

### HIGH-TECH COMPONENTS FOR MOTORHOMES





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## AL-KO **QUALITY FOR LIFE**



#### FROM THE VILLAGE FORGE TO A GLOBAL CORPORATION

Our roots were planted in a small village smithy. The fact that a global corporation has emerged from these humble roots is also because we are constantly aware of what our identity represents and what values the company has always embodied: Quality, innovation in product and process as well as reliability and sustainability in our internal and external customer relations. That is the basis of our pursuit of sustainable growth and quality leadership in our business fields.

Since 2016 we have been making our contribution to the DexKo Group, the world's leading manufacturer of axles and chassis components in the lightweight segment. We are proud to continue in successfully shaping this development together with DexKo and to convey our brand promise of quality, safety and comfort for our products and services to the world.

Member of DE





#### VEHICLE TECHNOLOGY

Our vehicle technology products for motorhomes, caravans, commercial vehicles and commercial trailers guarantee the greatest safety and comfort. In any situation. With our premium solutions for vehicles in commercial use, we are meeting the most exacting customer requirements in terms

of ergonomics. For leisure vehicles we pave the way for a positive start to your holidays and a relaxed return home. We are always your reliable companion — for more joy on the road.

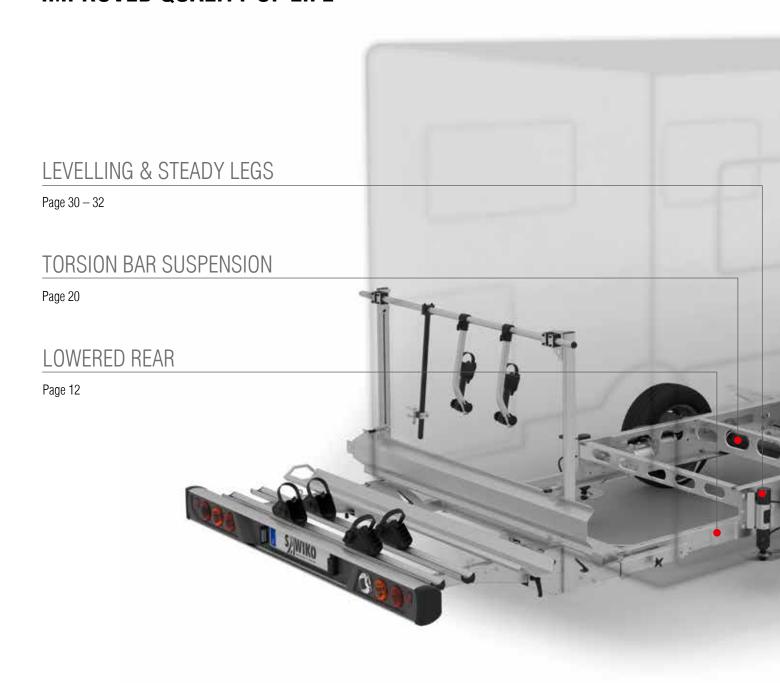






### HIGH-TECH COMPONENTS

### OUR INNOVATIONS FOR IMPROVED QUALITY OF LIFE





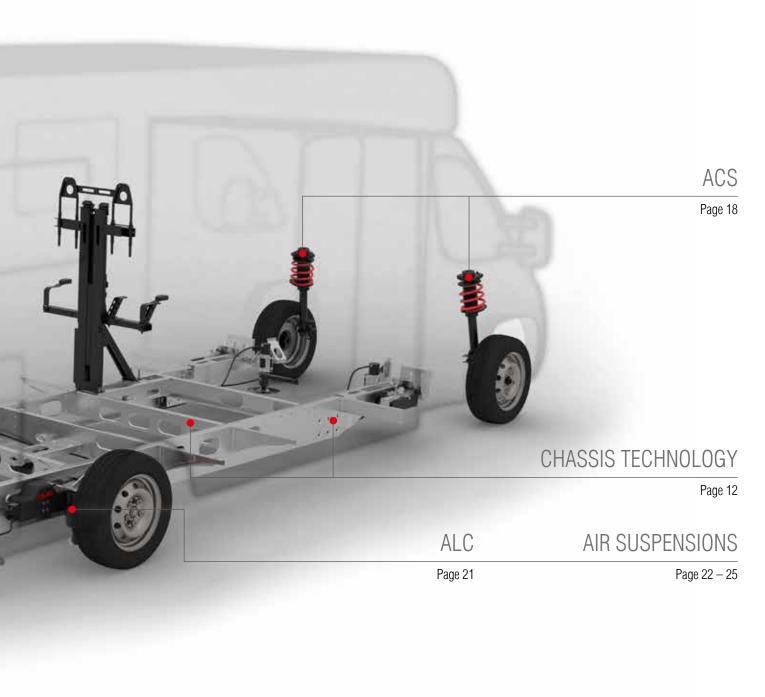
#### **COMFORT**

Deeper, more flexible, smoother. AL-KO CHASSIS have a low centre of gravity, comfortable torsion bar suspensions or smooth air suspensions for maximum driving comfort.

#### RELIABILITY

Enjoy your holiday from the very start! The well-engineered chassis components from AL-KO ensure that you can rely on your motorhome in any driving situation.























#### **EXPERIENCE**

For over 85 years, AL-KO has been developing and producing products that meet the needs of all customers with sophisticated and proven technology.

# AL-KO PRODUCTION HIGHEST STANDARDS AND QUALITY

#### **COOPERATION**

The ongoing collaboration between the AL-KO Development department and leading car and motorhome manufacturers lays the foundation for increased safety, noticeably improved driving dynamics and maximum driving comfort with an AL-KO CHASSIS.

This know-how has made us a valued partner of the motorhome industry across the globe.











From component to product – precision and care define the manufacturing process





### AL-KO CHASSIS





### **AL-KO CHASSIS**





#### LIGHT, ROBUST AND DURABLE

Special perforations make the AL-KO CHASSIS lightweight. At the same time, high-strength steel ensures strong frame strength.



#### FLEXIBLE LOADING

The AL-KO CHASSIS can be lowered down to 220 mm, which enables more storage space in the underfloor area. Rear lowering is also ideally suitable for use with rear garages.

#### MORE COMFORT AND SAFETY

Modern chassis technology that is coordinated to the consistently high vehicle weights of motorhomes: Rear axle with torsion bar suspension and independent suspension for more comfort and more safety. Lower centre of gravity and wide track chassis ensure improved driving stability.





#### PATENTED CONNECTION

The purpose designed connection points ensure a perfect fit between the AL-KO Chassis and the cab.



### LESS WEIGHT FOR MORE HOLIDAY FUN





### LIGHTWEIGHT CONSTRUCTION TECHNOLOGY

The innovative AL-KO lightweight construction technology saves weight without negatively affecting stability. Thus the loading capacity of the motorhome can be increased.



### **AL-KO CHASSIS**



### AXLES FOR WHEN THE BEST IS EXPECTED

#### GENEROUS AND COMFORTABLE

The technology of the AL-KO CHASSIS enables longer wheelbases and optimally tuned overhangs. Numerous premium class manufacturers use this flexibility to implement more comfortable configurations.

As a 3-axle, the AL-KO CHASSIS allows longer vehicle lengths and higher permitted gross weights. AL-KO creates an optimal basis for more generous motorhome structures.





#### OF COURSE, YOUR FAVOURITE BRAND ALSO DRIVES ON AL-KO

































AUTO TRAIL















#### THE PERFECT FOUNDATION

All prominent European motorhome manufacturers trust the AL-KO CHASSIS. Its innovative technology ensures configuration flexibility, enables more storage space and loading capacity, improves driving behaviour and ensures a relaxing holiday experience.

### CHASSIS COMPONENTS





### CHASSIS COMPONENTS

### ACS – AL-KO COMFORT SUSPENSION NOW FOR A WIDE RANGE OF MOTORHOMES

#### MORE COMFORT

The ACS comfort suspension meets the highest comfort standards and was specially designed for the high demands of motorhomes. The suspension and absorption are optimised to each other and ensure an increase in driving stability on the front axle. Hard impacts are mitigated significantly and the vibration dampening on the steering wheel decreases driver stress and tiredness.







#### UNIQUE

- I Impressive suspension comfort
- I Superb driving stability and enhanced driving safety
- I Reduced noise levels inside the vehicle
- I Raising of the vehicle standing height over the front axle
- I Robustness and longevity
- I Completely maintenance-free
- I For 2 and 3 axles
- I Replaces the standard original front axle strut
- I Available for OEM and retrofitting

### CHASSIS COMPONENTS

### TORSION BAR SUSPENSION – STANDARD

#### DRIVING DYNAMICS LIKE A CAR

AL-KO is the only motorhome chassis manufacturer to rely on the torsion bar suspension as standard. This technology is superior to conventional suspension solutions for the consistently high loading capacities that are normal for motorhomes. The torsion bar suspension increases the power reserves of the AL-KO CHASSIS.



#### STABLE AND SMOOTH

AL-KO CHASSIS rely on independent wheel suspension with a standard torsion bar. This system is designed exactly for the respective axle load. It remains stable even under the most difficult road conditions and transforms bumps into gentle vibrations.





### STABLE LEVEL WITH EVERY LOAD

ALC replaces conventional shock absorbers. The fully automatic system ensures the optimum driving level on the rear axle — and regardless of the load.



### ALC – AL-KO LEVEL CONTROLLER



Without ALC, there is a threat of making contact with the ground while loaded even with a short overhang.



Thanks to ALC, the rear axle remains at an optimal level even when loaded. Ground clearance is maintained even with a longer rear overhang.

#### SIMPLY RELAXED

ALC contributes to a relaxing drive by way of a noticeable improvement in suspension and damping comfort, even on long journeys and when road conditions are difficult.



### CHASSIS COMPONENTS

### AIR PREMIUM X4 – HIGH PERFORMANCE AIR SUSPENSION

### YOU CAN'T GET MORE COMFORT THAN THIS

With the 4-corner Air Premium X4 full air suspension, the front and AL-KO REAR AXLE(S) are equipped with air suspension. This helps to achieve unparalleled suspension comfort. In addition, the vehicle remains at a constant level during a journey — regardless of overall vehicle weight.







#### COMPLETELY MAINTENANCE-FREE

The Air Premium X4 full air suspension enables the front axle to be raised by up to +70 mm and lowered by as much as -60 mm. The rear axle can be raised by up to +40 mm and lowered by as much as -50 mm. The complete system is maintenance-free and also suitable for vehicles with ESP.

#### **OPERATING UNIT**

You can raise or lower the vehicle while going up to 25 km/h with just the push of a button. So driving onto a ferry is no longer a problem. The auto level function, an electronic level, automatically levels the vehicle when parked.



Maximum raising of the front axle, maximum lowering of the rear axle enables easy loading of the rear garage and/or load carrier

Maximum raising of the driving level at the rear and lowering at the front, e.g. for ramps

Kneeling function to assist complete tank empyting

Automatic levelling function for uneven pitches

Activation / Deactivation of the system and service button

Raising of the front and rear axle, e.g. for rough terrain

Maximum lowering for easier loading / entry

Manual levelling

Brief touch of the button: levelling of all axles to the driving level

Longer hold of the button: selection of the axle for manual levelling



### CHASSIS COMPONENTS

### AIR PREMIUM X2 – THE FULL AIR SUSPENSION FOR DYNAMICS AND COMFORT

#### **OPERATING UNIT**

The fully automatic and maintenance-free Air Premium X2 air suspension system ensures superior suspension comfort on the AL-KO REAR AXLE(S). The rear axle can be raised up to +40 mm and lowered down to -50 mm using the remote control.





#### SAFETY WITH COMFORT

The electronic stability program ESP contributes highly to driving safety. The Air Premium X2, Air Plus and Air Top also make motorhomes with ESP more comfortable.



### AIR PLUS AND AIR TOP ADDITIONAL AIR SUSPENSIONS FOR ALL AL-KO CHASSIS AND ORIGINAL CHASSIS

#### AIR PLUS

The manually-regulated Air Plus additional air suspension system for AL-KO CHASSIS enables you to change the rear slope angle. The control panel enables you to easily change the level on the rear axle from the cockpit, raising it up to +40 mm and lowering it down to -50 mm. This enables you to achieve optimal chassis adjustment that ensures maximum driving stability.

#### AIR TOP

The Air Top additional air suspension for original chassis (base vehicles: Fiat Ducato, Peugeot Boxer and Citroën Jumper) enables easy raising of the rear axle up to a maximum of +50 mm via the compressor kit and can compensate when parked on uneven pitches by adjusting the height of the rear axle. The roll stability is also improved. Now also for vehicles with ESP.



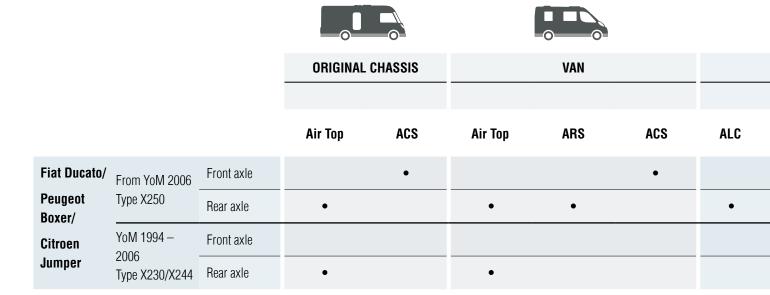


#### **COMPRESSOR KIT**

An ergonomic control panel for the cockpit and compressor is available for the Air Plus and Air Top additional air suspensions.



### CHASSIS ADVISOR











		AL-K	O CHASSIS					
	2-axle							
Air Plus	Air Premium X2	Air Premium X4	ACS	Air Plus	Air Premium X2	Air Premium X4	ACS	
		•	•			•	•	Front axl
•	•	•		•	•	•		Rear axle
								Front axl
								Rear axle

### **COMFORT ACCESSORIES**





### **COMFORT ACCESSORIES**

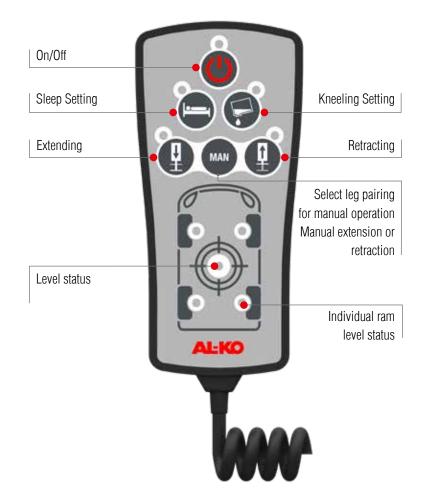
#### **HY4 – HYDRAULIC SUPPORTING SYSTEM**

#### SECURE FOOTING

The AL-KO HY4 hydraulic steady leg system ensures stability in the living area for motorhomes up to 6 t. The AL-KO HY4 also automatically levels the motorhome in the horizontal position in just one minute. The AL-KO HY4 is a unique hydraulic steady leg system that doesn't require the installation of hydraulic components in the vehicle interior. Therefore, it is one of the most modern hydraulic systems on the market.

The AL-KO HY4 is intuitive and easy to use via the remote control in the driver's cab. Easy to understand buttons control the steady legs for manual and automatic levelling. In addition, two additional functions can be freely programmed in: for example your personal sleeping position and the tilt for emptying the waste water tank. Once purchased, the steady leg system can be easily reconfigured when you change vehicles — so your new motorhome is also stable. AL-KO HY4 comes with the usual, excellent AL-KO quality, is durable, robust, maintenance-free and quiet.

NEW: now also available for motorhomes with FIAT original chassis!









#### UNIQUE

#### I Clean and space saving -

no bulky hyrdaulic components inside the vehicle.

I Intuitive LED remote control –

vehicle levelled in one minute.

I Optimal weigh distribution –

four independent hydraulic assemblies mounted onto the chassis.

I High professional quality -

certified mounting brackets from the chassis specialists.





### **COMFORT ACCESSORIES**

#### STEADY LEGS – STABLE ON ANY TERRAIN

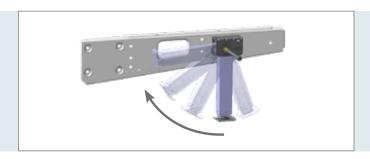




#### **CLICKFIX STEADY LEGS**

The most beautiful places to park are often those where the ground is uneven or sloping. With the ClickFix steady leg, you don't have to miss out on these attractive travel destinations. Its stable construction ensures secure footing on grass, gravel or asphalt.

A half turn of the extending crank is enough to make the **ClickFix steady leg** ready for action. When the motorhome is ready to move off site, if the steady legs are down, the mechanism will fold the steady leg up or back and therefore prevents damage.







### TECHNICAL DATA





#### ACS - AL-KO COMFORT SUSPENSION

Chassis manufacturer	Year of manu- facture	Variant	Recom. front axle load range	Part no.
Comfort suspension for motorhomes with an AL-KO	from 2006	Light	1600 kg – 1850 kg	1710620
chassis	110111 2000	Heavy	1800 kg – 2100 kg	1710621
Comfort suspension for motorhomes with an AL-KO	from 2006	Light	1600 kg – 1850 kg	1710038*
chassis	110111 2000	Heavy	1800 kg – 2100 kg	1710039*
	from 2006**	Light	1480 kg – 1640 kg	1710624
Comfort suspension for motorhomes with Fiat, Peugeot or Citroen original chassis		Middle	1600 kg – 1850 kg	1710625
<b>.</b>		Heavy	1800 kg – 2100 kg	1710626
		Light	1480 kg – 1640 kg	1710287*
Comfort suspension for motorhomes with Fiat, Peugeot or Citroen original chassis	from 2006**	Middle	1600 kg – 1850 kg	1710288*
ū		Heavy	1800 kg – 2100 kg	1710305*

<sup>\*</sup> Incl. original Fiat strut bearing kit \*\* Production date 2006-2011 not approved in England and France

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#### ALC - AL-KO LEVEL CONTROLLER

Nivomat for AL-KO rear axles based on Fiat Ducato, Peugeot Boxer and Citroen Jumper (2-axle vehicles from type X250)

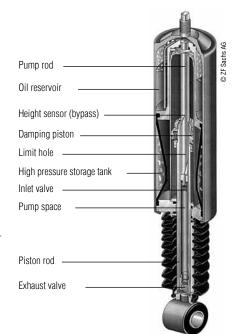
Only possible for 2-axle vehicles.

#### Product advantages

- I Automatic, load-independent regulation of the rear axle at the pre-set level
- I Improvement of suspension and damping comfort
- I 100 % maintenance-free
- I Now also for vehicles with ESP

#### Installation

ALC replaces the standard shock absorber on the rear axle of the vehicle. While driving, it takes over a part of the load that would otherwise be handled exclusively by the torsion bar axle. ALC thus noticeably improves the suspension and damping comfort, and contributes to relaxed and non-tiring driving. Therefore, you are well prepared for any road surface. Suitable as original equipment fitment only.





#### Prices

For original equipment prices please contact your body manufacturer directly. Retrofitting on request (some of your vehicle data are required to prepare a quote — for more information, please see the contact form).

AIR PREMIUM X4

4-corner full air suspension for front and AL-KO rear axle(s) based on Fiat Ducato, Peugeot Boxer and Citroën Jumper (type X250).

Manual lowering or raising of the vehicle possible up to a speed of 25 km/h.

#### **Product advantages**

- I Adjustment track in the axle range of the front axle: raising approx. +70 mm / lowering approx. -60 mm
- I Adjustment track in the axle range of the rear axle: raising approx. +40 mm / lowering approx. -50 mm
- I Fully automatic level control on the front and AL-KO rear axle(s)
- I Optimum suspension comfort with high driving stability
- I Auto-level function automatic levelling of the vehicle when parked (as part of the axle suspension travel)
- I 100 % maintenance-free
- I Self-sufficient air supply thanks to built-in compressor
- I Now also for vehicles with ESP

#### Installation

Suitable as original equipment or for retrofitting. Retrofitting possible in selected specialist workshops and at the AL-KO Customer Centres.

#### **Prices**

For original equipment prices please contact your body manufacturer directly. Retrofitting on request (some of your vehicle data is required to prepare a quote — for more information, please see the contact form).



#### AIR PREMIUM X2

2-corner full air suspension for AL-KO rear axle(s) based on Fiat Ducato, Peugeot Boxer and Citroën Jumper (type X250). Manual lowering or raising of the vehicle possible up to a speed of 25 km/h.

#### **Product advantages**

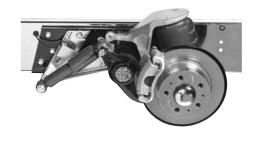
- I Adjustment track in the axle range of the rear axle: raising approx. +40 mm / lowering approx. -50 mm
- I Automatic, load-independent level control on the rear axle(s)
- I 100 % maintenance-free
- I Self-sufficient air supply thanks to built-in compressor

#### Installation

Suitable as original equipment or upgrade Retrofitting possible in selected specialist workshops and at the AL-KO Customer Centres.

#### Prices

For original equipment prices please contact your body manufacturer directly. Retrofitting on request (some of your vehicle data is required to prepare a quote — for more information, please see the contact form).



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AIR PLUS Page 25

The AL-KO Air Plus additional air suspension is available as optional special equipment for AL-KO chassis (2- and 3-axle vehicles) based on the Fiat Ducato, Peugeot Boxer and Citroën Jumper (type X250).

Manual lowering or raising of the vehicle possible up to a speed of 25 km/h.

#### Product advantages

- I Adjustment track in the axle range. Rear axle: raising max. +40 mm / lowering by as much as -50 mm
- I 100 % maintenance-free
- I Integrated emergency running function

#### Prices

Retrofitting on request (some of your vehicle data is required to prepare a quote — for more information, please see the contact form).



AIR TOP Page 25

Additional air suspension for use with the original chassis (ladder frame, special chassis, flat bed and van).

Possible base vehicles: Fiat Ducato, Peugeot Boxer, Citroën Jumper

#### **Product advantages**

- I Manual rear axle raising by up to max. +50 mm while stationary
- I 100 % maintenance-free
- I External air supply (e.g. mobile 12 V compressor).

  Optional integrated compressor kit available.
- I Now also for vehicles with ESP (Type X250 from model year 2011)

#### **Approval**

Vehicle documents must be altered accordingly based on part certificate of conformity.

#### Permitted gross weights X230, X244

Permitted in Europe based on EC brake certificate of conformity<sup>1</sup>

I Type 14/15 up to 3,400 kg permitted gross weight<sup>2</sup> I With and/or without ABS



- I With and/or without ABS
- I Special case: Permitted in Germany based on part certificate of conformity<sup>3</sup>
- I Type 14/15 up to 3,500 kg permitted gross weight
- I With and/or without ABS
- I Min. empty weight 2,500 kg
- I Minimum rear axle weight 1,250 kg (with screw-in regulator)
- I Tyre load capacity index min. 109/107 Q
- I Type 18/Maxi up to 3,500 kg permitted gross weight I With and/or without ABS
- Type 18/Maxi up to 3,850 kg permitted gross weight
- I With or without ABS for vehicle class M14
- I Min. empty weight 2,500 kg
- I Minimum rear axle weight 1,250 kg (with screw-in regulator)
- I Tyre load capacity index min. 110/108 Q
- I Type 18/Maxi up to 4,000 kg permitted gross weight
- I With ABS
- I Min. empty weight 2,500 kg
- I Min. weight rear axle 1,250 kg
- I Tyre load capacity index min. 113/111 Q
- I For vehicles without ABS, a screw-in regulator must additionally be ordered (not part of the scope of supply)!

#### Permitted gross weights X250

Permitted in Germany based on part certificate of conformitv<sup>5</sup>

- I Type 35
- I Without ESP up to 3,700 kg permissible gross weight<sup>2</sup> (tyre load index at least 109/107 Q)
- I With ESP up to 3,500 kg permitted gross weight<sup>6</sup>
- I Type 36.5
- I Without ESP up to 3,700 kg permissible gross weight<sup>2</sup> (tyre load index at least 109/107 Q)
- I With ESP up to 3,650 kg permitted gross weight6
- I Type 35 Maxi
- I Without ESP up to 3,850 kg permissible gross weight<sup>2</sup> (tyre load index at least 116/114 Q)
- I With ESP up to 3,500 kg permitted gross weight<sup>6</sup>
- I Type 40/42.5 Maxi
- I Without ESP up to 4,250 kg permitted gross weight<sup>2</sup>
- I With ESP up to 4,250 kg permissible gross weight<sup>2,6</sup> (tyre load index at least 116/114 Q)
- <sup>1</sup> Type 14/15: e11\* 71/320\*2002/78\*4639\*01, Type 18/Maxi: e11\* 71/320\*2002/78\*4638\*01.
- The max. permissible front and rear axle loads of the original base vehicle must not be exceeded.
- 3 375-0007-05-FBKV.
- 4 Vehicle class can be obtained from the respective body manufacturer.
- 5 07-00015-CX-GBM.

Designation	Suitable for	Weight kg	Part no.
AL-KO Air Top kit for single/double layered leaf springs	Vehicles with ABS – types X230 and X244 Fiat Ducato/Peugeot Boxer/Citroën Jumper	12.5	222 619
AL-KO Air Top kit for single/double layered leaf springs	Vehicles with ABS – (standard), type X250 Fiat Ducato/Peugeot Boxer/Citroën Jumper	9.5	1 250 945
Screw-in regulator kit	Vehicles without ABS – Types X230/X244	0.5	420 150
Compressor kit	Fiat Ducato/Peugeot Boxer/Citroen Jumper Type X250	4.3	1 569 093



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Designation	Part no.
HY4 X250 AL-KO chassis standard kit AHS 317 (cylinder length front & rear 317 mm)	1 710 658*
HY4 X250 AL-KO chassis special kit low AHS 277 (cylinder length front 317 mm, rear 277 mm)	1 710 851*
HY4 X250 Fiat original chassis EHA (installation behind the rear axle outside)	1 710 852*
HY4 X250 Fiat original chassis EHI (installation connection in front of / behind the rear axle inside)	1 710 853*

<sup>\*</sup> Without installation (incl. assemblies, controller/electrics, brackets and small parts)

HY4

#### Mechanical steady legs for vehicles with AL-KO frames or frame extensions

#### **Product advantages**

- I Robust steady legs for firm and secure footing
- I Fast and comfortable operation: just a half-turn of the crank and the steady leg is in the vertical support position
- I Independent tensioning of the steady leg while winding up
- I Safety mechanism when setting off with legs folded

#### Technical data

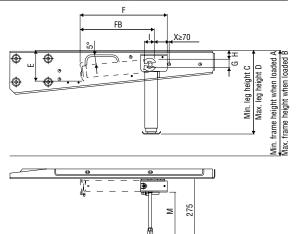
Static load capacity: 1,000 kg Dynamic load capacity: 500 kg

#### Scope of delivery

Two steady legs, assembly materials, assembly/installation instructions. Order crank separately.

#### Selecting the best mechanical AL-KO steady leg for the job

- 1. Determine the frame height "A" when loaded
- 2. Using this data you can select the corresponding leg from the order overview
- The selected leg has a certain operating range "F" which must be free on your vehicle



Required height	I frame	Leg dime					Mounting dimensions		Mounting dimensions		Dead weight**	Part no.
min. A mm	max. B mm	min. C mm	max. D mm	E mm	FB mm	F mm	G mm	H mm	l mm	M mm	Set in kg	
310	424	281	445	140	302	364	40	41.5	45	200	7.2	1 239 362
320	440	297	464	142	320	382	40	41.5	45	200	7.3	1 239 363*
420	624	397	654	150	419	481	40	41.5	45	200	8.4	1 239 364*
460	710	446	744	155	469	531	40	41.5	45	200	8.9	1 239 365*

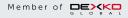
<sup>\*</sup> The length of the legs can be manually adjusted via a cotter pin.

<sup>\*\*</sup> For complete leg set (two units) including screw/mounting material (0.8 kg).

ClickFix steady leg accessories	Net weight in kg	Part no.
Galvanised extending crank 665 mm long	0.6	205 520
Galvanised extending crank 865 mm long	0.8	267 363







#### **ALOIS KOBER GMBH**

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