

## TOW BAR V-140 FOR VW Passat (4D) (B6) ( 03/2005 - r.) VW Passat (Kombi) (B6) ( 09/2005 - r.) FITTING AND OPERATION MANUAL.

**Cat. No. V-140**

### DESTINATION

Tow bar **V-140** for a **VW Passat (4D / Kombi)** is designed for towing a trailer. This ball hook has a current certification of approval authorizing the product with **e4** certification sign.

### FITTING CONDITIONS

Tow bar **V-140** 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 **V-140** has a rating plate describing correct and safe loads of the hook:

Typ: <b>V-140</b> <b>A50-X</b>  <b>00-3220</b> <b>D = 10,2 kN</b> <b>S = 85 kg</b> <b>R = 2000 kg</b>	The tow bar for <b>VW Passat (4D / Kombi)</b> Tow bar class ( compressing device ) Tow bar certification of approval number Teoretical 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 **V-140** for **VW Passat (4D / Kombi)** is made up of elements as follows:

- |                                |            |                        |             |
|--------------------------------|------------|------------------------|-------------|
| 1. Towbar mainframe            | - 1 piece  | 8. Bolt M12x35         | - 4 pieces  |
| 2. Tow ball                    | - 1 piece  | 9. Bolt M12x40         | - 4 pieces  |
| 3. Electrical plate            | - 1 piece  | 10. Bolt M12x100       | - 2 pieces  |
| 4. Right holder of tow ball    | - 1 piece  | 11. Flat washer 13,0   | - 10 pieces |
| 5. Left holder of tow ball     | - 1 piece  | 12. Spring washer 12,2 | - 10 pieces |
| 6. Distance insert             | - 2 pieces | 13. Nut M12            | - 6 pieces  |
| 7. Special washer 40/ 12,5x2,5 | - 4 pieces |                        |             |

Follow the general directions in order to fit **V-140** tow bar properly:

1. Rear bumper cutting is required.

2. Dismantle the rear bumper.
3. Remove the strenghtening of the rear bumper.
4. Slacken the shield of the silencer.
5. Insert (1) into chassis side members , next attach (1) to the chassis side members through the existing holes using (8) , (12), (7).
6. Attach the shield of silencer.
7. Attach (4) and (5) to (1) using (9), (11), (12), (13).
8. Put the rear bumper to the car. Mark the place and size of cut out from the bottom of bumper and make the cut-out (size 80x65mm).
9. Refit the rear bumper.
10. Attach (2) with (3), (6) to (4), (5) using (10), (11), (12), (13)
11. Check if all fixing bolts and nuts are correctly tightened.

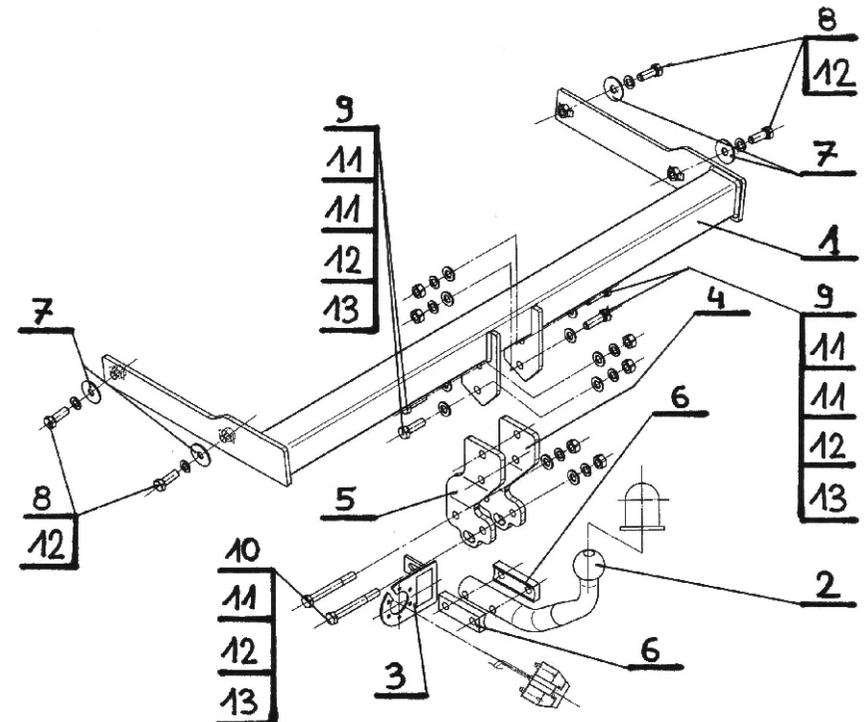
**Obeying this instruction assures correct montage and the tow bar operating in a VW Passat (4D / Kombi).**

After assembling of the tow bar **V-140** 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).