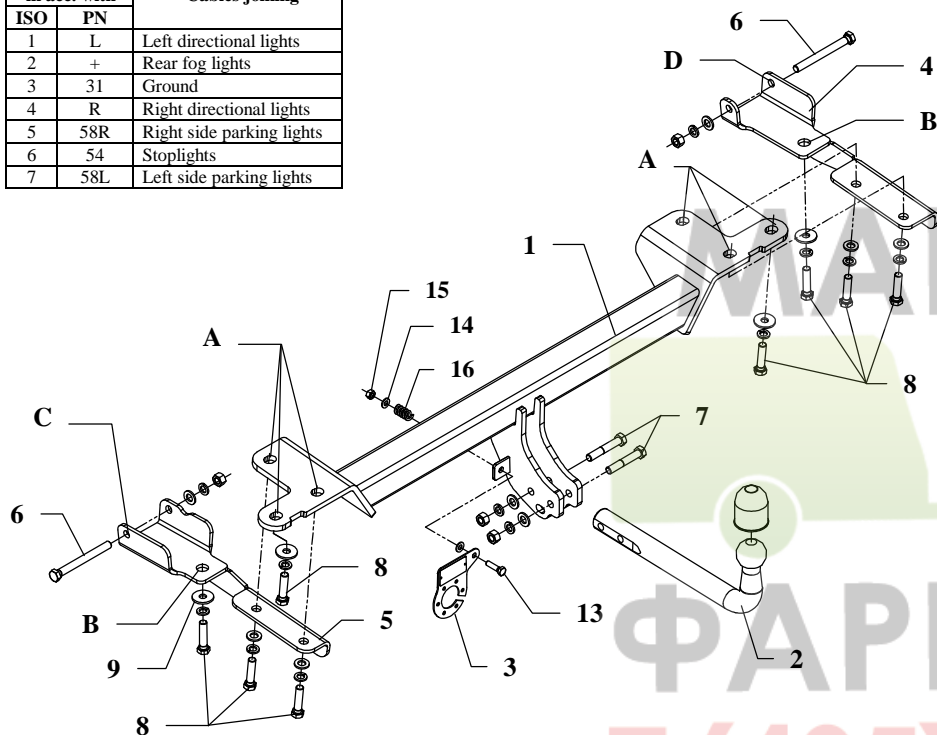


FITTING INSTRUCTION

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 towbar is designed to assembly in following cars:
SUZUKI GRAND VITARA, 5 doors, produced since 2005, catalogue no. **W23** and is prepared to tow trailers max total weight **2000 kg** and max vertical load **85 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. Disassemble the towing eye (the right side).
2. Disassemble the back silencer and slacken the thermal shield.
3. In the centre of the bumper (in axis) cut out fragment 65x80mm.
4. Fix the main bar of the towbar (pos. 1) and side brackets (pos. 4 and 5) to chassis members (to original made holes with thread) using bolts M12x50mm (pos. 8) and big washers $\varnothing 37 \times 13 \times 3$ mm (pos. 9).
5. Through holes (pos. C and D) of side brackets (pos. 4 and 5) drill holes $\varnothing 13$ mm (to this act will be indispensable the angle drill machine), then fix with bolts M12x120mm (pos. 6).
- Attention!** In some cars at points C and D already are holes prepared by car manufacturer.
6. Fix tow-ball (pos. 2) by bolts M12x70mm (pos. 7) from accessories.
7. Fix the socket plate (pos. 3) as shown on the drawing.
8. Tighten all bolts according to the torque shown in the table.
9. Connect electric wires of 7-poles socket according to the instruction of the car. (Recommend to make at authorized service station)
10. 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

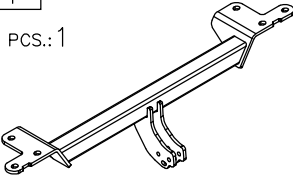
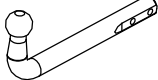

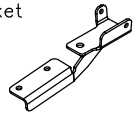

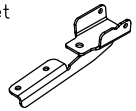
NOTE

After install the 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. 1 Main bar PCS.: 1	Pos. 6 Bolt 8,8 B M12x120mm PCS.: 2	Pos. 12 Nut 8 B M12 PCS.: 4
	Pos. 7 Bolt 8,8 B M12x70mm PCS.: 2	Pos. 13 Bolt 8,8 B M8x45mm PCS.: 1
Pos. 2 Tow ball PCS.: 1	Pos. 8 Bolt 8,8 B M12x1,25x50 PCS.: 8	Pos. 14 Plain washer ø8mm PCS.: 2
	Pos. 9 Plain washer ø37xø13x3mm PCS.: 4	Pos. 15 Nut 8 B M8 PCS.: 1
Pos. 3 Socket plate PCS.: 1	Pos. 10 Plain washer ø13mm PCS.: 8	Pos. 16 Spring PCS.: 1
	Pos. 11 Spring washer ø12,2mm PCS.: 12	Pos. 17 Ball cover PCS.: 1
Pos. 4 Right bracket PCS.: 1		
Pos. 5 Left bracket PCS.: 1		



PPUH AUTO-HAK Sp.J.

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E-mail: office@autohak.com.pl
www. autohak.com.pl

Towing hitch (without electrical set)

Class: **A50-X** Cat. no. **W23**

Designed for:

Manufacturer: **SUZUKI**

Model: **GRAND VITARA**

Type: **5 doors**

produced since 2005

Technical data:

D-value: 10,1 kN

maximum trailer weight: **2000 kg**

maximum vertical cup load: **85 kg**

Approval number according to Directive 94/20/EC: **e20*94/20*0067*00**

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, and values for the towing hitch cannot be exceeded.

D-value formula:

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