#### FITTING INSTRUCTION

<u> </u>		
Clamp mark in acc. with	Cables joining	
ISO PN	Cables Johning	<u> </u>
1 L	Left directional lights	$c \longrightarrow $
2 +	Rear fog lights	
3 31	Ground	
4 R	Right directional lights	10 —
5 58R	Right side parking lights	10 D
6 54	Stoplights	l X
7 58L	Left side parking lights	
14	B — 14 — A	14
Fig. 1	13	1 12 21

This towing hitch is designed to assembly in following cars: CHEVROLET AVEO SEDAN, produced since 2006, catalogue no. X21 and is prepared to tow trailers max total weight 1200 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. Clear boot and floor. Remove the back panel. Take off the side panels and move them to the
- 2. From the bottom of the car unscrew the filter.
- 3. Disassemble the orignal towing eye (will not be assembled again).
- 4. From the bottom of the bumper (in the centre-piecie) cut out the fragment: the width 55mm and the depth 45mm.
- 5. Drill hole Ø11mm in point A through floor (from the bottom of the chassis).
- 6. Place fish-plate (pos. 6) on the hole A.
- 7. Drill hole ø11mm in point B through fish-plate (pos. 6) in the floor.
- 8. Place fish-plate (pos. 7) on the right side, as one showed on the fig. 2 and drill holes ø11mm in points C and D. Make sure that the holes to be drilled match the holes on the underside of the chassis.
- 9. Remove fish-plates (pos. 6 and 7) and enlarge the holes from inside the boot only to ø30mm.
- Remove the anti-rumble material where the fishplates are in contact.
- 11. Place fish-plates (pos. 6 and 7) with three bolts M10x120mm (pos. 14) in combination with the distance sleeves (pos. 8, 9, 10) see fig. 1.
- 12. Place left bracket (pos. 5) in points A and B and fix loosely.
- 13. Place right bracket (pos. 4) in points C and D with the fourth bolt M10x120mm (pos. 14) and fix loosely.
- 14. Fix the main bar of the towing hitch (pos. 1) using bolts M12x35mm (pos. 13).
- 15. Fix tow ball (pos. 2) using bolt M12x75mm (pos. 11) and M12x70mm (pos. 12). With bolt M12x75mm fix also a socket plate (pos. 3). See figure 1.
- 16. Tighten all bolts according to the torque shown in the table.
- 17. Connect electric wires of 7-poles socket according to the instruction of the car. (Recommend to make at authorized service station).
- 18. Complete paint layer damaged during installation.
- 19. Install again the filter.

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

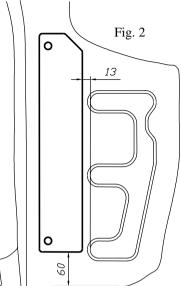
M 12 - 85 Nm M 14 - 135 Nm

#### NOTE

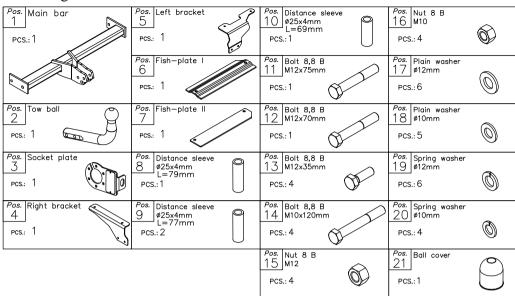
After install the towing hitch you should get adequate note in registration book (at authorised service station). The car should be equipped with:

- 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:





### PPUH AUTO-HAK S.J.

Produkcja Zaczepów Kulowych 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. X21

Designed for:

Manufacturer: **CHEVROLET** 

Model: **AVEO**Type: **SEDAN**produced since 2006

Technical data: **D**-value: **6,7 kN** 

maximum trailer weight: 1200 kg maximum vertical cup mass: 75 kg

Approval number according to Directive 94/20/EC: <u>e20\*94/20\*0704\*00</u>

### **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 mass and max. vertical cup mass are decisive for driving whereat values for the towing hitch cannot be exceeded.

D-value formula:

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