

# kovil®

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## INSTALLATION INSTRUCTIONS

### Vehicle information:

Make (manufacturer): **Mercedes-Benz, Volkswagen**  
Model(s): **MB Sprinter Van / Bus: max 3,88 ton (209-224, 309-324), 04/2006-  
VW Crafter Van / Bus: max 3,88 ton (30, 35), 04/2006-**  
Type(s): **MB: 906 / WDB... / WDF..., VW: 2E... / EZ... / FZ...**

**Note:** Middle part of bumper with integrated step has to be changed (part is available at MB/VW retailers).

### Towbar information:

Product No (Version): **35322 (-)**  
EC type: **KF290**  
EC approval No: **e11\*94/20\*5974\*01**  
Vertical mass on coupling S: **max. 150 kg** (See vehicle data)  
D -value D: **max. 16.0 kN**  
Weight of towbar: **20.5 kg**

**D -value equals e.g. C = 2800 kg and T = 3907 kg.**

Follow also vehicle specified restrictions (see registration document and other data of vehicle).

**D -value of towbar must not be exceeded.**

**D** = D -value [kN]

**T** = Maximum mass of vehicle [kg]

**C** = Maximum mass of centre axle trailer -  
Vertical mass (S) on coupling [kg]

$$D = T \times C \times 9.81 / ((T + C) \times 1000)$$

$$T = C \times D \times 1000 / ((C \times 9.81) - (1000 \times D))$$

$$C = T \times D \times 1000 / ((T \times 9.81) - (1000 \times D))$$

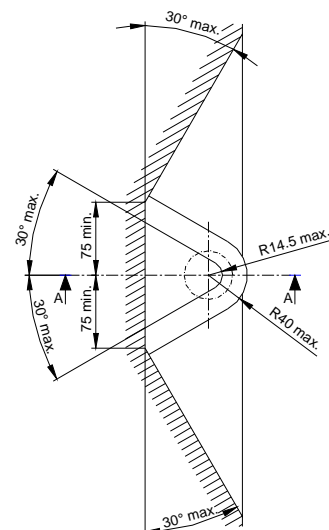
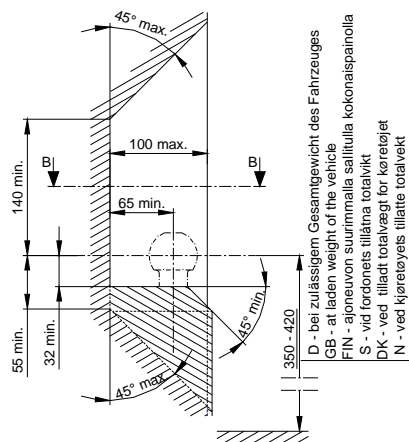
### General instructions:

#### READ INSTALLATION INSTRUCTIONS BEFORE INSTALLING THE TOWBAR!

- Remove underseal or other thick coating on contact area between bodywork and towbar. Treat bare sections (and drilled holes) with thin anti-corrosive coating.
- Clean threads of welded nuts and screws before assembly.
- Installation instructions and other operating and maintenance instructions, if enclosed, shall be kept with vehicle documents.
- Coupling ball must be kept clean and greased.

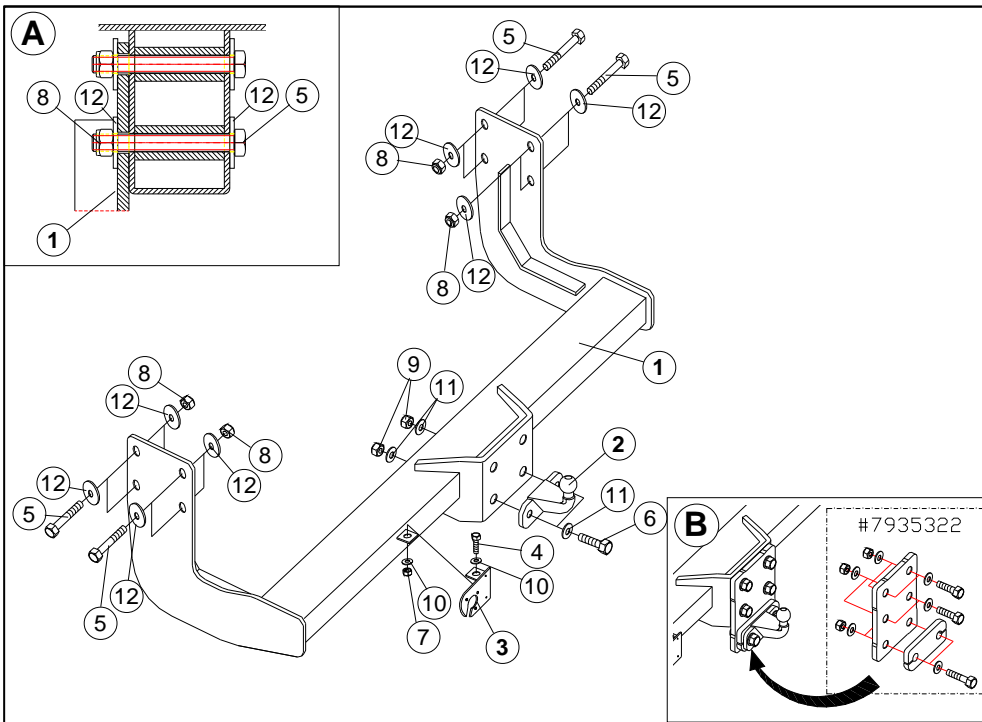
#### Notice!

- Constructional changes to towbar or to its assembly are forbidden. Defective towbar must be replaced with a new one together with complete assembly set.
- Smallest diameter of coupling ball must not be less than 49 mm to any direction.
- **Manufacturer's responsibility shall not concern any damage caused by incorrect installation or use of towbar.**



KF290 - 35322 (GB) / 26.01.2009

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**Installation set:**

Pos	Qty	Part
1	.....1	<b>Cross beam</b>
2	.....1	<b>Ball part (L75 / H80)</b>
3	.....1	<b>Socket plate</b>
4	.....1	Screw ..... M8 x 20
5	.....8	Screw ..... M12 x 100
6	.....2	Screw ..... M16 x 50
7	.....1	Locknut ..... M8
8	.....8	Locknut ..... M12
9	.....2	Locknut ..... M16
10	.....2	Washer ..... 8 x 16
11	.....4	Washer ..... 17 x 30
12	.....16	Washer ..... 13 x 36

**Tightening torque:**

M6 - 8.8	..... 10 Nm
M8 - 8.8	..... 30 Nm
M10 - 8.8	..... 47 Nm
M12 - 8.8	..... 90 Nm
M14 - 8.8	..... 130 Nm
M16 - 8.8	..... 195 Nm
M10 x 1,25 - 8.8	... 40 Nm
M12 x 1,25 - 8.8	... 70 Nm
M12 x 1,5 - 8.8	..... 80 Nm
M14 x 1,5 - 8.8	... 135 Nm

**Notice!** Unpack the installation set and check before assembly that all parts are included.  
For removing parts from vehicle see detailed instructions in workshop manual!

**Hint:** Follow installation instructions for electric wiring kit and install wires while mounting the towbar.

1. Remove spare wheel.  
Remove towing bracket from right side frame (will not be remounted).
2. Place screws (5) with washers (12) from outside through side frames (there are holes with bushings in side frames), and mount cross beam (1) between side frames loosely with screws (5), washers (12) and nuts (8), see also sketch A.
3. Mount ball part (2) to cross beam (1) with screws (6), washers (11) and nuts (9).  
Ball height can be chosen considering used load / suspension (ball height to ground should be 350-420mm with vehicle's maximum load).  
Lowering set for ball part can be ordered separately for vehicles with 4WD and/or with elevated chassis, see sketch B.
- Note:** Use new M16 - grade 8 locknuts if ball part position is changed.
4. Mount socket plate (3) to cross beam (1) with screw (4), washers (10) and nut (7).
5. Align all parts and tighten all screws/nuts carefully to the right torque, see table.
6. Mount demounted parts back to vehicle.

**NOTE!** Crossbeam prevents use of original towing bracket on rear side, towbar can be used for towing according to road traffic act.