

# KL-0041-452 C Wheel Bearing Tool, Ø 85mm







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# ENGLISH

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## **Operating instructions** (Translation of the operating instructions)

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## **1. READ AND UNDERSTAND FOR YOUR SAFETY**

Read and understand these operating instructions **before using** the wheel bearing tool, and observe all safety and warning instructions! Misuse can result in **DEATH** or **SEVERE INJURIES**! These operating instructions are an integral part of the wheel bearing tool. Keep them at a safe place for future reference, and always pass them on to subsequent users of the wheel bearing tool! The wheel bearing tool complies with the recognised rules of technology as well as the relevant safety regulations!

#### 1.1 Target group

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These operating instructions are **exclusively** intended for skilled personnel in specialised motor vehicle workshops!

The wheel bearing tool **may only be** used by skilled personnel in specialised motor vehicle workshops who are familiar with the basic regulations on work safety and accident prevention!

**Never** allow unauthorised, inexperienced persons, minors and children, or persons with limited physical, sensory, and mental abilities to use the wheel bearing tool!

#### **1.2 Obligations of the owner**

Pursuant to the German Ordinance on Industrial Safety and Health (*BetrSichV*), employers are obliged to provide their employees with safe work equipment in accordance with the recognised rules of technology and the relevant safety regulations!

- The owner of the wheel bearing tool **must** ensure that **only** trained personnel in specialised vehicle workshops use the wheel bearing tool!
- The owner of the wheel bearing tool **must** ensure that the instructions for use are available to the user and that the user has completely read and understood the instructions for use **before** using the wheel bearing tool!
- The owner of the wheel bearing tool **must** ensure that the user is familiar with the basic regulations on work safety and accident prevention, and that the personal protective equipment is available to him/her!

#### 1.3 Intended use

The wheel bearing tool ...

- may only be used for pulling out and pressing in wheel bearing units!
- **may only** be used for pressing in wheel bearing units with centre bore!
- **may only** be used on vehicles or wheel bearing units as specified in **Chapter 2. Product description**!
- may only be used up to a max. load of 12 tonnes!
- ▼ may only be operated by hand with muscle power with a manual drive or a manually operated GEDORE Automotive hydraulic cylinder/pump combination with pressure gauge for safe pressure control!
- may only be used with GEDORE Automotive genuine spare parts and accessories!
- **may only** be used in the way described in these operating instructions!

Any other use can result in **DEATH** or **SEVERE INJURIES**!

#### 1.4 Reasonably foreseeable misuse

#### The wheel bearing tool ...

- **must never** be used for pulling out and pressing in other parts or in another way than intended!
- **must never** be used together with an impulse or impact screwdriver!
- **must never** be used with a machine-operated drive or a machine-operated hydraulic cylinder/pump combination!
- **must never** be used with a drive other than that intended for it!
- **must never** be used for batch processing with numerous pressing in/out processes within a few minutes!
- **must never** be used with a bridged, modified, or removed safety device!
- **must never** be modified, converted, or used for other purposes without authorisation!
- **A** Use the wheel bearing tool **always** as intended. Any other use can result in **DEATH** or in **SEVERE INJURIES**!



#### **1.5 Personal protective equipment**

For your safety **always** wear personal protective equipment when using the wheel bearing tool! The wheel bearing tool can bring about mechanical hazards, such as crushing, cutting and shock injuries.



Wear **EYE PROTECTION** (for example to DIN EN 166, OSHA 29 CFR 1910.133, ANSI Z87) when using the wheel bearing tool to protect yourself against flinging parts or particles!

When using the wheel bearing tool, flying parts or particles can cause SEVERE INJURIES to your eyes!

Wear **PROTECTIVE GLOVES** (for example to DIN EN 388, OSHA 29 CFR 1910.138, ANSI 105) when using the wheel bearing tool to protect yourself against sharp edges and crushing between parts!

When working with the wheel bearing tool, sharp edges and crushing between parts can cause **SEVERE INJURIES** to your **hands** !



Always wear **SAFETY SHOES** (for example to DIN EN ISO 20345, OSHA 29 CFR 1910.136, ANSI Z41) when using the wheel bearing tool to protect yourself against dropping parts!

When working with the wheel bearing tool, dropping parts can cause **SEVERE INJURIES** to your feet **and toes**!

#### **1.6 Labelling of the warnings**

Warnings warn of potential hazards. Always observe these warnings to avoid DEATH or INJURIES!

For better differentiation, warnings in these operating instructions are classified as follows:				
Warning sign	Meaning			
AWARNING	Indicates a hazardous situation, which, if not avoided, could cause DEATH or SERIOUS INJURIES .			
	Indicates a hazardous situation which, if not avoided, could cause MODERATE or MINOR INJURIES.			
ATTENTION	<b>Indicates</b> a situation which, if not avoided, could cause damage to the tool or an object in its vicinity.			
í	Note on important information and useful tips.			

#### **1.7 Work environment**

For your safety only use the wheel bearing tool in a safe working environment.

- The workplace **must** be clean and tidy.
- The workplace **must** be sufficiently large and illuminated.
- The workplace **must** be on a solid and non-skidding floor.
- The workplace **must** be safeguarded against access of unauthorised persons.
- ▼The workplace must be at room temperature between -10°C and +40°C.

#### **1.8 Emissions**

Molybdenum disulphide paste and hydraulic oil can ES drip or escape when using the wheel bearing tool and thus pose a hazard to the environment.

- Immediately remove leaking hydraulic oil as well as excess molybdenum disulphide paste (using oil binding agents or a cleaning cloth, for example).
- ▶ In case of skin contact with hydraulic oil, clean the affected area **immediately** with degreasing soap and water.
- Dispose of pollutants such as hydraulic oil and molybdenum disulphide paste always in an environmentally friendly manner.
- Safety data sheets in accordance with Regulation (EC) No. 1907/2006, for hydraulic oil (Alsus Hyd HLP 32) as well as for molybdenum disulphide paste (MOLYKOTE® G-N PLUS PASTE) can be found on the manufacturer's site on the Internet (World Wide Web) or, if required, contact GEDORE Automotive GmbH.



#### **1.9 Basic safety instructions and warnings**

#### **A**WARNING - Failure to observe this warning may result in an accident or death.

When using the wheel bearing tool, **always** observe the following safety and warning instructions as well as measures to avoid **DEATH** or **SERIOUS INJURY** as well as property damage due to hazards, misuse, abuse and unsafe handling!

- Read and understand these operating instructions before using the wheel bearing tool, and observe all safety and warning instructions for safe use!
- Always work with the wheel bearing tool in accordance with the basic regulations on work safety, accident prevention and environmental protection!
- Always use the wheel bearing tool as intended. GEDORE Automotive GmbH accepts no liability or warranty or guarantee claims for injuries and damage resulting from improper use or failure to observe the safety regulations.
- claims for injuries and damag

Before each use, check the wheel bearing tool carefully for damage, loose parts, or unauthorised modifications. Never use it if you notice any such deficiencies! Professional inspection and repair may only be carried out by specially trained personnel from GEDORE Automotive GmbH!

- **Only** use original spare parts and accessories from **GEDORE Automotive GmbH** for the wheel bearing tool!
- **Always** observe the vehicle-specific manufacturer's specifications when working with the wheel bearing tool!
- Secure the wheel bearing tool against falling down and flinging around, for example by holding it or by using the GEDORE safety retaining belt KL-0040-2590 or, alternatively, the retaining device KL-0040-258 A!
- Never use the wheel bearing tool with an impulse or impact wrench or any other drive than intended! Drive it only by hand and with muscle power; use a manual drive or a manually operated GEDORE Automotive hydraulic cylinder/pump combination with a pressure gauge for safe pressure control!
- **Vever** use the wheel bearing tool for batch processing with numerous forcing in/out processes within a few minutes!
- ▶ Never use the wheel bearing tool when you are tired or under the influence of alcohol, drugs, or medication!
- FIF necessary, carry, lift, and position the SEVERE parts of the wheel bearing tool with the help of a second specialist!
- **Before using** the wheel bearing tool, make sure that **no** unauthorised persons are in the immediate environment!
- Always observe the max. loading capacity when using the wheel bearing tool, and never exceed it!
- **Vever** stand in axial extension of the wheel bearing tool when it is under load!
- Wear your personal protective equipment such as safety goggles, protective gloves, safety shoes during work!
- Interrupt your work immediately if you are unsure about using the wheel bearing tool, and contact GEDORE Automotive GmbH if necessary!
- **F**Always make sure that the wheel bearing tool is securely attached to the vehicle!
- **Vever** leave the wheel bearing tool unattended in loaded condition on the vehicle!
- **Vever** hit the wheel bearing tool with a hammer or other objects and **never** clamp it in a vice!
- Always avoid dropping, hitting or knocking the wheel bearing tool, especially when it is under load! Always place the tool on a clean shelf or workbench to prevent it from falling down!
- Prior to each use, check the moving parts and the spindle of the wheel bearing tool for sufficient lubrication. If necessary, lubricate them only with molybdenum disulphide paste (for example GEDORE Automotive KL-0014-0030)!
- Interrupt your work immediately if you are unsure about using the wheel bearing tool, and contact GEDORE Automotive GmbH if necessary!
- For safety reasons, ensure that a damaged wheel bearing tool is no longer used! Professional inspection and repair may only be carried out by specially trained personnel from GEDORE Automotive GmbH!



#### 1.10 Maintenance

Perform maintenance on the wheel bearing tool **at regular intervals** and **only** when the tool is depressurised and/or deenergised! Poor and improper maintenance can damage the wheel bearing tool, thus causing **DEATH** or **SEVERE INJURIES**!

#### Prior to each use:

- **Prior to each use**, check the wheel bearing tool **carefully** for damage, loose parts or unauthorised modifications!
- Prior toeach use of the wheel bearing tool, check the spindle for contamination and damage. If necessary, clean them, and subsequently lubricate them only with molybdenum disulphide paste! (for example, GEDORE Automotive KL-0014-0030)

#### Recommended: Every 24 months:

✓ Have the wheel bearing tool professionally checked every 24 months by authorised GEDORE Automotive GmbH specialists!

#### 1.11 Troubleshooting

Always perform troubleshooting on the wheel bearing tool puller when it is depressurised/tension-free.

**Problem:** Hydraulic oil escapes from the hydraulic coupling between hydraulic cylinder and hand pump.

Reason: Hydraulic coupling contaminated or loose.

**Remedy:** Clean and retighten the hydraulic coupling. Top up lacking hydraulic oil (**HLP 32**) at the hand pump.

Problem: The hydraulic hand pump does not build up pressure or only very slowly.

Reason: The pressure release valve on the hydraulic hand pump is open or hydraulic oil is missing.

**Remedy:** Close the pressure release valve on the hydraulic pump completely. Top up lacking hydraulic oil **(HLP 32)** at the hydraulic hand pump.

#### 1.12 Care / Storage

#### CAUTION

Improper care and storage can damage the wheel bearing tool.

- ▼Therefore, **never** immerse the wheel bearing tool in water, solvents, or other cleaning liquids.
- After use, clean all parts with a dry and clean cleaning cloth.
- Store the wheel bearing tool and the operating instructions at a dry and clean place.

#### 1.13 Repair

#### **A**WARNING

Improper repair of wheel bearing tool can result in **DEATH** or **SEVERE INJURIES**.

- If damage, loose parts or unauthorised modifications have been found on the wheel bearing tool, it must no longer be used for safety reasons!
- ▼ Repair may only be carried out by specially trained personnel from **GEDORE Automotive GmbH**!
- **Conly** use original spare parts and accessories from **GEDORE Automotive GmbH** for the wheel bearing tool!

If necessary, contact us, the **GEDORE Automotive GmbH** for a professional inspection and repair of the wheel bearing tool.

#### **1.14 Environmentally friendly disposal**

Dispose of the wheel bearing tool and the packaging material in an environmentally compatible way in accordance with the legal requirements. If necessary, ask your local authorities about environmentally friendly disposal options.



## **2. PRODUCT DESCRIPTION**

#### 2.1 KL-0041-452 C - Wheel bearing tool, Ø 85mm

Fits with wheel bearing units <u>without</u> centre bore for example on rear axles with wheel bearing dia. 85mm with Toyota ProAce; Peugeot Expert, Traveller; Citroen Jumpy, Spacetourer, and many more.

Also fits with conventional wheel bearing units <u>with</u> centre bore and hole circle Ø 5x108, 5x112mm.

For quick and professional removal and installation of wheel bearing units directly on the vehicle.

The particular construction of the tool particularly enables the removal and installation of wheel bearing units without centre bore. Thereby the wheel bearing is directly pulled out via the wheel hub and pressed in again damage-free via the outer ring of the wheel bearing.



#### 2.2 Scope of delivery / Overview of the single parts

(i) Prior to using the wheel bearing tool, check to ensure that all the parts included in the scope of delivery are available.

ltem	Part no.	Description	Qty.
Α	KL-0041-4521	Puller plate with screws	1
<b>A</b> 1	KL-0041-4521-1	Puller plate	1
A	KL-0041-4521-2	Hex screw M12x1.25 x 40mm	4
A	KL-0066-0004	Washer M12	8
В	KL-0039-1289	Thrust ring	1
С	KL-0039-1802	Centring sleeve long	1
D	KL-0041-4608 D	Cover	1
E	KL-0041-4607	Housing	1
F	KL-0041-4500 B	Pair of clamping jaws Ø 85mm	1

#### 2.3 Specifications

Maximum load capacity: ......12 tonnes

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## **Operating instructions** (Translation of the operating instructions)

## **3. PREPARATION**

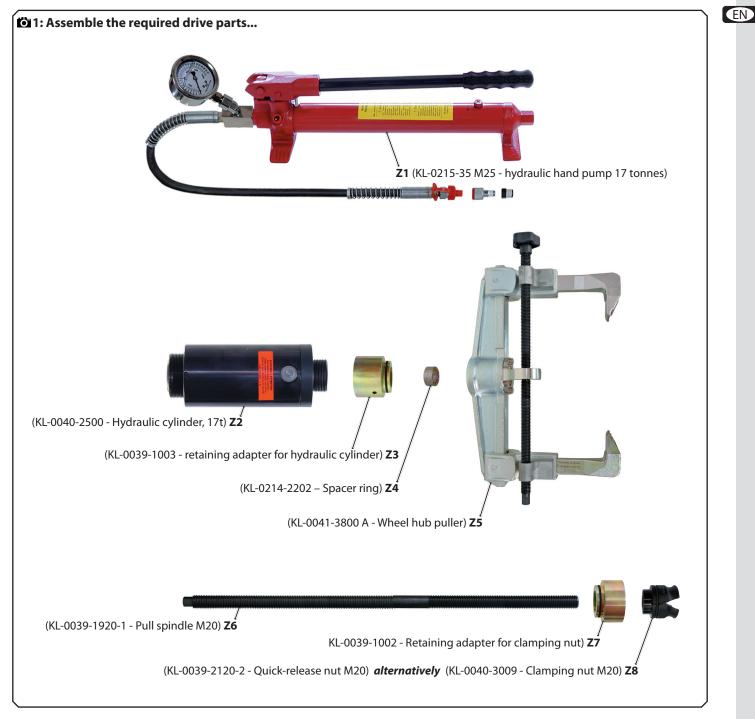
#### 3.1 Required drive parts

#### **A**WARNING

Using a machine-operated drive can cause the wheel bearing tool to slip, break and thus drop or be hurled about. This can cause **DEATH** or **SEVERE INJURIES**!

- The wheel bearing tool must **never** be used with a mechanical drive, e.g. an impulse or impact wrench or a drive other than that intended for it!
- The wheel bearing tool may **only** be driven by hand and with muscle power and a <u>manually</u> operated **GEDORE Automotive** hydraulic cylinder / pump combination with a pressure gauge for safe pressure control!
- 1. Assemble the required drive parts for the wheel bearing tool as shown in 1.

(i) For other drive components and accessories see the GEDORE Automotive catalogue.





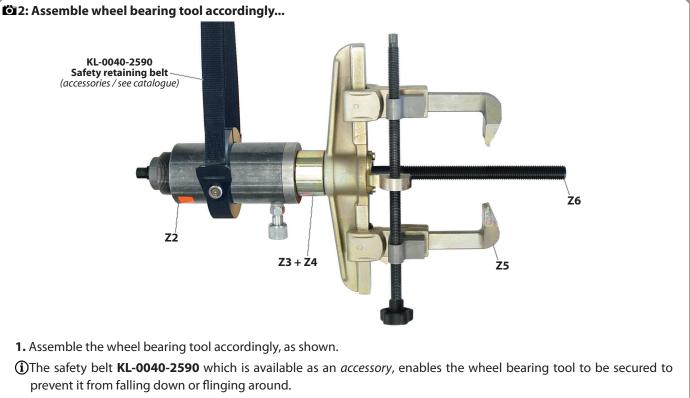
## **4. TYPICAL APPLICATION**

This application example describes directly on the vehicle the extraction of a wheel bearing unit without centre bore and the pressing in of a new wheel bearing unit with centre bore.

(i) Pulling out with or without a centre hole is basically done in the same way. Wheel bearing units without a centre bore have been fitted to various vehicles at the factory. As a rule, a wheel bearing unit with a centre bore is supplied as a replacement.



#### 4.1 Removing wheel bearing unit



3: Preparing the vehicle in accordance with the manufacturer specifications...



#### Misuse can cause **DEATH** or **SEVERE INJURIES**!

- When working with the wheel bearing tool, the <u>vehicle-specific</u> manufacturer's specifications must always be observed!
- 2. Prepare the vehicle for the following work according to the manufacturer's specifications. For example, lift the vehicle safely, unscrew the wheel and remove the brake.

Wheel bearing unit (Wheel hub with wheel bearing)

Wheel bearing housing



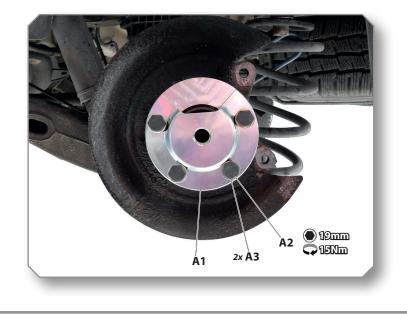
#### 🛱 4: Screw puller plate [A] to the wheel hub...

#### CAUTION

The puller plate with screws **[A]** can be torn out and damaged when pulling out the wheel bearing unit on the wheel hub!

- The extraction plate [A1] must always be screwed to the wheel hub via all four screws [A2]!
- **3.** Place the puller plate **[A1]** in the correct position on the wheel hub as shown and screw it in place using the screws **[A2]**.

(i) Place <u>two</u> washers [A3] under each of the screws [A2] and tighten to 15Nm.



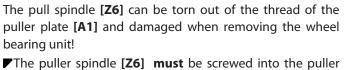


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Wheel hub

🙆 5: Screw the wheel bearing tool with the pull spindle [Z6] into the puller plate [A1]...

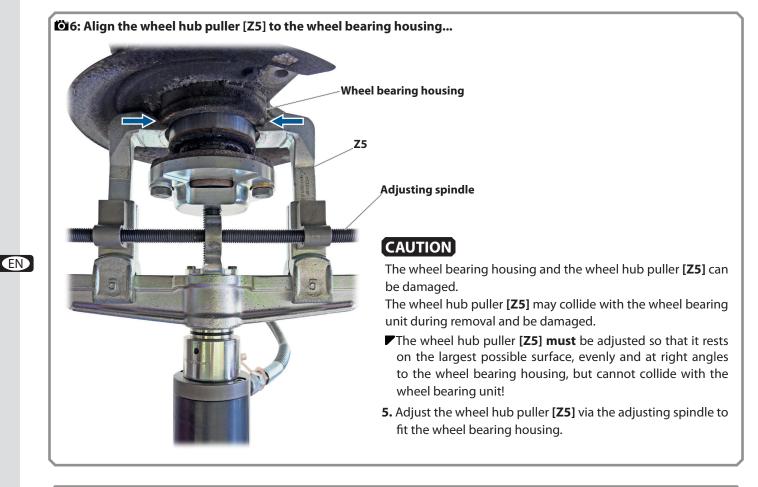
#### CAUTION

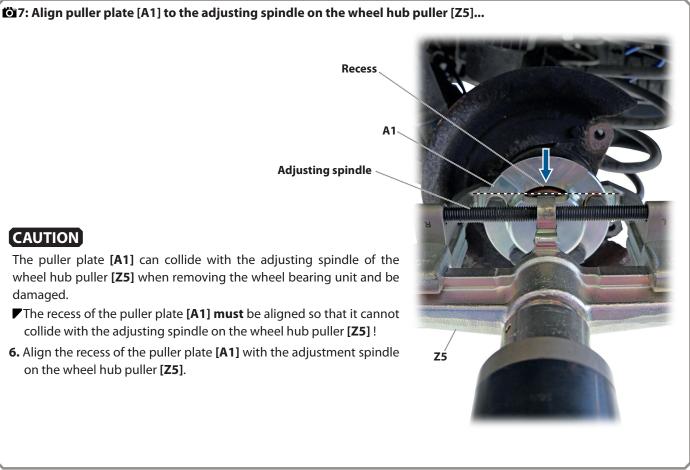


- I he puller spindle [26] must be screwed into the puller plate [A1] at least <u>8x turns</u> or <u>20mm deep</u>!
- **4.** Attach the wheel bearing tool to the wheel bearing unit by screwing the pull spindle **[Z6]** into the puller plate **[A1]**.

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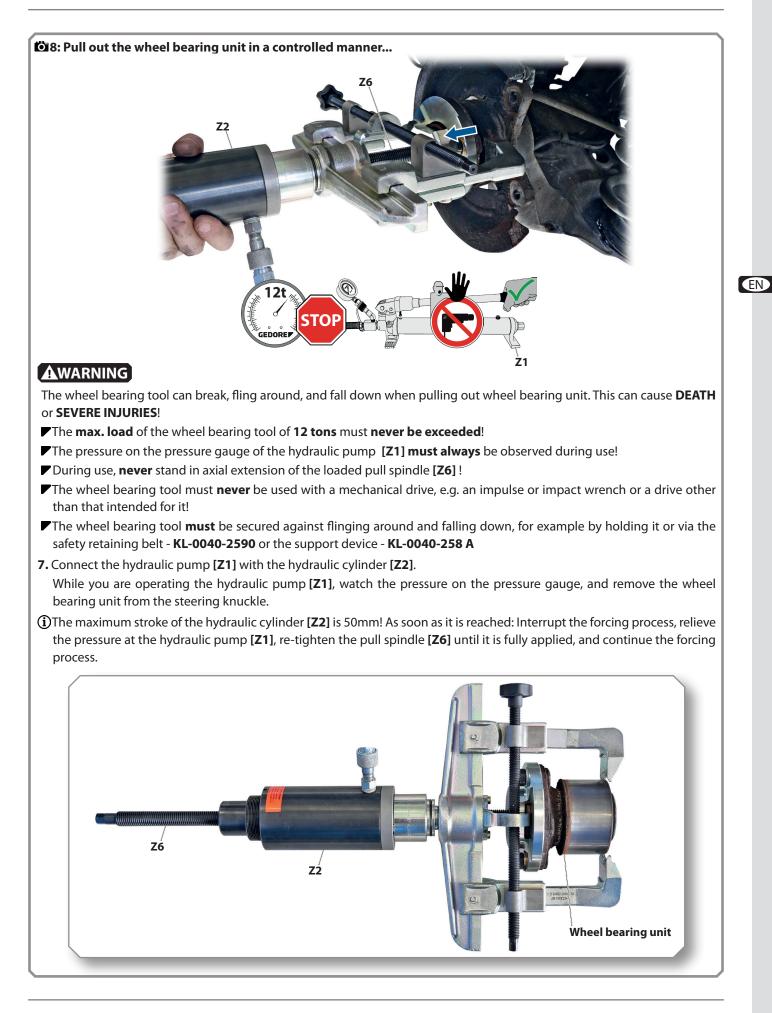


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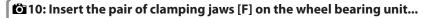
## Operating instructions

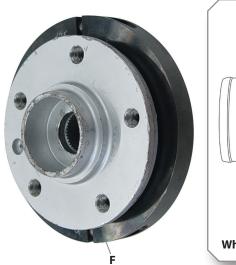
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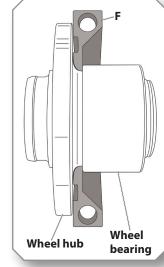




#### 4.2 Pressing in the wheel bearing unit







#### CAUTION

🔵 19mm

The wheel bearing unit can be damaged.

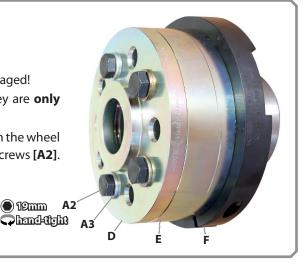
- The pair of clamping jaws [F] must be aligned so that they are completely and cleanly seated between the wheel hub and the wheel bearing!
- 1. Insert the pair of clamping jaws [F] in the correct position on the wheel bearing unit as shown.

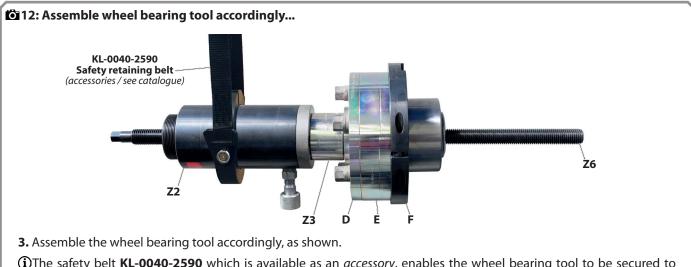
11: Fix the lid and the housing on the wheel bearing unit...

#### CAUTION

When tightening the screws [A2], the wheel bearing unit may be damaged!

- The **four** screws **[A2] must** only be tightened lightly by hand, they are **only** used to fix the lid [D] to the housing [E]!
- 2. Place the lid [D] with housing [E] in the correct position as shown on the wheel bearing unit with pair of clamping jaws [F] and fix them with the screws [A2].
- (i) Place a washer [A3] under each of the screws [A2] and tighten lightly by hand.





(i) The safety belt KL-0040-2590 which is available as an accessory, enables the wheel bearing tool to be secured to prevent it from falling down or flinging around.

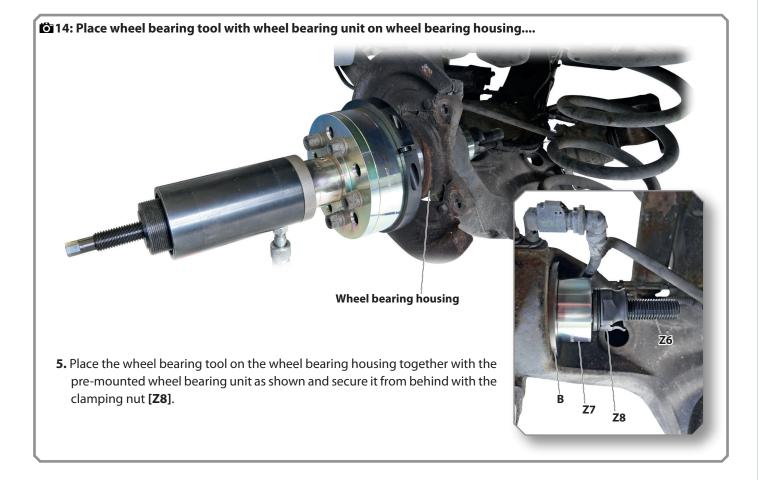


## **Operating instructions** (Translation of the operating instructions)



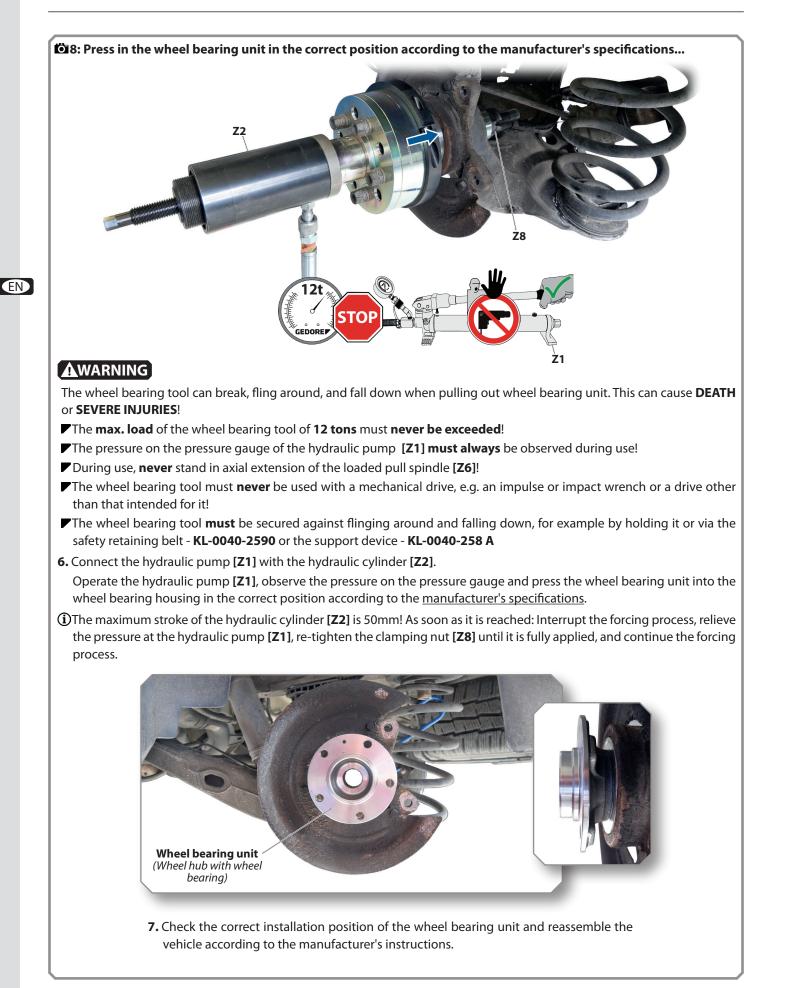
The ABS sensor can be damaged when pressing in the wheel bearing unit!

- The thrust ring **[B] must** be aligned so that the existing recess sits exactly over the ABS sensor!
- **4.** Insert the thrust ring **[B]** together with the centring sleeve **[C]** and the locating adapter**[Z7]** in the correct position as shown, from the rear of the wheel bearing housing.



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