

**TOW BAR FOR
Mitsubishi L200**
(version with an extended load-carrying body)
(09/2009 -)

FITTING AND OPERATION MANUAL

Cat. No.M-337

DESTINATION

Tow bar **M-337** 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-337** 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-337** has a rating plate describing correct and safe loads of the hook:

Typ: M-337	Tow bar catalogue number.
A50-X	Tow bar class (compressing device)
E20 55R-01 4229	Tow bar certification of approval number
D = 14,72 kN	Theoretical related force working on a ball hook
S = 120 kg	Max permissible vertical load of the hook ball
R = 3000 kg	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/s²)

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-337** is made up of the following elements:

- | | | | |
|-----------------------------------|------------|-------------------------------|-------------|
| 1. Towbar mainframe | - 1 piece | 9. Special washer Ø30/Ø12,5x3 | - 20 pieces |
| 2. Tow ball (ACS-6042) | - 1 piece | 10. Plug | - 2 pieces |
| 3. Tow ball socket (ACS) | - 1 piece | 12. Bolt M12x25 | - 5 pieces |
| 4. Electrical socket plate | - 1 piece | 11. Bolt M12x40 | - 14 pieces |
| 5. Strengthening | - 2 pieces | 13. Bolt M12x45 | - 1 piece |
| 6. Connector | - 2 pieces | 14. Spring washer Ø12,2 | - 20 pieces |
| 7. Angle bar | - 2 pieces | 15. Round washer Ø13,0 | - 6 pieces |
| 8. Distance sleeve Ø17,3/Ø12,5x15 | - 1 piece | 16. Nut M12 | - 6 pieces |

Follow the general directions in order to fit **M-337** towbar properly:

1. Rear bumper cutting and removing is not required.
2. Remove the rear step.

3. Remove the tubular bumper (will not be reused).
4. Attach the corps (1) to the external parties of stringers (in place of the unscrewed tubular bumper) and screw on:
- For models „Single Cab” and „Double Cab” at points A,B,C,D using bolts M12x40 (12) with strengthenings (5) (inserted in internal stringers), washers Ø30/Ø12,5x3 (9), spring washers Ø12,2 (14) and nuts M12 (16) (according to the scheme). Tighten angle bars (7) to the towbar mainframe supports at points F and screw with the stringers from the bottom using bolts M12x40 (12) with connectors (6) (inserted inside the stringers), washers Ø30/Ø12,5x3 (9), spring washers Ø12,2 (14).
- For models „Club Cab” at points A,B,C,E using bolts M12x40 (12) with strengthenings (5) (inserted in internal stringers), washers Ø30/Ø12,5x3 (9), spring washers Ø12,2 (14) and nuts M12 (16) (according to the scheme). Tighten angle bars (7) to the towbar mainframe at points G and screw with the stringers from the bottom using bolts M12x40 (12) with connectors (6) (inserted inside the stringers), washers Ø30/Ø12,5x3 (9), spring washers Ø12,2 (14).
5. Install the rear step to the car using the points H,I inside the brackets.
6. Attach the tow ball socket (3) and electrical plate (4) to the towbar mainframe (1) using bolts M12x25 (11) - 5 pcs., M12x45 (13) - 1 pc., with spring washers Ø12,2 (14), round washers Ø13,0 (15) and sleeve Ø17,3/Ø12,5x15 (8) (according to the drawing).
7. Plug the ball of tow bar into the socket following the attached instructions.

Caution:

Different types of (2) may be attached to the (1) only if:

1. The adapted tow has its own information label with homologation number
2. D and S values are equal or higher than (1) values.
3. Tow ball centre-point is in accordance with the drawing.

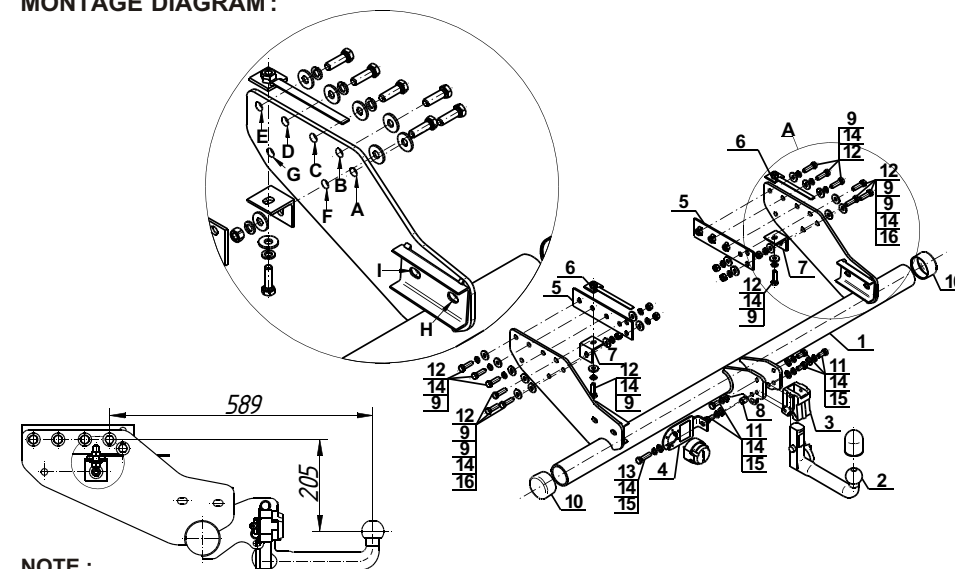
Obeying this instruction assures correct montage and the M-337 tow bar operating.

After assembling of the tow bar **M-337** 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 improper usage manufacturer **do not take responsibility** for arised damages.

MONTAGE DIAGRAM:



NOTE:

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