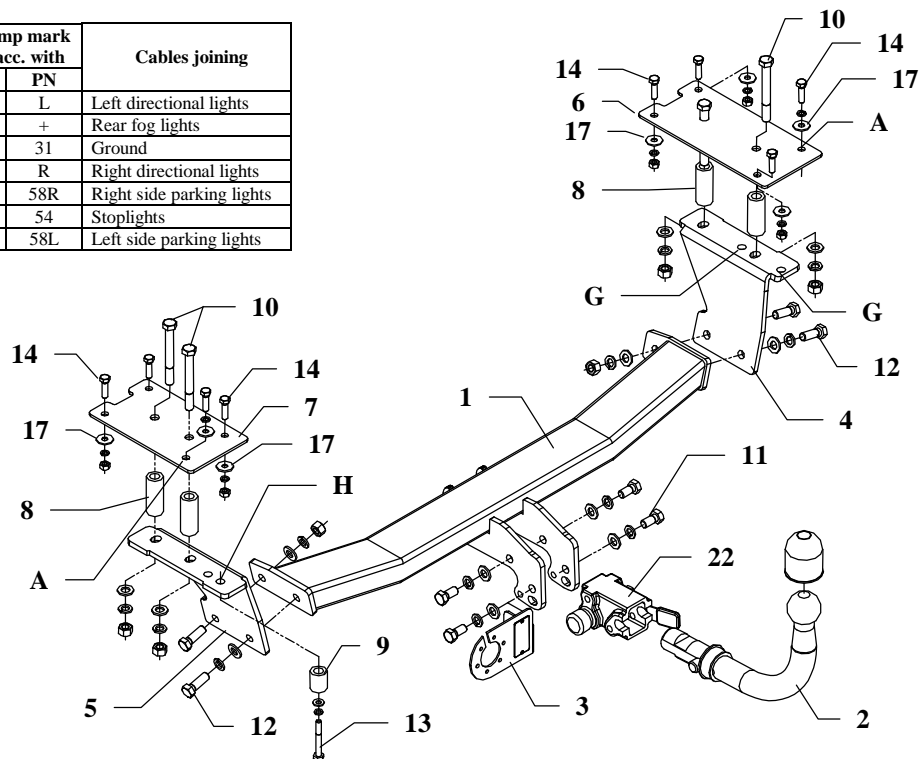


FITTING INSTRUCTION

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



This towing hitch is designed to assembly in following cars:

FIAT MAREA 4 doors, produced since 1996 till 2002, catalogue no. **R11A** and is prepared to tow trailers max total weight **1400 kg** and max vertical load **70 kg**. Before installation look at the page 337 in the instruction of the car.

The instruction of the assembly

1. Take out a spare wheel and fitted carpet from trunk floor.
2. Twist off:
 - rear handle of the muffler
 - original tow eye (not used any more).
3. Inside trunk, on the left and right side put fish-plates 6 and 7 (see figure 2). Next fix it through hole pos. A using bolts M8x30mm (pos. 14) in points originally threaded (remove plastic plugs).
4. Arrange fish-plates in accordance to dimensions from figure 2. Next mark points of rest holes. Then drill marked points straight through: bit $\varnothing 12,5\text{mm}$ holes pos. B and C, bit $\varnothing 8,5\text{mm}$ holes pos. D, E and F.
5. Disassemble both fish-plates. Made holes pos. B and C enlarge from trunk side using bit $\varnothing 25,5\text{mm}$; to enlarged holes put distance sleeves $L=62\text{mm}$ (pos. 8).

6. Reassemble fish-plates again and in holes pos. B and C put bolts M12x100mm (pos. 10) and in rest of holes put bolts M8x35mm (pos. 14). Bolts M8 fix to the floor using big washers $\varnothing 25 \times \varnothing 9 \times 2\text{mm}$ (pos. 17) and spring washers.
7. Underneath the car put side brackets (pos. 4 and 5) on bolts M12 protruding from the trunk and fix it loosely.
8. Through holes pos. G fix brackets using bolts M8 from disassembly of the original tow eye.
9. Fix handle of the muffler through hole pos. H using bolt M8x60mm (pos. 13), use distance sleeve $L=30\text{mm}$ (pos. 9).
10. Between assembled brackets (pos. 4 and 5) put main bar of the towing hitch (pos. 1) and fix it using bolts M12x35mm (pos. 12).
11. Fix tight all bolts according to the torque shown in the table.
12. Connect electric wires of 7-poles socket according to the instruction of the car. (Recommend to make at authorized service station)
13. Complete paint layer damaged during installation.

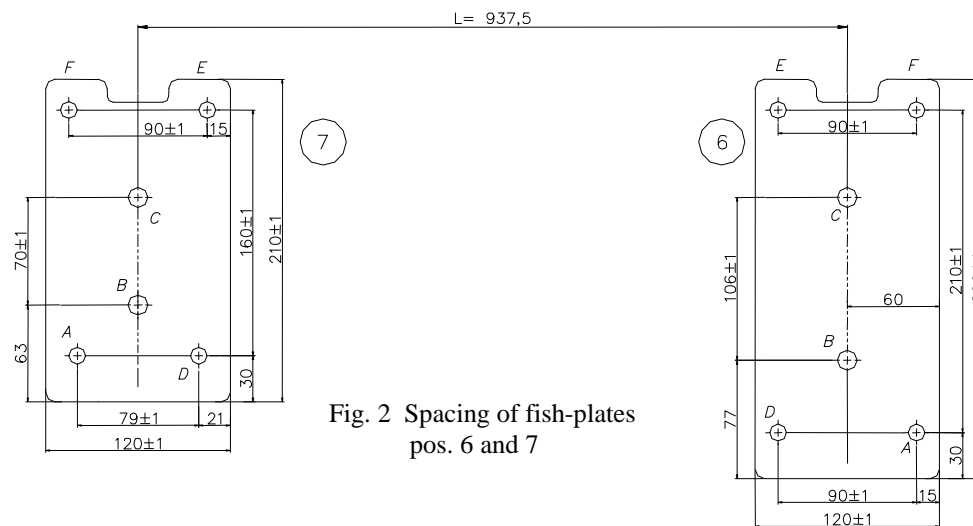


Fig. 2 Spacing of fish-plates pos. 6 and 7

Torque settings for nuts and bolts (8,8):
M 8 - 25 Nm **M 10 - 55 Nm**
M 12 - 85 Nm **M 14 - 135 Nm**

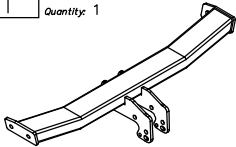













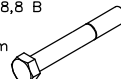






NOTE

After install the 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 check all bolts and nuts. The ball of towing hitch must be always kept clear and conserve with a grease.

Towing hitch accessories:

Pos. 1 Name: Main bar Quantity: 1	Pos. 6 Name: Right fish-plate Quantity: 1	Pos. 12 Name: Bolt 8,8 B Quantity: 4 Dim.: M12x35mm	Pos. 18 Name: Plain washer Quantity: 12 Dim.: \varnothing 13 mm
	Pos. 7 Name: Left fish-plate Quantity: 1	Pos. 13 Name: Bolt 8,8 B Quantity: 1 Dim.: M8x60mm	Pos. 19 Name: Plain washer Quantity: 1 Dim.: \varnothing 8,5 mm
			
Pos. 2 Name: Tow ball Quantity: 1	Pos. 8 Name: Distance sleeve Quantity: 2 Dim.: \varnothing 25x \varnothing 15mm L=62mm	Pos. 14 Name: Bolt 8,8 B Quantity: 8 Dim.: M8x30mm	Pos. 20 Name: Spring washer Quantity: 12 Dim.: \varnothing 12,2 mm
			
Pos. 3 Name: Socket plate Quantity: 1	Pos. 9 Name: Distance sleeve Quantity: 1 Dim.: \varnothing 25x \varnothing 15mm L=30mm	Pos. 15 Name: Nut 8 B Quantity: 6 Dim.: M12	Pos. 21 Name: Spring washer Quantity: 9 Dim.: \varnothing 8,2 mm
			
Pos. 4 Name: Right bracket Quantity: 1	Pos. 10 Name: Bolt 8,8 B Quantity: 4 Dim.: M12x100mm	Pos. 16 Name: Nut 8 B Quantity: 6 Dim.: M8	Pos. 22 Name: Body of the automat Quantity: 1
			
Pos. 5 Name: Left bracket Quantity: 1	Pos. 11 Name: Bolt 8,8 B Quantity: 4 Dim.: M12x25mm	Pos. 17 Name: Washer Quantity: 8 Dim.: \varnothing 25x \varnothing 9x2mm	Pos. 23 Name: Ball cover Quantity: 1
			



PPUH AUTO-HAK S.J.

Produkcja Haków Holowniczych
Henryk & 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. **R11A**

Designed for:

Manufacturer: **FIAT**

Model: **MAREA**

Type: **4 doors**

produced since 1996 till 2002

Technical data:

D-value: 8,8 kN

maximum trailer weight: **1400 kg**

maximum vertical cup load: **70 kg**

Approval number according to Directive 94/20/EC: **e20*94/20*0486*00**

Foreword

This towing hitch 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, and values for the towing hitch cannot be exceeded.

D-value formula:

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