

DESTINATION

Tow bar **D-083** 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 **D-083** 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 **D-083** has a rating plate describing correct and safe loads of the hook:

Typ: D-083	Tow bar catalogue number.
A50-X	Tow bar class (compressing device)
E20 55R-01 3543	Tow bar certification of approval number
D = 6,8 kN	Theoretical related force working on a ball hook
S = 75 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 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

The tow bar **D-083** is made up of the following elements:

1. Towbar mainframe	- 1 piece	10. Screw M12x25	- 3 pieces
2. Tow ball (ACS-2043)	- 1 piece	11. Screw M12x30	- 1 piece
3. Tow ball socket (ACS)	- 1 piece	12. Screw M12x35	- 4 pieces
4. Electrical socket plate	- 1 piece	13. Spring washer Ø10,2	- 4 pieces
5. Right support	- 1 piece	14. Spring washer Ø12,2	- 8 pieces
6. Leftt support	- 1 piece	15. Round washer Ø13,0	- 8 pieces
7. Special washer Ø30/Ø10,5x3	- 8 pieces	16. Nut M10	- 4 pieces
8. Distance sleeve Ø21,3/Ø16,7x55	- 4 pieces	17. Nut M12	- 4 pieces
9. Screw M10x90	- 4 pieces		

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

1. Rear bumper removing and cutting is required.

2. Remove the rear bumper.
3. Lower the silencer with hanger.
4. Remove the plugs from the mounting holes on the stringer.
5. From external sites of the stringers slide spacers sleeve (8) with bolts M10x90 (8) and washers Ø30/Ø10,5x3 (7) then attach the supports (5, 6) to the inner sides of the stringers on the protruding bolts and screw with washers Ø30/Ø10,5x3 (7), spring washers Ø10,2 (13) and nuts M10 (16). (seal with silicone in the mounting holes from external sites of the stringers)
6. Between supports (5, 6) slide the towbar mainframe (1) and screw with bolts M12x35 (12) with round washers Ø13,0 (15), spring washers Ø12,2 (14) and nuts M12 (17).
7. Make an undercut in the bumper according to the fig. 1.
8. Hang on the silencer and install the bumper.
9. Attach the tow ball (2) and electrical plate (4) to the towbar mainframe (1) using bolts M12x30 (11)- 1 pc. and M12x25 (10)- 3 pcs. with round washers Ø13,0 (15), spring washers Ø12,2 (14).
10. 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 D-083 tow bar operating.

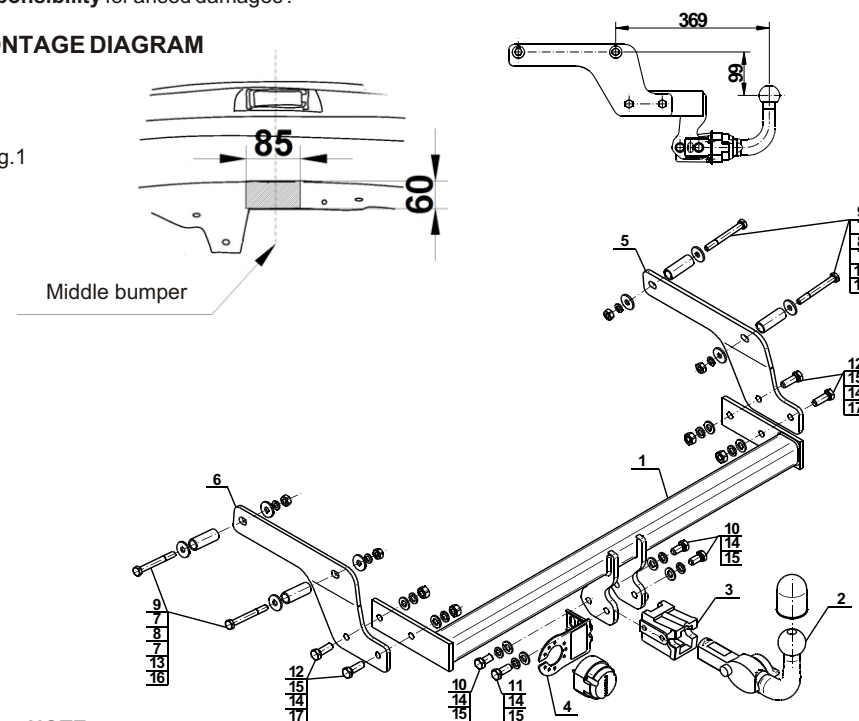
After assembling of the tow bar you have to get entry in cars **registration book**.

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 unproper usage manufacturer **do not take responsibility** for arised damages.

MONTAGE DIAGRAM

Fig.1



NOTE :

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