



## TOW BAR FOR

**Fiat 500** (also TwinAir) (except Abarth) (2007 - )

**Fiat 500 Cabrio** (except TwinAir) (2010 - )

## FITTING AND OPERATION MANUAL

**Cat. No.F-044**

### DESTINATION

**Before the tow bar assembly please refer to the manual and vehicle registration document whether car is adjusted for towing a trailer.**

Tow bar **F-044** 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-044** can be used and operated in a car with proper technical conditions of body elements. Those parts cannot be mechanically damaged. Remove the insulating mass of the sealing from surface mounting. 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 ( $M_0$ ). Torque values are given below:

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

### OPERATION CONDITIONS

The tow bar **F-044** has a rating plate describing correct and safe loads of the hook:

Typ: <b>F-044</b>	Tow bar catalogue number.
<b>A50-X</b>	Tow bar class (compressing device)
<b>E20 55R-01 3632</b>	Tow bar certification of approval number
<b>D = 5,2 kN</b>	Theoretical related force working on a ball hook
<b>S = 60 kg</b>	Max permissible vertical load of the hook ball
<b>R = 800 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 central axle trailer.  
**R**-technically permissible maximum mass in tonnes of the full trailer with drawbar free to move in the vertical plane or of the semi-trailer.  
**g**-acceleration due to gravity (assumed as  $9,81 \text{ m/s}^2$ )

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-044** is made up of the following elements:

- |                                 |            |                         |            |
|---------------------------------|------------|-------------------------|------------|
| 1. Towbar mainframe             | - 1 piece  | 13. Bolt M10x30         | - 6 pieces |
| 2. Tow ball (ACS-2041)          | - 1 piece  | 14. Bolt M12x25         | - 4 pieces |
| 3. Tow ball socket (ACS)        | - 1 piece  | 15. Spring washer Ø8,2  | - 8 pieces |
| 4. Electrical socket plate      | - 1 piece  | 16. Spring washer Ø10,2 | - 6 pieces |
| 5. Flat bar                     | - 2 pieces | 17. Spring washer Ø12,2 | - 4 pieces |
| 6. Support                      | - 1 piece  | 18. Round washer Ø8,4   | - 6 pieces |
| 7. Support                      | - 1 piece  | 19. Round washer Ø10,5  | - 6 pieces |
| 8. Washer                       | - 2 pieces | 20. Round washer Ø13,0  | - 7 pieces |
| 9. Flat bar                     | - 1 piece  | 21. Rivet P4,8x18       | - 2 pieces |
| 10. Special washer Ø24/Ø8,5x2,5 | - 4 pieces | 22. Nut M8              | - 4 pieces |
| 11. Bolt M8x30                  | - 4 pieces | 23. Nut M10             | - 4 pieces |
| 12. Bolt M8x40                  | - 2 pieces |                         |            |

Please follow the installation fitting instruction below in order to ensure correct installation of the towbar:

1. Installation does not require cutting of the rear bumper of the car while requiring its removal.
2. Remove the rear bumper with the reinforcement.
3. Remove the last silencer. Loosen the heat shield (including to remove the two rivets from the stringers).
4. Remove the rubber plugs from the bottom of stringers on the right and left side.
5. Attach the towbar mainframe (1) to the rear belt with flat washers then attach the rear bumper reinforcement and screw on loosely in points B using bolts M8x40 (12) with round washers Ø8,4 (18), washers Ø24/Ø8,5x2,5 (10), spring washers Ø8,2 (15) and nuts M8 (22). In points C using washers Ø24/Ø8,5x2,5 (10), spring washers Ø8,2 (15) and nuts M8 (22) and in D, E using factory nuts.
6. From the boot of a car after the plugs are out from the holes put washers (8) inside the stringers in points A.
7. Attach supports (6, 7) to the bottom of the stringers and screw loosely in points A using bolts M8x30 (11), with round washers Ø8,4 (18), spring washers Ø8,2 (15).
8. Screw flat bar (9) with support (6) and the towbar mainframe (1) using bolts M10x30 (13) with round washers Ø10,5 (19), spring washers Ø10,2 (16), and nuts M10 (23).
9. Screw the support (7) with the towbar mainframe (1) using bolts M10x30 (13) with round washers Ø10,5 (19), spring washers Ø10,2 (16) and nuts M10 (23).
10. Tighten all screws.
11. Install the heat shield using rivets (21) and install the latest silencer.
12. Install the rear bumper.
13. Attach the tow ball socket (3) and electrical plate (4) to the towbar mainframe (1) using bolts M12x25 (14) with round washers Ø13,0 (20), and spring washers Ø12,2 (17).
14. Put ball (2) to the socket (3) in accordance with 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.

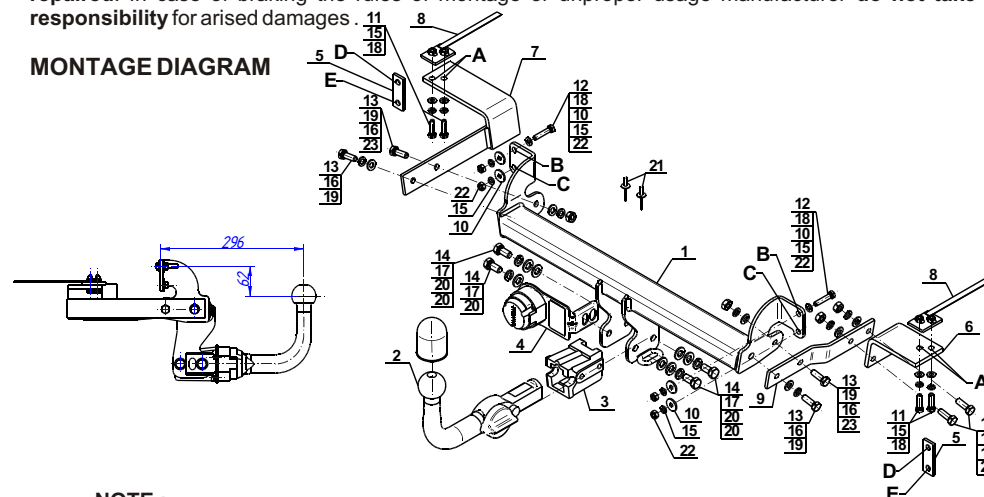
**Obeying this instruction assures correct montage and the F-044 tow bar operating.**

After assembling of the tow bar you have to get entry in cars **registration book**.

### 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).

**30.10.2015.**

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