



TOW BAR FOR Toyota Landcruiser V8 (J200) (2008 -)/ Lexus LX 570 (2008 -) FITTING AND OPERATION MANUAL

Cat. No.T-172

DESTINATION

Tow bar **T-172** 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 **T-172** 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 **T-172** has a rating plate describing correct and safe loads of the hook:

| | |
|------------------------|---|
| Typ: T-172 | Tow bar catalogue number. |
| A50-X | Tow bar class (compressing device) |
| E20 55R-01 4460 | Tow bar certification of approval number |
| D = 17,0 kN | Teoretical related force working on a ball hook |
| S = 140 kg | Max permissible vertical load of the hook ball |
| R = 3500 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 **T-172** is made up of the following elements:

| | | | |
|-------------------------------|------------|-------------------------|-------------|
| 1. Towbar mainframe | - 1 piece | 12. Bolt M12x45 | - 1 piece |
| 2. Tow ball (ACS-6023) | - 1 piece | 13. Bolt M12x110 | - 6 pieces |
| 3. Tow ball socket | - 1 piece | 14. Bolt M16x50 | - 2 pieces |
| 4. Electrical socket plate | - 1 piece | 15. Spring washer Ø6,2 | - 2 pieces |
| 5. Plate | - 1 piece | 16. Spring washer Ø12,2 | - 12 pieces |
| 6. Flat bar | - 2 pieces | 17. Spring washer Ø16,3 | - 2 pieces |
| 7. Sleeve Ø17,3/Ø12,5x15 | - 1 piece | 18. Round washer Ø6,4 | - 2 pieces |
| 8. Sleeve Ø24/Ø15x66 | - 6 pieces | 19. Round washer Ø13,0 | - 12 pieces |
| 9. Special washer Ø40/Ø16,5x3 | - 2 pieces | 20. Round washer Ø17,0 | - 2 pieces |
| 10. Bolt M6x30 | - 2 pieces | 21. Nut M12 | - 6 pieces |
| 11. Bolt M12x25 | - 5 pieces | | |

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

1. Rear bumper cutting is required.
 2. Remove rear bumper.
 3. Lower spare wheel.
 4. Remove plastic element from the front side of the transversal bar and bottom-metal plate.
 5. Attach flat bars (6) into the internal side of transversal bar on the lower wall, so nuts could face assembly-holes (attach flat bars through square holes of the bar). Tight flat bars (6), using bolts M6x30 (10) with spring washers Ø6,2 (15) and flat washers Ø6,4 (18).
 6. Attach plate (5) with bolts M12x110 (13) to the factory-made holes placed on the front side of the bar. From the rear side of the bar attach 6 sleeves Ø24/Ø15x66 (8) onto bolts.
 7. Attach towbar mainframe (1) from the rear side of the bar with special washers Ø40/Ø16,5x3 (9) then tight, using bolts M12x110 (13) with round washers Ø13,0 (19), spring washers Ø12,2 (16) and nuts M12 (21), and also using bolts M16x50 (14) with spring washers Ø12,2 (17), round washers Ø13,0 (20).
 8. Attach the tow ball socket (3) and electrical plate (4) to the towbar mainframe (1) using bolts M12x25 (11) - 5 pcs. and M12x45 (12) - 1 pc. with spring washers Ø12,2 (16), round washers Ø13,0 (19) and sleeve Ø17,3/Ø12,5x15 (7).
 9. Make the cutting in the central part of earlier detached bottom-metal plate, then refit part to the bar.
 10. Make the bumper cutting from the bottom side with size ~85x50 (mm), according to figure 1.
 11. Refit rear bumper and hang up spare wheel.
 12. Plug the tow ball (2) into the socket (3) following the attached instructions.
- 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.

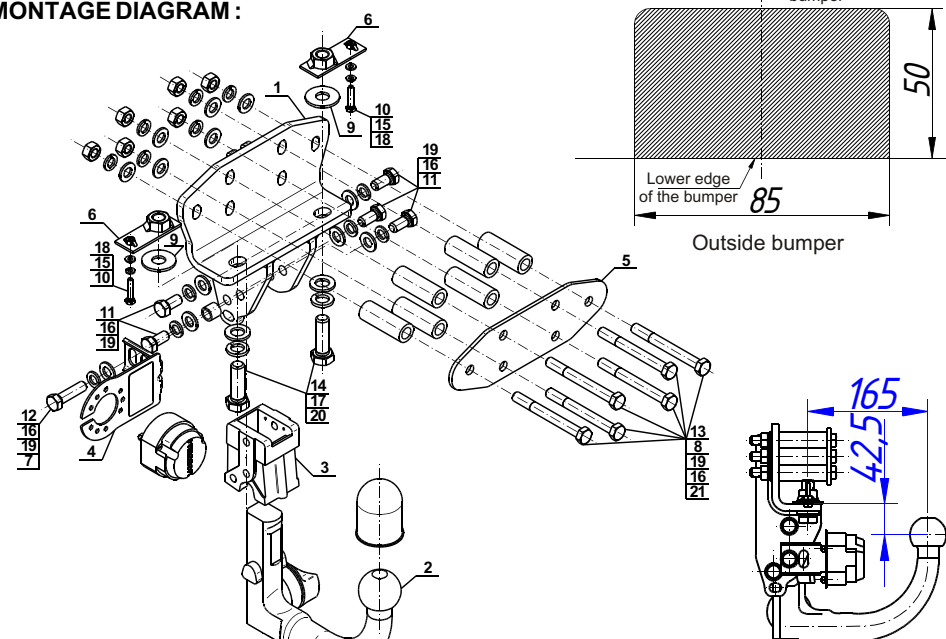
Obeying this instruction assures correct montage and the T-172 tow bar operating.

After assembling of the tow bar **T-172** 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 improper usage manufacturer **do not take responsibility** for arised damages.

MONTAGE DIAGRAM:



NOTE:

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

30.10.2015.

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