

### PPUH AUTO-HAK S.J.

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

Class: A50-X Cat. no. D23 Technical data:

Designed for:

Manufacturer: **MERCEDES** 

Model: ML

produced since 1998 till 2005

D-value: 15,94 kN maximum trailer weight: 3500 kg

maximum trailer weight: 3500 kg maximum vertical cup mass: 100 kg

Approval number according to Directive 94/20/EC: e20\*94/20\*0601\*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 whereat values for the towing hitch cannot be exceeded.

 $D ext{-}value\ formula:$ 

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

## FITTING INSTRUCTION Clamp mark Cables joining in acc. with ISO PN Left directional lights Rear fog lights 31 Ground Right directional lights Right side parking lights 54 Stoplights 58L Left side parking lights M12x110 Sleeve L=90mm Sleeve L=58mm M14x1.5x45 M12x35 Original beam M12x110

This towbar is designed to assembly in following car: **MERCEDES ML**, produced since 1998 till 2005, catalogue no. **D23** and is prepared to tow trailers max total weight **3500 kg** and max vertical mass **100 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 bumper.
- 2. In bar of the car are four threaded holes M14x1.5, screw in this place plate pos. D using bolts M14x1.5x45 and next to plate fix ball of towbar (pos. A) with bolts M12x35 (from equipment).
- 3. To reinforce rear beam of car, put elements (pos. B) from inside of frame and fix using distance sleeves and distance bars pos. C as showed in the drawing. Remember about socket plate on the left side!
- 4. Tighten all bolts according to the torque shown in the table.
- 5. Connect electric wires of 7-poles socket according to the instruction of the car. (Recommend to make at authorized service station)
- 6. Complete the paint coating damaged during installation.

Torque settings for nuts and bolts (8,8):				
<b>M6</b> - 11 Nm	<b>M 8 -</b> 25 Nm	<b>M 10 -</b> 50 Nm		
<b>M 12 -</b> 87 Nm	<b>M 14 -</b> 138 Nm	<b>M16</b> - 210 Nm		

#### **NOTE**

After install the towbar you should get adequate registration 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.