

FITTING INSTRUCTION

Clamp mark in acc. with		Cables joining
ISO	PN	
1	L	Left directional lights
2	+	Rear fog lights
3	31	Ground
4	R	Right directional lights
5	58R	Right side parking lights
6	54	Stoplights
7	58L	Left side parking lights

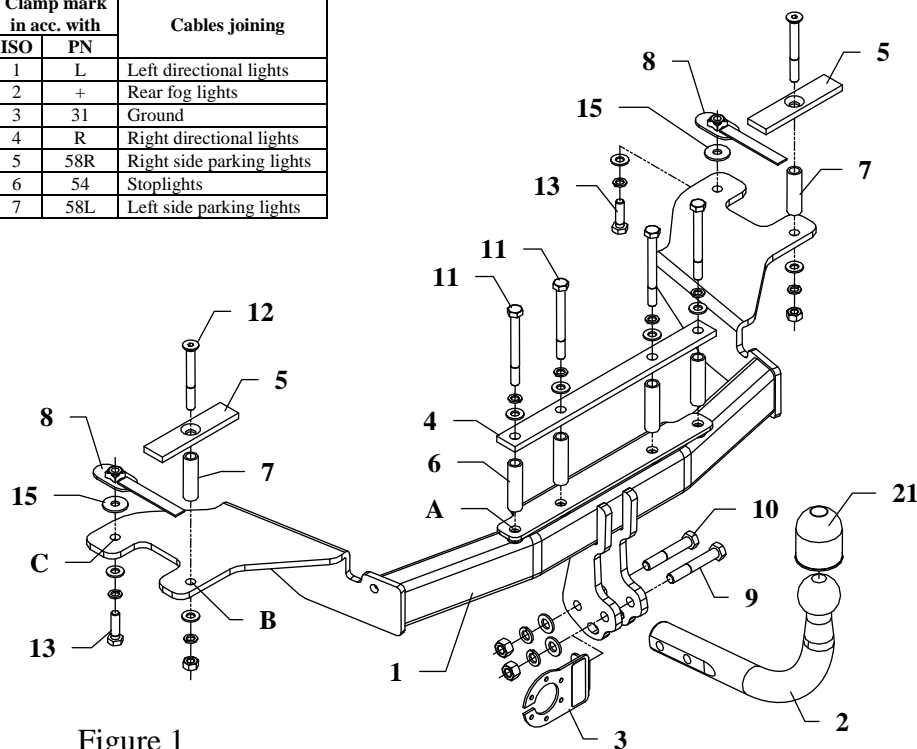


Figure 1

This towing hitch is designed to assembly in following cars:
ALFA ROMEO 159 (4 doors) produced since 09.2006 and **159 SPORTWAGON (ESTATE)**, produced since 03.2006, catalogue no. **AL38** and is prepared to tow trailers max total weight **1800 kg** and max vertical mass **75 kg**.

From manufacturer

Thank you for buying our product. Their reliability has been confirmed in many tests. Reliability of towing hitch depends also on correct assembly and right operation. For this reasons we kindly ask to read carefully this instruction and apply to hints.

The towing hitch should be install in points described by a car producer.

The instruction of the assembly

1. Disassemble rear lights and bumper together with it's fulfillment.
2. Disassemble last parts of exhaust pipes and heat shields.
3. Cut off protruding bolts according to figure 2.
4. Disassemble metal support of the bumper. Apply central fish-plate (pos. 4) as shown on the figure 3. Mark points on foot and head part of the beam. Drill at marked points holes $\varnothing 13\text{mm}$.
5. Reassemble metal beam of the bumper on the car. Drill made holes into trunk and next enlarge them only from trunk side to diameter $\varnothing 18\text{mm}$.
6. Put main bar of the towbar (pos. 1) to chassis in this way so holes A agree with holes drilled in metal beam. Inside trunk put distance sleeves (pos. 6), Apply central fish-plate (pos. 4) and fix loosely by bolts M10x100mm (pos. 11) as shown on figure 1.
7. Mark holes B and C, next drill it to $\varnothing 11\text{mm}$, see figure 4.
8. Holes B enlarge from trunk side to diameter ca. 18mm.
9. From trunk side put distance sleeves (pos. 7) and fish-plates (pos. 5) and bolts M10x90mm (pos. 12). Fix loosely.
10. Through existing holes in chassis members put nuts on the jibs (pos. 8) and fix in points C using bolts M10x35mm (pos. 13) as shown on figure 1.
11. Saw out fragment of fulfillment as shown on the figure 5.
12. Reassemble elements disassembled at point 2. If necessary reshape heat shields to ensure they cannot touch the towbar and exhaust.
13. Reassemble bumper after cut out it's fragment width 50mm and depth 95mm (in lower edge, in axis).
14. Fix tow-ball (pos. 2) with socket plate (pos. 3) using bolts M12x75mm (pos. 9) and M12x70mm (pos 10) from accessories.
15. Tighten all bolts according to the torque shown in the table.
16. Connect electric wires of 7-poles socket according to the instruction of the car. (Recommend to make at authorized service station).
17. Complete paint layer damaged during installation.

Torque settings for nuts and bolts (8,8):

M6 - 11 Nm	M8 - 25 Nm	M10 - 50 Nm
M12 - 87 Nm	M14 - 138 Nm	M16 - 210 Nm

NOTE

After install the towing hitch you should get adequate note in registration book (at authorised service station). The car should be equipped with:

- Indicators
- Tow mirrors

After **1000km** of exploitation check all bolts and nuts. The ball of towing hitch must be always kept clear and conserve with a grease.

Figure 2

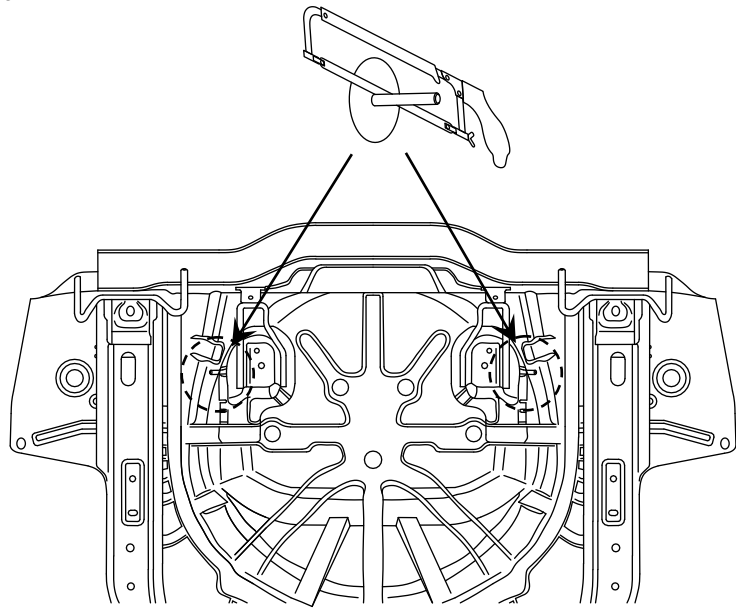


Figure 4

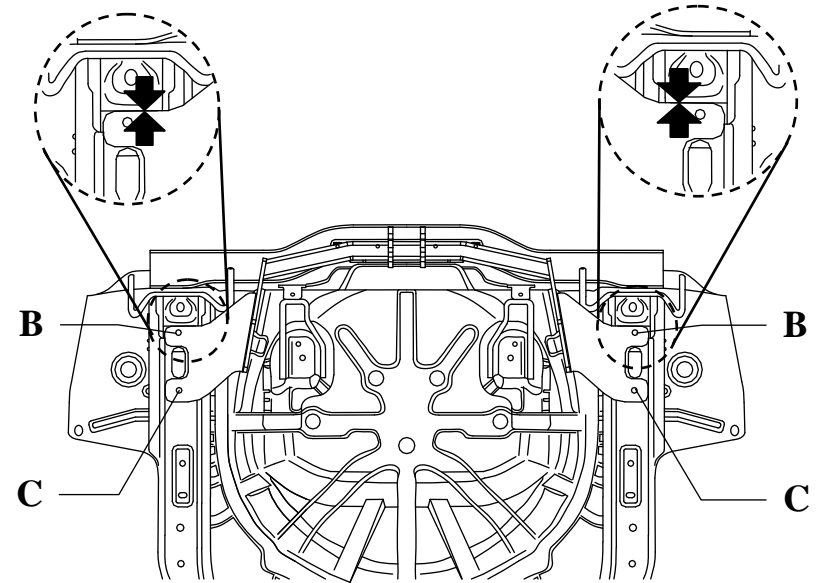


Figure 3

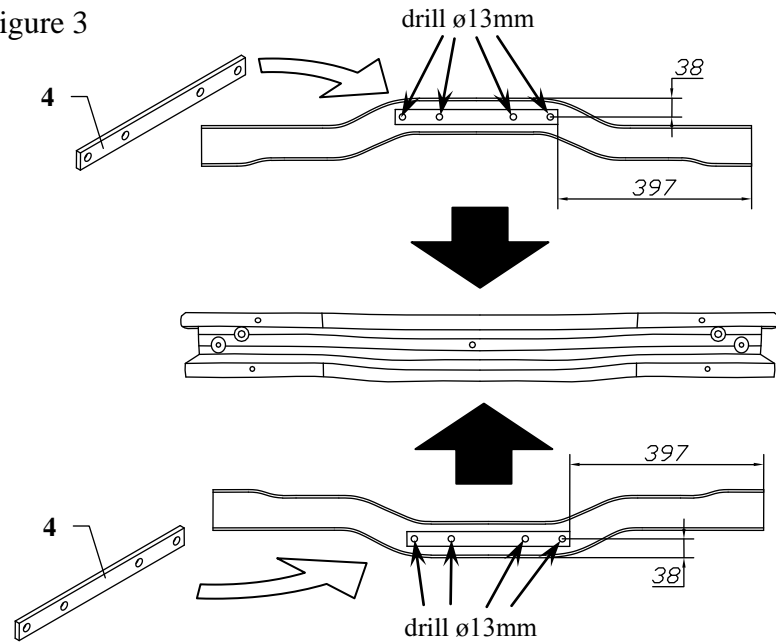
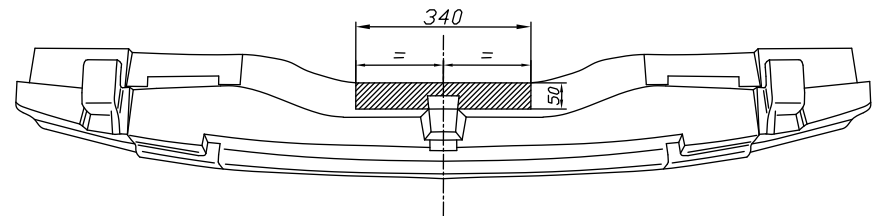
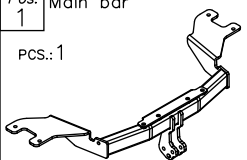
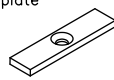
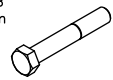


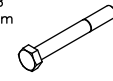

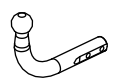

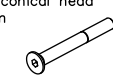

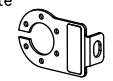
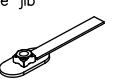
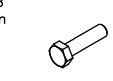

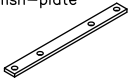
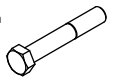


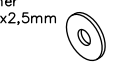



Figure 5



Towing hitch accessories:

Pos. 1 Main bar PCS.: 1 	Pos. 5 Side fish-plate PCS.: 2 	Pos. 10 Bolt 8,8 B M12x70mm PCS.: 1 	Pos. 16 Plain washer ø10,5mm PCS.: 8 
	Pos. 6 Distance sleeve I ø17,2x2,35mm L=64mm PCS.: 4 	Pos. 11 Bolt 8,8 B M10x100mm PCS.: 4 	Pos. 17 Spring washer ø12,2mm PCS.: 2 
Pos. 2 Tow ball PCS.: 1 	Pos. 7 Distance sleeve II ø17,2x2,35mm L=58mm PCS.: 2 	Pos. 12 Bolt with conical head M10x90mm PCS.: 2 	Pos. 18 Spring washer ø10,2mm PCS.: 8 
Pos. 3 Socket plate PCS.: 1 	Pos. 8 Nut on the jib PCS.: 2 	Pos. 13 Bolt 8,8 B M10x35mm PCS.: 2 	Pos. 19 Nut 8 B M12 PCS.: 2 
Pos. 4 Central fish-plate PCS.: 1 	Pos. 9 Bolt 8,8 B M12x75mm PCS.: 1 	Pos. 14 Plain washer ø13mm PCS.: 2 	Pos. 20 Nut 8 B M10 PCS.: 2 
		Pos. 15 Plain washer ø30xø10,5x2,5mm PCS.: 2 	Pos. 21 Ball cover PCS.: 1 



PPUH AUTO-HAK Sp.J.

Produkcja Zaczepów Kulowych
Henryk i Zbigniew Nejman
76-200 SŁUPSK ul. Słoneczna 16K
tel/fax (059) 8-414-414; 8-414-413
E-mail: office@autohak.com.pl
www.autohak.com.pl

Towing hitch (without electrical set)

Class: **A50-X** Cat. no. **AL38**

Designed for:

Manufacturer: **ALFA ROMEO**

Model: **159 (4 doors)**

produced since 09.2005

Model: **159 Sportwagon (estate)**

produced since 03.2006

Technical data:

D-value: 9,9 kN

maximum trailer weight: **1800 kg**

maximum vertical cup mass: **75 kg**

Approval number according to Directive 94/20/EC: **e20*94/20*1331*00**

Foreword

This towing hitch is designed according to rules of safety traffic regulations. The towing hitch is a safety component and can be installed only by qualified personnel. Any alteration or conversion of the towing hitch is prohibited and would lead to cancellation of design certification. Remove insulating compound and underseal from vehicle (if present) in the area of the mating surfaces of the towing hitch.

The vehicle manufacturer's specifications regarding trailer mass and max. vertical cup mass are decisive for driving whereat values for the towing hitch cannot be exceeded.

D-value formula:

$$\frac{\text{Max trailer weight [kg]} \times \text{Max vehicle weight [kg]}}{\text{Max trailer weight [kg]} + \text{Max vehicle weight [kg]}} \times \frac{9,81}{1000} = D \text{ [kN]}$$