

DESTINATION

Tow bar **S-369** 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-369** 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 **S-369** has a rating plate describing correct and safe loads of the hook:

Typ: S-369	Tow bar catalogue number.
A50-X	Tow bar class (compressing device)
E20 55R-01 3345	Tow bar certification of approval number
D = 10,1 kN	Theoretical related force working on a ball hook
S = 85 kg	Max permissible vertical load of the hook ball
R = 2000 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 **S-369** is made up of the following elements:

- | | | | |
|--------------------------------------|------------|-------------------------|------------|
| 1. Towbar mainframe | - 1 piece | 9. Screw M10x45 | - 6 pieces |
| 2. Tow ball (ACS-6011 / TERWA 30690) | - 1 piece | 10. Screw M12x25 | - 3 pieces |
| 3. Tow ball socket | - 1 piece | 11. Screw M12x30 | - 1 piece |
| 4. Right angle bar | - 1 piece | 12. Spring washer Ø10,2 | -10 pieces |
| 5. Left angle bar | - 1 piece | 13. Spring washer Ø12,2 | - 4 pieces |
| 6. Electrical plate | - 1 piece | 14. Round washer Ø10,5 | - 4 pieces |
| 7. Washer Ø30/Ø10,5x3 | - 6 pieces | 15. Round washer Ø13,0 | - 4 pieces |
| 8. Screw M10x30 | - 4 pieces | 16. Nut M10 | - 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 together with the reinforcement (reinforcement will not be re-used).

3. Leave the silencer from the last holder and unscrew thermal protection.
4. Insert the angle bars (4, 5) into stringers and screw in stringers and screw on from the bottom using bolts M10x45 (9) with spring washers Ø10,2 (12) and round washers Ø30/Ø10,5x3 (7).
5. Put the towbar mainframe (1) to back part and screw on carefully using factory nuts.
6. Screw angle bars (4, 5) with towbar mainframe (1) using bolts M10x30 (8) with round washers Ø10,5 (14), spring washers Ø10,2 (12) and nuts M10 (16).
7. Tighten all bolts.
8. Attach the tow ball (2) and electrical plate (6) to the towbar mainframe (1) using bolts M12x30 (11)- 1 piece and M12x25 (10) with spring washers Ø12,2 (13) and round washers Ø13,0 (15)- 3 pieces (according to the template).
9. Perform the undercut in the bumper according to the fig. 1.
10. Install the thermal shield and hang on the silencer.
11. Install the rear bumper to the car.
12. Attach the tow ball (2) to the socket (3) according to the scheme.

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 S-369 tow bar operating.

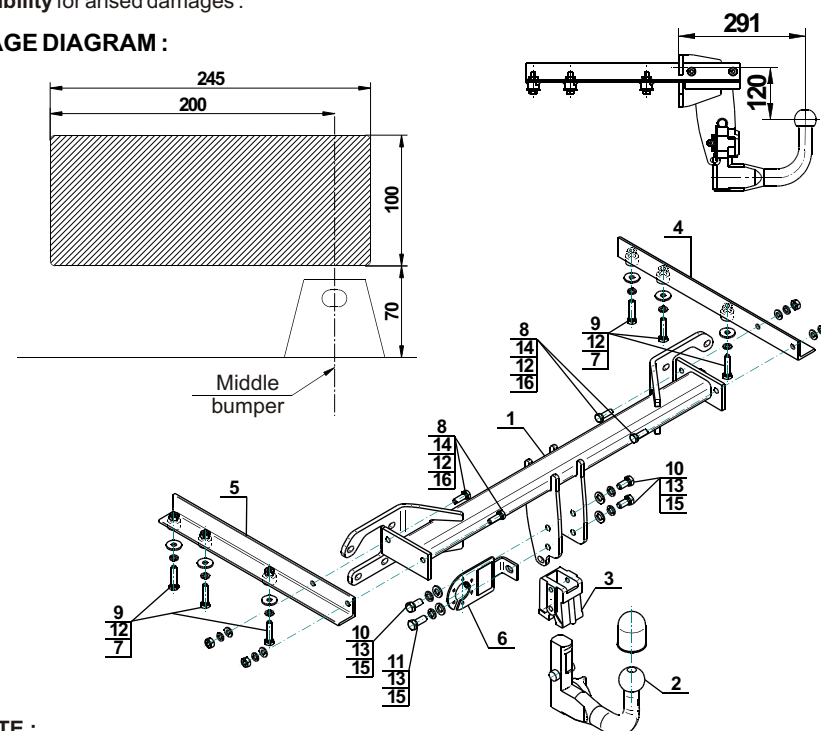
After assembling of the tow bar **S-369** you have to get entry in cars registration book.

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).