

**DESTINATION**

Tow bar **M-348** for a **Mitsubishi Pajero LWB** is designed for towing a trailer. This ball hook has a current certification of approval authorizing the product with **e4** certification sign.

**FITTING CONDITIONS**

Tow bar **M-348** 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-348** has a rating plate describing correct and safe loads of the hook:

Typ: <b>M-348</b>	The tow bar for <b>Mitsubishi Pajero LWB</b>
<b>A50-X</b>	Tow bar class ( compressing device )
<b>e4</b> <b>00 - 3812</b>	Tow bar certification of approval number
<b>D = 15,8 kN</b>	Theoretical related force working on a ball hook
<b>S = 135 kg</b>	Max permissible vertical load of the hook ball
<b>R = 3300 kg</b>	Max permissible load of towing trailer

**D - force is calculated using the following formula:**

$$D = g \times \frac{T \times R}{T + R} \text{ kN}$$

**T**-technically permissible maximum mass in tonnes of the towing vehicle (also towing tractors) including, if necessary, the vertical load of a centrale axle trailer.  
**R**-technically permissible maximum mass in tonnes of the full trailer with drawgal free to move in the vertical plane or of the semi-trailer.  
**g**-acceleration due to gravity (assumed as 9,81 m/s<sup>2</sup>)

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-348** for **Mitsubishi Pajero LWB** is made up of elements as follows :

- |                              |            |                        |            |
|------------------------------|------------|------------------------|------------|
| 1. Towbar mainframe          | - 1 piece  | 10. Bolt M12x40        | - 10pieces |
| 2. Forged tow ball           | - 1 piece  | 11. Bolt M12x110       | - 4 pieces |
| 3. Right support set         | - 1 piece  | 12. Bolt M16x50        | - 2 pieces |
| 4. Left support set          | - 1 piece  | 13. Spring washer 12,2 | - 22pieces |
| 5. Right reinforcement       | - 1 piece  | 14. Spring washer 16,3 | - 2 pieces |
| 6. Left reinforcement        | - 1 piece  | 15. Flat washer 13,0   | - 18pieces |
| 7. Special washer 30/ 12,5x3 | - 4 pieces | 16. Flat washer 17,0   | - 2 pieces |
| 8. Special washer 40/ 12,5x3 | - 4 pieces | 17. Nut M12            | - 8 pieces |
| 9. Bolt M12x(1,25)x40        | - 8 pieces | 18. Nut M16            | - 2 pieces |

Follow the general directions in order to fit **M-348** tow bar properly:

1. Rear bumper removing and cutting **is not required**.
2. Remove double towing lug from chassis rail (will no longer be used).
3. Remove plastic shield at the right wheel arch.
4. Loosen exhaust silencer.
5. Remove plastic grille under air conditioner.
6. Remove air conditioner.
7. Put (3) to the inside of the right chassis rail and tight loosely using (11) (fitting from the outside of the chassis rail) with (8), (13) and (9) (fitting from the inside of the support) with (15) and (13).
8. Put (4) to the inside of the left chassis rail and follow directions similarly as in point 7.
9. Put (5) and (6) to the right and left chassis rail from the downside and tight loosely using (9) with (15) and (13). Attach (5) and (6) with (3) and (4) using (10) with (7) (fitting from the outside) and (15), (13) and (17) (fitting from the outside).
10. Insert (1) between (3) and (4) and tight loosely using (10) with (15), (13) and (17).
11. Attach (2) to the tow ball holder using (12) with (16), (14) and (18).
12. Tighten all nuts and bolts to the torque staked in the table.
13. Refit all elements that were removed (points 2-5).

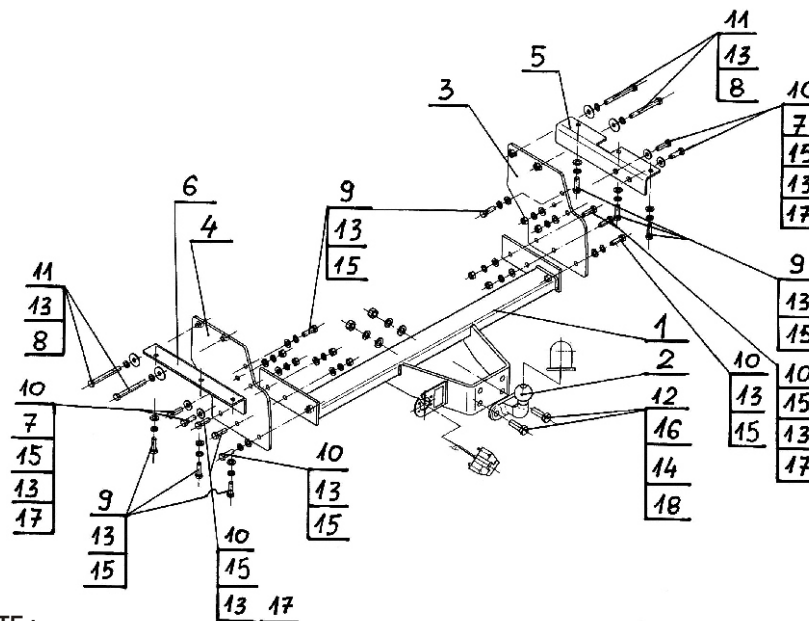
**Obeying this instruction assures correct montage and the tow bar operating in a Mitsubishi Pajero LWB.**

After assembling of the tow bar **M-348** you have to get entry in cars **registration book** in a quality control station .

**CAUTION :**

Check if all bolts and nuts are correctly tightened after 1000km. Keep tow ball clean, grease and cased. 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).