

**TEST REPORT**

Concerning the masses and dimensions of motor vehicles and their trailers in accordance with Commission Regulation (EU) number 1230/2012 as last amended by Commission Regulation (EU) number 2019/1892 and as specified by Regulation (EU) 2018/858, Annex II, Part III, Appendix 3

**Test report number** : **RDW-1230/2012-0109031**

0.1. Make : FORD

0.2. Type : PJ2T

0.4. Category of vehicle : M1 (SH; Wheelchair accessible vehicle)

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

**General** : The type of vehicle complies with the requirements laid down in:  
Annex I part A of above-mentioned Commission Regulation (EU) and as specified by Regulation (EU) 2018/858, Annex II, Part III, Appendix 3  
See documentation: "PJ2T-2007/46-0921", dated: 15 November 2021

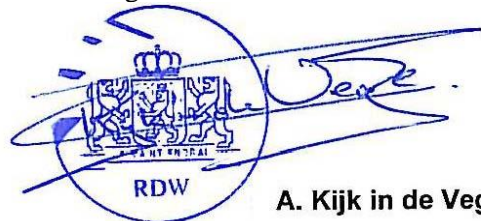
**Tests** : The tests have been carried out in accordance with the above-mentioned Commission Regulation (EU) and as specified by Regulation (EU) 2018/858, Annex II, Part III, Appendix 3  
See page 2

**Conclusion** : The type of vehicle does/~~does not~~ comply with the requirements and there ~~are~~/are no objections to granting the approval under the above-mentioned Commission Regulation (EU).

**Tests conducted on** : 15 November 2021

**By** : A. Kijk in de Vegte

Zoetermeer, 15 November 2021,  
The test engineer,



**A. Kijk in de Vegte**

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**List of attached diagrams**

--	Diagrams
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**Reason for testing**

Update with new & modified TVV's.

**Explanation of modification(s)**

N/A

**Worst case selection**

N/A; Considering the stated masses, new measurements are not necessary

**Used test equipment**

Item	Identification number (make and type)	Calibration papers available
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## **Remarks**

This report is a supplement of previously issued report RDW-92/21-0022477, RDW-92/21-0036851, RDW-1230/2012-0032119, RDW-1230/2012-0044218, RDW-1230/2012-0047963, RDW-1230/2012-0052236, RDW-1230/2012-0059145, RDW-1230/2012-0074068, RDW-1230/2012-0087154, RDW-1230/2012-0090930 and RDW-1230/2012-0101232 and can only be used in combination with it.

Number of rear passengers (second seat row) may need to be reduced when transporting a wheelchair with passenger with a mass of 160 kg.

In all load conditions there is a realistic position for the additional mass of load in excess (cabin) which makes it possible to comply with the regulations as regards load distribution.

For all not by the modification effected items see approval(s)/ test report(s) listed in stage 1 approval. Relevant data and approval(s) valid for donor vehicle and completed vehicle if applicable:

<u>Make</u>	<u>Type</u>	<u>Approval</u>
FORD	PJ2	e1*2001/116*0207*??

## Technical requirements

1. **Maximum authorised dimensions** : see stage 1 approval
2. **Mass distribution**
  - 2.1. The sum of the technically permissible maximum mass on the axles shall not be less than the technically permissible maximum laden mass of the vehicle : pass/~~fail~~
  - 2.2. The technically permissible maximum laden mass of the vehicle shall not be less than the mass of the vehicle in running order plus the mass of the passengers plus the mass of the optional equipment plus the mass of the coupling if not included in the mass in running order : pass/~~fail~~
  - 2.3. If the vehicle is laden to the technically permissible maximum laden mass, the mass on each axle shall not exceed the technically permissible maximum mass on that axle : pass/~~fail~~
  - 2.4. If the vehicle is laden to the technically permissible maximum laden mass, the mass on the front axle shall in no event be less than 30 % of the technically permissible maximum laden mass of the vehicle : pass/~~fail~~
    - 2.4.1. If the vehicle is laden to the technically permissible maximum laden mass plus the technically permissible maximum mass at the coupling point, the mass on the front axle shall in no event be less than 20 % of the technically permissible maximum laden mass of the vehicle : pass/~~fail~~
  - 2.5. If a vehicle is equipped with removable seats, the verification procedure shall be limited to the condition with the maximum number of seating positions : pass/~~fail~~/N/A
  - 2.6. For the purposes of verifying the requirements laid down in points 2.2, 2.3 and 2.4
    - (a) The seats shall be adjusted as prescribed in point 2.6.1
    - (b) the masses of the passengers, the pay-mass and the mass of the optional equipment shall be distributed as prescribed in points 2.6.2 to 2.6.4.2.3.
  - 2.6.2. Distribution of the mass of passengers
    - 2.6.2.1. The mass representing each passenger shall be 75 kg : pass/~~fail~~
    - 2.6.2.2. The mass for each passenger shall be located at the seating reference point (i.e. the 'R point' of the seat) : pass/~~fail~~



- 2.6.2.3. In the case of special purpose vehicle, the requirement of point 2.6.2.2 shall apply mutatis mutandis (for example, mass of an injured person lying on the stretcher in the case of an ambulance).

For the purposes of calculations, the mass of the wheel-chair including the user is assumed to be 160 kg <sup>(\*)</sup> : pass/~~fail~~

The mass is to be concentrated at the P point of the surrogate wheelchair in its travelling position declared by the manufacturer <sup>(\*)</sup> : pass/~~fail~~

Any limitation in the passenger capacity resulting from the use of wheelchair(s) is to be recorded in the owner's handbook, on side 2 of the EU type-approval certificate and in the certificate of conformity <sup>(\*)</sup> : pass/~~fail~~

\* according footnote W<sub>8</sub>, Regulation (EU) 2018/858, Annex II, Part III, Appendix 3

- 2.6.3. Distribution of the mass of the optional equipment : checked

- 2.6.4. Distribution of the pay-mass

2.6.4.1. M1 vehicles

- 2.6.4.1.1. The pay-mass shall be distributed in accordance with the manufacturer's specifications in agreement with the technical service : pass/~~fail~~

- 2.6.4.1.2. As regards motor caravans the minimum pay-mass (PM) shall meet the following requirement:  
- PM in kg  $\geq 10 (n+L)$  : N/A

- 2.6.4.2. N1 vehicles : N/A

- 2.7. Additional requirements where the vehicle is capable of towing a trailer : N/A

**3. Towable mass and mass at the coupling: no towable mass permitted** : N/A

- 3.1. The following shall apply concerning the technically permissible maximum towable mass:

3.1.1. Trailer fitted with a service braking system

- 3.1.1.1. The technically permissible maximum towable mass of the vehicle shall not exceed the lowest of the following values : pass/~~fail~~/N/A  
- the technically permissible maximum towable mass based on the construction features and the strength of the coupling  
- the technically permissible maximum laden mass of the towing vehicle  
- 1.5 times the technically permissible maximum laden mass of the towing vehicle in the case of an off-road vehicle

- 3.1.1.2. However, the technically permissible maximum towable mass shall in no case exceed 3500 kg : pass/~~fail~~/N/A



**3.1.2. Trailer without a service braking system**

3.1.2.1. The permissible towable mass shall not exceed the lowest of the following values : ~~pass~~/fail/N/A

- the technically permissible maximum towable mass based on the construction features and the strength of the coupling
- half of the mass in running order of the towing vehicle

3.1.2.2. The technically permissible maximum towable mass shall in no case exceed 750 kg : ~~pass~~/fail/N/A

3.2. The technically permissible maximum mass at the coupling point shall not be less than 4 % of the maximum permissible towable mass and not be less than 25 kg : ~~pass~~/fail/N/A

3.3. The manufacturer shall specify in the owner's manual the technically permissible maximum mass at the coupling point, the mounting points of the coupling on the towing vehicle and the maximum permissible rear overhang for the coupling point : ~~pass~~/fail/N/A

3.4. The technically permissible maximum towable mass shall not be defined by reference to the number of passengers : ~~pass~~/fail/N/A

**4. Mass of the combination**

The technically permissible maximum laden mass of the combination shall not exceed the sum of the technically permissible maximum laden mass plus the technically permissible maximum towable mass : ~~pass~~/fail/N/A

**5. Hill starting ability**

5.1. The towing vehicle shall be able to start the vehicle combination five times on an uphill gradient of at least 12 % within five minutes : ~~pass~~/fail/N/A

## Appendix 1: Calculations of the mass distribution

### General information of the tested vehicle

- Vehicle Identification Number	--
- Type	PJ2T
- Variant	ZTGA1DEM
- Version	F6CCBS??DA1CW

### Weights

- mass in running order (MRO) (2.6)	1909 kg
- front axle mass (MRO) (2.6.1.)	1060 kg
- rear axle mass (MRO) (2.6.1.)	849 kg
- technically permissible maximum laden mass (2.8)	2445 kg
- technically permissible maximum mass on front axle (2.9)	1270 kg
- technically permissible maximum mass on rear axle (2.9)	1315 kg
- mass of the coupling device	0 kg
- maximum vertical load on the coupling device	0 kg
- total mass of the optional equipment	0 kg
- total mass of the optional equipment on front axle	0 kg
- total mass of the optional equipment on rear axle	0 kg

### Dimensions

- Wheel base	3062 mm
- from front axle to R-point front passenger	1347 mm
- from front axle to R-point second row outboard passenger	2164 mm
- from front axle to R-point second row center passenger	2164 mm
- from front axle to R-point third row outboard passenger	2895 mm
- from front axle to R-point wheelchair-occupant	3187 mm
- from front axle to centre of luggage compartment/cargo bed	1600 mm
- from front axle to centre of gravity coupling device	0 mm
- rear overhang of the coupling device	0 mm

### Number of passengers

- on the first row	1
- on the second row outboard	3
- on the second row center	1
- on the third row outboard	1
- wheelchair + occupant (160 kg)	0

### Measured weights

	front axle (kg)	rear axle (kg)	total (kg)
- unladen mass of the vehicle as measured	--	--	--
- mass of the optional equipment fitted to the test vehicle	--	--	--
- calculated unladen mass without options	--	--	--

Does the manufacturer indicate the possibility of exceeding the technically permissible rear axle/maximum laden mass:

no

- technically permissible maximum laden mass of the vehicle when towing a trailer

kg

- technically permissible maximum laden mass on rear axle when towing a trailer

kg

### Calculated mass distribution

	front axle (kg)	rear axle (kg)	total (kg)
- mass in running order (MRO)	1060,0	849,0	1909,0
- mass in running order (MRO) + optional equipment (maximum actual mass)	1060,0	849,0	1909,0
- mass in running order (MRO) + optional equipment + all seats occupied (or seats partly occupied + wheelchair and occupant)	1194,1	1164,9	2359,0
- mass in running order (MRO) + optional equipment + all seats occupied + coupling	N/A	N/A	N/A
- mass in running order (MRO) + optional equipment + all seats occupied + coupling, trailer operation	N/A	N/A	N/A

- pay-mass without coupling (kg)	86
- pay-mass with coupling (kg)	86
- pay-mass with load on coupling device (kg)	86

Not required (indicative) for category M1 vehicles; all pay-mass located in the trunk/cargo bed	front axle (kg)	rear axle (kg)	total (kg)
- Laden condition including pay-mass	1235,1	1209,9	2445,0
- Laden condition (vehicle equipped with coupling device); including pay-mass	N/A	N/A	N/A
- Laden condition in trailer operation; including pay-mass	N/A	N/A	N/A



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## Weights

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- technically permissible maximum laden mass (2.8)	2445 kg
- technically permissible maximum mass on front axle (2.9)	1270 kg
- technically permissible maximum mass on rear axle (2.9)	1315 kg
- mass of the coupling device	0 kg
- maximum vertical load on the coupling device	0 kg
- total mass of the optional equipment	0 kg
- total mass of the optional equipment on front axle	0 kg
- total mass of the optional equipment on rear axle	0 kg

## Dimensions

- Wheel base	3062 mm
- from front axle to R-point front passenger	1347 mm
- from front axle to R-point second row outboard passenger	2164 mm
- from front axle to R-point second row center passenger	2164 mm
- from front axle to R-point third row outboard passenger	2895 mm
- from front axle to R-point wheelchair+occupant	3187 mm
- from front axle to centre of luggage compartment/cargo bed	1600 mm
- from front axle to centre of gravity coupling device	0 mm
- rear overhang of the coupling device	0 mm

## Number of passengers

- on the first row	1
- on the second row outboard	3
- on the second row center	1
- on the third row outboard	0
- wheelchair + occupant (160 kg)	1

## Measured weights

	front axle (kg)	rear axle (kg)	total (kg)
- unladen mass of the vehicle as measured	--	--	--
- mass of the optional equipment fitted to the test vehicle	--	--	--
- calculated unladen mass without options	--	--	--

Does the manufacturer indicate the possibility of exceeding the technically permissible rear axle/maximum laden mass:	no
- technically permissible maximum laden mass of the vehicle when towing a trailer	kg
- technically permissible maximum laden mass on rear axle when towing a trailer	kg

## Calculated mass distribution

	front axle (kg)	rear axle (kg)	total (kg)
- mass in running order (MRO)	1060,0	849,0	1909,0
- mass in running order (MRO) + optional equipment (maximum actual mass)	1060,0	849,0	1909,0
- mass in running order (MRO) + optional equipment + all seats occupied (or seats partly occupied + wheelchair and occupant)	1183,5	1260,5	2444,0
- mass in running order (MRO) + optional equipment + all seats occupied + coupling	N/A	N/A	N/A
- mass in running order (MRO) + optional equipment + all seats occupied + coupling, trailer operation	N/A	N/A	N/A

- pay-mass without coupling (kg)	1
- pay-mass with coupling (kg)	1
- pay-mass with load on coupling device (kg)	1

Not required (indicative) for category M1 vehicles; all pay-mass located in the trunk/cargo bed	front axle (kg)	rear axle (kg)	total (kg)
- Laden condition including pay-mass	1183,9	1261,1	2445,0
- Laden condition (vehicle equipped with coupling device); including pay-mass	N/A	N/A	N/A
- Laden condition in trailer operation; including pay-mass	N/A	N/A	N/A

