Comparison of requirements concerning exits for small and large buses/coaches

SDWEE-02-07-Rev.1

Requirements	Class I	Class II	Class III	A	В	Comments			
7.6.1.1 The minimum number of doors in a vehicle shall be two, either			mand	atory					
two service doors or one service door and one emergency door	2. need for a3. need for a	 Need for at least 2 doors? At least 1 service door and 1 emergency door. need for a relation between the number of service doors and emergency doors? need for a relation between the number of occupants and the number of exits? 							
7.6.1.2. The minimum number of service doors in each rigid section of an articulated vehicle shall be one except that this minimum number shall be two in the case of front section of an articulated vehicle of Class I.	2		1			What justification? Need for harmonization. Conclusion: Need for harmonization			
7.6.1.3. For the purpose of this requirement, service doors equipped with a power-operated control system shall not be deemed to be emergency doors unless they can be readily opened by hand, once the control prescribed in paragraph 7.6.5.1. has been actuated, if necessary.	what is the purpo FMVSS 217: EE Mrs. Pascale Re	ose of having several	ments, 1 with small footide info.						

Requirements	Class I	Class II	Class II	I	A	В		Comments
7.6.1.4. The minimum number of emergency exits shall be such that the total number of exits in a separate compartment is as follows The number of exits for each separate deck (in the case of a double-deck vehicle) and each separate compartment must be determined separately. Toilet compartments or galleys are not considered to be separate compartments for the purposes of defining the number of emergency exits. Escape hatches can only count as one of the above-mentioned number of emergency exits.		Number of passens crew to be accommeach compartment 1 - 8 9 - 16 17 - 30 31 - 45 46 - 60 61 - 75 76 - 90 91 - 110 111 - 130 >130	or deck	Minimum tot 2 3 4 5 6 7	al number of ex	xits	_	ed for arification: discrepancy between introductor y sentence and table. Number of emergency exits per side of the vehicle.
7.6.1.5. Each rigid	OICA: need to	re-arrange the para	•				Co	onclusion:

Requirements	Class I	Class II	Class III	A	В	Comments		
section of an articulated vehicle	Each rigid section	n of an articulated v	ehicle shall be treated	as a separate vehicle	for the purpose	amendment		
shall be treated as a separate	of determining th	e minimum number	and the position of ex	its and the number	of passengers	agreed		
vehicle for the purpose of	shall be determi	hall be determined for each rigid section. The connecting passage between them shall no						
determining the minimum	considered as an	onsidered as an exit. Toilet compartments or galleys are not considered to be separate						
number and the position of	compartments for	ompartments for the purposes of defining the number of emergency exits. The number of						
exits. The connecting passage		assengers shall be determined for each rigid section. The plane, which contains the horizon						
between them shall not be	axis of the hinge	xis of the hinge between conjoined rigid sections of the vehicle, and perpendicular to the						
considered as an exit. Toilet	longitudinal axis	of a vehicle, when i	t moves straight, shall	be considered as the	border between			
compartments or galleys are not	sections.							
considered to be separate								
compartments for the purposes								
of defining the number of								
emergency exits. The number								
of passengers shall be								
determined for each rigid								
section. The plane, which								
contains the horizontal axis of								
the hinge between conjoined								
rigid sections of the vehicle,								
and perpendicular to the								
longitudinal axis of a vehicle,								
when it moves straight, shall be								
considered as the border								
between sections.								
7.6.1.6. A double service			door is an emergency			Conclusion:		
door shall count as two doors			shall may count as two	doors and a double	or multiple	paragraph to be		
and a double or multiple		mergency windows.				kept for the		
window as two emergency		s are reluctant to a "i	•			moment.		
windows.	*		st GRSG (GRSG-97-23	3)		E and UK		
			(Annex 7, para. 1.2.)			concerns to be		
	OICA: suggests t	to make it in 2 differ	ent sentences. Strange	to mix 2 separate ite	ems i.e. service	addressed		

Requirements	Class I	Class II	Class III	A	В	Comments
	door and emergen	cy doors/exits.				
7.6.1.7. If the driver's compartment does not provide access to the passenger compartment by means of a passageway complying with one of the conditions described in paragraph 7.7.5.1.1., the following conditions shall be met:	UK: "Up to five a compartment only UK: notices that d	Not of 1 st priority, with its sub-paragraphs. However, need to address the 5 additional seats. Alan Davis (F) volunteers to address paragraph 7.6.1.7. for next meeting				
7.6.1.7.1. The driver's compartment shall have two exits, which shall not both be in the same lateral wall; when one of the exits is a window, it shall comply with the requirements set out in paragraphs 7.6.3.1. and 7.6.8. for emergency windows.			mandatory			
7.6.1.7.2. One or two seats are permitted alongside the driver for additional people, in which case both of the exits referred to in paragraph 7.6.1.7.1. shall be doors.	compartment, proContradictWrong pla	vided that the addit ory to driver's com	partment definition ld be in "passenger co	-	river's	

Requirements	Class I	Class II	Class III	A	В	Comments
The driver's door shall be						
accepted as the emergency door						
for the occupants of those seats,						
provided that it is possible to						
move a test gauge from the						
occupants' seats to the exterior						
of the vehicle through the						
driver's door (see Annex 4,						
figure 27).						
Verification of the access to the						

Requirements	Class I	Class II	Class III	A	В	Comments
driver's door shall be subject to						
the requirements of paragraph						
7.7.3.2., by using the test						
gauge having a dimension of						
600 x 400 mm, as described in						
paragraph 7.7.3.3.						
The door provided for the						
passengers shall be in the side						
of the vehicle opposite to that						
containing the driver's door and						
shall be accepted as the						
emergency door for the driver.						
Up to five additional						
seats may be fitted in a						
compartment incorporating the						
driver's compartment, provided						
that the additional seats and the						
space for these seats comply						
with all requirements of this						
Regulation and at least one door						
giving access to the passenger						
compartment complies with the						
requirements of paragraph						
7.6.3. for emergency doors.		1		T	1	
7.6.1.7.3. In the	mandatory	mandatory	mandatory	mandatory	mandatory	
circumstances described in						
paragraphs 7.6.1.7.1. and						
7.6.1.7.2., the exits provided for						
the driver's compartment shall						

Requirements	Class I	Class II	Class III	A	В	Comments
not count as one of the doors						
required by paragraphs 7.6.1.1.						
to 7.6.1.2., nor as one of the						
exits required by paragraph						
7.6.1.4., except in the case						
mentioned in paragraphs						
7.6.1.7.1. and 7.6.1.7.2.						
Paragraphs from 7.6.3. to 7.6.7.,						
7.7.1., 7.7.2. and 7.7.7. shall not						
apply to such exits.						
7.6.1.8. If the driver's	mandatory					Need to correct
compartment and any seats						7.7.5.1.1.
adjacent to it are accessible						(punctuation or
from the main passenger						ending)
compartment by means of a						Same for
passageway complying with						7.6.1.9.
one of the conditions described						Provision is
in paragraph 7.7.5.1.1., no						accepted
external exit is required from						
the driver's compartment.						
7.6.1.9. If a driver's door			mandatory			Need for some
or other exit from the						punctuation.
compartment is provided in the						
circumstances described in						
paragraph 7.6.1.8. it may only						
count as an exit for passengers						
provided:						
7.6.1.9.1. it satisfies the			mandatory			
requirements relating to the						
dimensions of emergency door						
indicated in paragraph 7.6.3.1.;						

Requirements	Class I	Class II	Class III	A	В	Comments
7.6.1.9.2. it fulfils the			mandatory			
requirements indicated in						
paragraph 7.6.1.7.2.;						
7.6.1.9.3. the space			mandatory			Item to be
reserved for the driver's seat						addressed:
shall communicate with the						• Basic
main passengers' compartment						statement:
through an appropriate passage;						emergency
such requirement shall be						exits above
deemed to be fulfilled if the test						the
gauge described in paragraph						passengers
7.7.5.1. can move unobstructed						are not good.
from the gangway, until the						Hence, when
front end of the gauge reaches						the vehicle is
the vertical plane tangential to						on the side,
the foremost point of the						emergency
driver's seat back (this seat						windows are
being situated in its rearmost						not good,
longitudinal position) and, from						rather roof
this plane, the panel described						hatches.
in paragraph 7.6.1.7.2. could be						
moved to the emergency door						
in the direction established by						
such paragraph (see Annex 4,						
figure 28) with seat and steering						
wheel adjustment in their mid						
position.						
7.6.1.10. Paragraphs			mandatory			Paragraph kept,
7.6.1.8. and 7.6.1.9. do not						no comment.
preclude there being a door or						
other barrier between the						

Requirements	Class I	Class II	Class III	A	В	Comments
driver's seat and the passenger compartment provided that this barrier can be released quickly by the driver in an emergency. A driver's door in a compartment protected by such a barrier shall not be counted as an exit for passengers.	owell as blo		John we	onnikoshlo		Dave growth on or
7.6.1.11 Escape hatches up to 50 passengers: 1 more than 50 passengers: 2	applicable	manc	latory	applicable	mandatory	Paragraph open for discussion. 1 escape hatch considered too low for 49 passengers. UK question about roof hatches usage of double deck Class 1 vehicles. UK commits to find out the quantity of accidents in the UK during last 10 years.
7.6.1.12. Each intercommunication staircase shall be considered to be an exit from the upper deck of a double-deck vehicle.						OK

Requirements	Class I	Class II	Class III	A	В	Comments
7.6.1.13. All persons			About 200 double			Current
accommodated in the lower			deck coaches are			paragraph
deck of a double-deck vehicle			produced per year			seems OK
must in an emergency situation,			in EU. Questions			despite the
have access to the exterior of			the necessity of			comment.
the vehicle without having to			addressing escape			
enter the upper deck.			of passengers from			
			lower deck when			
			the vehicle is on its			
			service door side.			
7.6.1.14. The upper deck						English native
gangway of a double-deck						speakers to
vehicle shall be connected by						improve the
one or more						grammar.
intercommunication staircases						
to the access passageway of a						
service door or to the lower						
deck gangway within 3 m of a						
service door:						
7.6.1.14.1. two, or at least						
one and-one-half staircase, shall						
be provided in Class I and						
Class II vehicles if more						
than 50 passengers are carried						
on the upper deck;						
on the apper door,						
7.6.1.14.2. Two, or at least						
one and-one-half, staircases are						
to be provided in Class III						
vehicles if more than 30						

Requirements	Class I	Class II	Class III	A	В	Comments
passengers are carried on the upper deck.						
7.6.1.15. In the case of a vehicle without a roof, the exits on the deck without a roof shall be such as to fulfil those prescriptions that are not incompatible with the absence of the roof.						OK
7.6.2 Siting of exits Vehicles having a capacity exceeding 22 passenger seats shall meet the requirements shown below. Vehicles having a capacity not exceeding 22 passengers may meet either the requirements shown below or those contained in Annex 7, paragraph 1.2.		mandatory		either those of Clast those in Annex 7 suggestion to brin Annex into Annex perform the editor 1.2. Positioning 1.2.1. The service situated on the sid that is nearer to the road corresponding direction of the tracountry in which the registered, or in the vehicle. 1.2.2. The exits should be a way that the one exit on each side.	g para. 1.2. of 3: Secretary to rial work. 4 of exits e door(s) shall be de of the vehicle he side of the haffic in the the vehicle is to hall be placed in here is at least	Proposed amendment: "Positioning of exits" throughout the text. Annex 7, para.1.b): need to address the question of whether one door is enough for vehicles of 22 passengers, or even more (Class I).

Requirements	Class I	Class II	Class III	A	В	Comments
			1.2.3. The forward half and the rearward half of the passenger space shall each contain at least one exit. 1.2.4. At least one exit shall be situated either in the rear face or in the front face of the vehicle unless an escape hatch is fitted.			
7.6.2.1. The service door(s) shall be situated on the side of the vehicle that is nearer to the side of the road corresponding to the direction of traffic in the country in which the vehicle is to be licensed for operation and at least one of them shall be in the forward half of the vehicle. This does not preclude:		mandatory		Annex 3 applicable Annex 7 1.2.1. The service door(s) shall be situated on the side of the vehicle that is nearer to the side of the road corresponding to the direction of the traffic in the country in which the vehicle is to be registered, or in the rear face of the vehicle.		OK, IG looking for harmonization of the provisions of para. 7.6.2.1. among all classes of vehicles
7.6.2.1.1. the provision of a specially designed door in the rear or side faces of a vehicle for use in place of a service door by wheelchair passengers, or		mandatory		applic	cable	OK
7.6.2.1.2. the provision of an additional service door in the rear face of a vehicle		mandatory		applic	cable	OK, but provisions seems strange

Requirements	Class I	Class II	Class III	A	В	Comments
principally for						about "service
loading/unloading of goods or						door": need to
luggage, but which could be						investigate how
used by passengers where						did it appear
circumstances so require, or						with R107.02.
						See also 7.6.2.6.
7.6.2.1.3. the provision of		mandatory		app	licable	Provision OK,
one or more additional service						keep the text.
doors on the opposite side of						
the vehicles in the case of						
vehicles designed for use in						
circumstances which require						
loading/unloading on both						
sides. Examples of such						
circumstances include vehicles						
for airside use at airports,						
vehicles for use on multimodal						
transport systems using island						
platforms, or vehicles which						
cross borders to countries which						
do not drive on the same side of						
the road as the country in which						
the vehicle is to be licensed for						
operation. Vehicles so						
equipped shall be provided with						
control(s) which allow the						
driver to inhibit normal						
operation of the doors which						
are not currently in use, or						
7.6.2.1.4. the provision of a service door in the rear face of a	Not applicable	Not applicable	Not applicable	applicable	applicable	Discuss a possibility to

Requirements	Class I	Class II	Class III	A	В	Comments
Class A or B vehicle.						extend to all
						vehicle classes.
7.6.2.2. Two of the doors						Provisions are
referred to in paragraph 7.6.1.1.						OK, subject to
shall be separated such that the						decision about
distance between transverse						GRSG-97-23
vertical planes through their						(restriction to
centres of area is not less than:						vehicles >
						10m ²). Spain
						ready to let
						SDWEE
						informal group
						address the
7.6221						issue.
7.6.2.2.1. In the case of a						OK
single deck vehicle, 40 per cent of the overall length of the						
passenger compartment						
measured parallel to the						
longitudinal axis of the vehicle.						
longitudinal axis of the vehicle.						
In the case of an						
articulated vehicle, this						
requirement shall be fulfilled if						
two doors of the different						
sections are separated such that						
the distance between the doors						
is not less than 40 per cent of						
the overall length of the						
combined passenger						
compartment (all sections).						

Requirements	Class I	Class II	Class III	A	В	Comments
If one of these two doors forms part of a double door this distance shall be measured between the two doors which are furthest apart.						
7.6.2.2.2. In the case of a double-deck vehicle, two of the doors referred to in paragraph 7.6.1.1. shall be separated such that the distance between transverse vertical planes through their centres of area is not less than either 25 per cent of the overall length of the vehicle or 40 per cent of the overall length of the passenger compartment on the lower deck; this shall not apply if the two doors are on different sides of the vehicle. If one of these two doors forms part of a double door, this distance shall be measured between the two doors which are furthest apart.						OK
7.6.2.3. The exits (on each deck in the case of a double-deck vehicle) shall be placed in such a way that their		mandatory		Annex 3 applicable Annex 7 1.2.2. The exits sh	all be placed in	OK

Requirements	Class I	Class II	Class III	A	В	Comments
number on each of the two sides of the vehicle is substantially the same. (This shall not imply the need to provide additional exits over and above the number specified in paragraph 7.6.1.). Any exits in excess of the required minimum number need not be substantially balanced on each of the two sides.				such a way that the exit on each side of		
7.6.2.4. At least one exit shall be situated either in the rear face or in the front face of the vehicle respectively. For Class I vehicles and for vehicles with a rear part permanently closed off from the passenger compartment, this provision is fulfilled if an escape hatch is fitted. For double-deck vehicles, this requirement shall apply only to the upper deck.		mandatory		Annex 3 applicable Annex 7 1.2.4. At least one situated either in the front face of the escape hatch is fitted.	e rear face or in e vehicle unless an	Need for clarification: Inquiry on origin "rear part permanently closed off from the passenger compartment" unclear See also R36
7.6.2.5. The exits on the same side of the vehicle shall be suitably spaced out along the length of the vehicle.		mandatory		Annex 3 applicable Annex 7 1.2.3. The forward rearward half of the shall each contain a	e passenger space	OK, but how to test "suitable".

Requirements	Class I	Class II	Class III	A	В	Comments
7.6.2.6. A door shall, provided that it is not a service door, be permitted in the rear face of the vehicle.						Contradictory to para. 7.6.2.1.2.
7.6.2.7. If escape hatches are fitted, they shall be positioned as follows: if there is only one hatch, it shall be situated in the middle third of the passenger compartment the vehicle; if there are two hatches, they shall be separated by a distance of at least 2 m measured between the nearest edges of the apertures in a line parallel to the longitudinal axis of the vehicle.	applicable	mandatory	mandatory	applicable	mandatory	OK!
7.6.3 Dimensions of exits	mandatory	mandatory	mandatory	either those of Annex 3 or those in Annex 7	either those of Annex 3 or those in Annex 7	
Service door 7.6.3.1. Vehicles of Class I, II or III shall meet the following requirements: 7.6.3.1.1. A service door shall have an aperture creating an access in accordance with	mandatory Annex 3 1800 mm x 550 mm (single door)	mandatory Annex 3 1650 mm x 550 mm or 1800 mm x 550 mm (single door)	mandatory Annex 3 1550 mm x 550 mm or 1800 mm x 550 mm (single door)	Annex 3 1650 mm x 550 mm (single door) Annex 7 1650 mm x 650 mm (single door)	Annex 3 1400 mm x 550 mm or 1650 mm x 550 mm or Annex 7 1500 mm x 650 mm (single	OK

Requirements	Class I	Class II	Class III	A	В	Comments
the requirements shown in paragraph 7.7.1. of this annex					door)	
					Class B with	
					less than 3,5 t	
					and 12	
					passengers:	
					1100 mm x 650	
	1				mm single door	
Emergency door	Annex 3	Annex 3	Annex 3	Annex 3	Annex 3	Class I, II, III:
	1250 mm x	1250 mm x 550	1250 mm x 550	1250 mm x 550	1250 mm x 550	OK
	550 mm	mm	mm	mm	mm	Class A&B: real
				or	or	scale tests at
				Annex 7	Annex 7	300mm: un
				Width of 550 mm	Width of 550	feasible for
				may be reduced	mm may be	some experts.
				to 300 mm	reduced to 300	Need to have a
					mm	look at the
					Class B with	dimensions, whole table of
					less than 3,5 t and 12	Annex 7 Harmonization
						to be reviewed
					passengers: 1100 mm x 550	as well
						as wen
					mm (single door)	
					Width of 550	
					mm may be	
					reduced to 300	
					mm	
					111111	

Emergency window	400000 mm² 500 mm x 700 mm (rear face: 350 mm x 1550 mm) However, national law in D required 500x700mm, hence all vehicles complied. But EURO VI requires more space in engine compartment, hence manufacturers complied with 350x1550.	400000 mm² 500 mm x 700 mm (rear face: 350 mm x 1550 mm)	400000 mm² 500 mm x 700 mm (rear face: 350 mm x 1550 mm)	400000 mm² (5 % tolerance) 500 mm x 700 mm (rear face: 350 mm x 1550 mm)	400000 mm ² (5 % tolerance) 500 mm x 700 mm (rear face: 350 mm x 1550 mm)	Group keen to get info about the use of EE in case of accident. Sure they are used, but no research. No data. CEESAR to be approached by F (Alan Davis). Rear face reduced dimension to be reviewed.
Emergency hatch	350413504	I .	(400000 mm ² 500 mm x 700 mm))		
7.6.5. Additional technical requirements for power-operated service doors						Paragraph recently amended after D proposal following D research.

7.6.6. 7.6.7. Technical requirements for emergency doors			Overnight locks to be considered by SDWEE (paras 7.6.5. and 7.6.7.1.). To be reviewed at home
7.6.7.1. Emergency doors shall be capable of being easily opened from inside and from outside when the vehicle is stationary. However, this requirement shall not be construed as precluding the possibility of locking the door from the outside, provided that the door can always be opened from the inside by the use of the normal opening mechanism			
7.7.2. Access to emergency doors (see Annex 4, figure 5) The following requirements shall not apply to driver's doors used as emergency exits in vehicles having a capacity not exceeding 22 passengers.			Gauges seem smaller than the EE. Dimensions of gauges will be considered at next meeting.

7.7.4.1. Escape hatches in the roof 7.7.4.1.1. Except in the case of Class I and A vehicles, at least one escape hatch shall be located such that a four-sided truncated pyramid having a side angle of 20 degrees and a height of 1,600 mm touches part of a seat or equivalent support. The axis of the pyramid shall be vertical and its smaller section shall contact the aperture area of the escape hatch. Supports may be foldable or movable provided they can be locked in their position of use. This position shall be taken for verification.	Access to emergency exits should be harmonized (doors, windows, hatches, etc.) Question about necessity of using roof hatch when the vehicle is on its wheels. However, case in PL where roof hatches were useful but not used.
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