

TOW BAR FOR

Mazda 3 (3/4/5D) (2003 - 2009)

Mazda 3 (5D) (BL) (2009 - 2014)

FITTING AND OPERATION MANUAL

Cat. No.M-020

DESTINATION

Tow bar **M-020** 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-020** 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-020** has a rating plate describing correct and safe loads of the hook:

Typ: M-020	Tow bar catalogue number.
A-50X	Tow bar class (compressing device)
e20 00-1515	Tow bar certification of approval number
D = 8,7 kN	Theoretical related force working on a ball hook
S = 75 kg	Max permissible vertical load of the hook ball
R = 1765 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-020** is made up of the following elements:

- | | | | |
|-----------------------------------|------------|-------------------------|------------|
| 1. Towbar mainframe | - 1 piece | 8. Bolt M12x25 | - 4 pieces |
| 2. Tow ball (ACS-3002) | - 1 piece | 9. Bolt M12x60 | - 1 piece |
| 3. Tow ball socket (ACS) | - 1 piece | 10. Spring washer Ø10,2 | - 4 pieces |
| 4. Electrical socket plate | - 1 piece | 11. Spring washer Ø12,2 | - 5 pieces |
| 5. Special washer Ø40/Ø10,5x3 | - 4 pieces | 12. Flat washer Ø13,0 | - 5 pieces |
| 6. Distance sleeve Ø17,3/Ø12,5x25 | - 1 piece | 13. Nut M12 | - 1 piece |
| 7. Bolt M10x40 | - 4 pieces | | |

Follow the general directions in order to fit **M-020** towbar properly:

1. Rear bumper removing is required (cutting require Mazda 3 (4D) (2003 - 2009) and Mazda 3 (5D) (2009 - 2014)).
2. Remove the rear bumper with it reinforcement (reinforcement will not be reused).
3. Put the towbar mainframe (1) inside to the stringers and screw on at factory points using bolts M10x40 (7) with spring washers Ø10,2 (10) and special washers Ø40/Ø10,5x3 (5).

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4. Attach the electrical socket plate (4) to the towbar mainframe (1) using bolt M12x60 (9) with distance sleeve (6), flat washer Ø13,0 (12), spring washer Ø12,2 (11) and nut M12 (13).
5. Attach the tow ball socket (3) to the towbar mainframe (1) using bolts M12x25 (8) with flat washers Ø13,0 (12) and spring washers Ø12,2 (11).
6. For Mazda 3 (4D) (2003 - 2009) make the undercut according to the figure 1.
For Mazda 3 (5D) (2009 - 2014) make the undercut according to the figure 2.
7. Install the rear bumper to the car.
8. Attach the ball (2) to the socket (3) in accordance with the attached instruction.

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-020 tow bar operating.

After assembling of the tow bar **M-020** 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 :

Fig.2

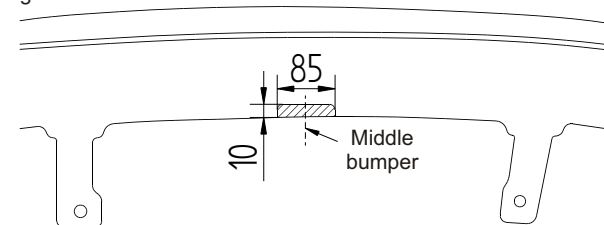
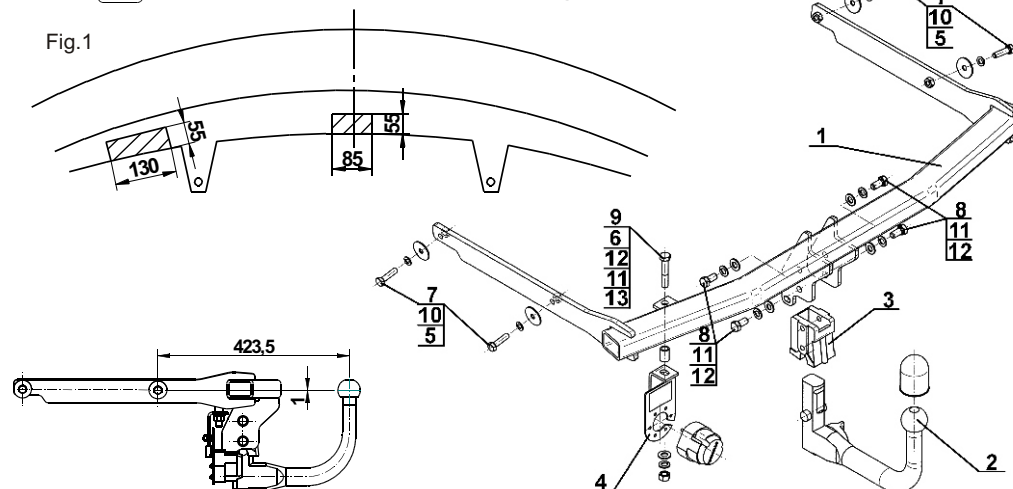


Fig.1



NOTE :

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

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