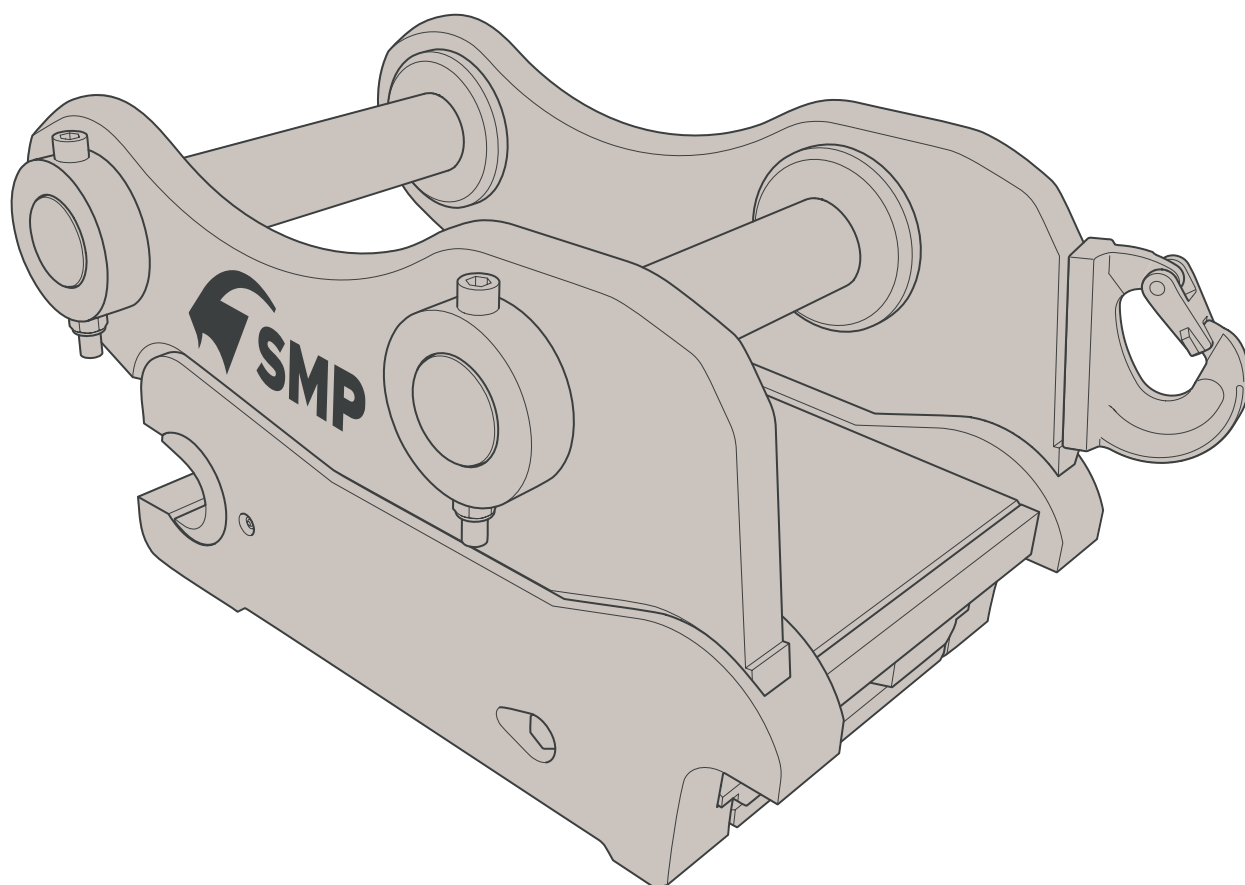


The right tool for the right job saves energy.

USER MANUAL

QUICK COUPLER HARDLOCK



S45-S90

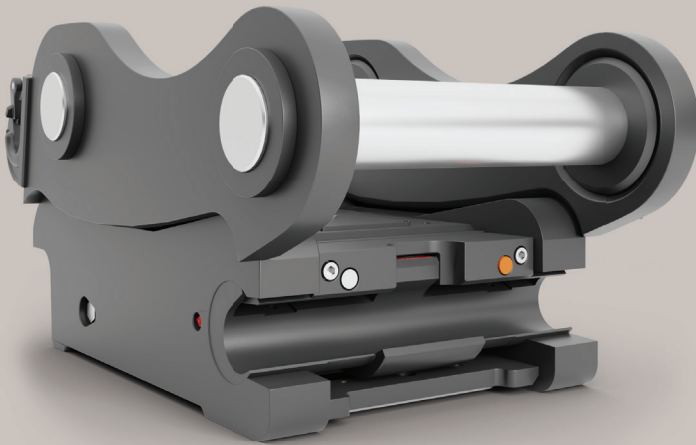
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The contents of this document have been carefully checked by SMP Parts, but deviations may occur. We cannot therefore guarantee absolute consistency. The illustrations are intended to represent the products described. Actual products may differ in part from illustrations.

We reserve the right to make changes to maintain continuous improvement in the construction, performance, and environmental impact of the product. Any necessary corrections will be made in future audits.

Original instruction manual.



**Thank you for the trust in us
you have shown by choosing
SMP!**

Please read this manual carefully before using the equipment. This manual explains safety aspects for operating and handling the equipment, as well as how to get the best possible performance and life-span from the equipment.

Look after your SMP equipment, and you will have a strong and reliable colleague for many years!

We welcome you as a customer of SMP Parts AB.

Please feel free to contact us whenever you need more information.

www.smpparts.com

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INTRODUCTION

General information

This manual

This manual contains instructions for the correct use and maintenance of the SMP reversible quick coupler Hardlock. This manual is intended to be used during installation, operation and maintenance.

The user of the equipment must have read and understood the contents of this manual before installing and putting the equipment into service.

The safety information provided in this manual relates only to the SMP Reversible Quick Coupler Hardlock and does not cover the excavator, tilt rotator or tools.

In addition to this manual, there may be additional documents, with specific detail for the chosen product.

Installation, operation and maintenance may vary to some extent between different products due to special adaptations and control systems. Contact SMP Parts or dealer for more information!

SMP reserves the right to change the contents of this manual without prior notice. A new manual can be ordered from SMP Parts.

SMP quick coupler Hardlock

The SMP quick coupler Hardlock is for connecting buckets and other tools to a tool carrier such as the arm of an excavator. Bucket and tool change is handled by the machine operator using the excavator's hydraulic and control systems.

Hardlock is a reversible quick coupler which enables the machine operator to easily work with reversed digging angle.

The safety coupler is based on the reversible S models and is designed with double locking, an eccentric lock that locks around the front axle of the bracket and a locking wedge for the rear axle of the bracket. This construction enables a secure and gap-free connection.

Intended use

The SMP Hardlock quick coupler is for connecting buckets and other tools to a tool carrier such as the arm of an excavator. The lifting capacity of the excavator may be lower than the quick coupler and must never be exceeded.

Tools connected to the quick coupler must be of the type normally used when working with an excavator.

Before use

Read and observe all warnings and warning symbols on the equipment and in this manual before using the equipment. This is to prevent personal injury or death, as well as damage to the equipment.

Before use ensure that:

- no one is within the working range of the basic machine. The risk zone is 3 m.
- The quick coupler's lock cylinders are pressurised.
- The quick coupler and attached attachments are correctly fitted in accordance with the applicable instructions and are locked to the machine and the tiltrotator coupler.

EC Declaration of Conformity

SMP Parts develops and manufactures all its products in accordance with European legislation 2006/42/EC, 2014/30/EU and 2011/65/EU. The products come with an EC Declaration of Conformity, which guarantees that the equipment is manufactured in accordance with applicable laws and regulations.

If a product is rebuilt or supplemented with other products, which SMP Parts does not approve, this designation ceases to apply.

This manual is an original manual according to the Machinery Directive.

Compliance with standards

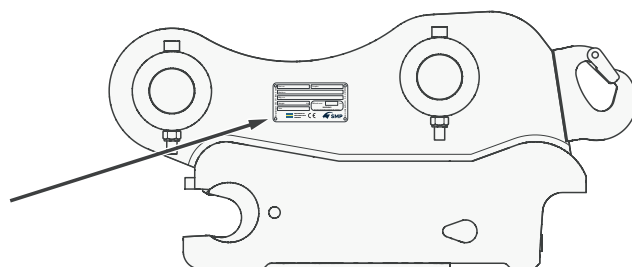
- Open-S — Open standard for fully automatic quick couplers
- EN 474-1:2022 — Earth-moving machinery — Safety — Part 1: General requirements
- EN 474-5:2022 — Earth-moving machinery - Safety - Part 5: Requirements for hydraulic excavators
- ISO 13031:2016 — Earth-moving machinery - Quick coupling - Safety

Name plate

The name plate states the model designation, production number and year of manufacture. The name plate also has a CE marking, which shows that the product meets the machinery directive.

Fill in the fields with the information from the quick coupler name plate to have on hand for any service requirements.

Bergsjövägen 3 820 71 Ilso, Sweden	Part no.	Coupler
	Machine	
	Mfg. no.	
	Weight	Kg
	Year	
	Lifhook max	ton
WARNING Do not exceed the machine lift capacity		
 DESIGNED IN HÄLSINGLAND SWEDEN		
 		
	www.smpparts.com Art.nr 67854	



SAFETY

General information

The safety information applies to everyone working with the machine! Anyone who fails to follow the instructions given in this manual must ensure that the work is carried out without the risk of damage to persons, machinery or property!

Remember:

- follow directions in this manual
- be trained for the task
- comply with local laws, safety regulations and rules
- use the equipment and tools provided for the task
- wear the correct protective equipment
- the excavator must be intended for lifting in accordance with EN 474-1:2022

This chapter contains safety information that must be considered before, during and after use of the equipment.

The terms DANGER, WARNING, CAUTION, and NB are used throughout this manual to mark safety-critical or otherwise important information. Always read the sections highlighted in this way, in order to work safely and avoid damage to the equipment. Terms are explained below.

DANGER	Imminent hazard which, if not avoided, could result in death or serious injury. This word is only used to highlight the most extreme situations.
WARNING	A potentially hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION	A potentially hazardous situation which, if not avoided, could result in slight or moderate injury. It is also used to mark unsafe handling or manoeuvring.
NB!	This highlights information that is important to installers, operators, and maintenance technicians, but is not directly safety-related.

Warning symbols



Read the instruction manual.



Risk of trapping in moving parts.



Warning symbol. Pay attention.



Warning for pressurised hydraulic oil.



NEVER stand under raised tools.

Safety warnings in this manual



WARNING!

Do not install the quick coupler until you have read and understood all the contents, including the safety precautions, of this user manual.



DANGER!

Never walk or stand under a hanging load!



DANGER!

Leave plenty of free space for the sweeping radius the machine and tools require when working. No unauthorised persons may be in the machine's working area during work. Risk of serious injury or death! **Risk zone: 3 metres.**



WARNING!

Incorrect assembly can result in serious injury or death. In case of any doubt, contact the dealer or SMP Parts AB.



WARNING!

Make sure the hydraulic system is completely depressurised before starting any maintenance or repair work.
The hydraulic oil is under high pressure and can penetrate the skin and cause serious injury or death.



DANGER!

When installing, maintaining, or repairing equipment, the machine should be switched off and secured.



WARNING!

When installing the quick coupler, the tilt limit must be checked to minimise the risk of injury.



WARNING!

Never use your hands to check for leaks in the hydraulic system. Risk of injury due to pressurised hydraulic oil penetrating the skin.



CAUTION!

Wear protective equipment such as a helmet, protective gloves, safety shoes and hearing protection when working on and with the equipment to minimise the risk of injury.



WARNING!

Never use equipment that is connected to the quick coupler unless the locking mechanism is in the locked position, and the bucket/attachment is properly locked.



WARNING!

Installations, repairs and maintenance work may only be carried out by personnel trained for the task.



WARNING!

Negligently or incorrectly installed quick couplers can result in machine damage, serious injury, or death. Pay attention to all warning symbols on the quick coupler.



WARNING!

Never open the locking mechanism in such a position that the attachment may fall off from the quick coupler.



DANGER!

The maximum capacity of the equipment must never be exceeded, nor exceeded by modifications not approved by SMP Parts. Risk of machine damage, serious injury or death.



WARNING!

In the event of heavy soiling, it is the operator's responsibility to clean the quick coupler so that the indicators are always visible.



WARNING!

Connect the hydraulic hoses so that the excavator arm can be manoeuvred without the risk of hoses becoming entangled or hose breakage occurring.

**WARNING!**

Under no circumstances is it permitted to connect and "pick up" a bucket or tool with the jaws of the coupler or with the eccentric lock axle, although under certain conditions this is technically possible. Never lift a bucket or tool unless the quick coupler is fully locked.

**WARNING!**

Before coupling, check that the coupling parts of the bucket or tool as well as the quick coupler are clean and free of soil and debris that may prevent proper coupling.

**WARNING!**

The lifting hook must not be used if the locking mechanism does not work properly or is damaged.

**WARNING!**

The lifting capacity of the lifting hook may be lower than that of the excavator and must never be exceeded.

**WARNING!**

The lifting capacity of the excavator may be lower than that of the quick coupler and must never be exceeded.

**WARNING!**

Be careful when connecting the coupler and excavator – there is a risk of trapping hands and fingers.

**CAUTION!**

Avoid any kind of spillage. Treat all oil as environmentally hazardous waste.

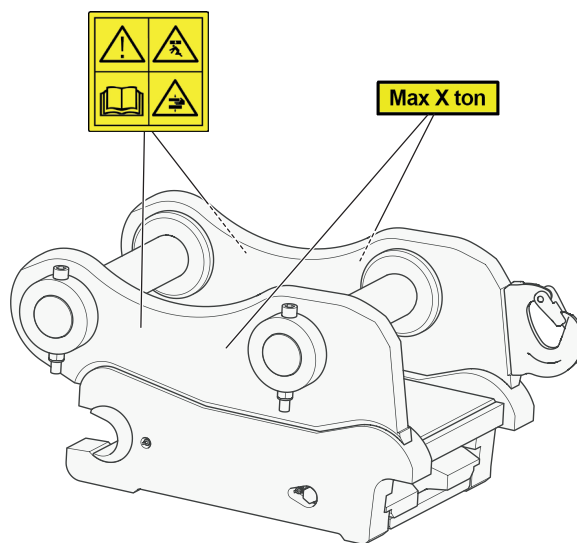
**WARNING!**

Locked couplings must not be inserted into the bracket. Risk of serious machine damage.

**DANGER!**

The maximum permissible lifting capacity must never be exceeded. Take into account the weight of the quick coupler and the increased reach to avoid loss of stability. Risk of machine damage, serious injury or death.

Placement of warning and information signs



Environmentally hazardous waste

Waste oils and liquids should always be disposed of by an authorised company.

Be aware of leakage of oils and other liquids!

Fix leaks immediately.

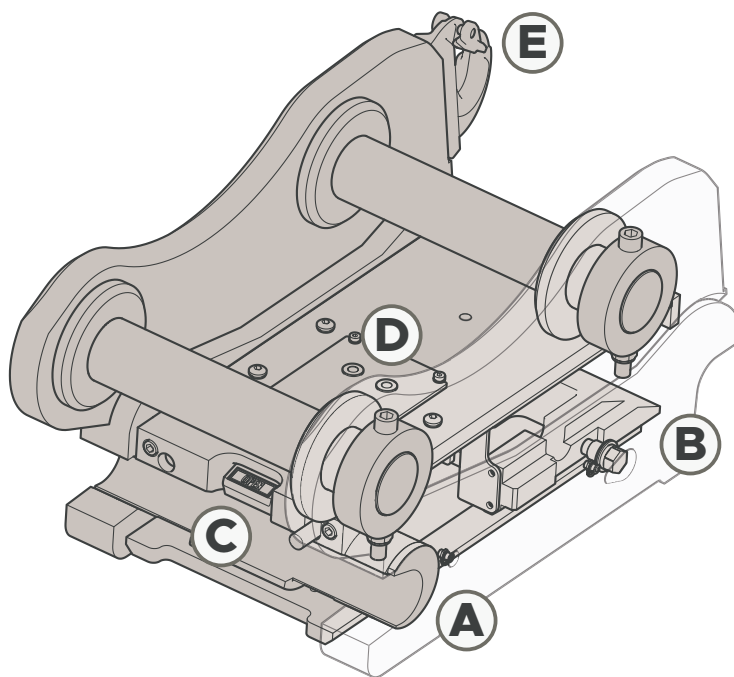
Cleanliness

The function and service life of hydraulic components largely depend on how clean the hydraulic oil is. Therefore, it is of the utmost importance to avoid dirt entering the hydraulic system.

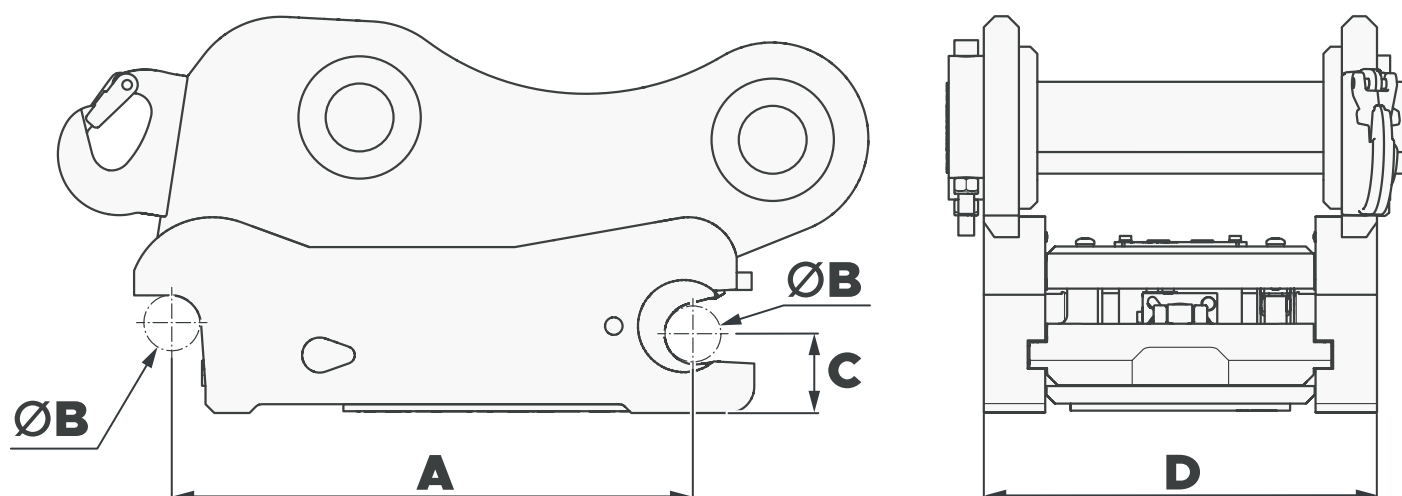
A few simple tips for keeping your hydraulic system clean.

- Always clean the area around a component before starting work.
- Seal hose connections immediately after they are loosened. If possible, use the correct seals for the connection type. If seals are missing, use clean plastic bags and cable ties or tape to seal the connection.

TECHNICAL DATA



Pos.	Designation
A	Eccentric lock
B	Locking wedge
C	Lock block with lock indicators
D	Hydraulic connections
E	Lifting hook



Model		S45	S50	S60	S70	S80	S90
Length [A]	mm	429.8 ±0.2	429.8 ±0.2	479.8 ±0.2	599.8 ±0.2	669.8 ±0.2	749.8 ±0.2
Axle diameter* [B]	mm	Ø45	Ø50	Ø60	Ø70	Ø80	Ø90
Max. height [C]	mm	65	65	80	100	115	125
Width [D]	mm	288 ±1	268 ±1	338 ±1	448 ±1	588 ±1	618 ±1
Weight	kg	90	90	170	320	430	430
Machine weight	tonnes	5-12	5-13	12-18	17-25	25-40	35-55
Max. hydraulic pressure	bar	350					
Operating temperature	°C	-25 to 40					
Max. noise level	dB	10					
Locking pressure**	bar	150-350					
Unlock pressure**	bar	max 350					

* The numbers in the model designation correspond to the axle diameter of the bracket. The quick coupler is normally supplied with axles for the machine.

** Recommended working pressure

LOCK INDICATION

The quick coupler has lock indicators that help the machine operator see if the coupler is properly locked or unlocked (open locks). Incorrect locking occurs, for example, when the locking wedge hits the axle of the bracket or goes above the axle.

The indicators consist of spring-operated pins and an "OPEN" sticker.

Information about the function and position of the indicators must be clearly displayed in the cab for the driver.

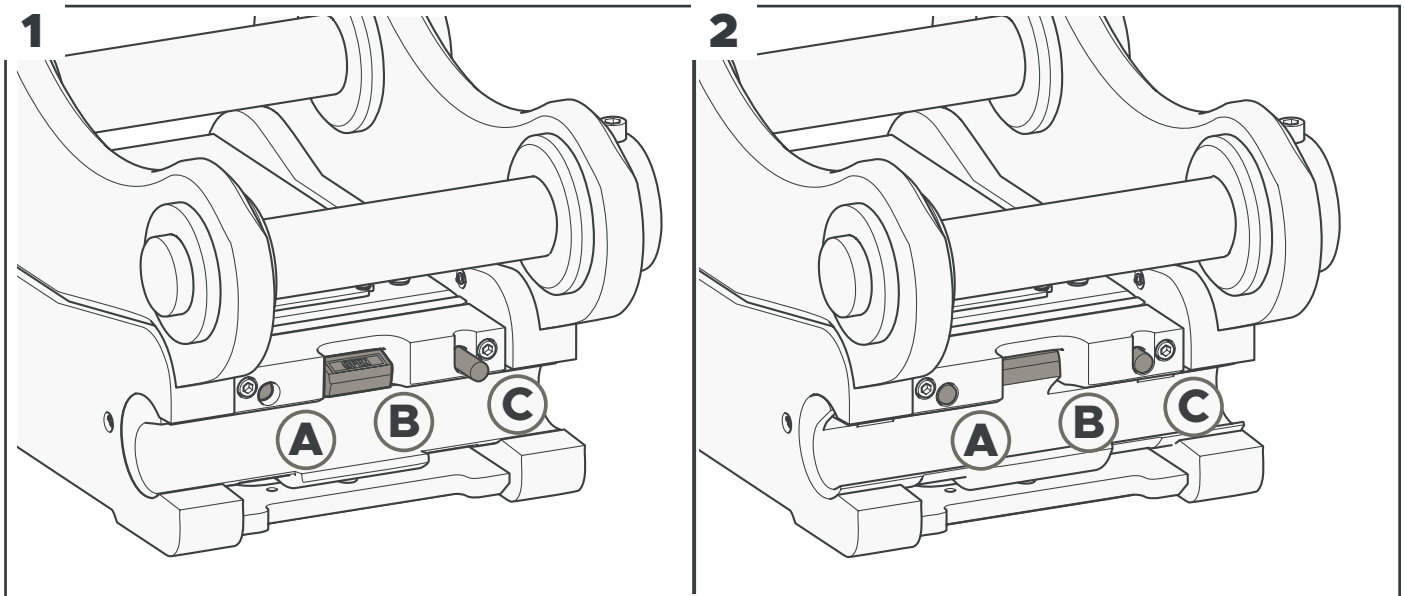
NB! Lock indication may vary depending on different types of couplings.



WARNING!

In the event of heavy soiling, it is the operator's responsibility to clean the quick coupler so that the indicators are always visible.

Indication of correct locking



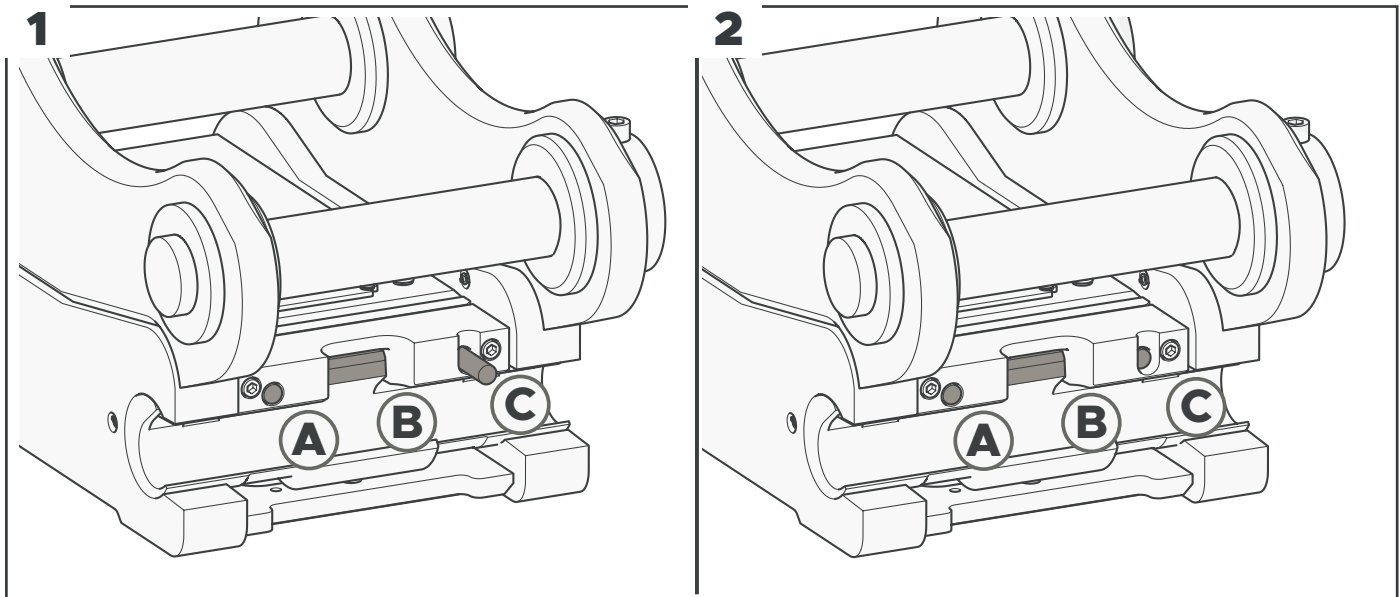
1. Open locks

- A. Indicator pin for eccentric lock, is retracted and not visible.
- B. "OPEN" sticker is visible.
- C. Indicator pin for locking wedge protrudes and is visible.

2. Full locking

- A. Indicator pin to eccentric lock, is in line with the edge of the lock block.
- B. "OPEN" sticker is not visible.
- C. Indicator pin to locking wedge is in line with the edge of the lock block.

Indication of incorrect locking



1. Locking wedge hits bracket
 - A. Indicator pin to eccentric lock, is in line with the edge of the lock block.
 - B. "OPEN" sticker is not visible.
 - C. Indicator pin for locking wedge protrudes and is visible.

2. The locking wedge goes on top of the bracket axle
 - A. Indicator pin to eccentric lock, is in line with the edge of the lock block.
 - B. "OPEN" sticker is not visible.
 - C. Indicator pin to locking wedge is retracted and invisible.

INSTALLATION

Introduction

Before starting the installation, check for any necessary additional documents specific to the selected product. Installation, operation and maintenance may vary to some extent between different products due to special adaptations and control systems. Contact SMP Parts or dealer for more information!



WARNING!

Do not install the quick coupler until you have read and understood all contents, including the safety precautions, of this user manual



WARNING!

Incorrect assembly can result in serious injury or death. In case of any doubt, contact the dealer or SMP Parts AB.



WARNING!

Installations, repairs and maintenance work may only be carried out by personnel trained for the task.



DANGER!

When installing, maintaining, or repairing equipment, the machine should be switched off and secured.



DANGER!

The maximum capacity of the equipment must never be exceeded, nor exceeded by modifications not approved by SMP Parts. Risk of machine damage, serious injury or death.



CAUTION!

Wear protective equipment such as a helmet, protective gloves, safety shoes and hearing protection when working on and with the equipment to minimise the risk of injury.



WARNING!

Negligence can result in machine damage, serious injury, or death. Pay attention to all warning symbols on the quick coupler.



WARNING!

When installing the quick coupler, the tilt limit must be checked to minimise the risk of injury.



WARNING!

Make sure the hydraulic system is completely depressurised before installation, maintenance or repair work begins. The hydraulic oil is under high pressure and can penetrate the skin and cause serious injury or death.

Disassembly of existing quick coupler



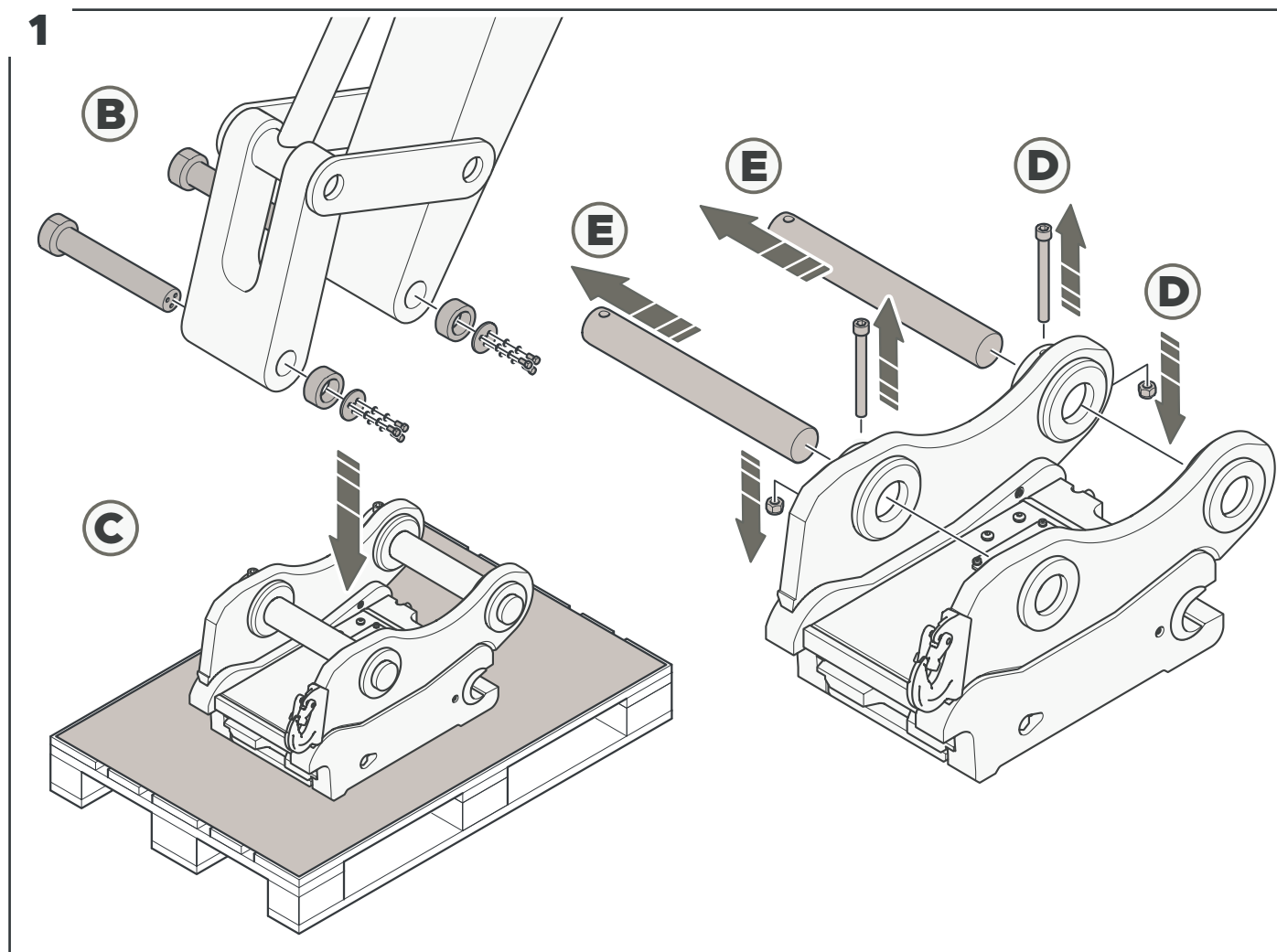
WARNING!

Make sure the hydraulic system is completely depressurised before installation, maintenance or repair work begins. The hydraulic oil is under high pressure and can penetrate the skin and cause serious injury or death.



WARNING!

Be careful when connecting the coupler and excavator – there is a risk of trapping hands and fingers.

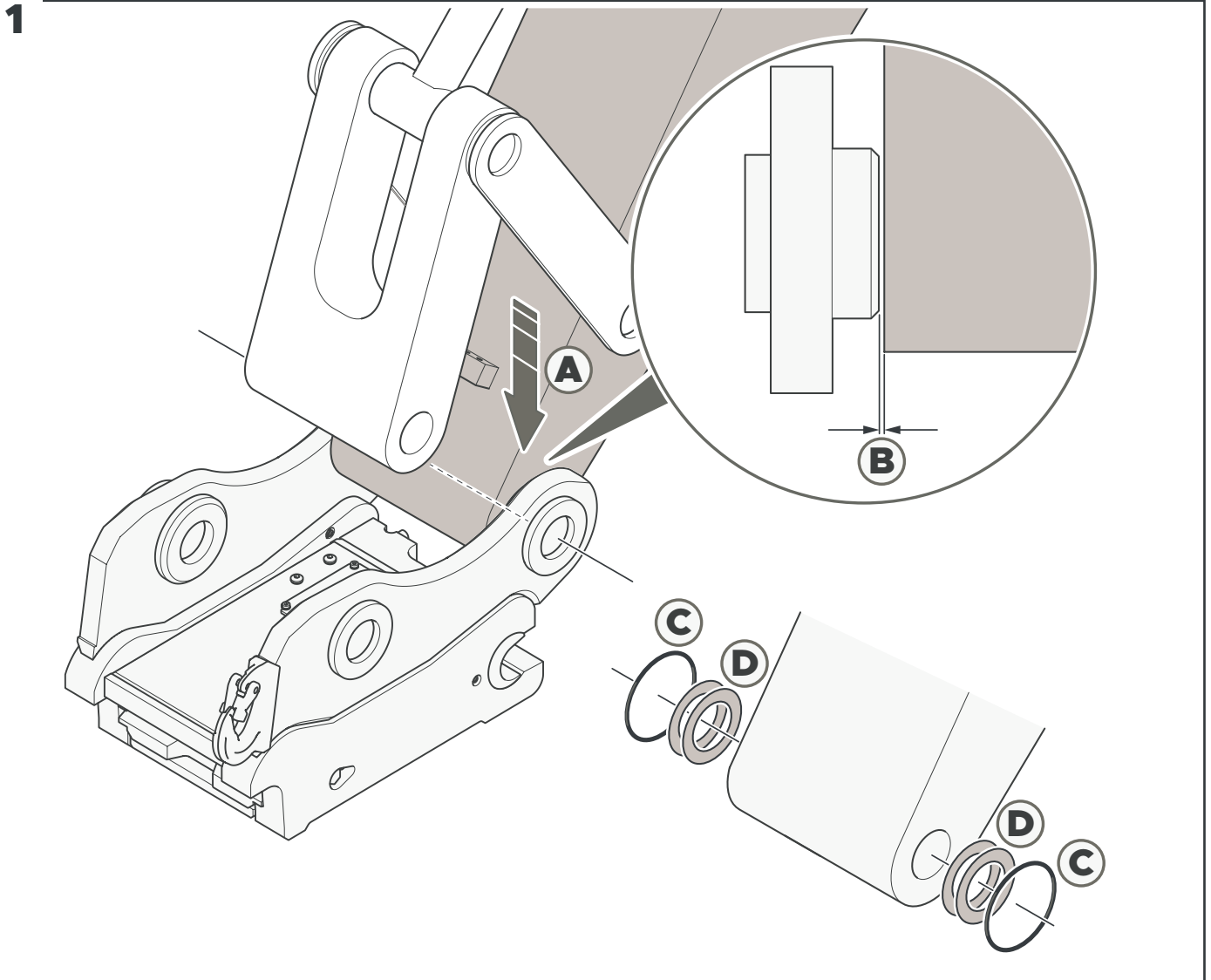


1. Disassembly

- A. Place the carrier machine on a level surface. Disconnect the hydraulic hoses from the existing quick coupler and plug all exposed hydraulic openings.
- B. Pull out the axles and remove the existing coupler.
- C. Place the Hardlock quick coupler on a flat surface such as a pallet.

If axles are included for the new quick coupler they must be used. Disassemble them as follows:

- D. Remove the locking pins.
- E. Remove the axles.

Mechanical assembly

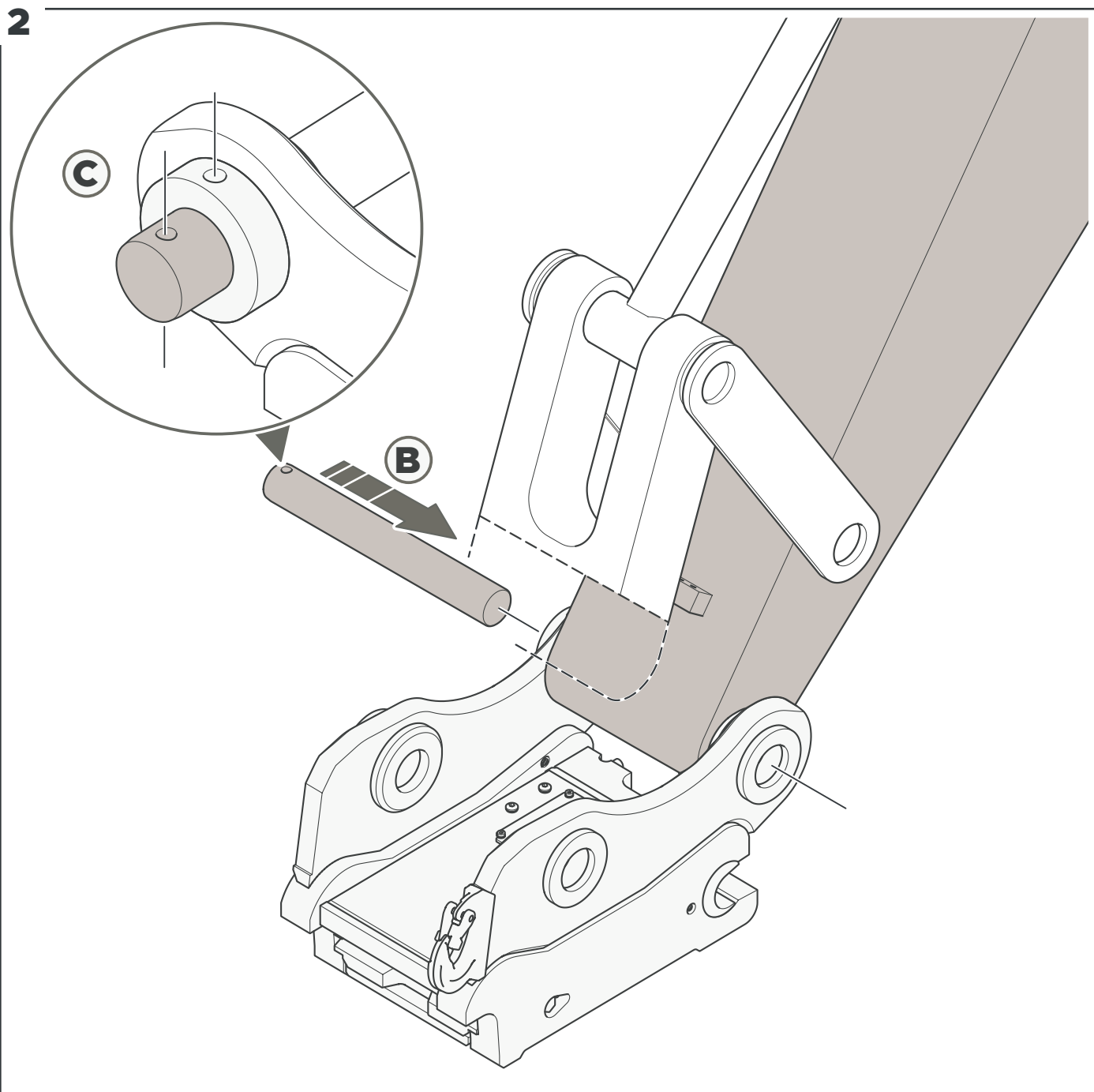
Tip: To facilitate assembly, the quick coupler can be placed on a pallet to adjust to the correct position with a pallet truck.

1. Front axle assembly

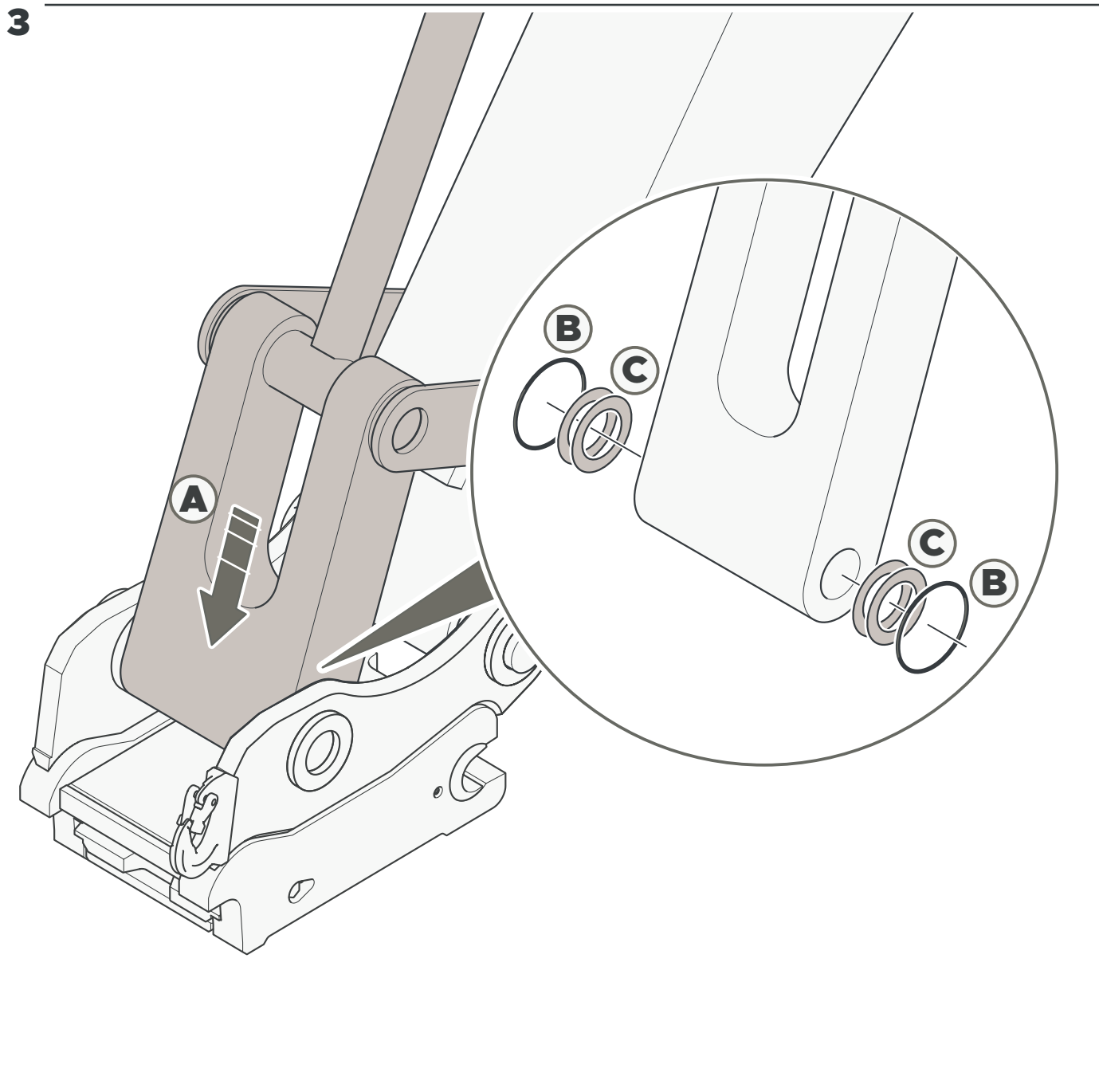
- A. Manoeuvre the excavator arm stick so that its tip is in the correct position in the quick coupler. The axle holes in the quick coupler should be completely aligned with the corresponding holes in the excavator arm stick.
- B. Visually check the axial clearance between the excavator arm stick and the quick coupler. If the clearance exceeds 2 mm, shims* must be fitted.
- C. Install dust protection rings* (O-rings).
- D. Shim if necessary according to the machine supplier's recommendation.



* Shims and dust protection rings are not supplied with this delivery but are included with the machine.



2. Front axle assembly, continued
 - A. Oil the bushings and the axle.
 - B. Drive the axle in completely.
 - C. Check that the holes for the locking pin line up.

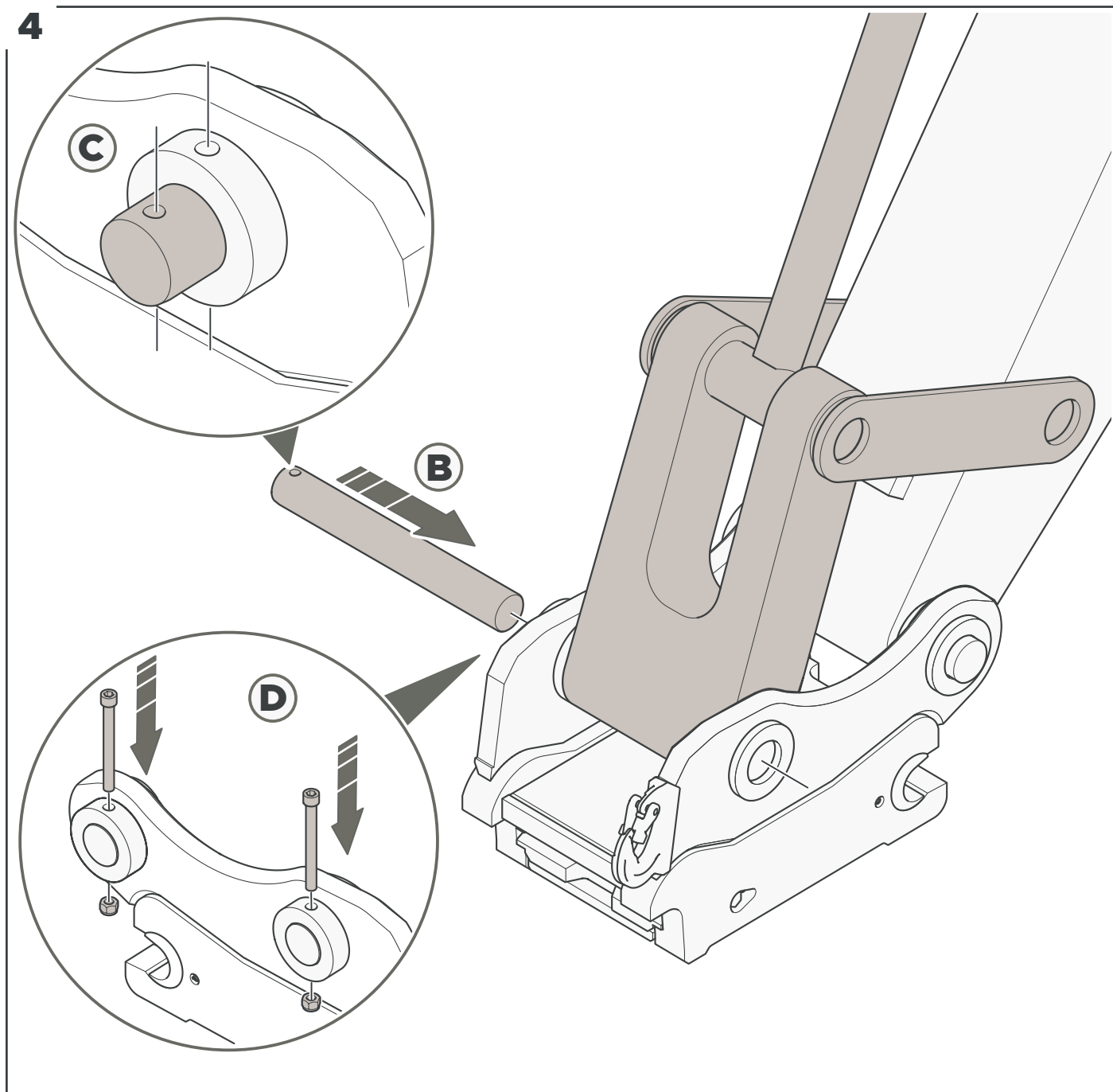


3. Rear axle assembly

- A. Operate the tilt link so that its tip is in the correct position in the quick coupler. The axle holes in the quick coupler should be fully aligned with the corresponding holes in the tilt link of the excavator arm.
- B. Install dust protection rings* (O-rings).
- C. Shim* if necessary according to the machine supplier's recommendation.



* Shims and dust protection rings are not supplied with this delivery but are included with the machine.



4. Rear axle assembly, continued

- A. Oil the bushings and the axle.
- B. Drive the axle in completely.
- C. Check that the holes for the locking pin line up with each other.
- D. Lock the axles with the locking pins included in the installation kit.
- E. Top up with grease in break link and stick according to the machine supplier's grease type recommendation.



Connecting hydraulics

General information

Hydraulic hoses and couplings are not included due to large variations between different excavators. The installer must manufacture or supply hoses locally.

NB! The hoses must meet the specifications of standard EN 857 2SC.

Always use press fittings in the manufacture of hoses. Reusable screw couplings are not permitted due to high pressures.

During assembly, carefully check that hoses and fittings are assembled and tightened correctly according to the manufacturer's recommendations. Hydraulic couplings are 1/4" BSP on all models.



WARNING!

Make sure the hydraulic system is completely depressurised before installation, maintenance or repair work begins. The hydraulic oil is under high pressure and can penetrate the skin and cause serious injury or death.



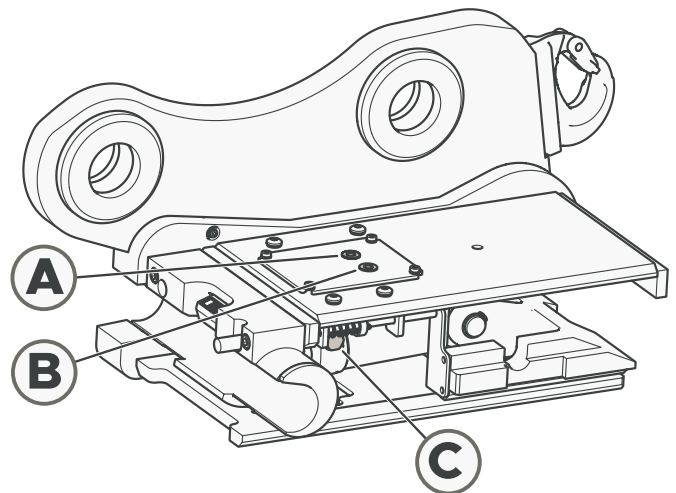
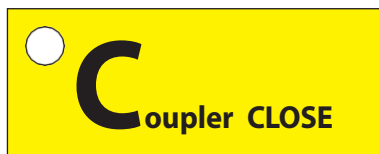
WARNING!

Connect the hydraulic hoses so that the excavator arm can be manoeuvred without the risk of hoses becoming entangled or hose breakage occurring.

Connections

Hydraulic connections are marked with "Coupler CLOSE" for locking the quick coupler and "Coupler OPEN" for opening the quick coupler.

For recommended locking and release pressure, see "Technical data".

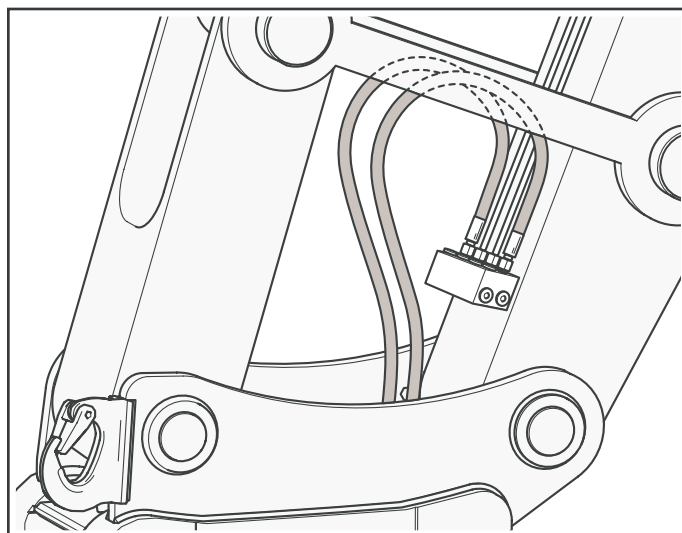


A	Hydraulic connection
B	Hydraulic connection
C	Pilot operated non-return valve 4CK30

Hose adjustment and placement

Make sure that the hydraulic hoses are of the right length so that they do not risk being damaged due to stretching or trapping, see picture.

Carefully run the excavator's bucket cylinder in its outer positions to check that the hydraulic hoses are the length required to handle the manoeuvre.



HANDLING



WARNING!

Under no circumstances is it permitted to connect and "pick up" a bucket or tool with the jaws of the coupler or with the eccentric lock axle, although under certain conditions this is technically possible. Never lift a bucket or tool unless the quick coupler is fully locked.



WARNING!

Before coupling, check that the coupling parts of the bucket or tool as well as the quick coupler are clean and free of soil and debris that may prevent proper coupling.



DANGER!

Leave plenty of free space for the sweeping radius the machine and tools require when working. No unauthorised persons may be in the machine's working area during work. Risk of serious injury or death! **Risk zone: 3 metres.**



DANGER!

Never walk or stand under a hanging load!



WARNING!

The lifting hook must not be used if the locking mechanism does not work properly or is damaged.



WARNING!

The lifting capacity of the lifting hook may be lower than that of the excavator and must never be exceeded.



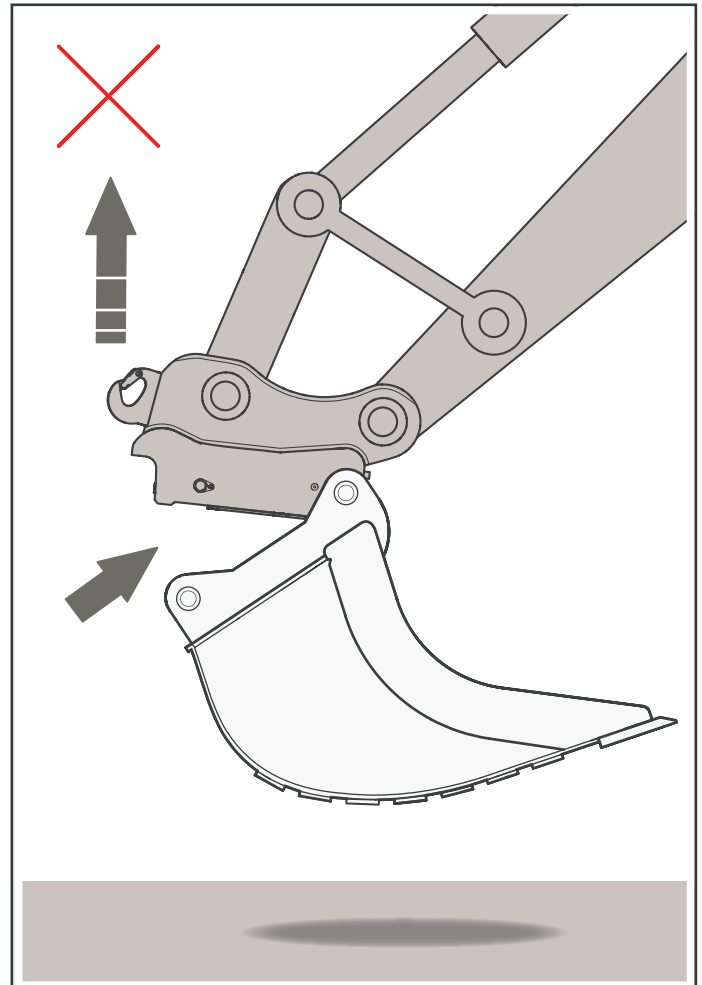
WARNING!

The lifting capacity of the excavator may be lower than that of the quick coupler and must never be exceeded.



WARNING!

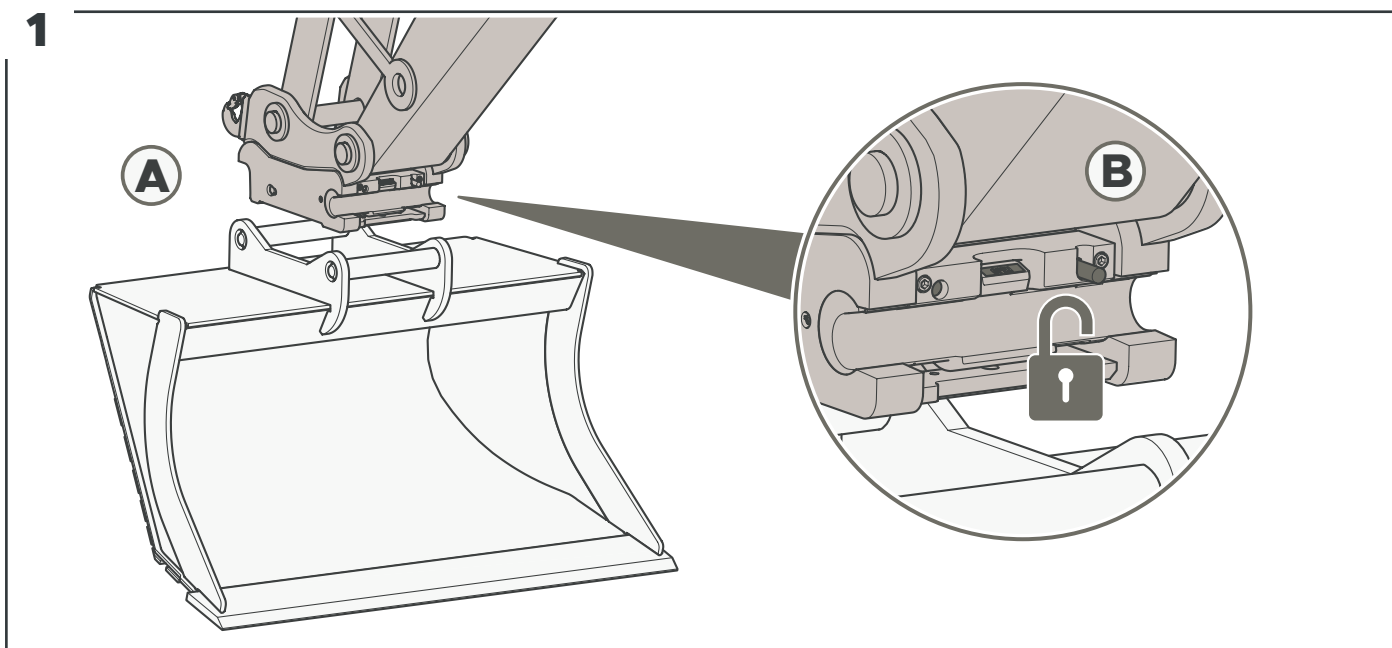
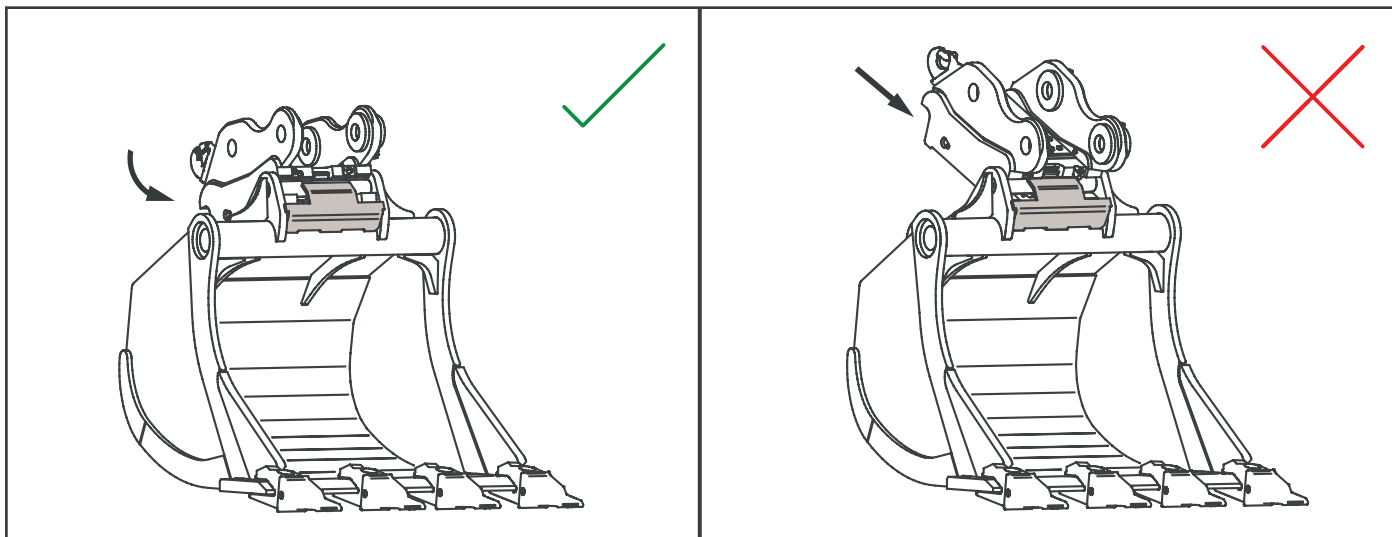
Be careful when connecting the coupler and excavator – there is a risk of trapping for hands and fingers.



Bucket on	Bucket off
Always have the bucket attached when lifting or tilting the machine.	Never lift or tilt the machine with the weight of the quick coupler.

Coupling of bucket or tool

NB! Some brackets are equipped with a protective plate at the front axle. Avoid collision between the locking block of the quick coupler and the protective plate. Connect tools with a gentle entry angle. A collision can result in serious damage to the lock block, which is not covered by the warranty.



1. Quick coupler- open lock
 - A. Place the bucket or tool and excavator so that they line up on a flat surface.
 - B. Check that the quick coupler has fully open locks, see "Lock indication".
3. Quick coupler locking



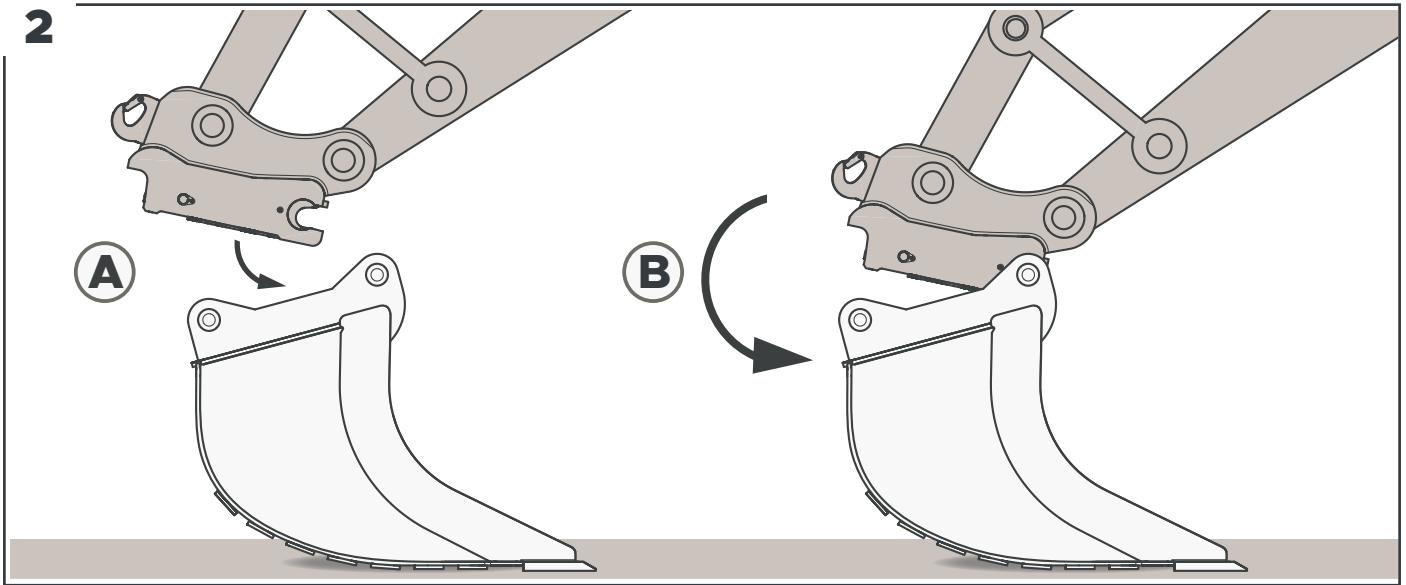
WARNING!

Locked couplings must not be inserted into the bracket. Risk of serious machine damage.

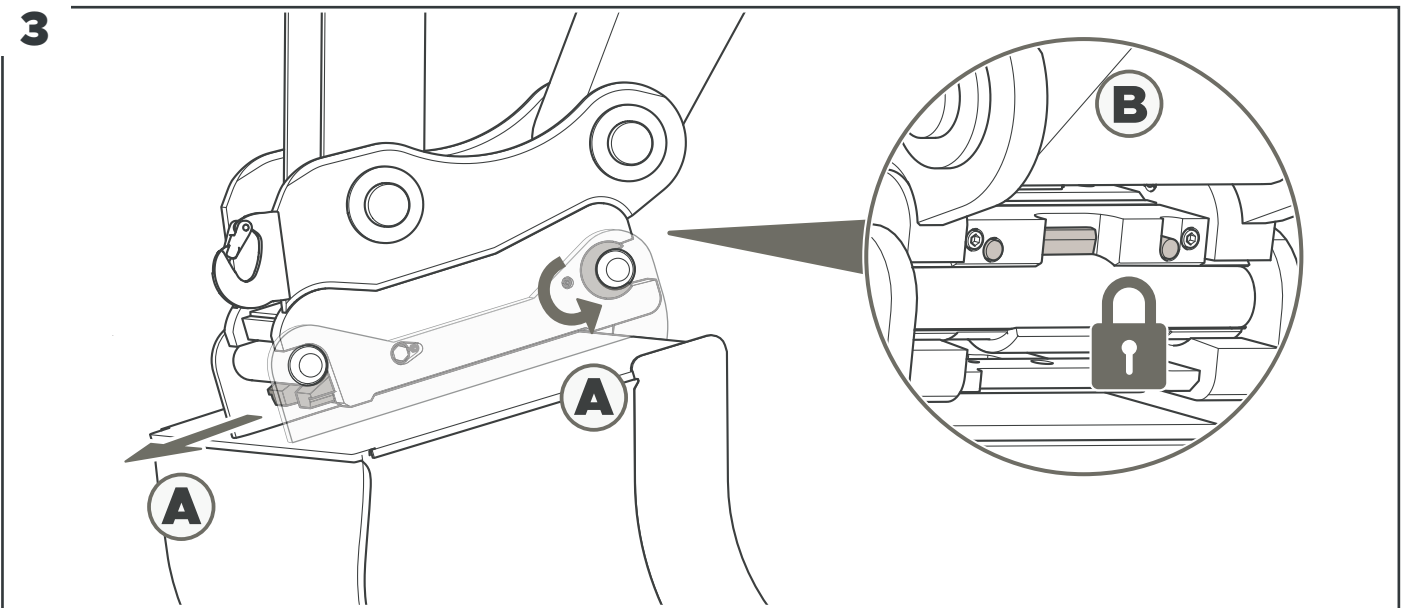


WARNING!

Be careful when connecting the coupler and excavator – there is a risk of trapping for hands and fingers.



2. Placement on the front and rear attachment axles
 - A. Place the quick coupler on the front attachment axle of the bucket or tool.
 - B. Operate the tilt function so that the quick coupler engages with the rear attachment axle in the bucket or tool.



- A. Operate the lock function to lock the bucket or tool in the quick coupler. Check that the eccentric lock rotates and that the locking key moves outwards from the quick coupler, on the underside of the rear axle.

For machines with increased working pressure:

Lift the bucket or tool about 5 cm above the ground and carefully drive the breakout cylinder into its end position to ensure that the correct locking pressure is achieved.

See "Technical data".

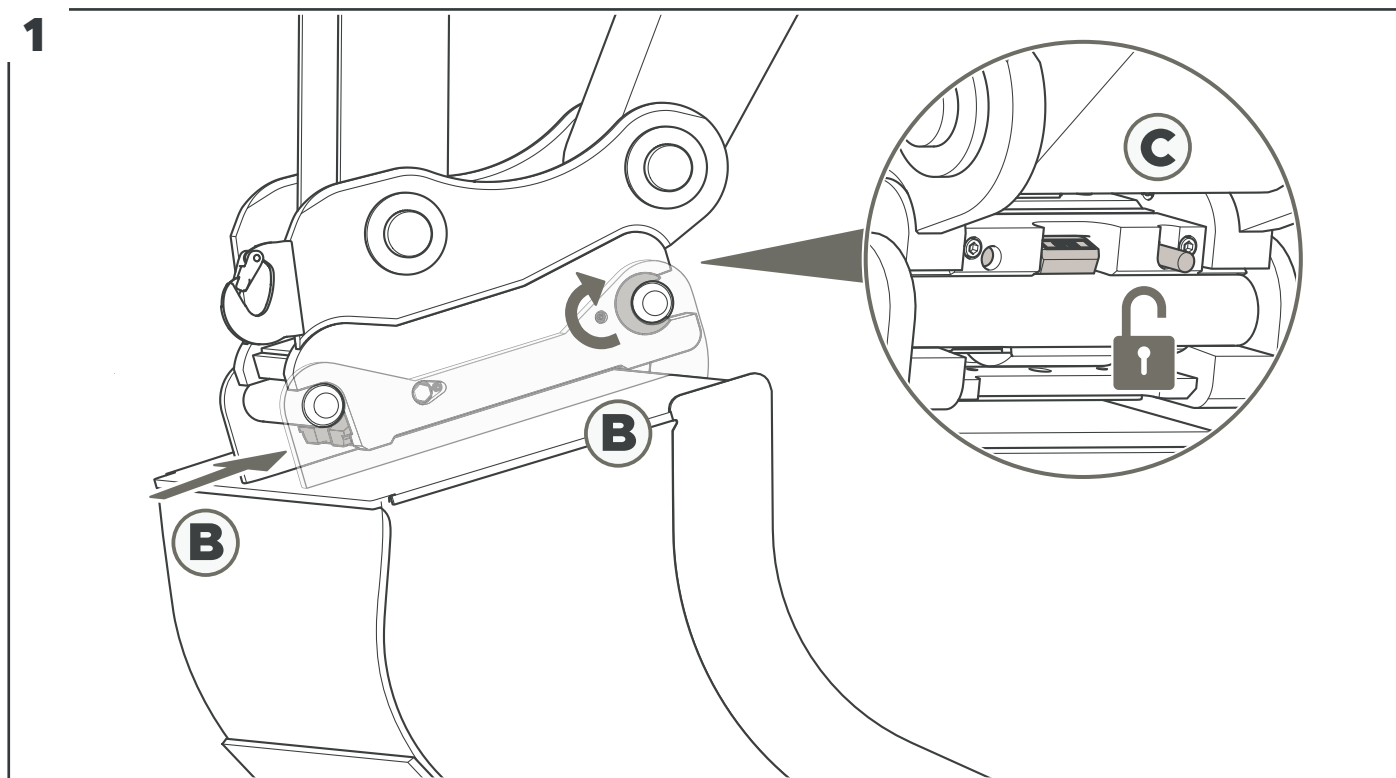
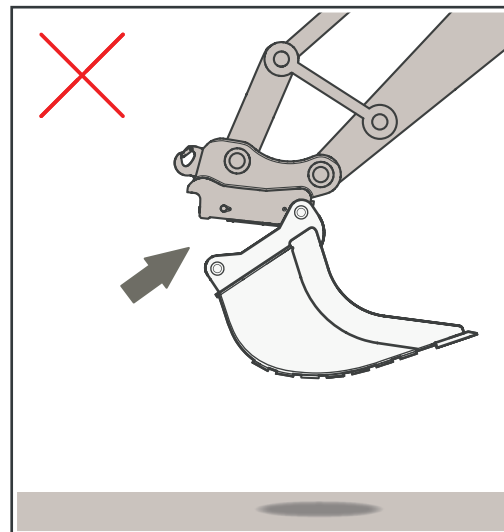
- B. Check on the indicators that the quick coupler are locked, see "Lock indication".
- C. Carefully check that the bucket or tool is secure by tapping lightly against the ground.

Disconnecting bucket or tool

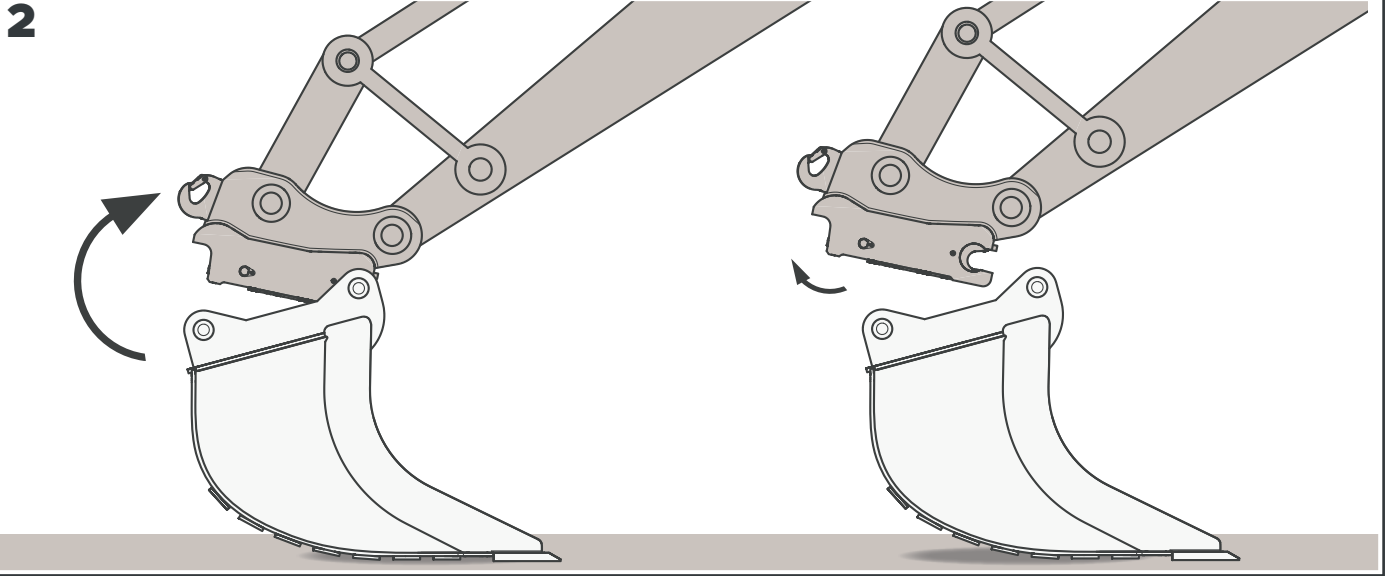


WARNING!

Never open the locking mechanism in such a position that the attachment may fall off from the quick coupler.



1. Quick coupler release
 - A. Place the bucket or tool on flat ground.
 - B. Use the lock function to release the quick coupler. Check that the eccentric lock rotates and that the locking wedge moves back into the bracket.
 - C. Check on the indicators that the quick coupler shows open locks, see "Lock indication".



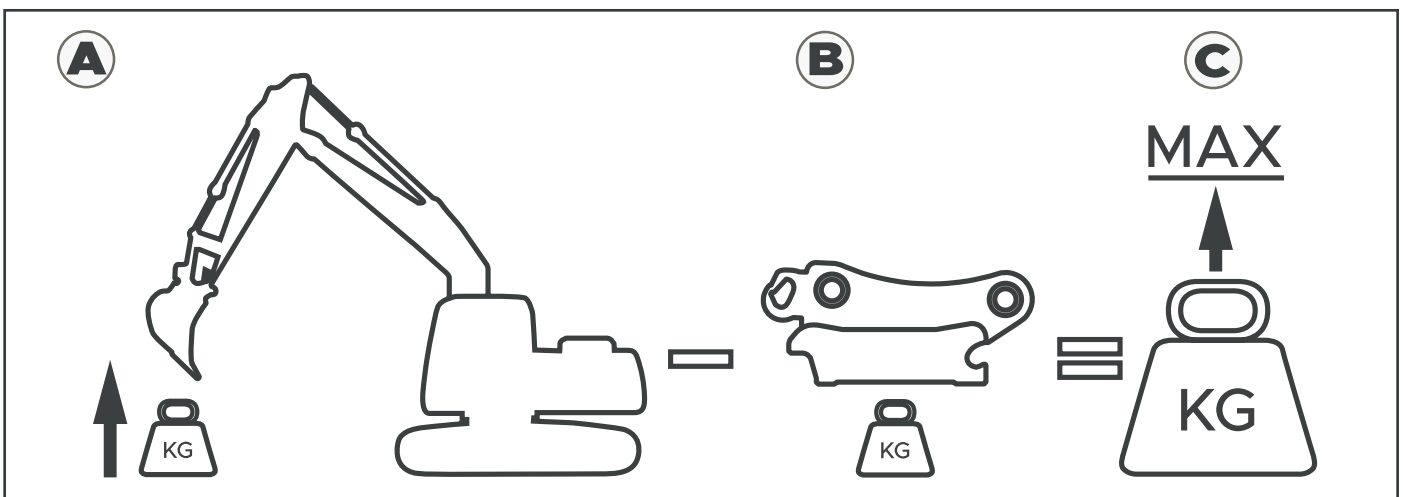
2. Manoeuvre the tilt function to disconnect the quick coupler from first the rear and then the front hitch axle of the bucket or tool.

Maximum lifting capacity

The excavator manufacturer's stated values for maximum lifting capacity for different reaches, does not include the weight of e.g. quick coupler and attachments. Therefore, the permissible limits are affected due to the extra weight that each connected piece of equipment entails. The excavator's reach is also affected.



To determine the maximum allowable lifting capacity, the excavator manufacturer's stated maximum lifting capacity values must be reduced by the weight of the quick coupler.



A: Limit values specified by the excavator manufacturer

B: Quick Coupler Weight

C: Maximum permissible lifting capacity



DANGER!

The maximum permissible lifting capacity must never be exceeded. Take into account the weight of the quick coupler and the increased reach to avoid loss of stability. Risk of machine damage, serious injury or death.

Lifting with a chain or lifting strap

Use the quick coupler lifting hook when lifting with a chain or lifting strap, see picture. The maximum permissible lifting weight is indicated on the sticker next to the lifting hook. The maximum permitted lifting weight must not be exceeded.

Always check and ensure that the lifting hook and lifting equipment is working properly and that there is no damage that may affect function.



DANGER!

Never walk or stand under a hanging load!



WARNING!

The lifting hook must not be used if the locking mechanism does not work properly or is damaged.



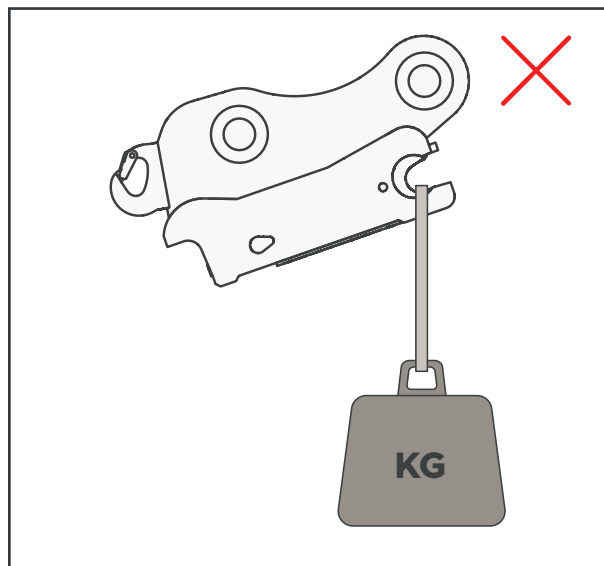
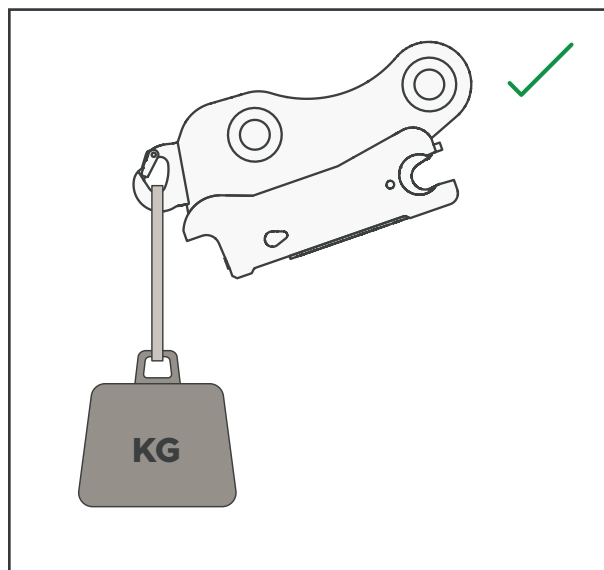
WARNING!

The lifting capacity of the lifting hook may be lower than that of the excavator and must never be exceeded.



WARNING!

The lifting capacity of the excavator may be lower than that of the quick coupler and must never be exceeded.



POST-INSTALLATION CHECKLIST

Complete the below checks after completing the installation. See further instructions on how this inspection can be carried out in different chapters of this manual or in supplementary documents, adapted in detail to the chosen product. Contact SMP Parts or dealer for more information!

1. Test the function of the quick coupler.
2. Check that no leaks are present.
3. Connect a bucket or tool and check the movement of the bucket or tool to its end positions.
4. Check that the bucket or tool is fitted correctly and securely in the quick coupler and that no hoses are stretched or trapped.
5. Lubricate according to the lubrication instructions.
6. Clean the equipment before shipment.
7. Fill in the contact details of the dealer on the back cover of this manual.



WARNING!

Never use your hands to check for leaks in the hydraulic system. Risk of injury due to pressurised hydraulic oil penetrating the skin.

TROUBLESHOOTING

If necessary, check whether there are any necessary additional documents, specifically adapted for the selected product and control system. Contact SMP Parts or dealer for more information!

NB! Troubleshooting and repairs may only be carried out by staff with the correct competence for the task. Call a service technician if necessary.



WARNING!

Installations, repairs and maintenance work may only be carried out by personnel trained for the task.



DANGER!

When installing, maintaining, or repairing equipment, the machine should be switched off and secured.



CAUTION!

Wear protective equipment such as a helmet, protective gloves, safety shoes and hearing protection when working on and with the equipment to minimise the risk of injury.



WARNING!

Never use your hands to check for leaks in the hydraulic system. Risk of injury due to pressurised hydraulic oil penetrating the skin.



WARNING!

Make sure the hydraulic system is completely depressurised before starting any maintenance or repair work.
The hydraulic oil is under high pressure and can penetrate the skin and cause serious injury or death.



CAUTION!

Avoid any kind of spillage. Treat all oil as environmentally hazardous waste.

Before you begin troubleshooting:

- Set the lock cylinder to an intermediate position and switch off the machine.
- Carefully detach hydraulic hoses from lock cylinder. Place a cloth around the hose nipple when these are loosened.

The list below lists checks that cover some possible causes of failure:

- Make sure that no foreign objects, such as rocks or other debris, are jammed and blocking the mechanical functions of the quick coupler.
- Check for any mechanical damage.
- Check the excavator for any faults or malfunctions.
- Check for any leakage.

SERVICE AND MAINTENANCE

To extend the life of the quick coupler, it is important that service and maintenance are carried out regularly.

Before you start a service:

- Set the lock cylinder to an intermediate position and switch off the machine.
- Carefully detach hydraulic hoses from lock cylinder. Place a cloth around the hose nipple when these are loosened.

NB! Use only original spare parts.



WARNING!

Installations, repairs and maintenance work may only be carried out by personnel trained for the task.



DANGER!

When installing, maintaining, or repairing equipment, the machine should be switched off and secured.



CAUTION!

Wear protective equipment such as a helmet, protective gloves, safety shoes and hearing protection when working on and with the equipment to minimise the risk of injury.



WARNING!

Never use your hands to check for leaks in the hydraulic system. Risk of injury due to pressurised hydraulic oil penetrating the skin.



WARNING!

Make sure the hydraulic system is completely depressurised before starting any maintenance or repair work.
The hydraulic oil is under high pressure and can penetrate the skin and cause serious injury or death.



CAUTION!

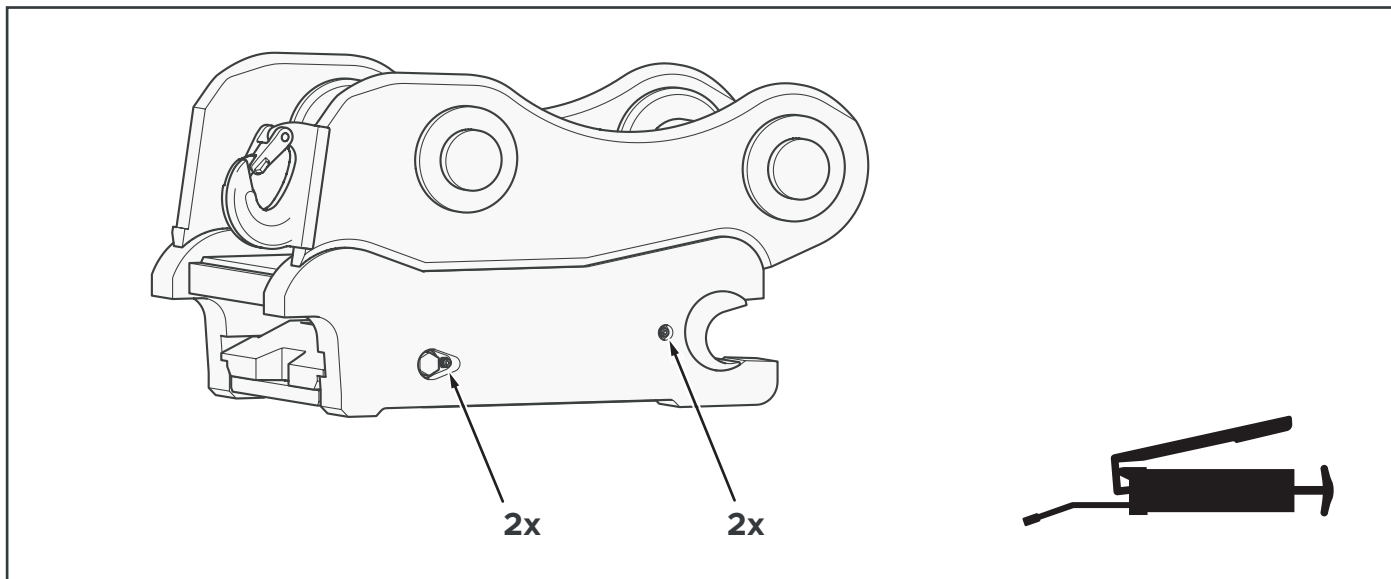
Avoid any kind of spillage. Treat all oil as environmentally hazardous waste.

Daily monitoring

- Operate the quick coupler and check its functions.
- Inspect the quick coupler for cracks and damage.
- Clean the quick coupler.
- Check that the quick coupler is correctly attached to both the attachment and the machine.
- Check for axial play. Fix with more shims if necessary.
- Check hydraulic systems for any leaks on both the quick coupler and the machine.
- Visually check that the locking pins and nuts of the axles are securely fastened.
- Check the lifting hook lock.
- Check the attachment of the axles. Retighten locking screws and nuts if necessary.

Lubrication

- Lubricate the quick coupler (4 lubrication points) with grease at least once a week and at least every 40 operating hours. See picture.



Transport and storage

SMP quick coupler Hardlock is most securely stored and transported well anchored on a pallet.

Storage for a longer period of time should be done indoors, protected from moisture and sunlight. For longer storage, worked surfaces should be oiled.

Below is the temperature when stored.

Storage temperature range	-30° to +50°C
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Waste management

Oil spills

In the event of an oil spill in connection with maintenance and repair work the oil must be collected and handed over to a collection centre for environmentally hazardous waste.

Recycling

When the unit is decommissioned or scrapped, this must be done in accordance with all applicable local and national standards.

Replaced parts are handed in to authorised recycling centres or can be resold through SMP Re-Use.

TECHNICAL SUPPORT AND SPARE PARTS

Contact SMP Parts or your dealer for service and spare parts.

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*Our support is here to help you
with what you need.*

ABOUT US

SMP Parts was founded in 1980, but the craftsmanship tradition on which the company is built extends over a hundred years.

Today, SMP is one of Sweden's leading manufacturers of durable and high-quality tools for construction machinery.

The company has over 100 employees, most of whom work at the factory in Ilsbo, but also has subsidiaries in Norway and Germany as well as several partners worldwide.



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