Crab steering allowed	X
C2	Lane departure warning	Regulation (EU) 2019/2144	n/a	not in scope
C3	Emergency lane keeping	Regulation (EU) 2019/2144	not in scope	not in scope
C4	Braking	Regulation (EU) 2019/2144	Test to be performed only with the complete/completed vehicle. Vehicles up to 4 axles shall comply with all the requirements laid down in the relevant regulatory acts. Derogations are admitted for vehicles having more than 4 axles, provided that: (a) they are justified by the particular construction; and (b) all the braking performances, related to parking, service and secondary braking laid down in the relevant regulatory act are fulfilled. Anti-lock braking system is not	X

Item	Subject	Regulatory acts	N_3	O_4
			mandatory for vehicles with hydrostatic drive.	
C5	Replacement braking parts	Regulation (EU) 2019/2144	equipment	equipment
C6	Brake assist	Regulation (EU) 2019/2144	not in scope	not in scope
C7	Stability control	Regulation (EU) 2019/2144	n/a	X
C8	Advanced emergency braking on heavy- duty vehicles	Regulation (EU) 2019/2144	n/a	not in scope
C9	Advanced emergency braking on light- duty vehicles	Regulation (EU) 2019/2144	not in scope	not in scope
C10	Tyre safety and environmental performance	Regulation (EU) 2019/2144	X	X Tyres are to be type-approved in accordance with the requirements set out in UN Regulation No 117 even if the design speed of the vehicle is less than 80 km/h.
C11	Spare wheels and run-flat systems (IF)	Regulation (EU) 2019/2144	not in scope	not in scope
C12	Retreaded tyres	Regulation (EU) 2019/2144	equipment	equipment
C13	Tyre pressure monitoring for light-duty vehicles	Regulation (EU) 2019/2144	not in scope	not in scope
C14	Tyre pressure monitoring for heavy-duty vehicles	Regulation (EU) 2019/2144	A	A
C15	Tyre installation	Regulation (EU) 2019/2144	X	X Tyres are to be type-approved in accordance with the requirements set out in UN Regulation No 54 even if the design speed of the vehicle is less than 80 km/h. The load capacity may be adjusted in relation to the maximum design speed of the trailer in agreement with the tyre manufacturer.
C16	Replacement wheels	Regulation (EU) 2019/2144	equipment	equipment
D	ON-BOARD INST	TRUMENTS, ELEC	TRICAL SYSTEM, VEHICLE L INCLUDING CYBERATTACKS	

Item	Subject	Regulatory acts	N_3	O_4
D1	Audible warning	Regulation (EU) 2019/2144	X	not in scope
D2	Radio interference (electromagnetic compatibility)	Regulation (EU) 2019/2144	X	X
D3	Protection against unauthorised use, immobiliser and alarm systems	Regulation (EU) 2019/2144	IF G	not in scope
D4	Protection of vehicle against cyberattacks	Regulation (EU) 2019/2144	X	not in scope
D5	Speedometer	Regulation (EU) 2019/2144	X	not in scope
D6	Odometer	Regulation (EU) 2019/2144	X	not in scope
D7	Speed limitation devices	Regulation (EU) 2019/2144	X	not in scope
D8	Intelligent speed assistance	Regulation (EU) 2019/2144	X	not in scope
D9	Identification of controls, tell-tales and indicators	Regulation (EU) 2019/2144	X	not in scope
D10	Heating systems	Regulation (EU) 2019/2144	X	X
D11	Light signalling devices	Regulation (EU) 2019/2144	X	X
D12	Road illumination devices	Regulation (EU) 2019/2144	X	X
D13	Retro-reflective devices	Regulation (EU) 2019/2144	X	X
D14	Light sources	Regulation (EU) 2019/2144	X	X
D15	Installation of light signalling, road illumination and retro- reflective devices	Regulation (EU) 2019/2144	X	A Provided that all mandatory lighting devices are installed and that the geometric visibility is not affected
D16	Emergency stop signal	Regulation (EU) 2019/2144	X Only for vehicles fitted with electronically controlled antilock braking system	not in scope
D17	Headlamp cleaners (IF)	Regulation (EU) 2019/2144	IF	not in scope
D18	Gear shift indicator	Regulation (EU) 2019/2144	not in scope	not in scope
E		STEM BEHAVIOU	R	
E1	Alcohol interlock installation facilitation		X	not in scope

Item	Subject	Regulatory acts	N_3	O_4
E2	Driver drowsiness and attention warning		A	not in scope
E3	Advanced driver distraction warning	Regulation (EU) 2019/2144	No requirement yet	not in scope
E4	Driver availability monitoring system (in case of automated vehicles)	Regulation (EU) 2019/2144	Not in the scope	not in scope
E5	Event data recorder	Regulation (EU) 2019/2144	No requirement yet	not in scope
E6	Systems to replace driver's control (in case of automated vehicles)	Regulation (EU) 2019/2144	No requirement yet	not in scope
E7	Systems to provide the vehicle with information on state of vehicle and surrounding area (in case of automated vehicles)	Regulation (EU) 2019/2144	No requirement yet	not in scope
E8	Platooning (IF)	Regulation (EU) 2019/2144	No requirement yet	not in scope
E9	Systems to provide safety information to other road users (in case of automated vehicles)	Regulation (EU) 2019/2144	No requirement yet	not in scope
F		CLE CONSTRUCTI	ON AND FEATURES	
F1	Registration plate space	Regulation (EU) 2019/2144	X	X
F2	Reversing motion		X	not in scope
F3	Door latches and hinges	Regulation (EU) 2019/2144	not in scope	not in scope
F4	Door entry steps, handholds and running boards	Regulation (EU) 2019/2144	X	not in scope
F5	External projections	Regulation (EU) 2019/2144	not in scope	not in scope
F6	External projections of commercial vehicle cabs	Regulation (EU) 2019/2144	A	not in scope

Item	Subject	Regulatory acts	N_3	O_4
F7	Statutory plate and vehicle identification number	Regulation (EU) 2019/2144	X	X
F8	Towing devices	Regulation (EU) 2019/2144	A	not in scope
F9	Wheel guards	Regulation (EU) 2019/2144	not in scope	not in scope
F10	Spray suppression systems	Regulation (EU) 2019/2144	X	A
F11	Masses and dimensions	Regulation (EU) 2019/2144	A	A
F12	Mechanical couplings	Regulation (EU) 2019/2144	IF X	X
F13	Vehicles intended for the transportation of dangerous goods (IF)	Regulation (EU) 2019/2144	X	X
F14	General bus construction	Regulation (EU) 2019/2144	not in scope	not in scope
F15	Bus strength of superstructure	Regulation (EU) 2019/2144	not in scope	not in scope
F16	Flammability in buses	Regulation (EU) 2019/2144	not in scope	not in scope
G	ENVIRONMENT.	AL PERFORMANCE	E AND EMISSIONS	
G1	Sound level	Regulation (EU) No 540/2014	Test to be performed only with the complete/completed vehicle. The vehicle can be tested in accordance with Directive 70/157/EEC, UN Regulation No 51.02 or Regulation (EC) No 540/2014. The following limit values are applicable, irrespective of the vehicle conditions such as engine type, gearbox type and any subclassifications: (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 150 kW.	
G2	Tailpipe emissions of vehicle in lab	Regulation (EC) No 715/2007		not in scope
G2a	Determination of	Regulation (EC) No	not in scope	not in scope

Item	Subject	Regulatory acts	N_3	O_4
	specific CO ₂	715/2007		
	emissions and			
	fuel consumption			
	of vehicle and			
	device for			
	monitoring on			
	board the vehicle			
	the consumption			
	of fuel and/or electric energy			
G3	Tailpipe	Regulation (EC) No	Y	not in scope
G5	emissions of	595/2009	A	not in scope
	engine in lab	373/2007	Alternatively, Regulation (EU)	
	engine in ide		2016/1628 may also apply to	
			vehicles with hydrostatic drive	
G3a	Determination of	Regulation (EC) No		not in scope
	specific CO ₂	595/2009		
	emissions and			
	fuel consumption			
C21	of vehicle	D 1 ((TC) 37		<u> </u>
G3b	Determination of	Regulation (EC) No	not in scope	not in scope
	specific energy efficiency	595/2009		
	performance of			
	trailer			
G4	Tailipipe	Regulation (EC) No	X	not in scope
	emissions on the	595/2009		1
	road		Alternatively, Regulation (EU)	
			2016/1628 may also apply to	
			vehicles with hydrostatic drive	
G5	Durability of	Regulation (EC) No	X	not in scope
	tailpipe emissions		V	<u> </u>
G6	Crankcase emissions	Regulation (EC) No 595/2009	X	not in scope
G7	Evaporative	Regulation (EC) No	not in scope	not in scope
U/	emissions	715/2007	not in scope	not in scope
G8	Low-temperature	Regulation (EC) No	not in scope	not in scope
	tailpipe emissions	` '	•	•
	in lab			
G9	On-board	Regulation (EC) No	X	not in scope
	diagnostics	595/2009		
			Alternatively, Regulation (EU)	
			2016/1628 may also apply to	
C10	Absonos of Jof	Dogulation (EC) No.	vehicles with hydrostatic drive	not in goons
G10	device	Regulation (EC) No 595/2009	^	not in scope
	UEVICE	393/2009	Alternatively, Regulation (EU)	
			2016/1628 may also apply to	
			vehicles with hydrostatic drive	
G11	Auxiliary	Regulation (EC) No		not in scope
	emissions	595/2009		r
	strategies		Alternatively, Regulation (EU)	
			2016/1628 may also apply to	
	•	•		•

Item	Subject	Regulatory acts	N_3	O_4
			vehicles with hydrostatic drive	
G12	Anti-tampering	Regulation (EC) No 595/2009	X	not in scope
			Alternatively, Regulation (EU) 2016/1628 may also apply to vehicles with hydrostatic drive	
G13	Recyclability	Directive 2005/64/EC	not in scope	not in scope
G14	Air-conditioning systems	Directive 2006/40/EC	not in scope	not in scope
Н	ACCESS TO VEH	IICLE INFORMATION	ON AND SOFTWARE UPDATE	
H1	and vehicle repair	Regulation (EU) 2018/858, Articles 61 to 66 and Annex X	X	X
H2	Software update	Regulation (EU) 2018/858, Annex IV UN Regulation No 156	X	X

ANNEX III

In Annex IV to Regulation (EU) 2018/858, the following point 5 is added:

'5. Arrangements concerning software update

The software update management system of the manufacturer as well as the whole vehicle type shall comply with the requirements as set out in UN Regulation 156.'

ANNEX IV

In paragraph 1 of Annex V to Regulation (EU) 2018/858, the table is replaced by the following:

'Category	Units
M_1	1500
M ₂ , M ₃	0 until the date of application of the delegated acts referred to in Article 41(5). For fully automated vehicles produced in small series: 1500 from [OP please insert the date of entry into force of this Regulation]
N ₁	1500
N ₂ , N ₃	0 until the date of application of the delegated acts referred to in Article 41(5). For fully automated vehicles produced in small series: 1500 from [OP please insert the date of entry into force of this Regulation]
O ₁ , O ₂	0
O ₃ , O ₄	0

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