

## OPERATION AND MAINTENANCE

- The value of the maximum permissible payload of the towing vehicle shall be decreased by the total mass of the coupling device (see technical data).
- The coupling device may be used only for towing of trailers with relevant coupling devices.
- Fastening of the coupling device to the vehicle as well as of the towing arm to the towing frame shall be checked after the first 300 km run with trailer. It is recommended to repeat such inspections regularly every 3000 km run with trailer.
- The towing arm with ball shall be kept clean and only appropriate grease shall be used to its protection.
- Inspections of ball diameter are necessary during the often use of the coupling device. Diameter shall not be smaller than 49 mm in any place.
- If a trailer isn't coupled, must be the detachable towing arm removed. Towing arm, which can be removed without using of tools, is allowed being detachable. Towing arm requiring tools for its removal isn't allowed to be detachable. If the towing arm is removed, it is necessary to protect the chuck of bayonet lock by the delivered cover.

## WARRANTY CERTIFICATE

The manufacturer provides a 24 months warranty period from the date of sale for the fail-safe function of the supplied coupling device if all instructions given by him for mounting, operation and maintenance of that product have been kept.

The user shall apply the warranty claim at the sale organisation where the coupling device was bought. The shop dealer with the representative of manufacturer shall assess the claim in the legal time limit and in accordance with claim rule in force.

Condition of warranty is that coupling device has been used only for the purposes it has been designed and intended to and in accordance with the technical data put down in this instruction book. Next conditions of warranty are the observance of mounting procedure and the only use of original parts (especially of the towing arm).

Warranty does not cover damage of its surface protection made mechanically or by its use in extreme weather conditions.

Warranty expires if coupling device has been damaged in an accident of relevant towing or towed vehicle, with exception of an accident caused evidently by the own coupling device itself. Warranty is also cancelled in case of intervention into the mechanism of the coupling device leading to any change or improvement.

**Warning: Warranty certificate is not valid without submission of the duly filled-up Type Sheet bearing protection elements.**

Date of sale:

Sale organisation:

### HOOK CZ s.r.o.

Košuličova 2

Brno 619 00

CZECH REPUBLIC

Tel., fax: +420 543 252 024



**HOOK CZ s.r.o.**

Košuličova 2

Brno 619 00

CZECH REPUBLIC

## OPERATING INSTRUCTIONS WARRANTY CERTIFICATE

for  
coupling device

Design : a) not detachable ball joint

TYPE:

**BTZ 27-04A**

EEC-approval number:

**e8 00-0032**

Design: b) detachable ball joint

TYPE:

**BTZ 27-04B**

EEC-approval number:

**e8 00-0033**

**For vehicle:**

**Manufacturer:**

**Opel**

**Model:**

**Zafira**

**Model year:**

**1998 - 2005**

### TECHNICAL DATA:

D-value:

8,49 kN

Maximum static vertical mass **S** :

75 kg

Mass of the coupling device:

(a) 15,5 kg, (b) 17,5 kg

The Coupling device was homologated pursuant to the Directive 94/20/EC. It is intended for towing of trailers and it was checked for D-value 8,49 kN. According to expression mentioned below, for example, it corresponds with trailer mass 1650 kg and vehicle mass 1821 kg. But technical data inscribed in the Vehicle Registration Document are valid. Value of vertical load S mustn't be exceeded.

$$\text{Calculation of D-value: } D \text{ [kN]} = \frac{\text{Max. trailer mass [kg]} \times \text{Max. vehicle mass [kg]}}{\text{Max. trailer mass [kg]} + \text{Max. vehicle mass [kg]}} \times \frac{9,81}{1000}$$

## CONDITIONS FOR ATTACHMENT OF THE COUPLING DEVICE TO THE VEHICLE

- Any change or reconstruction of the coupling device is not permitted!
- Presumption for the installation of the coupling device into the towing vehicle is that the vehicle meets perfectly the geometric parameters declared by manufacturer and that the fixing points on bottom of the rear part of bodywork are not deformed or injured by accident or attacked by corrosion at elder vehicles.

### Procedure of the attachment to the vehicle:

- Demount the rear bumper and the bumper reinforcement.
- Cut the lower rim of the bumper in vehicle axis. The depth of cut is approximately 50 mm (the same for both versions) and width of the cut is 65 mm (for BTZ 27-04A ) or 85 mm (for BTZ 27-04B).
- Drill four holes Ø22 mm into the rear wall of the vehicle- use punched markers as a centre.
- Insert two special nuts (20) into the vertical holes in the longitudinal beams of the vehicle. Put the right (21) and left (22) holders on – see figure. Fix slightly by bolts M8 (23).
- Insert four bolts M12 (24) through the holders (21) and (22). Insert four distance tubes (25) through the rear wall of the vehicle. Put the crossbeam on the bolts M12 and fix it by nuts M12 – see figure.
- All bolts firmly tighten: M8 = 25 Nm, .M12 = 75Nm.
- Install the wiring. At the coupling device with the ball joint fixing by two bolts attach the socket holder (3) onto the bolt (26). At the coupling device with bayonet lock attach the socket holder onto the welded bolt (12) at the console of bayonet by nut and washers (13).
- Fix back the bumper reinforcement. Fit back the bumper.

### Mounting and demounting of ball joint:

From fixative chuck (16) shall be removed a plastic cover (22). Take down the plastic cover (21) from the fixative spindle of the bayonet joint. From the lock (19) placed at the lever (17), shall be removed its plastic cover (20). Open the lock and eject it from its chuck, the lever move round about 90°, bayonet joint (2) fall about 90° to the horizontal position so that the lever make towards to the road and put into its chuck. Then, moving round the ball joint till vertical position has been reached. During rotation the lever must be slacken, so that the fuse pin (18) should snap to the hole at the fixative chuck. Shall tighten upward the lever to the backstop, push in the lock to the hole in a brick, lock it and put on the plastic cover. All of parts of a bayonet mechanism shall be kept clean and slightly greased. Opposite technique shall be used for demounting.

### List of delivered parts:

crossbeam (1).....	1
towing arm (2) + plastic cover (4).....	1+1
socket holder (3).....	1
right holder (21).....	1
left holder (22).....	1
distance tube ½" – 70mm (25).....	4
washer 13 + spring washer + nut M12 (13) ..... (only for BTZ 27-04B) .....	1+1+1
bolt M12x65 + spring washer + nut M12..... (only for BTZ 27-04A) .....	1+1+1

bolt M12x70 (26) + spring washer +	
+ washer + nut M12..... (only for BTZ 27-04A).....	1+1+1+1
bolt M8 (23) + large washer 9 + spring washer 8 +.....	
special nut M8 (20).....	2+2+2+2
bolt M12x110 (24) + washer 13 + spring washer 12 + nut M12.....	4+8+4+4
fixative chuck cover (6)..... (jen BTZ 27-04B) .....	1
fixative spindle cover (7)..... (jen BTZ 27-04B) .....	1
lock (8)..... (jen BTZ 27-04B) .....	1
lock cover (10)..... (jen BTZ 27-04B) .....	1
wiring.....	by the order

FIGURE – coupling device Opel Zafira

