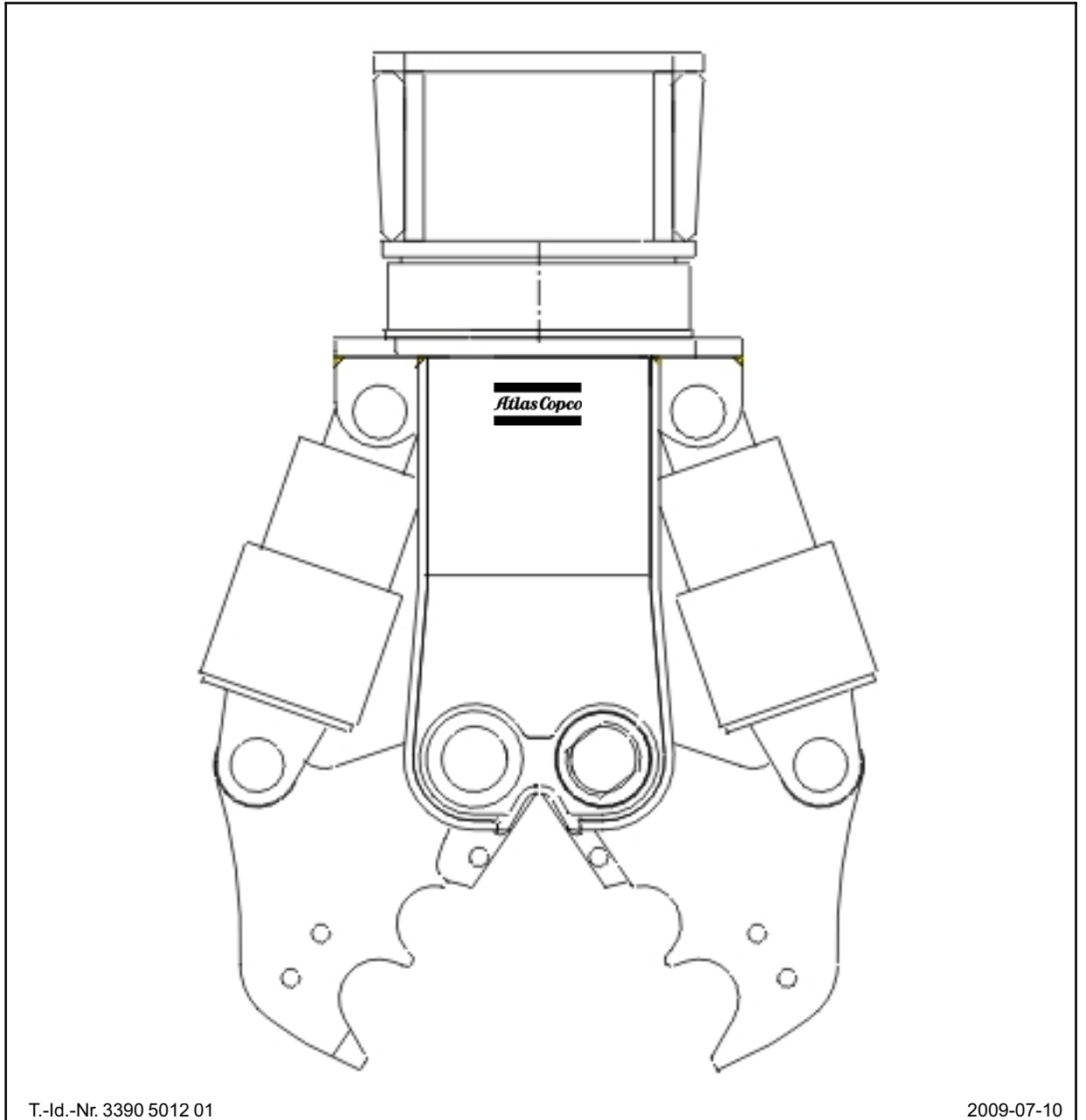


Operating instructions Combi cutter

CC 250 and CC 550



Operating instructions Combi cutter

CC 250

CC 550

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1. Foreword

Please read this operating manual before using your Atlas Copco Combi cutter for the first time so as to avoid errors and breakdowns through incorrect usage.

These operating instructions contain:

- important safety regulations
- operating instructions for the Combi cutter
- maintenance instructions for the Combi cutter
- aids to troubleshooting

The operating instructions describe how to use the Combi cutter on site and should therefore be kept in the document compartment of the excavator cab.

Please pay careful attention to the safety regulations which are listed at the beginning of this manual and repeated in the relevant sections.

Responsibility for the observation of these safety regulations lies at all times with the operator.

All safety regulations listed in this manual comply with the laws and regulations of the European Union. Additional national regulations have also been taken into consideration wherever applicable.

Combi cutter operation outside the European Union is subject to the laws and regulations valid in the country of use. More specific national regulations and laws that apply in your country must be observed.

Please note that reliable operation of the Combi cutter can only be guaranteed if genuine spare parts are used.

We wish you every success with your Combi cutter.

Atlas Copco Construction Tools GmbH

2. Accident prevention regulations

To avoid the risk of injury, please observe the following instructions.

Familiarise yourself with the operating manual and the applicable regulations before starting work with the Combi cutter.

When using Combi cutter in states of the European Union, the regulations contained in the EC machinery directive 98/37/EC must be observed and followed, as must all applicable national accident prevention regulations. In countries outside the European Union, the valid local statutes and regulations shall apply. In countries outside of this zone the corresponding general and specific laws and regulations must be observed.

Explanation of the symbols used in this operating instructions

To emphasise their importance, certain points in the operating instructions are marked with symbols,

which are described below.

Note!

The marked text provides instructions on the correct use of the hydraulic tool aimed at avoiding incorrect operation or errors during work.



CAUTION!

The marked text provides safety regulations and instructions aimed at **avoiding damage to equipment.**



DANGER!

The marked text provides safety regulations and instructions aimed at **avoiding accidents and possible injuries.**

Before the first installation:

Before mounting/dismounting the hydraulic tool and/or any maintenance work on the hydraulics of the hydraulic tool/carrier the hydraulic system must be depressurized!

When using or transporting the carrier with the Combi cutter attached, the instructions included in the operating manual supplied by the carrier manufacturer must also be observed.

Do not run any hydraulic lines through the driver's cab since they may spring leaks or even burst. During operations, the hydraulic oil becomes very hot.

Mounting the Combi cutter:

Mounting the Combi cutter requires the presence of an assistant, who must be instructed by the carrier driver. The carrier driver and assistant should agree beforehand on clear hand signals.

For transport purposes, use only the lugs provided and hoisting equipment of sufficient capacity.

The Combi cutter should only be mounted on an excavator with sufficient load capacity. The carriers specified under Section 12., Technical specifications are needed to install the Combi cutter.

Carriers below this weight class will not provide the required degree of stability and could even fall over during Combi cutter use, causing injury and damage.

Carriers above this weight class may apply excessively high mechanical loads to the attachment.

When attaching the adapter use only the special steel screws included in supply.

Check the nominal width of the hydraulic lines on existing hydraulic systems. It is important that supply and return lines for the hydraulic oil are adequately dimensioned.

Keep your hands away from bores and fitting surfaces when mounting the Combi cutter, especially when the carrier boom is moving.

Collect any oil which runs out and dispose of it in accordance with the applicable statutory provisions to avoid environmental hazards.

Operating the Combi cutter:

Close the front screen/splinter guard on the driver's cab to protect the driver from flying rock splinters during Combi cutter operations.

The Combi cutter should only be operated from the driver's cab. Exception: remote carrier control. See Section 6.6..

Do not start up the Combi Cutter until both carrier and Combi cutter are in the correct position.

Stop the Combi cutter immediately as soon as persons are in the danger zone. The danger zone during the Combi cutter operation is considerably greater than during the excavation operation - on account of fractions of stones and pieces of steel flying around - and for this reason, the danger zone must, depending on the type of material to be worked on, be enlarged correspondingly, or the danger zone must be secured in a suitable manner through corresponding measures.

Do not touch any hot parts

The Combi cutter heats up during operation.

Monitor the oil temperature

The temperature of the hydraulic oil must never exceed 80 °C. If higher temperatures are measured in the tank, the hydraulic system and/or the pressure-relief valve have to be checked.

Observe the excavator manufacturer's safety regulations.

CAUTION:

With regard to excavator operation when working with an attached Combi cutter, please refer to Section 6.6..

The Combi cutter is only to be used for the applications described.

Dismounting the Combi cutter:

Dismounting the Combi cutter from the carrier requires the presence of an additional assistant who must be instructed by the carrier driver. The carrier driver and assistant should agree beforehand on clear hand signals.

When using the excavator or putting it out of operation, the safety instructions of the excavator manufacturer must be observed.

Keep your hands away from bores and fitting surfaces when dismounting the Combi cutter, especially when the carrier boom is moving.

Collect any oil which runs out and dispose of it in accordance with the applicable statutory provisions to avoid environmental hazards.

Secure the Combi cutter after dismounting so that it cannot fall over.

3. Marking according with machinery directive 98/37/EC

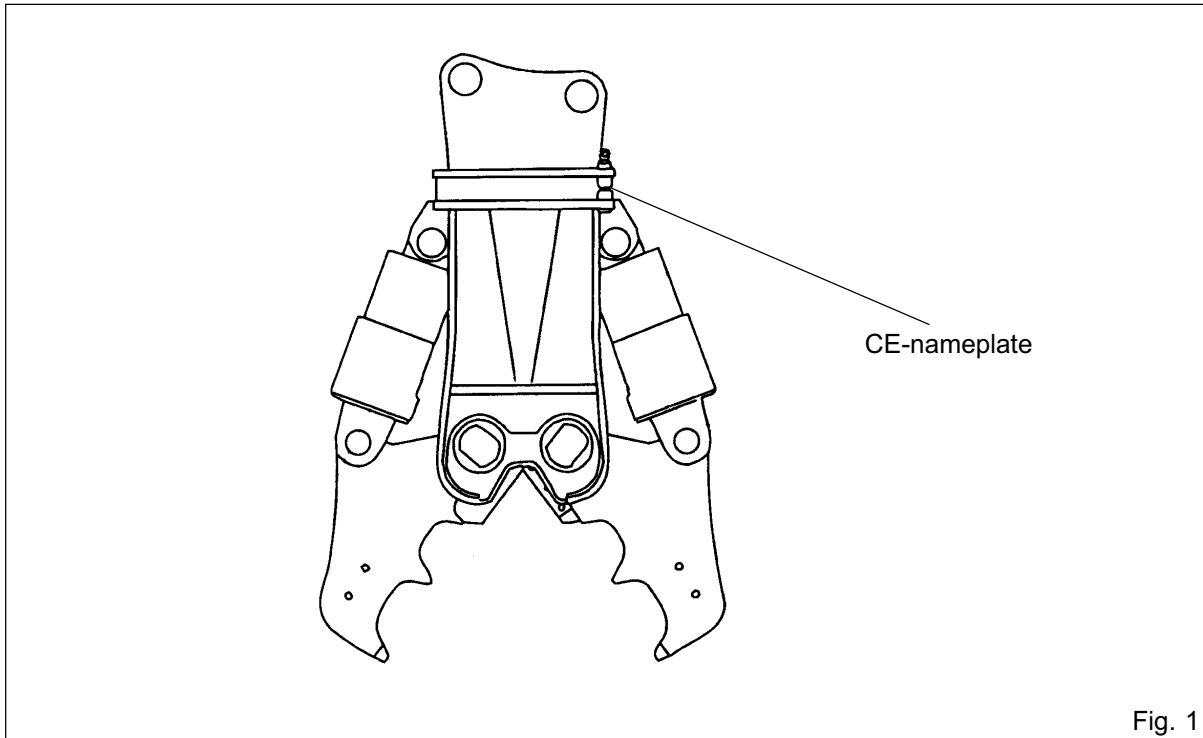






Fig. 1

3.1. CE-nameplate of product group Combi cutter

 <p>Atlas Copco Construction Tools Essen Germany</p> <p>○ Type ○ Ser. No. ○ Deliv. wt ○ P max ○ Year</p>	   <p>Made in Germany</p>	<p>Name and address of manufacturer</p> <p>Model</p> <p>Serial no.</p> <p>Weight of product group</p> <p>· Max. operating pressure</p> <p>· Year of construction of product group</p>
---	--	---

The CE nameplate contains information on the Combi cutter. The weight indicated refer to the weight of the Combi cutter.

When selecting hoists and suspension aids for transporting the unit, the weight of the and adapter may also have to be considered.

In according with EC directives CE nameplates must be affixed firmly and in a clearly visible position. Should these nameplates be lost or defaced, replacements can be ordered from your dealer/from Atlas Copco Construction Tools GmbH.

4. General informations

4.1. Applications

The Combi cutter is an attachment suitable for mounting on hydraulic-powered excavators.

The Combi cutter has been suited for the following operations:

light demolition work, e. g. narrow, lightly reinforced concrete elements, masonry

particularly effective for stripping out and reconstructing interiors

4.2. Scope of supply

The scope of supply of a Combi cutter generally includes:

Combi cutter, operating instructions, spare parts list and EC declaration of conformity.



CAUTION!

Incorrect operation may result in damage to the Combi cutter and to the equipment of the excavator.

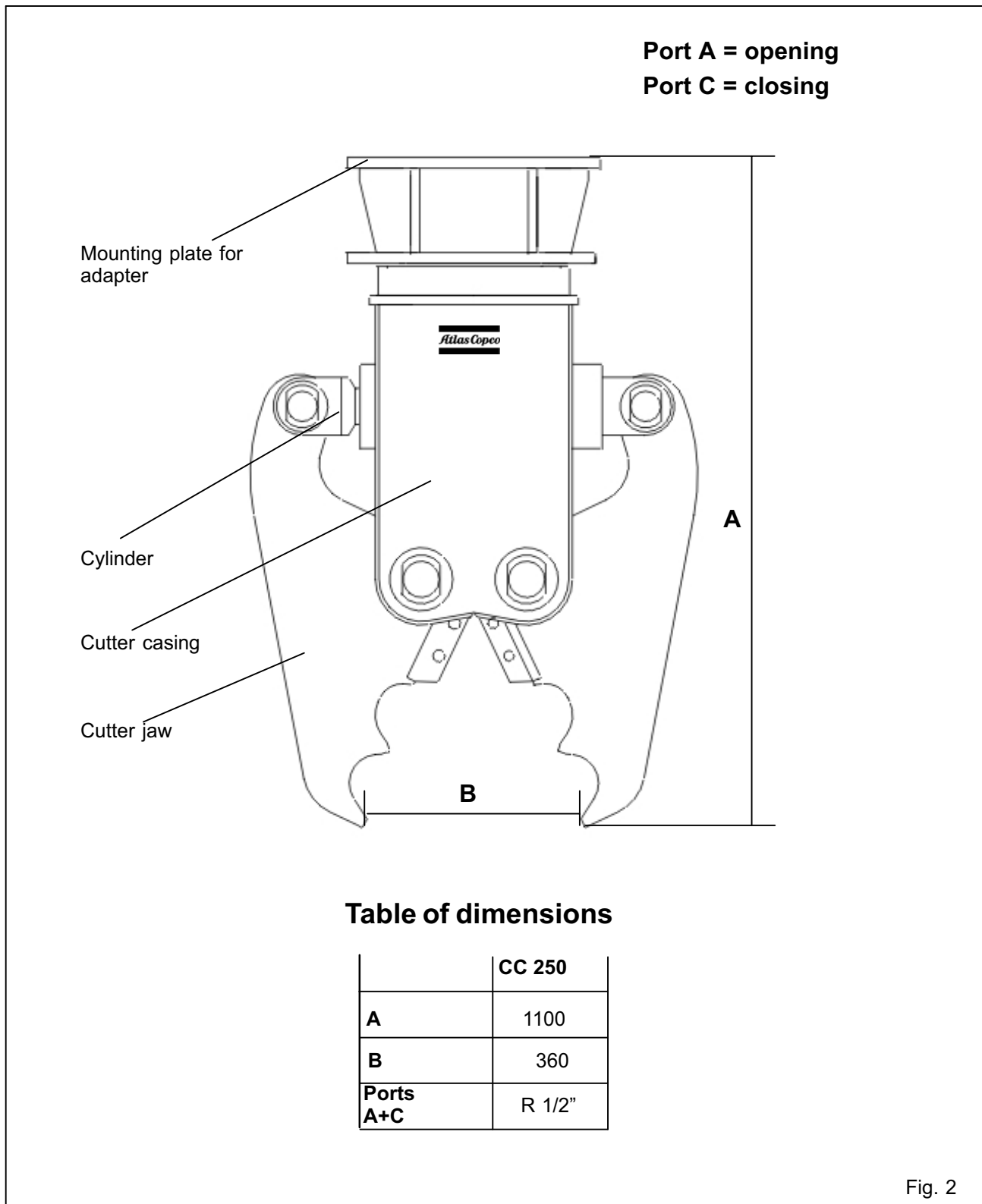
Under normal circumstances the Combi cutter is operated from the driver's cab of the carrier. Please refer to Sections [2.](#) and [6.6.](#)

Accessories: hoses according to the order.

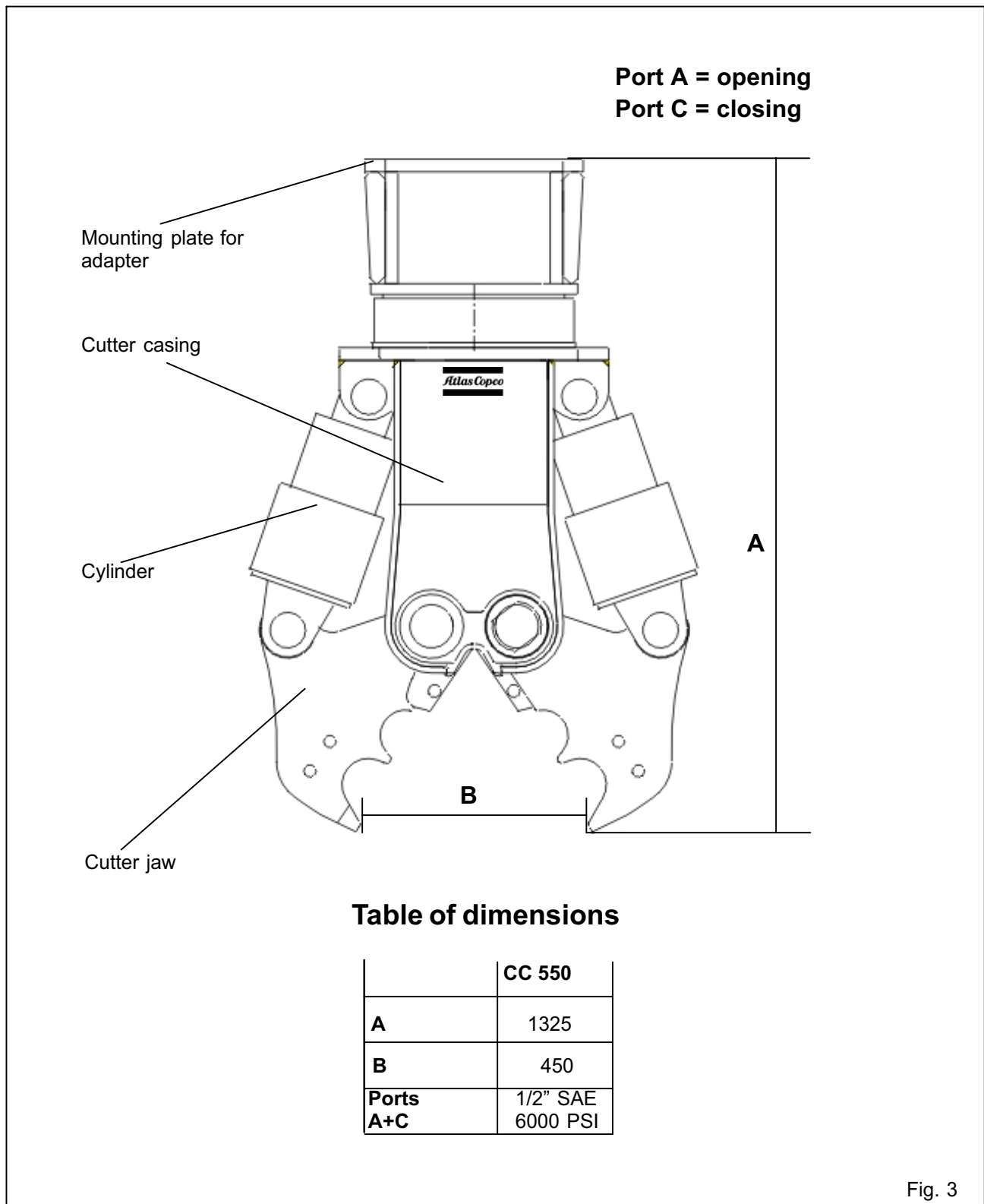
Special accessories: e. g. adapter, hydraulic adapter kit for the excavator according to the order.

5. Main components

5.1. Components of the Combi cutter CC 250



5.2. Components of the Combi cutter CC 550



6. Installation

6.1. Media/consumables

Operating the Combi cutter requires the following resources:

6.1.1. Mineral hydraulic oil

All hydraulic oil brands prescribed by the carrier manufacturer are suitable for operating the Combi cutter.

The oil should however correspond to viscosity class HLP 32 or higher.

In summer and in hotter climates, oils of viscosity class HLP 68 or higher should be used.

In all other respects the regulations of the carrier manufacturer are to be considered.

Optimum viscosity range = 30 - 60 cSt
 Max. initial viscosity = 2000 cSt
 Max. oil temperature = 80°C

Please refer to section 7.7. for low-temperature Combi cutter applications.

Check the oil filter.

An oil filter has to be installed in the return line of the hydraulic system. The mesh width of this filter should not exceed 50 micrometers and a magnetic separator must be fitted.



CAUTION!

Monitor the oil temperature.

The temperature of the hydraulic oil must never exceed 80° C. If higher temperatures are measured in the tank, the hydraulic system and/or the pressure-relief valve have to be checked.

6.1.2. Non-mineral hydraulic oil

In order to protect the environment or on technical grounds, hydraulic oils are currently being used which are not classified as HLP mineral oils.

Before using hydraulic oils of this kind it is imperative to enquire with the carrier manufacturer whether operations with such fluids are possible.

Our tools are basically designed for use with mineral oils. Before using other fluid types which have been approved by the carrier manufacturer, always consult the Atlas Copco Customer Center/Dealer in your area. Following initial assembly and after any workshop repairs, our tools are subjected to a test run on a test bed powered by **mineral oil**.



CAUTION!

Never mix mineral and non-mineral hydraulic oils! Even small traces of mineral oil mixed in with non-mineral hydraulic oil can result in damage to both hydraulic attachment and carrier.



CAUTION!

Non-mineral oil is no longer biodegradable if it is contaminated with mineral oil. Contaminated non-mineral oil must be disposed of as special waste in accordance with the applicable statutory regulations for environmental protection.

Note!

When returning tools for repair, it is imperative that the name of the oil in use be indicated if you are using non-mineral oil.

6.1.3. Grease

Agents/consumables	Part ID No.
Cutter grease	3363 0949 14

Always observe the relevant safety regulations when handling oils and greases.

6.2. Transportation and storage



DANGER!

Use the provided lugs and hoisting gear of adequate carrying capacity to lift the Combi cutter! (see Fig. 4)

Ropes and lug must be in good condition.

The Combi cutter should be deposited on a wooden support of sufficient size and strength.

Oil may run out of the hydraulic connections when removed. Collect any oil which runs out and dispose of it in accordance with the applicable statutory provisions to avoid environmental hazards. Close off all open lines!

Always observe the relevant safety regulations when handling oils and greases.

Turn the mounting plate into the correct position. Insert and secure the hinge-pins. Make sure that the hinge-pins are inserted properly so that the mounting plate does not turn or rotate during transportation. (see fig. 5)

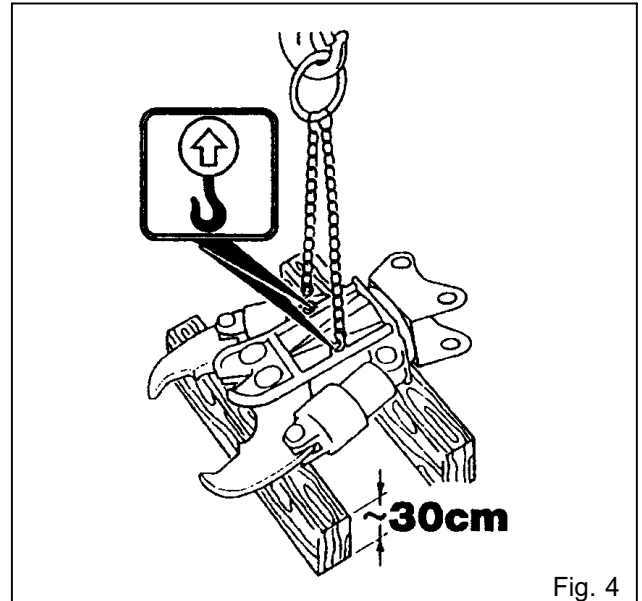


Fig. 4

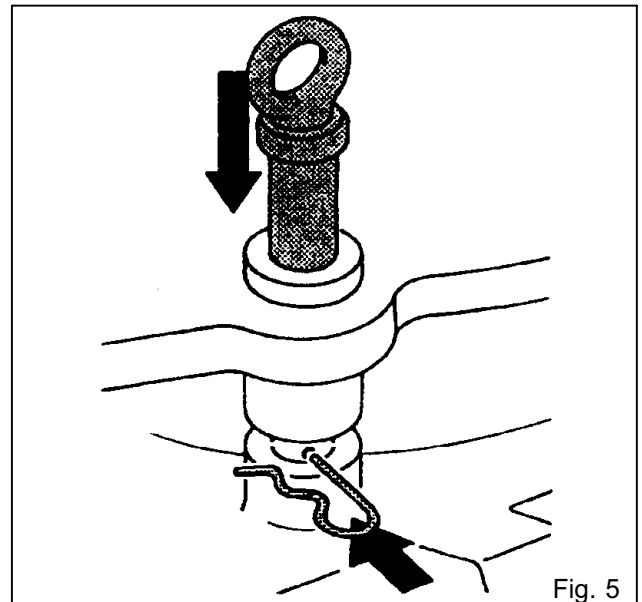


Fig. 5



CAUTION!

To avoid damage to the piston rods of the hydraulic cylinders when transporting the Combi cutter, the

piston rods must be retracted, i. e. the Combi cutter must be in “open” position.

6.3. Attaching the adapter to the Combi cutter

Deposit the Combi cutter on squared beams or pallets within reach of the carrier boom.

Bolt the adapter to the Combi cutter’s mounting plate swivel or mounting plate.



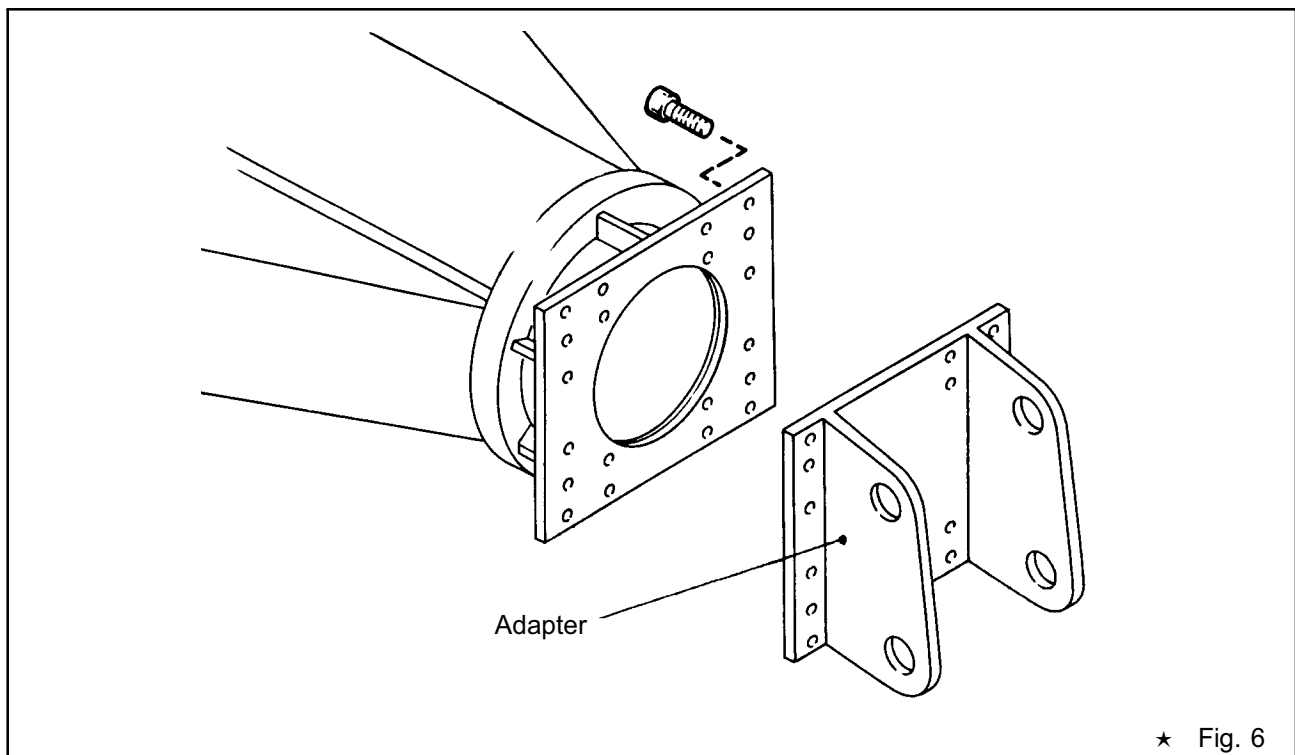
DANGER!

Use only the special steel screws included in supply.

Note for anyone using this operating manual:

When transporting the cutter use only the transport lug provided and sufficiently powerful lifting equipment. Note the weight (name plate, section 3.1.)

Figures marked with ★ do not correspond exactly to the CC 250 and CC 550 Combi cutter models, but are only intended to depict the process described.



6.4. Mounting the Combi cutter on the excavator - mechanical aspects



DANGER!

Only mount the Combi cutter on an excavator with sufficient load capacity. If the excavator is too light it may become unstable and fall over.

The operator of the carrier must remain in the driver's seat when the Combi cutter is being installed.

Agree with the assistant on clear hand signals. The assistant must be instructed by the excavator driver.

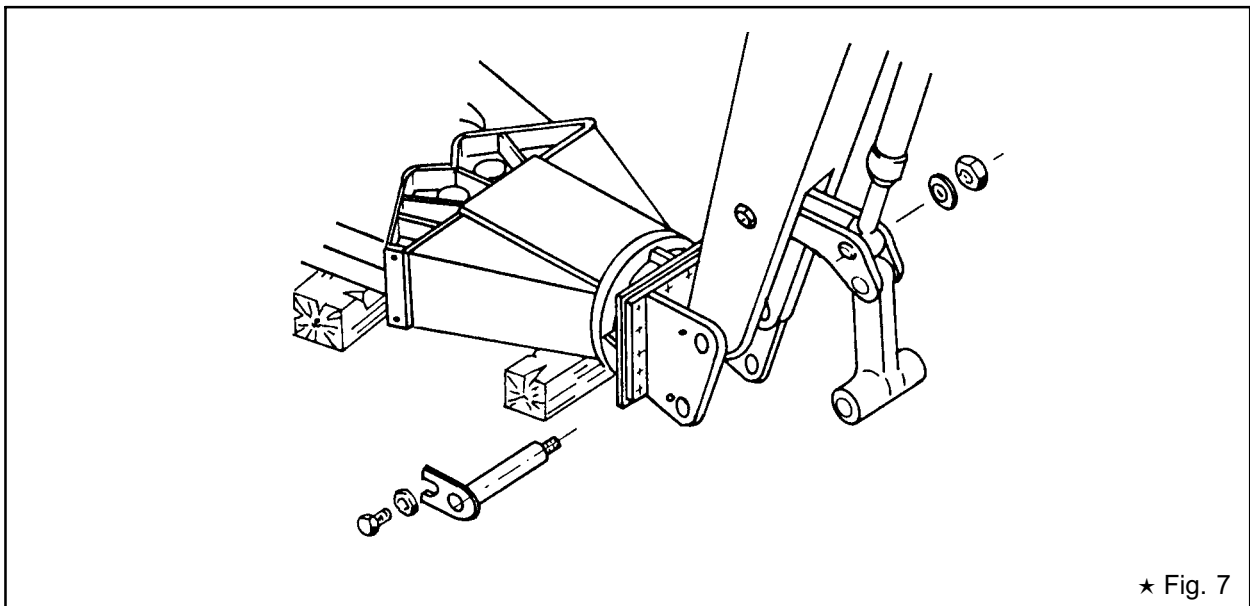
Keep your hands away from bores and fitting surfaces when mounting the Combi cutter.

Do not touch any parts when the boom is moving.

Never use your fingers to check whether the bores are flush.

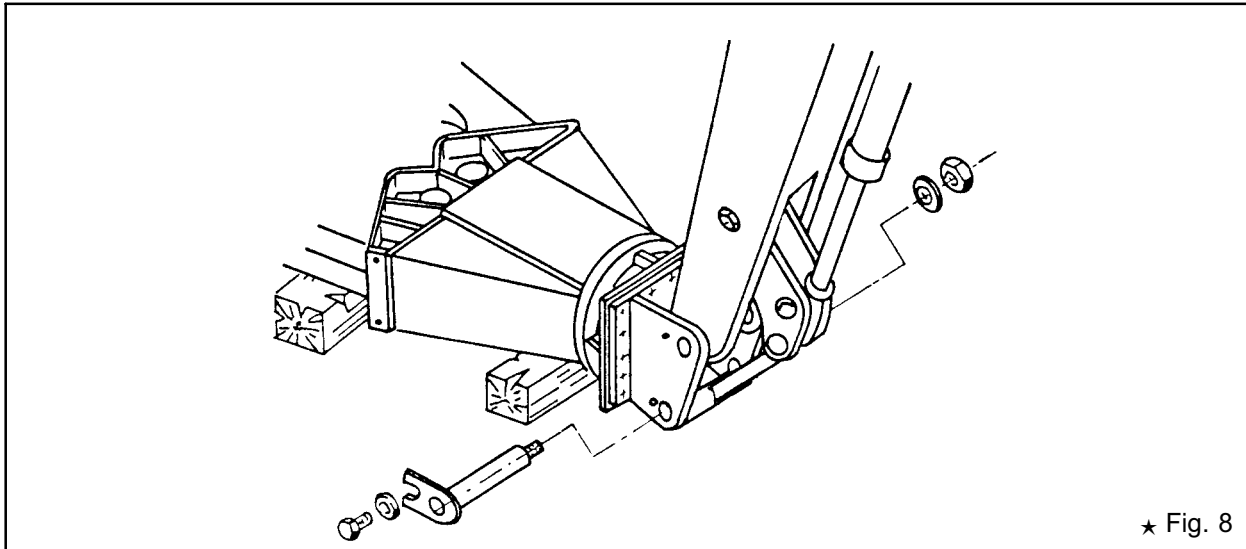
Once the adapter has been attached, position the Combi cutter facing the carrier boom (stick) as shown in Figs 7 and 8. In this way the stick of the excavator boom can be moved into the adapter in such a way that the bores in the stick/adapter are aligned.

Insert stick pin and secure as shown in Fig. 7.



To fit the toggle pin, extend the shovel cylinder and position the toggle by hand until the bores are

aligned with those in the adapter. Insert toggle pin and secure.



CAUTION!

After installing the Combi cutter, carefully drive the bucket cylinder to both end positions. The cylinder must travel smoothly and without hindrance to both end positions without striking the adapter (unless the adapter is fitted with an end stop).

6.5. Mounting the Combi cutter on the excavator - hydraulic aspects



DANGER!

Before mounting/dismounting the hydraulic tool and/or any maintenance work on the hydraulics of the hydraulic tool/carrier the hydraulic system must be depressurized.

The excavator must have a hydraulic system suitable for Combi cutter operations.

Check the nominal width of the hydraulic lines on existing hydraulic systems. All feed and return lines for the hydraulic oil must have a sufficient inside diameter. Refer to Section 12., Technical specifications.

Use only hoses/pipes which satisfy the following quality criteria:

Hydraulic hoses with 4 wire spiral layers to DIN 20023. Hydraulic pipes: seamless, cold drawn steel pipes to DIN 2391, page 2, grade C. Hydraulic pipes: seamless, cold drawn steel pipes to DIN 2391, page 2, grade C.

Check the pressure-relief valve on the hydraulic system.

The pressure-relief valve must be set to the maximum permissible pressure, see Section 12., Technical specifications. For reasons of liability we recommend subsequent lead of the valve.

The pressure-relief overflow line must run direct from the pressure-relief valve to the tank to ensure the reliable functioning of the valve.

Do not run any hydraulic lines through the driver's cab.

Hydraulic lines may spring a leak or even burst, releasing hot hydraulic oil.

Detach the screw caps from the connections, and keep them in a safe place.

Check the connecting threads on the Combi cutter ports and the corresponding hose connectors to ensure they are undamaged. Sand or other foreign bodies in the threads must be cleaned away.

Screw the hoses to the ports. (Tightening torques see section 8.3.)

In the interests of safety, if you come to the conclusion that the system does not comply with the requirements listed above, always consult the Atlas Copco Customer Center/Dealer in your area.

If there is no corresponding installation site, the original conversion kit must be attached. There are special instructions for this installation type.

When connecting or reconnecting the hydraulic lines, the carrier must be secured in such a way that automatic start-up of the Combi cutter is reliably avoided.

If no genuine conversion kit has been used on the hydraulic system, check that the ports on the excavator match the Combi cutter hose connectors. Refer to Section 12., Technical specifications.

6.6. Switching the Combi cutter on/off from the carrier

The installation of a genuine conversion kit in the carrier's hydraulic system allows the Combi cutter to be powered using the carrier hydraulics. All functions for normal excavator operations remain intact. The Combi cutter is switched on/off via electrical signals.

When leaving the driver's cab, the safety switch for these electrical signals must be set to "OFF" position

so as to reliably prevent any unintended start-up of the Combi cutter.

Both carrier and Combi cutter can be operated by remote control. For further details please contact the carrier manufacturer and/or the Atlas Copco Customer Center/Dealer in your area.

6.7. Dismounting the Combi cutter from the excavator for short or lengthy periods of non-use

Before mounting/dismounting the hydraulic tool and/or any maintenance work on the hydraulics of the hydraulic tool/carrier the hydraulic system must be depressurized.

For safety reasons, the carrier must be switched off before performing the following work.

Unless otherwise stipulated, the Combi cutter is dismantled in reverse order to mounting.

Open the Combi cutter's jaws to the full extent so that the piston rods lie fully retracted in the hydraulic cylinders.

Deposit the Combi cutter on squared beams or pallets away from other transport routes.

Seal off all open hose connections.

Turn the mounting plate into the correct position. Insert and secure the hinge-pins. Make sure that the hinge-pins are inserted properly so that the mounting plate does not turn or rotate during transportation.

Unlock the toggle and stick pins and knock out the pins using a steel rod and a hammer.

Cover up the Combi cutter to protect it against the weather.



DANGER!

Collect any oil which runs out and dispose of it in accordance with the applicable statutory provisions to avoid environmental hazards.

Agree on hand signals with the assistant.

Keep your hands away from bores and fitting surfaces when dismantling the Combi cutter.

Do not touch any parts when the boom is moving.

Observe the excavator manufacturer's safety regulations.

When putting the excavator out of operation, please observe the excavator manufacturer's instructions.

7. Operating the Combi cutter

7.1. Start-up the Combi cutter

First of all, precautionary measures should be taken to rule out the risk of accidents.



DANGER!

Only operate the Combi cutter from the driver's seat in the excavator cab.

7.2. Functional test

Using the carrier boom raise the Combi cutter until it is suspended vertically.

First functional test: opening - closing

The cutter jaws are opened and closed by actuating the switch in the leg-space area of the cab.

Close the front screen / splinter guard on the driver's cab to avoid injury from flying rock splinters.

Stop the Combi cutter immediately as soon as persons are in the danger zone. The danger zone during the Combi cutter operation is considerably greater than during the excavation operation - on account of fractions of stones and pieces of steel flying around - and for this reason, the danger zone must, depending on the type of material to be worked on, be enlarged correspondingly, or the danger zone must be secured in a suitable manner through corresponding measures.

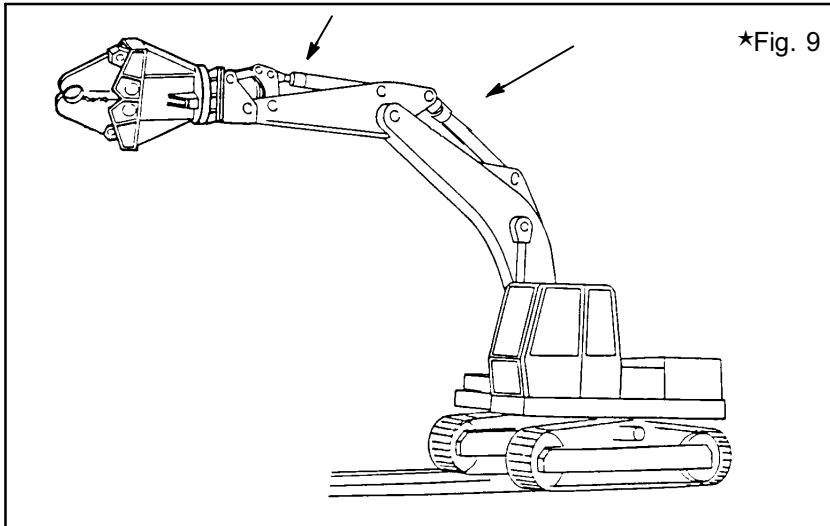
Second functional test: Rotate to the left and right stops

The Combi cutter is swivelled mechanically when a jaw comes up against a stationary object.

7.3. Instructions on the correct use of the Combi cutter

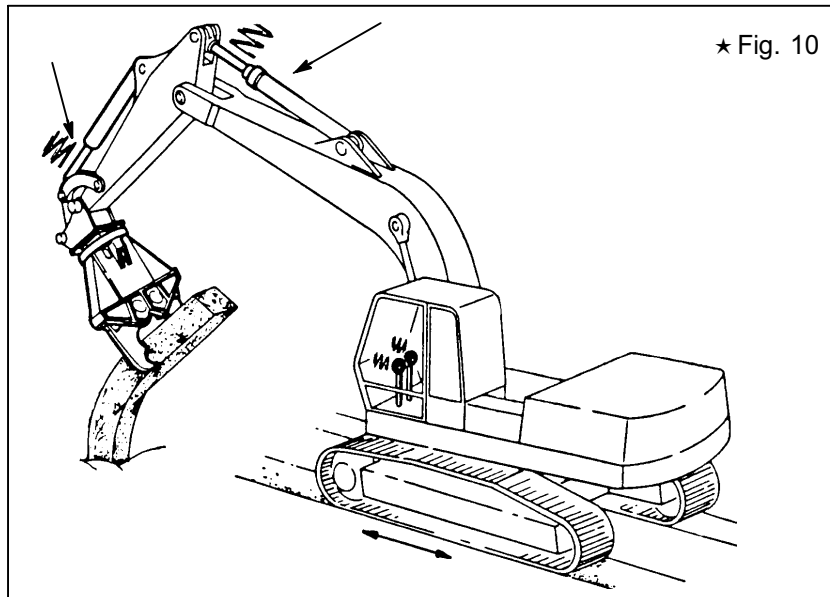
The Combi cutter must be used exclusively for the work listed under subsection 4.1.. In the following a number of examples show how the Combi cutter is operated properly.

The depictions are not intended to reproduce the Combi cutters, but to illustrate the circumstances described.



CAUTION!

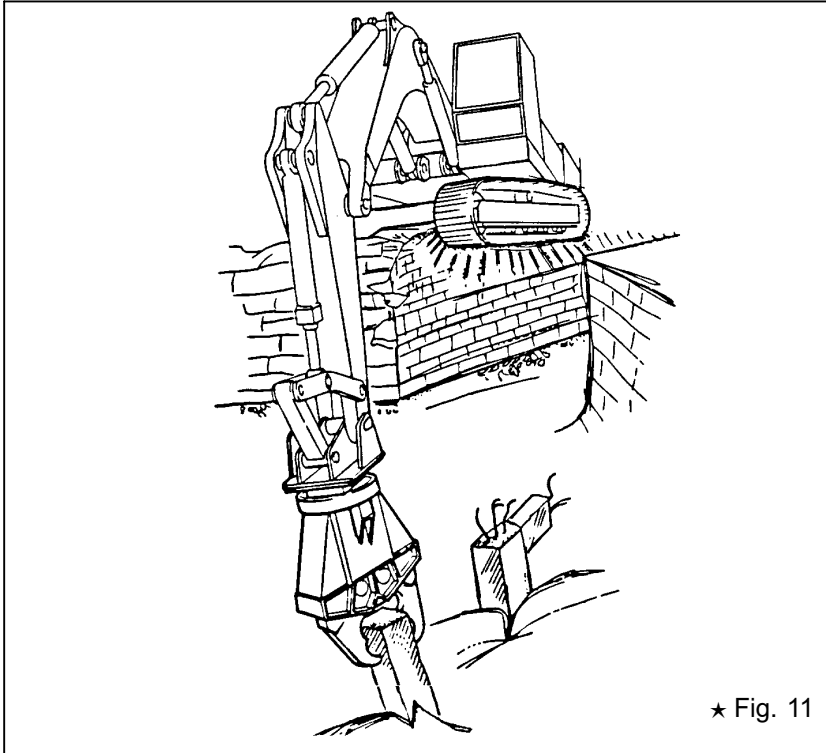
The hydraulic cylinders on the carrier boom must **not** be retracted to their full extent, since this could result in damage to both carrier and Combi cutter.



CAUTION!

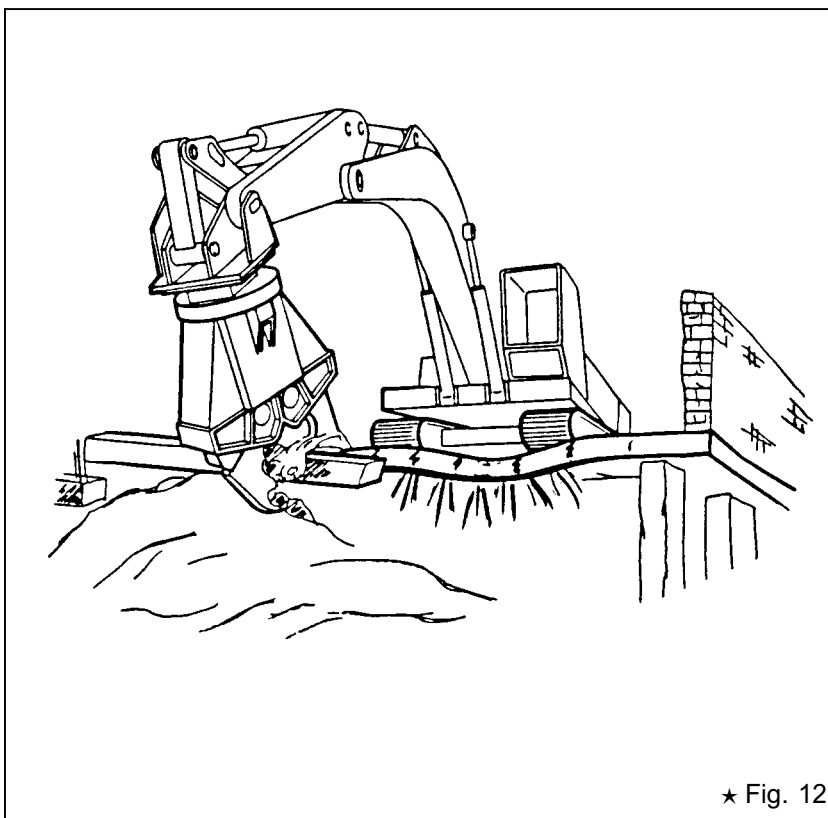
The hydraulic cylinders on the carrier boom must **not** be extended to their full extent, since this could result in damage to both carrier and Combi cutter.

Instructions on the correct use of the Combi cutter



DANGER!

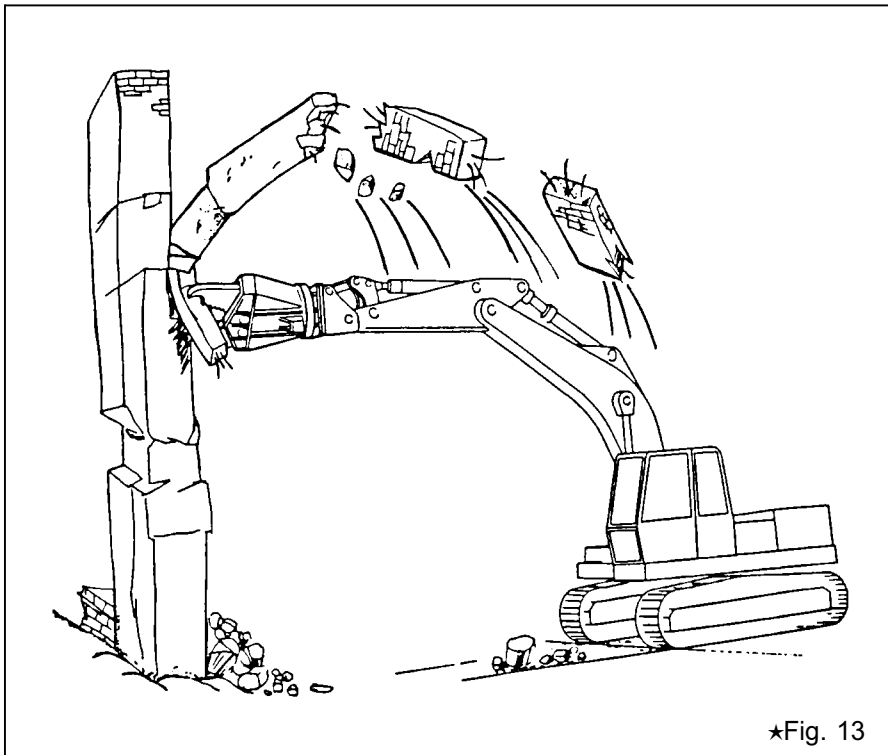
Ensure that the carrier is positioned on firm ground. If this is not the case, the carrier may fall over.



DANGER!

When working on floors/roofs, ensure that they are strong enough to bear the weight of the carrier. Danger of collapse!

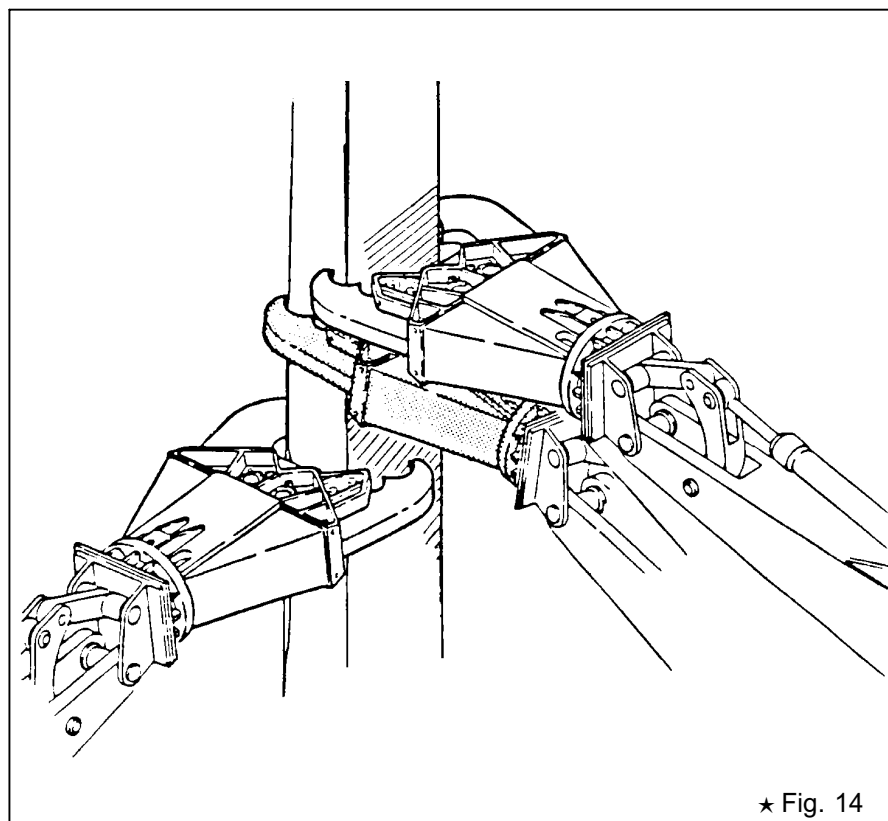
Instructions on the correct use of the Combi cutter



DANGER!

When demolishing columns, supports and brickwork, always start breaking from the top downwards.

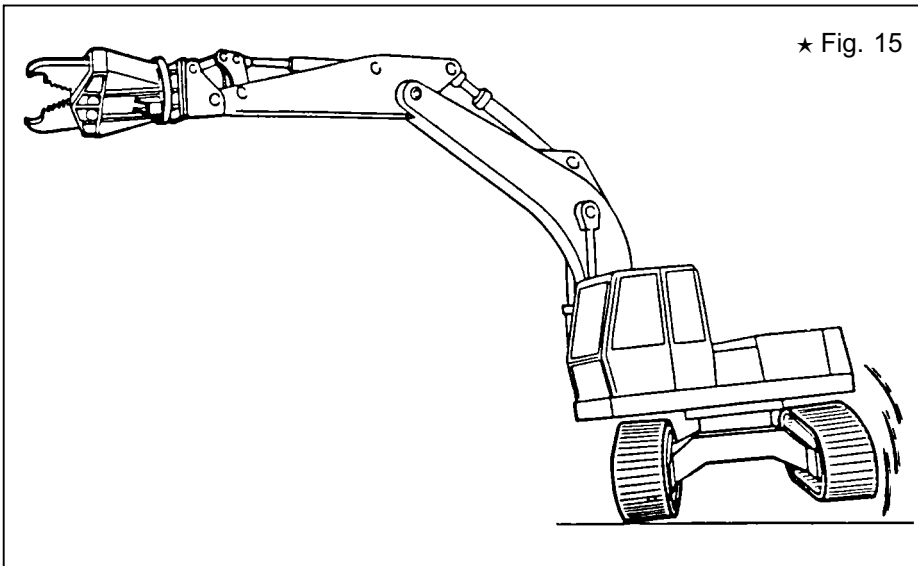
Large chunks of the broken material may otherwise fall onto the cutter or carrier and cause damage. If necessary, larger elements should be secured beforehand.



CAUTION!

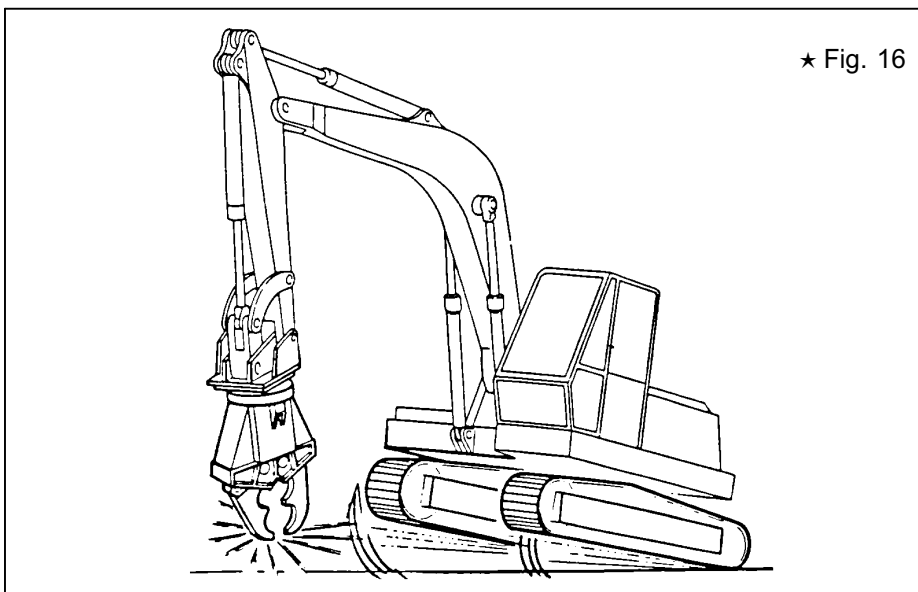
Change the Combi cutter's point of attack in good time. Wherever possible, demolition should be started on narrower faces.

Instructions on the correct use of the Combi cutter



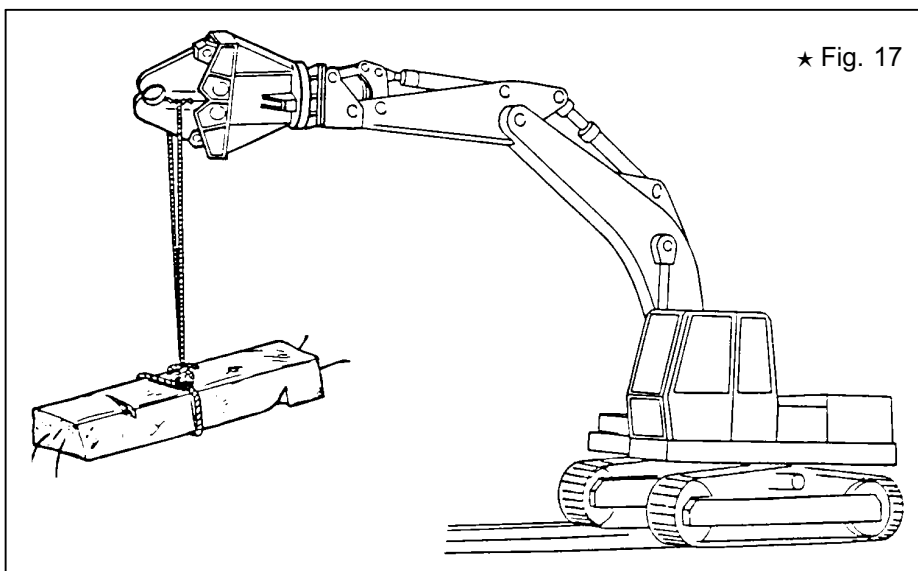
DANGER!

Never work with the boom extended to the side. This will restrict the carrier's stability and may cause it to fall over.



CAUTION!

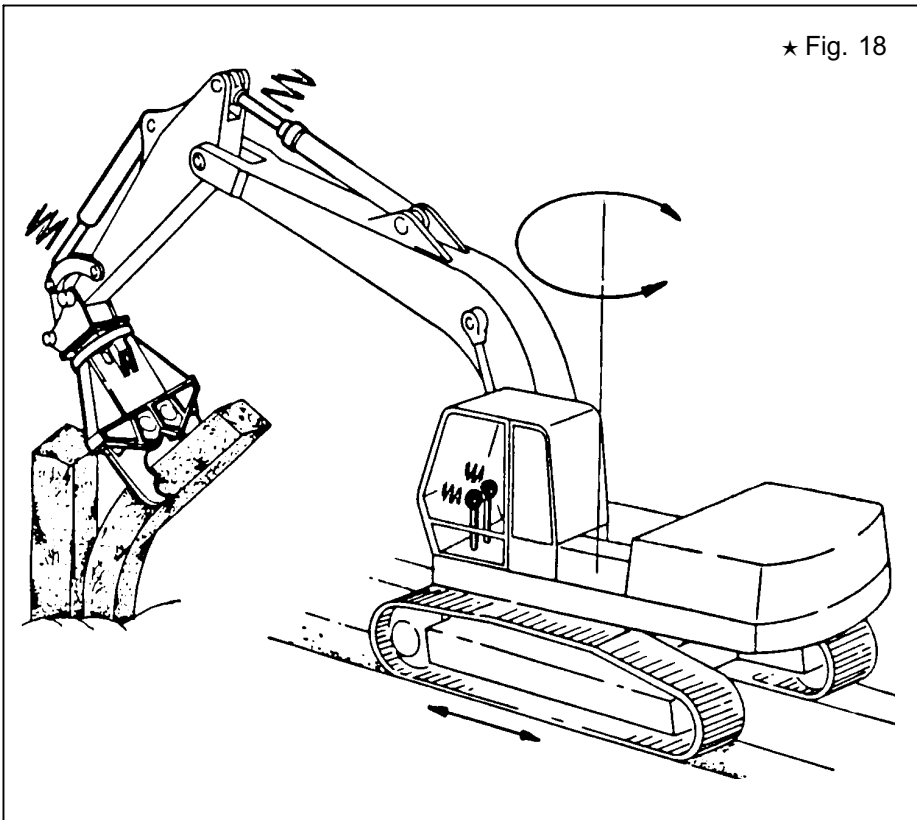
Never support the weight of the carrier on the Combi cutter so as to shift the carrier to the side.



CAUTION!

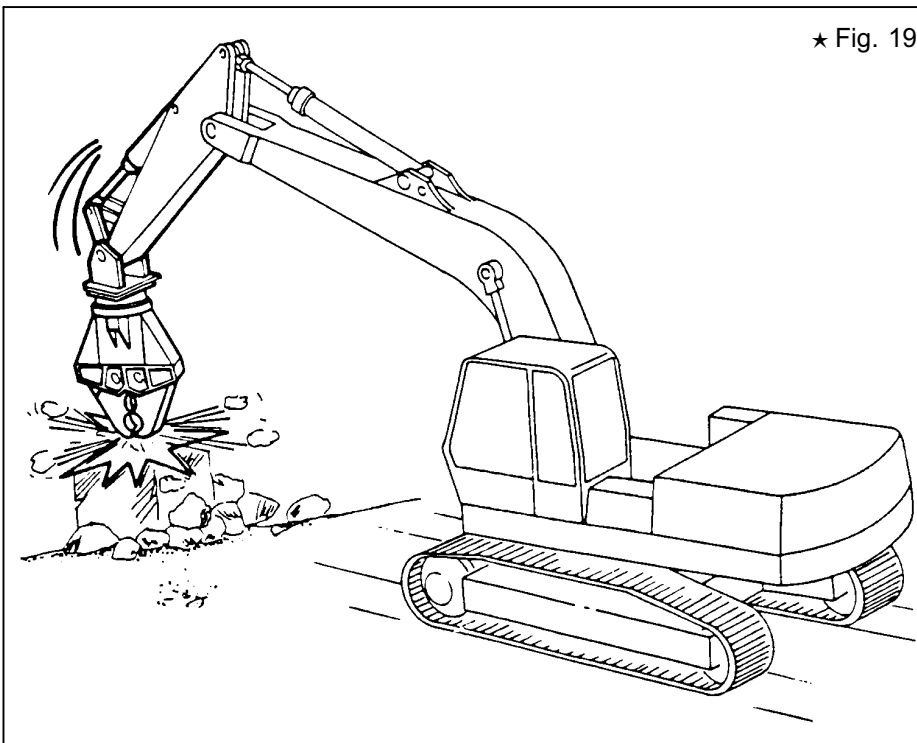
Never lift or transport loads with the Combi cutter.

Instructions on the correct use of the Combi cutter



CAUTION!

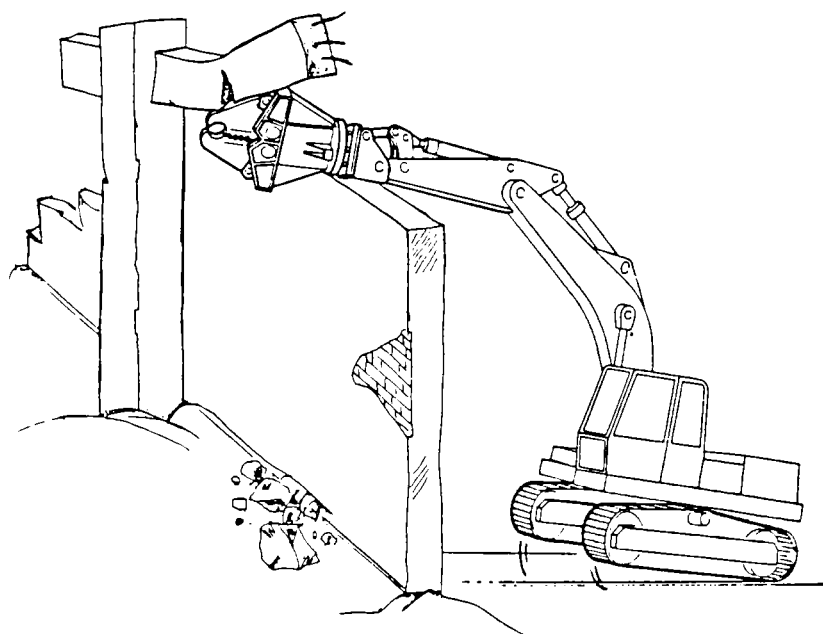
Never move the boom or the cutter when demolition is in progress. This will cause serious damage to the Combi cutter.



CAUTION!

Never hack or pound with the Combi cutter since this will cause serious damage to the Combi cutter.

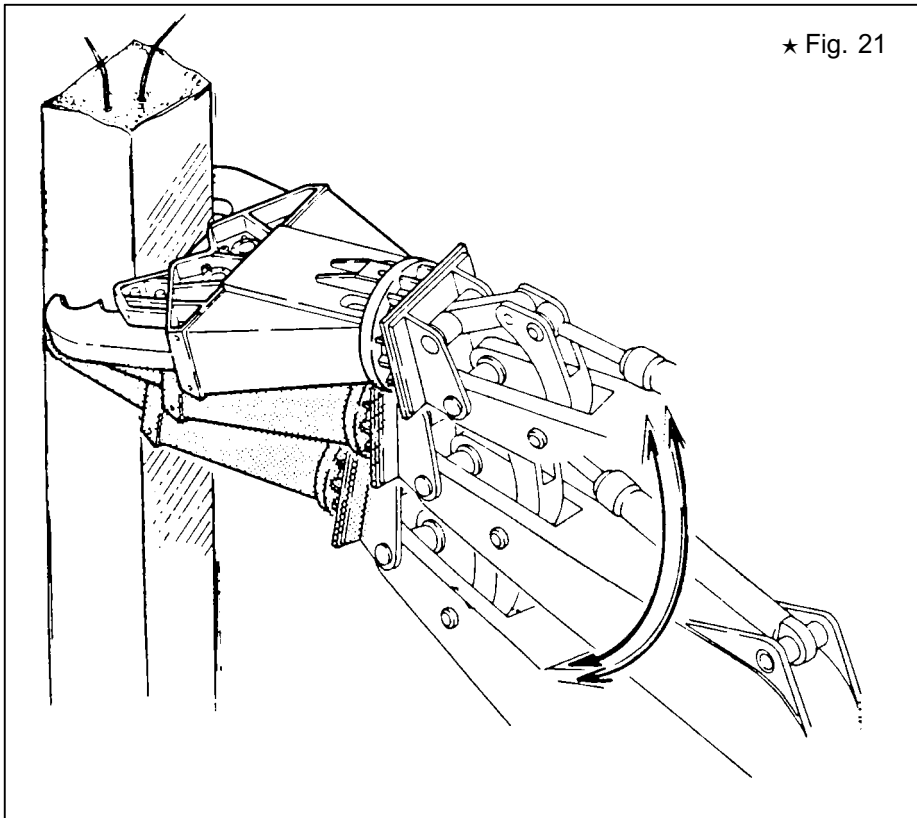
★ Fig. 20



CAUTION!

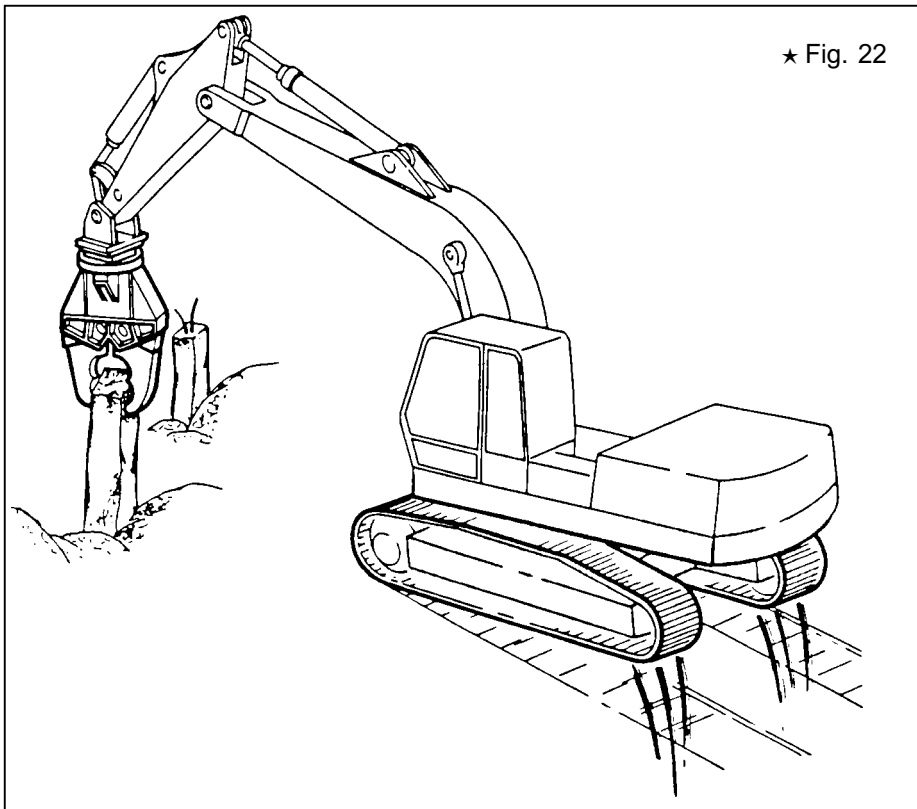
Never use the Combi cutter as a crowbar since this will cause serious damage to the Combi cutter.

Instructions on the correct use of the Combi cutter



CAUTION!

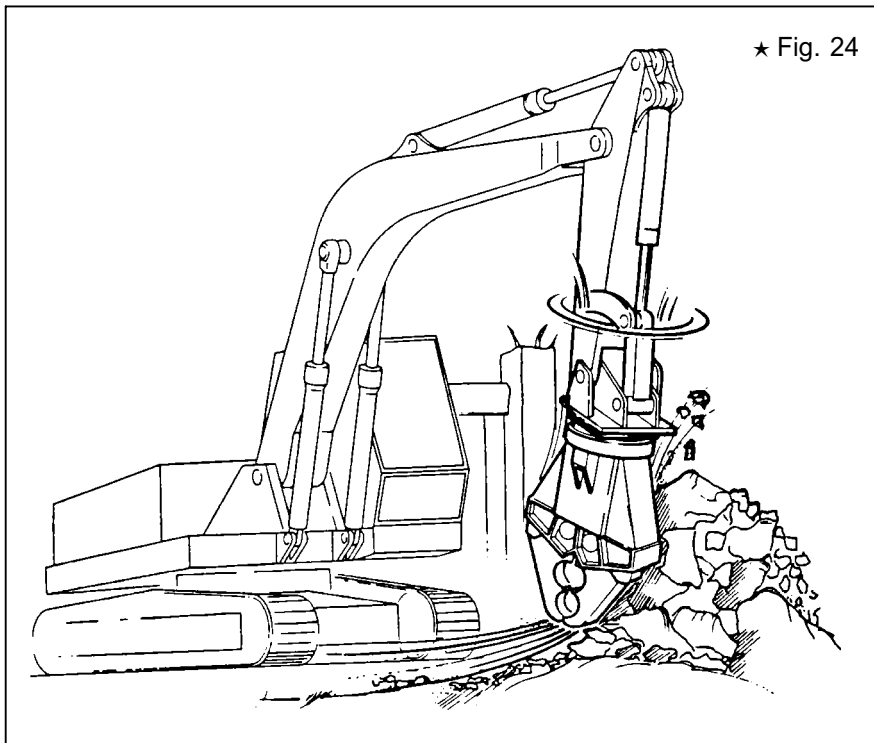
Never move the shovel cylinder when demolition is in progress. Bending movements of this nature will cause serious damage to the Combi cutter.



CAUTION!

Never pull at girders, supports and walls with the Combi cutter. This will damage both the Combi cutter and the adapter. The carrier may also become unstable and fall over.

Instructions on the correct use of the Combi cutter



CAUTION!

Never use the Combi cutter to clear away broken material. The Combi cutter is not designed for this kind of work.

7.4. Underwater applications

The Combi cutter must never be used for underwater applications.

7.5. Using the Combi cutter on cranes

Please contact your Atlas Copco Customer center/Dealer in your region before using the Combi cutter on cranes.

7.6. Working in high ambient temperature

The temperature of the hydraulic oil must be monitored to ensure it does not exceed 80 °C. If higher temperatures are measured in the tank, oil cooler must be fitted, and/or installation and

pressure-relief valve have to be checked. Only use hydraulic oils of sufficient viscosity. In summer and in tropical climates, the minimum requirement is a hydraulic oil of type HLP 68.

7.7. Working in low ambient temperature

For temperatures down to 20 °C below freezing there are no special regulations.

At temperatures below minus 20 °C, the carrier must be warmed up prior to use in the way described by the excavator manufacturer. In the majority of cases, carriers and attachments are kept in protected or even heated areas when not in use.

However, if the carrier and the Combi cutter are left out in the open, the carrier and all equipment must be warmed up before the Combi cutter can be started up. The excavator manufacturer's regulations must be observed in full.

Ensure that the hydraulic oil in the carrier is at least at 0 °C.

The Combi cutter cannot be started up until the oil temperature is over 0 °C.

Observe the excavator manufacturer's regulations.



CAUTION!

During operations, leave the excavator engine and pumps running even during breaks.

Note!

The Combi cutter and excavator will not operate to full capacity until the oil temperature has reached at least 60 °C.



CAUTION!

Feeding hot hydraulic oil to an extremely cold Combi cutter will cause internal stresses in the unit resulting in its failure.

Operations with hydraulic oil may cause damage when the oil has not been preheated adequately.

7.8. Operating the Combi cutter with the cylinders fully extended or retracted



CAUTION!

Operating the Combi cutter with the shovel/stick

cylinders fully extended or retracted must be avoided at all costs. These end positions are equipped with damping functions; continuous operation at full extension/retraction can result in damage to the hydraulic cylinders.

Remedy: Reposition carrier and/or boom.

8. Maintenance and care of the Combi cutter

8.1. General informations

In order to obtain the best performance from the Combi cutter, maintenance work should be carried out by the operator at the prescribed intervals.



DANGER!

Observe all relevant safety regulations when performing maintenance work.

Prior to maintenance, cleaning or repair work, make sure that the Combi cutter is resting in a stable state. Prop up the machine using wooden planks or similar. Use the lock-pins to prevent rotation.

The hydraulic system must be depressurised before all maintenance work on the Combi cutter!

Procedure as follows:

- Switch off engine but leave ignition switched on.
- Repeatedly actuate the switches for opening/closing/rotating Combi cutter.
- disconnect hydraulic hoses from Combi cutter

When working on the Combi cutter, ensure that no-one is standing between the open jaws.

Risk of injury!

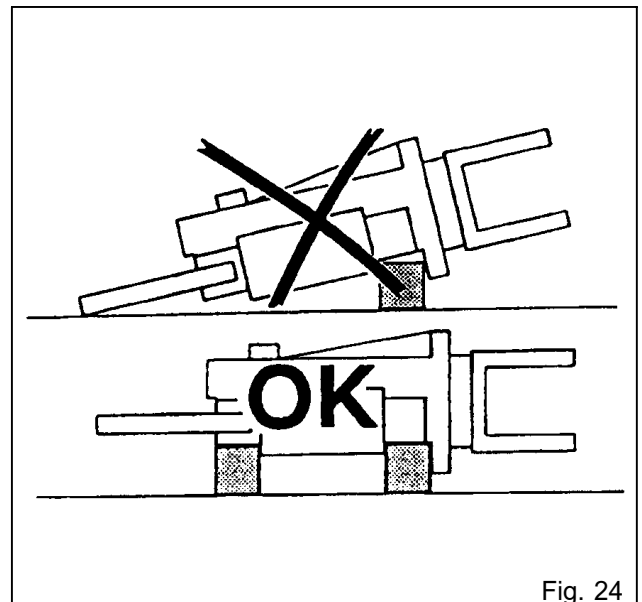


Fig. 24

8.2. Maintenance to be carried out by the carrier driver

8.2.1. Lubrication of the Combi cutter

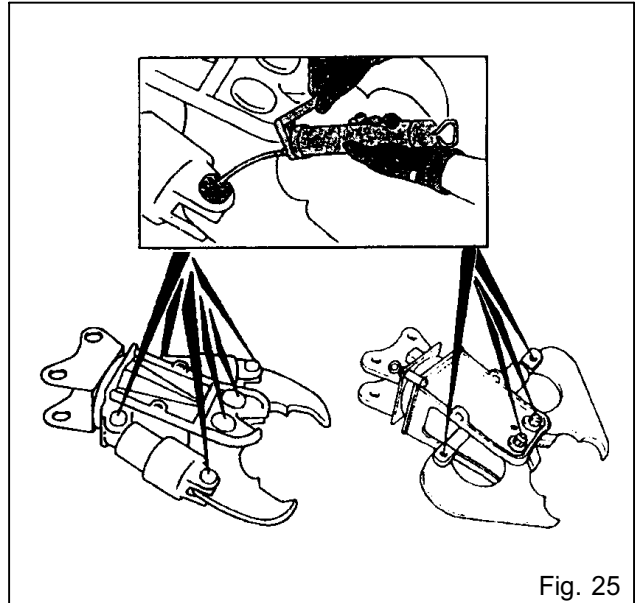
The Combi cutter must be lubricated before every working shift begin at all lubrication points.

Use Atlas Copco cutter grease, part ID no. 3363 0949 14 (is delivered in 400-g cartridges, in boxes of

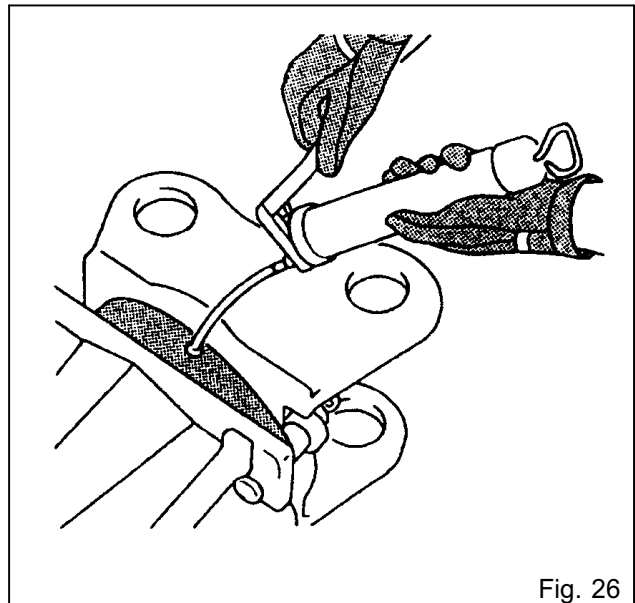
12 cartridges), or KP2K greases, lithium soaped mineral oils of NLGI Class 2 with EP additives.

Always observe the relevant safety regulations when handling oils and greases.

Grease nipples on the pins (see Fig. 25)



Grease nipple on the thrust bearing (see Fig. 26)



Grease nipple on the synchronising mechanism, only Combi cutter CC 250 (see Fig. 27)

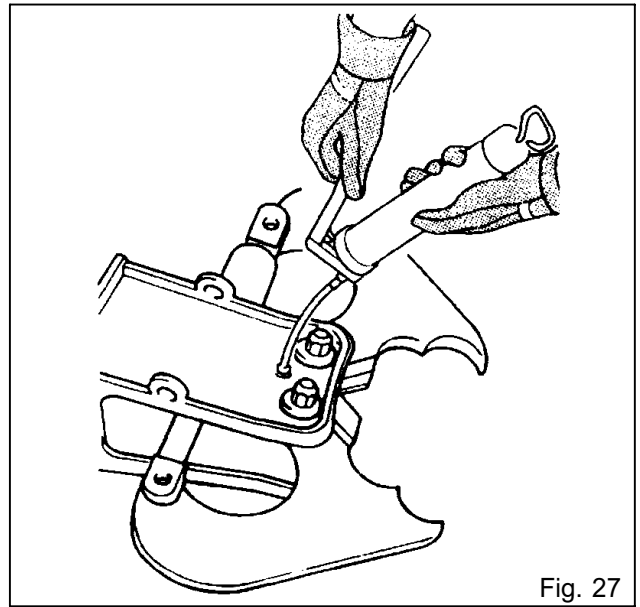


Fig. 27

Grease nipple on the rotary transmission (see Fig. 28)

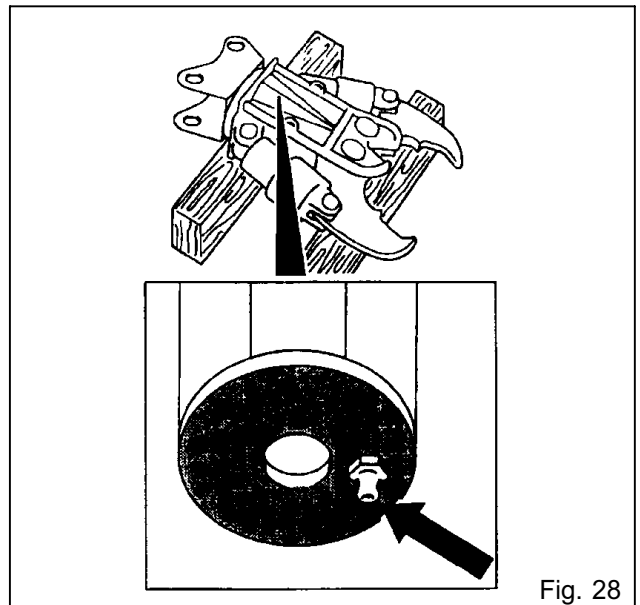


Fig. 28

8.2.2. Checking for cracks

Before starting work, check the Combi cutter and adapter for cracks.

(Visual inspection of load-bearing components and welds).

8.2.3. Checking the O-rings

Weekly (every 50 working hours approx.) check that the dust-protective O-rings are not damaged and that they are in the correct position. The O-rings must be changed every 6 month or after every 1000 hours of operation. (see Fig. 29)

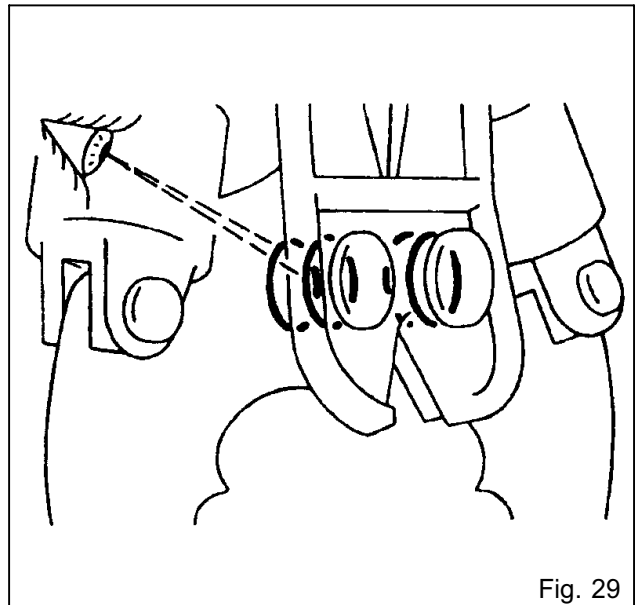


Fig. 29

8.2.4. Checking the blade clearance

Weekly (every 50 working hours approx.) using a feeler gauge, check the clearance between the steel cutters. It should be between 0,2 and 1,2 mm. Adjust the clearance as necessary with the aid of shims (available as accessories) (see Fig. 30)

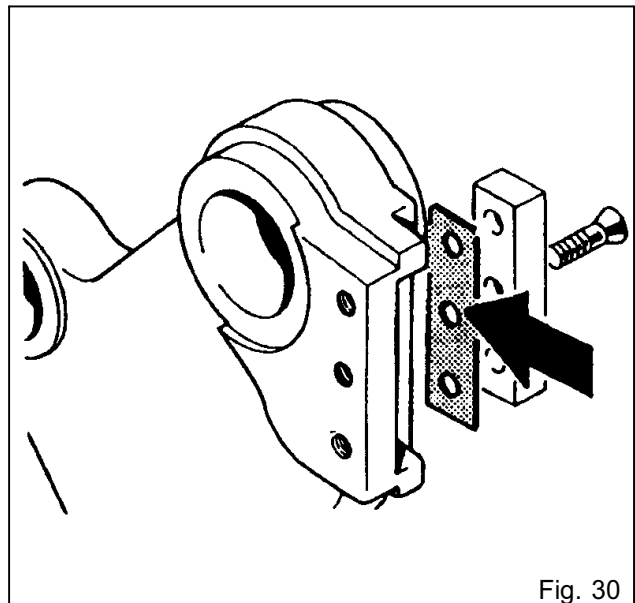


Fig. 30

8.2.5. Checking for wear

Weekly (every 50 working hours approx.) check the wear on the crushing surfaces of the jaws. Build them up if necessary by means of hard surfacing. Use suitable electrodes such as:

ESAB

OK 83.30 DIN 8555-E1-300

OK 83.50 DIN 8555-E6-55

oder

SIEV-FRO

B-500

B-600

or similar.

Before welding, remove all paint residue, since this can convert into poisonous gases on burning. Pre-heat the surface on which the weld deposit is to be made to a temperature of 150 - 200 °C. After hard-surfacing, cool slowly in ambient temperature. (see Fig. 31)

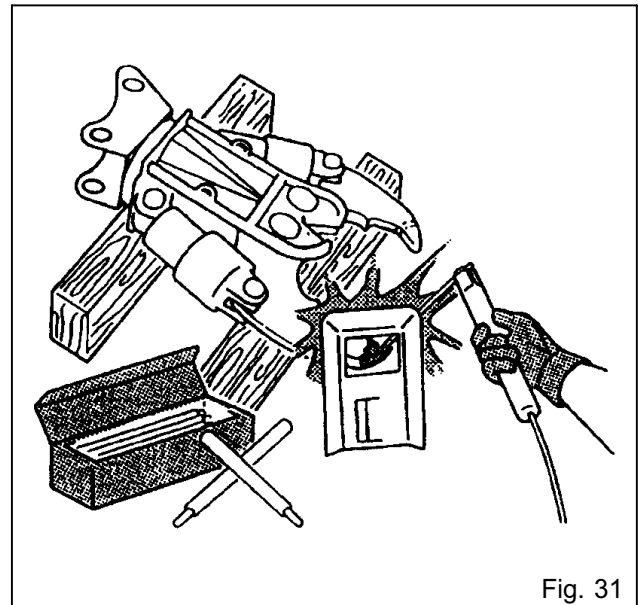


Fig. 31

8.2.6. Checking the hydraulic lines before starting work

Carry out a visual check on all lines (pipes and hoses) from the pump to the Combi cutter and back to the tank. Tighten any loose screw couplings and

hose clamps. Damaged pipes/hoses must be replaced.

8.2.7. Checking the adapter bolts for wear

This visual check is only possible when the Combi cutter has been dismantled from the excavator. If excessive wear is detected (cracks, notches,

noticeable indentations etc.) the screws must be replaced.

8.2.8. Checking and cleaning the hydraulic oil filter

In the return line of the hydraulic system there must be installed an oil filter. This filter, with a mesh width not exceeding 50 micrometers, must be fitted with a magnetic separator and changed at regular intervals.

On a new Combi cutter the oil filter should be changed after the first 50 operating hours and thereafter 500 operating hours must be controlled and replaced as necessary.

8.2.9. Checking screw couplings

Use a torque wrench to check that the bolts which hold the cutters are properly tightened (see table in section 8.3.) The bolts can be tightened only once after the first assembly. After that they must be replaced. The cutters are turnable.

thrust-bearing bolts must be checked (see table in section 8.3.). Check that the bolts are properly tightened and that they show no signs of damage. The bolts may be tightened only once, after which they must be changed.

After the first 10 hours of operation, the torque of the

8.3. Maintenance / Tightening torques

Screw thread	Tightening torque [Nm]	
	Property class 8.8	Property class 10.9
M8	25	35
M10	50	70
M12	85	120
M14	135	190
M16	210	295
M20	410	575
M24	710	995
M30	1420	2000

9. Troubleshooting

9.1. Combi cutter does not work

Cause	Remedy	By
Check valve in line A or C closed	Open check valve	Carrier driver
Defective couplings blocking lines A / C	Replace defective coupling parts	Workshop
Electrical system defect in the installation	Check and if necessary repair the electrical system	Workshop
Rocker switch defect	Check and if necessary replace the rocker switch	Workshop
Magnet on switch-on valve defective	Replace magnet	Workshop

9.2. Combi cutter shows insufficient closing force

Cause	Remedy	By
Connections for lines A and C mixed up	Connect up lines A and C correctly Only when the lines A and C are set to different pressures, i.e. previous installation also permits hydraulic breaker operations.	Carrier driver
Operating pressure too low	Correct operating pressure	Workshop or Atlas Copco Customer Center/Dealer in your area

9.3. Combi cutter does not cut

Cause	Remedy	By
Blades worn/broken. Blade clearance too great	Check blades, if necessary reset or replace	Workshop

9.4. Operating pressure too high

Cause	Remedy	By
Pump delivery too high - excess oil flows to tank via pressure relief valve	Correct carrier engine speed. Correct pump pilot system if available	Carrier driver or Atlas Copco Customer Center/Dealer in your area

Pressure relief valve defective	Fit new pressure relief cartridge	Atlas Copco Customer Center/ Dealer in your area
Oil level in tank too low	Top up oil	Carrier driver or workshop

9.5. Oil leaks from hydraulic ports

Cause	Remedy	By
Cap nuts loose	Tighten cap butts	Carrier driver

9.6. Inadequate lubrication

Cause	Remedy	By
Interval of lubrication too large	lubricate more often	Carrier driver

10. Disposal



CAUTION!

Dispose of the Combi cutter and the hydraulic oil in

accordance with the applicable statutory provisions on environmental protection.

- Put the Combi cutter out of operation and disassemble it as described in section 6.7..
- Dispose of the Combi cutter in line with all applicable regulations or consult an authorised and specialised recycling company.

11. Lightweight, powerful, robust - Light-duty CCs.

Features:

- good performance-to-weight ratio
- quick positioning thanks to mechanical 360° rotation unit
- replacable blades
- optional pulverizing plates available for CC 550 (order no. 3093 0400 70)

12. Technical specifications

Type	CC 250	CC 550
Weight ★ [kg]	240	530
Carrier weight class [t]	2 - 4	5 - 14
Oil flow rate [l/min]	30 - 50	50 - 90
Operating pressure [bar]	200	250
Jaw opening [mm]	360	450
Jaw depth [mm]	350	360
Blade length [mm]	120	140
Swivel range [°]	>360	
Connecting thread hose connections (hydraulic cylinder)	G 1/2"	SAE 1/2" - 6000 PSI
Hose size (nominal ID) [mm]	DN 1/2"	DN 1/2"
Pipes [mm]	16 x 2	20 x 3

★ Combi cutter with medium-sized adapter

Please note that the working weight can be considerably higher, depending on the adapter plate.

When transporting the carrier with the Combi cutter attached, the safety instructions of the carrier manufacturer apply.

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