

ISO7176-19	Customer: Rulsego	
paragraph	Testdate: 10-08-2017	
5.2	DYNAMIC test – Acceleration Sled	
	Type	Sango-M
	ATD used, dummy mass	H3-95th, 102kg
	Position seat	horizontal
	Impact	Frontal
	Orientation	Forward facing
	Anchorage used	Straps of testhouse used
	Headrest used yes/no	Yes
4.2.1	Wheelchair anchored pelvic-belt restraint	no
4.2.2	Wheelchair-anchored shoulder-belt restraint	no
4.2.3	Accommodation of vehicle-anchored occupant belt restraints	no

		Limits	Pass/Fail	
	Impact speed (delta v)	50.53	48-50 km/h	
5.2.1.a	Horz. Excursion limits [mm]:			
	Point P:	41	200mm	pass
	ATD knee:	242	375mm	pass
	Front head:	271	650mm	pass
	Rear head:	-330	-450mm	pass
5.2.1.b	ATD knee/Point P	5.9	≥ 1.1	pass
5.2.2.a	Torso angle after [°]:	29.5° from vertical	<45° from vertical	pass
5.2.2.c1	Batteries of powered wheelchair did not remove outside the wheelchair footprint			pass
5.2.2.c2	Batteries of powered wheelchair did not move into the wheelchair user's space (e.g. no contact with the back of the ATD's legs)			pass
5.2.2.i	H-point ATD [mm]:			
	Before vert:	558		
	After vert:	515		
	Difference [%]:	8	≤ 20 %	pass
	Remarks:			
5.2.2.b	The wheelchair securement points shall not show visible signs of material failure.			pass
5.2.2.c	Rigid components, fragments or accessories of the wheelchair with a mass in excess of 100 g shall not be completely separated from the wheelchair.		<100gr	pass
5.2.2.d	Wheelchair components that may contact the occupant shall not fragment or separate in a manner that produces sharp edges, defined by as having a radius of less than 2 mm.			pass
5.2.2.e	Primary load-carrying components of the wheelchair shall not show visible signs of failure, unless there is a backup system to provide support.			pass
5.2.2.f	Locking mechanisms of tilting seating adjusters shall not show signs of failure.			pass
5.2.2.g	Removal of the ATD from the wheelchair shall not require the use of tools, other than a hoist to lift the ATD.			pass
5.2.2.h	Release of the wheelchair from the tiedown system shall not require the use of tools.			pass
5.2.2.j	The wheelchair and its components shall not cause partial or complete failure of the webbing of any of the WTORS assemblies during the test.			pass
5.3a	Accessibility of securement points: allow one-handed attachment and engagement of the hook gauge within a time period of 10 s,	3s	<10s	pass
5.3b	Accessibility of securement points: allow one-handed disengagement and removal of the same hook gauge within a time period of 10 s,	3s	<10s	pass

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<b>Accommodation of <u>vehicle-anchored</u> belt restraints. Static assessment.</b>				
5.4 Annex D1	Overall ease of belt positioning		Score 0 = Poor 1 = Acceptable 2 = Good	2
5.4 Annex D2	Pelvic-belt-restraint contact area		Score 0 = Poor 1 = Acceptable 2 = Good	2
5.4 Annex D3	Shoulder-belt-restraint contact area		Score 0 = Poor 1 = Acceptable 2 = Good	2
5.4 Annex D4	Pelvic-belt-restraint contact location		Score 0 = Poor 1 = Acceptable 2 = Good	2
5.4 Annex D5	Shoulder-belt-restraint contact location		Score 0 = Poor 1 = Acceptable 2 = Good	2
5.4 Annex D6	Pelvic-belt-restraint angle	38.8°	Score 0 = Poor 1 = Acceptable 2 = Good	1
5.4 Annex D7	Pelvic-belt-restraint clear paths to anchor points		Score 0 = Poor 1 = Acceptable 2 = Good	2
5.4 Annex D8	Belt-restraint proximity to sharp edges		Score 0 = Poor 1 = Acceptable 2 = Good	2