



AL-KO QUALITY FOR LIFE

LEVELSYSTEM
MOTORHOME
CARAVAN



PARTLIST
caravan

2018 (25-06)



LEVELSYSTEM. SIMPLY LEVEL



ARRIVE
SETUP
HOLIDAY

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Introduction

E&P Hydraulics supplies the caravan levelsystem in two versions :

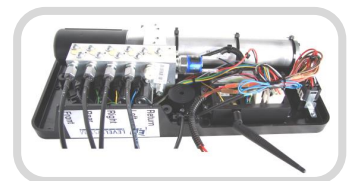
- 6-supports Complete Levelsystem *
- 2-supports Compact automatic Levelsystem **

* At the 6-support levelsystem 2 axle-supports and 4 AL-KO Bigfoot corner supports are delivered.
This system could be operated fully automatically by means of a build in control panel or a optional remote control unit.

** At the 2-supports compact automatic levelsystem only 2 axle supports are delivered.
This system could be operated fully automatically by means of a build in control panel or a optional remote control unit.

The caravan levelsystem consists of

- Hydraulic corner supports Al-Ko Bigfoot (only at 6 support set)
 - Hydraulic axle supports (2 pcs.)
 - Mounting bracket set for mounting the axle supports
 - Hydraulic pump with valve block
 - Hydraulic hoses set (incl. couplers)
 - Operating-system
 - Control-panel
 - Emergency pushbutton
 - Fuse and fuseholder
 - Electrical wiring kit (pre mounted on pump)
 - Installation materials and user manual
-
- Remote control (optional)
 - Emergency handpump (optional)



Note:

The hydraulic axle supports and pump are prefilled with oil.

The levelsystem set includes a mounting bracket set for mounting the axle supports to the caravan chassis.

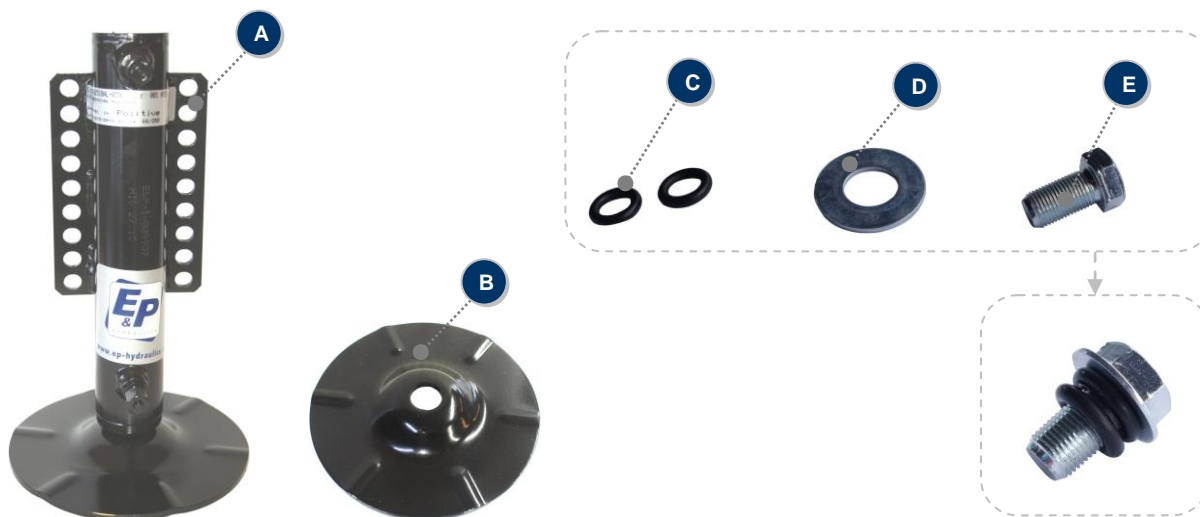
Extra weight of the caravan: about 20 Kg

1. Jacks overview

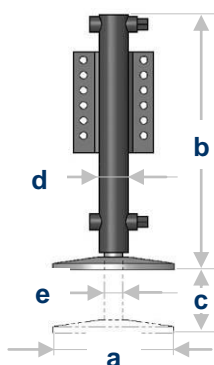
1.1 Cylindrical axle jack (single stainless steel piston)

Below is an overview concerning the loose cylinder jacks (AXLE JACK / Item A) as used within the E&P Hydraulics levelsystem for the caravan.

As standard, the hydraulic jacks are equipped with a steel footplate. The footplate is mounted to the bottom side of the piston rod by means of two rubber washers, one metal galvanized washer and a bolt. (the bolt is secured with Loctite)



Part no. (E&P)	Description	Item	Size	Weight
EP-001 HYD	Cylinder 1T caravan (complete)	A	(see below)	4.6 Kg.
YPTG180AC	Footplate (steel)	B	Ø 180 mm.	1.0 Kg.
24466	O – Ring	C	10,46 x 5,33	n.v.t.
24466-a	Washer (galvanized)	D	n.v.t.	n.v.t.
24466-b	Bolt (metrical)	E	M10 x 25 mm.	n.v.t.



a = diam. Footplate (180 mm.)

b = total length (300 mm.)

c = stroke (190 mm.)

d = diam. Outside cylinder (50 mm.)

e = diam. piston (25 mm.)

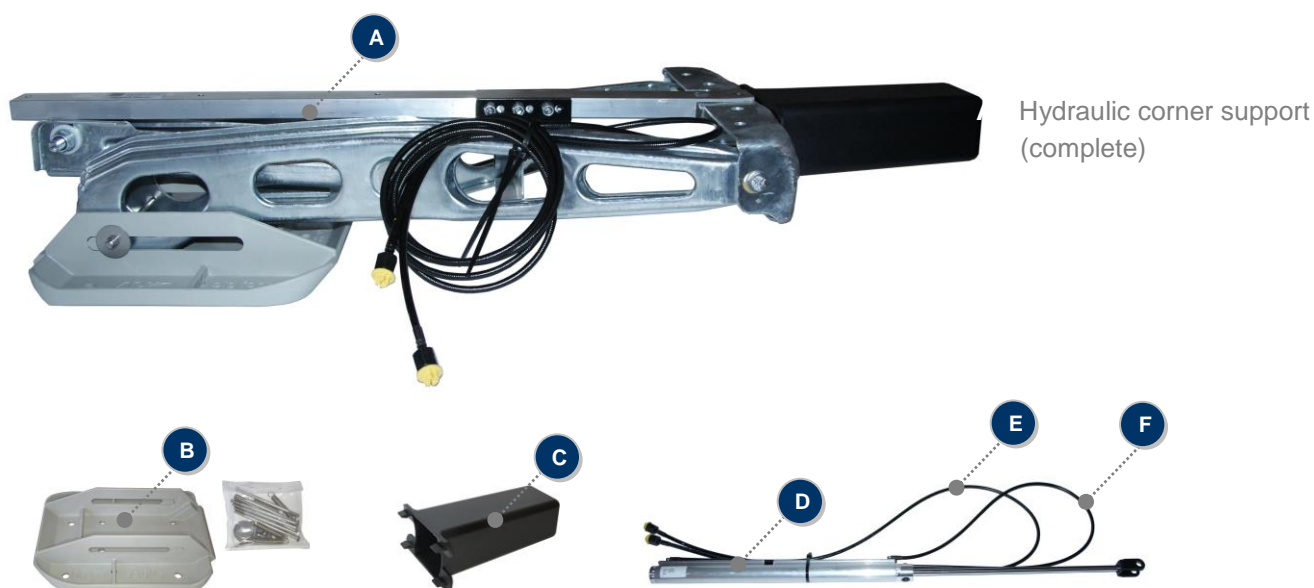
A = Axle jack
(incl. footplate & mountingplate)



1.2 Cylindrical corner support (single stainless steel piston)

Below is an overview concerning the loose hydraulic corner support cylinder (CORNER SUPPORT / Item A) as used within the E&P Hydraulics levelsystem for the caravan.

Three hydraulic corner supports (4 pcs.) are ONLY in use with the complete 6 support levelsystem, at the compact levelsystem only the two hydraulic axle jacks are used.



Hydraulic corner support (complete)

Part no. (E&P)	Description	Item	Size	Weight
EP-1225003	Corner support (complete)	A	83 x 29 x 17 cm.	6,1 Kg.
1212458	AL-KO footplate set (4 pcs..)	B	26,5 x 20 x 6 cm.	2.5 Kg.
C1188	Endcap corner support	C	20,5 x 12,5 x 6,5 cm.	0,2 Kg.
DCD2-120406	Cylinder corner support (incl. hoses)	D	79 x 5 x 5 cm.	0,8 Kg.
DKO-1290-MIM 2.9	Hydraulic hose No.1 (loose)	E	L= 125 cm.	n.v.t.
DKO-1410-MIM 2.9	Hydraulic hose No.1R (loose)	F	L= 125 cm.	n.v.t.

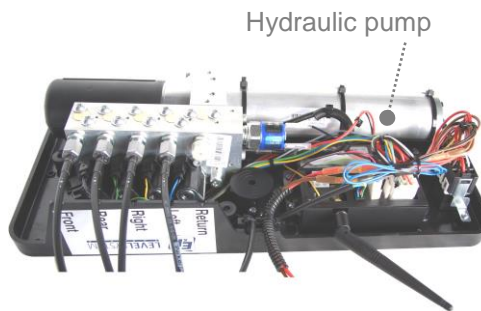
2. Hydraulic Pump

2.1 Complete pump assembly

The hydraulic jacks within the E&P Hydraulics levelsystem are activated by means of a 12V electro-hydraulic pump. This pump is buildin into a protective plastic casing.



Protective casing (complete / closed)
(incl. operating system and hydraulic pump)



View: with removed casing top



Part no. (E&P)	Description	Item	Size	Weight
EP-PC1TC	Complete pump 1.0 T assy	A	45 x 20 x 10 cm.	6.5 Kg.
DPE2-123611	Pump caravan 12V / 1.0 T	B	41 x 7 x 15 cm.	4.0 Kg.
K4ZCF3/75U	Pressure switch	C	n/a.	40 Gr.



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3. Operation and control

3.1 Operating and control system

The hydraulic levelsystem is operated by means of a control panel (A or B) and or (optional) remote control (E or F). The hydraulic levelsystem is regulated by means of an operating system (D).

On the operating systems an antenna connection is present, this connection is only in use when a remote control unit is connected to the system.



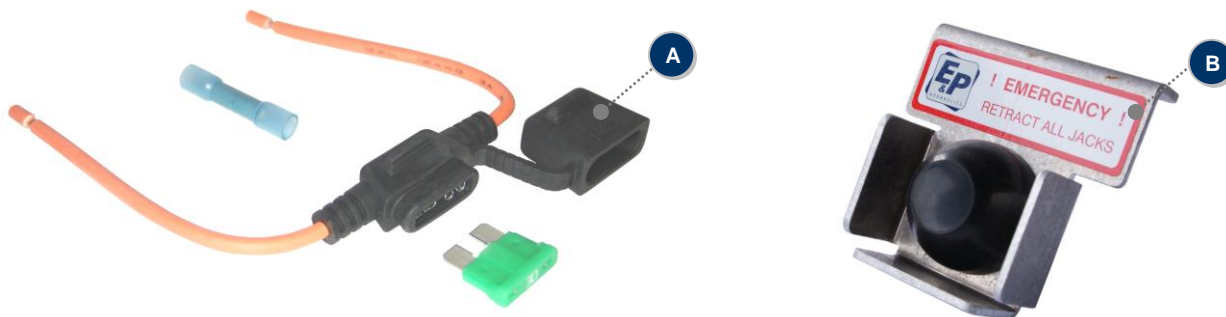
Part no. E&P	Description	Item	Size	Weight
EP-CP122	Operating panel - 6 supports	A	13 x 9 x 2 cm.	115 Gr.
EP-CP123	Operating panel - compact	B	13 x 9 x 2 cm.	115 Gr.
C0993a	Mounting frame operating panel	C	12,5 x 8,5 x 1,3 cm.	10 Gr.
EP-BB122	Operating system 12V caravan	D	14 x 9 x 2,5 cm.	165 Gr.
EP-RC02	Remote control - 6 supports	E	14 x 9 x 3 cm.	115 Gr.
EP-RC03	Remote control - compact	F	14 x 9 x 3 cm.	115 Gr.
EP-RC01a	Holder for remote control	G	9 x 9 x 3 cm.	35 Gr.
3760112	Battery 9V	H	5 x 2,5 x 1,5 cm.	50 Gr.
EP-542-563	Antenna for remote control	I	140 x 1 x 1 cm.	25 Gr.

4. Electronic components

4.1 Fuse(holder)

Within the hydraulic levelsystem for the caravan there are no electrical connection cables in use. All cables are prefitted into the protective casing.

A loose fuse and an emergency pushbutton will be supplied within the caravan levelsystem set.



Part no. (E&P)	Description	Item	Size	Weight
EP0001B/01	Fuse / 30 Amp.	A	n/a	25 Gr.
EP-ESC-01	Emergency pushbutton assy	B	n/a.	40 Gr.

5. Hydraulic parts

5.1 Hydraulic hoses

The hydraulic pump, the two axle jacks and the four corner supports are connected by 9 loose hydraulic hoses. The hoses are delivered incl. connection nipples. With the help of various couplers these hoses are connected.

Note **:

The compact level system is provided only with the hydraulic axle support hoses.

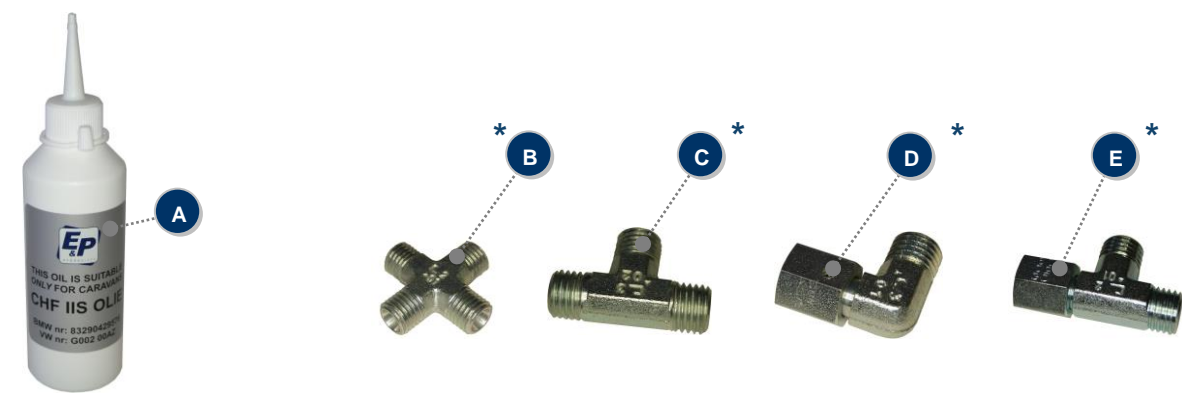


- A** The 6 support hose set consists of:
- 2x No. 2 - for the purpose of the axle jacks
 - 2x No. 2R - for the purpose of return axle jacks
 - 1x No. 3 - for the purpose of the rear corner supports
 - 1x No. 3R - for the purpose of the return rear corner supports
 - 1x No. 4 - for the purpose of the front corner supports
 - 1x No. 4R - for the purpose of the return front corner supports
 - 1x No. 5R - for the purpose of pump and crosspiece coupler
- B** The 2 support hose set consists of:
- 2x No. 2 - for the purpose of the axle jacks
 - 2x No. 2R - for the purpose of return axle jacks
 - 1x No. 5R - for the purpose of pump and crosspiece coupler

Part no.	Description	Item	Size	Weight
E&P				
EP-Hoses 6	Hydraulic hose kit complete system (6 supports)	A	n/a.	500 Gr.
EP-Hoses 2	Hydraulic hose kit compact system (2 supports)	B	n/a	300 Gr.
120374-900-S	Hydraulic hose No. 2	-	L= 175 cm.	n/a
120375-900-S	Hydraulic hose No. 2R	-	L= 175 cm.	n/a
120376-900-S	Hydraulic hose No. 3	-	L= 400 cm.	n/a
120377-900-S	Hydraulic hose No. 3R	-	L= 400 cm.	n/a
120378-900-S	Hydraulic hose No. 4	-	L= 250 cm.	n/a
120379-900-S	Hydraulic hose No. 4R	-	L= 250 cm.	n/a
120380-900-S	Hydraulic hose No. 5R	-	L= 30 cm.	n/a



5.2 Hydraulic oil and couplers



* Note: Screw couplers B (1x) C (4x) D (2x) and E (1x) are delivered standard with the levelsystem



** The extension set is only in use with extreme long caravans.

Part no. (E&P)	Description	Item	Size	Weight
Bottle CHF IIS	Hydraulic oil (150cc / Pentosin CHF IIS)	A	n/a	n/a
Bottle CHF IIS	Hydraulic oil (1.000cc / Pentosin CHF IIS)	A	n/a	n/a
X-K-06L	Coupler (cross piece with ext. thread)	B	n/a	n/a
X-T-06L	Coupler (T-coupling with ext. thread)	C	n/a	n/a
X-EW-06L	Coupler (angled with nut and ext. thread)	D	n/a	n/a
X-EL-06L	Coupler (T-coupling with nut and ext. thread)	E	n/a	n/a
120497-900/X-G6L	Extension set hydraulic hoses	F	n/a	n/a

6. Miscellaneous

6.1 Adapter plates and Emergency pump

Concerning the installation of the levelsystem, there are still some components to be designated, which can be used depending the caravan type.

AL-KO adapterplate kit : (A)

Set mountingplates to make it possible mounting the hydraulic AL-KO corner supports to the frontside of the caravan chassis.

AL-KO strip : (B)

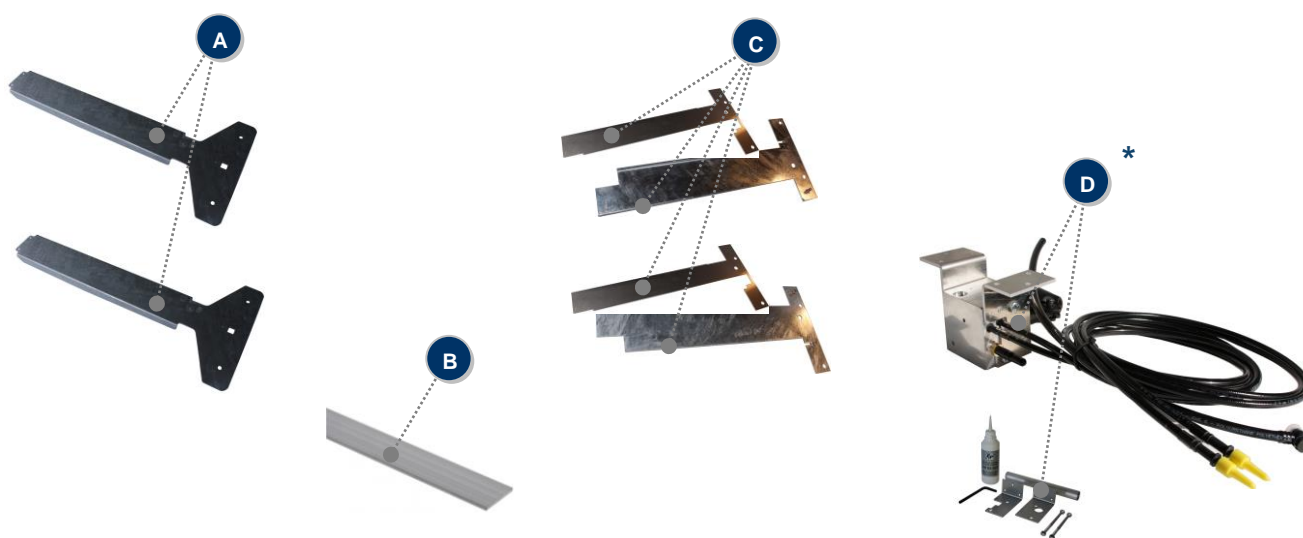
Shim or fill up plate to make it possible mounting the corner supports to the caravan chassis.

BPW adapterplate kit : (C)

Set shimplates to make it possible mounting the hydraulic AL-KO corner supports to the rear side of the BPW caravan chassis.

Emergency pump : (D)

Emergency handpump, incl. hydraulic hoses, bottle of oil and mounting parts)



Part no. (E&P)	Description	Item	Size cm.	Weight
1220641	AL-KO adapterplate kit	A	64 x 28 x 2	7.4 Kg.
ALKO 50x3	AL-KO strip (shim or fill up)	B	50 x 30 x 3	0.1 Kg.
CP6302	BPW adapterplate kit	C	65 x 35 x 2	2.8 Kg.
DHP8-120637	Emergency hand pump *	D	7 x 7 x 14	1.6 Kg.

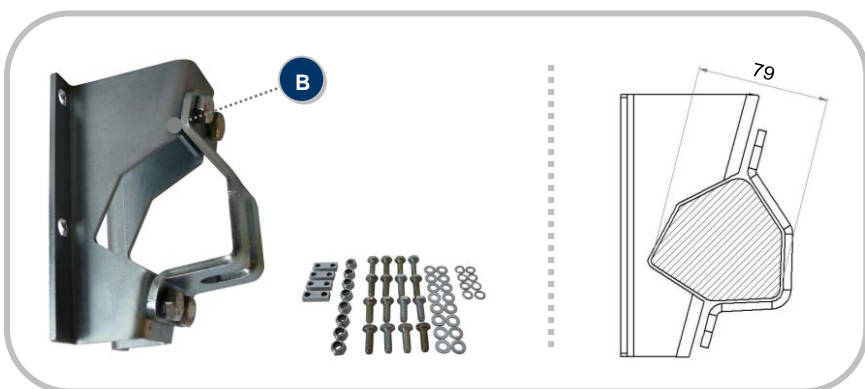
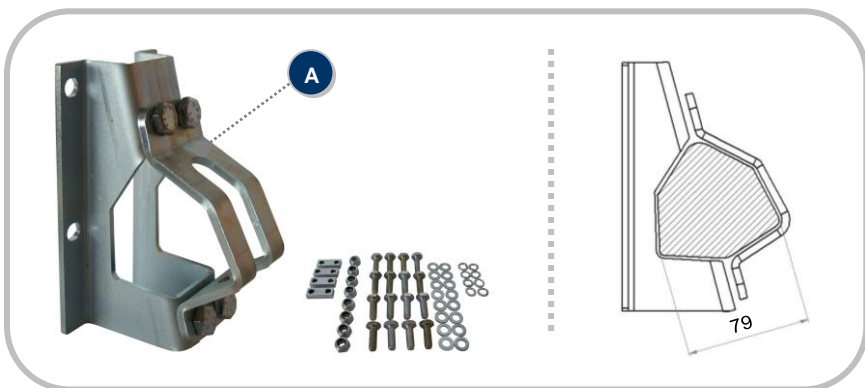
* The emergency pump is standard delivered with: Mounting bracket kit, Swivel pipe, Allen key and bottle of oil (150 cc.)

7. Mounting brackets

7.1 Mounting axle-bracket set (AL-KO 1.000 Kg.)

Below is an overview concerning the axle mounting bracket as used for mounting the axle jacks to a AL-KO 1.000 Kg. caravan chassis.

mounting-bracket set (1 set = 2 pcs. • left and right incl. mounting parts)



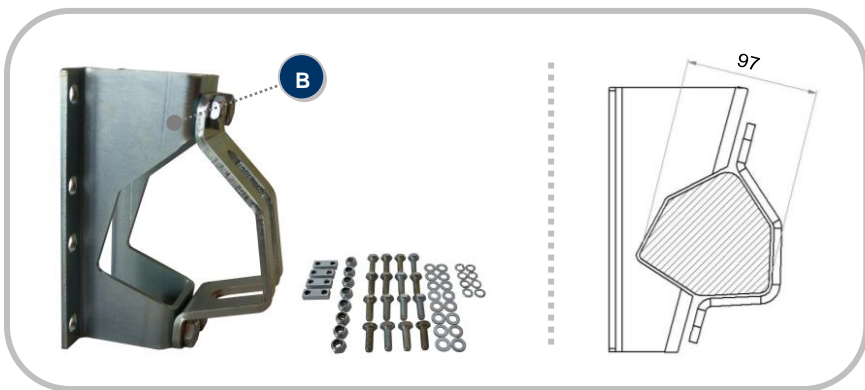
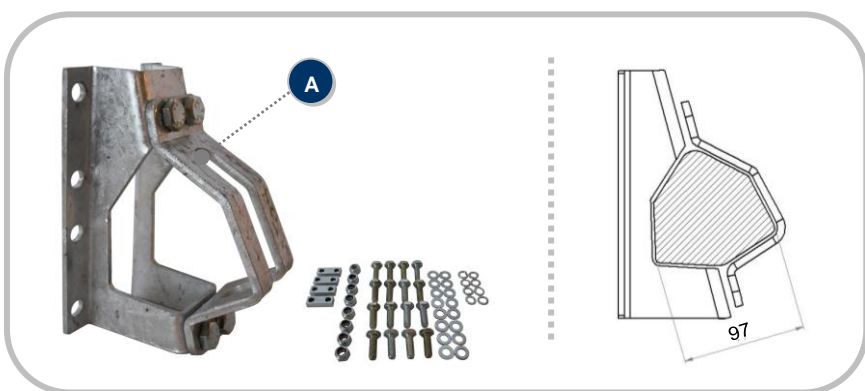
AL-KO 1.000 Kg.

		Item	Kg.
alko 1000 front tandem	Axle bracket set • AL-KO 1.000 Kg. IN FRONT of the axle (tandem-axle)	A	2.7
alko 1000 behind axle	Axle bracket set • AL-KO 1.000 Kg. BEHIND the axle (single axle)	B	2.7

7.2 Mounting axle-bracket set (AL-KO 1.500 Kg.)

Below is an overview concerning the axle mounting bracket as used for mounting the axle jacks to a AL-KO 1.500 Kg. caravan chasis.

mounting-bracket set (1 set = 2 pcs. • left and right incl. mounting parts)



AL-KO 1.500 Kg.

CP6994 Axle bracket set • AL-KO 1.500 Kg. **IN FRONT** of the axle (tandem-axle)

A 2.7

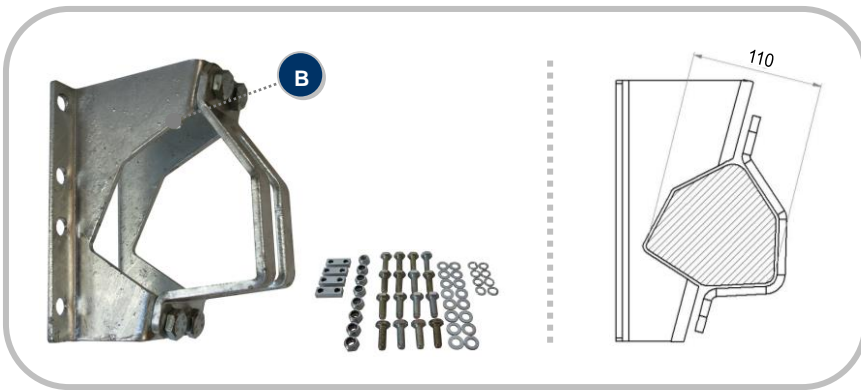
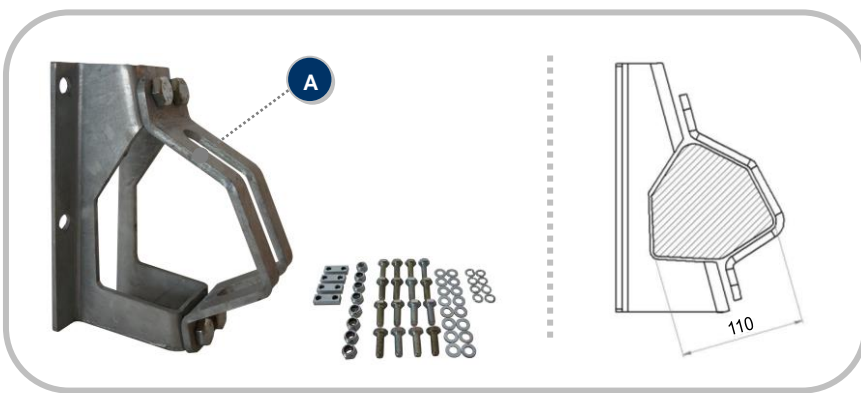
CP6995 Axle bracket set • AL-KO 1.500 Kg. **BEHIND** the axle (single axle)

B 3.0

7.3 Mounting axle-bracket set (AL-KO 1.800 Kg.)

Below is an overview concerning the axle mounting bracket as used for mounting the axle jacks to a AL-KO 1.800 Kg. caravan chasis.

mounting-bracket set (1 set = 2 pcs. • left and right incl. mounting parts)



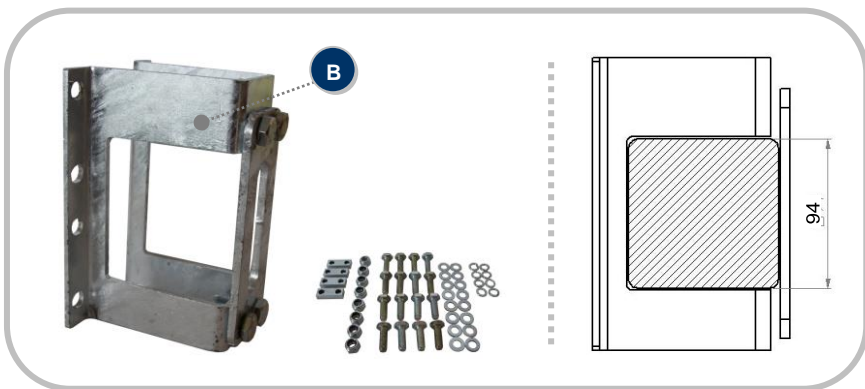
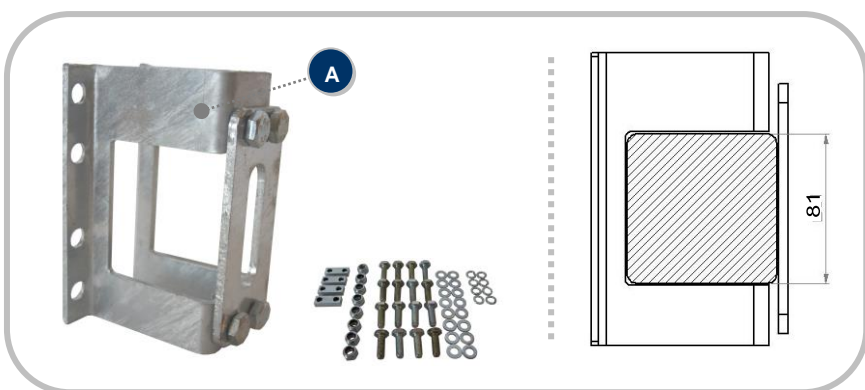
AL-KO 1.800 Kg.

		Item	Kg.
ALKO 1800 front tandem	Axle bracket set • AL-KO 1.800 Kg. IN FRONT of the axle (tandem-axle)	A	2.9
CP6996	Axle bracket set • AL-KO 1.500 Kg. BEHIND the axle (single axle)	B	3.2

7.4 Mounting axle-bracket set (BPW – square axle)

Below is an overview concerning the axle mounting bracket as used for mounting the axle jacks to a BPW caravan chassis.

mounting-bracket set (1 set = 2 pcs. • left and right incl. mounting parts)



BPW – square axle

CP6998 Axle bracket set • square axle - (□) 81mm.

Item Kg.

A 2.7

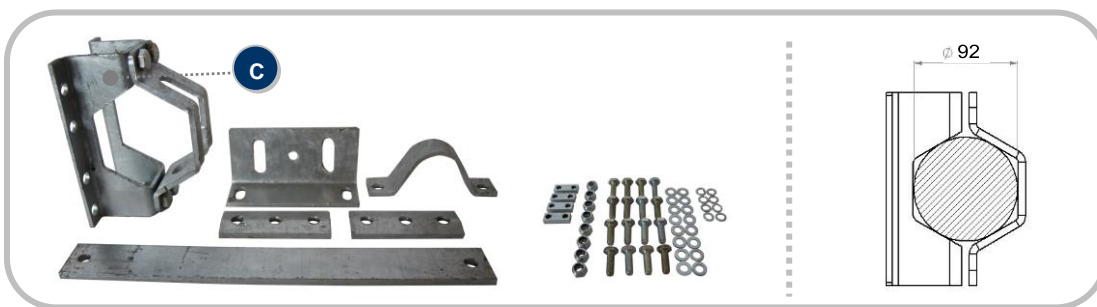
CP6033 Axle bracket set • square axle - (□) 94 mm.

B 2.9

7.5 Mounting axle-bracket set (BPW – round axle)

Below is an overview concerning the axle mounting bracket as used for mounting the axle jacks to a BPW caravan chassis.

mounting-bracket set (1 set = 2 pcs. • left and right incl. mounting parts)



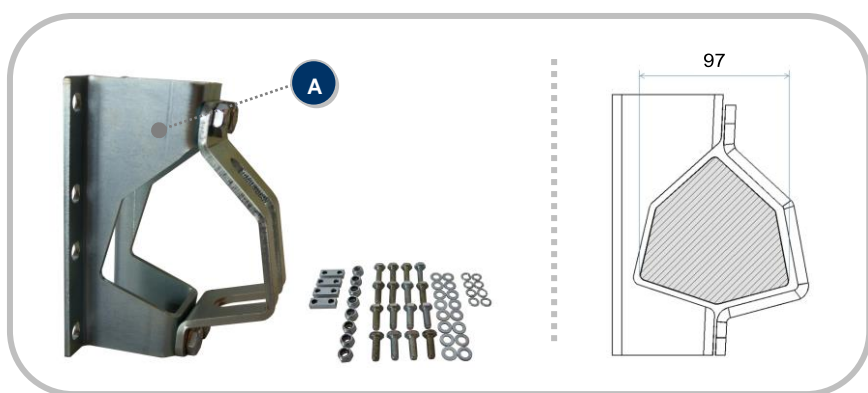
BPW – round axle

		Item	Kg.
CP6997	Axle bracket set • round axle - (Ø) 70 mm.	A	4.7
CP6999	Axle bracket set • round axle - (Ø) 84 mm.	B	4.9
BPW 092	Axle bracket set • round axle - (Ø) 92 mm.	C	5.5

7.6 Mounting axle-bracket set (SPECIAL / KIP)

Below is an overview concerning the axle mounting bracket as used for mounting the axle jacks to a KIP caravan chasis.

mounting-bracket set (1 set = 2 pcs. • left and right incl. mounting parts)



Special KIP

5-000011-93 Axle bracket set • Special KIP 1.500 Kg. **BEHIND** the axle

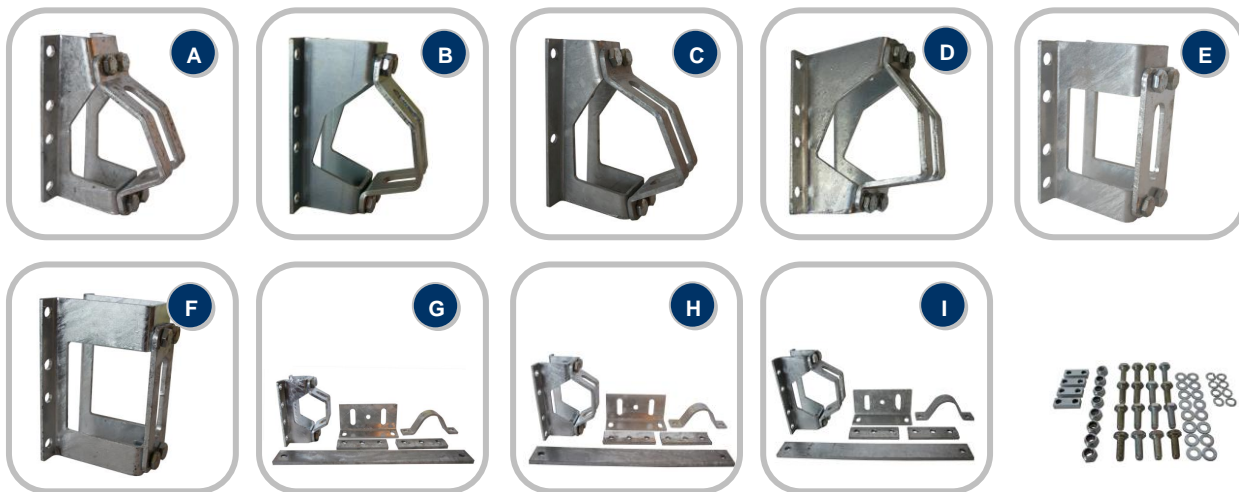
Item Kg.

A 2.7

7.7 Mounting axle-bracket set (STARTER kit)

In below the axle mounting bracket Starter kit supplied with the first caravan levelsystem set. We have put this package together allowing the dealer to make the right choice based on this start/example set.for the first installation (less experienced).

mounting-bracket set (1 set = 2 pcs. • left and right incl. mounting parts)



The starter kit consists of the below mentioned axle brackets :

- | | | |
|----|--|----------|
| 1. | AL-KO 1.500 Kg. in front of the axle (tandem axle) | A |
| 2. | AL-KO 1.500 Kg. behind the axle (single axle) | B |
| 3. | AL-KO 1.800 Kg. in front of the axle (tandem axle) | C |
| 4. | AL-KO 1.800 Kg. behind the axle (single axle) | D |
| 5. | BPW – square axle 81 mm. | E |
| 6. | BPW – square axle 94 mm. | F |
| 7. | BPW – round axle 70 mm. | G |
| 8. | BPW – round axle 84 mm. | H |
| 9. | BPW – round axle 92 mm. | I |



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