

TOW BAR N-102 NISSAN X-TRAIL FITTING AND OPERATION MANUAL.

Cat. No.N-102

DESTINATION

Tow bar **N-102** for a **Nissan X-Trail** 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 **N-102** 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 **N-102** has a rating plate describing correct and safe loads of the hook:

Typ: N-102 A50-X e20 0470-00 D = 10,6 kN S = 100 kg R = 2200 kg	The tow bar for Nissan X-Trail 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 **N-102** for **Nissan X-Trail** is made up of the following elements :

1. Towbar mainframe	- 1 piece	11.Bolt M8x30	- 8 pieces
2. Right lateral support - set	- 1 piece	12.Bolt M10x35	- 10pieces
3. Left lateral support - set	- 1 piece	13.Bolt M12x70	- 2 pieces
4. Tow ball	- 1 piece	14.Spring washer Ø8,2	- 8 pieces
5. Electrical socket plate	- 1 piece	15.Spring washer Ø10,2	- 10pieces
6. Right down plate	- 1 piece	16.Spring washer Ø12,2	- 2 pieces
7. Right flat bar	- 1 piece	17.Flat washer Ø8,4	- 8 pieces
8. Left flat bar	- 1 piece	18.Flat washer Ø13,0	- 2 pieces
9. Special washer Ø40/Ø10,5x3	- 3 pieces	19.Nut M12	- 2 pieces
10.Special washer Ø25/Ø10,5x4	- 4 pieces		

Follow the general directions in order to fit **N-102** tow bar properly:

- 1.Rear bumper cutting **is not required**.
- 2.Remove the rear bumper.
- 3.Remove the bumper reinforcement.
- 4.Remove exhaust silencer and loosen the heat shield.
5. Attach (2) and (3) into the right and left chassis rail.
- 6.Attach loosely (3) to the outside of the left chassis rail using (12) with (8) and (15).
7. Attach loosely (2) to the inside of the right chassis rail using (12) with (7) and (15).
- 8.Put (1) to down side of the chassis rails and attach loosely using (12) with (6), (9) and (15) (when (1) do not fit cut heat shield).
- 9.Put right and left bumper reinforcement holder and attach loosely with (2) and (3) and tight with rear panel and (10) (distance between rear panel and bumper reinforcement holders), (11) with (17) and (14).
- 10.Refit the bumper reinforcement.
- 11.Refit the rear bumper.
- 12.Tighten (4) and (5) to (1) using (13) with (18), (16) and (19).
- 13.Tighten all nuts and bolts to the torque staked in the table.
- 14.Check if all bolts and nuts are correctly tightened.

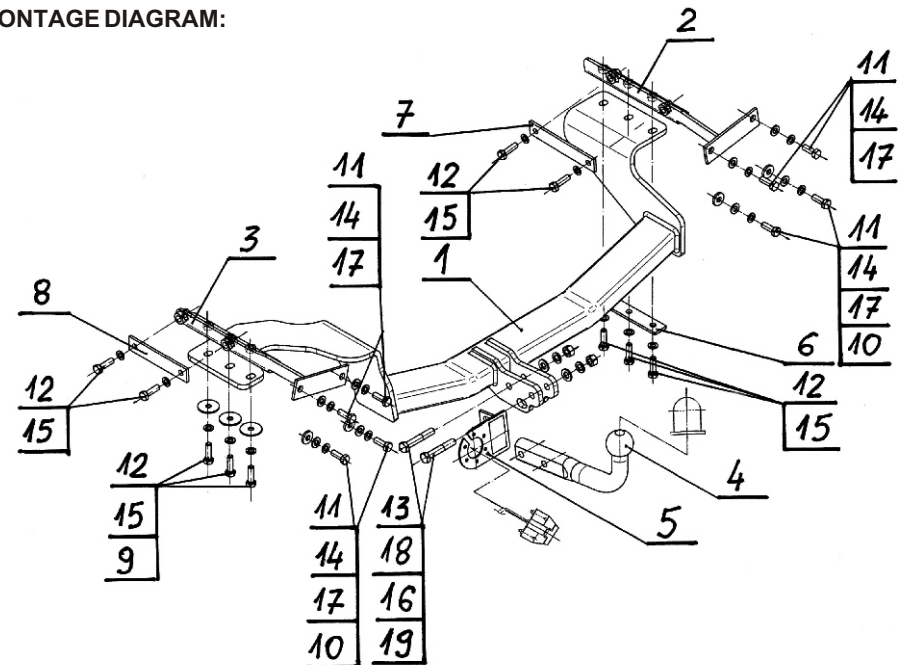
Obeying this instruction assures correct montage and the tow bar operating in a Nissan X-Trail.

After assembling of the tow bar **N-102** you have to get entry in cars **registration book** in a quality control station .

CAUTION :

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).