

**TEST REPORT**

Relating to the liquid fuel tanks of motor vehicles in accordance with the council Directive 70/221/EEC as last amended by the Commission Directive 2006/20/EC and Part I of ECE Regulation number 34.02 (up to and incl. supplement 03).

Test report number : **RDW-34R-0022484**

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 liquid fuel tanks and the installation of it complies with the requirements laid down in:
- Paragraph 5 of annex I of the above-mentioned Directive
- Part I of the above-mentioned Regulation.
See documentation: PJ2T-2007/46-0921 dated: 17-9-2014

Tests : The tests have been carried out in accordance with:
- Annex I of above mentioned Directive
- Part I of the above mentioned Regulation.
See page 2 to 7.

Conclusion : The type of vehicle complies with the requirements of the above-mentioned Directive and Part I of Regulation 34. There are no objections to granting the approval under the above-mentioned Directive and the Regulation.

Tests conducted on : 15-9-2014

By : B. Smits

Nuenen, 17 September 2014
The test engineer,



B. Smits

Vehicle Approval and Information

Test department

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List of attached diagrams

Subject	Diagram number

Reason for testing

New vehicle type. Second stage.

Used test equipment:

Item	Identification number (make and type)	Calibration papers available
Pressure gauge	Ashcroft 100T5500	Yes, IPPN cert. K1264
		yes/not checked
		yes/not checked
		yes/not checked

Remarks

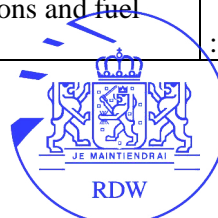
Type of bodywork: SH. Wheelchair accessible vehicle.
For the transport of disabled persons in a wheelchair the vehicle has a lowering in the floor.
Therefore a new stainless steel fuel tank has been constructed.
All other OEM components stay unchanged, mounted vapour valve: GT Dev. Corp. 201-1.
Further see information document.

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

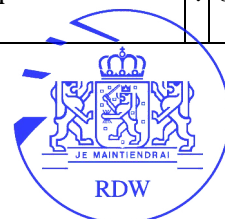
<u>Make</u>	<u>Type</u>	<u>Approval</u>
Ford	PJ2	E13-34R-026183 ..



	General information			
	Make and type of the vehicle	Ford Tourneo Connect L2		
	Vehicle category	M1		
	Sort of vehicle	Combi/stationwagon		
	Vehicle Identification Number	WF0UXXWPGUDD05417		
	Test conducted by	B. Smits		
	Place	Nuenen, The Netherlands		
	Date	17-9-2014		
	General requirements			
*	<i>For the transport of disabled persons in a wheelchair the vehicle has a lowering in the floor. Therefore a new stainless steel fuel tank has been constructed. See information document. All other original (stage 1) fuel components stay unchanged</i>			
5.1.	The fuel tank shall be made of a corrosion resistant material	:	pass/ fail	
	Kind of material	:	Stainless steel 304	
	In case of a steel fuel tank, anti corroding treatment	inside	:	-
		outside	:	-
5.3.	Any excess pressure or any pressure exceeding the working pressure shall be compensated automatically by suitable devices (vents, safety valves, etc.)	:	pass/ fail /*	
5.4.	The vents shall be designed in such a way as to prevent any fire risk. In particular, any fuel, which may leak when the tank(s) is (are) being filled shall not be able to fall on the exhaust system.	:	pass/ fail /*	
5.5.	The tank(s) shall not be situated in, or form, a surface of the occupant compartment or other compartment integral with it.	:	pass/ fail /*	
5.6.	A partition shall be provided to separate the occupant compartment from the tank(s).	:	pass/ fail /*	
5.7.	Every tank shall be securely fixed and so placed as to ensure that any fuel leaking from the tank or its accessories will escape to the ground and not into the occupant compartment during normal conditions of use.	:	pass/ fail /*	
5.8.	The filler hole shall not be situated in the occupant compartment, in the luggage compartment or in the engine compartment.	:	pass/ fail /*	
5.9.1.	The fuel filler cap shall be fixed to the filler pipe (see below)	:	pass/ fail /*	
5.9.1.1	The requirements of paragraph 5.9.1. will be deemed to be satisfied if provision is made to prevent excess evaporative emissions and fuel spillage caused by a missing fuel filler cap. This may be achieved using one of the following:			
5.9.1.1.1	An automatically open and closing, non-removable fuel filler cap	:	pass/ fail /*	
5.9.1.1.2	Design features which avoid excess evaporative emissions and fuel spillage in the case of a missing fuel filler cap	:	pass/ fail /*	



5.9.1.1.3	Any other provision which has the same effect. Examples may include, but are not limited to, a tether filler cap, a chained filler cap or one utilising the same locking key for the filler cap and for the vehicle's ignition. In this case, the key shall be removable from the filler cap only in the locked condition. However, the use of tethered or chained filler cap by itself is not sufficient for vehicles other than those of categories M1 and N1.	: pass/fail/*
5.10.	The fuel tank shall be installed in such a way as to be protected from the consequences of an impact to the front or to the rear of the vehicle; there shall be no protruding parts or sharp edges near the fuel tank	: pass/fail/*
5.11.	The fuel tank and its accessory parts shall be designed and installed in the vehicle in such a way that an ignition hazard due to static electricity shall be avoided	: pass/fail/*
	If necessary, measures for charge dissipation shall be provided	: ... /N/A
6.1.	Hydraulic test	
*	<i>For the transport of disabled persons in a wheelchair the vehicle has a lowering in the floor. Therefore a new stainless steel fuel tank has been constructed. See information document. All other original (stage 1) fuel components stay unchanged</i>	
	(See also paragraph 6.3.2. in case of fuel tank made of plastic material)	
	- Fuel tank filled with non-flammable liquid (i.e. water)	: yes, water
	- All accessories must be mounted on the tank	: pass/fail/*
	- The pressure shall be applied through the pipe that feeds the engine	: pass/fail/*
	- The tank shell shall not crack or leak after a minute, when a pressure has been applied to the fuel tank of double the working pressure and in any case not less than an excess pressure of 30 kPa	: pass/fail/*
6.2.	Overturn test	
6.2.1.	All accessories shall be mounted on the tank	: pass/fail/*
	Tank in normal position as mounted in the vehicle	: pass/fail/*
6.2.3./ 6.2.4.	Fuel tank 90 % filled with liquid (water is acceptable) (requirement: a maximum leakage of 30 g/min is allowed)	: yes, 54 litres
	- turned 90 ° to the right and remain in this position for 5 min	: 2,6 g/min
	- turned 90 ° further and remain in this position for 5 min	: 3,0 g/min
	Turn fuel tank back to its normal position	:
	- turned 90 ° to the left and remain in this position for 5 min	: 3,2 g/min
	- turned 90 ° further and remain in this position for 5 min	: 0 g/min



6.2.3./ 6.2.4.	Fuel tank 30 % filled with liquid (water is acceptable) (requirement: a maximum leakage of 30 g/min is allowed)	:	yes, 18 litres
	- turned 90 ° to the right and remain in this position for 5 min	:	1 g/min
	- turned 90 ° further and remain in this position for 5 min	:	0,2 g/min
	Turn fuel tank back to its normal position		
	- turned 90 ° to the left and remain in this position for 5 min	:	0 g/min
	- turned 90 ° further and remain in this position for 5 min	:	0,2 g/min
	Rotation rate for all successive increments of 90 °	:	[1-3 minutes]
Photo's			



6.3. Additional tests for tank(s) made of a plastic material

6.3.1. Impact resistance

- 6.3.1.1. The tank shall be filled to its rated capacity with a water-glycol mixture : pass/fail
- 6.3.1.2. The temperature of the tank during the test shall be $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$: ... °C
- 6.3.1.4. Selected impact points : see picture/
drawing
- 6.3.1.5. The tank shall be supported on opposite side of the impact : pass/fail
- No leakage shall occur during the impact test : pass/fail
- 6.3.1.6 Are all impacts performed on 1 tank (manufacturer's choice) : yes/no

6.3.2. *Mechanical strength*

The test of paragraph 6.1 shall be performed with the fuel tank filled to its rated capacity with water at a temperature of 53 °C. The tank shall not crack or leak

: pass/fail

6.3.3. *Fuel permeability*

6.3.3.1. Fuel used during the test

: reference fuel
(70/220/EEC)/
commercial
premium-grade/
diesel fuel

6.3.3.2. Tank filled for 50 %

: pass/fail

Stored, without being sealed, at 40 °C ± 2 °C until weight loss becomes constant
(ECE R34 requires a period of not more than 4 weeks)

: pass/fail

6.3.3.3. The weight loss during the next 8 weeks shall be less than 20 g per 24 hours

: pass/fail;
... g/24 hours

6.3.3.4. If the fuel tank fails paragraph 6.3.3.3. then the test shall be repeated at a temperature of 23 °C ± 2 °C.

The weight loss during the test shall be less than 10 g per 24 h

: pass/fail;
... g/24 hours

6.3.4. *Resistance to fuel*

The fuel tank shall still meet the requirements set out in paragraph 6.3.1. and 6.3.2. after the fuel tank has undergone testing according paragraph 6.3.4.

: pass/fail

6.3.5. *Resistance to fire*

6.3.5.2. Three tests must be made on different fuel tanks

: pass/fail

6.3.5.2.1/ Fuel used during the test

6.3.5.2.2.

: premium-grade
gasoline/
diesel fuel

6.3.5.2.3. Tank fixed as if on the vehicle

: pass/fail

All three tanks filled to 50 % of its rating

: pass/fail

6.3.5.4. Test set-up, pan dimensions and amount of fuel to burn according to the requirements

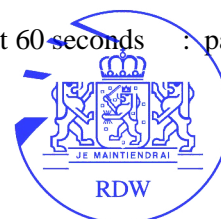
: pass/fail

Level of fuel not more than 8 cm underneath the pan side wall

6.3.5.5. Distance fuel level to tank same as distance road level to tank

6.3.5.8.1. Pre-heating at least 3 m distance from the tank, for at least 60 seconds

: pass/fail



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- 6.3.5.8.2. Direct exposure to flames for the duration of 60 seconds : pass/fail
- 6.3.5.8.3. Indirect exposure to flames for the duration of 60 seconds : pass/fail
- 6.3.5.9. There shall be no leakage of fuel after completion of the test : pass/fail
- 6.3.6. *Resistance to high temperature*
- 6.3.6.1. Installation of the tank, including venting system, simulating the installation as on the vehicle : pass/fail
- 6.3.6.2. Tank filled to 50 % of its rated capacity with water of 20 °C and exposed to a ambient temperature of 95 °C ± 2 °C : pass/fail
- 6.3.6.3. There shall be no seriously deformation or leakage : pass/fail
- 6.3.7. *Markings of the fuel tank*
- 6.3.7.1. The trade name or mark shall be indelible and legible on the fuel tank even when the tank is mounted on the vehicle : pass/fail

