

Transport, installation, commissioning

Tool magazine expansion iXtools

Note on applicability

Illustrations in this publication may deviate from the product supplied. Errors and omissions due to technical progress expected.

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General note



All documents and drawings (working documents) required for the operation of the machine can be found on the supplied data carrier under Chapter 1 "Instructions" or 2 "Diagrams and drawings".

Documents and drawings of add-on equipment from other manufacturers can be found in Chapter 3, "Third-party documentation".

In addition, these data/documents are stored on the controller.*

(* - **iXpanel** installation required)

Symbols

Explanation of the symbols used in the user documentation.



Suspended load warning



This symbol warns against a direct, imminent danger to the life and health of individuals. Failure to observe this danger warning may result in severe health impairment, such as perilous injury and even death.



This symbol warns against a direct, imminent danger from electricity. Failure to observe this danger warning may result in severe health impairment, such as perilous injury and even death.



This symbol indicates important notes for the proper operation of the machine.
Failure to observe this caution may cause malfunctions on the machine.
This can result in damage to entire assemblies or parts thereof.



Reference to other documents.

Safety instructions



Safety Instructions and Technical Specifications

The user documentation, in particular, the document **“Safety Instructions and Technical Specifications”** must be observed.



The safety instructions described in this document relate exclusively to the transport, installation, and commissioning of the **tool magazine expansion iXtools**.

Information on transport, installation, commissioning

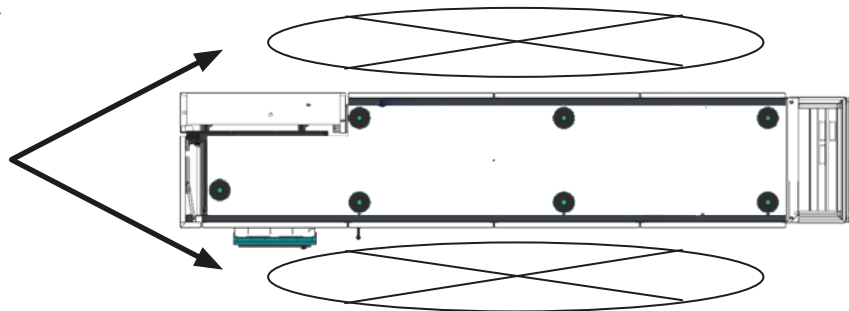


Only use suitable hydraulic jacks or a crane to lift the tool magazine expansion. When transporting with transport or armored rollers, ensure that the rollers used have the appropriate load-bearing capacity. The travel area must be level and clean. Plastic plates or Teflon plates are used to reduce rolling resistance and to bridge unevenness and cracks.

During work with hydraulic jacks, stay within the marked areas (Fig.: X) is permitted only to the transport personnel.

Failure to follow proper procedures for transport, installation and, commissioning is prone to cause accidents and may induce damages to or malfunctions of the tool magazine expansion for which **INDEX** rejects any liability or warranty.

Fig.: X



Prior to delivery of the tool magazine expansion, the procedures for unloading, transporting to the installation site, installation, and start-up must be carefully planned while observing the cautions below in this document.



The safety interlock mechanism (**CTP-LBI**) of the work area door has a unique feature that prevents individuals from accidentally locking themselves inside in the event of a power failure or when the machine is turned off with the work area door open. Furthermore, in case of a power failure, the engaged guard locking mechanism is automatically disengaged.

(Source EUCHNER GmbH + Co. KG)

General hazards during on-site transport



Danger to life!

Do not step under suspended loads.

The tool magazine expansion may only be transported by authorized and qualified persons.

Act responsibly when transporting the system and always consider the consequences. Avoid dangerous and risky actions.

Slopes and gradients (driveways, ramps, etc.) are particularly dangerous. Use extra care if such passageways cannot be avoided.

Ensure secure and proper seating of the load. If necessary, use additional fixtures to ensure that the cargo is not able to slip.

The transport vehicles must be able to produce sufficient traction and braking forces for safe transport.

Dimensions and masses



The dimensions of the tool magazine expansion are indicated on the corresponding installation plan in Chapter 2, "Diagrams and drawings".

Transporting and lifting aids

Only use lifting and transport equipment with sufficient load-bearing capacity and loading platform to lift and transport the tool magazine expansion.

Preparations

This section is addressed to the persons responsible for the installation and their staff.

With the provided information, the installation site and its surroundings can be prepared in a manner that allows for the immediate setup and operation of the tool magazine expansion.



The installation plan for this tool magazine expansion was already submitted for approval shortly after the order was placed. When the tool magazine expansion is delivered, it is located in Chapter 2, "Diagrams and drawings" on the data carrier supplied and the control (installation of **iXpanel** required).

Take the size (dimensions) and masses of each unit into consideration.

Suitable transport and lifting equipment must be available when the tool magazine expansion is delivered.

Prior to delivering the tool magazine expansion, remove any possible obstacles on the transport route from the unloading site to the installation site.

Check the transport route for load-carrying capacity, levelness, damaged pavement, traverse grooves, slopes, gradients, etc.

Is the width and height of entrances and gates sufficient?

If elevators are to be used, do they have sufficient capacities?

Proper planning will pay off!

Suitable transporting and lifting aids

- Crane
- Truck-mounted crane
- Forklift
- Transport or armored rollers
- Hydraulic jacks

Space requirements

The following must be ensured:

- Sufficient free space around the machine and tool magazine expansion.
- Sufficient movement space for the operator.
- Sufficient space for maintenance and repair.
- All doors on the tool magazine expansion must have the capability to be fully opened.
- Space for placing blank and workpiece pallets, workpiece collectors, chip trolleys, tool trolleys, etc.



Use the machine installation plan in Chapter 2 “Diagrams and drawings” to determine the required space.

Floor condition

A special foundation is not necessary. The load-carrying capacity and strength of the footprint must be suitable to support the weight of the tool magazine expansion, taking into consideration structural factors.



There must be **no expansion joints** in the area of the installation surface.



The guidelines and regulations applicable in the country of use must be followed.

Ambient conditions



Safety Instructions and Technical Specifications

The user documentation, in particular, the document **“Safety Instructions and Technical Specifications”** must be observed.



If the actual conditions at the installation site differ from these specifications, be sure to contact INDEX or an INDEX representative.

Power supply

The tool magazine expansion has its own power supply line.

External data transfer



Data cables must not be routed directly next to live cables.

The tool magazine expansion has an Ethernet interface to the machine.
Data is exchanged via the OPC/UA communications standard.

Fluidic system

Pneumatic system

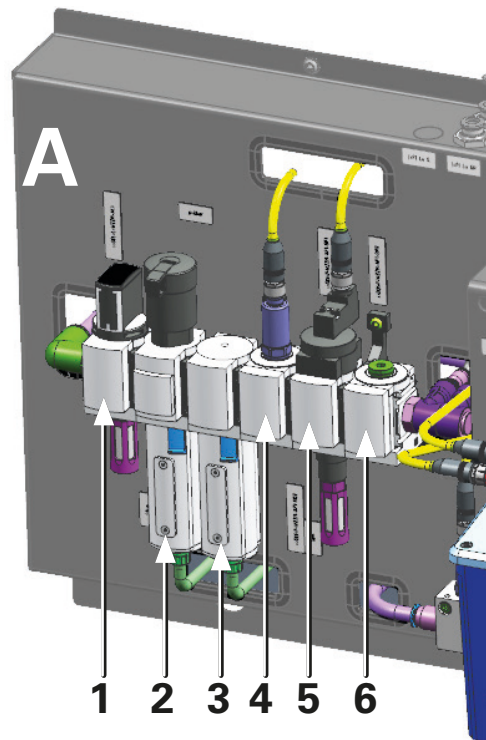


Observe the connection pressure for the tool magazine expansion.
See pneumatic diagram in Chapter 2 "Diagrams and drawings".

The tool magazine expansion has its own pneumatic maintenance unit (**A**).
The maintenance unit is set to a system pressure of 6 bar.
As a result, the supply line must provide more than 6 bar.



The guidelines and regulations applicable in the country of use must be followed.



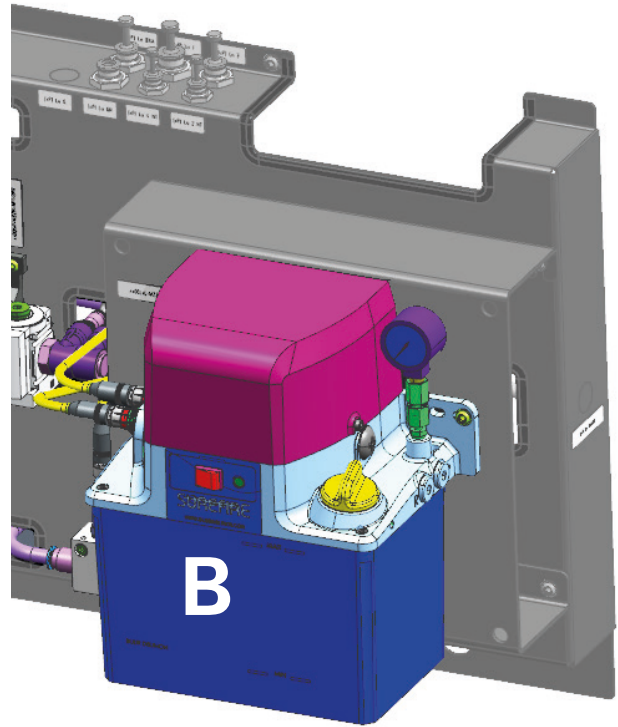
1. Manual switch-on valve with silencer
2. Filter 40 µm
3. Filter 5 µm
4. Branch module with pressure sensor
5. Electric switch-on valve with silencer
6. Branch module

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2 filters (40 µm and 5 µm) are installed in the maintenance unit and must be replaced during service or maintenance. The same applies to the installed silencers. The connection for this unit is prepared on the machine.

Lubrication

The tool magazine expansion has a separate lubrication unit (**B**).
The lubrication pulse is controlled from the machine.

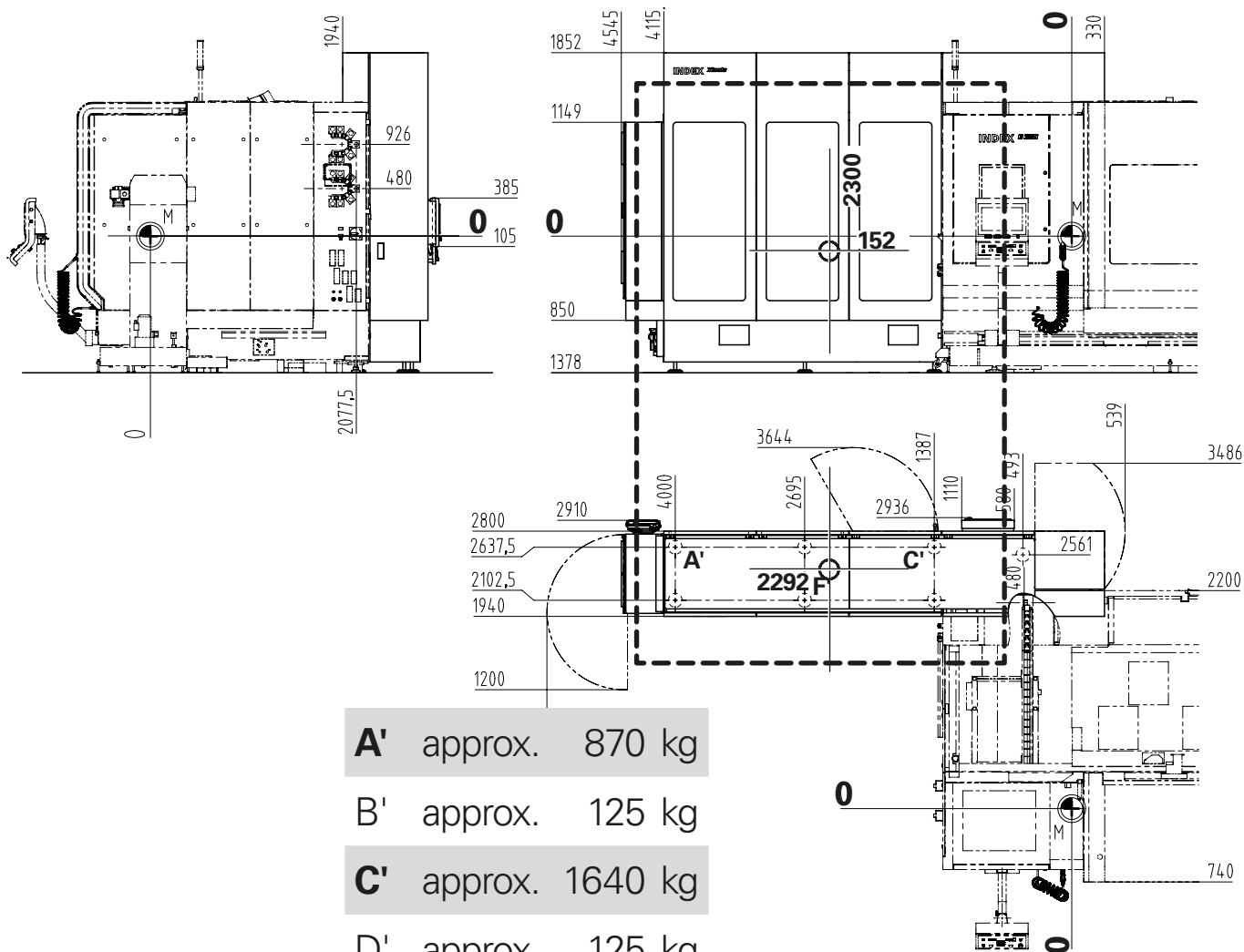


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Transport

Transport plan and center of gravity (without means of transport and tools)

Tool magazine expansion iXtools



- A'** approx. 870 kg
- B'** approx. 125 kg
- C'** approx. 1640 kg
- D'** approx. 125 kg
- E'** approx. 125 kg
- F'** approx. 1670 kg
- G'** approx. 125 kg

X center of gravity
related to axis system and gripper positions

Axis system and gripper positions

X = 0 mm
Z = 1000 mm

Center of gravity

X = 152 mm
Y = 2292 mm
Z = 2300 mm



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Illustration of an tool magazine expansion in standard design. Check the currently valid installation plan!

Transport

Kunde: _____

Projekt.-Nr.: _____ Masch. Nr.: _____

Mass des iXtools

approx. 5000 kg

(incl. slings)



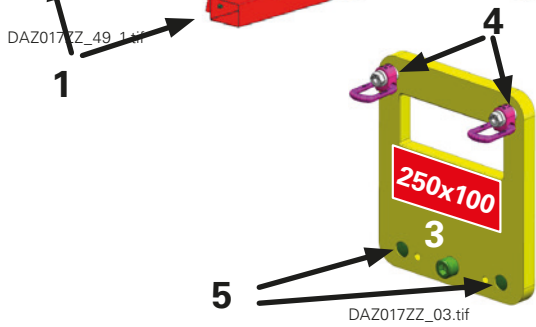
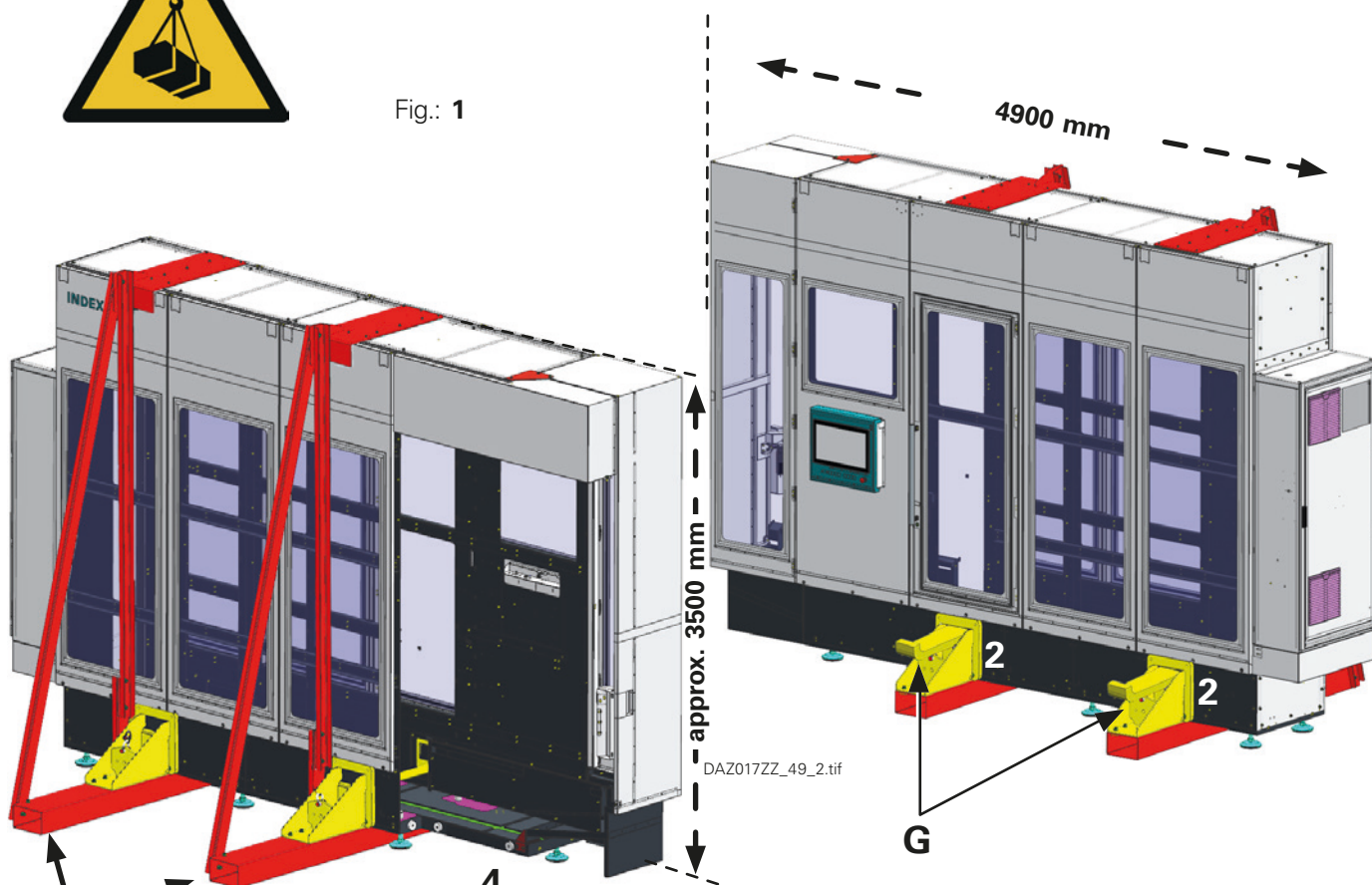
For transport, special slinging devices or transport locks have been attached to the tool magazine expansion **iXtools**. (Fig.: **1**)

- Transport lock (**1**) (device for transport on a truck)
- Transport device (**2**) (brackets for roller transport)

The transport brackets (**2**) also allow transport with a forklift (**G**).
Only move in with the forklift truck from the side labeled (**G**).



Fig.: **1**



	Pos.	pcs.	Name
Devices	1	1	Transport lock 12157502
	2	1	Transport device 12143747
	4		Brackets
	3	4	Stop plates
	4	8	M16 load stand (on brackets)
	5	2(+2)	Locking pin (when using 4 rotary trolleys)
		2+2	M20 load stand (optional on the end faces)
		2	Tubes
		2	Threaded rods

Transport by crane

Preparations for crane transport



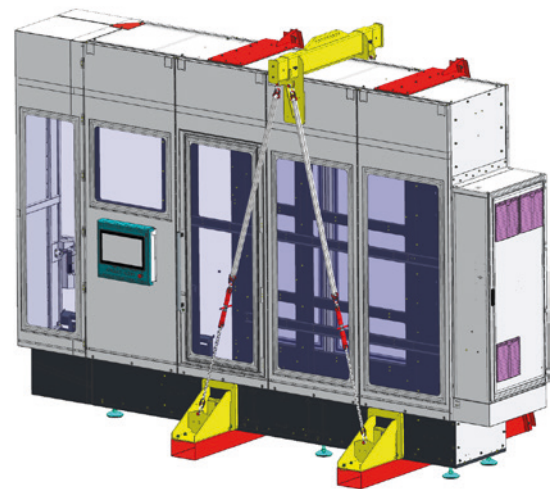
Before lifting the tool magazine expansion, check that the ropes/chains/round slings are correctly seated on the lifting device. The supplied lifting device, including attachment parts, is to be repacked in the appropriate crate after transport and returned to **INDEX**.



The procedure described here for installing the lifting device must be followed without fail.



Fig.: View with fully attached lifting and transport device and transport lock.

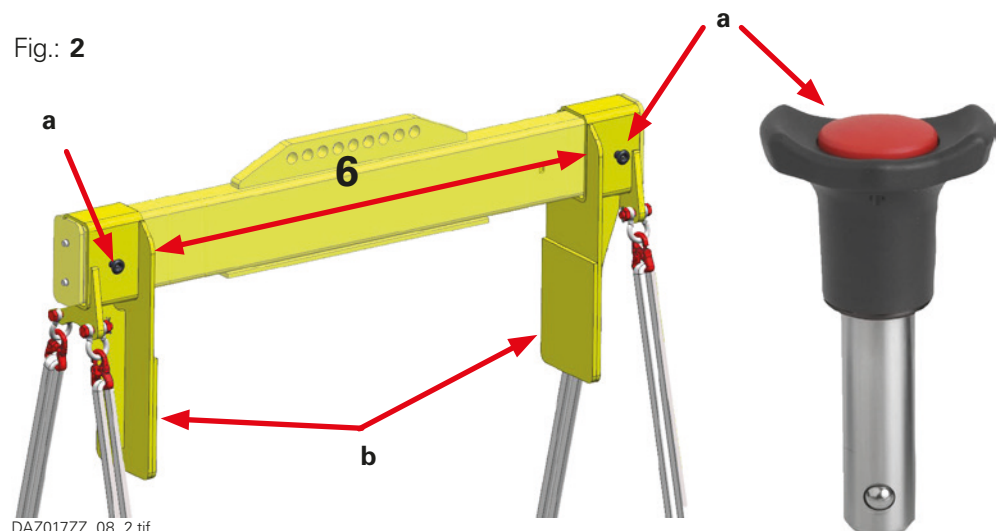


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Hang and prepare the load beam (**6**) on the crane. Pull off the locking pins (**a**) and slide the two stop brackets **b** on the load beam **6** outwards. Then resecure them in the outer position using the locking pins (**a**). (Fig.: **2**)

Pulling the stop brackets (**b**) apart prevents damage to the covers of the tool magazine expansion when positioning above the iXtools.

Fig.: **2**

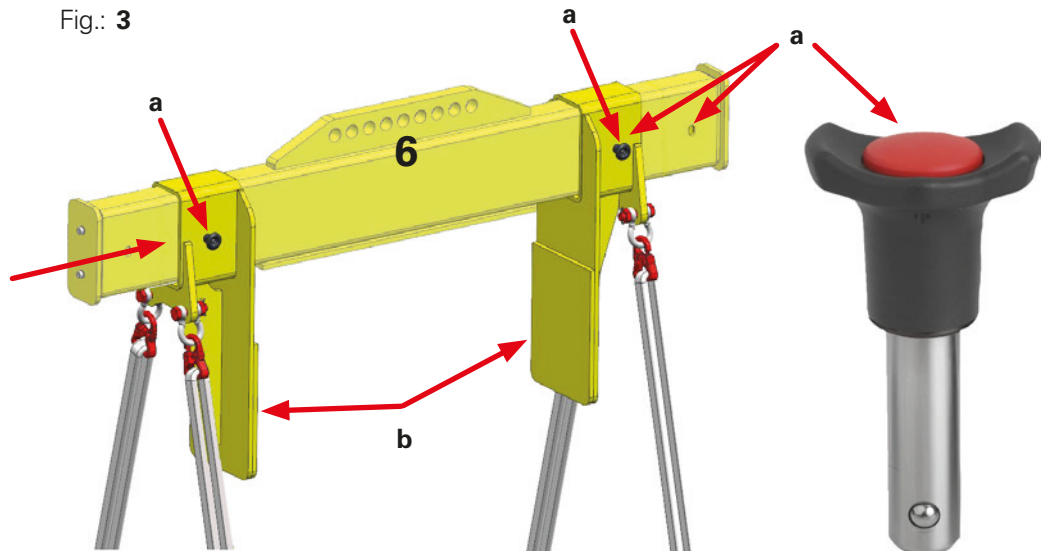


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Position the load beam (6) above the tool magazine expansion.

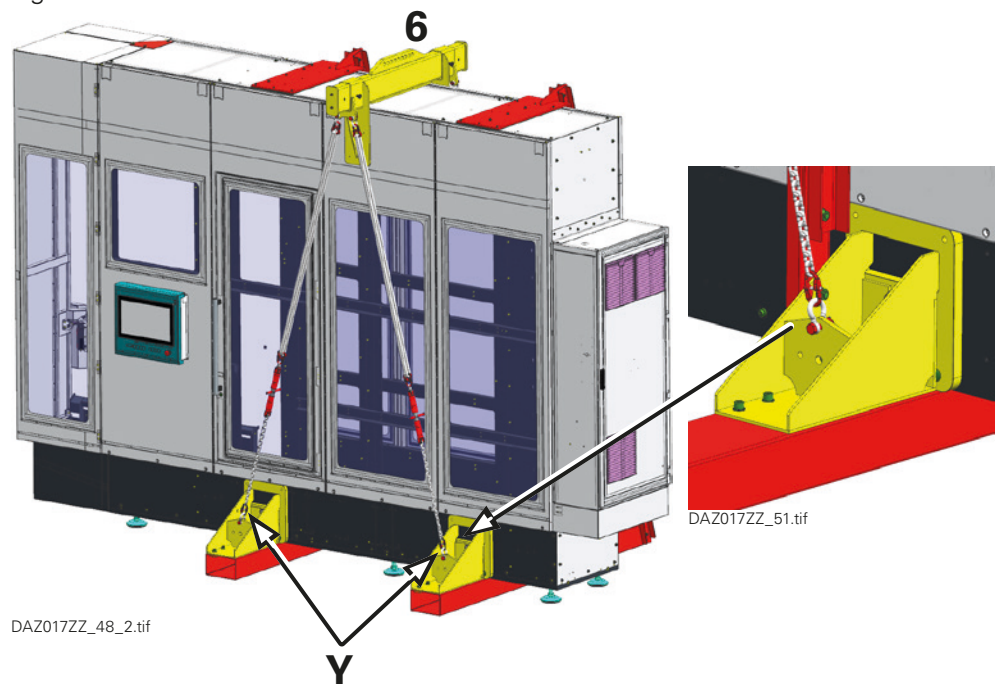
Remove the locking pin (a). Slide the two stop brackets (b) on the load beam (6) inward. Then resecure them in the inner position using the locking pin (a). (Fig.: 3)



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The chains are then hooked onto the respective shackles (Y) on both sides. (Fig.: 4)
Now lift the load beam (6) with the crane until the chains are slightly tensioned.

Fig.: 4



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Removing the transport locks X



When removing the transport locks (X), only remove one side at a time.

Sequence for removing the transport lock (X):

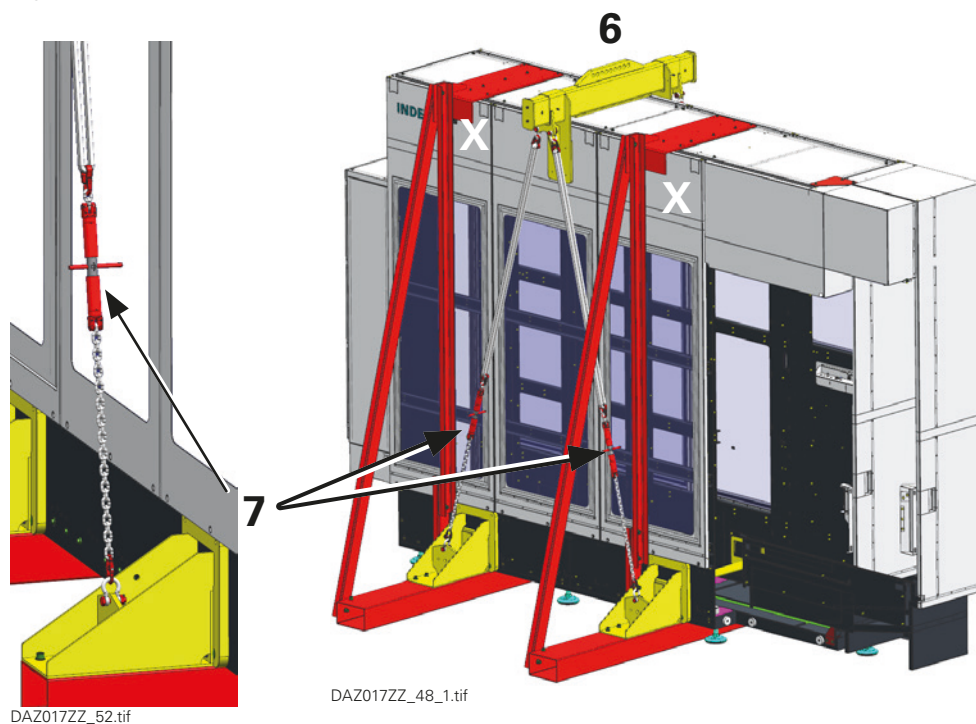
1. Inclined strut
2. Vertical strut
3. Top screw-on plate

Loosen and remove the screws of the individual parts one by one. (Fig.: 5)

Keep the struts, screw-on plate, and screws for subsequent transport.

Reinstall and tighten all screws that have been removed (in particular those of the covers on the top of the iXtools).

Fig.: 5



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	Pos.	pcs.	Name
Devices		1	Lifting device 12133296
	6	1	Lifting device
	7		Turnbuckle

Lift the iXtools only as much as necessary. Ensure that the iXtools is suspended horizontally on the crane. If necessary, correct using the turnbuckles (7).

Now, you can unscrew and remove the rectangular tube of the transport lock under the iXtools. Again, keep the rectangular tube and the screws for subsequent transport.

Transport with forklift truck



Danger to life!
Do not step under suspended loads.

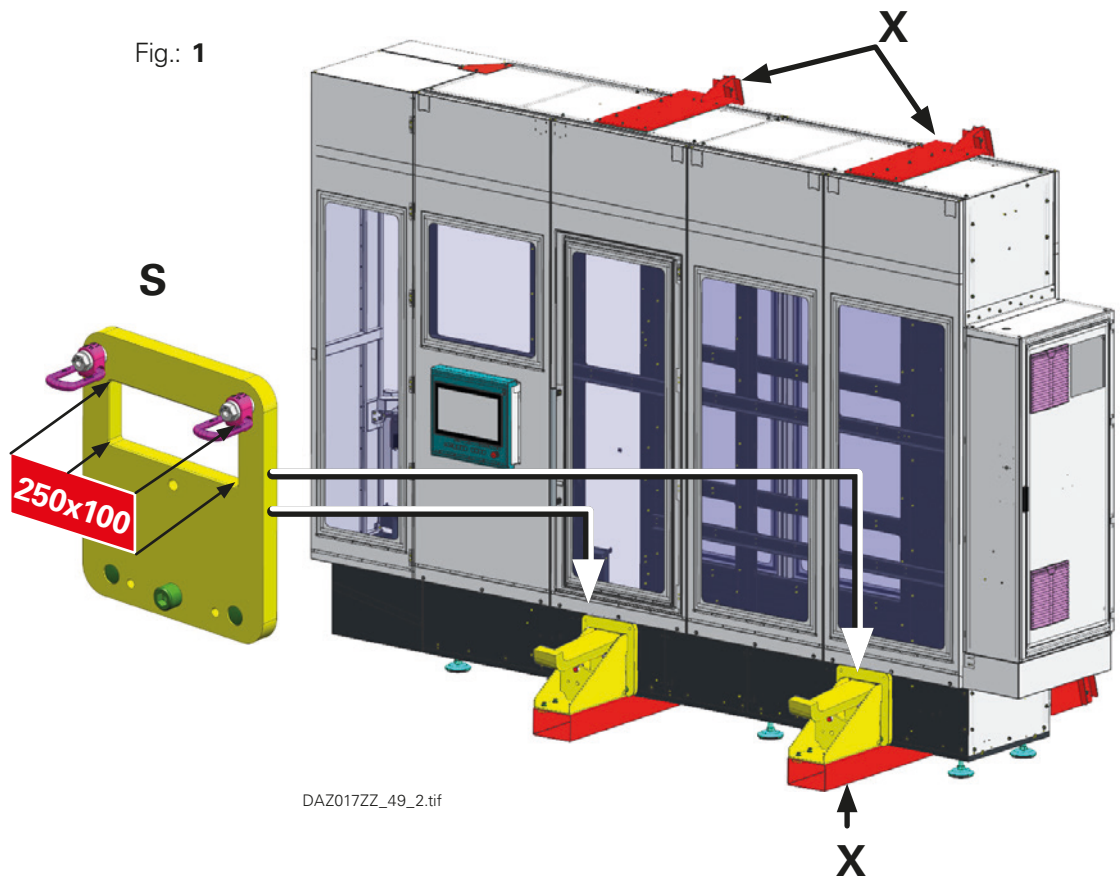


Danger to life!
The forklift must only enter at the designated and described locations. (Fig.: 1)!
Lifting capacity of forklift 8 t
Shaft dimension (S) maximum 250 mm x 100 mm

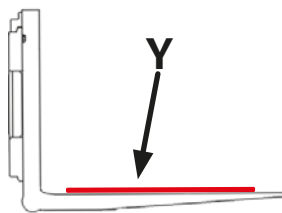


For transport with a forklift, the lifting device for crane transport must be removed. The transport lock (X) can remain mounted.

Fig.: 1



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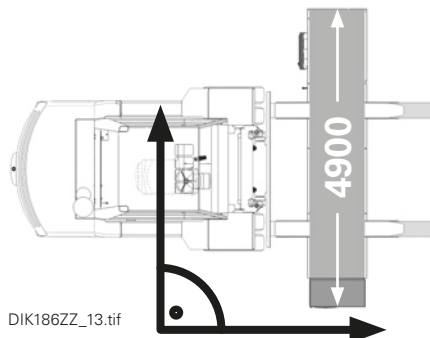


Driving the forklift into the transport shaft (S)

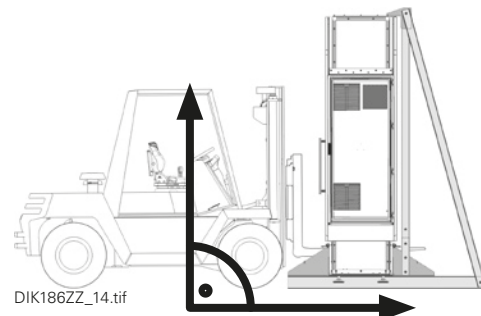
The forklift must be absolutely perpendicular to the transport shaft (S).

Lift mast must **not** be inclined during retraction.

Before lifting, **be sure** to place anti-slip mats (Y) on the forklift tines.



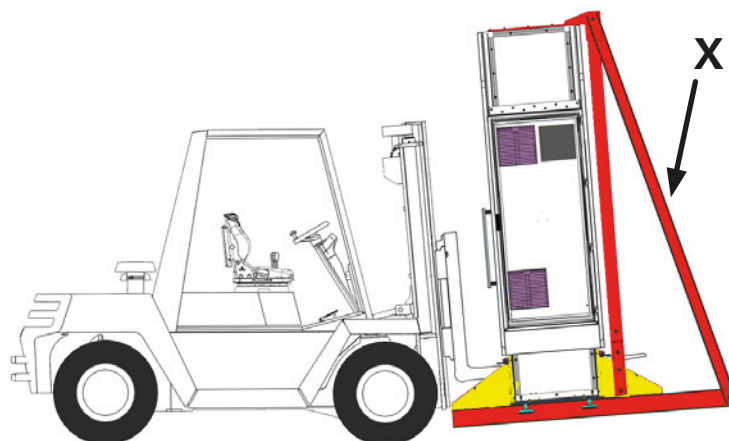
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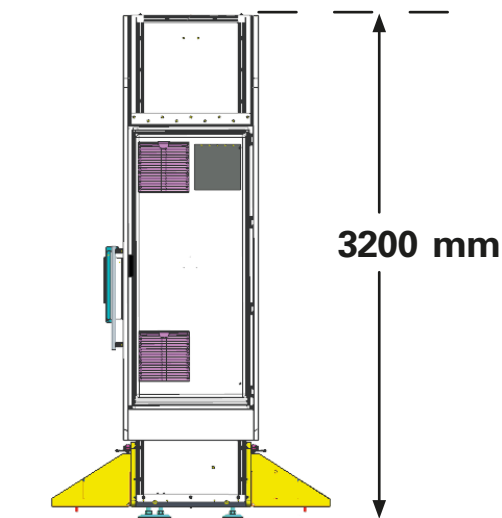
Fig.: Position for the forklift at the tool magazine expansion

After entering and lifting, the mast can be slightly tilted. Now, the transport lock (X) can be removed from both sides.



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Depending on whether the leveling feet are extended or retracted, different clearance heights are achieved.



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Lifting and lowering the tool magazine expansion with hydraulic jacks



Due to the high center of gravity of the tool magazine expansion, transport with transport rollers is only permitted on absolutely level and horizontal ground.



INDEX recommends using plastic plates or Teflon plates to bridge minor irregularities and reduce rolling resistance. This applies, in particular, to transporting on irregular or soft grounds such as industrial parquet floors or rubber or PVC-based floor covers.



Use anti-slip mats between the base plate of the tool magazine expansion and the lifting claw **c** on the hydraulic jack.



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Only use adequately dimensioned hydraulic jacks to lift or set down the tool magazine expansion.

Always place the hydraulic jacks at the designated locations (X and X' see Fig.).

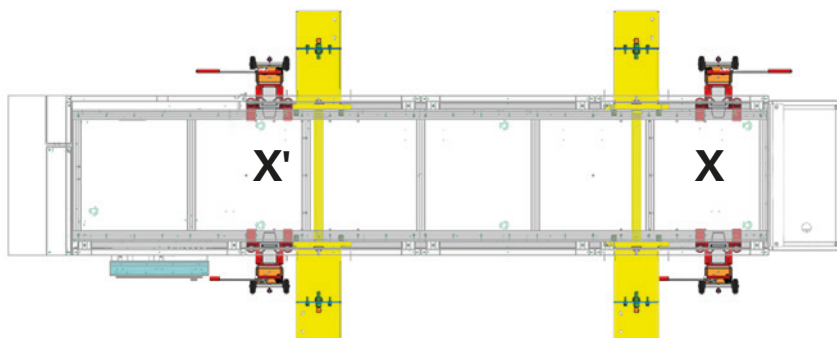
Always use suitable wooden beams to support the brackets from below.

Use the hydraulic jacks to lift only one side of the tool magazine expansion at a time. The other side must be on the transport vehicle, wooden beams, or on the ground.

When using hydraulic jacks to lift or lower the tool magazine expansion, always ensure a three-point support.

Do not lift the tool magazine expansion higher than absolutely necessary.

Fig.:



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Transport with transport rollers

If it is not possible to transport the tool magazine expansion from the truck to the installation site using a crane or forklift due to structural constraints such as clearance dimensions of the hall door or width of access paths, the tool auxiliary magazine must be transported to the installation site using transport rollers.

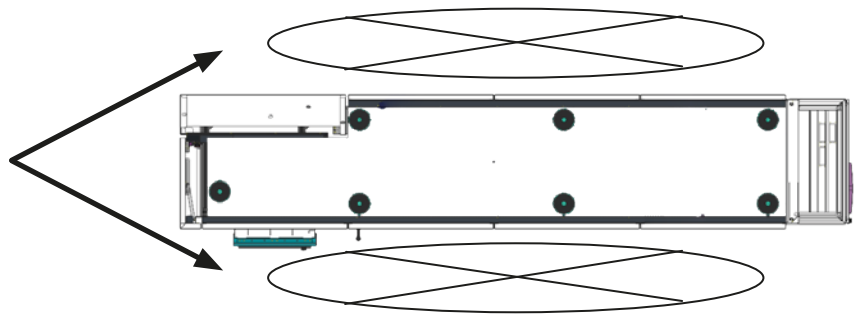


Only transport rollers and hydraulic jacks with sufficient load-bearing capacity must be used.



During work with hydraulic jacks, stay within the marked areas (Fig.: X) is permitted only to the transport personnel. Secure area if necessary.

Fig.: X



Information on roller transport

The sequence of steps to be performed must be taken into account.

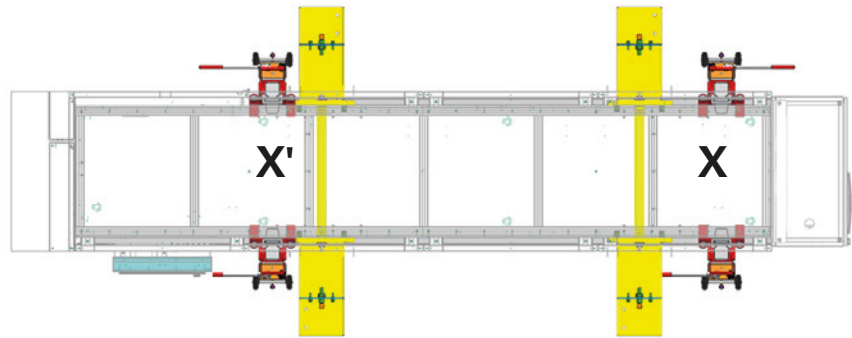
This procedure generally applies to lowering the tool magazine expansion after the roller transport, but in reverse order.

Only attach the hydraulic jack to the base plate (see Fig.).

Before positioning the hydraulic jacks, it may be necessary to remove plates or covers. Use two hydraulic jacks at each of the positions (**X'**) or (**X**) – never lift at both positions (**X'/X**) at the same time. (Fig.:)

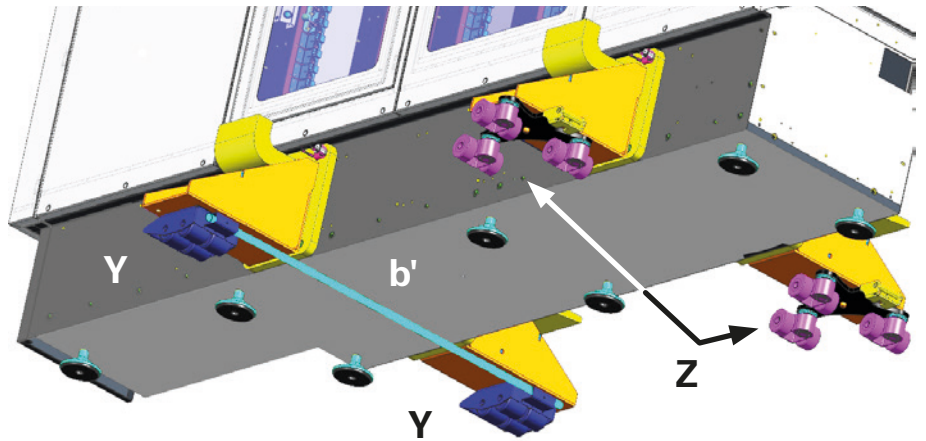
Always support or secure the transport rollers with suitable timbers or beams **under the brackets** during the assembly process.

Fig.:

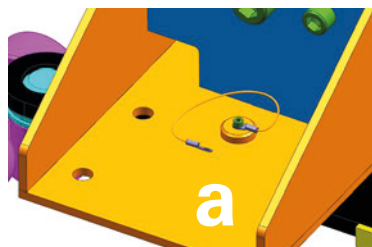


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i Instead of 2 fixed casters and 2 rotary trolleys, 4 rotary trolleys can also be used.



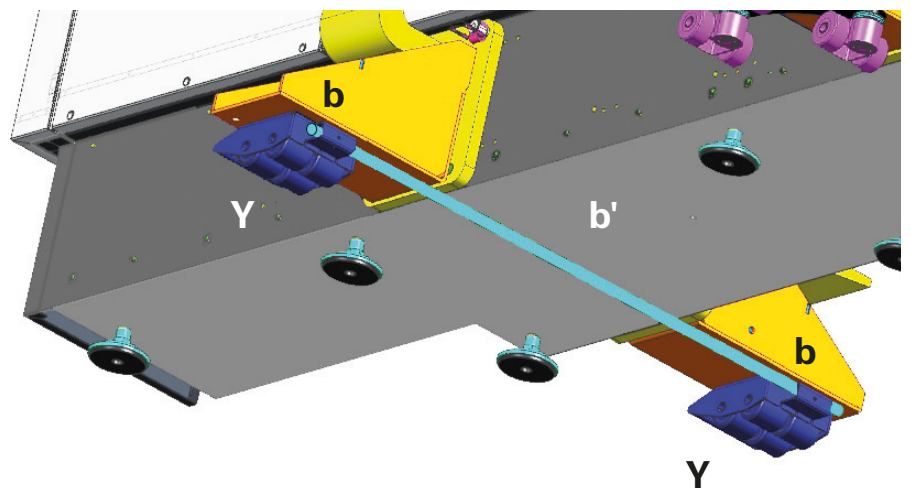
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- a** Pin for securing rotary trolley
- b** Clamp
- b'** Rod
- X'/X** Hydraulic jack locations
- Y** Fixed casters
- Z** Rotary trolley

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Fig.: Positions for fixed casters and rotary trolley



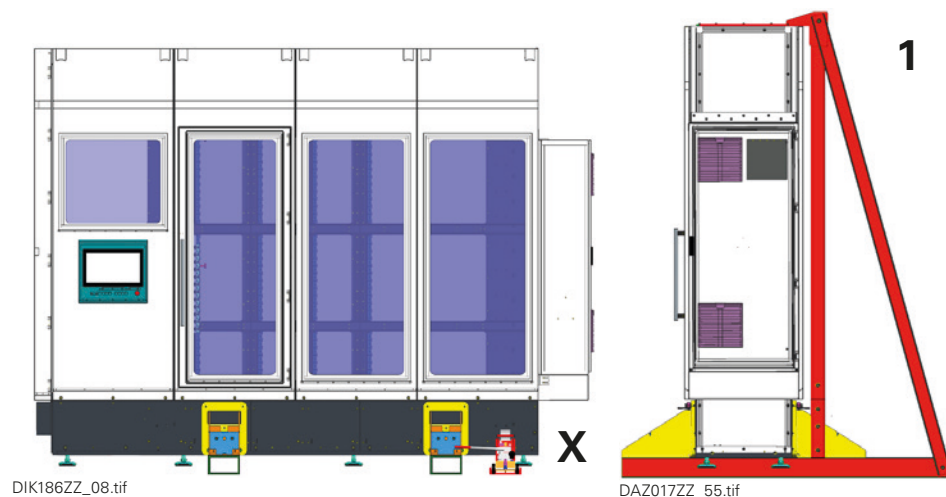
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Before setting down on the fixed casters, be sure to connect and secure both fixed casters with a bar (**b'**).

Roller transport

Before transporting with transport rollers, the transport lock(1) must be removed. Be sure to follow the sequence described here.

1. Position the hydraulic jack at location (X) and lift the tool magazine expansion.

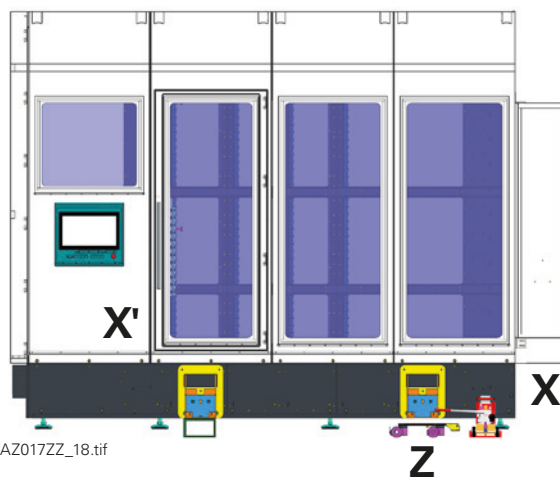


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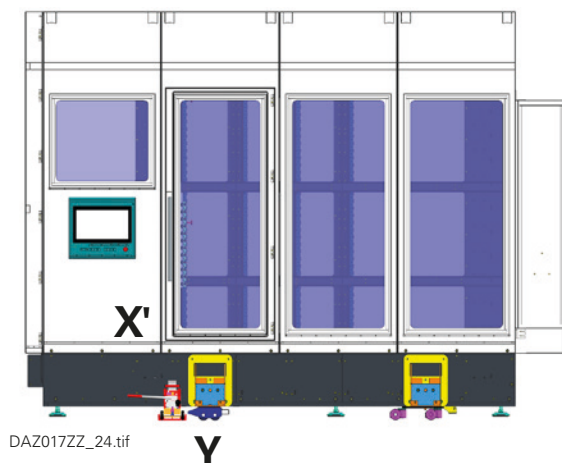
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2. Remove the right side of the transport lock (1) and move the rotary trolley to location (Z) under the bracket. Lower the tool magazine expansion onto the rotary trolley. Pin or secure to the brackets using the pins (a) supplied.

3. Remove the hydraulic jack at location (X) and position it on the opposite side (X') as described, and lift the tool magazine expansion. Remove the left side of the transport lock (1).
4. Move the fixed casters at location (Y) under the bracket.
5. To secure the spacer rod (b'), retighten the clamp (b). See Information on roller transport.



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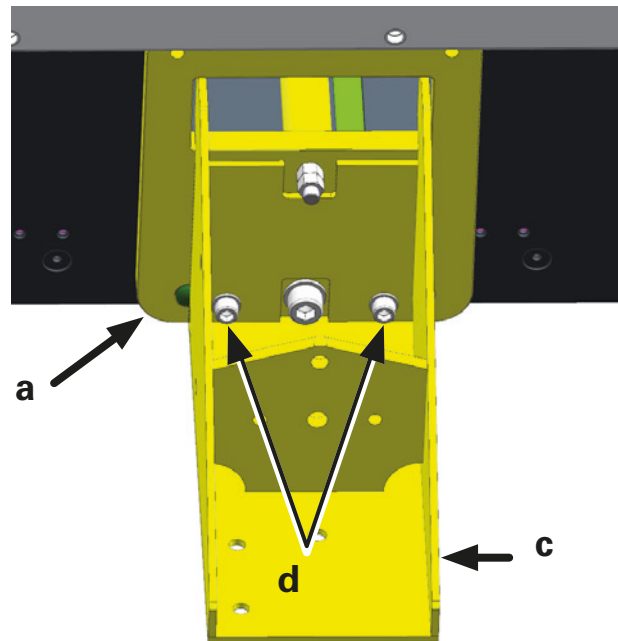
6. Lower the tool magazine expansion onto the fixed casters and remove the hydraulic jack from location (X').

Now, the tool magazine expansion is prepared for further transport.

At the installation site, lower in reverse order.

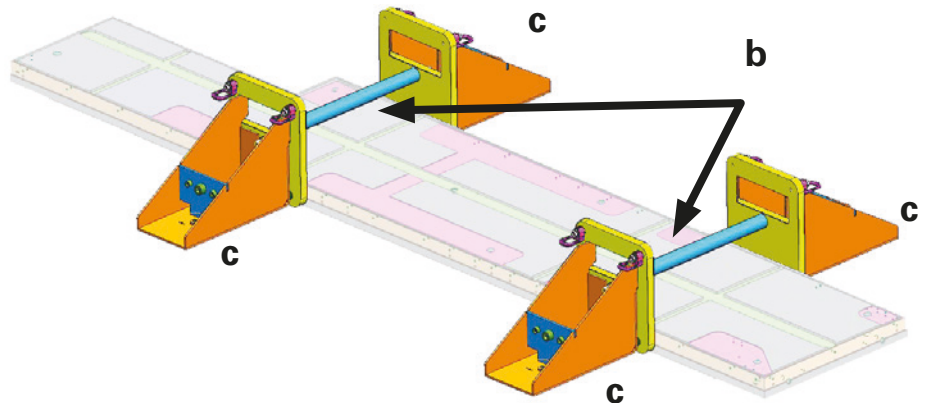
Before installation and commissioning, please note

Before aligning and commissioning the iXtools, all transport locks and transport devices must be removed.

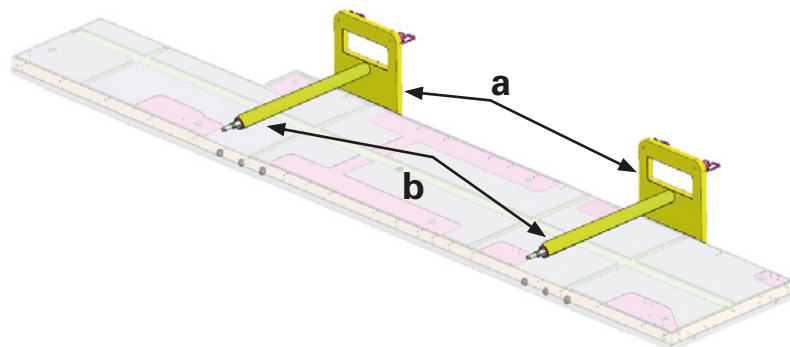


- Unscrew all 4 brackets (c) from the base plates (a). (d per 2x M16)
- Then unscrew all base plates (a).
- Remove threaded rods and tubes (b).
- Enclose all fixture parts (YELLOW) and screws in the transport box provided and return to **INDEX**.

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DAZ017ZZ_01.tif

Locations of the transport locks at the tool magazine expansion



Follow the information on the location of the transport locks when transporting the machine again.

Remove the **X** axis and **Z** axis transport locks before commissioning.

Keep all transport locks (RED) and the corresponding fasteners for subsequent transport.

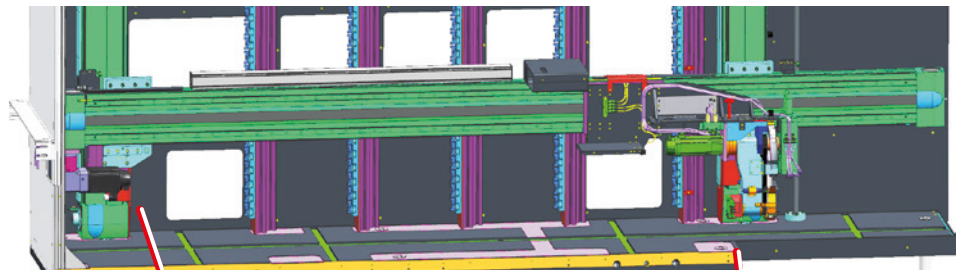
For transport, the X and Z axes were each moved to defined positions, and the swivel arm was positioned centrally.

X direction: -1115 mm

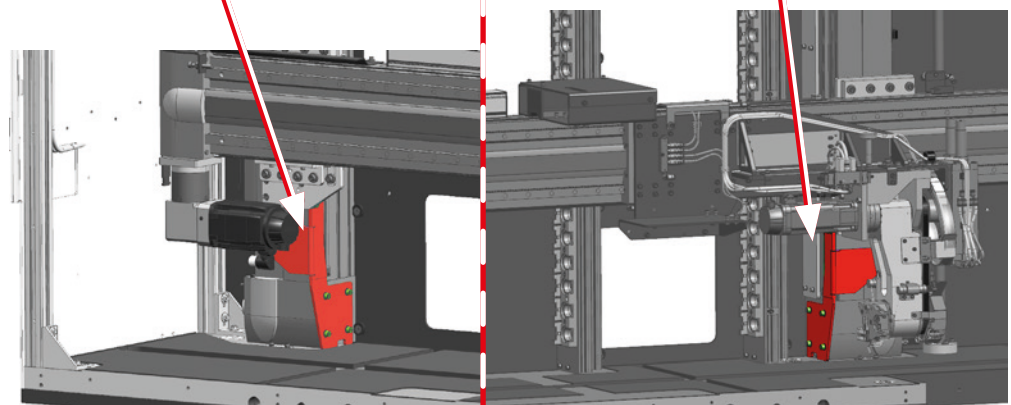
Z direction: 190 mm

Swivel angle: 0° (center)

X axis transport lock



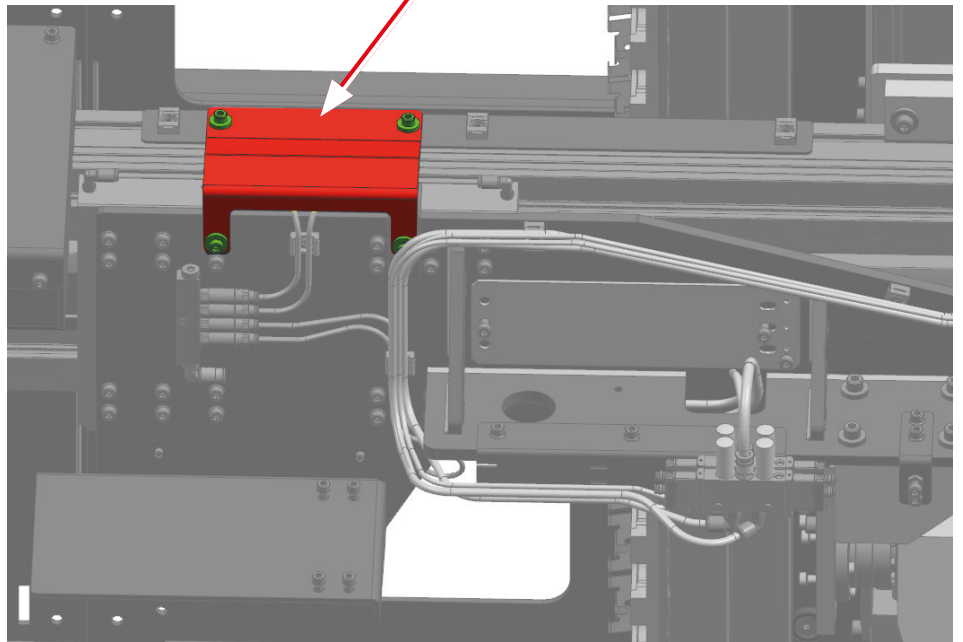
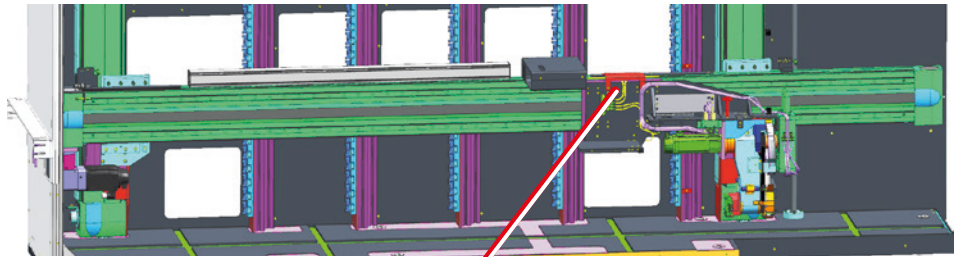
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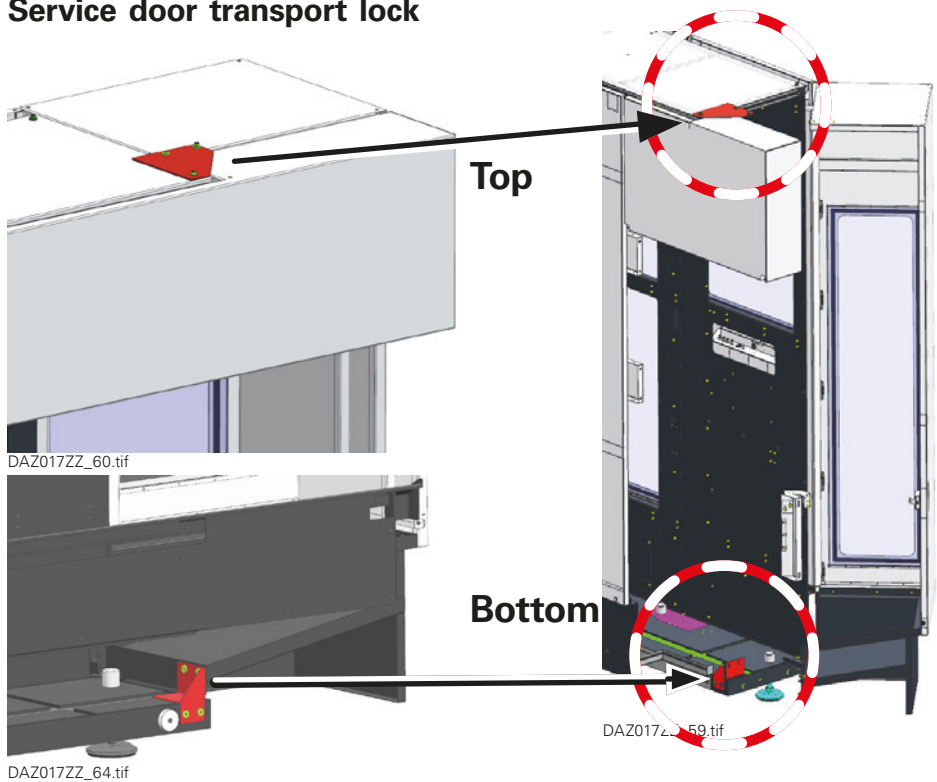
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Z axis transport lock



Service door transport lock



Installation

Electrical connection

Important notes



Caution! Danger to Life!

All work on the electrical equipment must be carried out exclusively by properly trained qualified personnel.



The control voltages are connected on one side with PE according to EN 60204-1. See the information on the wiring diagram.

The control cabinet may only be opened when the main switch is switched off. While the main switch is switched on, the control cabinet must be secured according to valid safety standards.



See the order confirmation for the precise electrical requirements. The electrical documentation supplied is definitive and binding. They must be available to **INDEX**'s customer service at any time.

The machine must be connected to the electrical supply network via the main switch (multi-wire cable). The connection must be made with a clockwise rotating field.

The electrical connection is indicated in the wiring diagrams.

The machine is prepared for connection to three-phase power lines (TN-S network).

Before connecting the machine, check that the existing power settings and network form of the respective power supply company match the ratings defined for the machine.

If this is not the case, an upstream transformer is required.

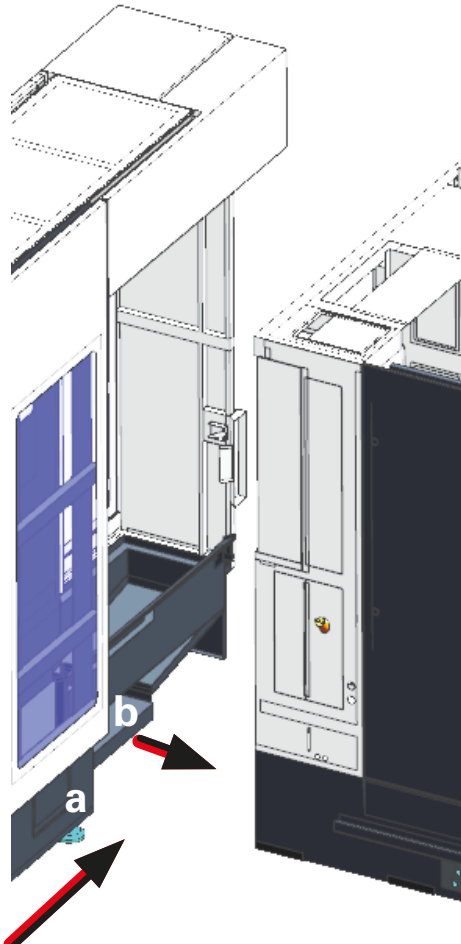


The guidelines and regulations applicable in the country of use must be followed.

Installing and moving the tool magazine expansion

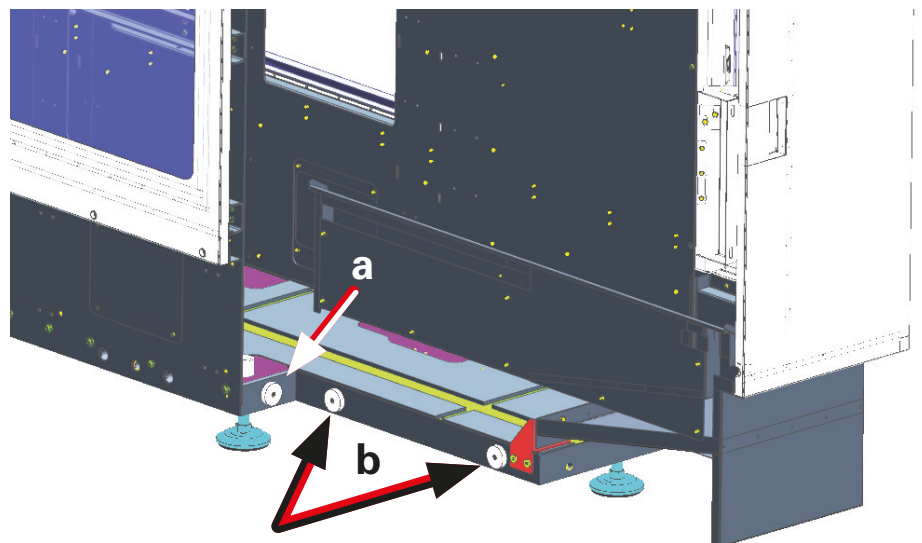


Install the tool magazine expansion iXtools according to the information in the installation plan.
 Note the height of the spindle.
 Depending on the machine type, the area in which the iXtools is attached to the machine can be designed differently.



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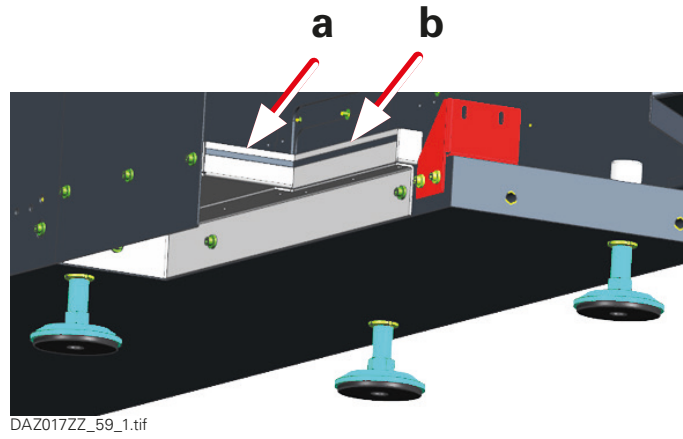
During installation, attach the tool magazine expansion iXtools to the slinging points **(b)** in the Y direction and to the slinging point **(a)** in the Z-direction.



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Attachment to a G220.3

On a G220.3, the tool magazine expansion iXtools is attached to the stop bar **(b)** in the Y direction and placed against the stop bar **(a)** in the Z direction.



Moving the tool magazine expansion to the transfer position

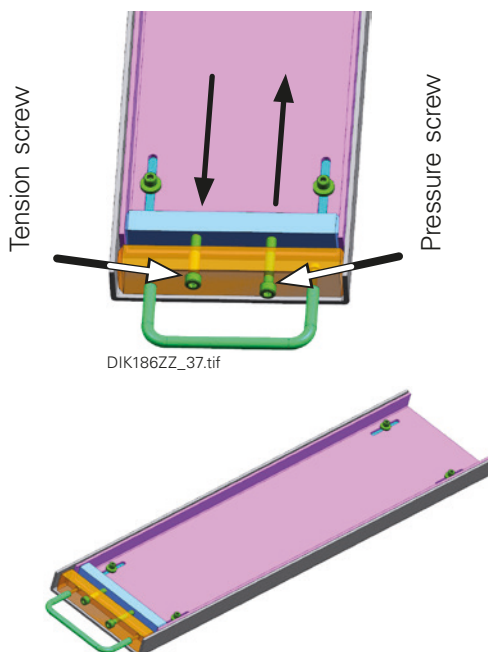
Roughly align the tool magazine expansion before moving it to the final position.

Start by inserting the two shifting devices (Fig.: 1) successively at locations **C'**, **E'**, and **G'**; **A'**, as shown in Fig.: 2. Ensure that the installation is at right angles.



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Fig.: 1 Shifting device



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DIK186ZZ_36.tif

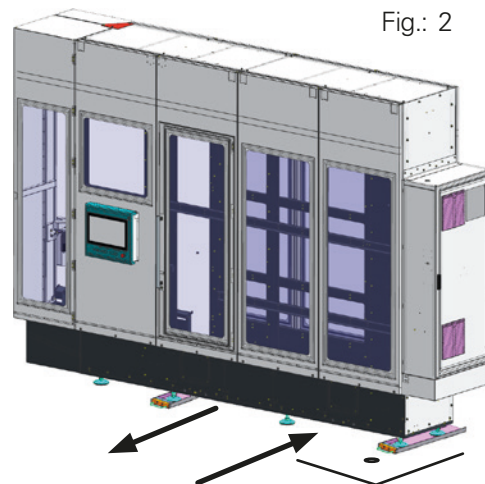


Fig.: 2

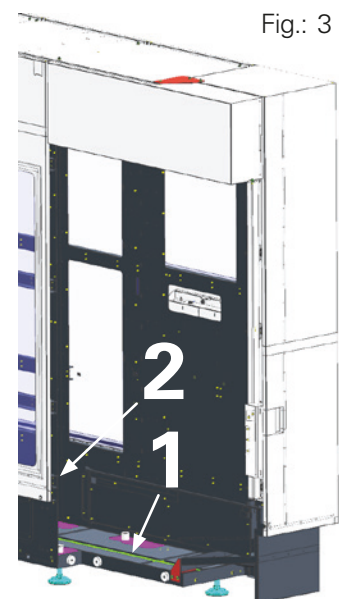


Fig.: 3

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Next, relieve the machine leveling feet **D'**, **F'**, **B'**.

For rough alignment before moving to the final position, a standard construction spirit level is sufficient.

There is ideal access for placing the spirit levels on the side of the iXtools. Open service door. (Fig.: 3)

The spirit level can be placed on the base plate (1) or on the vertical tool strips (2) of the iXtools.

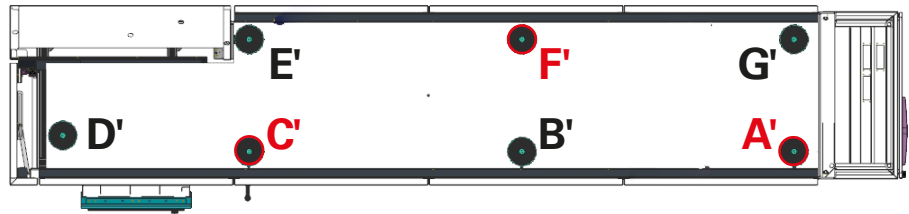
After roughly aligning, shift the iXtools to its final position using the shifting device.

Then, re-tighten the leveling feet **D'**, **F'**, **B'**, and remove both shifting devices one after the other.

To align the tool magazine expansion, use only the machine feet **A'**, **C'**, **F'**.



Before aligning the tool magazine expansion, turn back the tool magazine expansion **B'**, **D'**, **E'**, **G'** to a position where they do not affect the alignment of the tool magazine expansion.



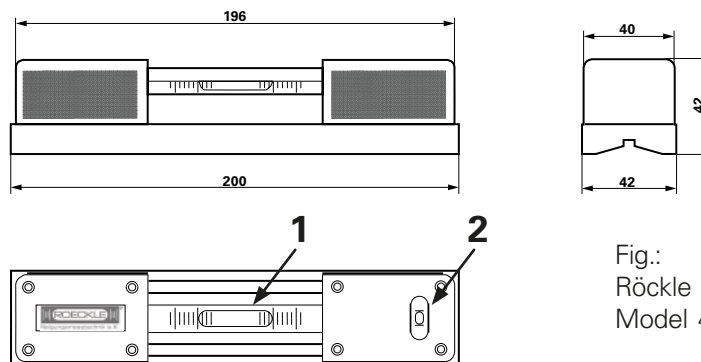
DIK186ZZ_12.tif

Aligning the tool magazine expansion

(Accuracy 0.1 mm/m – also check by inverting the level)

After installing the tool magazine expansion according to the instructions in the installation plan, it needs to be aligned.

INDEX recommends a spirit level from Röckle (model 4021/200) for this purpose. If using a spirit level from a different manufacturer, attention must be paid to the manufacturing dimensions of the respective spirit level. The width must not exceed 60 mm.



Röckle Wasserwaage 4021_200.eps

Fig.:
Röckle dimension sheet
Model 4021/200



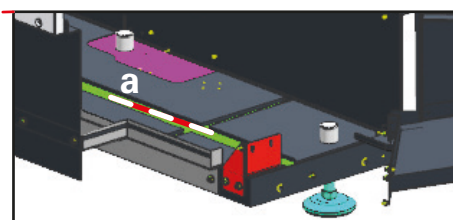
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Leveling in the Z and Y directions

To align the tool magazine expansion, place the spirit level in the groove **a** on the base plate. Turn the leveling feet **B', D', E', G'** back so far that they do not affect the alignment.

Z direction

- Use the leveling feet **A', C', F'** to align the tool magazine expansion. Check using the bubble (1).



Y direction

- Simultaneously, align the Y direction using the small bubble (2).
- The tool magazine expansion must be perfectly level after this.
- Then adjust all the leveling feet in such a way that the position of both bubbles of the spirit level remains unchanged.
- Remove the spirit level!

Commissioning

This section lists all the tasks that need to be carried out in the specified order before the tool magazine expansion is fully operational.

The tool magazine expansion is then ready for operation.



Before commissioning the tool magazine expansion, it is essential to remove all transport safeguards (**identified by their red color**) by unscrewing them and keep them stored for possible future transportation.

Refer to Section "Location of transport locks".

Cleaning the tool magazine expansion

All bare parts of the tool magazine expansion were treated by spray-covering with an anti-rust agent.



Solvent may splash into eyes during cleaning. Be sure to wear suitable safety goggles.

Protect hands and arms during cleaning operations by wearing long-sleeved clothing and suitable gloves.

Risk of injury by sharp machine parts and cutting edges!

The anti-rust agent must be washed off if the tool magazine expansion is put into operation after a long time and the protective layer has become very tough.

The clamping surfaces of the tool holder holders must always be cleaned.

For this purpose, only solvents may be used that do not affect the paints and varnishes. Suitable solutions are turpentine, petroleum, or benzene.

Relocation

Information on transporting the tool magazine expansion again



Before transporting the machine again, be sure to read Chapter "Transporting" and Section "Location of the transport locks ...".

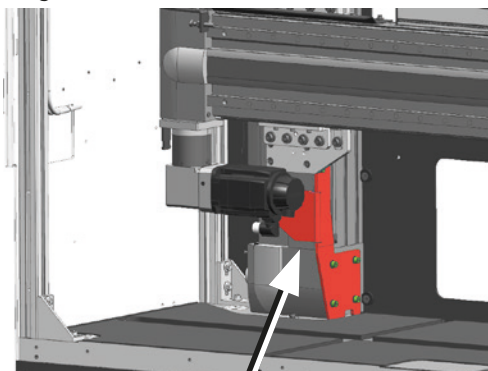
All transport locks and transport devices must be mounted. The assemblies may have to be moved to a defined position in order to be able to mount the transport locks.



The following transport locks must be reattached before any further transport.

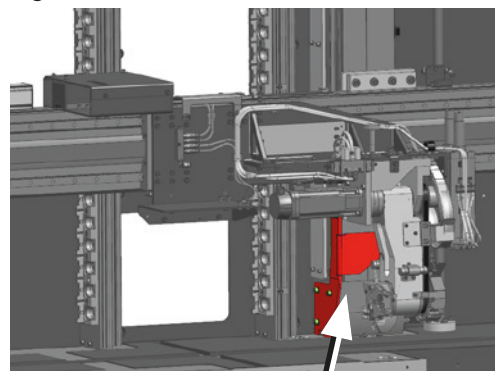
1. Lower the Z axis unit and secure it. (Fig.: **1/2**)
2. Position the gripper unit in the middle of the Z axis and pivot the swivel arm downward.
There must be no tools in the fork of the gripper.
3. Secure the gripper unit on the Z axis unit. (Fig.: **3/4**)
4. Fit the service door transport locks. (Fig.: **5**)

Fig.: 1



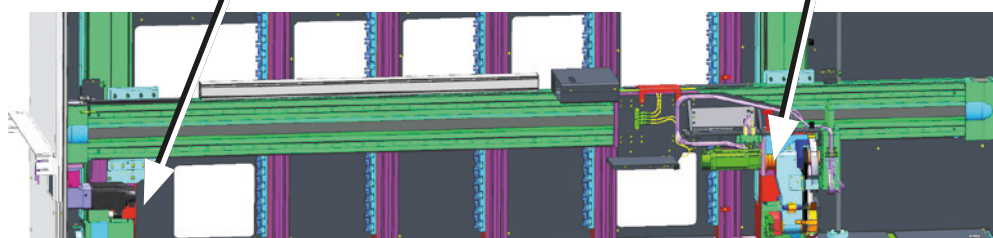
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Fig.: 2



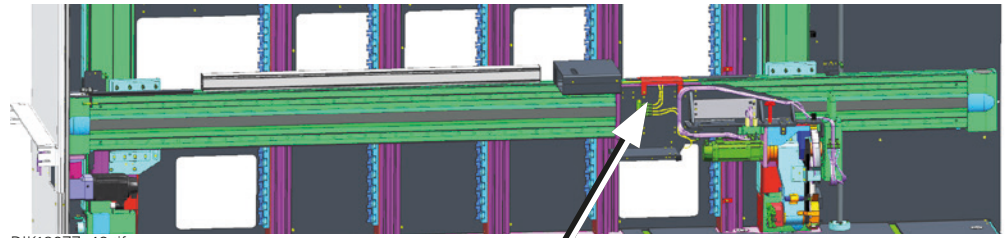
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Fig.: 3



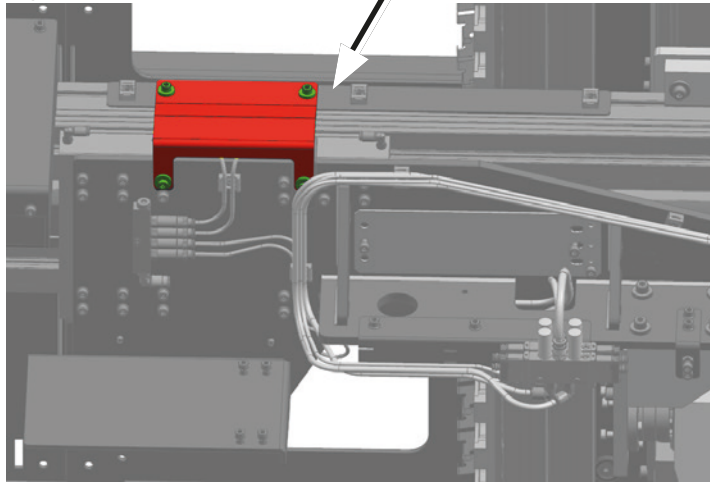
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Fig.: 3



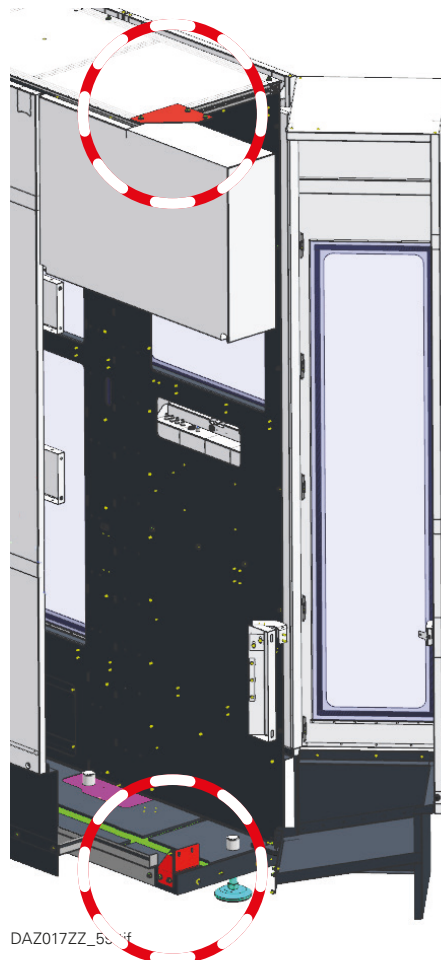
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Fig.: 4



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Fig.: 5



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Always work carefully when fitting the slings.

Checking the lifting device



Before re-use, be sure to check and evaluate the entire transport gear (visual inspection).

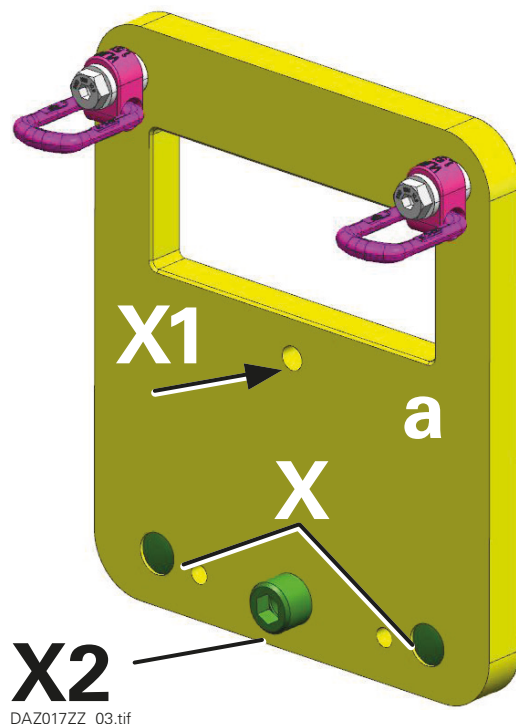
In the event of obvious damage, such as deformation or cracks, it must no longer be used.



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Fig.:
Complete lifting device equipment – with turnbuckle

Fitting the transport device



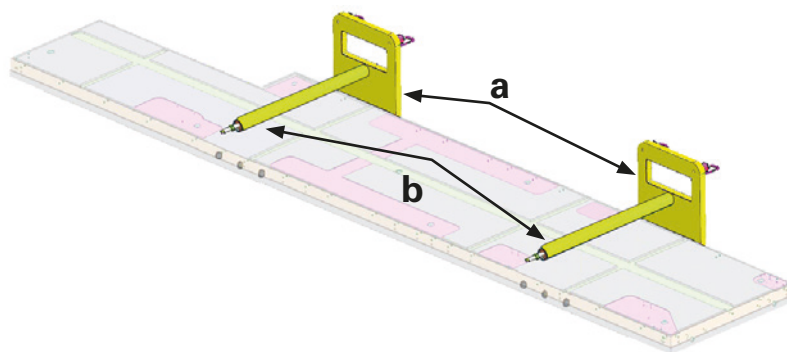
The four stop plates must be fitted in advance for all types of transportation, whether by crane, roller, or forklift.

- Insert two of the stop plates (**a**) starting on one side (connect with dowel pins **X**) and screw on with the socket head cap screws (**X2**). Then screw two threaded rods (**b**) into the mounting hole (**X1**) in these fitted stop plates and fasten them with nuts and washers.

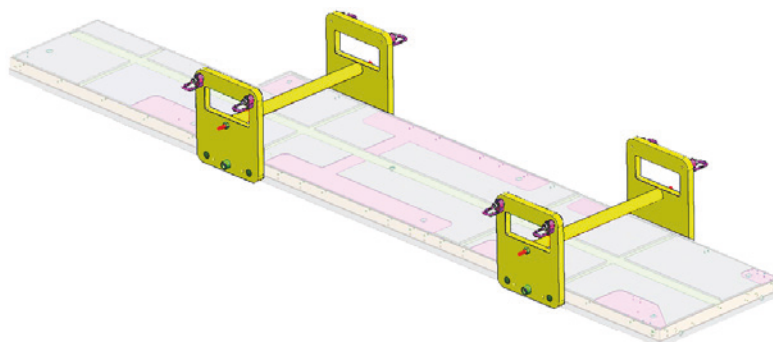
X1 Hole for threaded rod
X Parallel pins
X2 Cylinder head screw

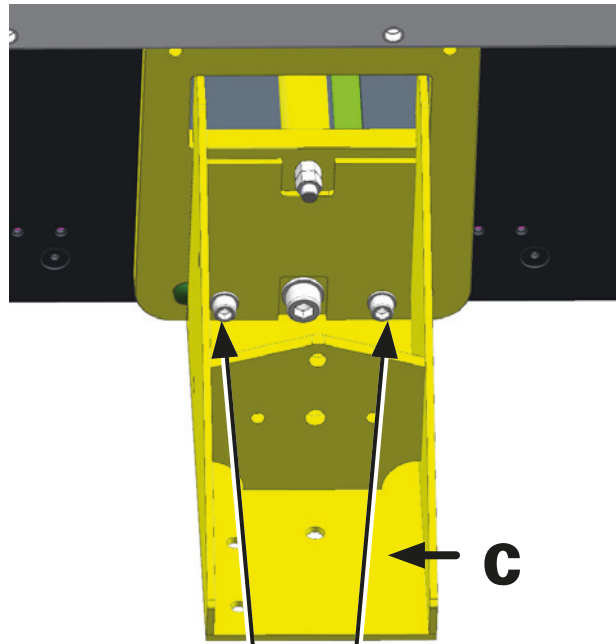
Fig.: Stop plate

- Now slide two pipes over these threaded rods.



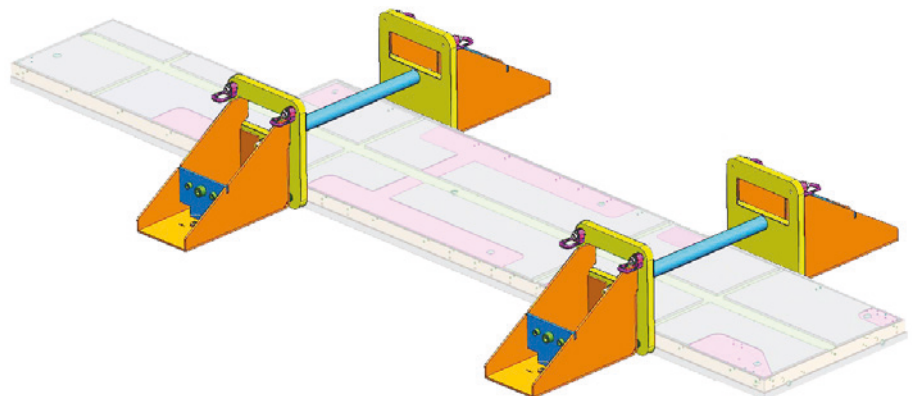
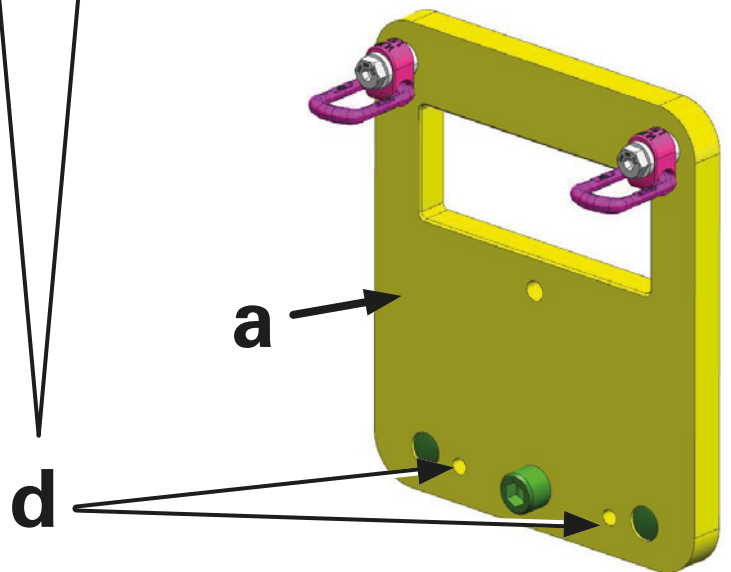
- Next, place the two opposing stop plates, insert the threaded rod (**b**) into the hole (**X1**), and connect with the nut and washer. Finally, fasten the stop plates with the cylinder head screws (**X2**).





- Then, screw all 4 brackets (c) to the stop plates (a) using 2x M16 screws (d) each. Tighten the screws to the required torque.

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Fitting the transport device

... for crane transport



Be sure to follow the procedure described here when attaching the transport device.

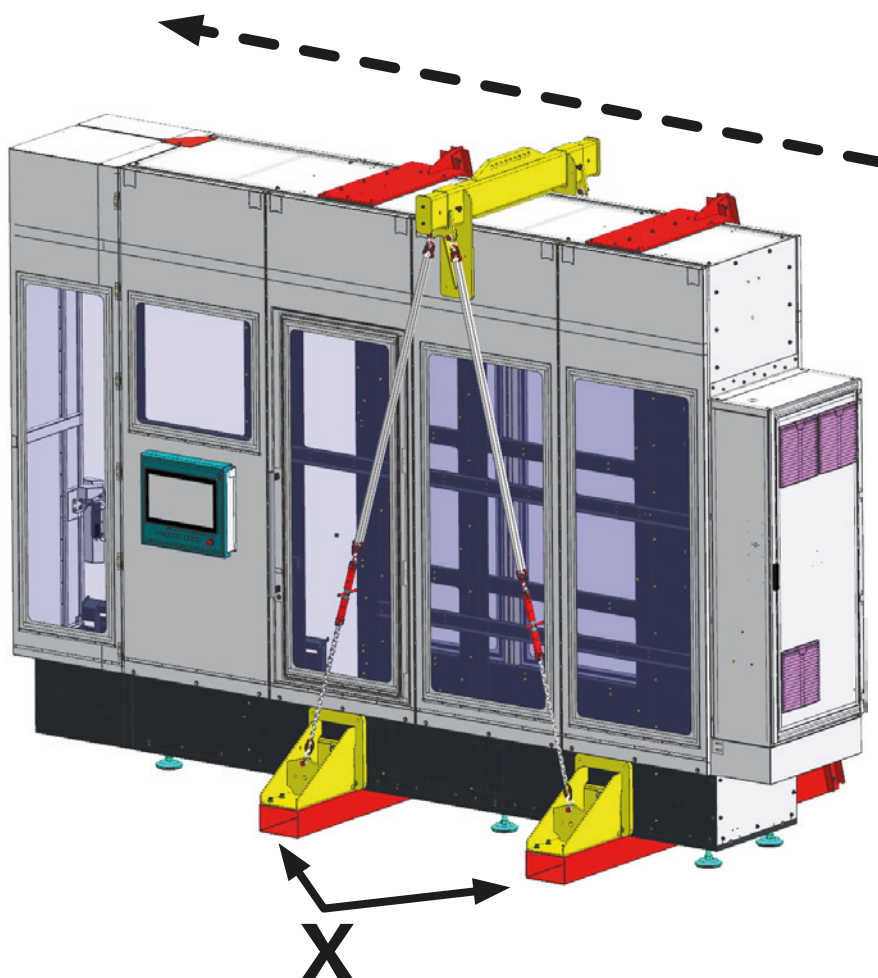
The transport device of the tool magazine expansion must be prepared before a further transport with a crane.
Here too, the stop plates and brackets of the transport device must be fitted first. Follow the entire section "Transportation".

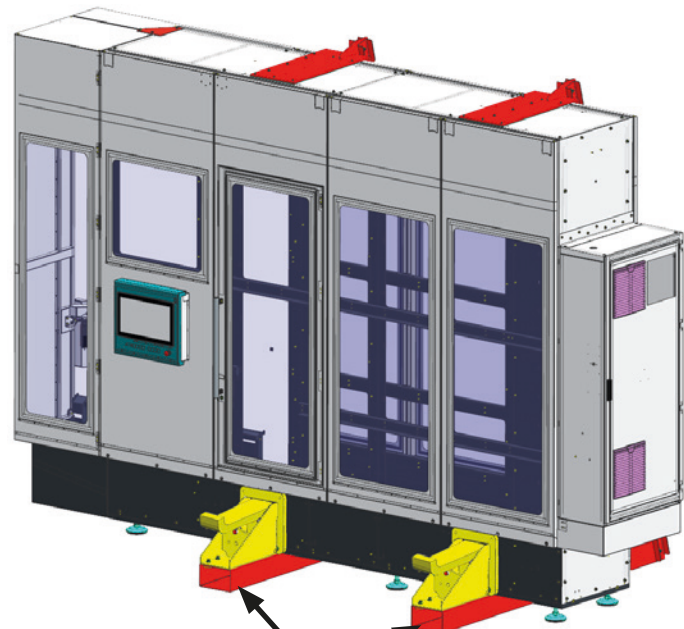


Transportation without the transport lock (X) is prohibited for road or sea transport.

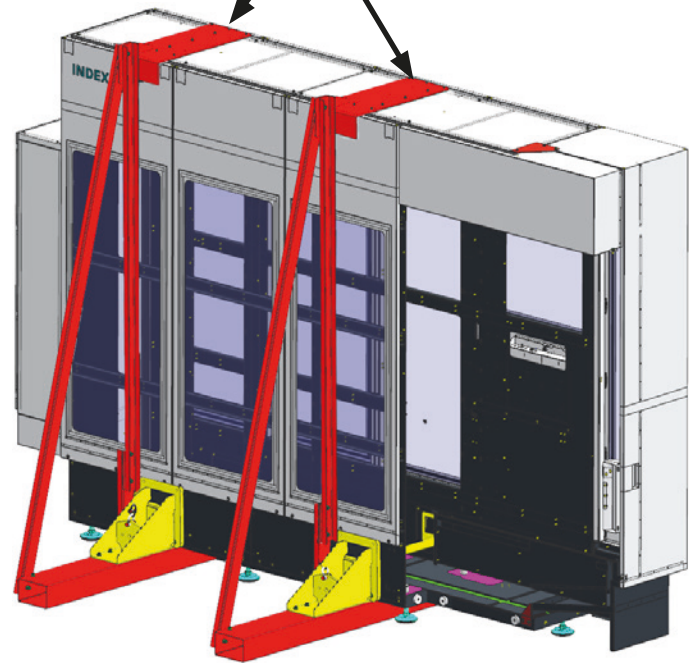
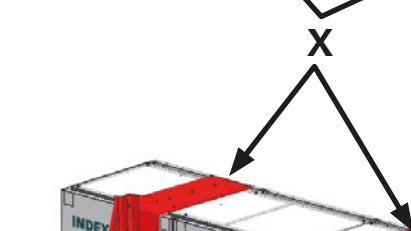
Pay attention to the direction of transport or travel.
Only load **iXtools** onto the truck in the specified direction.

Direction of travel





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Fitting the transport device

... for rotary trolley with fixed casters



Be sure to follow the sections "Transport with transport rollers" and "Fitting the transport device". Attach the transport brackets of the transport device to the stop plates.

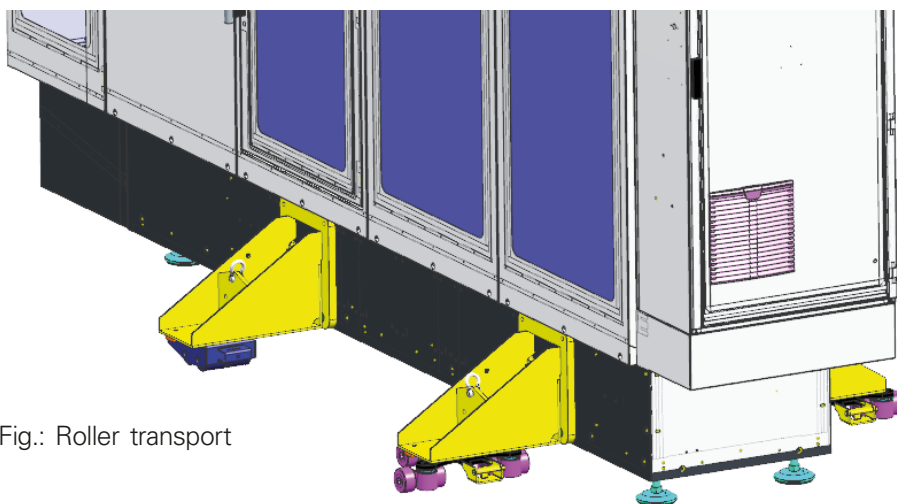


Fig.: Roller transport

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Procedure:

1. Support the brackets on the **X** side with appropriate timbers/beams (1).
2. Lift the **X'** side in parallel.
3. Position the fixed casters under the brackets and secure with a bar. If necessary, lift the tool magazine expansion slightly with the hydraulic jacks. Push in the fixed casters and then lower the **X'** side.
4. Lift the **X** side slightly with the hydraulic jacks, remove the timbers and slide in the rotary trolleys. Lower the **X** side.
5. Secure the rotary trolleys with the locking pins.



Instead of 2 fixed casters and 2 rotary trolleys, 4 rotary trolleys can also be used.

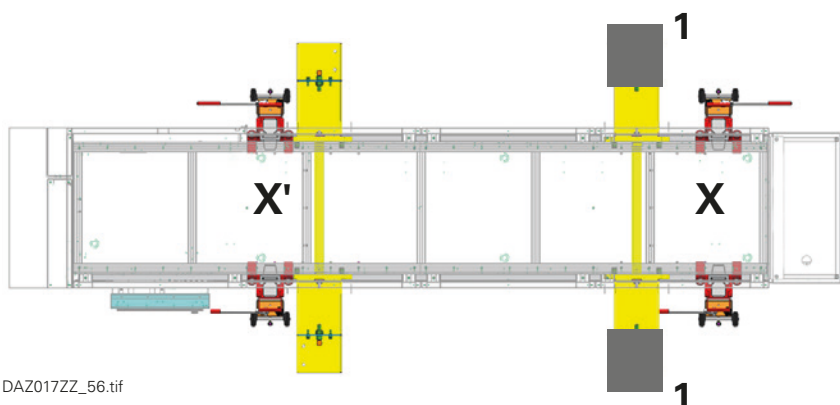
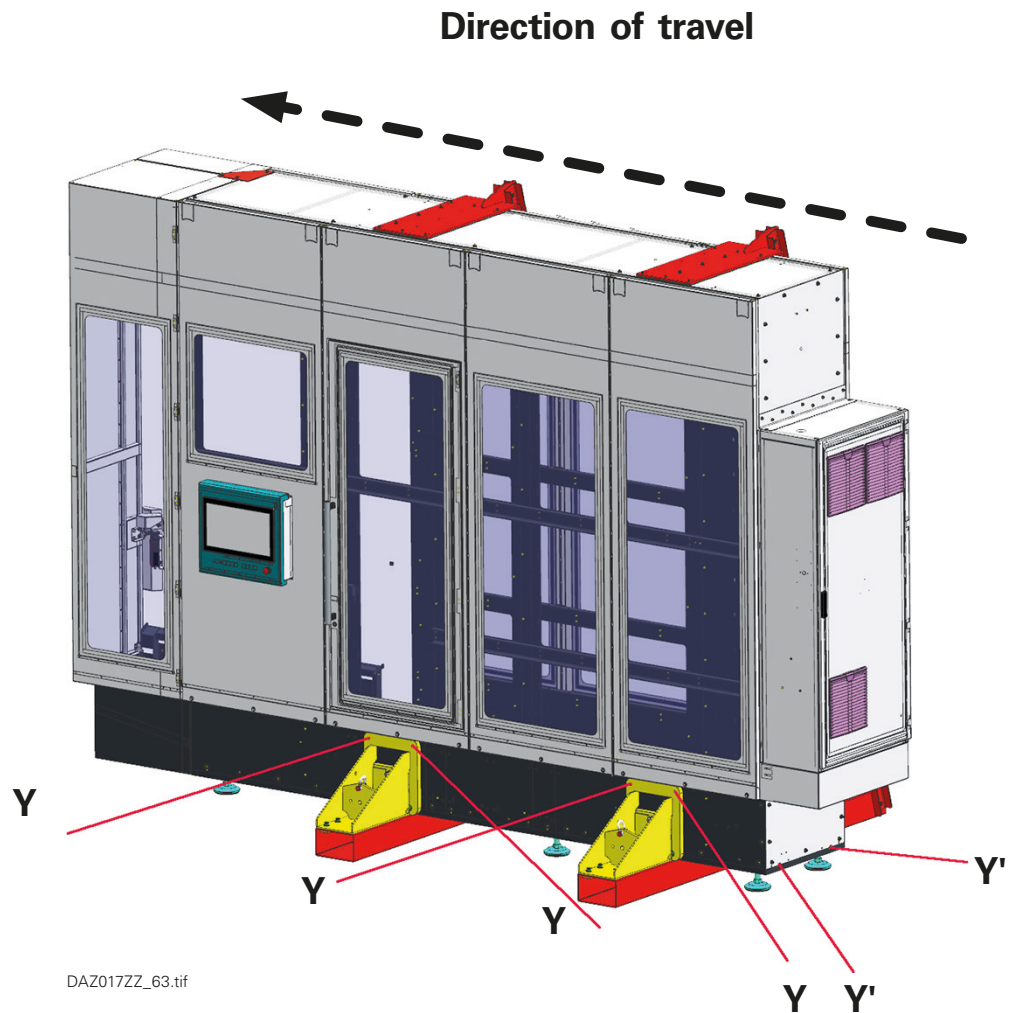


Fig.:

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Suspension and lashing points

The cargo must be secured using the lashing points (**Y+Y'**) to prevent slipping on the loading platform. The load blocks (**Y**) are bolted directly to the screw-on plates, while the load blocks (**Y'**) can be bolted on here as an option.



Safety Instructions and Technical Specifications

The user documentation, in particular, the document "Safety Instructions and Technical Specifications" must be observed.

Maintenance

Lubrication

The lubrication pulse is sent directly from the machine to the internal lubrication unit on the iXtools.

Pneumatic system

The iXtools has its own pneumatic maintenance unit. It has 2 filters (40 µm and 5 µm) that have to be replaced during maintenance. The local connection for this unit is prepared separately at the machine.

The maintenance unit is set to a system pressure of 6 bar. As a result, the customer's supply network must provide more than 6 bar.

Hydraulic system

The iXtools has no hydraulic system.

INDEX

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