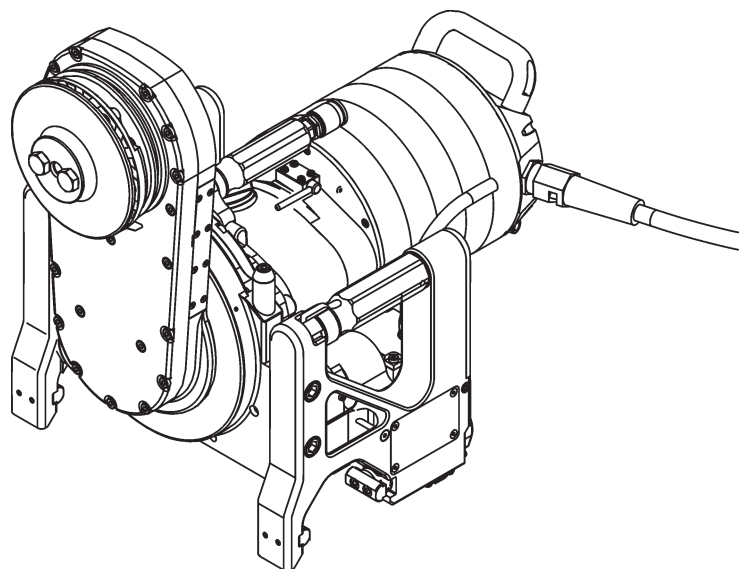


# ***Operating Instructions***

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## ***Wall saw WSE2226 ★★★ USA***

*Index 000*



## **Congratulations!**

With a Hydrostress unit from TYROLIT, you have chosen a tried and tested piece of equipment which has been designed and built to leading technical standards. Only genuine TYROLIT Hydrostress replacement parts can guarantee quality and interchangeability. If maintenance work is neglected or carried out inexpertly we will be unable to honour our warranty obligations. Any repair work must be carried out by trained personnel only.

Our aftersales service is available to help ensure that your TYROLIT Hydrostress units remain in perfect working order.

We hope that working with your TYROLIT unit will be a satisfying and fault-free experience.

TYROLIT Hydrostress

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## 1 Safety



These instructions are just one part of the documentation which is supplied together with the wall saw. These instructions go together with the «Wall Saw Safety Manual / System Description» to form a complete set of documentation.



### **DANGER**

Failure to comply with the safety instructions in the «Safety Manual / System Manual» may result in serious injury or even death.

- ▶ Please ensure that the «Wall Saw Safety Manual / System Description» has been read and understood in full.



### **DANGER**

#### **Cuts from the saw blade**

- ▶ Always wear protective gloves when working on the wall saw, particularly when working on the saw blade.
- ▶ Always use the blade guard when operating the wall saw.



### **DANGER**

#### **Serious injury or material damage as a result of uncontrolled movements of the wall saw**

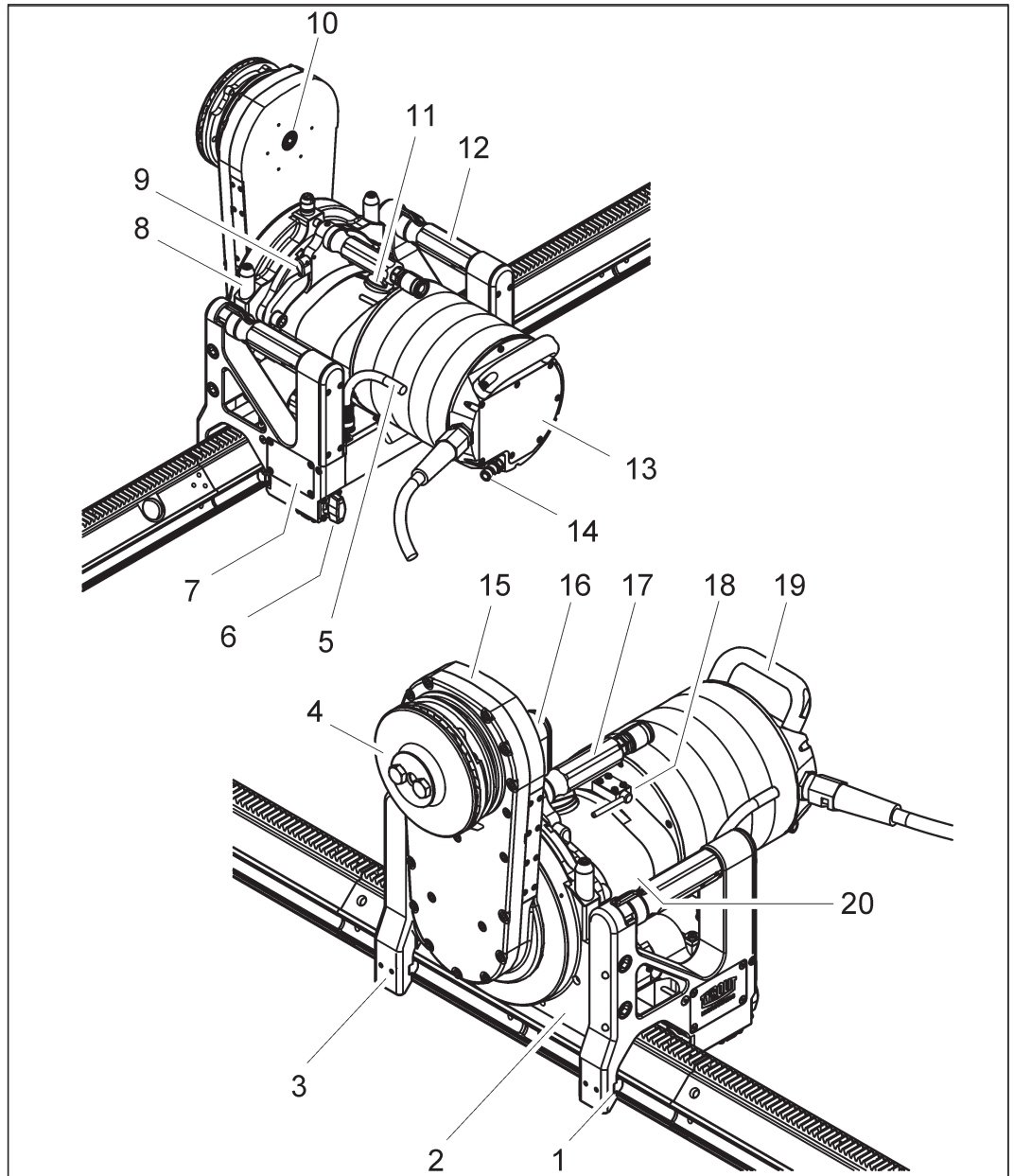
- ▶ Never connect or disconnect cables when the control unit is switched on.

## 2 Description

### 2.1 Wall saw system

The design and function of the wall saw systems are described in the «Wall Saw Safety Manual / System Description».

### 2.2 Wall saw

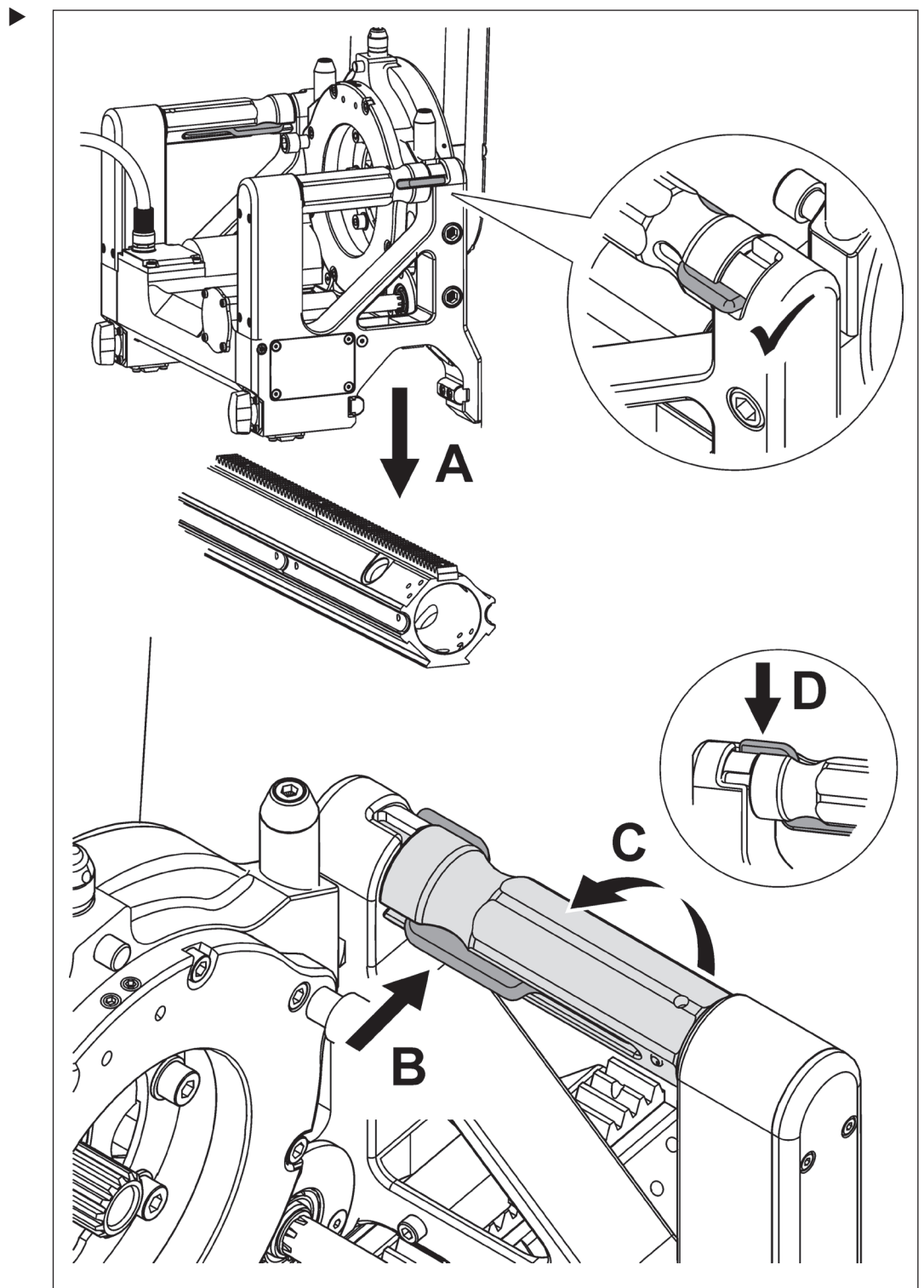


#### Components

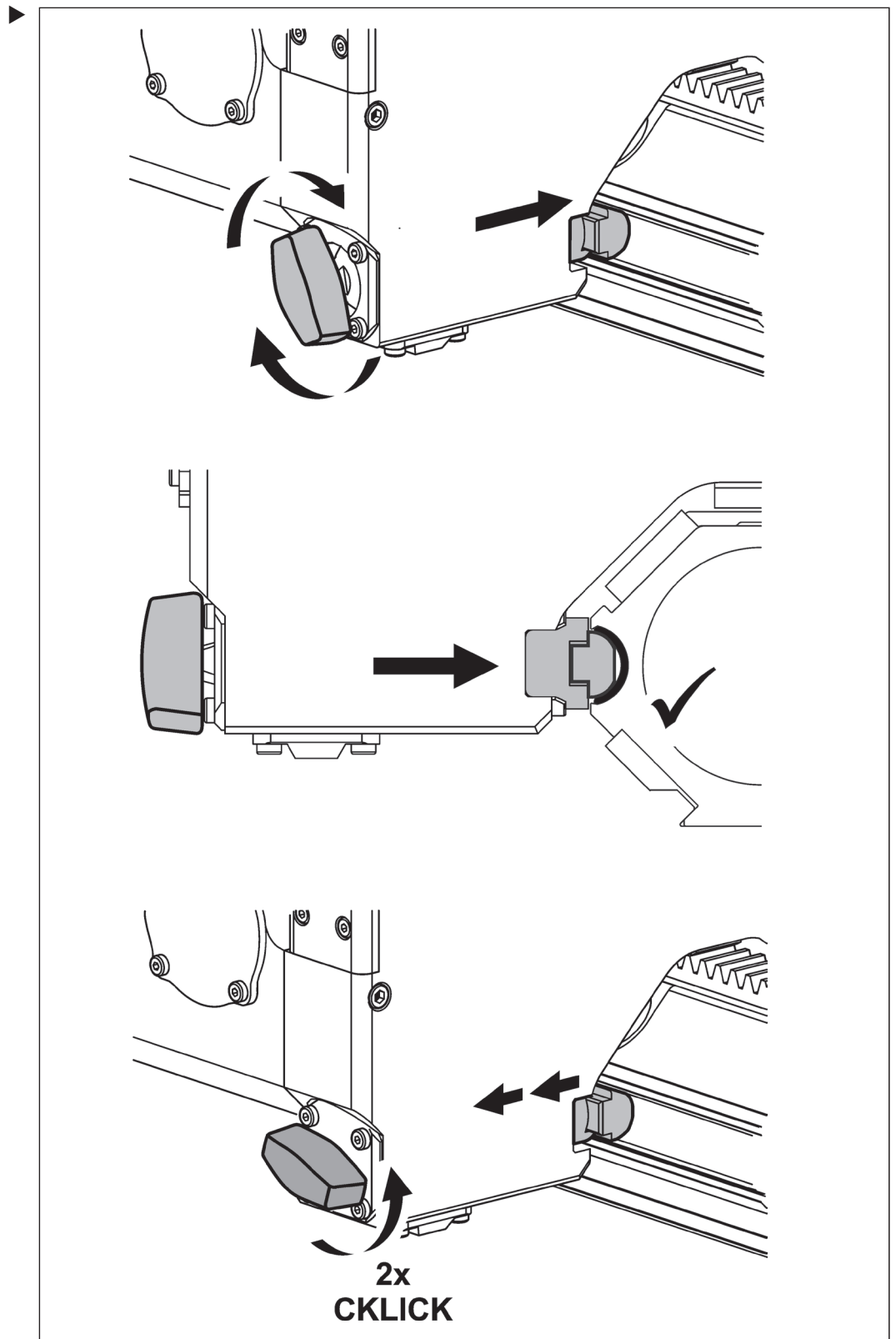
- |  |                            |
|--|----------------------------|
| 1 Guide prism                                  | 11 Rotary gear speed knob  |
| 2 Chassis                                      | 12 Grip / lock grip        |
| 3 Lock unit                                    | 13 Saw blade drive motor   |
| 4 Quick-release flange                         | 14 Water connection        |
| 5 Cable connection travel / swivel feed motors | 15 Geared swivel arm       |
| 6 Fine adjusting device                        | 16 Blade guard holder      |
| 7 Cover  | 17 Water - Bypass          |
| 8 Blade guard holder                           | 18 Locking coupling handle |
| 9 Water bypass line changeover handle          | 19 Drive motor grip        |
| 10 Saw blade fixing central screw              | 20 Gearbox                 |

### 3 Assembly / Disassembly

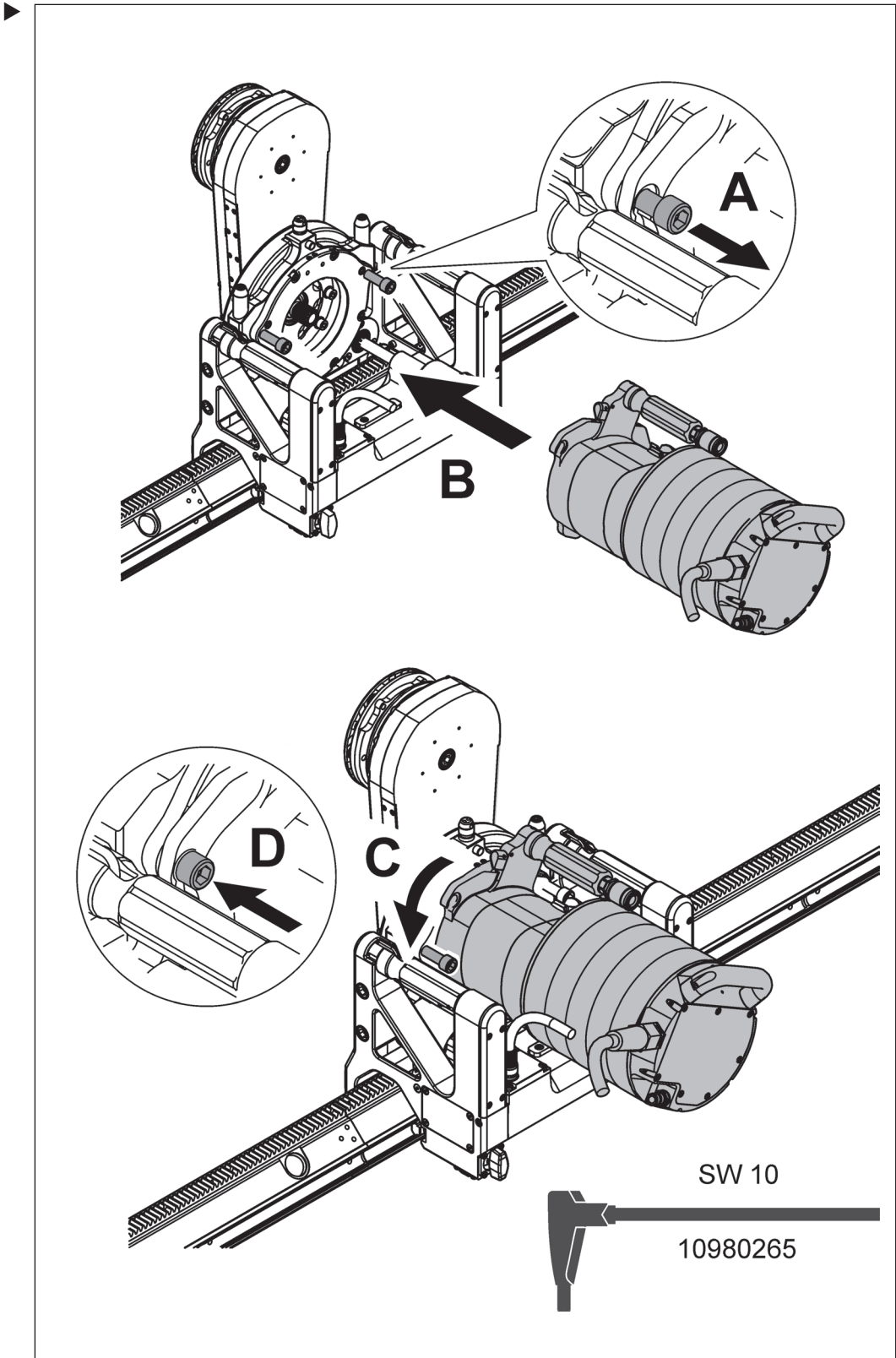
#### 3.1 Place the wall saw on the guide rail



### 3.2 Guide prism fine adjustment



### 3.3 Mounting the drive motor



### 3.4 Mounting the saw blade



**DANGER**

**Death or serious injury can be caused by escaping saw blades!**

- ▶ Only use original screws and bolts from TYROLIT Hydrostress AG.



**DANGER**

**Serious injury can be caused by sudden start-up of the saw blade**

- ▶ Switch off the control unit before working on the saw blade.
- ▶ Isolate the control unit from the mains supply.

#### 3.4.1 Preparations for assembly

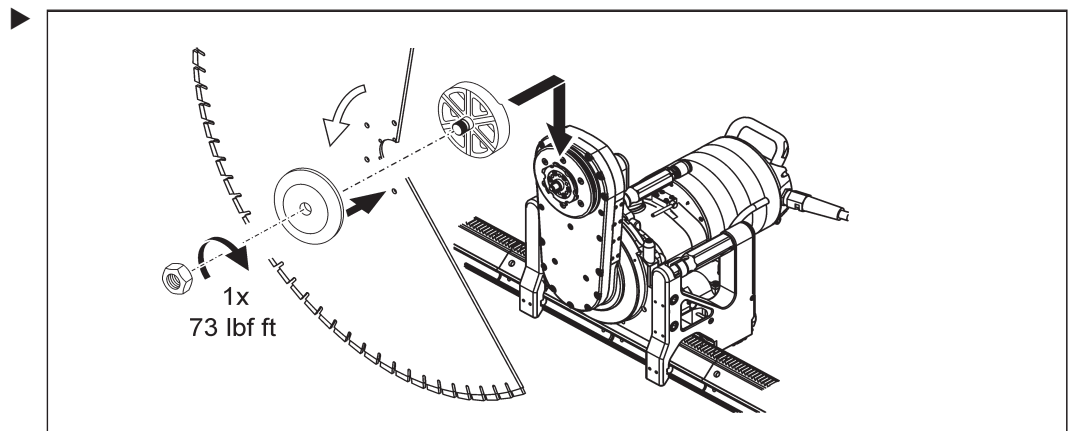
- ▶ During initial installation, remove the flush cut anchoring screws on the quick-release flange.

#### 3.4.2 Preassembling the saw blade unit

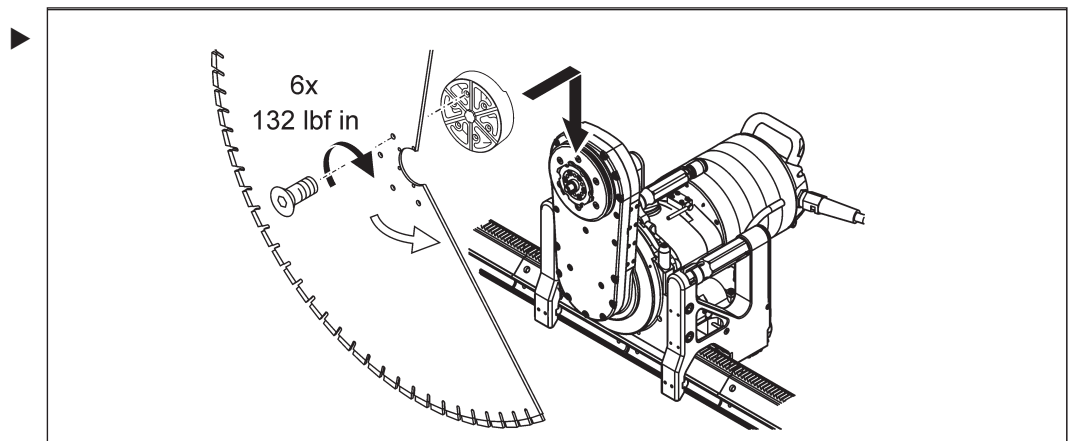


The direction of rotation of the saw blade must match the direction of rotation of the machine. Correct alignment: Countersinking of the fastening holes against the blade cover.

#### 3.4.3 Fixing for normal cuts with saw blades up to Ø 86"



#### 3.4.4 Fixing with flush cut





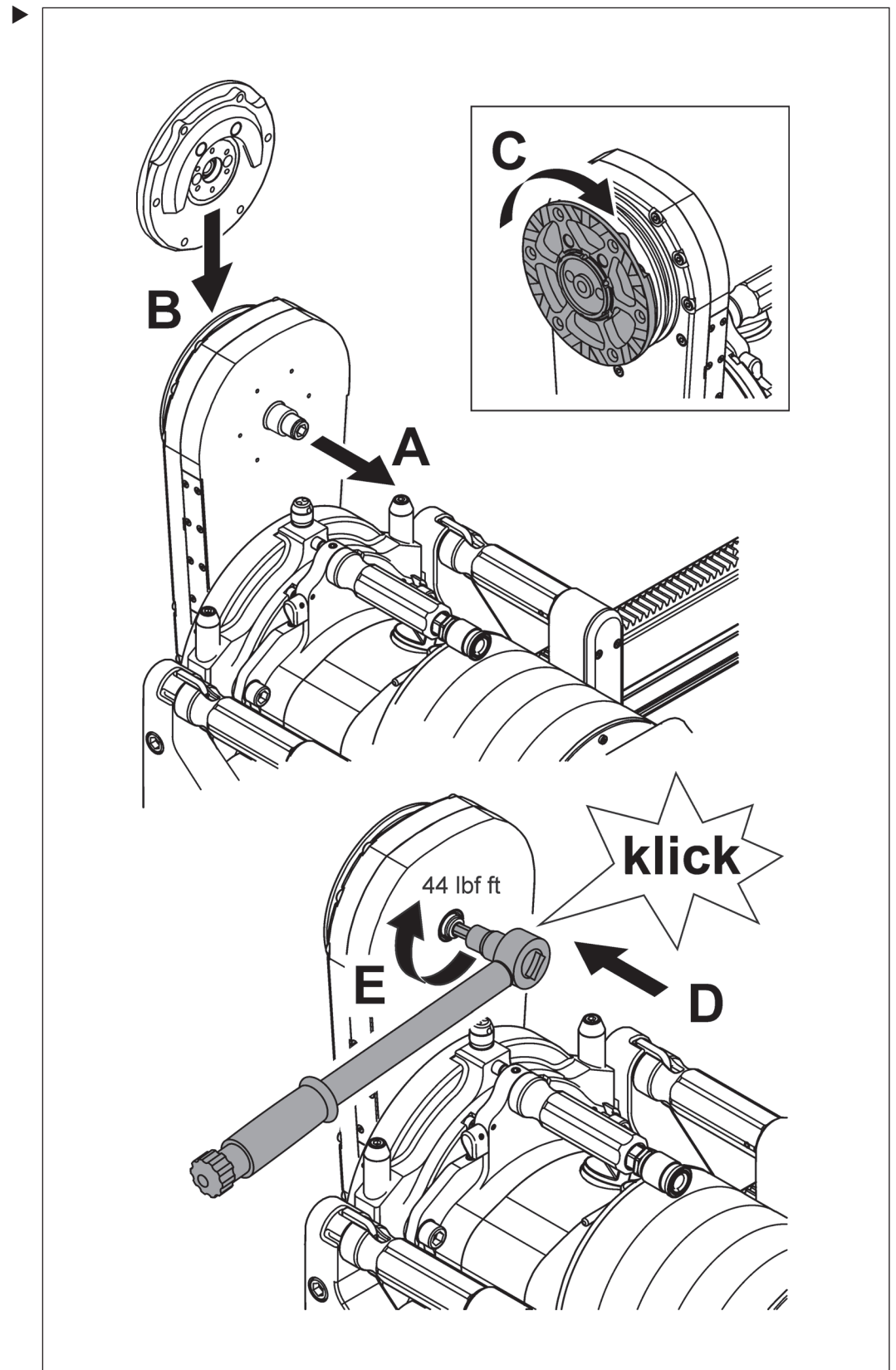
### 3.5 Securing the saw blade unit



**DANGER**

**Death or serious injury can be caused by escaping saw blades!**

- ▶ Check whether the sleeve and central screw are countersunk.
- ▶ Tighten the central screw to a torque of 44 lbf ft.



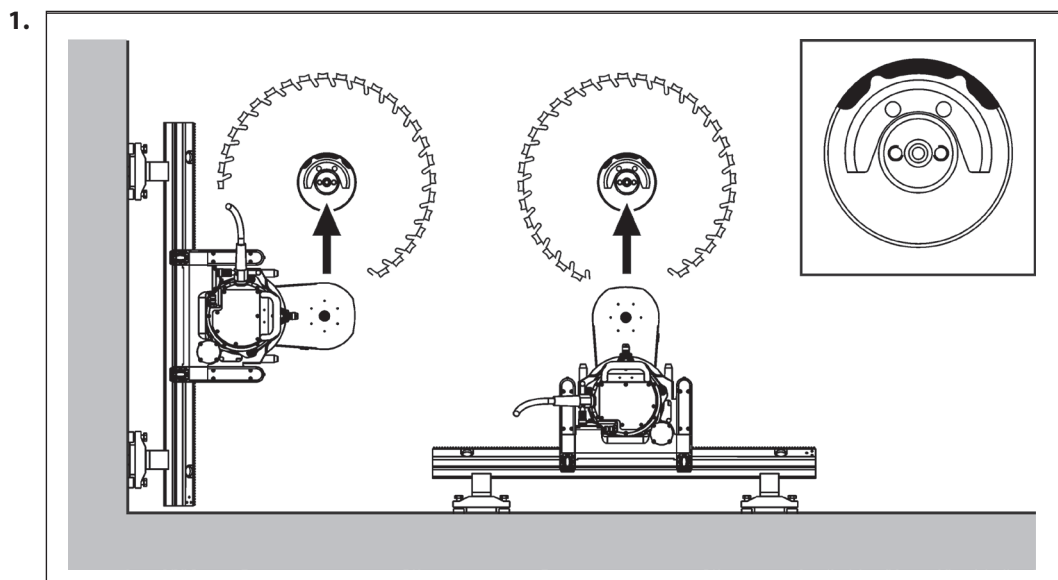
### 3.6 Removing the saw blade unit



**WARNING**

**Injuries can be caused if the saw blade drops down.**

► Lift out the saw blade unit to the top when removing it.

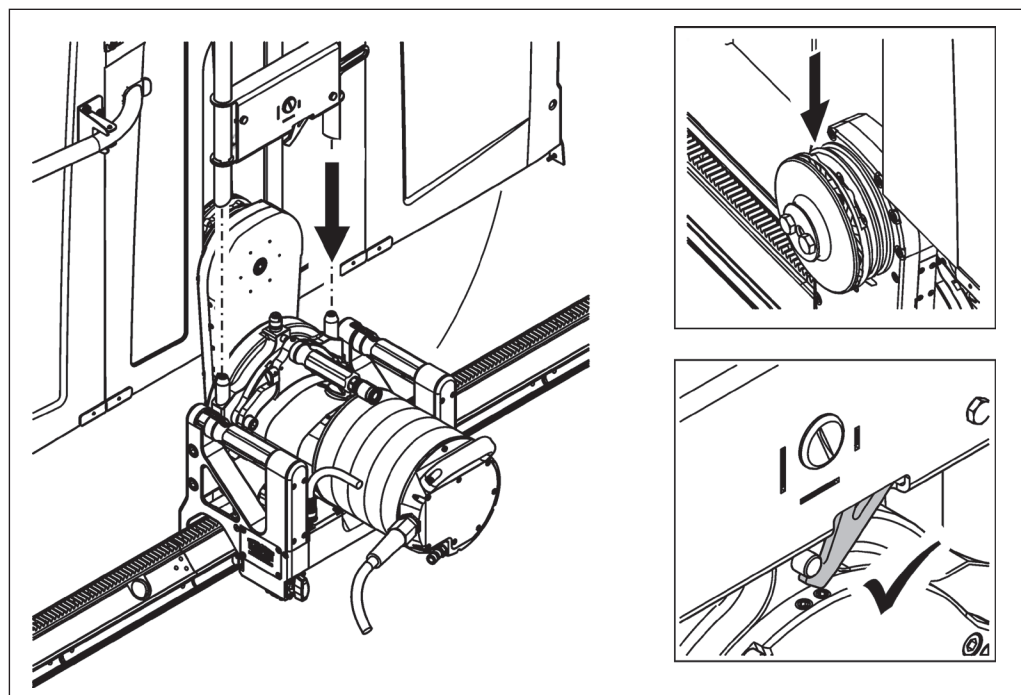


2. Disassemble the saw blade unit in the reverse order to the installation/assembly process.

### 3.7 Blade guard

#### 3.7.1 Mounting the blade guard

► Mount the blade guard according to the instruction leaflet.



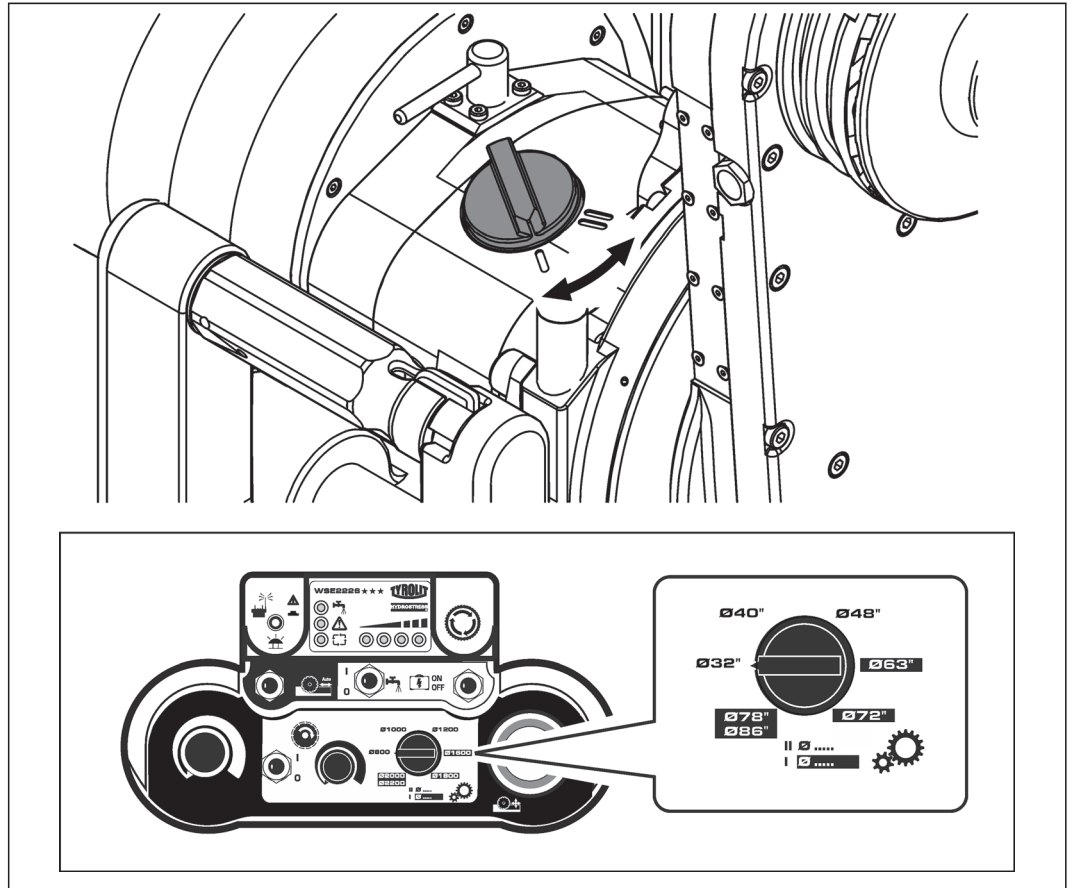
### 3.8 Selecting gear

Gears I and II are selected in relation to the tool diameter.



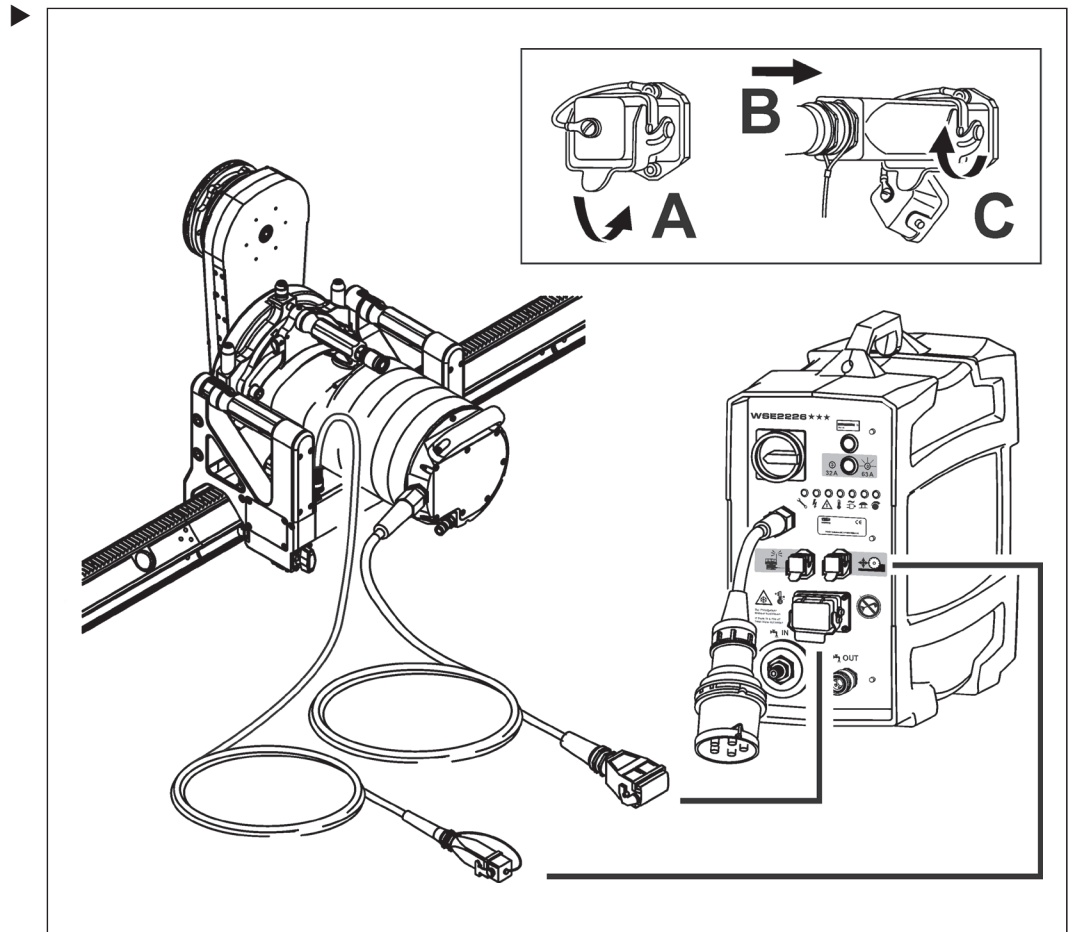
Select the switch position in accordance with the size of the saw blade. Never use force, and always change over with the drive motor stationary.

If the gear does not engage, rotate saw blade until the switch can be moved to the required gear.



### 3.9 Connecting the wall saw to the control unit

- ✓ The control unit is isolated from the power supply.
- ✓ Connectors/plugs are clean.
- ✓ Cables are undamaged



## 4 Operation



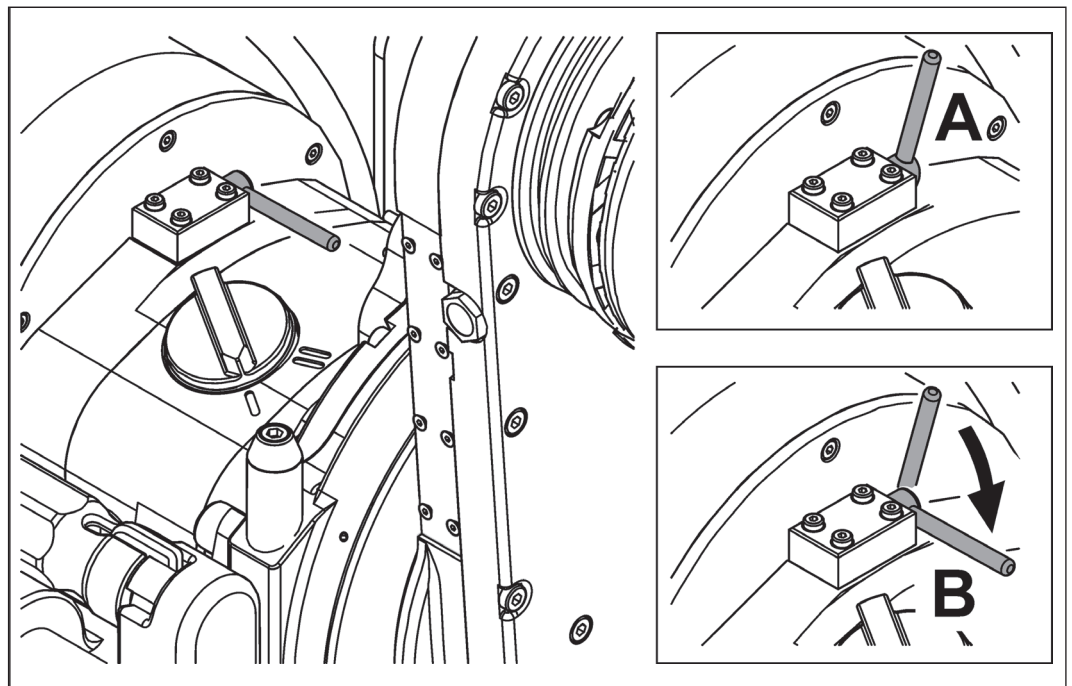
The WSE2226 ★★★ wall saw is turned into a wall sawing system by adding suitable TYROLIT Hydrostress components. Information on safe working with wall saw systems can be found in the «Wall Saw Safety Manual / System Description».

### 4.1 Safety coupling



The drive motor unit of the WSE2226 ★★★ wall saw has a safety coupling. The safety coupling provides protection from machine damage and triggers in the event of overloading. The safety coupling may only be operated if the drive motor is stationary.

#### 4.1.1 Reset safety coupling



A ⇒ The safety coupling has activated.

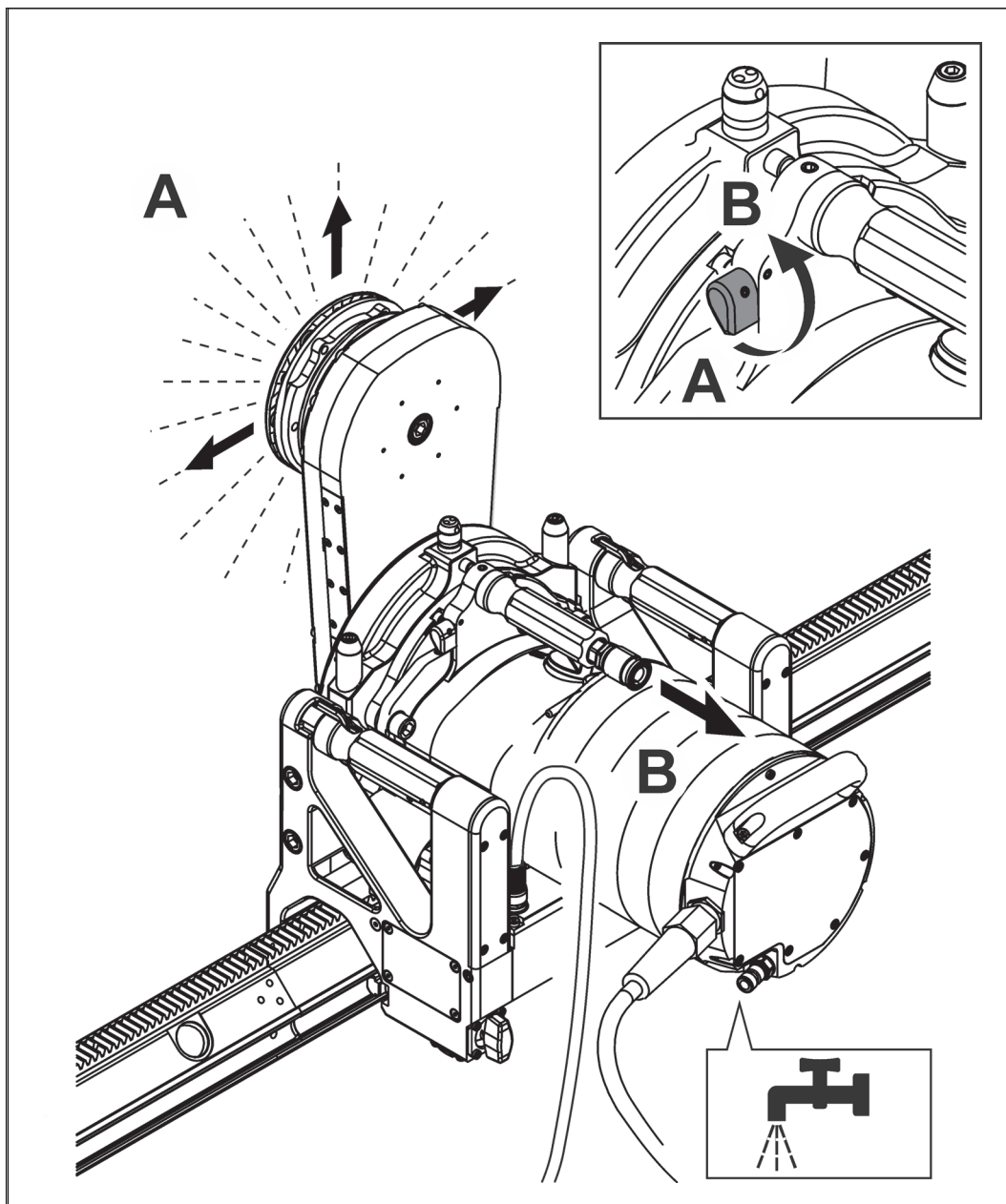
B ⇒ The safety coupling must be reset by hand.

## 4.2 Water supply

### Wet and dry cut



The WSE2226 ★★★ wall saw can be used for wet and dry cutting. For dry cutting the water is led away via a bypass after cooling the main motor.



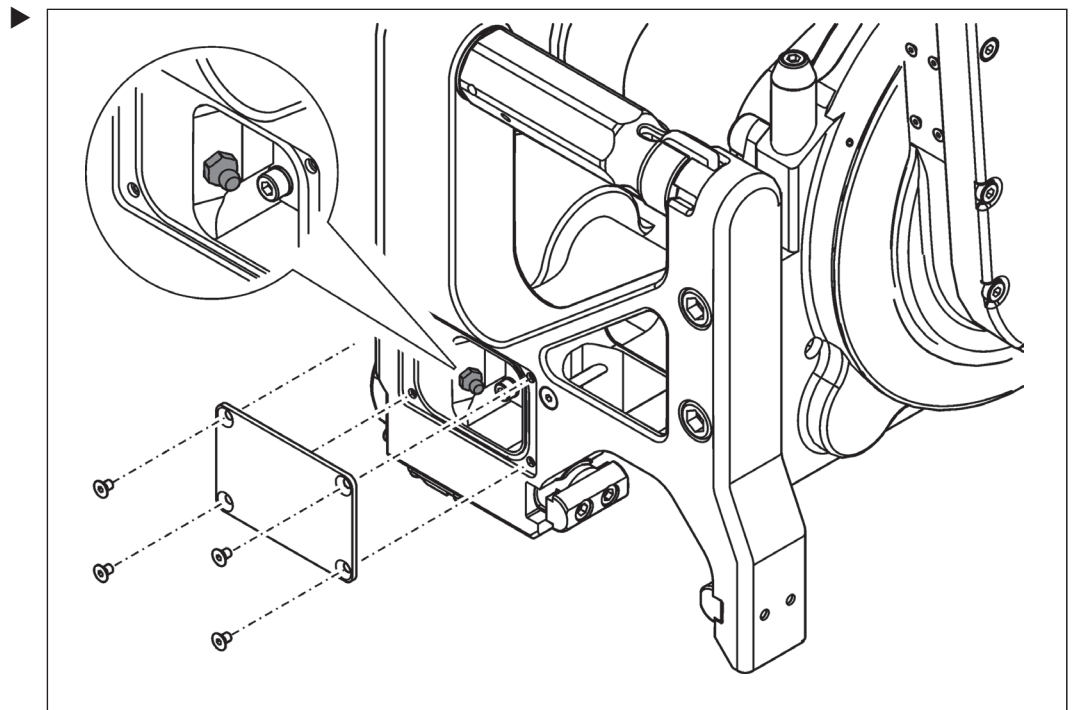
Water connection	
Parameter	Value
Pressure	min. 29 psi / max. 87 psi
Quantity	At least 1.05 gpm
Max. temperature	77 °F

## 5 Servicing and maintenance

Maintenance and servicing table							
		Before every commissioning	At end of work	Weekly	Yearly	After faults	After damage
Wall saw	<ul style="list-style-type: none"> <li>▶ Retighten loose bolts, screws and nuts (refer to the tightening torque specifications)</li> <li>▶ Check cleanliness</li> </ul>	X				X	X
Lock unit	▶ Clean latching recesses and guide grooves	X	X			X	X
	▶ Lubricate (page 16 / 5.1)			X		X	X
Guide prisms	▶ Check for wear	X	X			X	X
	▶ Clean	X	X			X	X
	▶ Replace (page 17 / 5.3)						X
Swivel arm	▶ Clean with water		X				
	▶ Check the saw blade uptake for wear	X				X	X
	▶ Replace gear oil (page 16 / 5.2)	Every 100 h					
Drive motor	▶ Check cleanliness	X	X			X	X
	▶ Replace gear oil (page 16 / 5.2)	Every 100 h					
Water economy	▶ Check the water line for cleanliness and leak-tightness	X				X	X
	▶ Blow out water		X				
Saw blade	▶ Clean with water		X				
	▶ Check for wear	X	X			X	X
Service	▶ To be performed by TYROLIT Hydrostress AG or an authorised workshop	After 100 / 300 / 500 / 700 hours					



## 5.1 Lubricating the lock unit

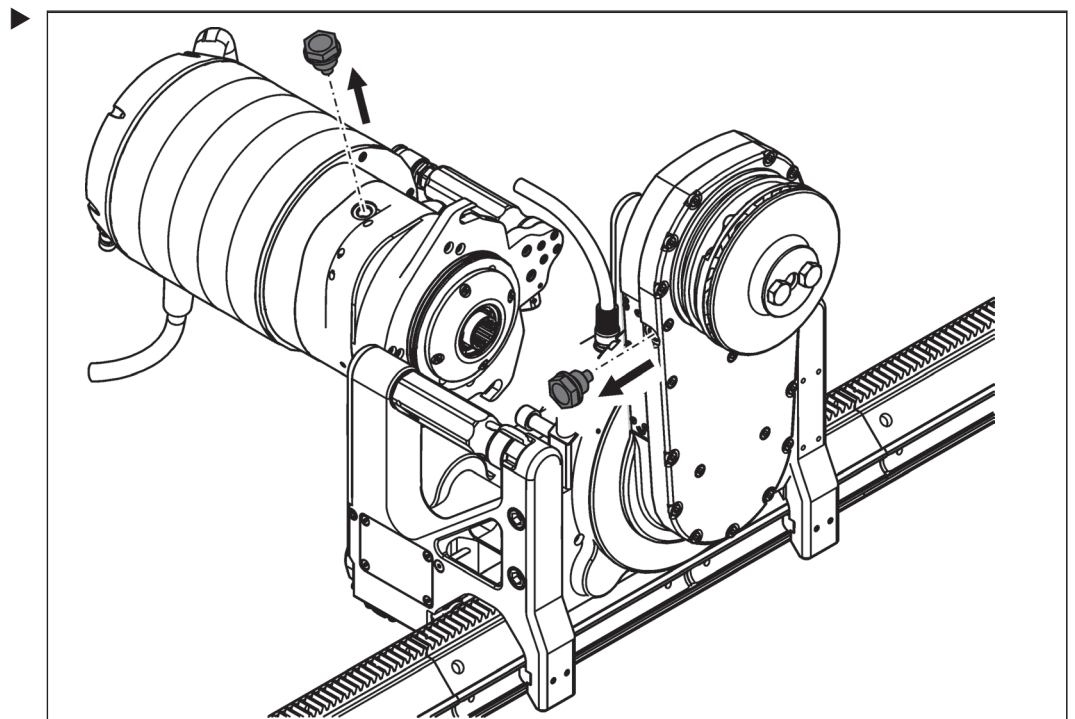


## 5.2 Changing the gear oil



**The use of unsuitable oil can damage the wall saw.**

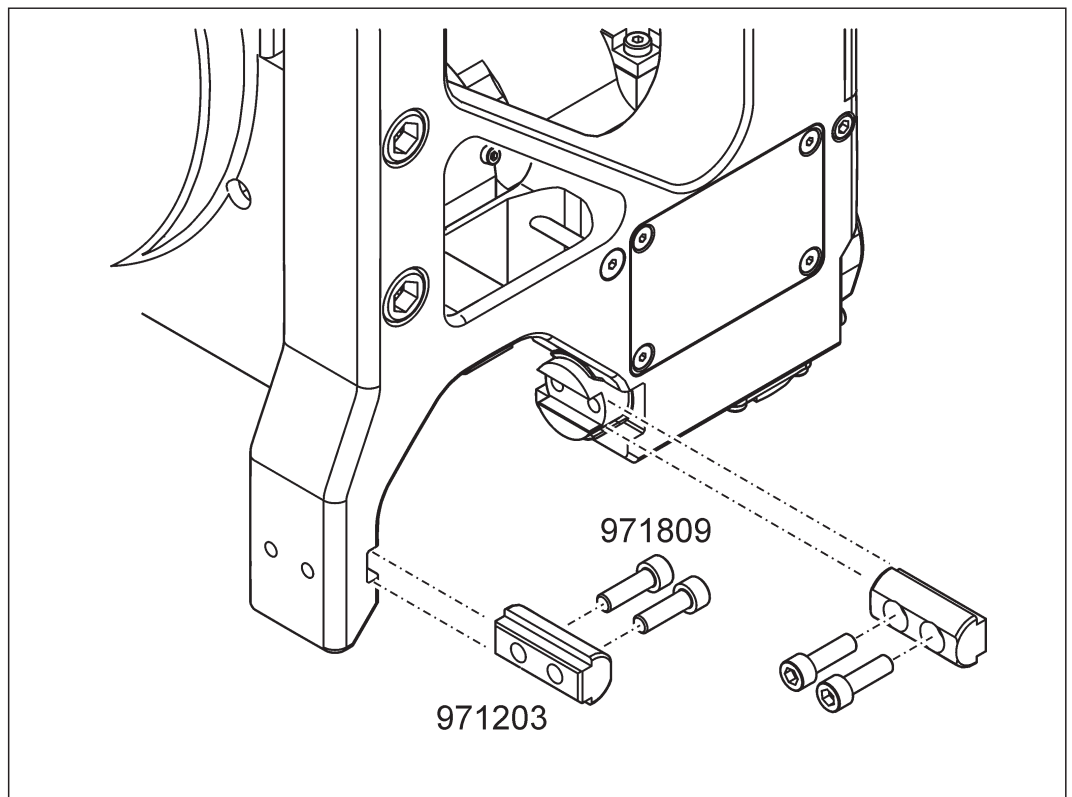
- ▶ Only use TYROLIT Hydrostress AG oil containers.  
Swivel arm: Oil container no. 10981362, 3.4 fl oz  
Drive motor gears: Oil container no. 10992759, 6.8 fl oz





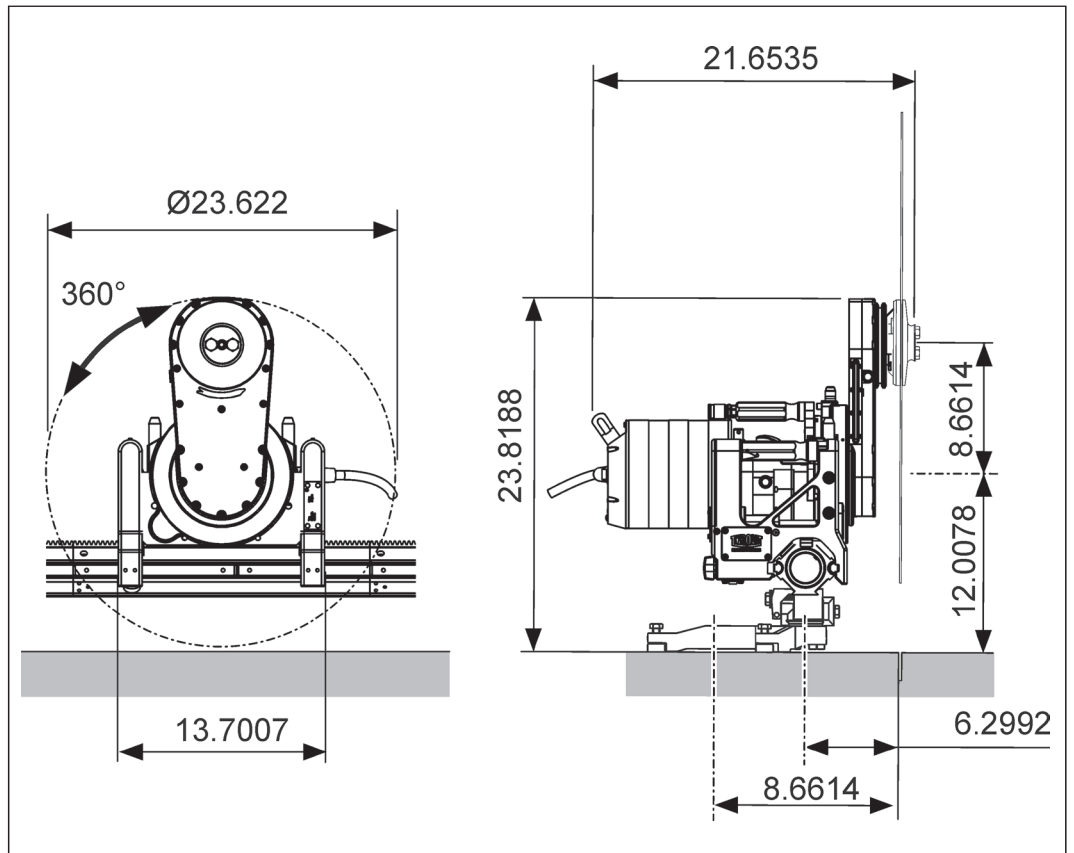
### 5.3 Replacing the sliding prisms

- ▶ Defective or worn guide prisms must be replaced with new guide prisms.



## 6 Technical data

### 6.1 Dimensions



Measurements in inch

### 6.2 Design

Design	
Parameter	Value
Construction	Light aluminium/steel construction
Rotatable swivel arm	360°
Power transmission	Gear wheel
Carrying handle	2-piece with locking function
Sliding guide	Low-wearing, suitable for all VS and VAS rails
Rail mounting	Locking and safety function on carrying handle
Main motor	High-frequency, water-cooled, with quick-release device
Feed motor / swivel motor	Electric motor with self-inhibiting gear
Flush cutting	Quick-release flange ST without blade cover
Normal cutting	Quick-release flange ST with blade cover
Water	Water connection on motor

### 6.3 Weight

Weight	
Parameter	Value
Wall saw head complete	57.3 lbs
Drive motor	55.1 lbs

### 6.4 Blade geared drive motor

Blade drive motor	
Parameter	Value
Electric motor	High-frequency, water-cooled
Voltage	390 V
Frequency	400 Hz
Gears	2 (gear I $\Rightarrow$ $i=6$ / gear II $\Rightarrow$ $i=3$ )
Speed	8,000 rpm
Power	26 kW
Current	38 A
Safety class	IP67 (NEMA rating 6)
Operating mode	S1
Number of poles	6
Insulation class	F

### 6.5 Feed motor, travel

Electric feed motor with gearbox	
Parameter	Value
Gear reduction	$i : 32$
Voltage	36 V
Feed	Toothed wheel on rail

### 6.6 Feed motor, swivel

Electric feed motor with gearbox	
Parameter	Value
Gear reduction	$1 : 21$
Voltage	36 V
Swivel range (swivel arm)	$360^\circ$

## 6.7 Saw blades

Saw blades		
Parameter		Value
Saw blade max.		Ø 86"
Fully detachable saw blade		Ø 42"
Blade holder		Ø 1"
Blade flange mounting at wall saw		Quick-release flange ST
Saw blade fixing on blade flange (also for flush cuts)		6 countersunk head screws reference circle 3.5 inch
Blade cover mounting on blade flange		1 hexagonal nut
Cutting depth	Ø 32"	12.5875 inch
	Ø 40"	16.6000 inch
	Ø 48"	20.5905 inch
	Ø 63"	28.1496 inch
	Ø 72"	32.5589 inch
	Ø 78"	35.6814 inch
	Ø 86"	39.6700 inch
Circumferential speed		125 ft / s

## 6.8 Lubricants, fluids and sealants

Lubricants, fluids and sealants		
Parameter		Value
Gear oil (swivel arm)		Klüber GEM 4-150 N (TYROLIT No. 10981362)
Gear oil (drive motor gearbox)		Klüber GEM 4-150 N (TYROLIT No. 10992759)
Lubricating grease (lock unit)	Penetration	265 to 295
	NLGI	2
Lubricating grease (swivel gear)	Penetration	420 to 460
	NLGI	00

## 6.9 Noise level

Noise data according to ISO 3744	
Parameter	Value
Sound pressure level $L_{pA}$	89.8 dB(A)*
Highest value of sound pressure $L_{pCpeak}$	111.4 dB
Acoustic power level $L_{WA}$	109.8 dB(A)*

Conditions for the measurement:

\* Saw blade Ø63" mm not in cutting operation under full load

## 6.10 Connectable control units

The wall saw must only be operated with the coordinated control units from TYROLIT Hydrostress.

Control unit	
Parameter	Type
Control unit	WSE2226★★★ (Ø32" / Ø40" / Ø48" / Ø63" / Ø72" / Ø78" / Ø86")

## 6.11 Water

Water connection	
Parameter	Value
Pressure	min. 29 psi / max. 87 psi
Quantity	At least 1.05 gpm
Max. temperature	77 °F

