

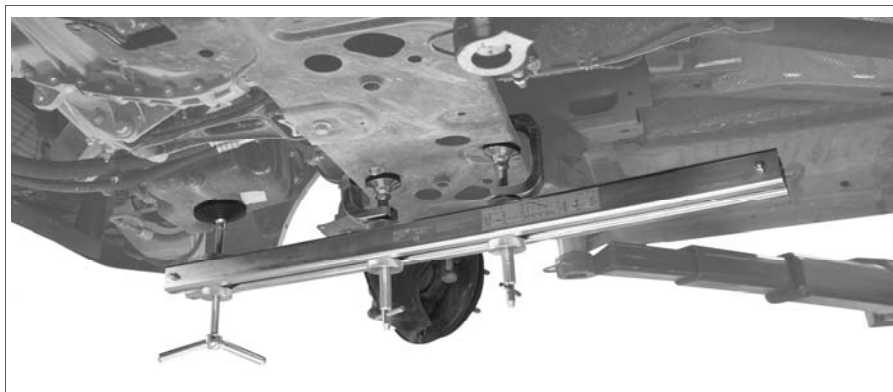
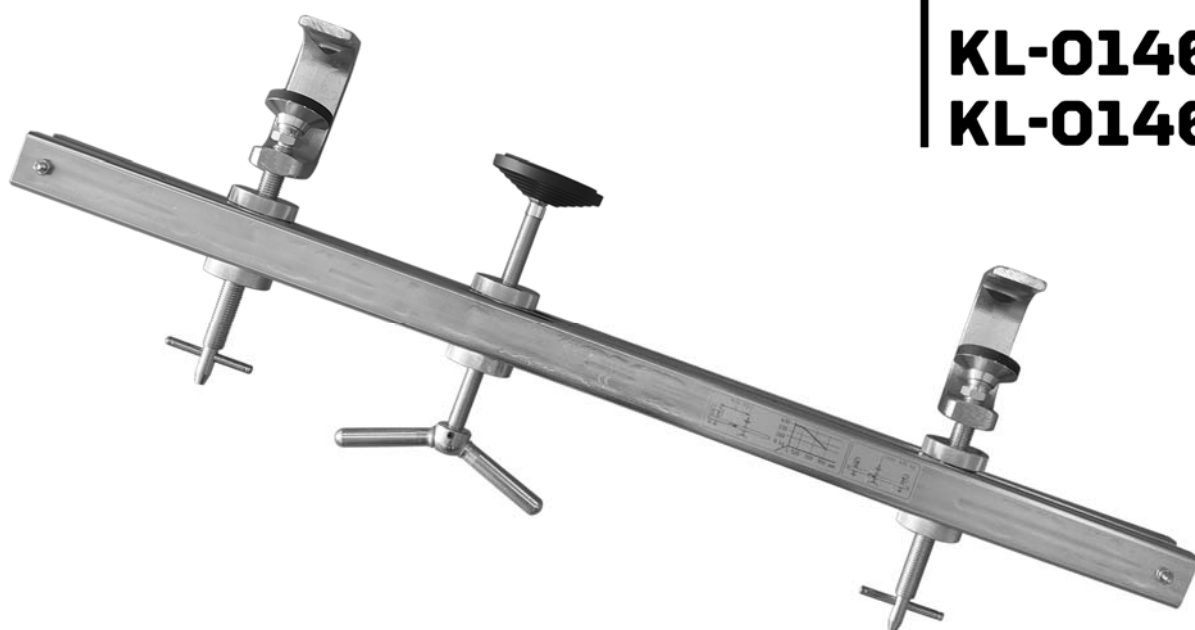
GEDORE

TOOLS FOR LIFE

Engine Support Device



KL-0146-20
KL-0146-21



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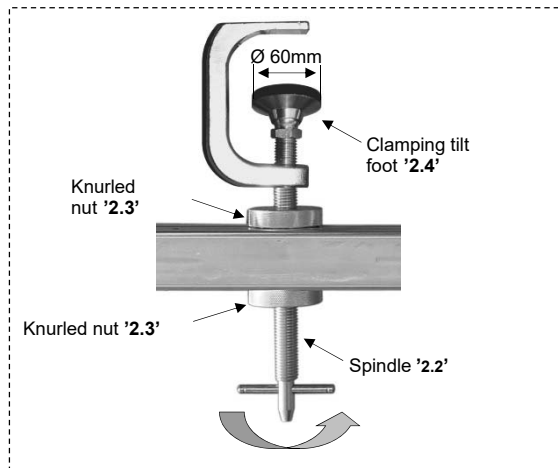
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KL-0146-20



Fig. 1: Exploded view: Clamping hook assembly '2' and support plate assembly '3':

Clamping hook assembly '2'



Support plate assembly '3'

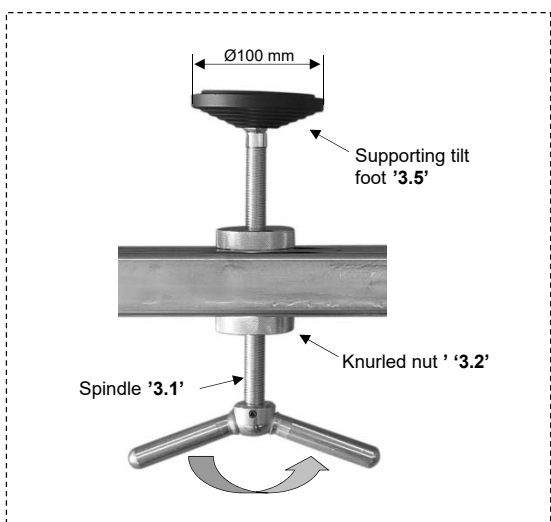
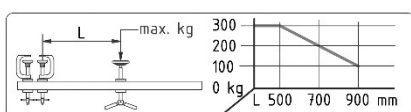
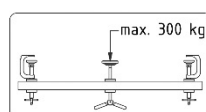


Fig. 2: Observe and do not exceed the maximum load capacity of the engine support device:



With **both** clamping hook assemblies '2' positioned **on one side**: either to the left **or** to the right of the support plate assembly '3'.



With **one** clamping hook assembly '2' positioned **to the left and one '2' positioned to the right** of the support plate assembly '3'.

KL-0146-20 Engine Support Device

Universally suitable for supporting engines in vehicles.

Field of Application

Device for supporting the engine when removing the side engine mount. It is required, for example, when replacing timing belts, water pumps or engine mounts.

Due to the support given to the engine by the support device **KL-0146-20**, it is possible to work on the valve train (synchronous belt drive) without the need for using an engine crane or a transmission jack.

Thanks to its special design featuring two forged clamping hooks with adjustable spindles and clamping tilt feet with rubber pad (Ø 60mm), the device can be fixed to nearly any type of front axle systems. The support plate assembly with its supporting tilt foot with rubber pad (Ø 100mm) is designed to ensure safe and secure support of the engine.

Technical Data

Max. load capacity:	100-300kg
Overall length:	1100mm
Clamping hook width:	50mm
Clamping area of clamping hooks:	approx. 70mm
Max. height offset between clamping hooks:	approx. 90mm
Height adjustment of support plate assembly:	120mm
Weight:	16.5kg

EC Declaration of Conformity

EC Declaration of Conformity according to EC directive 2006/42/EC on machinery of 17 May 2006 , (Annex II A):

We herewith declare that the **KL-0146-20 Engine Support Device** in its design and construction, as well as in the version in which it was placed by us on the market complies with the Essential Health and Safety Requirements of the *EC Directive 2006/42/EC*.

Any modifications made to the Engine Support Device without our approval will invalidate this declaration.

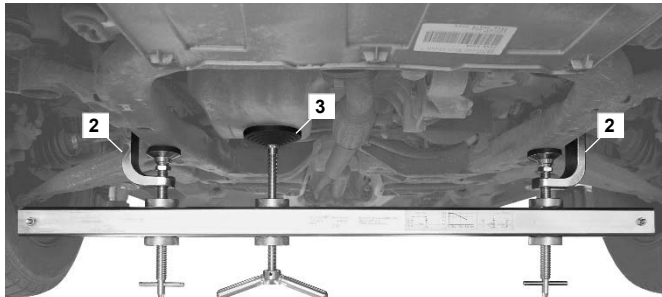
Harmonised Standards used, in particular: *DIN EN 12100* Safety of machinery - basic concepts, general principles for design, basic terminology, methodology, risk assessment.

Scope of Delivery:

Pos.	Part No.	Description
-	KL-0146-20	Engine Support Device, VW-Audi
	<i>composed of:</i>	
1	KL-0146-201	Base Frame
2	KL-0146-202	Clamping Hook Assembly (2 units)
2.1	KL-0146-2021	Clamping Hooks (2 units)
2.2	KL-0146-2022	Spindle (2 units)
2.3	KL-0146-2023	Knurled Nut (4 units)
2.4	KL-0146-2024 A	Clamping Tilt Foot (2 units)
3	KL-0146-203	Support Plate Assembly
3.1	KL-0146-2030	Spindle, pinned
3.2	KL-0146-2035	Knurled Nut
3.3	KL-0146-2033	Knurled Nut, strong
3.4	KL-0146-2036	Ball Stud
3.5	KL-0146-2031	Supporting Tilt Foot

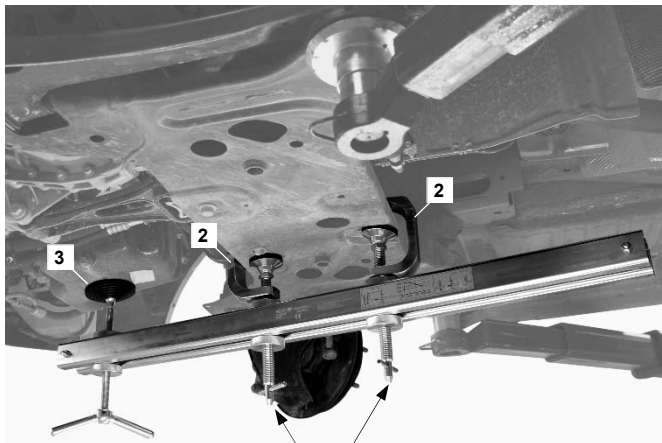
Fig. 3: Example of Use:

'A'



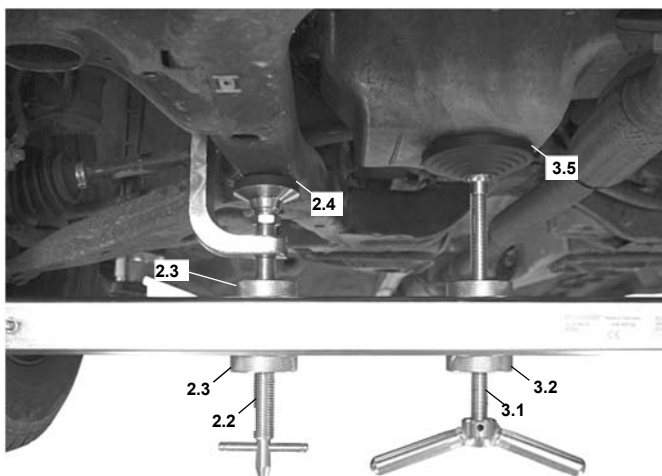
One clamping hook assembly '2' positioned to the left and one assembly '2' to the right of support plate assembly '3'.

'B'



Both clamping hook assemblies '2' positioned on one side (here to the right) of support plate assembly '3'

Fig. 4: Mounting the clamping hook assemblies '2' and support plate assembly '3'.



Warnings and Notes

- Any work on engines should only be performed by qualified personnel observing and complying with the directions, provisions, and safety regulations specified by the vehicle manufacturer.
- Always refer to the vehicle manufacturer's data and instructions as only these apply to all work that is carried out on the vehicle.
- The engine support device is only designed to be used for supporting the engine when removing the engine mount on the synchronous belt side. Other engine mounts or gearbox mounts must not be loosened or removed.
- Observe and **do not exceed the maximum load capacity** of the engine support device. (Fig. 2)



It is imperative to observe the following points:

- Before starting work, read the Product Information completely and make sure you have understood it correctly.
- Never use a hammer on the tool.
- Always keep the tool clean.
- Only use the genuine spare parts from **GEDORE Automotive**.

Examples of Use:

- Preparing the engine support device

Note: The special design of the clamping hook assemblies '2' allow the engine support device to be fixed to virtually any type of front axle systems.

- Example of use 1:

One clamping hook assembly '2' is positioned to the right of support plate assembly '3' and the other clamping hook assembly '2' is positioned to the left of support plate assembly '3'. (Fig. 3 A)

- Example of use 2:

Both clamping hook assemblies '2' are positioned on one side (here to the right) of support plate assembly '3'. (Fig. 3 B).

- Mount engine support in a suitable position on the front axle carrier using clamping hooks of assemblies '2'. **Example:** Fig. 3 A or 3 B

Note:

The height offset, if any, between the two clamping hooks assemblies '2' can be levelled out by rotating knurled nuts '2.3'.

- Fix clamping hook assemblies '2' with clamping tilt foot '2.4' to front axle carrier by tightening spindles '2.3'. Next, secure with knurled nuts '2.3'. (Fig. 4)

- By rotating spindle '3.1', place supporting tilt foot '3.5' in a suitable position on the vehicle engine. Next, secure with knurled nut '3.2'. (Fig. 4)

Note:

Observe and do not exceed the maximum load capacity of the engine support device. (Fig. 2)

Fig. 5: Accessory: KL-0146-21

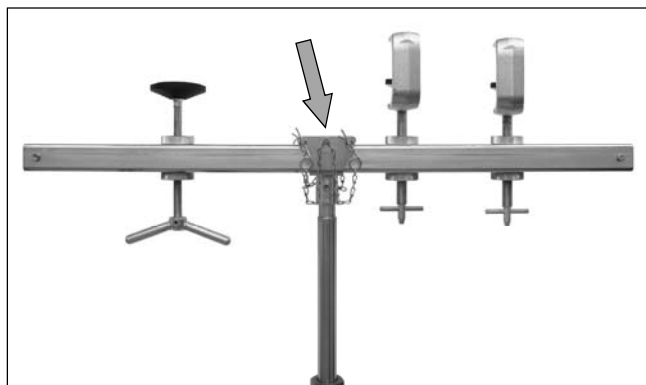


Fig. 6: Spare Parts: KL-0146-20

Accessory:

KL-0146-21 Retaining Device

The **KL-0146-21** retaining device allows the engine support device **KL-0146-20** to be safely and securely held during removal from/installation to the vehicle. It is used in conjunction with a transmission jack (Plunger Ø of 30mm).

Scope of Delivery:

Pos.	Part No.	Description	Qty
-	KL-0146-20	Engine Support Device, VW-Audi	1
	<i>composed of:</i>		
1	KL-0146-201	Base Frame	1
2	KL-0146-202	Clamping Hook Assembly	2
3	KL-0146-203	Support Plate Assembly	1

Pos.	Part No.	Description	Qty
1	KL-0146-201	Base Frame	1
	<i>composed of:</i>		
1.1	KL-0146-2014	Hex Screw, M8x95	2
1.2	KL-0035-0003	Hex Nut, M8	2
1.3	KL-0035-0004	Washer, Ø 8mm	2
1.4	KL-0146-2013	Spacer Sleeve	2
1.5	KL-0146-2016	Plug with Fins	4
1.6	KL-0146-2012	Bar (labelled)	1
1.7	KL-0146-2011	Bar	1
1.8	KL-0146-2015	Safe Working Load Sticker	1

Pos.	Part No.	Description	Qty
2	KL-0146-202	Clamping Hook Assembly	2
	<i>composed of:</i>		
2.1	KL-0146-2021	Hook	2
2.2	KL-0146-2022	Spindle	2
2.3	KL-0146-2023	Knurled Nut	4
2.4	KL-0146-2024 A	Clamping Tilt Foot	2

Pos.	Part No.	Description	Qty
3	KL-0146-203	Support Plate Assembly	1
	<i>composed of:</i>		
3.1	KL-0146-2030	Spindle, pinned	1
3.2	KL-0146-2035	Knurled Nut	1
3.3	KL-0146-2033	Knurled Nut, strong	1
3.4	KL-0146-2036	Ball Stud	1
3.5	KL-0146-2031	Supporting Tilt Foot	1