

TOW BAR F-147

FOR Fiat Ulysse, Citroen C8, Peugeot 807, Lancia Phedra

FITTING AND OPERATION MANUAL.

(2002 - r.)

Cat. No.F-147

DESTINATION

Tow bar F-147 for a Fiat Ulysse, Citroen C8, Peugeot 807, Lancia Phedra 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-147 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 F-147 has a rating plate describing correct and safe loads of the hook:

Typ: F-147	The tow bar for Fiat Ulysse, Citroen C8, Peugeot 807, Lancia Phedra
e20 A50-X 0045-00	Tow bar class (compressing device)
D = 10,8 kN	Tow bar certification of approval number
S = 100 kg	Teoretical related force working on a ball hook
R = 1900 kg	Max permissible vertical load of the hook ball
	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

- | | | | |
|----------------------------------|------------|------------------------|------------|
| 1. Tow bar mainframe | - 1 piece | 10. Bolt M12x35 | - 2 pieces |
| 2. Tow ball | - 1 piece | 11. Bolt M12x65 | - 2 pieces |
| 3. Electrical plate | - 1 piece | 12. Bolt M12x110 | - 2 pieces |
| 4. Cage nut M10 (CH-006.01) | - 3 pieces | 13. Flat washer 10,5 | - 4 pieces |
| 5. Right angle bar | - 1 piece | 14. Flat washer 13,0 | - 6 pieces |
| 6. Left angle bar | - 1 piece | 15. Spring washer 10,2 | - 4 pieces |
| 7. Distance sleeve 17,3/ 12,5x75 | - 2 pieces | 16. Spring washer 12,2 | - 6 pieces |
| 8. Special washer 40/ 12,5x2,5 | - 2 pieces | 17. Nut M12 | - 6 pieces |
| 9. Bolt M10x35 | - 4 pieces | | |

In order to mount the ball hook F-147 you have to obey the instruction below:

1. Rear bumper cutting is required (in the bottom part).
2. Dismantle the tow bar into kit-form elements.
3. Dismount the rear bumper. Take down the spare wheel.
4. Unscrew the shield of exhaust silencer.
5. From the inner side of chassis frame members, in the places for special nuts, enlarge the hole to 17,3.
6. Place (4) from the bottom of the back strip.
7. Insert (12) and (8) from the external side of the chassis frame members.
8. Insert (7) from the inner side of chassis frame members.
9. Hang the tow bar.
10. Put (4) in the back of the right chassis frame member and screw with the tow bar through (5).
11. Screw the tow bar with the left chassis frame member (with factory threaded hole in the back) through (6).
12. Screw the whole tow bar using the rest of accessories (look at the figure).
13. In the marked place make an undercut in the bumper.
14. Mount (2) into (1) using (11), screwing (3) on the left side of (2) at the same time.
15. Check if all fixing bolts and nuts are screwed hard enough.

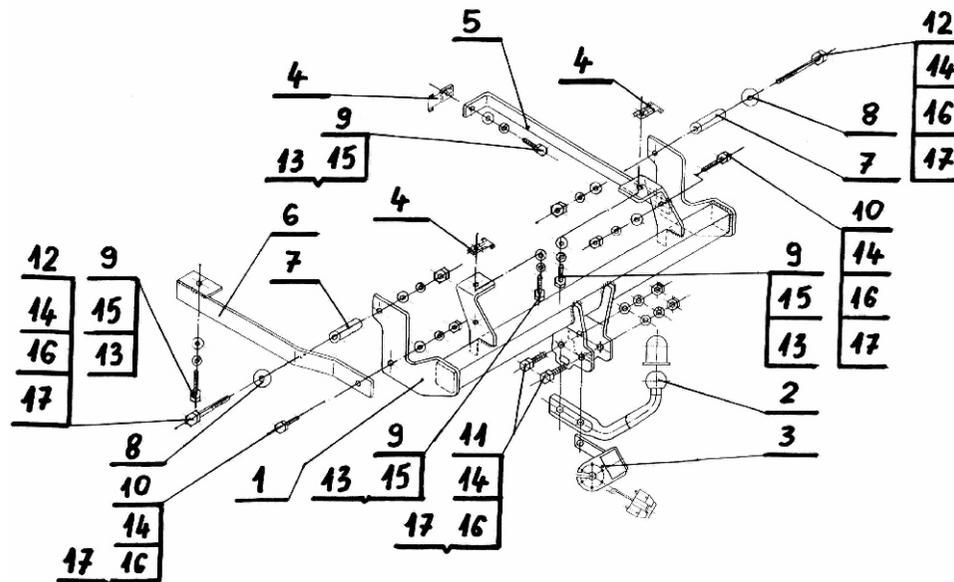
Obeying this instruction assures correct montage and the tow bar operating in a Fiat Ulysse, Citroen C8, Peugeot 807, Lancia Phedra.

After assembling of the tow bar F-147 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).