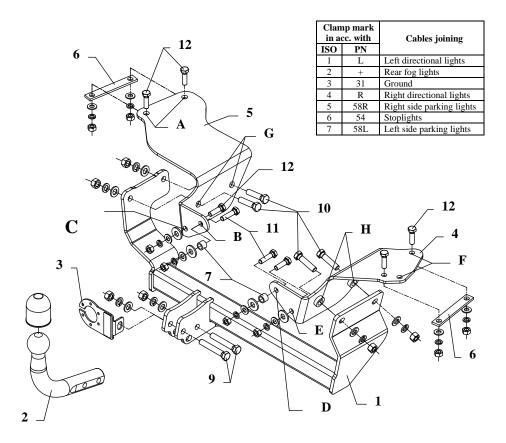
#### FITTING INSTRUCTION



This towbar is designed to assembly in following cars: **ALFA ROMEO 147, 3/5 doors, except TI-Model, GTA3.2L 184KW** produced since 2000, catalogue no. **AL37** and is prepared to tow trailers max total weight **1300 kg** and max vertical load **60 kg**.

# From manufacturer

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

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

### The instruction of the assembly

- 1. For mounting the towbar is necessary:
  - disassemble the bumper, the exhaust box, the heat-proof casing, the carpets from the floor and the sides, of the carrier.
- 2. To this prepared places apply the left and right brackets (pos. 4 and 5). See the drawing.
- 3. Through holes pos. A, B, C, D E and F drill Ø11mm and through pos. G and H) drill Ø13mm.
- 4. Enlarge the holes pos. B and D from the outside of the rear plate of the car, by drill ø17mm. Put in distance sleeves ø17mm, L=13mm.
- 5. From the bottom of the car place the main bar of the towbar (pos. 1) and twist the bolts M12x50mm (pos. 10) and all remaining units, look the drawing.
- 6. Mount the heat-proof casing, the exhaust box, the bumper, and the remaining elements previously disassembled.
- 7. To the installed bar, mount the tow-ball (pos. 2) with the socket plate (pos. 3) using bolts M12x75mm (pos. 9).
- 8. Tighten all bolts according to the torque shown in the table.
- 9. Connect the kit wires to the electric installation, in accordance with the instructions of the car.
- 10. Complete the possible decreases of the paint cover of towbar, originate during the mounting.

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

**M 8 -** 25 Nm **M 10 -** 55 Nm **M 12 -** 85 Nm **M 14 -** 135 Nm

#### **NOTE**

After install the towbar 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 towbar must be always kept clear and conserve with a grease.

#### Towbar accessories:

Pos. Name: Main bar guantity: 1	Pos. Name: Left bracket Quantity: 1	Pos.   Name: Bolt 8,8 B   Ouantity: 4   Dim.: M12x50mm	Pos. Name: Plain washer  1.5 Quantity: 6 Dim.: 9 13 mm
	Pes Name: Flat bar Quantity: 2 Dim.: 130x20x5mm	Pos. Name: Bolt 8,8 B  11 Ouantity: 2 Dim.: M10x40mm	Pos. Name: Plain washer  Ouanity: 8  Dim.: \$ 10,5 mm
Pas. 2 Name: Tow ball Quantity: 1	Pos. Name: Distance sleeve Quantity, 2 Dim.: \$\psi 17.2\pi \phi 2.35mm\\ L=13mm	Pos. 12   Name: Bolt 8,8 B   Quantity: 6   Dim. : M10x35mm	Pos. Name: Spring washer Quantity: 6 Dim.: Ø 12,2 mm
Pos. 3 Name: Socket plate Ovantity: 1	Pos. Name: Washer Quantity: 4 Dim.: \$\psi 30\times \phi 10.5\times 2.5\times \pm\)	Pos. Name: Nut 8 B Quantity: 6 M12	Pos. 18 Quantity: 8 Dim.: \$ 10,2 mm
Pos. 4 Name: Right bracket Quantity: 1	Pos. Name: Bolt 8,8 B Quantity: 2 Dim.: M12x75mm	Pos. 14 Name: Nut 8 B Quantity: 8 M10	Pos. 19 Name: Ball cover ouantity: 1



### PPUH AUTO-HAK S.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

maximum trailer weight: 1300 kg

maximum vertical cup load: 60 kg

Technical data:

D-value: 7,83 kN

## **Towing hitch (without electrical set)**

Class: A50-X Cat. no. AL37

Designed for:

Manufacturer: ALFA ROMEO

Model: 147

Type: 3/5 doors, except TI-Model, GTA3.2L 184KW

produced since 2000

Approval number acc. to regulations EKG/ONZ 55.01: E20-55R-01 0937

## **Foreword**

This towbar is designed according to rules of safety traffic regulations. The towing hitch is a safety component and can be install 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 matting surfaces of the towing hitch.

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

D-value formula:

$$\frac{\text{Max trailer weight [kg]} \quad \text{x} \quad \text{Max vehicle weight [kg]}}{\text{Max trailer weight [kg]} + \quad \text{Max vehicle weight [kg]}} \text{X} \frac{9.81}{1000} = \text{D [kN]}$$