

**TEST REPORT**

Concerning the door latches and door retention components of motor vehicles in accordance with Council Directive 70/387/EEC as last amended by 2001/31/EC and ECE Regulation number 11-03.

Test report number : **RDW-11R-0022478**

0.1. Make : Tripod

0.2. Type : PJ2T (Transit / Tourneo Connect Grand REC)

0.4. Category of vehicle : M1

0.5. Name and address of the manufacturer : donor vehicle:
Ford-Werke GMBH
DE-50725 Köln
Germany

completed vehicle
: Tripod Mobility B.V.
Collseweg 10
5674TR Nuenen
The Netherlands

General : The construction of the doors complies with the requirements laid down in:
- Annex I and II of the above-mentioned Directive
- paragraph 5 of the above-mentioned Regulation.
See documentation: PJ2T-2007/46-0921 dated: 17-9-2014

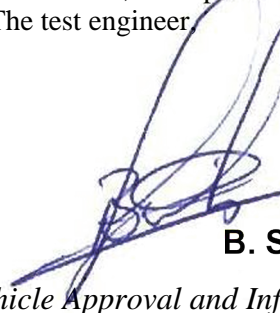

Tests : The tests are carried out in accordance with:
- Annex II of the above-mentioned Directive
- paragraph 6 of the above-mentioned Regulation.
See page 2 to 7.

Conclusion : The type of vehicle complies with the requirements and there are no objections to granting the approval under the above-mentioned Directive and Regulation. Stage 2.

Tests conducted on : 16-9-2014

By : B. Smits

Zoetermeer, 17 September 2014
The test engineer



B. Smits
Vehicle Approval and Information

Test department

P.O. Box 777
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Test centre

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List of attached diagrams

Subject	Diagram number

Reason for testing

Stage 2 conversion. Back door modification.

For the transport of disabled persons in a wheelchair the vehicle has a lowering in the floor.

Used test equipment

Item	Identification number (make and type)	Calibration papers available
Load transducer		yes/not checked
Tensile strength machine		yes/not checked
		yes/not checked

Remarks

Type of bodywork: SH. Wheelchair accessible vehicle.

1st stage OEM back door is modified to provide access for a wheelchair passenger.

Operation and working of the back door remain unchanged. 1st stage back door striker is moved and mounted at the foldable wheelchair ramp.

The test results of stage 1 remain valid.

The ramp hinge is bolted solid to the lowered floor and wheelchair ramp is secured at each side to the body with latches. These latches have been tested for inertia load by calculation conform the Regulation.

For all other items see test reports listed in stage 1 approval.

Relevant approval(s) valid for donor vehicle and completed vehicle if applicable:

Make
Ford

Type
PJ2

Approval
E13-11R-036001 ..



General information

Make and type of the vehicle	Ford Tourneo Connect
Vehicle category	M1
Test conducted by	B. Smits
Place	Nuenen, The Netherlands
Date	16-9-2014

5. General requirements

- 5.1. All side and back doors and door components shall meet the requirements below : ~~pass~~/~~fail~~
(door components for folding doors, roll-up doors, detachable doors, and doors that are designated to provide emergency egress are exempted)
- 5.2. Door latches
- 5.2.1. All hinged doors shall have a latch equipped with a fully latched position and a secondary latched position
front side doors : ~~pass~~/~~fail~~/N/A
rear side doors : ~~pass~~/~~fail~~/N/A
back doors : ~~pass~~/~~fail~~/N/A
- 5.2.2. Each sliding door system shall be equipped with either:
- a latch equipped with a fully latched position and a secondary latched position : ~~pass~~/~~fail~~/N/A
or
- a door latch system with a fully latched position and a door closure warning system : ~~pass~~/~~fail~~/N/A
- EC-only Height of the floor at the entrance of the vehicle : < 600 mm
In case of the height > 600 mm, the vehicle must be equipped with running boards (for off-road vehicles the dimension is 700 mm) : ~~pass~~/~~fail~~

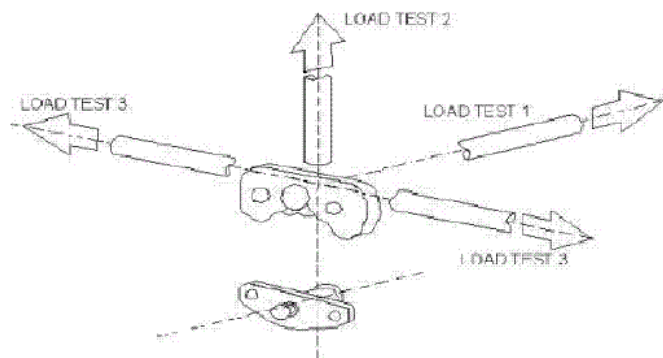


6. Performance requirements

6.1. Test of hinged doors

N/A stage 1

Load tests on the latch systems



- 6.1.1. Load test one (including additional load of 900 N (EC: 890 N) tending to separate the latch and striker in the direction of the door opening.)

	perpendicular to the face of the latch	
	fully latched position (N)	secondary latched position (N)
Front side door, primary latch		
Front side door, auxiliary latch		
Rear side door, primary latch		
Rear side door, auxiliary latch		
Back door		
required load	11110 N (ECE: 11000 N)	4500 N

Speed of the tensile testing machine (≤ 5 mm/min)

: ... mm/min

- 6.1.2. Load test two

	in the fork-bolt opening direction parallel to the face of the latch	
	fully latched position (N)	secondary latched position (N)
Front side door, primary latch		
Front side door, auxiliary latch		
Rear side door, primary latch		
Rear side door, auxiliary latch		
Back door		
required load	9000 N	4500 N

Speed of the tensile testing machine (≤ 5 mm/min)

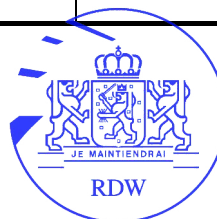
: ... mm/min

- 6.1.3. Load test three (applicable to doors that open in a vertical direction)

	applied in the direction of the axis of the hinge pin	
	fully latched position (N)	secondary latched position (N)
Back door		
Front side door, primary latch	N/A	
Rear side door, primary latch	N/A	
required load	9000 N	--

Speed of the tensile testing machine (≤ 5 mm/min)

: ... mm/min



- 6.1.4. Each primary door latch system and auxiliary door latch system shall be tested for inertia load : calculated/
dynamic

6.1.4.1. Resistance to horizontal inertia load

Pulse corridor Annex 4 – Fig 4-2	forward	rearward	inwards	outwards
Front door, primary latch	diagram ...	diagram ...	diagram ...	diagram ...
Front side door, auxiliary latch	N/A	N/A	N/A	N/A
Rear side door, primary latch	diagram ...	diagram ...	diagram ...	diagram ...
Rear side door, auxiliary latch	N/A	N/A	N/A	N/A
Back door	diagram ...	diagram ...	diagram ...	diagram ...

6.1.4.2. Resistance to vertical inertia load

Pulse corridor Annex 4 – Fig 4-2	upward	downwards
Back door	... (diagram ...)	... (diagram ...)

6.1.4.3. Result of the calculation for resistance to inertia load

No door shall open due to inertia load



: see attached
calculations/
not applicable

: pass/fail

6.1.5.1. Load tests on the door hinges

	longitudinal (N)	transverse (N)	vertical (N) (on doors which open in vertical direction only)	
			up	down
Front door			N/A	N/A
Rear side door			N/A	N/A
Back door				
required load	1110 N (ECE: 11000 N)	9000 N		

Speed of the tensile testing machine (≤ 5 mm/min) : ... mm/min

- 6.1.5.3. Is the testing performed on a single hinge : yes/no
If yes, the hinge shall bear at least a load proportional to the total
number of hinges in the hinge system : pass/fail

- 6.1.5.3. Is the car equipped with side doors with rear mounted hinges that can be
operated independently of other doors : yes/no

If yes

- the interior door handle shall be inoperative when the speed of the
vehicle is greater than or equal to 4 km/h : pass/fail

and

- a door closure warning system shall be provided for those doors : pass/fail

6.2. Test of sliding doors

N/A stage 1

6.2.1. Load test one

	perpendicular to the face of the latch	
	fully latched position	secondary latched position
Latch system, sliding door		
required load	11110 N (ECE: 11000 N)	4500 N

Speed of the tensile testing machine (≤ 5 mm/min) : ... mm/min

6.2.2. Load test two

	in the fork-bolt opening direction parallel to the face of the latch	
	fully latched position	secondary latched position
Latch system, sliding door		
required load	9000 N	4500 N

Speed of the tensile testing machine (≤ 5 mm/min) : ... mm/min

6.2.3. Each door latch system shall be tested for inertia load : calculated/
dynamic

6.2.3.1. Resistance to horizontal inertia load

	forward (ms over 30g)	rearward (ms over 30g)	inward (ms over 30g)	outward (ms over 30g)
Latch system, sliding door	... (diagram ...)	... (diagram ...)	... (diagram ...)	... (diagram ...)

6.2.3.2. Result of the calculation for resistance to inertia load : see attached
calculations/
not applicable

No sliding door shall open due to inertia load : pass/fail

6.2.4. Door system

6.2.4.1. The track and slide combination or other supporting means for each sliding door shall not separate from the door frame when a total force of 18,000 N along the vehicle transverse axis is applied to the door



	applied force	maximum separation (unabstructed)	maximum displacement
Door system, sliding door			
required load/ maximum movement	18000 N	100 mm	300 mm

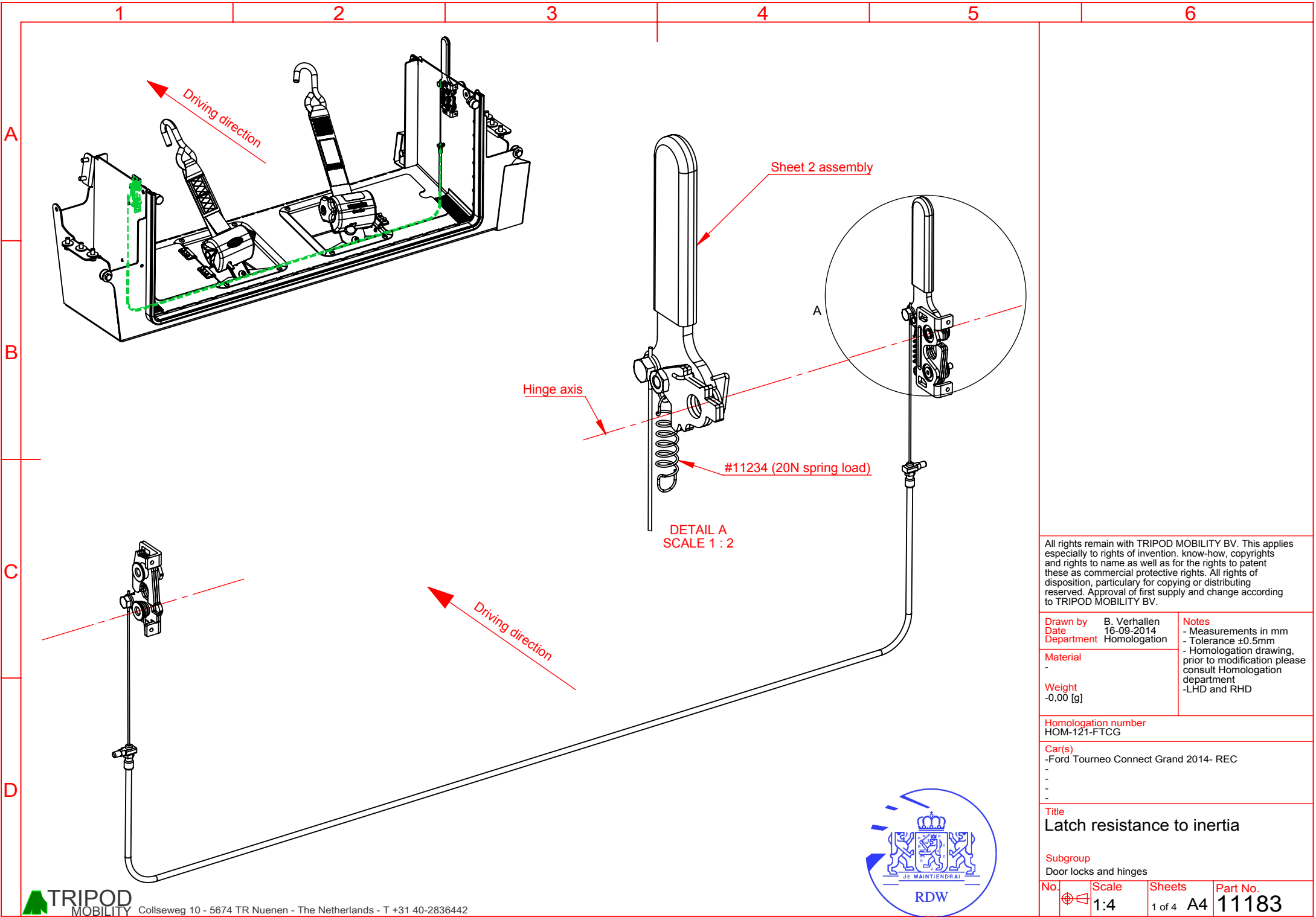
Force applied at a rate of (20-90 mm per minute) : ... mm/min

6.3. Requirements of door locks

N/A Stage 1

- 6.3.1. Each door shall be equipped with at least one locking device which, when engaged, shall prevent operation of the exterior door handle or other exterior latch release control and which has an operating means and a lock release/engagement device located within the interior of the vehicle : pass/fail
- 6.3.2. Each rear side door shall be equipped with at least one of the following locking device:
- child safety lock system : pass/fail/N/A
or
- lock release/engagement device located within the interior of the vehicle and readily accessible to the driver of the vehicle or an occupant seated adjacent to the door : pass/fail/N/A
- 6.3.3. Each back door equipped with an interior door handle or other interior latch release control, shall be equipped with at least one locking device located within the interior of the vehicle which, when engaged, prevents operation of the interior door handle or other interior latch release control and requires separate actions to unlock the door and operate the interior door handle or other interior latch release control : pass/fail/N/A





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Drawn by	B. Verhallen	Notes
Date	16-09-2014	- Measurements in mm
Department	Homologation	- Tolerance $\pm 0.5\text{mm}$
Material	-	- Homologation drawing, prior to modification please consult Homologation department
Weight	-0,00 [g]	-LHD and RHD

Homologation number
HOM-121-FTCG

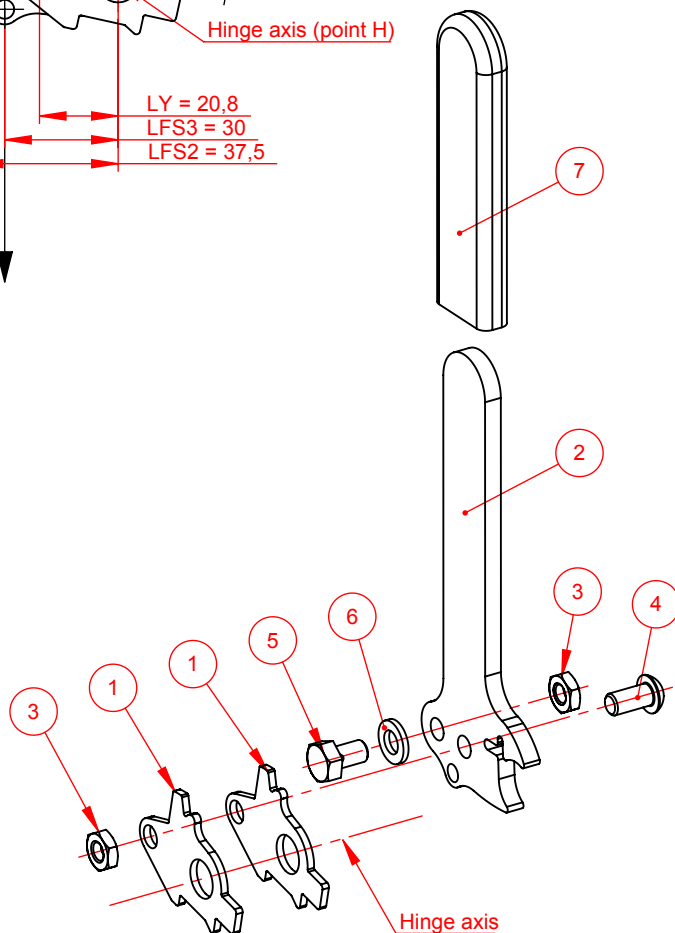
Car(s)
-Ford Tourneo Connect Grand 2014- REC
-
-
-


Title
Latch resistance to inertia

Subgroup
Door locks and hinges

No.	Scale	Sheets	Part No.
1	1:4	1 of 4 A4	11183





REVISIONS			
REV.	DESCRIPTION	DATE	
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Drawn by B. Verhallen Date 16-09-2014 Department Homologation		Notes - Measurements in mm - Tolerance ± 0.5 mm - Homologation drawing, prior to modification please consult Homologation department -LHD and RHD	
Material -			
Total Weight -0,00 [g]			
Homologation number HOM-121-FTCG			
Car(s) -Ford Tourneo Connect Grand 2014- REC - - -			
Title Latch resistance to inertia			
Subgroup Locks and door hinges			
No. 	Scale 1:2	Sheets 2 of 4 A4	Part No. 11183

