

THE NETHERLANDS

**TEST REPORT**

Relating to the Liquid fuel tanks of motor vehicles in accordance with Part I  
of ECE Regulation number 34.03 Supplement 2.

**Test report number** : **RDW-34R-0123073 Cor.01**

0.1. Make : Renault / Mercedes-Benz / Nissan

0.2. Type : XFKT

0.3. Category of vehicle : M1 (SH)

0.4. Name and address of the manufacturer : Tripod Mobility B.V.  
Collseweg 10  
5674 TR Nuenen  
The Netherlands

**General** : The liquid fuel tanks and the installation of it as described in the document below  
has been inspected in accordance with the requirements laid down in Part I of the  
above-mentioned regulation.  
See documentation: XFKT-2018/858-00116, dated 28 November 2022

**Tests** : The tests have been carried out according to Part I of the above-mentioned  
regulation. The tested system/~~component/separate technical unit~~ is representative  
in terms of the type to be approved.

**Conclusion** : The type of vehicle ~~does not~~ ~~does~~ comply with the stated requirements of the  
above-mentioned regulation.

**Tests conducted on** : 21 June 2022

**By** : C.A.M. Konings

Zoetermeer (NL), 28 November 2022  
The test engineer,



RDW  
C.A.M. Konings



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**Test report number: RDW-34R-0123073 Cor.01**

**Reason for testing**

1<sup>st</sup> Stage vehicle modified to Wheelchair accessible vehicle.

**Explanation of modification(s)**

New fuel tank for stage 2 modification: SH (wheelchair accessible vehicle).

**Worst case description**

Single selection covers all variant/versions.

**General information of the representative test object**

Make and type of the vehicle : Renault / Mercedes-Benz / Nissan XFKT  
Vehicle category : M1 (SH)  
Sort of vehicle : AF (SH)  
Vehicle Identification Number : VF1RFK00X67910688

**General test information**

Inspected by : C.A.M. Konings  
Place : Nuenen (NL)  
Date : 21 June 2022

**Used test equipment**

| Item                | Required accuracy | Identification |
|---------------------|-------------------|----------------|
| Pressure            | ± 0.05 Bar        |                |
| Scale (for leakage) | ± 3 gr.           |                |

**Remarks**

For the transportation of persons in a wheelchair the vehicle has been modified with a lowered floor, therefor the stage 1 fuel tank has to be replaced. Relevant data and approval(s) valid for donor vehicle and completed vehicle if applicable:

|               |             |                      |
|---------------|-------------|----------------------|
| <u>Make</u>   | <u>Type</u> | <u>Approval</u>      |
| Renault       | RFK         | e2*2018/858*00001*.. |
| Mercedes-Benz | MFK         | e2*2018/858*00014*.. |



**8. Requirements for the installation of liquid fuel tanks**

**8.1. Fuel installation**

8.1.1. The vehicle shall be approved according to either Part I or IV of this Regulation : see appendix 1

8.1.2. The components of the fuel installation shall be adequately protected by parts of the frame or bodywork against contact with possible obstacles on the ground <sup>(1)</sup> : pass

8.1.3. The pipes and all other parts of the fuel installation shall be accommodated on the vehicle at sites protected to the fullest possible extent : pass  
Twisting and bending movements, and vibrations of the vehicle's structure or drive unit, shall not subject the components of the fuel installation to friction, compression or any other abnormal stress : pass

8.1.4. The connections of pliable or flexible pipes with rigid parts of components of the fuel installation shall be so designed and constructed as to remain leak-proof under the various conditions of use of the vehicle, despite twisting and bending movements and despite vibrations of the vehicle's structure or drive unit : pass

8.1.5. If the filler hole is situated on the side of the vehicle, the filler cap shall not, when closed, project beyond the adjacent surfaces of the bodywork : see 1<sup>st</sup> stage

**8.2. Electrical installation**

8.2.1. Electric wires other than wires accommodated in hollow components shall be attached to the vehicle's structure or walls or partitions near which they lead : see 1<sup>st</sup> stage  
The points at which they pass through walls or partitions shall be satisfactorily protected to prevent cutting of the insulation : see 1<sup>st</sup> stage

8.2.2. The electrical installation shall be so designed, constructed and fitted that its components are able to resist the corrosion phenomena to which they are exposed : see 1<sup>st</sup> stage

<sup>(1)</sup> Such protection shall not be required if the components beneath the vehicle are further from the ground than the part of the frame or bodywork in front of them

## Appendix 1 (UNECE R34.03 Part I)

### 5. Requirements for liquid fuel tanks

- 5.1. The fuel tank shall be made of a corrosion resistant material : pass; RVS  
 Kind of material of filler cap assembly : OEM  
 In case of a steel fuel tank, anti corroding treatment inside : N.A.  
 outside : N.A.
- 5.2. Tanks shall satisfy, when equipped with all accessories, which are normally attached to them, the leakage tests carried out according to paragraph 6.1 at a relative internal pressure equal to double the working overpressure, but in any event not less than an overpressure of 0.3 bar : pass  
 Tanks made of a plastic material are considered as meeting this requirement if they have passed the test described in Annex 5, paragraph 2 : N.A.
- 5.3. Any excess pressure or any pressure exceeding the working pressure shall be compensated automatically by suitable devices (vents, safety valves, etc.) : pass
- 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 : see 1<sup>st</sup> stage
- 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
- 5.6. A partition shall be provided to separate the occupant compartment from the tank(s) : pass
- 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
- 5.8. The filler hole shall not be situated in the occupant compartment, in the luggage compartment or in the engine compartment : see 1<sup>st</sup> stage
- 5.9. The fuel shall not escape through the tank cap or through the devices provided to compensate excess pressure during the foreseeable course of operation of the vehicle. In the case of overturning of the vehicle, a drip may be tolerated provided that it does not exceed 30 g/min; this requirement shall be verified during the test prescribed in paragraph 6.2.
- 5.9.1. The fuel filler cap shall be fixed to the filler pipe (see below) : see 1<sup>st</sup> stage
- 5.9.1.1 The requirements of paragraph 5.9.1. shall 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 opening and closing, non-removable fuel filler cap : see 1<sup>st</sup> stage
- 5.9.1.1.2 Design features which avoid excess evaporative emissions and fuel spillage in the case of a missing fuel filler cap : see 1<sup>st</sup> stage



- 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 : see 1<sup>st</sup> stage
- 5.9.2. The seal between the cap and the filler pipe shall be retained securely in place. The cap shall latch securely in place against the seal and filler pipe when closed. : see 1<sup>st</sup> stage
- 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, etc., near the fuel tank : pass
- 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
- If necessary, measures for charge dissipation shall be provided : N.A.
- 5.12. The fuel tank(s) shall be made of a fire-resistant metallic material. It (they) may be made of a plastic material provided the requirements of Annex 5 are complied with : pass



## 6. Tests of liquid fuel tanks

### 6.1. Hydraulic test

(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) : pass
- All accessories must be mounted on the tank : pass
- The pressure shall be applied through the pipe that feeds the engine : pass
- 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 (0.3 Bar) : pass

### 6.2. Overturn test

- 6.2.1. All accessories shall be mounted on the tank : pass
- Tank in normal position as mounted in the vehicle : pass

- 6.2.3./ 6.2.4. Fuel tank 90 % filled with liquid (water is acceptable) : 48.6 litres
- (requirement: a maximum leakage of 30 g/min is allowed)

- Turned 90 ° to the right and remain in this position for 5 min. (90° ± 20°) : 3.2 g/min
- Turned 90 ° further and remain in this position for 5 min. (180° ± 20°) : 0.0 g/min

Turn fuel tank back to its normal position

- Turned 90 ° to the left and remain in this position for 5 min. (90° ± 20°) : 0.0 g/min
- Turned 90 ° further and remain in this position for 5 min. (180° ± 20°) : 1.8 g/min

- 6.2.3./ 6.2.4. Fuel tank 30 % filled with liquid (water is acceptable) : 16.2 litres
- (requirement: a maximum leakage of 30 g/min is allowed)

- Turned 90 ° to the right and remain in this position for 5 min. (90° ± 20°) : 1.0 g/min
- Turned 90 ° further and remain in this position for 5 min. (180° ± 20°) : 0.4 g/min

Turn fuel tank back to its normal position

- Turned 90 ° to the left and remain in this position for 5 min. (90° ± 20°) : 0.0 g/min
- Turned 90 ° further and remain in this position for 5 min. (180° ± 20°) : 1.2 g/min

Rotation rate for all successive increments of 90 ° : [1-3 minutes]

