

TOW BAR D-174 FOR Daewoo Nubira II Kombi (02/1998 -) FITTING AND OPERATION MANUAL

Cat. No.D-174

DESTINATION

Tow bar **D-174** for a **Daewoo Nubira II Kombi** 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 **D-174** 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 **D-174** has a rating plate describing correct and safe loads of the hook:

Typ: D-174 A50-X e20 0544-00 D = 7,2 kN S = 70 kg R = 1200 kg	The tow bar for Daewoo Nubira II Kombi 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 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 **D-174** for **Daewoo Nubira II Kombi** is made up of the following elements:

1. Towbar mainframe	- 1 piece	9. Bolt M12x30	-10pieces
2. Tow ball with support	- 1 piece	10.Bolt M12x120	- 4 pieces
3. Electrical plate	- 1 piece	11.Bolt M10x(1,25)x100	- 2 pieces
4. Left angle bar	- 1 piece	12.Spring washer 10,2	- 2 pieces
5. Right angle bar	- 1 piece	13.Spring washer 12,2	-14pieces
6. Distance sleeve 17,3/ 12,5x80	- 4 pieces	14.Flat washer 10,5	- 4 pieces
7. Special washer 40/ 12,5x2,5	- 4 pieces	15.Nut M12	-10pieces
8. Special washer 38/ 16,5x6	- 2 pieces	16.Nut M10(1,25)	- 2 pieces

Follow the general directions in order to fit **D-174** tow bar properly:

1. Rear bumper cutting is not required.
2. Unpack the towbar packing and separate components. Check all parts are present.
3. Drill 1 hole 12,5 through existing holes - 18-into the right and left chassis side member, from the bottom of the chassis side members.
4. Insert (6) into the bottom of the chassis side member, next put (5), insert from the top (10), (7) into previously drilled hole 12,5 and attach using (15) with (13). Make the same with left chassis side member.
5. Drill for 1 hole 12,5 through the holes in (5) and (4), from the bottom of the chassis side member.
6. Drill the holes from 12,5 to 17,0- through the one wall from the bottom side.
7. Insert (6) from the bottom of the trunk and (10), (7) through the distance sleeve, next attach from the bottom of the trunk using (15) with (13).
8. Put (1) to the previously attached (4), (5) and attach using (9), (15), (13).
9. Insert (11), (14) and put from the bottom (8), (14), (12) and attach using (16).
10. Attach (2) to (1) using (9), (13) attach (3) on the left side of (2).
11. Check if all bolts and nuts are correctly tightened.

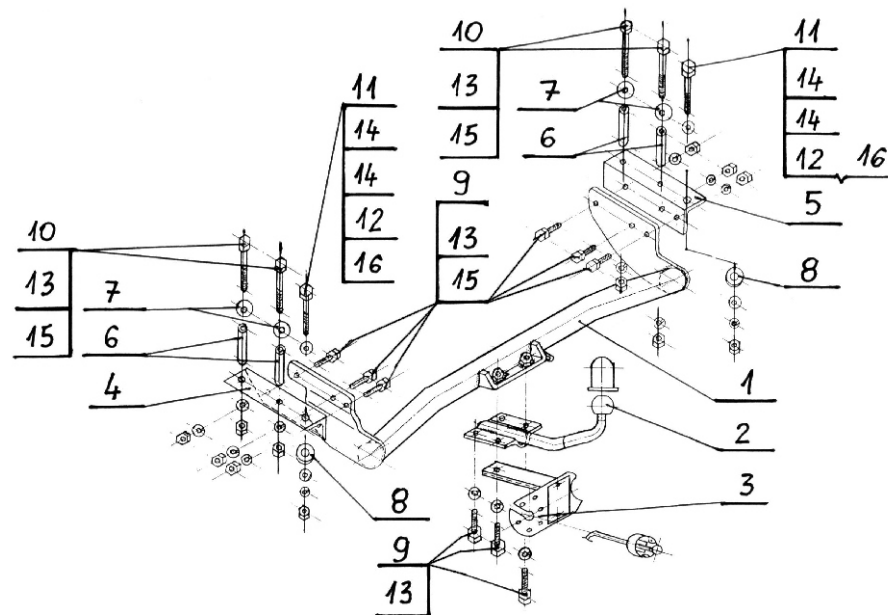
Obeying this instruction assures correct montage and the tow bar operating in a Daewoo Nubira II Kombi.

After assembling of the tow bar **D-174** 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).