

**TOW BAR T-185 FOR
TOYOTA RAV-4
(06/1994 - 05/2000)
FITTING AND OPERATION MANUAL.**

Cat. No. T-185

DESTINATION

Tow bar **T-185** for a **Toyota Rav-4** is designed for towing a trailer. This ball hook has a current certification of approval authorizing the product with **e4** certification sign.

FITTING CONDITIONS

Tow bar **T-185** 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-185** has a rating plate describing correct and safe loads of the hook :

Typ: T-185 A50-X e4 00 - 3934 D = 8,8 kN S = 75 kg R = 1750 kg	The tow bar for Toyota Rav-4 Tow bar class (compressing device) Tow bar certification of approval number Teoretical related force working on a ball hook Max permissible vertical load of the hook ball Max permissible load of towing trailer
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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 vehicale (also towing tractors) including, if neccessary, 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-185** for **Toyota Rav-4** is made up of elements as follows :

- | | | | |
|---------------------|------------|-------------------------|------------|
| 1. Towbar mainframe | - 1 piece | 7. Flat washer Ø10,5 | - 6 pieces |
| 2. Forged tow ball | - 1 piece | 8. Flat washer Ø17,0 | - 2 pieces |
| 3. Right angle bar | - 1 piece | 9. Spring washer Ø10,2 | - 6 pieces |
| 4. Left angle bar | - 1 piece | 10. Spring washer Ø16,3 | - 2 pieces |
| 5. Bolt M10x35 | - 6 pieces | 11. Nut M10 | - 6 pieces |
| 6. Bolt M16x50 | - 2 pieces | 12. Nut M16 | - 2 pieces |

Follow the general directions in order to fit **T-185** tow bar properly:

- 1.Rear bumper cutting and removing is not required.
- 2.Take towbar to the pieces, check if all parts are present.
- 3.Remove factory-made towing eyes from the chassis side members.

- 4.Attach (3) and (4) to the chassis side members from the bottom, then tight using factory-made nuts remained after removed towing eyes.
- 5.Attach (1) to the (3,4), then tight using (5), (7), (9), (11).
- 6.Attach (2) to the (1) using (6), (8), (10), (12).
- 7.Check if all nuts and bolts are correctly tightened.

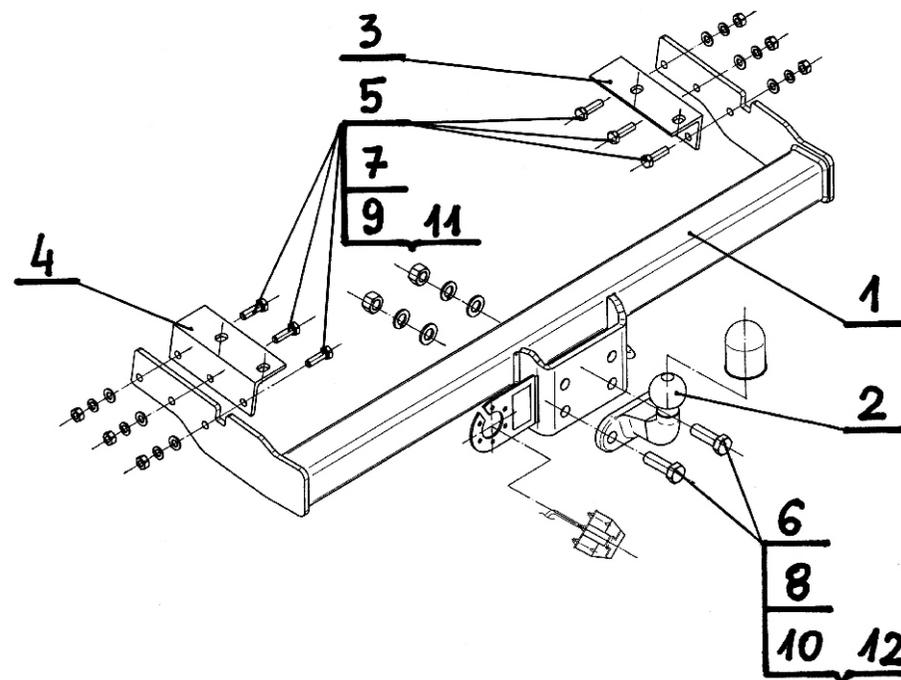
Obeying this instruction assures correct montage and the tow bar operating in a Toyota Rav-4.

After assembling of the tow bar **T-185** 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).