Minimum Inspection Requirements Rule 2
Based on document ECE/TRANS/WP.29/2009/135 (28 August, 2009)

	Mandato	ory	Recommendation			
	Item	Method	Main Reasons for Rejection		ect Assess	
				MiD	MaD	DD
	IDENTIFICATION OF	THE VEHICLE				
.1.	Registration number plates (if needed by requirements. <u>1</u> /)	Visual inspection.	(a) Number plate(s) missing or so insecure/fixed that it is (they are) likely to fall off.      (b) Inscription missing or illegible.     (c) Not in accordance with vehicle	X	X X X	
			documents or records.			
.2.	Vehicle identification chassis/ serial number	Visual inspection.	(a) Missing or cannot be found.     (b) Incomplete, illegible.     (c) Not in accordance with vehicle documents or records.		X X X	
	BRAKING EQUIPMEN					
.1.	Mechanical condition ar					
1.1.	Service brake pedal/hand lever pivot	Visual inspection of the components while the braking system is operated. Note: Vehicles with	(a) Pivot too tight.     (b) Excessive wear or play.		X	
		power-assisted braking systems should be inspected with the engine switched off.	,			
1.1.2.	Pedal/hand lever condition and travel of the brake operating device	Visual inspection of the components while the braking system is operated	(a) Excessive or insufficient reserve travel.		X	
		Note: Vehicles with power-assisted braking systems should be inspected with the engine switched off.	(b) Brake control not releasing correctly.	Х	Х	
			(c) Anti-slip provision on brake pedal missing, loose or worn smooth.	X		
.1.3.	Vacuum pump or compressor and reservoirs	Visual inspection of the components at normal working pressure. Check time required for vacuum	(a) Insufficient pressure/vacuum to give assistance for at least two brake applications after the warning device has operated (or gauge shows an unsafe reading).		X	X
		or air pressure to reach safe working value and function of warning device, multi-circuit	(b) Time taken to build up air pressure/vacuum to safe working value not in accordance with the requirements. [1]/		Х	
		protection valve and pressure relief valve.	Multi-circuit protection valve or pressure relief valve not working.     Air leak causing a noticeable drop in		X	
			pressure or audible air leaks.  (e) External damage likely to affect the function of the braking system.		X	Х
.1.4.	Low pressure warning gauge or indicator	Functional check.	Malfunctioning or defective gauge or indicator.	X	X	

	Commission	Directive 2010	/48/EU (5 Jul, 2010)	Reco 2010	mmissi mmend //378/I Ily, 201	lation EU (8			
	Mandat		Recommendation	Defect Assessment					
	Item	Method	Reasons for Failure	Defe MiD	ect Assess MaD	ment DD			
				MID	MaD	טט			
0	IDENTIFICATION OF								
0.1.	Registration number plates (if needed by requirements) (a)	Visual inspection.	<ul><li>(a) Number plate(s) missing or so insecure/fixed that it is (they are) likely to fall off.</li></ul>		X				
			Inscription missing or illegible.     Not in accordance with vehicle documents or records.	X	X X				
0.2.	Vehicle identification	Visual inspection.	<ul><li>(a) Missing or cannot be found.</li></ul>		X				
	chassis/ serial number		(b) Incomplete, illegible.		X				
			(c) Not in accordance with vehicle		X				
			documents or records.						
1	BRAKING EQUIPME								
1.1.	Mechanical condition at								
1.1.1.	Service brake pedal/hand lever pivot	Visual inspection of the components while the braking system is operated.	(a) Pivot too tight.		Х				
		Note: Vehicles with power-assisted braking systems should be inspected with the engine switched off.	(b) Excessive wear or play.		X				
1.1.2.	Pedal/hand lever condition and travel of the brake operating device	Visual inspection of the components while the braking system is operated	(a) Excessive or insufficient reserve travel.		X				
		Note: Vehicles with power-assisted braking systems should be inspected with the engine switched off.	(b) Brake control not releasing correctly.	X	X				
			(c) Anti-slip provision on brake pedal missing, loose or worn smooth.	X					
1.1.3.	Vacuum pump or compressor and reservoirs	Visual inspection of the components at normal working pressure. Check time required for vacuum	(a) Insufficient pressure/vacuum to give assistance for at least two brake applications after the warning device has operated (or gauge shows an unsafe reading).		X	X			
		or air pressure to reach safe working value and function of warning device, multi-circuit	(b) Time taken to build up air pressure/vacuum to safe working value not in accordance with the requirements. (a)		Х				
		protection valve and pressure relief valve.	(c) Multi-circuit protection valve or pressure relief valve not working.		X				
			(d) Air leak causing a noticeable drop in pressure or audible air leaks.     (e) External damage likely to affect the		X	X			
			function of the braking system.		1	l			
1.1.4.	Low pressure warning gauge or indicator	Functional check.	Malfunctioning or defective gauge or indicator.	X	X				

## Informal document WP.29-157-09 Agenda Item 7.2

- 1 = Yes (identical) 0 = No (not identical)

equirement dentical?	Comment
	Directive has Reasons for Failure' cf. Main Reasons for Rejection' Definitions of MiD and MaD are different

D	Praft Proposed	Rule 2 (28 Aug, 2009)				Commission	Directive 2010	)/48/EU (5 Jul, 2010)	Recc 201	ommiss ommen 0/378/ uly, 20	dation EU (8	Requirement identical?	Comment
Mandato		Recommendation				Manda		Recommendation					
Item	Method	Main Reasons for Rejection		ect Asses: MaD		Item	Method	Reasons for Failure	Def MiD	ect Asses MaD		0	Directive has 'Reasons for Failure' cf. 'Main Reasons for Rejection' Definitions of MiD and MaD are different
1.1.5. Hand operated brake control valve	Visual inspection of the components while the braking system is operated.	(a) Control cracked, damaged or excessively worn. (b) Control insecure on valve or valve insecure.		X X		1.1.5. Hand operated brake control valve	Visual inspection of the components while the braking system is operated.	(a) Control cracked, damaged or excessively worn.     (b) Control insecure on valve or valve insecure.		X X		1	
	operated.	(c) Loose connections or leaks in system.  (d) Unsatisfactory operation.		X X			operated.	(c) Loose connections or leaks in system.      (d) Unsatisfactory operation.		X X		1	
1.1.6. Parking brake activator, lever control, parking brake ratchet	Visual inspection of the components while the braking system is operated.	Ratchet not holding correctly.     Excessive wear at lever pivot or in ratchet mechanism.     Excessive movement of lever indicating incorrect adjustment.     Activator missing, damaged or	Х	X X X		Parking brake activator lever control, parking brake ratchet, electroni parking brake	r, Visual inspection of the components while the c braking system is operated.	(a) Ratchet not holding correctly.     (b) Excessive wear at lever pivot or in ratchet mechanism.     (c) Excessive movement of lever indicating incorrect adjustment.     (d) Activator missing, damaged or	Х	X X X		1 1 1	
		inoperative						inoperative (e) Incorrect functioning, warning indicator show malfunction		Х		0	Directive adds electronic parking brake (Item) and Rejection Reason (e)
1.1.7. Braking valves (foot valves, unloaders, governors)	Visual inspection of the components while the braking system is operated.	(a) Valve damaged or excessive air leak.     (b) Excessive oil discharge from compressor.	Х	X	X	1.1.7. Braking valves (foot valves, unloaders, governors)	Visual inspection of the components while the braking system is operated.	<ul><li>(a) Valve damaged or excessive air leak.</li><li>(b) Excessive oil discharge from compressor.</li></ul>	х	X	X	1	
		<ul><li>(c) Valve insecure or inadequately mounted.</li><li>(d) Hydraulic fluid discharge or leak.</li></ul>		X X	х			<ul><li>(c) Valve insecure or inadequately mounted.</li><li>(d) Hydraulic fluid discharge or leak.</li></ul>		X X	Х	1	
1.1.8. Couplings for trailer brakes (electrical & pneumatic)	Disconnect and reconnect braking system coupling between towing vehicle and trailer.	(a) Tap or self sealing valve defective.     (b) Tap or valve insecure or inadequately mounted.	X	X X		1.1.8. Couplings for trailer brakes (electrical & pneumatic)	Disconnect and reconnect braking system coupling between towing vehicle and trailer.	<ul><li>(a) Tap or self sealing valve defective.</li><li>(b) Tap or valve insecure or inadequately mounted.</li></ul>	X	X		1	
		Excessive leaks.     Not functioning correctly.		X X	X X			Excessive leaks.     Not functioning correctly		X X	X X	1 1	
1.1.9. Energy storage reservoir pressure tank	Visual inspection.	Tank damaged, corroded or leaking.      Drain device inoperative.     Tank insecure or inadequately mounted.	X	X X X		1.1.9. Energy storage reservoir pressure tank	Visual inspection.	Tank damaged, corroded or leaking.     Drain device inoperative.     Tank insecure or inadequately mounted.	X X	X X X		1 1 1	
1.1.10,Brake servo units, master cylinder (hydraulic systems)	Visual inspection of the components while the braking system is operated.	Defective or ineffective servo unit.     Master cylinder defective or leaking.     Master cylinder insecure.     Insufficient brake fluid.     Master cylinder reservoir cap missing.     Sare fluid warning light illuminated or defective.     Incorrect functioning of brake fluid level warning device.	x x x	X X X X	X X	1.1.10. Brake servo units, master cylinder (hydraulic systems)	Visual inspection of the components while the braking system is operated.	(a) Defective or ineffective servo unit. (b) Master cylinder defective or leaking. (c) Master cylinder insecure. (d) Insufficient brake fluid. (e) Master cylinder reservoir cap missing. (f) Brake fluid warning light illuminated or defective. (g) Incorrect functioning of brake fluid level warning device.	X X X	X X X X	X X	1 1 1 1 1 1 1	
1.1.11.Rigid brake pipes	Visual inspection of the components while the braking system is operated.	Eminent risk of failure or fracture.     Pipes or connections leaking.     Pipes damaged or excessively corroded.     Pipes misplaced.	Х	X X X	X X X	1.1.11. Rigid brake pipes	Visual inspection of the components while the braking system is operated.	(a) Imminent risk of failure or fracture. (b) Pipes or connections leaking. (c) Pipes damaged or excessively corroded. (d) Pipes misplaced.	Х	X X X	X X X	0 1 1	Very minor: Typo in Rule 2 proposal
1.1.12.Flexible brake hoses	Visual inspection of the components while the braking system is operated.	(a) Eminent risk of failure or fracture. (b) Hoses damaged, chafing, twisted or too short. (c) Hoses or connections leaking. (d) Hoses bulging under pressure. (e) Hoses porous.	х	X X X X	X X X	1.1.12. Flexible brake hoses	Visual inspection of the components while the braking system is operated.	(a) Imminent risk of failure or fracture. (b) Hoses damaged, chafing, twisted or too short. (c) Hoses or connections leaking. (d) Hoses bulging under pressure. (e) Hoses porous.	х	X X X X	X X X	0 1 1 1 1	Very minor: Typo in Rule 2 proposal

						Commission	Directive 2010	2010/48/EU (5 Jul, 2010) Recommendation  Recommendation				
		Recommendation				Mandat		Recommendation				
Item	Method	Main Reasons for Rejection	Defe MiD	ect Assess MaD	ment DD	Item	Method	Reasons for Failure	Defe MiD	ct Assessi MaD	nent DD	
1.1.13. Brake linings and pads	Visual inspection.	Lining or pad excessively worn.     Lining or pad contaminated (oil, grease etc.).     Lining or pad missing		X X	X X	1.1.13.Brake linings and pads	Visual inspection.	(a) Lining or pad excessively worn.  (b) Lining or pad contaminated (oil, grease etc.).  (c) Lining or pad missing		X X	X X	
1,1,14. Brake drums, brake discs	Visual inspection.	(a) Drum or disc excessively worn, excessively scored, cracked, insecure or fractured. (b) Drum or disc contaminated (oil, grease, etc.) (c) Drum or disc missing. (d) Back plate insecure.		x x	X X	1.1.14. Brake drums, brake discs	Visual inspection.	(a) Drum or disc excessively worn, excessively scored, cracked, insecure or fractured. (b) Drum or disc contaminated (oil, grease, etc.) (c) Drum or disc missing. (d) Back plate insecure.		x x	X X	
1.1.15.Brake cables, rods, levers, linkages	Visual inspection of the components while the braking system is operated.	(a) Cable damaeed or knotted. (b) Component excessively worn or corroded. (c) Cable. rod or ioint insecure. (d) Cable euide defective. (e) Restriction to free movement of the braking system. (f) Abnormal movement of the levers/linkage indicating maladjustment or excessive wear.		X X X X X	X X	1.1.15. Brake cables, rods, levers, linkages	Visual inspection of the components while the braking system is operated.	(a) Cable damased or knotted. (b) Component excessively worn or corroded. (c) Cable. rod or ioint insecure. (d) Cable euide defective. (e) Restriction to free movement of the braking system. (f) Abnormal movement of the levers/linkage indicating maladjustment or excessive wear.		X X X X X	X X	
1.1.16. Brake actuators (including spring brakes or hydraulic cylinders)	Visual inspection of the components while the braking system is operated.	(a) Actuator cracked or damaged.     (b) Actuator leaking.     (c) Actuator insecure or inadequately mounted.     (d) Actuator excessively corroded.     (e) Insufficient or excessive travel of operating piston or diaphragm mechanism.     (f) Dust cover missing or excessively damaged.	X	x x x x x	X X X X	1.1.16. Brake actuators (including spring brakes or hydraulic cylinders)	Visual inspection of the components while the braking system is operated.	(a) Actuator cracked or damaged.     (b) Actuator leaking.     (c) Actuator insecure or inadequately mounted.     (d) Actuator excessively corroded.     (e) Insufficient or excessive travel of operating piston or diaphragm mechanism.     (f) Dust cover missing or excessively damaged.	х	X X X X X	x x x	
1.1.17.Load sensing valve	Visual inspection of the components while the braking system is operated.	(a) Defective linkage. (b) Linkage incorrectly adjusted. (c) Valve seized or inoperative. (d) Valve missing. (e) Missing data plate. (f) Data illegible or not in accordance with requirements. L'	X X	X X X	X X	1.1.17.Load sensing valve	Visual inspection of the components while the braking system is operated.	Defective linkage.     Linkage incorrectly adjusted.     Valve seized or inoperative.     Valve missing     Missing data plate.     Data illegible or not in accordance with requirements. (a)	X X	X X X	X X	
1.1.18. Slack adjusters and indicators	Visual inspection.	(a) Adjuster damaged, seized or having abnormal movement, excessive wear or incorrect adjustment.     (b) Adjuster defective.     (c) Incorrectly installed or replaced.		X X X		1.1.18.Slack adjusters and indicators	Visual inspection.	(a) Adjuster damaged, seized or having abnormal movement, excessive wear or incorrect adjustment.     (b) Adjuster defective.     (c) Incorrectly installed or replaced.		X X X		
1.1.19.Endurance braking system (where fitted or required)	Visual inspection.	Insecure connectors or mountings.     System obviously defective or missing.	X	X X		1.1.19. Endurance braking system (where fitted or required)	Visual inspection.	Insecure connectors or mountings.     System obviously defective or missing.	Х	X X		
1.1.20 Automatic operation of trailer brakes	Disconnect brake coupling between towing vehicle and trailer.	Trailer brake does not apply automatically when coupling disconnected.			X	1.1.20 Automatic operation of trailer brakes	Disconnect brake coupling between towing vehicle and trailer.	Trailer brake does not apply automatically when coupling disconnected.			X	

Requirement identical? Comment

Directive has Reasons for Failure' cf. 'Main Reasons for Rejection' Definitions of MiD and MaD are different

Draft Proposed Rule 2 (28 Aug, 2009)  Mandatory Recommendation							/48/EU (5 Jul, 2010)	ion dation EU (8 LO)					
		Recommendation	L 5.			Mandato		Recommendation	- n e			0 Directive has Reasons for Failure' cf. 'Main Reasons for Rejection'	<u> </u>
Item	Method	Main Reasons for Rejection	MiD	ect Assess MaD		Item	Method	Reasons for Failure		MaD			
1.1.21. Complete braking system	Visual inspection.	(a) Other system devices (e.g. anti-freeze pump, air dryer, etc.) damaged externally or excessively corroded in a way that adversely affects the braking system.  (b) Leakage of air or anti-freeze. (c) Any component insecure or inadequately mounted.  (d) Inappropriate repair or modification to any component.	х	X X X	X	1.1.21 Complete braking system	Visual inspection.	(a) Other system devices (e.g. anti-freeze pump, air dryer, etc.) damaged externally or excessively corroded in a way that adversely affects the braking system.  (b) Leakage of air or anti-freeze.  (c) Any component insecure or inadequately mounted.  (d) Inappropriate repair or modification to any component. (1)	Х	X X X	X	1 1 0 Directive adds footnote (1) ((1) Inappropriate repair or modification means a repair or modification	
1.1.22.Test connections (where fitted or required)	e Visual inspection.	(a) Missing.     (b) Damaged, unusable or leaking.	х	X X		1.1.22. Test connections (where fitted or required)	Visual inspection.	(a) Missing. (b) Damaged, unusable or leaking.	X	X X		adversely affects the road safety of the vehicle or has a negative effect environment.]  1 1	on the
•		(b) Danaged, unusable of leaking.	_ ^	Α.		• ′		(b) Banaged, and subject of reaking.	A	74			
1.2. Service braking perform						<ol> <li>Service braking perform</li> </ol>						0	
1.2.1. Performance	During a test on a static brake testing machine or, if impossible, during a road test apply the brakes progressively up to maximum effort.  Test with a static brake testing machine or, if one cannot be used for technical reasons, by a road test using a decelerometer. Vehicles or a trailer has to be	(a) Inadequate braking effort on one or more wheels.  (b) Braking effort from any wheel is less than 70% of maximum effort recorded from the other wheel on the same axle. Or in the case of testing on the road, the vehicle deviates excessively from a straight line and comes out of a corridor 3 m wide.  (c) No gradual variation in brake effort (grabbing).  (d) Abnormal lag in brake operation of any wheel.  (e) Excessive fluctuation of brake force during each complete wheel revolution.  Does not give at least the minimum figure laid down in requirements. 1/	1	x x x x	x x	1.2.1. Performance	During a test on a static brake testing machine or, if impossible, during a road test apply the brakes progressively up to maximum effort.  Test with a static brake testing machine or, if one cannot be used for technical reasons, by a road test using a decelerometer. Vehicles or a trailer with a maximum	other wheel on the same axle. Or in the case of testing on the road, the vehicle deviates excessively from a straight line  (c) No gradual variation in brake effort (grabbing).  (d) Abnormal lag in brake operation of any wheel.  (e) Excessive fluctuation of brake force during each complete wheel revolution.  Does not give at least the minimum figure as follows  Vehicles registered first time after entry into force of this Directive:  - Category N1: 50%  - Category N1: 50%		x x x x	x	Directive omits 'and comes out of a corridor 3 m wide', i.e. Draft Prop quantifies 'excessive' deviation from a straight line  Directive adds requirement that vehicles or trailers with a maximum p mass > 3500 kg shall be tested to ISO 21069 or equivalent Directive includes specific Categories and efficiency values in the Rej Draft Proposed Rule 2 references requirements footnote (1)  [1] 'requirements' are laid down by type-approval requirements at the registration or first entry into service as well as retrofitting obligations	ermissable ection Reasons; e date of first
	or a traiter has to be inspected following the standards given by ISO 21069, or according to the requirements or equivalent methods.  Laden vehicle braking system performance should be assessed by testing the vehicle laden, or by evaluation using a method based on extrapolation or by some other acceptable means.  Note: The efficiency of overrun brakes can be fully tested on a static brake testing machine by use of a special device or partially tested by applying the parking brake.						a trainer with a maximum permissable mass exceeding 3 500 kg has to be inspected following the standards given by ISO 21069 or equivalent methods.	Category M2 and M3: 50% Category N2 and N3: 50% Category O2 (XX) (c), O3 and O4: for semi-trailers: 45% for draw-bar trailers: 50% Vehicles registered before entry into force of this Directive: Category N1: 45% Category N1: 45% Category N2 and N3: 43% (3) Category O2 (XX) (c), O3 and O4: 40% (4) Other categories (XX) (c) Category O2 (XX) (c), O3 and O4: 40% (4) Other categories (XX) (c) Category L1e: 42% Category L2e, L6e: 40% Category L2e, L6e: 40% Category L3e: 50% Category L4e: 46% Category L5e, L7e: 444% Categories L (rear wheel brake) all categories: 25%				0 Directive omits Laden vehicle braking system performance assessment 0 Directive omits adds note on testing efficiency of overrun brakes	

Draft Proposed Rule 2 (28 Aug, 2009)  Mandatory Recommendation								Commission	Recommendat 2010/378/EU July, 2010)				
								Mand		Recommendation			
	Item	Method	Main Reasons for Rejection	Def MiD	ect Assess MaD		4	Item	Method	Reasons for Failure	Defe MiD	ect Asses MaD	
				MID	MaD	טט					MID	wiab	DD
1.3.	Secondary (emergency)	braking performance and e	fficiency (if met by separate system)					1.3. Secondary (emergence	v) braking performance and el	fficiency (if met by separate system)			
1.3.1.	Performance	If the secondary braking	(a) Inadequate braking effort on one or more		X	X	1	1.3.1. Performance	If the secondary braking	(a) Inadequate braking effort on one or more	e	X	X
		system is separate from	wheels.						system is separate from	wheels.			
		the service braking	(b) Braking effort from any wheel is less than		X	X			the service braking	(b) Braking effort from any wheel is less than		X	X
		system, use the method	70% of maximum effort recorded from another						system, use the method	70 % of maximum effort recorded from another	r		
		specified in 1.2.1.	wheel on the same axle specified. Or in the case						specified in 1.2.1.	wheel on the same axle specified. Or in the			
			of testing on the road, the vehicle deviates							case of testing on the road, the vehicle deviates			
			excessively from a straight line comes out of a corridor 3 m wide.							excessively from a straight line.			
			corridor 5 in wide.										
			(c) No gradual variation in brake effort		X	X				(c) No gradual variation in brake effort		X	х
		Ī	(grabbing).		l	1				(grabbing).			1
1.3.2.	Efficiency	If the secondary braking	Braking effort less than 50% of the service		X	X	1	1.3.2. Efficiency	If the secondary braking	Braking effort less than 50 % (5) of the service		X	X
		system is separate from	brake performance defined in section 1.2.2 in						system is separate from	brake performance defined in section 1.2.2 in			
		the service braking	relation to the maximum authorized mass or, in		l	1			the service braking	relation to the maximum authorized mass or, in			1
		system, use the method specified in 1.2.2.	the case of semi-trailers, to the sum of the authorized axel loads.						system, use the method specified in 1.2.2.	the case of semi-trailers, to the sum of the authorized axel loads (except L1e and L3e).			
		specified in 1.2.2.	authorized axer founds.						specified in 1.2.2.	authorized axer tolids (except ETe and ESe).			
.4.1.	Performance	Apply the brake during a	Brake inoperative on one side or in the case of		X	X	1	1.4.1. Performance	Apply the brake during a	Brake inoperative on one side or in the case of		X	X
		test on a static brake	testing on the road, the vehicle deviates						test on a static brake	testing on the road, the vehicle deviates			
		testing machine and/or	excessively from a straight line.						testing machine and/or	excessively from a straight line.			
		during a road test with a							during a road test with a				
		decelerometer.							decelerometer.				
.4.2.	Efficiency	Test with a static brake	Does not give at least for all vehicles a braking		X	X		1.4.2. Efficiency	Test with a static brake	Does not give at least for all vehicles a braking		X	X
		testing machine or by a	ratio of 18% in relation to the maximum						testing machine or by a	ratio of 16% in relation to the maximum			
		road test using either an	authorized mass, or, for motor vehicles, of 12%						road test using either an	authorized mass, or, for motor vehicles, of 12%			
		indicating or recording	in relation to the maximum authorized combination mass of the vehicle, whichever is						indicating or recording decelerometer or with the	in relation to the maximum authorized combination mass of the vehicle, whichever is			
		vehicle on a slope of	the greater.						vehicle on a slope of	the greater (except L1e and L3e).			
		known gradient. Goods	and greater.						known gradient. Goods	ane greater (except 21e and 25e).			
		vehicles should, if							vehicles should, if				
		possible, be tested laden.							possible, be tested laden.				
					I								1
.5.	Endurance braking	Visual inspection and,	(a) No gradual variation of efficiency (not		X		1	1.5. Endurance braking	Visual inspection and,	(a) No gradual variation of efficiency (not		X	t
	system performance	where possible, test	applicable to exhaust brake systems).					system performance	where possible, test	applicable to exhaust brake systems).			
		whether the system	(b) System not functioning.		X				whether the system	(b) System not functioning.		X	
6	Anti look heekino	functions.	(a) Wassing device multipationic	-	X	1	4	1 C Anti look heal	functions.	(a) Waming daving multimation:	+	v	+
.6.	Anti-lock braking system (ABS)	Visual inspection and inspection of warning	(a) Warning device malfunctioning.		X			1.6. Anti-lock braking system (ABS)	Visual inspection and inspection of warning	(a) Warning device malfunctioning.		X	1
	ayawiii (ADS)	device.	<ul> <li>(b) Warning device shows system malfunction.</li> </ul>		X			system (ADS)	device.	<ul><li>(b) Warning device shows system malfunction.</li></ul>		Х	
					v							v	1
		Ī	(c) Wheel speed sensors missing or damaged.		X	1				<ul> <li>(c) Wheel speed sensors missing or damaged.</li> </ul>		X	1
		Ī	(d) Wirings damaged.		X	1				(d) Wirings damaged.		X	1
		Ī	(e) Other components missing or damaged.		X	1				(e) Other components missing or damaged.		X	1
										Components massing or damaged.			1
		I					-			ļ			1
.7.	Electronic brake system	Visual inspection of	<ul> <li>(a) Warning device malfunctioning.</li> </ul>		X			1.7 Electronic brake syste	m Visual inspection of	<ul> <li>(a) Warning device malfunctioning.</li> </ul>		X	
1.7.	Electronic brake system (EBS)	Visual inspection of warning device.	(a) Warning device malfunctioning.     (b) Warning device shows system		X X			1./ Electronic brake syste (EBS)	m Visual inspection of warning device.	(a) Warning device malfunctioning.     (b) Warning device shows system		X	

on (8	Requirement identical?	Comment
t OD	0	Directive has Reasons for Failure' cf. Main Reasons for Rejection' Definitions of MiD and MaD are different
	1	
X	1	
X	0	Directive omits 'and comes out of a corridor 3 m wide', i.e. Draft Proposed Rule 2 quantifies 'excessive' deviation from a straight line
X	1	
X	0	Directive adds Note (5) and exceptions for L1e and L3e category vehicles [( $5$ ) 2,2 $\rm m/s^2$ for N1, N2 and N3 vehicles.]
X	1	
X	0	Directive changes 18% requirement to 16% Directive adds exclusion for L1e and L3e category vehicles
	1	
	1	
	1	
	1	
	1	
	1 1	
	1 1	

Draft Proposed Rule 2 (28 Aug, 2009)  Mandatory Recommendation										/48/EU (5 Jul, 2010)	Reco	mmiss mmend /378/I ly, 201	ation EU (8
Mandate Item	ory Method	Recommendation  Main Reasons for Rejection	Defe	ect Assess	ment			Mandate Item	ory Method	Recommendation Reasons for Failure	Defe	ct Assess	ment
			MiD	MaD	DD						MiD	MaD	DD
2. STEERING					•	2.		STEERING					
2.1. Mechanical condition						2.:	1.	Mechanical condition					
2.1.1. Steering gear condition	With the vehicle over a pit or on a hoist and with the road wheels off the ground or on turn tables, rotate the steering wheel from lock to lock. Visual inspection of the operation of the steering gear.	(a) Roughness in operation of gear.     (b) Sector shaft twisted or solines worn.     (c) Excessive wear in sector shaft.     (d) Excessive movement of sector shaft.     (e) Leaking.	Х	X X X X X	X X X	2.:	1.1.	Steering gear condition	With the vehicle over a pit or on a hoist and with the road wheels off the ground or on turn tables, rotate the steering wheel from lock to lock. Visual inspection of the operation of the steering gear.	Sector shaft twisted or splines worn.     Excessive wear in sector shaft.	x	X X X X X	X X X
2.1.2. Steering gear casing attachment	With vehicle on a pit or hoist and the weight of the vehicle road wheels on the ground, rotate steering / handle bar wheel clock-wise and anticlockwise or using a specially adapted wheel play detector. Visual inspection of the attachment of gear casing to chassis.	(a) Steering gear casing not properly attached.     (b) Eloneated fixine holes in chassis.     (c) Missing or fractured fixing bolts.     (d) Steering gear casing fractured.		X X X X	X X X X	2.:		Steering gear casing attachment	With vehicle on a pit or hoist and the weight of the vehicle road wheels on the ground, rotate steering / handle bar wheel clockwise and anticlockwise or using a specially adapted wheel play detector. Visual inspection of the attachment of gear casing to chassis.	(a) Steering gear casing not properly attached.      (b) Eloneated fixine holes in chassis.     (c) Missing or fractured fixing bolts.      (d) Steering gear casing fractured.		X X X X	X X X X
2.1.3. Steering linkage condition	With the vehicle over a pit or on a hoist and with the road wheel on ground, rock steering wheel clockwise and anti- clockwise or using a specially adapted wheel play detector. Visual inspection of steering components for wear, fractures and security.	(a) Relative movement between components which should be fixed. (b) Excessive wear at joints. (c) Fractures or deformation of any component. (d) Absence of locking devices. (e) Misalignment of components (e.g. track rod or drag link). (f) Inappropriate repair or modification. (g) Dust cover missing, damaged or severely deteriorated.	х	X X X X X	X X X	2.:		Steering linkage condition	With the vehicle over a pit or on a hoist and with the road wheel on ground, rock steering wheel clockwise and anti- clockwise or using a specially adapted wheel play detector. Visual inspection of steering components for wear, fractures and security.	(a) Relative movement between components which should be fixed. (b) Excessive wear at joints. (c) Fractures or deformation of any component. (d) Absence of locking devices. (e) Misalignment of components (e.g. track rod or drag link). (f) Inappropriate repair or modification. (g) Dust cover missing, damaged or severely deteriorated.	X	X X X X X	X X X
2.1.4. Steering linkage operation	With the vehicle over a pit or on a hoist and with the road wheels on ground and the engine running (power steering), rotate steering wheel from lock to lock. Visual inspection of movement of linkages.	Moving steering linkage fouling a fixed part of chassis.     Steering stops not operating or missing.		X		2		Steering linkage operation	With the vehicle over a pit or on a hoist and with the road wheels on ground and the engine running (power steering), rotate steering wheel from lock to lock. Visual inspection of movement of linkages.	Moving steering linkage fouling a fixed part of chassis.     Steering stops not operating or missing.		X	
2.1.5. Power steering	Check steering system for leaks and hydraulic fluid reservoir level (if visible). With the road wheels on ground and with the engine running, check that the power steering system is operating.	(b) Insufficient fluid.	Х	X X X X X X	X X X X X	2	1.5.	Power steering	Check steering system for leaks and hydraulic fluid reservoir level (if visible). With the road wheels on ground and with the engine running, check that the power steering system is operating.	Fluid leak.     Insufficient fluid.     Mechanism not working.     Mechanism fractured or insecure.     Misalienment or fouling of components.     Inappropriate repair or modification.     Cables/hoses damaged, excessively corroded.	х	X X X X X X	X X X X X X

Requirement Comment identical?

Directive has Reasons for Failure' cf. 'Main Reasons for Rejection' Definitions of MiD and MaD are different

	Mandato		Recommendation			
	Item	Method	Main Reasons for Rejection	Defe MiD	ect Assessi MaD	ment DD
				ми	MaD	DD
2.2.	Steering wheel and colu					
2.2.1.	Steering wheel condition	With the road wheels on the ground, rock steering wheel from side to side at	(a) Relative movement between steering wheel and column indicating looseness.     (b) Absence of retaining device on steering		X	X
		right angles to column and apply slight downward and upward pressure. Visual inspection of play.	wheel hub. (c) Fracture or looseness of steering wheel hub, rim or spokes.		х	Х
2.2.2.	Steering column	With the vehicle over a pit or on a hoist and the mass of the vehicle on the	Excessive movement of centre of steering wheel up or down.     Excessive movement of top of column		X X	
		ground, push and pull the	radially from axis of column.			
		steering wheel in line with column, push	(c) Deteriorated flexible coupling.	[]	[]	[]
		steering wheel in various	(d) Attachment defective.		X X	X
		directions at right angles to the column. Visual inspection of play, and condition of flexible couplings or universal joints.	(e) Inappropriate repair or modification.		A	X
2.3.	Steering play	With the vehicle over a pit or on a hoist, the mass of the vehicle on the road-wheels, the engine running for vehicles with power steering and with the road wheels in the straight-ahead position, lightly turn the steering wheel clockwise and anti-clockwise as far as possible without moving the road wheels. Visual inspection of free movement.	Free play in steering excessive (for example movement of a point on the rim exceeding one fifth of the diameter of the steering wheel or not in accordance with the requirements.   "  "		Х	X
2.4.	Wheel alignment (X) 2/	Check alignment of steered wheels with suitable equipment.	Alignment not in accordance with vehicle manufacturer's data or requirements. 1/	X	X	
2.5.	Trailer steered axle	Visual inspection or using	(a) Component damaged or cracked.		X	X
	turntable	a specially adapted wheel	(b) Excessive play.		X	X
		play detector.	<ul><li>(c) Attachment defective.</li></ul>		X	X

Method  Ind handle bar  With the road wheels on the ground, rock steering wheel from side to side at right angles to column and apply slight downward and upward pressure. Visual inspection of play.  With the vehicle over a pit or on a hoist and the mass of the vehicle on the ground, push and pull the steering wheel in line with column, push steering wheel in line with various directions at right angles to the column/forks. Visual inspection of play, and condition of flexible couplings or universal joints.	hub, rim or spokes.  (a) Excessive movement of centre of steering wheel up or down. (b) Excessive movement of top of column radially from axis of column. (c) Deteriorated flexible coupling. (d) Attachment defective. (e) Inappropriate repair or modification.	Defc MiD	MaD  X X X X X X	X X X
With the road wheels on the ground, rock steering wheel from side to side at right angles to column and apply slight downward and upward pressure. Visual inspection of play.  With the vehicle over a pit or on a hoist and the mass of the vehicle on the ground, push and pull the steering wheel in line with column, push steering wheel in line with various directions at right angles to the column/forks. Visual inspection of play, and condition of flexible couplings or universal joints.	wheel and column indicating looseness.  (b) Absence of retaining device on steering wheel hub, wheel hub, im or spokes.  (c) Fracture or looseness of steering wheel hub, rim or spokes.  (a) Excessive movement of centre of steering wheel up or down.  (b) Excessive movement of top of column radially from axis of column.  (c) Deteriorated flexible coupling.  (d) Attachment defective.  (e) Inappropriate repair or modification.		x x x x	X
With the road wheels on the ground, rock steering wheel from side to side at right angles to column and apply slight downward and upward pressure. Visual inspection of play.  With the vehicle over a pit or on a hoist and the mass of the vehicle on the ground, push and pull the steering wheel in line with column, push steering wheel in line with various directions at right angles to the column/forks. Visual inspection of play, and condition of flexible couplings or universal joints.	wheel and column indicating looseness.  (b) Absence of retaining device on steering wheel hub, wheel hub, im or spokes.  (c) Fracture or looseness of steering wheel hub, rim or spokes.  (a) Excessive movement of centre of steering wheel up or down.  (b) Excessive movement of top of column radially from axis of column.  (c) Deteriorated flexible coupling.  (d) Attachment defective.  (e) Inappropriate repair or modification.		x x x x	X
or on a hoist and the mass of the vehicle on the ground, push and pull the steering wheel in line with column, push steering wheel/handle bar in various directions at right angles to the column/forks. Visual inspection of play, and condition of flexible couplings or universal joints.	steering wheel up or down.  (b) Excessive movement of top of column radially from axis of column.  (c) Deteriorated flexible coupling.  (d) Attachment defective.  (e) Inappropriate repair or modification.		x x	
column, push steering wheel/handle bar in various directions at right angles to the column/forks. Visual inspection of play, and condition of flexible couplings or universal joints.	(d) Attachment defective. (e) Inappropriate repair or modification.			
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With the vehicle over a pit or or a h abist, the mass of the vehicle on the road-wheels, the engine running for vehicles with power steering and with the road wheels in the straight-ahead position, lightly turn the steering wheel clockwise and anticlockwise as far as possible without moving the road wheels. Visual inspection of free movement.	movement of a point on the rim exceeding one fifth of the diameter of the steering wheel or not in accordance with the requirements.		X	X
Check alignment of steered wheels with suitable equipment.	Alignment not in accordance with vehicle manufacturer's data or requirements. (a)	X	X	
Visual inspection or using a specially adapted wheel play detector.	(a) Component damaged or cracked.     (b) Excessive play.     (c) Attachment defective.		X X X	X X X
Visual inspection and consistency check between the angle of the steering wheel and the angle of the	(a) EPS Malfunction Indicator Lamp (MIL) indicates any kind of failure of the system.     (b) Inconsistency between the angle of the steering wheel and the angle of the wheels.		X X	Х
I t i i i	clockwise as far as possible without moving he road wheels. Visual nspection of free movement.  Check alignment of teered wheels with unitable equipment.  Visual inspection or using a specially adapted wheel alay detector.  Visual inspection and consistency check between he angle of the steering wheel and the angle of the wheels when switching	chockwise as far as bossible without moving he road wheels. Visual inspection of free novement.  Check alignment of steered wheels with uitable equipment.  Visual inspection or using (a) Component damaged or cracked. (b) Excessive play. (c) Attachment defective.  Visual inspection and consistency check between indicates any kind of failure of the system. (b) Inconsistency between the angle of the steering wheel and the angle of the wheels.	chockwise as far as possible without moving he road wheels. Visual inspection of free movement.  Check alignment of tecred wheels with unitable equipment.  Visual inspection or using a specially adapted wheel (b) Excessive play.  (c) Attachment defective.  Visual inspection and consistency check between the angle of the steering wheel and the angle of the wheels when switching (c) power assistance not working	chockwise as far as cossible without moving he road wheels. Visual inspection of free movement.  Check alignment of tecred wheels with unitable equipment.  Visual inspection or using a pecially adapted wheel and the angle of the steering wheel wheels when switching to sossible consistency between the angle of the steering wheel and the angle of the steering wheel and the angle of the steering wheel and the angle of the wheels when switching to sossible consistency between the angle of the steering wheel and the angle of the wheels when switching to sossible consistency between the angle of the wheels when switching to sossible consistency between the angle of the wheels.  Alignment not in accordance with vehicle X X X and X X X X and X X X X X X X X X X X X X X X X X X X

	Requirement identical?	Comment
	0	Directive has Reasons for Failure' cf. Main Reasons for Rejection' Definitions of MiD and MaD are different
	0 0	Directive adds 'handle bar' Directive adds 'handle bar' under 'Item'
	1	
	1	
	0	Directive adds '/yolks and forks' under Item
	0	Directive adds '/handle bar' and '/forks' under Method
	0	Directive includes MaD Reason for Failure and omits all []
	0	Directive omits MaD Reason for Failure
	0	See difference in footnotes (1) cf. (a)
	0	See difference in footnotes (1) cf. (a); footnotes (2) cf. (b) identical
	1 1 1	
	0	Directive adds 'Electronic Power Steering (EPS)' in Item, with relevant Method and
	0	Reasons for Failure Directive adds 'Electronic Power Steering (EPS)' in Item, with relevant Method and
l	0	Reasons for Failure

Directive adds 'Electronic Power Steering (EPS)' in Item, with relevant Method and

Reasons for Failure

devices    according to the requirements. 1/   (b) Mirror or device inoperative, damaged, lossos or insecure.   3.4. Windscreen wipers   Visual inspection and by operation.   (a) Wipers not operating or missing, (b) Wiper blade missing or obviously defective.   X   X   X   X   X   X   X   X   X				Rule 2 (28 Aug, 2009)			
3.1. Field of vision   Visual inspection from driving seat.    Nisual inspection from driving seat.    Nisual inspection.    Obstruction within driver's field of view that materially affects his view in front or to the sides.    Nisual inspection.    Obstruction within driver's field of view that materially affects his view in front or to the sides.    Nisual inspection.    Obstruction within driver's field of view that materially affects his view in front or to the sides.    Nisual inspection.    Obstruction within driver's field of view that materially affects his view in front or to the sides.    Nisual inspection.    Obstruction within driver's field of view that materially affects his view in front or to the sides.    Nisual inspection.    Obstruction within driver's field of view that materially affects his view in front or to the sides.    Nisual inspection.    Obstruction with requirements. I/    Obstruction with requirements. I/    Obstruction within him to see not comply with specifications in the requirements. I/    Obstructions in the requirements I/    Nisual inspection and by operation.    Obstructions in the requirements I/    Nisual inspection and by operation.    Obstructions in the requirements. I/    Nisual inspection with requirements. I/    Nisual inspection and by operation.    Obstruction of control device or missing in light / light source.    Nisual inspection and by operation.    Nisual inspection and by operation.    Obstruction of beadlamp on dispote beam using a headlamp a nim of each headlamp on dispote beam using a headlamp and nim of each headlamp on dispote beam using a headlamp and nim of each headlamp on dispote beam using a headlamp and nim of each headlamp on dispote beam using a headlamp and nim of							
3.1. Field of vision     Visual inspection from driving seat.					MiD	MaD	DD
driving seat.  materially affects his view in front or to the sides.  3.2. Condition of glass  Visual inspection.  (a) Cracked or discoloured glass or transparent panel (including reflecting or tinted film) that does not comply with specifications in the requirements. 1/1  (c) Glass or transparent panel (including reflecting or tinted film) that does not comply with specifications in the requirements. 1/1  (b) Mirror or device missing or not fitted according to the requirements. 1/1  (b) Mirror or device missing or not fitted according to the requirements. 1/1  (d) Wipers not operating or missing.  (b) Wiper blade missing or orbviously defective.  (b) Wiper blade missing or orbviously defective.  (c) Washers not operating adequately.  (d) Washers not operating adequately.  (effective.  (effective.  (effective or missing projection system (reflector and lens).  (e) Defective or missing projection system (x) X X (reflector and lens).  (c) Lamp not securely attached.  4.1.2. Alignment  Determine the horizontal aim of each headlamp on dipped beam using a headlamp aiming device or a screen.  Visual inspection and by operation.  (e) Defective or missing projection system (reflector and lens).  (c) Lamp not securely attached.  X X A Compliance with requirements 1/(X) 2/(X) 2/(		VISIBILITY					
transparent panel (if permitted).  (b) Glass or transparent panel (including reflecting or tinted film) that does not comply with specifications in the requirements. 1/  (c) Glass or transparent panel in unacceptable condition.  3.3. Rear-view mirrors or devices  (a) Mirror or device missing or not fitted according to the requirements. 1/  (b) Mirror or device inoperative, damaged, loss or insecure.  (a) Wipers not operating or missing.  (b) Wiper blade missing or obviously defective.  (c) Glass or transparent panel in unacceptable condition.  (a) Winter or device inoperative, damaged, loss or insecure.  (a) Wipers not operating or missing.  (b) Wiper blade missing or obviously defective.  (c) Expenditure or obviously defective.  (d) Wiper blade missing or obviously defective.  (effective or missing light/light source.  (b) Defective or missing light/light source.  (c) Lamp not securely attached.  4.1.1. Condition and operation.  (a) Determine the horizontal all aim of aeach headlamp on disped beam using a headlamp animing device or a screen.  (b) Defective or missing projection system  (c) Lamp not securely attached.  (c) Lamp not securely attached.  (d) Switch does not operate in accordance with the requirements. 1/ (Number of headlamps illuminated at the same time)  (b) Function of control device impaired.  4.1.4. Compliance with requirements 1/ (X) 2/ operation.  (a) Switch does not operate in accordance with the requirements. 1/ (Number of headlamp on disperse of headlamp on the requirements. 1/ (Number of headlamp on the disperse of headlamp on the dispe		Field of vision		materially affects his view in front or to the	X	X	
reflecting or finted film) that does not comply with specifications in the requirements. 1/  (c) Glass or transparent panel in unacceptable condition.  3.3. Rear-view mirrors or devices  (a) Mirror or device missing or not fitted according to the requirements. 1/  (b) Mirror or device insisting or not fitted according to the requirements. 1/  (b) Mirror or device insisting or not fitted according to the requirements. 1/  (a) Wipers not operative, damaged, loose or insecure.  (a) Wipers not operating or missing.  3.5. Windscreen washers  Visual inspection and by operation.  3.6. Demisting system (X)  Visual inspection and by operation.  3.7. Visual inspection and by operation.  3.8. LAMPS. REFLECTORS AND ELECTRICAL EQUIPMENT  4.1. Headlamps  4.1. Condition and operation  Visual inspection and by operation.  Determine the horizontal aim of each headlamp or dipped beam using a headlamp aiming device or a screen.  4.1. Switching  Visual inspection and by operation.  Visual inspection and by operation.  (a) Defective or missing projection system (reflector and lens).  (b) Defective or missing projection system (reflector and lens).  (c) Lamp not securely attached.  3. A. Windscreen washers  A. A. Lamp not securely attached.  4. A. A. Switching  Visual inspection and by operation.  (a) Switch does not operate in accordance with the requirements. 1/  (b) Function of control device impaired.  4. A. A. Compliance with requirements 1/ (Number of headlamps illuminated at the same time)  (b) Function of control device impaired.  4. A. A. Compliance with requirements 1/ (Number of headlamps illuminated at the same time)  (c) Light source and lamp not compatible  X with the requirements. 1/  (b) Products on lens or light source which obviously reduce light intensity or change emitted colour.  (c) Light source and lamp not compatible  X with the requirements of the product of the requirements. 1/  (b) Manual device cannot be operated from driver's seat.  4. 1. 6. Headlamp cleaning device (where mandatory) (X) 2/  4. 1. 6. Hea	3.2.	Condition of glass	Visual inspection.				
unacceptable condition.   X   X				reflecting or tinted film) that does not comply	X	X	
according to the requirements. 1/				unacceptable condition.		X	X
loose or insecure.	3.3.		Visual inspection.	according to the requirements. 1/			
operation.  (b) Wiper blade missing or obviously defective.  3.5. Windscreen washers  Visual inspection and by operation.  Visual inspection and by operative or obviously defective.  LAMPS, REFLECTORS AND ELECTRICAL EQUIPMENT  4.1.1. Condition and operation  Visual inspection and by operation.  (a) Defective or missing light / light source. (b) Defective or missing projection system (reflector and lens).  (c) Lamp not securely attached.  4.1.2. Alignment  Determine the horizontal aim of each headlamp on dipped beam using a headlamp aiming device or a screen.  Visual inspection and by operation.				loose or insecure.	Х		
Operation.   Operation.   System inoperative or obviously defective.   X   Operation.		Windscreen wipers		(b) Wiper blade missing or obviously	X		
4. LAMPS, REFLECTORS AND ELECTRICAL EQUIPMENT  4.1. Headlamps  4.1.1. Condition and operation  Visual inspection and by operation.  Visual inspection and by op	3.5.	Windscreen washers		Washers not operating adequately.	X	X	
4.1.1. Headlamps 4.1.1. Condition and operation Visual inspection and by operation.  (a) Defective or missing light / light source. (b) Defective or missing projection system (reflector and lens). (c) Lamp not securely attached.  4.1.2. Alignment  Determine the horizontal aim of each headlamp on dipped beam using a headlamp aiming device or a screen.  4.1.3. Switching  Visual inspection and by operation.  (a) Switch does not operate in accordance with the requirements. 1/ (Number of headlamps illuminated at the same time) (b) Function of control device impaired.  4.1.4. Compliance with requirements 1/ (X) 2/  (b) Products on lens or light source which obviously reduce light intensity or change emitted colour. (c) Light source and lamp not compatible  4.1.5. Levelling devices (where mandatory) (X) 2/  4.1.6. Headlamp cleaning device (where mandatory) (X) 2/  4.1.6. Front and rear position lamps, side marker lamps and end outline marker lamps	3.6.			System inoperative or obviously defective.	Х		
4.1.2. Alignment  Determine the horizontal aim of each headlamp on dipped beam using a headlamp aiming device or a screen.  4.1.3. Switching  Visual inspection and by operation.  Visual inspection and by operation.  Visual inspection and by operation.  (a) Defective or missing projection system (reflector and lens).  (b) Defective or missing projection system (reflector and lens).  (c) Lamp not securely attached.  X  X  4.1.2. Alignment  Determine the horizontal aim of a headlamp not within limits laid down in the requirements. 1/ (Number of headlamps illuminated at the same time)  (b) Function of control device impaired.  X  X  X  X  X  X  X  X  X  X  X  X  X		LAMPS, REFLECTOR	S AND ELECTRICAL EQ	UIPMENT			
operation.  (b) Defective or missing projection system (reflector and lens).  (c) Lamp not securely attached.  X  4.1.2. Alignment  Determine the horizontal aim of each headlamp on dipped beam using a headlamp aiming device or a screen.  Visual inspection and by operation.  Visual inspection and by operation of the adlamps illuminated at the same time)  (b) Function of control device impaired.  X  X  X  X  A.1.4. Compliance with requirements 1/(X) 2/  operation.  Visual inspection and by operation.  Visual inspection and by operation.  (a) Lamp, emitted colour, position or intensity not in accordance with the requirements. 1/  (b) Products on lens or light source which obviously reduce light intensity or change emitted colour.  (c) Light source and lamp not compatible  X  4.1.5. Levelling devices (where mandatory) operation if possible.  (b) Manual device cannot be operated from divier's seat.  Device not operating.  Visual inspection and by operation if possible.  Device not operating.  Visual inspection and by operation if possible.  Device not operating.  Visual inspection and by operation if possible.  Device not operating.  Visual inspection and by operation if possible.  Device not operating.  Visual inspection and by operation if possible.  Device not operating.  Visual inspection and by operation if possible.	4.1.						
A.1.2. Alignment  Determine the horizontal aim of each headlamp on dipped beam using a headlamp aiming device or a screen.  Visual inspection and by operation.  Visual inspection and by operation of the adlamps illuminated at the same time)  (b) Function of control device impaired.  X  A.1.4. Compliance with requirements 1/(X) 2/  operation.  Visual inspection and by operation of control device impaired.  X  X  A.1.5. Levelling devices (where mandatory) (X) 2/  (X) 2/  A.1.6. Headlamp cleaning device (where mandatory) (X) 2/  A.1.6. Headlamp cleaning device on a device of the mandatory) (X) 2/  A.2. Front and rear position lamps, side marker lamps and end outline marker lamps	4.1.1.	Condition and operation		<ul><li>(b) Defective or missing projection system (reflector and lens).</li></ul>		X	
operation. with the requirements. \( \frac{1}{2} \) (Number of headlamps illuminated at the same time) \( \text{(b)} \) Function of control device impaired. \( \text{X} \)  4.1.4. Compliance with requirements \( \frac{1}{2} \) (X) \( 2 \) operation. \( \text{(a)} \) Lamp, emitted colour, position or intensity not in accordance with the requirements. \( \frac{1}{2} \) (b) Products on lens or light source which obviously reduce light intensity or change emitted colour. \( \text{(c)} \) Light source and lamp not compatible \( \text{X} \) (b) Light source and lamp not compatible \( \text{X} \) (b) Annual device cannot be operated from diver's seat. \( \text{(b)} \) Manual device cannot be operated from diver's seat. \( \text{V} \) (b) Potice not operating. \( \text{(b)} \) Manual device cannot be operated from diver's seat. \( \text{V} \) (b) Potice not operating. \( \text{(b)} \) Manual device cannot be operated from diver's seat. \( \text{V} \) (b) Potice not operating. \( \text{(b)} \) Manual device control perating. \( \text{(c)} \) (b) Potice not operating. \( \text{(c)} \) Device not operating. \( \text{(c)} \) Usual inspection and by operation if possible. \( \text{(b)} \) Device not operating. \( \text{(c)} \) Device not operating. \( \text{(c)} \) Usual inspection and by operation if possible. \( \text{(c)} \) Device not operating.	4.1.2.	Alignment	aim of each headlamp on dipped beam using a headlamp aiming device	Aim of a headlamp not within limits laid down			
requirements \( \frac{1}{2} \) (X) \( \frac{2}{2} \) operation.  intensity not in accordance with the requirements \( \frac{1}{2} \) (b) Products on lens or light source which obviously reduce light intensity or change emitted colour.  (c) Light source and lamp not compatible  X  4.1.5. Levelling devices (where mandatory) operation if possible.  (with the products on lens or light source which obviously reduce light intensity or change emitted colour.  (c) Light source and lamp not compatible  X  (b) Manual device cannot be operated from driver's seat.  Yisual inspection and by operation if possible.  Visual inspection and by operation if possible.  Device not operating.  Y  X  X  A.1.6. Headlamp cleaning device (where mandatory) (X) \( \frac{2}{2} \) (Yisual inspection and by operation if possible.	4.1.3.	Switching		with the requirements. 1/ (Number of headlamps illuminated at the same time)	Х		
obviously reduce light intensity or change emitted colour.  (c) Light source and lamp not compatible X  4.1.5. Levelling devices (where mandatory) operation if possible.  (b) Manual device cannot be operated from X X driver's seat.  (c) Light source and lamp not compatible X  (b) Manual device cannot be operated from driver's seat.  (c) Light source and lamp not compatible X  (b) Manual device cannot be operated from driver's seat.  (c) Light source and lamp not compatible X  (d) Device not operating.  (e) Device not operating.  (f) Manual device cannot be operated from driver's seat.  (h) Device not operating.  (ii) Device not operating.  (iii) Device not operating.	4.1.4.			intensity not in accordance with the requirements. 1/			
4.1.5. Levelling devices (where mandatory) (X) 2/ 4.1.6. Headlamp cleaning device (where mandatory) (X) 2 (b) (Manual device cannot be operated from driver's seat.  Visual inspection and by device (where mandatory) (X) 2/ 4.2. Front and rear position lamps, side marker lamps and end outline marker lamps				obviously reduce light intensity or change emitted colour.	X		
(where mandatory) operation if possible. (b) Manual device cannot be operated from driver's seat.  4.1.6. Headlamp cleaning device (where mandatory) (X) 2/  4.2. Front and rear position lamps, side marker lamps and end outline marker lamps							
device (where mandatory) (X) 2/ 4.2. Front and rear position lamps, side marker lamps and end outline marker lamps		(where mandatory) (X) <u>2</u> /		(b) Manual device cannot be operated from			
4.2. Front and rear position lamps, side marker lamps and end outline marker lamps	4.1.6.	device (where		Device not operating.	Х	X	
· · · · · · · · · · · · · · · · · · ·	4.2.						
4.2.1 Condition and operation Visual inspection and by (a) Defective light source. X (b) Defective lens. X	4.2.1	Condition and operation					

Mandatory   Recommendation   De	feet Assess MaD	
Nito   Visibility   Visual inspection from driving seat.   Visual inspection from driving seat.   Obstruction within driver's field of view that materially affects his view in front or to the sides.   X   Visual inspection.   (a) Cracked or discoloured glass or transparent panel (if permitted). (b) Glass or transparent panel (including reflecting or inted film) that does not comply with specifications in the requirements. (a) (XX) (c) (c) Glass or transparent panel in unacceptable condition.   X   Visual inspection.   (a) Mirror or device missing or not fitted according to the requirements. (a) (b) Mirror or device inoperative, damaged, loose or insecure.   Visual inspection and by operation.   Visual inspection of the visual	X X X X X X	DD
. VISIBILITY  .1. Field of vision	X X X X X	
.1. Field of vision  Visual inspection from driving seat.  Visual inspection.  (a) Cracked or discoloured glass or transparent panel (if permitted).  (b) Glass or transparent panel (if permitted).  (c) Glass or transparent panel in unacceptable condition.  3. Rear-view mirrors or devices  Visual inspection.  Visual inspection.  (a) Mirror or device missing or not fitted according to the requirements. (a)  (b) Mirror or device inoperative, damaged, loose or insecure.  Visual inspection and by operation.	X X X X	X
driving seat.  driving seat.  materially affects his view in front or to the sides.  (a) Cracked or discoloured glass or transparent panel (including reflecting or tinted film) that does not comply with specifications in the requirements. (a) (XXX) (c) (c) Glass or transparent panel in unacceptable condition.  (a) Mirror or device missing or not fitted according to the requirements. (a) (b) Mirror or device inoperative, damaged, loose or insecure.  Visual inspection and by operation.  Visual inspection and by operation.  (b) Wipers not operating or missing. (b) Wiper blade missing or obviously X defective.	X X X X	X
transparent panel (if permitted).  (b) Glass or transparent panel (including reflecting or intend film) that does not comply with specifications in the requirements. (a) (XX) (c)  (c) Glass or transparent panel in unacceptable condition.  (3) Mirror or device missing or not fitted according to the requirements. (a) (b) Mirror or device inoperative, damaged, loose or insecure.  (4) Windscreen wipers  Visual inspection and by operation.  (a) Wipers not operating or missing. (b) Wiper blade missing or obviously defective.	X X X X	Х
reflecting or tinted film) that does not comply with specifications in the requirements. (a) (XX) (c) (CXX) (c) (c) Glass or transparent panel in unacceptable condition.  3.3. Rear-view mirrors or device missing or not fitted according to the requirements. (a) (b) Mirror or device missing or not fitted according to the requirements, (a) (b) Mirror or device inoperative, damaged, loose or insecure.  3.4. Windscreen wipers Visual inspection and by operation. (a) Wipers not operating or missing. (b) Wiper blade missing or obviously defective.	X X X X	х
t.3. Rear-view mirrors or devices wines with the devices are deviced in spection.  (a) Mirror or device missing or not fitted according to the requirements. (a) (b) Mirror or device inoperative, damaged, loose or insecure.  (a) Wipers not operating or missing. (b) Wiper lade missing or obviously defective.	X X X X	Х
devices    according to the requirements. (a)	X X X	
loose or insecure.  Visual inspection and by (a) Wipers not operating or missing, operation. (b) Wiper blade missing or obviously X defective.	X X	
operation. (b) Wiper blade missing or obviously X defective.	X	
3.5. Windscreen washers Visual inspection and by Washers not operating adequately. X	X	
operation.	1	
3.6. Demisting system (X) Visual inspection and by Operation. System inoperative or obviously defective. X		
4. LAMPS, REFLECTORS AND ELECTRICAL EQUIPMENT	_	_
4.1. Headlamps		
4.1.1. Condition and operation Visual inspection and by operation.  (a) Defective or missing light / light source. X (b) Defective or missing projection system (reflector and lens).	X X	
4.1.2. Alignment  Determine the horizontal aim of each headlamp on dipped beam using a headlamp aiming device or a screen.	X	
4.1.3. Switching  Visual inspection and by operation.  Visual inspection and by operation.  (a) Switch does not operate in accordance with the requirements (a) (Number of headlamps illuminated at the same time)  (b) Function of control device impaired.	X	
4.1.4. Compliance with requirements (a) Visual inspection and by operation.  (a) Lamp, emitted colour, position or intensity not in accordance with the requirements. (a) (b) Products on lens or light source which X	X	
obviously reduce light intensity or change emitted colour.  (c) Light source and lamp not compatible	X	
4.1.5. Levelling devices Visual inspection and by (a) Device not operating.	X	
(where mandatory) operation if possible. (b) Manual device cannot be operated from driver's seat.	X	
4.1.6. Headlamp cleaning device (where mandatory) Visual inspection and by operation if possible.	X	
4.2. Front and rear position lamps, side marker lamps and end outline marker lamps		
4.2.1 Condition and operation Visual inspection and by operation. (a) Defective light source. (b) Defective lens.	X X	
(c) Lamp not securely attached. X	X	L

	identical?	Comment
	0	Directive has 'Reasons for Failure' cf. 'Main Reasons for Rejection' Definitions of MiD and MaD are different
	0	Definitions of MID and MaD are different
	1	
	1	
	0	See difference in footnotes (1) cf. (a) (XX) (c) (XX) (c) notes that this reason for failure applies only if testing is required by national legislation
	1	
	0	See difference in footnotes (1) cf. (a)
	1	
	1 1	
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	0	
	0 1	
	1	
	1 0	See difference in footnotes (1) cf. (a)
	0	See difference in footnotes (1) cf. (a)
	1	
	0	See difference in footnotes (1) (X) (2) cf. (a) under Item See difference in footnotes (1) cf. (a) under Reasons for Failure (a)
	1	
	1	
	0 1	Directive omits footnotes under Item
	0	Directive omits footnotes under Item
-	0	
	1	
	1 1	

Comment

Draft Proposed Rule 2 (28 Aug, 2009)									
	Mandato	ry	Recommendation						
	Item	Method	Main Reasons for Rejection		ect Assess				
				MiD	MaD	DD			
4.2.2.	Switching	Visual inspection and by	(a) Switch does not operate in accordance	X	X				
		operation.	with the requirements. $\underline{1}$ /						
			(b) Function of control device impaired.		X				
4.2.3	Compliance with	Visual inspection and by	(a) Lamp, emitted colour, position or	X	X				
	requirements. 1/	operation.	intensity not in accordance with the						
			requirements. 1/						
			(b) Products on lens or light source which	X	X				
			reduce light intensity or change emitted colour.						
1.3.	Stop Lamps		T						
4.3.1.	Condition and operation	Visual inspection and by	<ul><li>(a) Defective light source.</li></ul>	X	X	X			
		operation.	(b) Defective lens.	X	X				
			<ul><li>(c) Lamp not securely attached.</li></ul>	X	X				
4.3.2.	Switching	Visual inspection and by	(a) Switch does not operate in accordance	X	X	X			
		operation.	with the requirements. 1/		**				
4 2 2	0 1 11	xy 11 1 2	(b) Function of control device impaired.	<u>,,</u>	X	-			
4.3.3.	Compliance with	Visual inspection and by	(a) Lamp, emitted colour, position or	X	X				
	requirements. 1/	operation.	intensity not in accordance with the requirements. 1/						
	*		requirements. 11						
4.4.	Direction indicator and l		lo per en	**	**				
4.4.1.	Condition and operation	Visual inspection and by operation.	(a) Defective light source.	X	X X				
		operation.	(b) Defective lens.	X					
			(c) Lamp not securely attached	X	X				
4.4.2.	Switching	Visual inspection and by	Switch does not operate in accordance with the	X	X				
		operation.	requirements. 1/						
4.4.3.	Compliance with	Visual inspection and by	Lamp, emitted colour, position or intensity not	X	X				
	requirements. 1/	operation.	in accordance with the requirements. 1/						
4.4.4.	Flashing frequency	Visual inspection and by	Rate of flashing not in accordance with the	X	X				
		operation.	requirements. 1/						
4 5	Front and rear fog lamps		1						
	Condition and operation	Visual inspection and by	(a) Defective light source.	X	X				
		operation.	(b) Defective lens.	X	X				
		•	(c) Lamp not securely attached.	X	X				
4.5.2.	Alignment (X) 2/	By operation and using a	(a) Front fog lamp out of horizontal	X	X				
	8 / _	headlamp aiming device.	alignment when the light pattern has cut-off						
			line.						
152	Switching	Visual inspection and by	(a) Switch does not operate in accordance	X	X				
7.5.5.	Switching	operation.	with the requirements. 1/	74	- 1				
4.5.4.	Compliance with	Visual inspection and by	(a) Lamp, emitted colour, position or		X				
	requirements. 1/	operation.	intensity not in accordance with the						
			requirements. 1/						
			(b) System does not operate in accordance	X	X				
			with the requirements. $\underline{1}$ /						
4.6.	Reversing lamps					•			
	Condition and operation	Visual inspection and by	(a) Defective light source.	X					
	•	operation.	(b) Defective lens.	X					
			(c) Lamp not securely attached.	X	X				
4.6.2	Compliance with	Visual inspection and by	(a) Lamp, emitted colour, position or	X	X				
	requirements. 1/	operation.	intensity not in accordance with the						
	- <del>-</del>		requirements. 1/						
			(b) System does not operate in accordance	х	X				
			with the requirements. 1/	^	Λ				
162	Cruitakina	Visual inone-ti		17	v	-			
4.0.3.	Switching	Visual inspection and by operation.	<ul> <li>(a) Switch does not operate in accordance with the requirements. 1/</li> </ul>	X	X				
		•	with the requirements. 1/						
4.7.	Rear registration plate la								
4.7.1.	Condition and operation		(a) Lamp throwing direct light to the rear.	X	X				
		operation.	(b) Defective light source.	X	X				
			<ul><li>(c) Lamp not securely attached.</li></ul>	X	X				

	Commission Directive 2010/48/EU (5 Jul, 2010)										
	Mandato		Recommendation		ily, 201						
	Item	Method	Reasons for Failure		ect Assess						
				MiD	MaD	DD					
1.2.2.	Switching	Visual inspection and by	(a) Switch does not operate in accordance	X	X						
	ū	operation.	with the requirements. (a)								
			(b) Function of control device impaired.		X						
1.2.3	Compliance with	Visual inspection and by	(a) Lamp, emitted colour, position or	X	X						
	requirements. (a)	operation.	intensity not in accordance with the								
			requirements. (a)								
			(b) Products on lens or light source which	X	X						
			reduce light intensity or change emitted colour.								
.3.	Stop Lamps	<u>l</u>			<u> </u>						
_	Condition and operation	Visual inspection and by	<ul><li>(a) Defective light source.</li></ul>	X	X	X					
		operation.	(b) Defective lens.	X	X						
			(c) Lamp not securely attached.	X	X						
132	Switching	Visual inspection and by	(a) Switch does not operate in accordance	X	X	X					
		operation.	with the requirements. (a)		٠,						
			(b) Function of control device impaired.		x						
3 3	Compliance with	Visual inspection and by	(a) Lamp, emitted colour, position or	X	X	1					
	requirements. (a)	operation.	intensity not in accordance with the								
	1		requirements. (a)								
1.4.	Discotion is discosary 15	ogod momin-1									
	Direction indicator and l		(a) Defective light assess	37	37	_					
1.4.1.	Condition and operation	Visual inspection and by operation.	(a) Defective light source.	X	X						
		орегацоп.	(b) Defective lens.								
	0.5.15	X7: 1:	(c) Lamp not securely attached	X	X						
.4.2.	Switching	Visual inspection and by	Switch does not operate in accordance with the	X	X						
		operation.	requirements. (a)								
1.4.3.	Compliance with	Visual inspection and by	Lamp, emitted colour, position or intensity not	X	X						
	requirements. (a)	operation.	in accordance with the requirements. (a)								
1.4.4.	Flashing frequency	Visual inspection and by	Rate of flashing not in accordance with the	X	X						
		operation.	requirements. (a)								
1.5.	Front and rear fog lamps										
	Condition and operation	Visual inspection and by	(a) Defective light source.	X	X						
	Condition and operation	operation.	(b) Defective lens.	X	X						
			(c) Lamp not securely attached.	X	X						
152	Alignment (X) (b)	By operation and using a	Front fog lamp out of horizontal alignment	X	X						
	Allghille (A) (0)	headlamp aiming device.	when the light pattern has cut-off line.	21							
		neudamp anning device.	when the right pattern has cut on line.								
	Constant in a	Minor Linear selection and has	(a) Switch does not operate in accordance	X	X						
1.5.3.	Switching	Visual inspection and by		X	X						
		operation.	with the requirements. (a)	l							
1.5.4.	Compliance with	Visual inspection and by	(a) Lamp, emitted colour, position or		X						
	requirements. (a)	operation.	intensity not in accordance with the								
	· —		requirements. (a)	l							
			(b) System does not operate in accordance	X	X						
			with the requirements. (a)								
	n : 1										
1.6.	Reversing lamps	Vicual ineraction and to	(a) Defective light course	X							
o.1.	Condition and operation	Visual inspection and by operation.	(a) Defective light source.								
		ореганоп.	(b) Defective lens.	X	v						
	G 1: ::	X7: 1:	(c) Lamp not securely attached.	X	X						
1.6.2.	Compliance with	Visual inspection and by	(a) Lamp, emitted colour, position or	X	X						
	requirements. (a)	operation.	intensity not in accordance with the	l							
			requirements. (a)	l							
			(b) System does not operate in accordance	X	X						
			with the requirements. (a)								
1.6.3	Switching	Visual inspection and by	(a) Switch does not operate in accordance	X	X						
		operation.	with the requirements. (a)		1						
1.7.	Rear registration plate la										
			<ul> <li>(a) Lamp throwing direct light to the rear.</li> </ul>	X	X						
	Condition and operation										
	Condition and operation	operation.	(b) Defective light source.     (c) Lamp not securely attached.	X	X X						

1	Requirement identical?	Comment
	0	Directive has Reasons for Failure' cf. 'Main Reasons for Rejection' Definitions of MiD and MaD are different
	0	See difference in footnotes (1) cf. (a)
	1 0	See difference in footnotes (1) cf. (a) under Item and Resaons for Failure (a)
	1	
	0 1 1	
	0	See difference in footnotes (1) cf. (a)
	1	See difference in footnotes (1) cf. (a)
	0 1 1	
	1 0	See difference in footnotes (1) cf. (a)
	0	See difference in footnotes (1) cf. (a) under Item and Reasons for Failure
	0	See difference in footnotes (1) cf. (a)
	0 1 1	
	1 0	Typo (a) at start of Main Reasons for Rejection
	0	See difference in footnotes (1) cf. (a) Typo (a) at start of Main Reasons for Rejection
	0	See difference in footnotes (1) cf. (a) under Item and Reasons for Failure
	0	See difference in footnotes (1) cf. (a)
	0 1 1	
	1 0	See difference in footnotes (1) cf. (a) under Item and Reasons for Failure
	0	See difference in footnotes (1) cf. (a)
	0	See difference in footnotes (1) cf. (a)
	0 1 1	

A.7.2. Compliance with requirements 1/ operation.   Visual inspection and by operation.   Candition   Visual inspection   Candition   Visual inspection.   Candition   Visual inspection   Visual inspecti		Mandato	ry	Recommendation								
4.7.2. Compliance with requirements 1/ operation.  4.8. Retro-reflectors, conspicuity (retro reflecting) markings and rear marker plates  4.8.1. Condition  Visual inspection.  (a) Reflecting equipment defective or damaged. (b) Reflector not securely attached.  4.9. Tell-tales mandatory for lighting equipment  4.9.1. Condition and operation of Visual inspection and by operation.  4.9.2. Compliance with requirements. 1/ operation.  (a) Device, reflected colour or position not in accordance with the requirements. 1/ operation.  4.9.2. Compliance with requirements. 1/ operation.  4.9.2. Compliance with requirements. 1/ operation.  4.10. Electrical connections between towing vehicle early operation.  4.11. Electrical wiring  Visual inspection with vehicle over a pit or on a hoots, including inside the engine compartment in some cases.  4.12. Non obligatory lamps and retro-reflectors (X) 2/ (C) Lampyetro-reflector fitted not in accordance with the requirements. 1/ (D) Miring deteriorated insulation.  4.13. Battery  Visual inspection and by operation.  (a) Wiring insecure or not adequately X X X accordance with the requirements. 1/ (C) Damaged or deteriorated insulation. X X X accordance with the requirements. 1/ (D) Miring deteriorated insulation. X X X accordance with the requirements. 1/ (C) Damaged or deteriorated insulation. X X X accordance with the requirements. 1/ (D) Lampyetro-reflector fitted not in accordance with the requirements. 1/ (D) Lampyetro-reflector not securely attached.  4.12. Non obligatory lamps and retro-reflectors of the requirements. 1/ (D) Lampyetro-reflector not securely attached.  4.13. Battery  Visual inspection with vehicle over a pit or on a hoots. Use of wheel play detectors may be used and are recommended for vehicles over 3.5 toness gross vehicle mass (GVM).  5. AXLES, WHEELS, TYRES AND SUSPENSION  5.1.1. Axles  Visual inspection with vehicle over a pit or on a hoots. Use of wheel play detectors is when the requirements. 1/ (D) Lampyetro-reflector deformed.  (a) Defective switch (if			Method	Main Reasons for Rejection								
requirements 1/ operation.  Retro-reflectors, conspiculty (retro reflecting) markings and rear marker plates  4.8.1. Condition  Visual inspection.  (a) Reflecting equipment defective or damaged. (b) Reflector not securely attached.  X					MiD	MaD	DD					
4.8. Retro-reflectors, conspicuity (retro reflecting) markings and rear marker plates 4.8.1. Condition  Visual inspection.  (a) Reflecting equipment defective or damaged. (b) Reflector not securely attached.  (b) Reflector not securely attached.  (c) Reflector not securely attached.  (d) Device, reflected colour or position not in accordance with requirements. 1/2  4.9. Tell-tales mandatory for lighting equipment  4.9.1. Condition and operation Visual inspection and by operation.  4.9.2. Compliance with requirements. 1/2  4.9. Visual inspection and by operation.  4.10. Electrical connections between towing vehicle between towing vehicle possible examine the and trailer or semi-trailer  4.11. Electrical wiring  Visual inspection with vehicle over a pit or on a hoist. Used play detectors and hoist. Used play detectors and hoist. Used play detectors is  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is  Visual inspection.  (a) Fixed components not securely attached. (b) Damaged or deteriorated insulation.  X X X X X X X X X X X X X X X X X X X	4.7.2.				X							
damaged. (b) Reflector not securely attached. 3	4.8.		cuity (retro reflecting) mark									
A. 2. Compliance with requirements.   Visual inspection.   (a) Device, reflected colour or position not in accordance with the requirements.   Visual inspection and by operation.   Not operating.   X   X	4.8.1.	Condition	Visual inspection.		X	X						
4.9. Tell-tales mandatory for lighting equipment 4.9.1. Condition and operation Visual inspection and by operation.  4.9.2. Compliance with requirements. 1/ operation.  4.10. Electrical connections between towing vehicle and trailer or semi-trailer  4.11. Electrical wiring  Visual inspection with vehicle over a pit or on a hoist. Used inspection and by operation.  4.12. Non obligatory lamps and retro-reflectors (X) 2//  4.13. Battery  Visual inspection.  Visual inspection and by operation.  Visual inspection with vehicle over a pit or on a hoist. Weel play detectors may be used and are recommended for vehicles over a pit or on a hoist. Use of wheel play detectors is optical was a hoist. Use of wheel play detectors is operation.  Visual inspection with vehicle over a pit or on a hoist. Weel play detectors is operation.  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is operation.  Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors is operation with vehicle over a pit or on a hoist. Use of wheel play detectors is operation.  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is operation.  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is operation.  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is operation.  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is operation.  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is operation.  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is operation.  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is operation.				(b) Reflector not securely attached.	X	X						
4.9. Tell-tales mandatory for lighting equipment 4.9.1. Condition and operation Visual inspection and by operation.  4.9.2. Compliance with requirements. I/ visual inspection and by operation.  4.10. Electrical connections between towing vehicle and trailer or semi-trailer  4.11. Electrical wiring Visual inspection with vehicle over a pit or on a hoist, uncluding inside the engine compartment in some cases.  4.12. Non obligatory lamps and retro-reflectors (X) 2/  4.13. Battery  Visual inspection and by operation.  Visual inspection and by connections on functioning correctly.  4.14. Alange of deteriorated insulation.  Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors is operation.  Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors is operation with vehicle over a pit or on a hoist. Use of wheel play detectors is operation with vehicle over a pit or on a hoist. Use of wheel play detectors is	4.8.2.		Visual inspection.		X	X						
1.9.2. Compliance with requirements.   1/ visual inspection and by operation.   1.10. Electrical connections between towing vehicle and trailer or semitrailer   1.11. Electrical wiring   1.12. Electrical wiring   1.12. Electrical wiring   1.13.   1.13. Electrical wiring   1.14.   1.15.   1.1	1.9.	Tell-tales mandatory for	lighting equipment									
4.10. Electrical connections between towing vehicle and trailer or semi-trailer  4.11. Electrical wiring Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors is gross vehicle mass (GVM).  4.12. Non obligatory lamps and retro-reflectors (X) 2/  4.13. Battery Visual inspection.  4.15. Axles  Visual inspection and by operation.  Visual inspection and by operation on the connections on the functioning correctly.  4.16. Compartment in some cases.  Visual inspection and by operation.  Visual inspection and by operation are troubled accordance with the requirements. J/ (b) Lamp operation not in accordance with the requirements. J/ (c) Lamp/retro-reflector fitted not in accordance with the requirements. J/ (b) Lamp operation not in accordance with the requirements. J/ (c) Lamp/retro-reflector fitted not in accordance with the requirements. J/ (b) Lamp operation not in accordance with the requirements. J/ (c) Lamp/retro-reflector fitted not in accordance with the requirements. J/ (b) Lamp operation not in accordance with the requirements. J/ (c) Lamp/retro-reflector not securely attached.  4.13. Battery Visual inspection.  4.14. A lamp/retro-reflector not securely attached.  4.15. Axles  Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicle over a pit or on a hoist. Use of wheel play detectors is	4.9.1.	Condition and operation		Not operating.	X	X						
4.10. Electrical connections between towing vehicle possible examine the and trailer or semitrailer or semitr	4.9.2.		Visual inspection and by	Not in accordance with the requirements. 1/	X							
between towing vehicle and trailer or semi-trailer or towing vehicle electrical connections not functioning correctly.  4.11. Electrical wiring    Visual inspection with vehicle over a pit or on a hoist, including inside the engine compartment in some cases.  (a) Wiring insecure or not adequately    verured.  (b) Wiring deteriorated    verured.  (c) Damaged or deteriorated insulation.    X    X    X    A.12. Non obligatory lamps and retro-reflectors    (X) 2/  (X) 3/  (X) 4.13. Battery    (A) 1/  (B) 1/  (C) 1/  (C) 1/  (D) 2/	1 10				37	X7						
vehicle over a pit or on a hoist, including inside the engine compartment in some cases.  4.12. Non obligatory lamps and retro-reflectors (X) 2/  4.13. Battery  Visual inspection.  Visual inspection.  (a) A lamp/retro-reflector fitted not in accordance with the requirements. 1/ (b) Lamp operation not in accordance with the requirements. 1/ (c) Lamp/retro-reflector not securely X X X attached.  4.13. Battery  Visual inspection.  (a) Insecure. (b) Leaking. (c) Defective switch (if required). (d) Defective fuses (if required). (e) inappropriate ventilation (if required)  X X X X X X X X X X X X X X X X X X X	4.10.	between towing vehicle and trailer or semi-	possible examine the electrical continuity of the	(b) Damaged or deteriorated insulation.     (c) Trailer or towing vehicle electrical		X	х					
engine compartment in some cases.  (c) Damaged or deteriorated insulation.  X X X A X X X X X X X X X X X X X X X	4.11.	Electrical wiring			X	Х	X					
4.12. Non obligatory lamps and retro-reflectors (X) 2/  4.13. Battery  Visual inspection.  (a) A lamp/retro-reflector fitted not in accordance with the requirements. 1/ (b) Lamp operation not in accordance with the requirements. 1/ (c) Lamp/retro-reflector not securely attached.  4.13. Battery  Visual inspection.  (a) Insecure. (b) Leaking. (c) Defective switch (if required). (d) Defective fuses (if required). (e) inappropriate ventilation (if required)  X X  X  AXLES, WHEELS, TYRES AND SUSPENSION  5.1. Axles  Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes gross vehicle mass (GVM).  5.1.2. Stub axles  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is				(b) Wiring deteriorated	X	X	Х					
and retro-reflectors (X) 2/  accordance with the requirements. 1/ (b) Lamp operation not in accordance with the requirements. 1/ (c) Lamp/retro-reflector not securely attached.  4.13. Battery  Visual inspection.  (a) Insecure. (b) Leaking. (c) Defective switch (if required). (d) Defective switch (if required). (e) inappropriate ventilation (if required).  X X  AXLES, WHEELS, TYRES AND SUSPENSION  5.1. Axles  Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tomes gross vehicle mass (GVM).  (a) Axle fractured or deformed. (b) Insecure fixing to vehicle. (c) Inappropriate repair or modification.  X X  X X  X X  X X  X X  X X  X X  X				(c) Damaged or deteriorated insulation.	х	X	Х					
(X) 2/  (b) Lamp operation not in accordance with the requirements. 1/ (c) Lamp/retro-reflector not securely attached.  4.13. Battery  Visual inspection.  (a) Insecure. (b) Leaking. (c) Defective switch (if required). (d) Defective fuses (if required). (e) inappropriate ventilation (if required)  X X  X  AXLES, WHEELS, TYRES AND SUSPENSION  5.1. Axles  Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes gross vehicle mass (GVM).  (a) Axle fractured or deformed. (b) Insecure fixing to vehicle. (c) Inappropriate repair or modification.  X  X  X  X  X  X  X  X  X  X  X  X  X	4.12.				X	X						
(c) Lamp/retro-reflector not securely attached.  4.13. Battery  Visual inspection.  (a) Insecure. (b) Leaking. (c) Defective switch (if required). (d) Defective fuses (if required). (e) inappropriate ventilation (if required)  X X X X X X X X X X X X X X X X X X X			operation.	(b) Lamp operation not in accordance with	X	X						
(b) Leaking. (C) Defective switch (if required). (A) Defective fuses (if required). (B) Defective fuses (if required). (C) Defective fuses (if required). (E) Inappropriate ventilation (if required). (E) Inappropriate repair or modification. (Inappropriate repair or modification. (Inappro				(c) Lamp/retro-reflector not securely	X	X						
(c) Defective switch (if required). X  (d) Defective fuses (if required). X  (e) inappropriate ventilation (if required) X  5. AXLES, WHEELS, TYRES AND SUSPENSION  5.1. Axles  Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes gross vehicle mass (GVM).  (a) Axle fractured or deformed. Insecure fixing to vehicle. X  (b) Insecure fixing to vehicle. Inappropriate repair or modification. X  5.1.2. Stub axles  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is	4.13.	Battery	Visual inspection.	(a) Insecure.	X	X						
(d) Defective fuses (if required). X  X				(b) Leaking.	X	X						
(e) inappropriate ventilation (if required) X  5. AXLES, WHEELS, TYRES AND SUSPENSION  5.1. Axles  Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tomes gross vehicle mass (GVM).  5.1.2. Stub axles  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is												
5. 1. Axles  Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes gross vehicle mass (GVM).  Axles  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is												
5.1.1. Axles  Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes gross vehicle mass (GVM).  Axle fractured or deformed. (a) Axle fractured or deformed. (b) Insecure fixing to vehicle. (c) Inappropriate repair or modification.  X  X  Stub axles  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is				(e) inappropriate ventilation (if required)		X						
Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes gross vehicle mass (GVM).  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is			RES AND SUSPENSION									
vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes gross vehicle mass (GVM).  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is  (b) Insecure fixing to vehicle.  (c) Inappropriate repair or modification.  X X  X  Stub axles repair or modification.  (a) Stub axle fractured.  (b) Excessive wear in the swivel pin and/or bushes.			Vienal inerpation with	(a) Ayla fracturad or deformed			X					
hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes gross vehicle mass (GVM).  7. Stub axles  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is  (a) Stub axle fractured.  (b) Excessive wear in the swivel pin and/or bushes.	J.1.1.	AAIUS				X	X					
(GVM).  5.1.2. Stub axles  Visual inspection with vehicle over a pit or on a hoist. Use of wheel play detectors is  (a) Stub axle fractured.  (b) Excessive wear in the swivel pin and/or bushes.			hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes				Х					
vehicle over a pit or on a hoist. Use of wheel play detectors is (b) Excessive wear in the swivel pin and/or bushes.												
hoist. Use of wheel play (b) Excessive wear in the swivel pin and/or bushes.	5.1.2.	Stub axles		(a) Stub axle fractured.			X					
recommended. Apply a (c) Excessive movement between stub axle X			hoist. Use of wheel play detectors is			X	X					
vertical or lateral force to and axle beam.			vertical or lateral force to	.,			X					
each wheel and note the amount of movement between the axle beam and stub axle.  (d) Stub axle pin loose in axle.  X			amount of movement between the axle beam	(d) Stub axle pin loose in axle.		X	Х					

	Commission	Directive 2010	48/EU (5 Jul, 2010) Recommenda 2010/378/E July, 2010					
	Mandato		Recommendation					
	Item	Method	Reasons for Failure		ct Assess			
				MiD	MaD	DD		
4.7.2.	Compliance with	Visual inspection and by	System does not operate in accordance with the	X				
	requirements (a)	operation.	requirements. (a)					
4.8.		cuity (retro reflecting) marki						
4.8.1.	Condition and operation	Visual inspection.	<ul> <li>(a) Reflecting equipment defective or damaged.</li> </ul>	X	X			
			<ul><li>(b) Reflector not securely attached.</li></ul>	X	X			
4.8.2.	Compliance with requirements. (a)	Visual inspection.	<ul> <li>(a) Device, reflected colour or position not in accordance with the requirements (a).</li> </ul>	X	X			
4.9.	Tell-tales mandatory for	lighting equipment						
	Condition and operation	Visual inspection and by operation.	Not operating.	X	X			
4.9.2.	Compliance with requirements. (a)	Visual inspection and by operation.	Not in accordance with the requirements (a).	X				
4.10.	Electrical connections	Visual inspection: if	<ul> <li>(a) Fixed components not securely attached.</li> </ul>	X	X			
	between towing vehicle	possible examine the	(b) Damaged or deteriorated insulation.	X	X			
	and trailer or semi- trailer	electrical continuity of the connection.	(c) Trailer or towing vehicle electrical connections not functioning correctly.		X	X		
4.11.	Electrical wiring	Visual inspection with vehicle over a pit or on a	Wiring insecure or not adequately secured.	X	X	X		
		hoist, including inside the		X	X	X		
		engine compartment in	(b) Wiring deteriorated					
		some cases.	<ul><li>(c) Damaged or deteriorated insulation.</li></ul>	X	X	X		
4.12.	Non obligatory lamps	Visual inspection and by	(a) A lamp/retro-reflector fitted not in	X	X			
	and retro-reflectors (X) (b)	operation.	accordance with the requirements. (a)	37	37			
	(A) (b)		<ul><li>(b) Lamp operation not in accordance with the requirements. (a)</li></ul>	X	X			
			(c) Lamp/retro-reflector not securely	X	X			
			attached.	Λ	Λ			
4.13.	Battery(ies)	Visual inspection.	(a) Insecure.	X	X			
	Dattery(tes)	i isdai inspection.	(b) Leaking.	X	X			
			(c) Defective switch (if required).		X			
			(d) Defective fuses (if required).		X			
			(e) inappropriate ventilation (if required)		X			
5.	AVIEC WHEELC TV	RES AND SUSPENSION				_		
5.1.	AXLES, WHEELS, 1Y	KES AIND SUSPENSIÚN						
5.1.1.		Visual inspection with	(a) Axle fractured or deformed.			X		
J.1.1.	INIO	vehicle over a pit or on a	(b) Insecure fixing to vehicle.		X	X		
		hoist. Wheel play	(c) Inappropriate repair or modification.	l	X	X		
		detectors may be used and	., ., ., ., ., ., ., ., ., ., ., ., ., .					
		are recommended for						
		vehicles over 3,5 tonnes						
		gross vehicle mass (GVM).						
5.1.2.	Stub axles	Visual inspection with	(a) Stub axle fractured.			X		
		vehicle over a pit or on a hoist. Wheel play	(b) Everesive week in the evivel of a self-	l	X	Х		
		detectors may be used and	(b) Excessive wear in the swivel pin and/or bushes.		А	A		
		are recommended for	(c) Excessive movement between stub axle	l	X	X		
		vehicles over 3,5 tonnes	and axle beam.	l		^		
		GVM. Apply a vertical or	(d) Stub axle pin loose in axle.	l	X	X		
		lateral force to each wheel	F					
		and note the amount of						
		movement between the						
		axle beam and stub axle.	l l					

Requirement identical?	Comment
0	Directive has Reasons for Failure' cf. Main Reasons for Rejection' Definitions of MiD and MaD are different
0	See difference in footnotes (1) cf. (a) under Item and Reasons for Failure
0 1	
1 0	See difference in footnotes (1) cf. (a) under Item and Reasons for Failure
0 1	
0	See difference in footnotes (1) cf. (a) under Item and Reasons for Failure
1 1 1	
1	
1	
1	
0	See difference in footnotes (1) cf. (a)
0	See difference in footnotes (1) cf. (a)
1	
0 1	Directive adds '(ies)' under Item
1 1 1	
0	
0 1	
1	
0	Slight difference in wording re recommendation regarding wheel play detectors
1	
1	
1	

	Oraft Proposed	Rule 2 (28 Aug, 2009)					Commission Directive 2010/48/EU (5 Jul, 2010)  Commission Directive 2010/48/EU (5 Jul, 2010)  Commission 2010/378/EU (8 July, 2010)						Comment
Mandat		Recommendation	,			Manda		Recommendation					
Item	Method	Main Reasons for Rejection	MiD	MaD		Item	Method	Reasons for Failure	MiD	ct Asses MaD	DD		Directive has 'Reasons for Failure' cf. Main Reasons for Rejection' Definitions of MiD and MaD are different
5.1.3. Wheel bearings	Visual inspection with the vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes GVM. Rock the wheel or apply a lateral force to each wheel and note the amount of upward movement of the wheel relative to the stub axle.	(b) Wheel bearing too tight, jammed.		X X	X X	5.1.3. Wheel bearings	Visual inspection with the vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes GVM. Rock the wheel or apply a lateral force to each wheel and note the amount of upward movement of the wheel relative to the stub axle.	(b) Wheel bearing too tight, jammed.		X X	XX	1 1	
5.2. Wheels and tyres	1	•		•		5.2. Wheels and tyres	I	•				0	
5.2.1. Road wheel hub	Visual inspection.	(a) Any wheel nuts or studs missing or loose		X X	X	5.2.1. Road wheel hub	Visual inspection.	(a) Any wheel nuts or studs missing or		X	X X	1	
5.2.2. Wheels	Visual inspection of both sides of each wheel with vehicle over a pit or on a hoist.	(b) Tyre retaining rings not properly fitted.	h	X X X	X X X X	5.2.2. Wheels	Visual inspection of both sides of each wheel with vehicle over a pit or on a hoist.	(a) Any fracture or welding defect. (b) Tyre retaining rings not properly fitted. (c) Wheel badly distorted or worn. (d) Wheel size or type not in accordance with the requirements (a) and effecting road safety.		X X X X	X X X	1 1 1 1 0	See difference in footnotes (1) cf. (a)
5.2.3. Tyres	Visual inspection of the entire tyre by either rotating the road wheel with it off the ground and the vehicle over a pit or on a hoist, or by rolling the vehicle backwards and forwards over a pit.	(a) Tyre size, load capacity, approval mark or speed rating not in accordance with the requirements L/ and effecting road safety. (b) Tyres on same axle or on twin wheels of different sizes. (c) Tyres on same axle of different construction (radial / cross-pty). (d) Any serious damage or cut to tyre. (e) Tyre tread depth not in accordance with the requirements. L/ (f) Tyre rubbing against other components. (g) Re-grooved tyres not in accordance with requirements. L/	х	X X X X X	x x x	5.2.3. Tyres	Visual inspection of the entire tyre by either rotating the road wheel with it off the ground and the vehicle over a pit or or a hoist, or by rolling the vehicle backwards and forwards over a pit.			x x x x x	x x x	0	See difference in footnotes (1) cf. (a) Should be 'affecting'. See also elsewhere  See difference in footnotes (1) cf. (a) Directive omits DD Reason for Failure See difference in footnotes (1) cf. (a) Directive omits MiD Reason for Failure Directive omits MiD Reason for Failure
		<ul> <li>(h) Air pressure monitoring system malfunctioning or obviously inoperative.</li> </ul>	X	X				<ul> <li>(h) Air pressure monitoring system malfunctioning or obviously inoperative.</li> </ul>	X	X		1	
5.3. Suspension system	•	-				5.3. Suspension system	•	•				0	
5.3.1. Springs and stabilizer	Visual inspection with vehicle over a pit or on a hoist. The use of wheel play detectors is recommended.	A damaged or fractured spring     Spring missing.     Inappropriate repair or modification.		X X X X	X X X X	5.3.1. Springs and stabilizer	Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3,5 tonnes GVM.	(d) Inappropriate repair or modification.		X X X X	X X X X	0 1 1 1	Slight difference in wording re recommendation regarding wheel play detectors
5.3.2. Shock absorbers	Visual inspection with vehicle over a pit or on a hoist or using special equipment, if available.	(a) Insecure attachment of shock absorbers to chassis or axle.     (b) Damaged shock absorber.	Х	X		5.3.2. Shock absorbers	Visual inspection with vehicle over a pit or on a hoist or using special equipment, if available.	(a) Insecure attachment of shock absorbers to chassis or axle.     (b) Damaged shock absorber showing signs of severe leakage or malfunction.	Х	X			Directive adds 'showing signs of severe leakage or malfunction' to Reasons for Failure (b)
5.3.2.1Efficiency testing of damping (X) 2/	Use special equipment and compare left /right differences and/or absolute values given by manufacturers.	(a) Significant difference between left and right.     (b) Given minimum values not reached.		x		5.3.2.1Efficiency testing of damping (X) (b)	Use special equipment and compare left /right differences and/or absolute values given by manufacturers.	right.		X		1	
5.3.3. Torque tubes, radius arms, wishbones and suspension arms	Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes GVM.	Insecure attachment of component to chassis or axle.     (b) A damaged, fractured or excessively corroded component.     (c) Inappropriate repair or modification.		X X X	X X X	5.3.3. Torque tubes, radius arms, wishbones and suspension arms	Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3,5 tonnes GVM.	Insecure attachment of component to chassis or axle.     (b) A damaged, fractured or excessively corroded component.     (c) Inappropriate repair or modification.		x x x	X X X	1 1 1	

	D	raft Proposed	Rule 2 (28 Aug, 2009)						Commission	Directive 2010	/48/EU (5 Jul, 2010)
	Mandato	orv	Recommendation				F		Mandato	erv	Recommendation
	Item	Method	Main Reasons for Rejection	Def	ect Assess	ment	E		Item	Method	Reasons for Failure
				MiD	MaD	DD					
5.3.4	Suspension joints	Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes GVM.	(a) Excessive wear in swivel pin and/or bushes or at suspension joints.     (b) Dust cover missing or severely deteriorated.	х	x x	Х	5	5.3.4	Suspension joints	Visual inspection with vehicle over a pit or on a hoist. Wheel play detectors may be used and are recommended for vehicles over 3.5 tonnes GVM.	(a) Excessive wear in swivel pin and/or bushes or at suspension joints.     (b) Dust cover missing or severely deteriorated.
5.3.5.	Air suspension	Visual inspection.	(a) System inoperable.     (b) Any component damaged, modified or deteriorated in a way that would adversely affect the functioning of the system.     (c) Audible system leakage.		x x	X X	5	5.3.5.	Air suspension	Visual inspection.	(a) System inoperable.     (b) Any component damaged, modified or deteriorated in a way that would adversely affect the functioning of the system.     (c) Audible system leakage.
6.	CHASSIS AND CHASS	SIS ATTACHMENTS					6	5.	CHASSIS AND CHASS	SIS ATTACHMENTS	
6.1.	Chassis or frame and att	achments					6	5.1.	Chassis or frame and att	achments	
6.1.1.	General condition	Visual inspection with vehicle over a pit or on a hoist.	(a) Fracture or deformation of any side or cross member.     (b) Insecurity of strengthening plates or fastenings.     (c) Excessive corrosion which affects the rigidity of the assembly.		X X X	x x x	6	5.1.1.	General condition	Visual inspection with vehicle over a pit or on a hoist.	(a) Fracture or deformation of any side or cross member.     (b) Insecurity of strengthening plates or fastenings.     (c) Excessive corrosion which affects the reiedity of the assembly.
6.1.2.	Exhaust pipes and silencers	Visual inspection with vehicle over a pit or on a hoist.	(a) Insecure or leaking exhaust system.     (b) Furnes entering cab or passengers compartment.		X X	х	6	5.1.2.	Exhaust pipes and silencers	Visual inspection with vehicle over a pit or on a hoist.	(a) Insecure or leaking exhaust system.     (b) Fumes entering cab or passengers compartment.
6.1.3.	Fuel tank and pipes (including heating fuel tank and pipes)	Visual inspection with vehicle over a pit or on a hoist, use of leak detecting devices in case of LPG/CNG systems.	(a) Insecure tank or pipes.  (b) Leaking fuel or missing or ineffective filler cap.  (c) Damaged or chafed pipes.  (d) Fuel stopcock (if required) not operating correctly.  (e) Fire risk due to  - Leaking fuel  - Fuel tank or exhaust improperly shielded  - Engine compartment condition.  (f) LPG/CNG system not in accordance with requirements 1/.	X	X X X X	X X	6	5.1.3.	Fuel tank and pipes (including heating fuel tank and pipes)	Visual inspection with vehicle over a pit or on a hoist, use of leak detecting devices in case of LPG/CNG systems.	(a) Insecure tank or pipes. (b) Leaking fuel or missing or ineffective filler cap. (c) Damaged or chafed pipes. (d) Fuel stopcock (if required) not operating correctly. (e) Fire risk due to - Leaking fuel - Fuel tank or exhaust improperly shielded - Engine compartment condition. (f) LPG/CNG system not in accordance with requirements (a)
6.1.4.	Bumpers, lateral protection and rear underrun devices	Visual inspection.	Looseness or damage likely to cause initury.     Device obviously not in compliance with the requirements. 1/	х	X X	X	6	5.1.4.	Bumpers, lateral protection and rear underrun devices	Visual inspection.	(a) Looseness or damage likely to cause iniury when grazed or contacted.     (b) Device obviously not in compliance with the requirements (a).
6.1.5.	Spare wheel carrier (if fitted)	Visual inspection.	(a) Carrier not in proper condition.     (b) Carrier fractured or insecure.     (c) A spare wheel not securely fixed in carrier and likely to fall off.	Х	X X	Х	6	5.1.5.	Spare wheel carrier (if fitted)	Visual inspection.	(a) Carrier not in proper condition.     (b) Carrier fractured or insecure.     (c) A spare wheel not securely fixed in carrier and likely to fall off.
6.1.6.	Coupling mechanisms and towing equipment	Visual inspection for wear and correct operation with special attention to any safety device fitted and /or use of measuring gauge.	(a) Component damaged, defective or     (b) Excessive wear in a component.     (c) Attachment defective.     (d) Any safety device missing or not operating correctly.     (e) Any indicator not working.     (f) Inappropriate repair or modification.		X X X X	X X X	6	5.1.6.	Coupling mechanisms and towing equipment	Visual inspection for wear and correct operation with special attention to any safety device fitted and /or use of measuring gauge.	(a) Component damaged, defective or (b) Excessive wear in a component. (c) Attachment defective. (d) Any safety device missing or not operating correctly. (e) Any indicator not working. (f) Obstruct registration plate or any lamp (when not in use) (f) Inappropriate repair or modification.
6.1.7.	Transmission	Visual inspection.	Loose or missing securing bolts.     Excessive wear in transmission shaft bearings.     Excessive wear in universal joints.     Deteriorated flexible couplings.     Adamaged or bent shaft.     Bearing housing fractured or insecure.     Dust cover missing or severely deteriorated.     Illegal power-train modification.	х	X X X X X X X	X X X X	6	5.1.7.	Transmission	Visual inspection.	(a) Lose or missing securing bolts. (b) Excessive wear in transmission shaft bearings. (c) Excessive wear in universal joints. (d) Deteriorated flexible couplings. (e) A damaged or bent shaft. (f) Bearing housing fractured or insecure. (g) Dust cover missing or severely deteriorated. (h) Illegal power-train modification.
6.1.8.	Engine mountings	Visual inspection not necessarily on a pit or hoist.	Deteriorated, loose or fractured mountings.		X	X	6	5.1.8.	Engine mountings	Visual inspection not necessarily on a pit or hoist.	Deteriorated, obviously and severely damaged, loose or fractured mountings.

	Co Reco 2010 Ju	mmissi mmend /378/I lly, 201	on lation EU (8 0)	Requirement identical?	Comment
				0	Directive has 'Reasons for Failure' cf. Main Reasons for Rejection'
	MiD	ect Assess: MaD	DD	0	Directive has Reasons for Failure cf. Main Reasons for Rejection  Definitions of MiD and MaD are different
		X	X	1	
	X	X		1	
		Х	X X	1 1	
		X		1	
				0	
1		X	X	0 1	
		X	X	1	
		X	X	1	
		X X	X	1	
		X X	X X	1 1	
	X	X X		1 1	
		x	X	1	
		X	X	1 1 1 0	See difference in footnotes (1) cf. (a)
		X	X	0	Directive adds ' when grazed or contacted'
1	X	X		0	See difference in footnotes (1) cf. (a)
	X	X X	X	1 1 1	
		X X X	X X X	1 1 1	
		X		1	
	X	X		0	Directive adds extra Reason for Failure $\{(f)$ Obstruct registration plate or any lamp (when not in use) $\}$
		X	X	1	
		X X	X X	1	
	X	X X X X	X X	1 1 1 1	
		X	X	1 0	Directive adds 'obviously and severely damaged' to Reason for Failure

	Mandato	MITT.	Recommendation							
	Item	Method	Main Reasons for Rejection	Defe	ect Assessi	ment				
				MiD	MaD	DD				
6.1.9.	Engine performance	Visual inspection.	(a) Control unit illegal modified.		X					
			<ul> <li>(b) Illegal engine and/or power-train modification.</li> </ul>		X					
5.2.	Cab and bodywork									
	Condition	Visual inspection.	A loose or damaged panel or part likely to cause injury.		X	X				
			(b) Insecure body pillar.		x	X				
			(c) Permitting entry of engine or exhaust		X	X				
			fumes.							
			<ul><li>(d) Inappropriate repair or modification.</li></ul>		X	X				
5.2.2.	Mounting	Visual inspection over a	<ul><li>(a) Body or cab insecure.</li></ul>		X	X				
		pit or on a hoist.	<ul> <li>(b) Body/cab obviously not located squarely on chassis.</li> </ul>		X					
			(c) Insecure or missing fixing of body/cab to chassis or cross members.		X	X				
			(d) Excessive corrosion at fixing points on		X	X				
	*		integral bodies.							
5.2.3.	Doors and door catches	Visual inspection.	(a) A door will not open or close properly.		X	**				
			(b) A door likely to open inadvertently or one that will not remain closed.		X	X				
			(c) Door, hinges, catches, pillar, missing,	x	x					
			loose or deteriorated.	24						
5.2.4.	Floor	Visual inspection over a pit or on a hoist.	Floor insecure or badly deteriorated		X	X				
5.2.5.	Driver's seat	Visual inspection.	A loose seat or seat with defective structure.		X	X				
			(b) Adjustment mechanism not functioning		x	X				
			correctly.		^	Λ				
5.2.6.	Other seats	Visual inspection.	Seats in defective condition or insecure.	X	X					
			(b) Seats fitted not in accordance with	X	X					
			requirements. 1/							
5.2.7	Driving controls	Visual inspection and by	Any control necessary for the safe operation of		X	X				
		operation.	the vehicle not functioning correctly.							
5.2.8.	Cab steps	Visual inspection.	<ul><li>(a) Step or step ring insecure.</li></ul>	X	X					
			(b) Step or ring in a condition likely to cause		X					
			injury to users.							
5.2.9.	Other interior and	Visual inspection.	(a) Attachment of other fitting or equipment		X					
	exterior fittings and equipment		defective.	x						
	equipment		(b) Other fitting or equipment not in accordance with the requirements, 1/	Х	X					
			(c) Leaking hydraulic equipment.	X	X					
5.2.10	. Mudguards (wings),	Visual inspection.	(a) Missing, loose or badly corroded.	X	X					
	spray suppression		(b) Insufficient clearance to road wheel.	X	X					
	devices		(c) Not in accordance with the	X	X					
			requirements. 1/							
7.	OTHER EQUIPMENT									
'.1.	Safety-belts/buckles and									
7.1.1.	Security of safety-	Visual inspection.	<ul> <li>(a) Anchorage point badly deteriorated.</li> </ul>		X	X				
	belts/buckles mounting	ľ	(b) Anchorage loose.		X	X				

					Mandato		Recommendation		ıly, 201	
L		ct Assessi			Item	Method	Reasons for Failure		ect Assessi	
	MiD	MaD	DD					MiD	MaD	DD
r		X		6.1.9.	Engine performance	Visual inspection.	<ul> <li>(a) Control unit illegal modified.</li> </ul>		X	
		X			0 1		(b) Illegal engine modification.		X	
							(4)			
				6.2.	Cab and bodywork	•				
		X	X	6.2.1.	Condition	Visual inspection.	(a) A loose or damaged panel or part likely		X	X
							to cause injury.			
		X	X				(b) Insecure body pillar.		X	X
		X	X				(c) Permitting entry of engine or exhaust		X	X
		**		1			fumes.		ļ.,	
_		X	X	6 2 2		XP 11 2	(d) Inappropriate repair or modification.		X	X
		X	X	6.2.2.	Mounting	Visual inspection over a	(a) Body or cab insecure.		X	X
		X				pit or on a hoist.	<ul> <li>Body/cab obviously not located squarely on chassis.</li> </ul>		X	ı
		x	X				on cnassis.  (c) Insecure or missing fixing of body/cab to		x	Х
		А	Λ	1			chassis or cross members.		Λ	^
		X	x				(d) Excessive corrosion at fixing points on		X	X
		**		1			integral bodies.		"	
		X		6.2.3.	Doors and door catches	Visual inspection.	A door will not open or close properly.		X	
		X	X				(b) A door likely to open inadvertently or		X	X
							one that will not remain closed.			
	X	X					(c) Door, hinges, catches, pillar, missing,	X	X	
							loose or deteriorated.			
		X	X	6.2.4.	Floor	Visual inspection over a	Floor insecure or badly deteriorated		X	X
				L		pit or on a hoist.				
		X	X	6.2.5.	Driver's seat	Visual inspection.	(a) A loose seat or seat with defective		X	X
							structure.		1	
		X	X				(b) Adjustment mechanism not functioning		X	X
L				L			correctly.			
ı	X	X		6.2.6.	Other seats	Visual inspection.	<ul> <li>Seats in defective condition or insecure.</li> </ul>	X	X	
ı	X	X					(b) Seats fitted not in accordance with	X	X	ı
_	-	X	X	6 2 7	Deixing controls	Visual inspection of the	requirements (a).		X	X
		Λ	Λ	0.2./	Driving controls	Visual inspection and by operation.	Any control necessary for the safe operation of the vehicle not functioning correctly.		Λ	Λ
					~ .	_				ļ
	X	X		6.2.8.	Cab steps	Visual inspection.	(a) Step or step ring insecure.	X	X	l
		X					(b) Step or ring in a condition likely to cause		X	ı
۲		X		6.2.9.	Other interior and	Visual inspection.	injury to users.  (a) Attachment of other fitting or equipment		X	<del> </del>
l		Λ		0.2.9.	exterior fittings and	v isuai ilispectioli.	defective.		Λ	l
	х	X		1	equipment		(b) Other fitting or equipment not in	X	X	l
		**		1			accordance with the requirements (a).		"	i
	X	X		1			(c) Leaking hydraulic equipment.	X	X	ĺ
	X	X		6.2.10	Mudguards (wings),	Visual inspection.	(a) Missing, loose or badly corroded.	X	X	
	X	X			spray suppression		(b) Insufficient clearance to road wheel.	X	X	ı
	X	X			devices		(c) Not in accordance with the requirements	X	X	ı
							(a)		1 /	i
				7.	OTHER EQUIPMENT					_
				7.1.	Safety-belts/buckles and	restraint systems				_
		X	X	7.1.1.	Security of safety-	Visual inspection.	<ul> <li>(a) Anchorage point badly deteriorated.</li> </ul>		X	X
1		X	x	1	belts/buckles mounting		(b) Anchorage loose.		X	X

identical?	Comment
0 0	Directive has Reasons for Failure'cf. Main Reasons for Rejection' Definitions of MiD and MaD are different
1 0	Directive omits 'and/or power-train' from Reason for Failure
0 1	
1 1	
1 1 1	
1	
1	
1 1	
1	
1	
1	
1	
1 0	See difference in footnotes (1) cf. (a)
1	
1 1	
1	
0	See difference in footnotes (1) cf. (a)
1	
1	
0	See difference in footnotes (1) cf. (a)
0	
1	

Draft Proposed Rule 2 (28 Aug, 2009)					Commission Directive 2010/48/EU (5 Jul, 2010)			Commission Recommendation 2010/378/EU (8 July, 2010)			Requirement identical?	Comment			
	Mandato		Recommendation					Mandato		Recommendation					
	Item	Method	Main Reasons for Rejection		ect Assess	ment DD		Item	Method	Reasons for Failure		fect Asses			irective has Reasons for Failure' cf. Main Reasons for Rejection'
				MiD	MaD	DD					MiD	MaD	DD	0 De	efinitions of MiD and MaD are different
7.1.2	Condition of safety-	Visual inspection and by	(a) Mandatory safety-belt missing or not		X		7.1.2	. Condition of safety-	Visual inspection and by	(a) Mandatory safety-belt missing or not		X		1	
	belts/buckles.	operation.	fitted.	х	**			belts/buckles.	operation.	fitted.	x	37			
			Safety-belt damaged.     Safety-belt not in accordance with the	X	X					<ul> <li>(b) Safety-belt damaged.</li> <li>(c) Safety-belt not in accordance with the</li> </ul>	X	X		1 0 Di	rirective references footnote (a); Draft Proposed Rule 2 references footnote (2).
			requirements. 2/	Α	Λ					requirements (a)	Λ.	Α.			hese two footnotes do not cover the same topic and are not paired elsewhere. Typo?
			_												
			<ul> <li>(d) Safety-belt buckle damaged or not functioning correctly.</li> </ul>		X					<ul> <li>(d) Safety-belt buckle damaged or not functioning correctly.</li> </ul>		X		1	
			(e) Safety-belt retractor damaged or not		X					(e) Safety-belt retractor damaged or not		X		1	
			functioning correctly.							functioning correctly.				-	
7.1.3	Safety belt load limiter	Visual inspection.	Load limiter missing or not suitable for vehicle.		X		7.1.3	. Safety belt load limiter	Visual inspection.	Load limiter missing or not suitable for vehicle.		X		1	
714	. Safety belt pre-	Visual inspection.	Pre-tensioner missing or not suitable for		X		714	. Safety belt pre-	Visual inspection.	Pre-tensioner missing or not suitable with the		X		0 M	linor difference in Reason for Failure
7.1.4	tensioners	visual hispection.	vehicle.		Λ		7.1.4	tensioners	visuai inspection.	vehicle.		^		0 101	mior difference in Reason for Fandre
L		<u>l</u>				L .	7.1.5	. Airbag	Visual inspection.	(a) Airbags obviously missing or not suitable		Х		0 Di	irective includes additional Item
										with the vehicle.					
										(b) Airbag obviously non operative		X			rirective includes additional Item
							7.1.6	. SRS Systems	Visual inspection of MIL	SRS MIL indicates any kind of failure of the system		X		0 Di	rirective includes additional Item
7.2	Fire extinguisher (X) 2/	Visual inspection	(a) Missing.	Ι	X		7.2.	Fire extinguisher	Visual inspection.	(a) Missing.		X		1	
/	The exampliance (11) 2	risaar inspection.	(b) Not in accordance with the regulations.1/	X	X		/ .2.	(X) (b)	risdar mapeetron.	(b) Not in accordance with the requirements	X	X			ee difference in footnotes (1) cf. (a)
										(a).					raft Proposed Rule 2 uses 'regulations' ('requirements used elsewhere in document);
														Di	rirective uses 'requirements'
7.3.	Locks and anti-theft	Visual inspection and by	(a) Device not functioning to prevent vehicle	Х			7.3.	Visual inspection and	Visual inspection and by	(a) Device not functioning to prevent	X			0 Ty	ypo in Directive under Item
7.5.	device	operation.	being driven.				7.5.	by operation.	operation.	vehicle being driven.					ypo in Directive under Nein
			(b) Defective or inadvertently locking or		X	X				(b) Defective or inadvertently locking or		X	X	1	
<u></u>	***	***	blocking					***	***	blocking		-		_	
7.4.	Warning triangle (if required)(X) 2/	Visual inspection.	Missing or incomplete.  Not in accordance with the requirements. 1/	X			7.4.	Warning triangle (if required) (X) (b)	Visual inspection.	Missing or incomplete.  Not in accordance with the requirements (a)	X			1 0 Se	ee difference in footnotes (1) cf. (a)
7.5.	First aid kit. (if	Visual inspection.	Missing, incomplete or not in accordance with	X			7.5.	First aid kit. (if	Visual inspection.	Missing, incomplete or not in accordance with	X	1			ee difference in footnotes (1) cf. (a)
	required)(X) 2/	·	the requirements. 1/					required) (X) (b)	-	the requirements (a)					
7.6.	Wheel chocks (wedges) (if required) (X) 2/	Visual inspection.	Missing or not in good condition.	X	X		7.6.	Wheel chocks (wedges) (if required) (X) (b)	Visual inspection.	Missing or not in good condition.	X	X		1	
7 7	Audible warning device	Visual inspection and by	(a) Not working.	X	X		7.7.	Audible warning device	Visual inspection and by	(a) Not working.	X	X		1	
1		operation.	(b) Control insecure.	X			, , , ,		operation.	(b) Control insecure.	X			1	
			(c) Not in accordance with the	X	X					(c) Not in accordance with the requirements	X	X		0 Se	ee difference in footnotes (1) cf. (a)
			requirements. 1/							(a)					
7.8.	Speedometer	Visual inspection or by	(a) Not fitted in accordance with the	X	X		7.8.	Speedometer	Visual inspection or by	(a) Not fitted in accordance with the	X	X		0 Se	ee difference in footnotes (1) cf. (a)
		operation during road test or by electronically	requirements. <u>1</u> / (b) Not operational.	х	х				operation during road test or by electronically means	requirements (a)  (b) Not operational.	x	X		1	
		means.	(c) Not capable of being illuminated.	X	X				,	(c) Not capable of being illuminated.	X	X		1	
7.9.	Tachograph (if	Visual inspection.	(a) Not fitted in accordance with the	X	X		7.9.	Tachograph (if	Visual inspection.	(a) Not fitted in accordance with the	X	X			ee difference in footnotes (1) cf. (a)
	fitted/required)		requirements. 1/					fitted/required)		requirements (a)					
			(b) Not operational.		X					(b) Not operational.		X		1	
			Defective or missing seals.     Calibration plaque missing, illegible or		X X					Defective or missing seals.     Calibration plaque missing, illegible or		X		1	
			out of date.		^					out of date.				*	
			(e) Obvious tampering or manipulation.		X					(e) Obvious tampering or manipulation.		X		1	
			(f) Size of tyres not compatible with		X					(f) Size of tyres not compatible with		X		1	
7.10	Coord limit-el d '	Visual inspection and	calibration parameters (a) Not fitted in accordance with the	v	v	$\vdash$	7.10	Coord limited and dear	Viewel increases 11	calibration parameters	v	v	<b> </b>	0	
7.10.	Speed limitation device (if fitted/required)	Visual inspection and by operation if equipment	(a) Not fitted in accordance with the requirements. 1/	X	X		7.10.	Speed limitation device (if fitted/required)	Visual inspection and by operation if equipment	<ul> <li>(a) Not fitted in accordance with the requirements (a)</li> </ul>	X	X		U	
		available.	(b) Obviously not operational.		X			. 4	available.	(b) Obviously not operational.		X		1	
			<ul><li>(c) Incorrect set speed (if checked).</li></ul>		X					<ul><li>(c) Incorrect set speed (if checked).</li></ul>		X		1	
			(d) Defective or missing seals.		X					(d) Defective or missing seals.		X			
			<ul> <li>(e) Calibration plaque missing, illegible or out of date.</li> </ul>		X					<ul> <li>(e) Calibration plaque missing, illegible or out of date.</li> </ul>		X		1	
			Size of tyres not compatible with		X					Size of tyres not compatible with		X		1	
			calibration parameters.							calibration parameters.		1			

	Draft Proposed Rule 2 (28 Aug, 2009)										
	Mandat	ory		Recommendation							
	Item	Method		Main Reasons for Rejection	Defe	ect Assess	ment				
					MiD	MaD	DD				
7.11.	Odometer if available	Visual inspection.	(a)	Obviously manipulated (fraud).	X	X					
	(X) <u>2</u> /		(b)	Obviously inoperative.	X	X					

a) Defective operation.

(a) Defective operation.

(a) Not operating correctly.

(a) Defective operation

automatically.

Visual inspection and by Device defective or not in accordance with

equirements. 1/

Defective system.

(a) Insecure floor.

devices defective.

(b) Deteriorated condition.

(c) Defective emergency control.

(c) Missing hammer to break glass.

driver's or passenger compartment.

(c) Defective defrosting (if compulsory).

driver's or passenger compartment

(d) Remote control of doors or warning

(e) Not in accordance with the requirements.

(b) Emergency exits signs missing or illegible.

d) Not in accordance with requirements . 1/

(b) Emission of toxic or exhaust gases into

(b) Emission of toxic or exhaust gases into

(a) Seats in defective condition or insecure.

(b) Folding seats (if allowed) not working

(c) Not in accordance with the requirements.

(a) Defective special devices such as anti-

(b) Protection for driver insecure or not in

glare shield or anti-dazzle screen

accordance with requirements. 1/

(b) Defective rails or grab handles.

(a) Deteriorated or damaged condition.

(c) Not in accordance with the requirements.

(b) Retractable steps not operating correctly.

c) Not in accordance with requirements. 1/

X

X

X

X

X

X

X

X

X

X

X

X

X X

X

X X

X

X

X

SUPPLEMENTARY TESTS FOR PASSENGER CARRYING VEHICLES M2, M3

Doors

8.1.2. Emergency exits

Demisting and

system (X) 2/

(including seats for

accompanying

personnel)

(additional

8.6. Gangways, standing

areas

8.7. Stairs and steps

8.8. Passenger

(X) 2/

requirements)

Interior lighting and

destination devices (X)

communication system

8.4.2. Driver's seat

8.5.

8.4. Seats 8.4.1. Passenger seats

defrosting system (X) 2/

8.3. Ventilation & heating Visual inspection and by

8.1.1. Entrance and exit doors Visual inspection and by

peration.

appropriate).

operation.

Visual inspection and by operation (where

Visual inspection and by

Visual inspection.

Visual inspection.

Visual inspection.

operation (where

appropriate).

operation.

Visual inspection and by

Visual inspection and by

			/48/EU (5 Jul, 2010)	Reco 2010	mmissi mmend )/378/I ily, 201	latio EU (
	Mandate Item	Method	Recommendation  Reasons for Failure	Dof	ect Assess	man*
	ICII	Method	reasons for Panure	MiD	MaD	D
7.11.	Odometer if available	Visual inspection.	(a) Obviously manipulated (fraud).	X	X	
	(X) (b)		(b) Obviously inoperative.	X	X	
7.12.	Electronic Stability	Visual inspection	(a) Wheel speed sensors missing or		X	
	Control (ESC) if fitted/		(b) Wirings damaged		X	
	required		(c) Other components missing or damaged		X	
			(d) Switch damaged or not functioning		X	
			correctly			
			<ul><li>(e) ESC MIL indicates any kind of failure of</li></ul>		X	
			the system			
9.	SUPPLEMENTARY TI	ESTS FOR PASSENGER O	CARRYING VEHICLES M2, M3			
9.1.	Doors					
9.1.1.	Entrance and exit doors		<ul><li>(a) Defective operation.</li></ul>		X	
		operation.	(b) Deteriorated condition.	X	X	
			<ul><li>(c) Defective emergency control.</li></ul>		X	
		]	(d) Remote control of doors or warning	l	X	Ī
			devices defective.			
			(e) Not in accordance with the requirements (a)	X	X	
912	Emergency exits	Visual inspection and by	(a) Defective operation.		X	
J.1.Z.	Emergency exits	operation (where	<ul><li>(b) Emergency exits signs missing or illegible.</li></ul>	X	X	
		appropriate).	(c) Missing hammer to break glass.	7.	X	
		]	(d) Not in accordance with requirements (a)	x	X	Ī
9.2.	Demisting and	Visual inspection and by	(a) Not operating correctly.	X	X	Т
	defrosting system (X)	operation.	(b) Emission of toxic or exhaust gases into	1	X	>
	<u>(b)</u>	]	driver's or passenger compartment.			
			(c) Defective defrosting (if compulsory).		X	
9.3.	Ventilation and heating	Visual inspection and by	(a) Defective operation	X	X	
	system (X) (b)	operation.	(b) Emission of toxic or exhaust gases into	l	X	>
			driver's or passenger compartment			
9.4.	Seats					
9.4.1.		Visual inspection.	Seats in defective condition or insecure.	X	X	
	(including seats for accompanying		(b) Folding seats (if allowed) not working	X	X	
	personnel)		automatically.	v	v	
	,		<ul><li>(c) Not in accordance with the requirements</li><li>(a)</li></ul>	X	X	
9.4.2.	Driver's seat	Visual inspection.	(a) Defective special devices such as anti-	X	X	Т
	(additional		glare shield or anti-dazzle screen			
	requirements)		(b) Protection for driver insecure or not in	X	X	
			accordance with requirements (a).			
9.5.	Interior lighting and	Visual inspection and by	Device defective or not in accordance with	X	X	
	destination devices (X)	operation.	requirements (a).			
9.6.	Gangways, standing	Visual inspection.	(a) Insecure floor.		X	Σ
	areas		(b) Defective rails or grab handles.	X	X	
		]	(c) Not in accordance with the requirements	X	X	Ī
			(a).			
9.7.	Stairs and steps	Visual inspection and by	(a) Deteriorated or damaged condition.	X	X	Х
		operation (where	(b) Retractable steps not operating correctly.		X	
		appropriate).				
		1	(c) Not in accordance with requirements (a).	X	X	L
	_					
9.8.	Passenger communication system	Visual inspection and by operation.	Defective system.	X	X	

Requirement identical?	Comment
0	Directive has Reasons for Failure'cf. Main Reasons for Rejection' Definitions of MiD and MaD are different
1	
1	Discosing in dealers of the control to an
0	Directive includes additional Item Directive includes additional Item
0	Directive includes additional Item
0	Directive includes additional Item
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0	
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0	See difference in footnotes (1) cf. (a)
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0	See difference in footnotes (1) cf. (a)
1	See difference in footnotes (1) cl. (a)

	D	raft Proposed	Rule 2 (28 Aug, 2009)						
	Mandato		Recommendation						
	Item	Method	Main Reasons for Rejection	Defe MiD	ect Assessi MaD	ment DD			
				MiD	MaD	DD			
8.9.	Notices (X) 2/	Visual inspection.	<ul> <li>(a) Missing, erroneous or illegible notice.</li> </ul>	X					
			(b) Not in accordance with requirements. 1/	X	X	l			
8.10.	Requirements regarding	the transport of children. (2	X) <u>2</u> /						
8.10.1	Doors	Visual inspection.	Protection of doors not in accordance with the requirements $\underline{}^{\nu}$ regarding this form of transport.	X	X				
8.10.2	Signalling and special equipment	Visual inspection.	Signalling or special equipment absent or not in accordance with requirements. $\underline{1}/$	X	X				
8.11.	Requirements regarding	the transport of disabled pe	ersons. (X) 2/						
8.11.1	. Doors, ramps and lifts	Visual inspection and by	<ul><li>(a) Defective operation.</li></ul>	X	X				
		operation.	(b) Deteriorated condition.	X	X				
			<ul><li>(c) Defective control(s).</li></ul>	X	X	l			
			<ul><li>(d) Defective warning device(s).</li></ul>	X	X	l			
			<ul><li>(e) Not in accordance with the requirements.</li></ul>	X	X				
8.11.2	. Wheelchair fixings	Visual inspection and by	(a) Defective operation.	X	X				
		operation if appropriate.	<ul><li>(b) Deteriorated condition.</li></ul>	X	X	l			
			<ul><li>(c) Defective control(s).</li></ul>	X	X	l			
			(d) Not in accordance with the requirements. 1/	X	X				
8.11.3	Signalling and special equipment	Visual inspection.	Signalling or special equipment absent or not in accordance with requirements. 1/	X	X				
8.12.	Other special equipment	(X) <u>2</u> /							
8.12.1	Installations for food preparation	Visual inspection.	(a) Installation not in accordance with the requirements. 1/     (b) Installation damaged to such an extent that	X	X X				
			it would be dangerous to use it.						
8.12.2	Sanitary installation	Visual inspection.	Installation not in accordance with the requirements. 1/	X	X				
8.12.3	Other devices (e.g. audio-visual systems)	Visual inspection.	Not in accordance with the requirements. 1/	X	X				

Cor		Directive 2010	Commission Recommendation 2010/378/EU (8 July, 2010)				
	Mandate		Recommendation				
	Item	Method	Reasons for Failure	MiD	ect Assessi MaD	nent DD	
				MID	WIAD	DD	
9.9. Notic	es (X) (b)	Visual inspection.	(a) Missing, erroneous or illegible notice.	X			
			(b) Not in accordance with requirements (a).	X	X		
9.10. Requi	irements regarding	the transport of children. (2	() ( <u>b)</u>				
9.10.1 Doors	S	Visual inspection.	Protection of doors not in accordance with the	X	X		
		*	requirements (a). regarding this form of				
			transport.				
			21 22		Ь		
	lling and special	Visual inspection.	Signalling or special equipment absent or not in	X	X		
equip	ment		accordance with requirements (a).				
9.11. Requi	irements regarding	the transport of disabled pe	rsons (X) (b)				
9.11.1 Doors	s, ramps and lifts	Visual inspection and by	<ul><li>(a) Defective operation.</li></ul>	X	X		
		operation.	(b) Deteriorated condition.	X	X		
			<ul><li>(c) Defective control(s).</li></ul>	X	X		
			<ul><li>(d) Defective warning device(s).</li></ul>	X	X		
			(e) Not in accordance with the requirements	X	X		
			(a)				
9.11.2 Whee	lchair fixings	Visual inspection and by	<ul><li>(a) Defective operation.</li></ul>	X	X		
		operation if appropriate.	(b) Deteriorated condition.	X	X		
			<ul><li>(c) Defective control(s).</li></ul>	X	X		
			(d) Not in accordance with the requirements	X	X		
			(a)				
9.11.3 Signa	lling and special	Visual inspection.	Signalling or special equipment absent or not in	X	X		
equip	ment		accordance with requirements (a).				
	special equipment	1 /	·				
	lations for food	Visual inspection.	(a) Installation not in accordance with the	X	X		
prepa	ration		requirements (a).				
			(b) Installation damaged to such an extent		X		
			that it would be dangerous to use it.				
9.12.2 Sanita	ary installation	Visual inspection.	Installation not in accordance with the	X	X		
			requirements (a).				
9.12.3 Other		Visual inspection.	Not in accordance with the requirements (a).	X	X		
audio	-visual systems)						

Requirement identical?	Comment
0	Directive has Reasons for Failure' cf. Main Reasons for Rejection' Definitions of MiD and MaD are different
1 0 0	See difference in footnotes (1) cf. (a)
0	See difference in footnotes (1) cf. (a)
0	See difference in footnotes (1) cf. (a)
0 1 1 1 1 0	See difference in footnotes (1) cf. (a)
1 1 1 0	See difference in footnotes (1) cf. (a)
0	See difference in footnotes (1) cf. (a)
0 0	See difference in footnotes (1) cf. (a)
1	
0	See difference in footnotes (1) cf. (a)
0	See difference in footnotes (1) cf. (a)

### Draft Proposed Rule 2 (28 Aug, 2009) Main Reasons for Rejection Defect Asse MiD MaD DD

## Draft Proposed Rule 2 footnotes

1/ 'requirements' are laid down by type-approval requirements at the date of first registration or first entry into service as well as retrofitting obligations or national legislation.

2/ '(X)' Identifies items which are related to the condition of the vehicle and its suitability for use on the road but which are not considered essential in a periodic inspection.

### MAIN REASONS FOR REJECTION AND ASSESSMENT OF DEFECTS

Recommendations for the main reasons for rejection and the assessment of defects are also given

## Minor defects (MiD)

Technical defects that have no significant effect on the safety of the vehicle and other minor non-c

## "Major defects" (MaD)

Defects that may prejudice the safety of the vehicle and/or put other road users at risk and other r

## "Dangerous defects" (DD)

Defects that constitute a direct and immediate risk to road safety such that the vehicle should not be used on the road under any circumstances.

A vehicle having defects falling into more than one defect group should be classified according to the most serious defect. A vehicle showing several defects of the same group can be classified in the next more serious group if their combined effect makes the vehicle more dangerous.

# Commission Directive 2010/48/EU (5 Jul. 2010)

				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	٠,
Mandato	ry	Recommendation			
Item	Method	Reasons for Failure	Defe	ct Assessi	ment
			MiD	MaD	DD

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## Comment

Directive has 'Reasons for Failure' cf. 'Main Reasons for Rejection' Definitions of MiD and MaD are different

## Directive footnotes

- (1) Inappropriate repair or modification means a repair or modification that adversely affects the road safety of the vehicle or has a negative effect on the environment.
- (2) 48 % for vehicles not fitted with ABS or type approved before 1 October 1991.
- (3) 45% for vehicles registered after 1988 or from the date specified in requirements whichever
- (4) 43 % for semi-trailers and draw-bar trailers registered after 1988 or from the date in requirements whichever is the later
- (5) 2,2 m/s^2 for N1, N2 and N3 vehicles.
- ( 6 ) Type-approved according to limits in row A or B section 5.3.1.4. of Annex I to Directive 70/220/EEC as amended by Directive 98/69/ EC or later or first registered or put into service
- (7) Type approved according to limits in row B section 5.3.1.4. of Annex I to Directive 70/220/EEC as amended by Directive 98/69/EC or later; row B1, B2 or C section 6.2.1 of Annex I to Directive 88/77/EEC as amended by Directive 1999/96/EC or later or first registered or put

( a ) 'requirements' are laid down by type-approval requirements at the date of approval, first registration or first entry into service as well as retrofitting obligations or national legislation in the country of registration.

- ( b ) (X) Identifies items which are related to the condition of the vehicle and its suitability for use 1 on the road but which are not considered essential in a periodic inspection
- (c) (XX) This reason for failure only applies if testing is required by national legislation.
- 2. Guidelines for the assessment of defects and definitions (from 2010/378/EU)

The quidelines for assessing failures, including technical defects and other non-compliances, that are found during periodic testing of vehicles are categorised in three groups, as follows: MINOR DEFECTS (MiD)

MAJOR DEFECTS (MaD)

DANGEROUS DEFECTS (DD)

Each defect category should be defined by reference to the condition of the vehicle as follows:

### MINOR DEFECTS

Technical defects that have no significant effect on the safety of the vehicle and other minor noncompliances. The vehicle does not necessarily have to be re-examined as it can reasonably be expected that the detected defects will be rectified without delay.

## MAJOR DEFECTS

Defects that may prejudice the safety of the vehicle or put other road users at risk and other more significant non- compliances. Further use of the vehicle on the road without repair of the detected defects is subject to conditions. The competent authorities in the Member States must adopt a procedure for setting the conditions under which the vehicle may be used before passing

## DANGEROUS DEFECTS

Defects that constitute a direct and immediate risk to road safety such that the vehicle should not be used on the road under any circumstances.

A vehicle having defects falling into more than one defect group should be classified according to the most serious defect. A vehicle showing several defects of the same group can be classified in the next more serious group if their combined effect makes the vehicle more dangerous.

For defects which can be classified in more than one category, it should be the responsibility of the inspector carrying out the test to categorise the defects according to their severity, in accordance with national legislation

Requirements for type-approval at the time of approval, first registration or first entry into service 0 should be taken into consideration during the defect assessment. Nevertheless, some items will be covered by retrofitting requirements.

Directive additionally stipulates date of approval

Directive constrains retrofitting obligations or national legislation to the country of registration

Directive notes that vehicle does not 'necessarily' have to be reexamined

Significant differences in wording of the MaD definition

Directive includes additional definition

Directive includes additional definition