

DESTINATION

Tow bar **K-008** for a **Kia Rio (3/5D)** 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 **K-008** 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 **K-008** has a rating plate describing correct and safe loads of the hook:

Typ: K-008	The tow bar for Kia Rio (3/5D)
A50-X	Tow bar class (compressing device)
e4	Tow bar certification of approval number
00 - 3859	Teoretical related force working on a ball hook
D = 6,4 kN	Max permissible vertical load of the hook ball
S = 50 kg	Max permissible load of towing trailer
R = 1100 kg	

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 **K-008** for **Kia Rio (3/5D)** is made up of elements as follows:

1. Towbar mainframe	- 1 piece	6. Bolt M12x100	- 2 pieces
2. Tow ball	- 1 piece	7. Flat washer 13,0	- 6 pieces
3. Electrical plate	- 1 piece	8. Spring washer 12,2	- 6 pieces
4. Distance insert	- 2 pieces	9. Nut M12	- 2 pieces
5. Bolt M12x(1,25)x40	- 4 pieces		

Follow the general directions in order to fit **K-008** tow bar properly:

1. Rear bumper removing and cutting **is required**.
2. Remove rear bumper and inside bumper (will no longer be used).
3. Attach (1) to the outside of the chassis rails using (5) with (8) and (7).

4. Cut slot in the lower edge of the bumper: ~80x10 [mm]
5. Refit rear bumper.
6. Attach (2) with (4) and (3) to (1) using (6), (8), (7), and (9).
7. Tighten all nuts and bolts to the torque staked in the table.

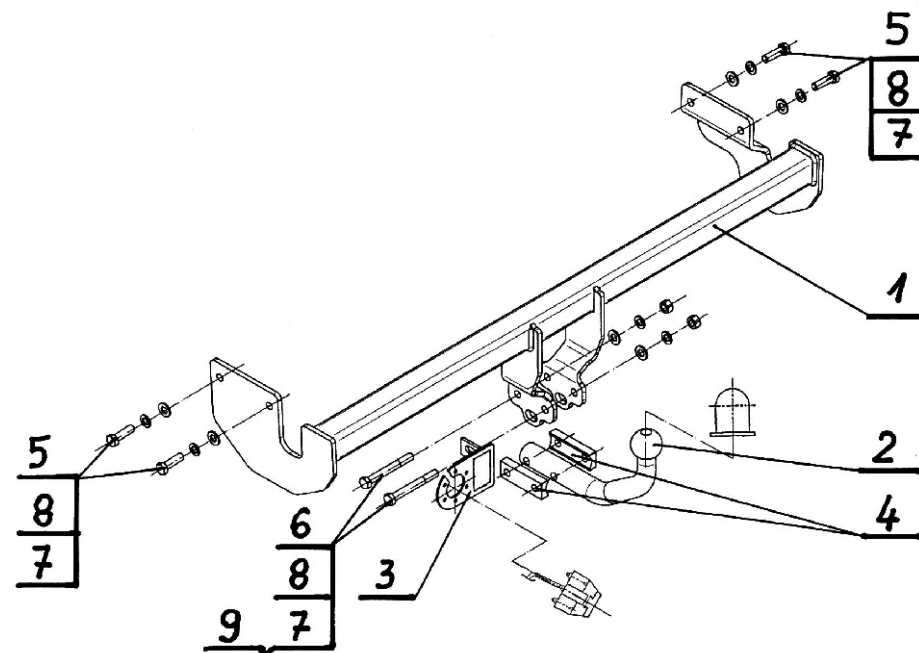
Obeying this instruction assures correct montage and the tow bar operating in a Kia Rio (3/5D).

After assembling of the tow bar **K-008** 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 improper usage manufacturer **do not take responsibility** for arised damages.

MONTAGE DIAGRAM:



NOTE:

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