

TOW BAR R-111 FOR Renault Megane III Grand Scenic (04/2009 -) FITTING AND OPERATION MANUAL

Cat. No. R-111

DESTINATION

Tow bar **R-111** for a **Renault Megane III Grand Scenic** 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 **R-111** 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 **R-111** has a rating plate describing correct and safe loads of the hook:

Typ: R-111	The tow bar for Renault Megane III Grand Scenic
A50-X	Tow bar class (compressing device)
e20 00-1322	Tow bar certification of approval number
D = 8,2 kN	Theoretical related force working on a ball hook
S = 75 kg	Max permissible vertical load of the hook ball
R = 1300 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 **R-111** for **Renault Megane III Grand Scenic** is made up of the following elements:

1. Towbar mainframe	- 1 piece	9. Bolt M12x25	- 3 pieces
2. Tow ball (ACS-2011)	- 1 piece	10. Bolt M12x30	- 1 piece
3. Tow ball holder (ACS)	- 1 piece	11. Bolt M12x40	- 4 pieces
4. Right support	- 1 piece	12. Flat washer Ø13,0	- 8 pieces
5. Left support	- 1 piece	13. Spring washer Ø10,2	- 4 pieces
6. Electrical socket plate	- 1 piece	14. Spring washer Ø12,2	- 8 pieces
7. Special washer Ø30/Ø10,5x3	- 4 pieces	15. Nut M12	- 4 pieces
8. Bolt M10x40	- 4 pieces		

Follow the general directions in order to fit **R-111** tow bar properly:

1. Rear bumper cutting is not required but it removing is required.
2. Remove rear bumper with his strengthening (it will not be reused).
3. Remove right and left insulations from rear belt and perform cut for supports.
4. Make entrance to the left chassis.
5. Install seals again.
6. Insert (4) and (5) to the stringers and screw using (8) with (13) and (7).
7. Insert (1) between (4) and (5) and screw using (11) with (14), (12) and (15).
8. Tight (3) to the (1), using 3 bolts (9), (12), (14) and one bolt (10) with (6), (12), (14) according to the schema.
9. Install rear bumper.
10. Attach (2) to the (3) according to the instruction.

Caution:

- To different types of (2) may be attached to the (towing bracket) (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) value.
 3. Tow ball centre-point is in accordance with the drawing.

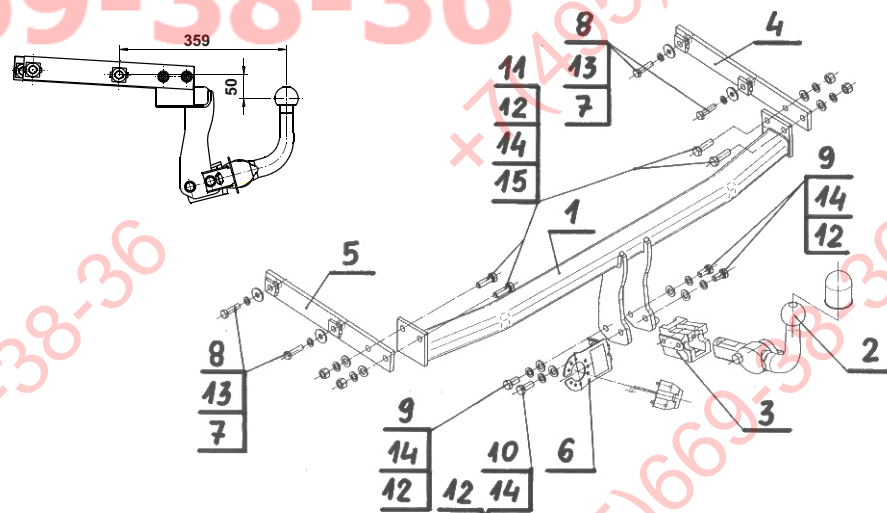
Obeying this instruction assures correct montage and the tow bar operating in a Renault Megane III Grand Scenic.

After assembling of the tow bar **R-111** 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 unproper usage manufacturer **do not take responsibility** for arised damages.

MONTAGE DIAGRAM :



NOTE :

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

