

## TOW BAR F-229

**FORD Focus C-Max (2003 - r.) /  
FORD Focus (3/5D) (10/2004 - r.)**

### FITTING AND OPERATION MANUAL.

**Cat. No.F-229**

#### DESTINATION

Tow bar **F-229** for a **Ford Focus (C-Max) / Ford Focus (3/5D)** 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 **F-229** 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 (M<sub>o</sub>). Torque values are given below:

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

#### OPERATION CONDITIONS

The tow bar **F-230** has a rating plate describing correct and safe loads of the hook:

Typ: <b>F-229</b> <b>A50-X</b> <b>0117-00</b> D = 8,5 kN S = 75 kg R = 1500 kg	The tow bar for <b>Ford Focus (C-Max) / Ford Focus (3/5D)</b> Tow bar class ( compressing device ) Tow bar certification of approval number Theoretical related force working on a ball hook Max permissible vertical load of the hook ball Max permissible load of towing trailer
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**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 **F-229** for **Ford Focus (C-Max) / Ford Focus (3/5D)** is made up of the following elements:

1. Towbar mainfame	- 1 piece	6. Bolt M12x65	- 2 pieces
2. Tow ball	- 1 piece	7. Spring washer 10,2	- 4 pieces
3. Electrical plate	- 1 piece	8. Spring washer 12,2	- 2 pieces
4. Special washer 40/ 10,5x2,5	- 4 pieces	9. Flat washer 13,0	- 2 pieces
5. Bolt M10x40	- 4 pieces	10. Nut M12	- 2 pieces

Follow the general directions in order to fit **F-229** tow bar properly:

1. Rear bumper cutting is required.
2. Take the towbar to pieces.

3. Turn the strengthening of the back strip from the rear bumper. It will not be assembled again after putting the tow ball on.
4. Put (1) into the chassis rail and screw using (5) with (4) and (7).
5. Make an undercut in the rear bumper (size ~ 45x100mm). Put the bumper on and screw it on.
6. Screw (2) to (1) using (6) and (9), (8) and (10), and at the same time screw (3) to the left side of the ball.
7. Check if all fixing bolts and nuts are correctly tightened.

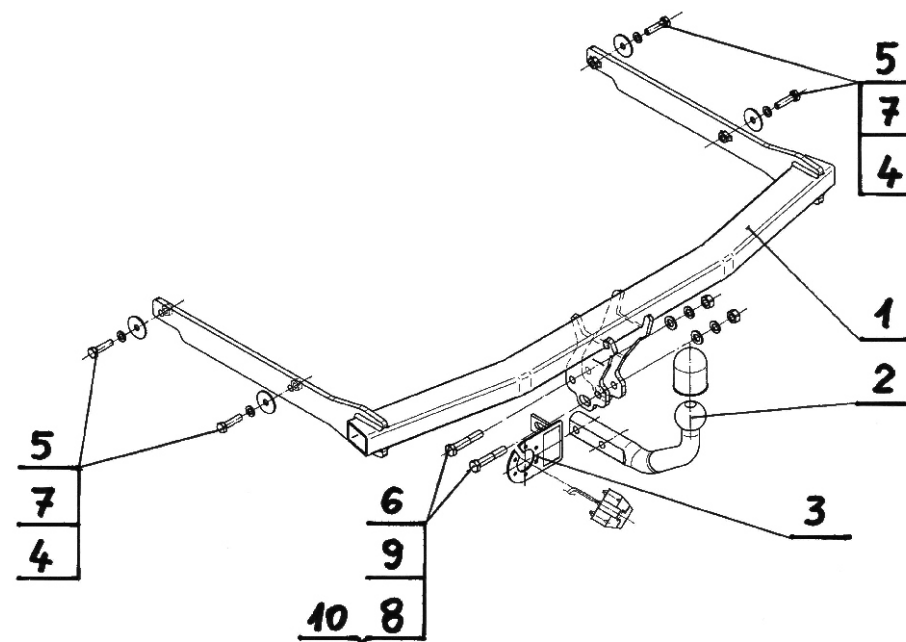
**Obeying this instruction assures correct montage and the tow bar operating in a Ford Focus (C-Max) / Ford Focus (3/5D).**

After assembling of the tow bar **F-229** 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).