

TOW BAR S-112 FOR
Seat Cordoba (4D) (02/1996 - 12/2002) /
Seat Cordoba Vario (1997 - 12/2002) /
VW Polo Classic (1996 - 2000) / VW Polo Variant (1997 - 2000)
FITTING AND OPERATION MANUAL

Cat. No.S-112

DESTINATION

Tow bar **S-112** for a **Seat Cordoba (4D /Vario) / VW Polo Classic / Variant** 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 **S-112** 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_o). Torque values are given below:

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

OPERATION CONDITIONS

The tow bar **S-112** has a rating plate describing correct and safe loads of the hook:

Typ: S-112	The tow bar for Seat Cordoba (4D /Vario) / VW Polo Classic / Variant
A50-X	Tow bar class (compressing device)
e20 0532-00	Tow bar certification of approval number
D = 6,7 kN	Theoretical related force working on a ball hook
S = 50 kg	Max permissible vertical load of the hook ball
R = 1200 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 $9,81 \text{ m/s}^2$)

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 **S-112** for **Seat Cordoba (4D /Vario) / VW Polo Classic / Variant** is made up of the following elements:

- | | | | |
|-----------------------------|------------|-----------------------|------------|
| 1.Towbar mainframe | - 1 piece | 8.Bolt M12x35 | - 2 pieces |
| 2.Tow ball | - 1 piece | 9.Bolt M12x100 | - 2 pieces |
| 3.Electrical plate | - 1 piece | 10.Flat washer 13,0 | - 2 pieces |
| 4.Special washer 40/ 12,5x3 | - 2 pieces | 11.Spring washer 10,2 | - 4 pieces |
| 5.Distance insert | - 2 pieces | 12.Spring washer 12,2 | - 4 pieces |
| 6.Flat bar | - 2 pieces | 13.Nut M12 | - 4 pieces |
| 7.Bolt M10x40 | - 4 pieces | | |

Follow the general directions in order to fit **S-112** tow bar properly:

- 1.Rear bumper removing and cutting **is required**. Cut-out size : $\sim 70 \times 80$ [mm].
- 2.Remove rear bumper and bumper reinforcement (will no longer be used).
- 3.Remove hole plugs from two factory made holes on rear panel.
- 4.Attach (1) to the chassis rails using (7) (from the downside of the chassis rails) with (6) and (11).
- 5.Attach (1) to the rear panel using (8) with (4), (12) and (13).
- 6.Put rear bumper to the car, mark place for cut-out and cut slot in the lower edge of the bumper: $\sim 70 \times 80$ [mm].
- 7.Refit rear bumper.
- 8.Attach (2) with (5) and (3) to (1) using (9), (10), (12) and (13).

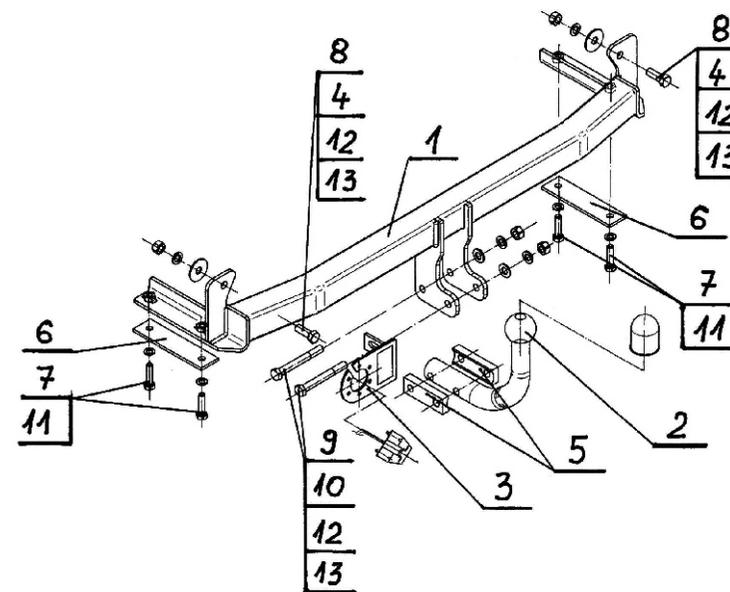
Obeying this instruction assures correct montage and the tow bar operating in a Seat Cordoba (4D /Vario) / VW Polo Classic / Variant.

After assembling of the tow bar **S-112** 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 unproper usage manufacturer **do not take responsibility** for arised damages.

MONTAGE DIAGRAM :



NOTE :

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