

TOW BAR C-270 FOR Chevrolet Lacetti (5D) (2004 - r.)

FITTING AND OPERATION MANUAL

Cat. No.C-270

DESTINATION

Tow bar **C-270** for a **Chevrolet Lacetti (5D)** 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 **C-270** 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 (M₀). Torque values are given below:

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

OPERATION CONDITIONS

The tow bar **C-270** has a rating plate describing correct and safe loads of the hook:

Typ: C-270	The tow bar for Chevrolet Lacetti (5D)
A50-X	Tow bar class (compressing device)
e20 0771-00	Tow bar certification of approval number
D = 7,2 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 **C-270** for **Chevrolet Lacetti (5D)** is made up of the following elements:

- | | | | |
|--------------------------------------|------------|-------------------------|------------|
| 1. Towbar mainframe | - 1 piece | 9. Bolt M10x30 | - 4 pieces |
| 2. Tow ball | - 1 piece | 10. Bolt M10x100 | - 2 pieces |
| 3. Electrical socket plate | - 1 piece | 11. Bolt M12x65 | - 2 pieces |
| 4. Distance sleeve
Ø17,3/Ø12,5x12 | - 2 pieces | 12. Spring washer Ø6,2 | - 2 pieces |
| 5. Special washer
Ø30/Ø10,5x3 | - 8 pieces | 13. Spring washer Ø10,2 | - 8 pieces |
| 6. Special washer
Ø40/Ø10,5x3 | - 2 pieces | 14. Spring washer Ø12,2 | - 2 pieces |
| 7. Bolt M6x30 | - 2 pieces | 15. Flat washer Ø13,0 | - 2 pieces |
| 8. Bolt M8x25 | - 4 pieces | 16. Nut M10 | - 4 pieces |
| | | 17. Nut M12 | - 2 pieces |

Follow the general directions in order to fit **C-270** towbar properly:

1. Rear bumper cutting is not required, however bumper removing is required.
2. Remove the rear bumper.
3. Remove rear bumper plastic strengthening (it will be assembled later) and its metal supports (they will not be assembled anymore).
4. Remove absorber and its support from the right chassis side member.
5. Attach (1) inward chassis side members and tight:
 - from the trunk, using factory-made bolts and (10).
 - from the bottom of chassis side members, using (9).
6. Refit absorber with support from the bottom of right chassis side member, using (7), (4).
7. Make the cutting in the rear bumper plastic strengthening in accordance with the template (holes marked on the template should be affixed to the holes in strengthening).
8. Refit the plastic strengthening to the "A" points on towbar mainframe.
9. Refit the rear bumper.
10. Attach (2) and (3) to the (1), using (11).

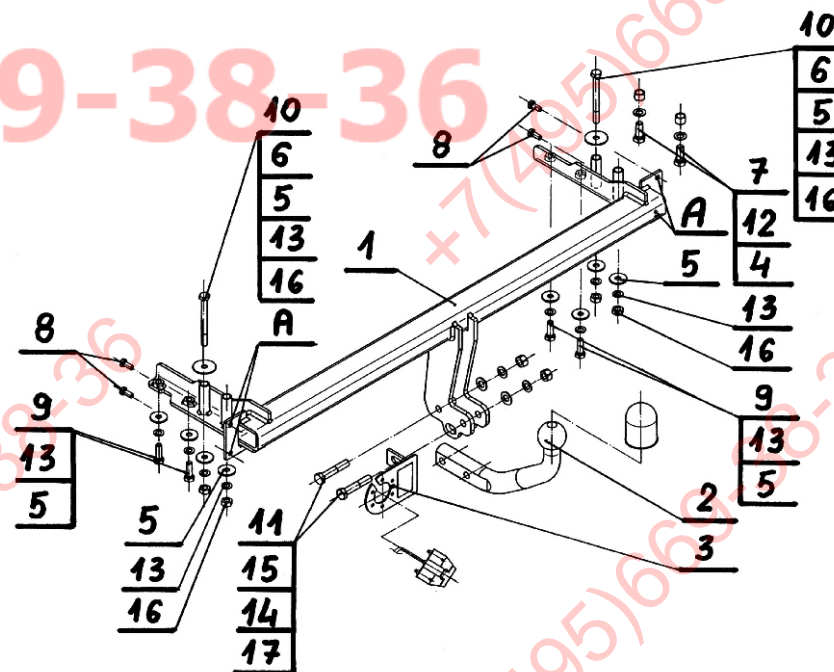
Obeying this instruction assures correct montage and the tow bar operating in a Chevrolet Lacetti (5D).

After assembling of the tow bar **C-270** 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).