

**TOW BAR M-235**  
**Mercedes Vito**  
(03/1996 - 08/2003 r.)  
**FITTING AND OPERATION MANUAL.**

**Cat. No.M-235**

**DESTINATION**

Tow bar **M-235** for a **Mercedes Vito** is designed for towing a trailer. This ball hook has a current certification of approval authorizing the product with **E20** certification sign.

**FITTING CONDITIONS**

Tow bar **M-235** can be used and operated in a car with proper technical conditions of body elements. Those parts cannot be mechanically damaged. The ball hook has to be installed and operated in a car according to this instruction. All bolts and nuts in ball hook have to be screwed down with proper torque (Mo). Torque values are given below:

M8	-	25 (Nm)	M12	-	85 (Nm)
M10	-	50 (Nm)	M16	-	200 (Nm)

**OPERATION CONDITIONS**

The tow bar **M-235** has a rating plate describing correct and safe loads of the hook:

Typ: <b>M-235</b>	The tow bar for <b>Mercedes Vito</b>
<b>A50-1</b>	Tow bar class ( compressing device )
<b>E20 55R-01 0925</b>	Tow bar certification of approval number
<b>D = 11,7 kN</b>	Theoretical related force working on a ball hook
<b>S = 75 kg</b>	Max permissible vertical load of the hook ball
<b>R = 2000 kg</b>	Max permissible load of towing trailer

During operating individual elements of ball hook should be kept in a proper technical condition and protected from corrosion. The trailer must be linked with an elastic joint with proper durability ( cord, chain ) while towing. It is necessary to check periodically bolt joints during operating the ball hook. If screws are eased, it is necessary to screw them down.

**FITTING**

The tow bar **M-235** for **Mercedes Vito** is made up of the following elements:

1.Tow bar mainfame	- 1 piece	7. Flat washer 13,0	- 6 pieces
2.Tow ball	- 1 piece	8. Flat washer 17,0	- 2 pieces
3.Distance sleeve 27,0/ 12,5x60	- 6 pieces	9. Spring washer 12,2	- 6 pieces
4.Special washer 40/ 12,5x2,5	- 6 pieces	10. Spring washer 16,3	- 2 pieces
5.Bolt M16x45	- 2 pieces	11.Nut M12	- 6 pieces
6.Bolt M12x100	- 6 pieces	12.Nut M16	- 2 pieces

Follow the general directions in order to fit **M-235** tow bar properly:

- 1.Rear bumper cutting is not required.
- 2.Dismantle a tow bar into kit form elements.
- 3.Dismantle the spare wheel's supports.
- 4.Put the distance sleeves 27,0/ 12,5x60 (3) into existing openings in the longitudinal elements of the car's frame (three sleeves per each opening).
- 5.Put the tow bar mainfame (1) into longitudinal elements of the frame, then screw (including distance sleeves 27,0/ 12,5x60 (3)) them down with: bolts M12 x100 (6), special washers 40,0/ 12,5x2,5 (4), flat washers 13,0 (7), spring washers 12,2 (9) and nuts M12 (11).
6. Assemble: the spare wheel's supports, rear bumper.
- 7.Screw tow ball (2) to tow bar mainfame (1) using bolts M16x45 (5) together with flat washers 17,0 (8), spring washers 16,3 (10) and nuts M16(12).

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8.Check if all fixing bolts and nuts are correctly tightened.

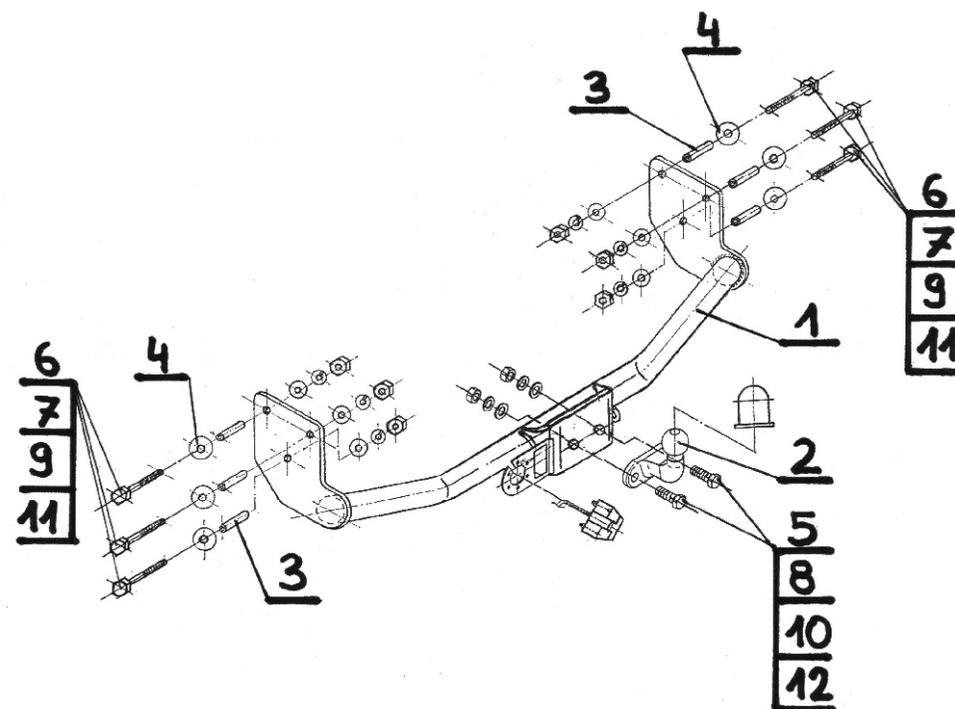
**Obeying this instruction assures correct montage and the tow bar  
Operating in a Mercedes Vito.**

After assembling of the tow bar **M-235** you have to get entry in cars **registration book** in a quality control station.

**CAUTION:**

All mechanical damages of tow bar excludes its further exploitation. Damaged ball hook **cannot be repaired**. In case of braking the rules of montage or unproper usage manufacturer **do not take responsibility** for arised damages.

**MONTAGE DIAGRAM:**



**NOTE:**

Bunch of wires is not included (in total price).

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