INDEX

Transport, Installation, Commissioning

R200

Machine 480007 and higher

LR1702.10033 - 2025-05-12
0525/Sp (Transport, Aufstellung, Inbetriebnahme)/20060256

Note on applicability

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

A word on copyright

INDEX

INDEX

General information

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

Documents and drawings of auxiliary units 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)

Explanation of symbols

Explanation of the symbols used in the user documentation:

1.

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.

2.

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.

3.

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

Safety instructions

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 machine.

Information on transport, installation, commissioning

Use only suitable hydraulic jacks or a crane to lift the machine. When transporting with armored rollers, ensure that the rollers used have the appropriate load-bearing capacity.
The use of plastic plates or Teflon plates reduces rolling resistance and compensates for unevenness and cracks.

If air cushions are used when transporting the machine to the installation site, be sure to observe the relevant manufacturer's documentation of the air cushion manufacturer.

When selecting the modules, the following should be observed:

- **Condition of the floor.**
- **Suitable size (load capacity), lifting height, and number of modules.**

If the floor is cracked or slightly porous, the manufacturer states that a film should be laid out on the travel path.

INDEX uses the model 4K27NHDL from **AeroGO**.

Transport locks can be identified by their red color.

All transport devices and transport locks (painted red) that are described in this documentation are part of the machine equipment and remain on the machine or with the customer.

They must not be sent back to **INDEX**.

Remove all transport locks prior to commissioning.

Store the removed transport locks in a safe place so they are available for other transport in the future.

Improper transport, installation and commissioning of the machine can cause accidents. This may cause damage or malfunctions to the machine for which **INDEX** does not accept any liability or provide any warranty.

Carefully plan the unloading, transport to the installation site, installation, and commissioning of the machine before delivery. Be sure to observe the following instructions in this document.

Transport instructions and manufacturer documentation are available for separate units such as chip conveyors, bar guides, bar loading magazines, etc.
Read the following chapters:

– Chapter 1, Instructions
– Chapter 3, Third-party documentation

The safety switch (**CTP-LBI**) on the work area door has the following locking types/functions:

– A function that prevents accidental entrapment if the power fails or the machine is switched off and the work area door is open.
– A function that prevents the activated lock from being disabled in the event of a power outage.

(Source EUCHNER GmbH + Co. KG)

Precautions for on-site transport

Danger to life!

Do not step under suspended loads.

Machines must be transported by authorized and qualified personnel only.

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

Slopes and gradients (e.g., 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 mass of the machine and the control cabinet is indicated on the relevant installation plan. Chapter 2, Diagrams and drawings.

The masses of any separate units supplied can be found in the relevant installation plan, the special transport instructions/manufacturer documentation for these configuration levels or auxiliary units.

Transport and lifting devices

For lifting and transporting the individual units, only lifting and transporting aids having sufficient capacity and a loading platform must be used.

Preparations

This section is addressed to the persons responsible for the installation and their staff.
The information provided here allows you to prepare the installation site and its surroundings such that the machine, when delivered, can be installed and put into operation immediately.

Be sure to carefully plan the delivery, unloading, and transporting of the machine from the unloading site to the installation site.

The installation plan applicable to this machine was already submitted for approval after the contract award. When the machine is delivered, it can be found in Chapter 2, "Diagrams and drawings" on the supplied data carrier and the controller (**iXpanel** installation required).

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

Suitable transporting and lifting devices must be available when the machine is delivered.

Any obstacles along the transport route from the unloading site to the installation site must be eliminated before the machine is delivered.

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 devices

Suitable transporting and lifting devices must be available when the machine is delivered:

- Forklift
- Heavy-duty trailer
- Armored rollers
- Hydraulic jacks
- Forklift truck (only for separate units)

Space requirements

The following must be ensured:

- Sufficient free space around the machine.
- Sufficient movement space for the operator.
- Sufficient space for maintenance and repair.
- It must be possible to open all doors of the machine completely.
- Space for placing blank and workpiece pallets, collection bins, chip trolleys, tool trolleys, etc.

Use the installation plan in chapter 2 "Diagrams and drawings" to determine the required space.

There are special installation plans for auxiliary units such as bar guides, bar feeder or bar loading magazines, etc. Read Chapter 2, "Diagrams and drawings".

Floor conditions

A special foundation is not necessary. Only the load-carrying capacity and strength of the floor area must be suitable for the machine weight based on constructional aspects.

Comply with the requirements set out in ***DIN 18202:2019***.
In particular, note the information regarding **"Flatness tolerance for finished floors"**.

There must be **no expansion joints** in the area of the machine footprint.

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

Fastening/anchoring

Doweling of the machine is not necessary.

Bar feeders must always be doweled.
The machine does not need to be doweled in conjunction with a bar feeder.
Follow the relevant operating instructions.

iXcenter must always be doweled.
The machine does not need to be doweled in conjunction with an **iXcenter**.
Follow the relevant operating instructions.

When mounting a robot cell from a third-party manufacturer, doweling is recommended.
The machine does not need to be doweled in conjunction with the robot cell from a third-party manufacturer.

Be sure to follow the relevant third-party documentation.

Ambient conditions

Observe the ambient conditions in document "Safety Instructions and Technical Specifications"..

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

Power supply

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

The mains connection to the machine should be as short as possible.
Use a sufficient wire size.

The power supply for the machine requires a stable supply grid.
The operating voltage may fluctuate no more than +10% or -10%.

The mains connection must be executed according to the regulations of the responsible electric utility company and in compliance with VDE regulations. For further information, see installation plan in Chapter 2, "Diagrams and drawings".

Main circuit breaker

Check that the building connection has sufficient capacity to cover the additional load to be protected.
Discuss any unclear conditions with your local electricity supplier.

The main circuit breaker is not included in the delivery of the machine.
It must be installed outside the machine according **to DIN EN 60204-1**.
If a transformer is required, the main circuit breaker must be installed after the transformer, i.e., on the secondary side. The fuse protection on the primary side must be designed according to the connection data of pre-transformer.
The loads to be protected depend on the existing operating voltage.

The following values can be taken from the type plate of the machine or the circuit diagram in Chapter 2 "Diagrams and drawings":

- Machine connection,
- Operating voltage,
- Main circuit breaker.

External data transfer

Do not lay data cables directly next to power cables.

Special data cables are required to transmit data between the machine and external computers or servers. To protect these cables, appropriate metal conduits must be installed.

The connection to the internal network (DNC) requires an RJ45 network cable.

An additional connection to the external network (IoT) must be made with a separate RJ45 network cable.

Compressed air supply

Observe the max. allowed connection pressure for the machine. See the pneumatic diagram in Chapter 2, "Diagrams and drawings".

Machines equipped with pneumatically operated components require a compressed-air supply with the following capacity:

Operating pressure	6 to 10 bar
Air consumption	depending on the machine equipment
Air requirement for rotary windows	approx. 1000 L/min - 60 m^3/h

If the machine has a rotary window, it should be ensured that a sufficiently dimensioned cross-section of the compressed air supply lines is available for a higher compressed air consumption on site. Both pneumatic feeders on the machine can be used for this purpose.

For the air supply on the machine, see the installation plan in Chapter 2, "Diagrams and drawings".

Pressure accumulator

If the machine was shipped by plane, all pressure accumulators attached to the machine are depressurized and emptied.
Before commissioning the machine, a specialist must refill all pressure accumulators with nitrogen (N_2). The prescribed pressures must be observed.
For the prescribed pressures, see the hydraulic diagrams in Chapter 2, "Diagrams and drawings".

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

Equipment to be provided

- Coolant [1)]
- Lubricating oil [1)]
- Hydraulic fluid [1)]
- 1 kg of high-performance grease for chuck
- Cooling lubricant

Information on the lubricating oils, hydraulic fluids, grease, and cooling lubricant types and filling quantities used at **INDEX** can be found in the following documents:

- Chapter 1, Instructions: Information on operating fluids.
- Chapter 2, Diagrams and drawings: Hydraulic diagram and installation plan.

Caution:
Be sure to use only hydraulic fluid according to **ISO 4406**, having a purity grade of **15/13** (10 µm absolute).
Hydraulic fluid: **HLPD 32**
Lubricating oil: **CGLP 68**
Coolant: **Antifrogen N 34%** (100 l required)

[1)] The machine is delivered with a full tank.

Pumps and tanks

Changing the hydraulic fluid and cooling lubricant is part of the periodic maintenance tasks.

To fill the machine's hydraulic tank with hydraulic fluid, a pump with a 10 µm fine filter (absolute) is required that may be used for this purpose only.

A simple pump is sufficient to extract the used hydraulic fluid or cooling lubricant. The same pump may be used to fill the cooling lubricant tank; however, it must be thoroughly flushed with fresh cooling lubricant.

A robust container is required for collecting the extracted fluids. Suitable containers are metal barrels of sufficient capacity and with proper labels, which can be tightly closed.

Chip removal

If the machine operates with a chip conveyor, a chip trolley is required. Pay attention to the discharge height of the chip conveyor. The chip trolley should have a device for draining the accumulating cooling lubricant so it can be returned to the cooling lubricant tank.
This will protect the environment and save costs.

Disposal of used operating fluids

Decide in advance how to dispose of used operating fluids such as hydraulic fluid, lubricating oil, and cooling lubricant in an environmentally friendly manner.

Observing the ground and wastewater regulations

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

The machine contains water-polluting substances such as water-miscible cooling lubricants and mineral oils. These substances may leak from the machine in case of adverse events.

Therefore, the machine must be installed in a place that excludes any harm by these substances to water or groundwater.

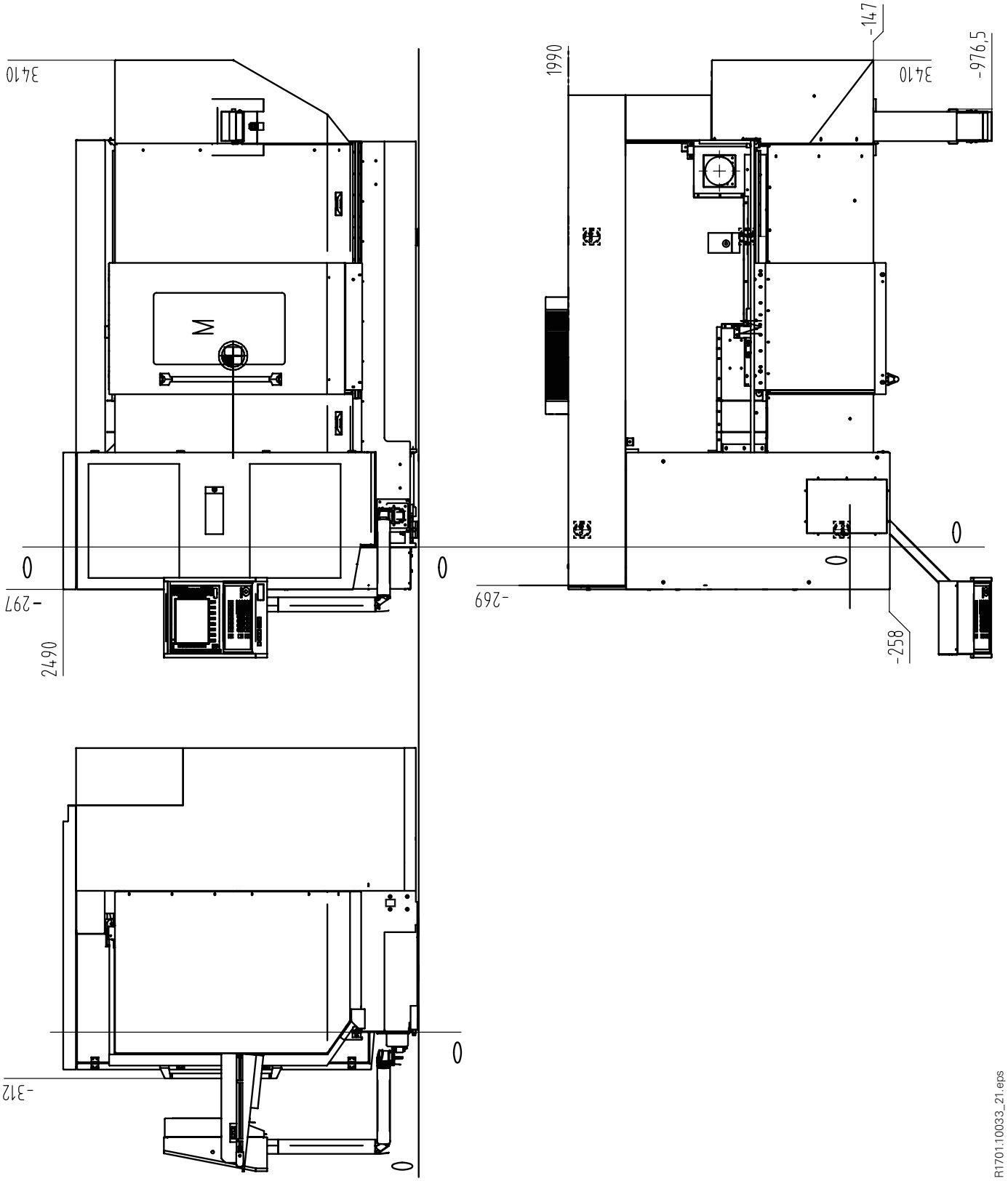
Possible preventive measures:

– Place the machine inside a tight trough.
– Seal the floor of the factory hall.

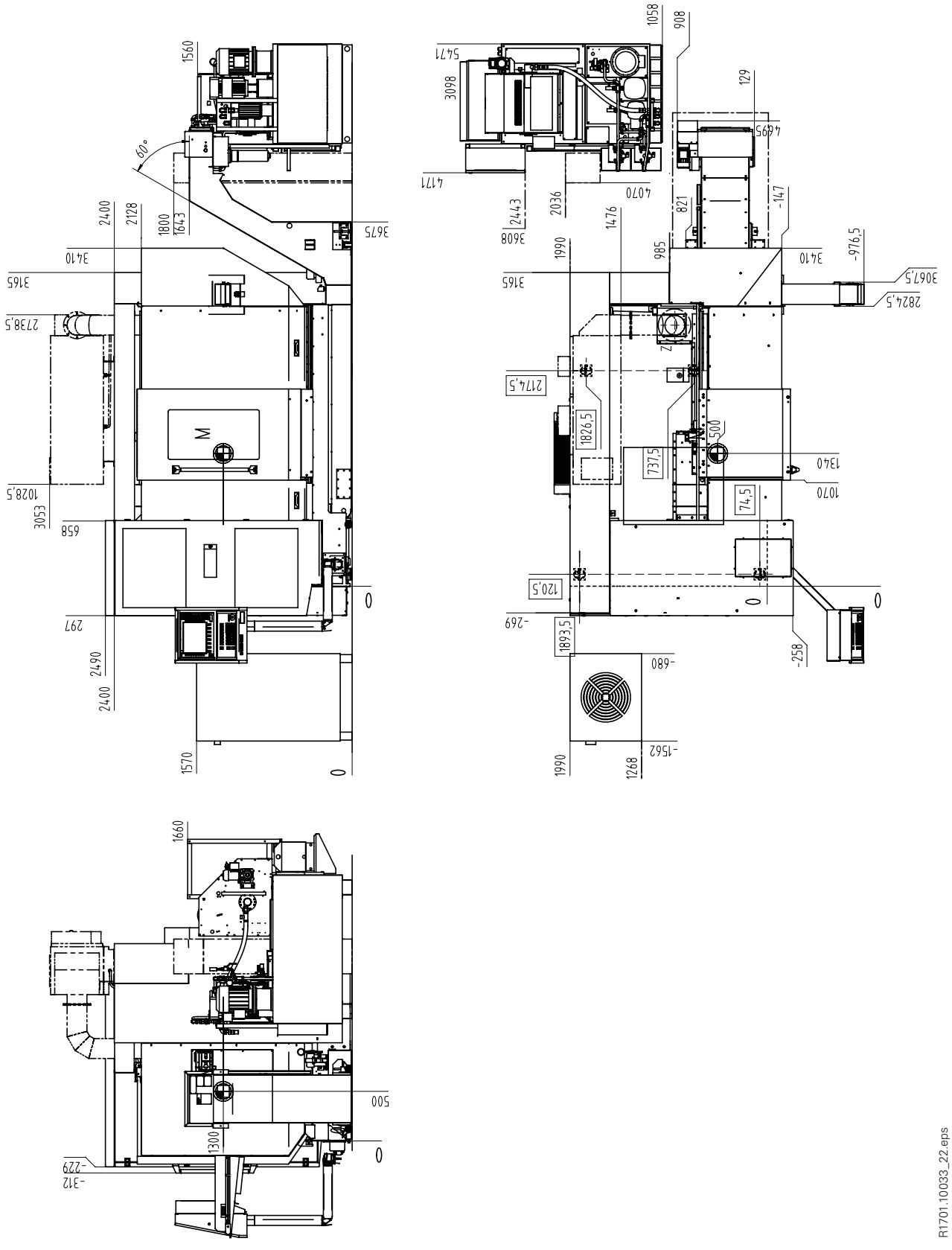
Transport

Transport and Installation Plan R200

Transport chart

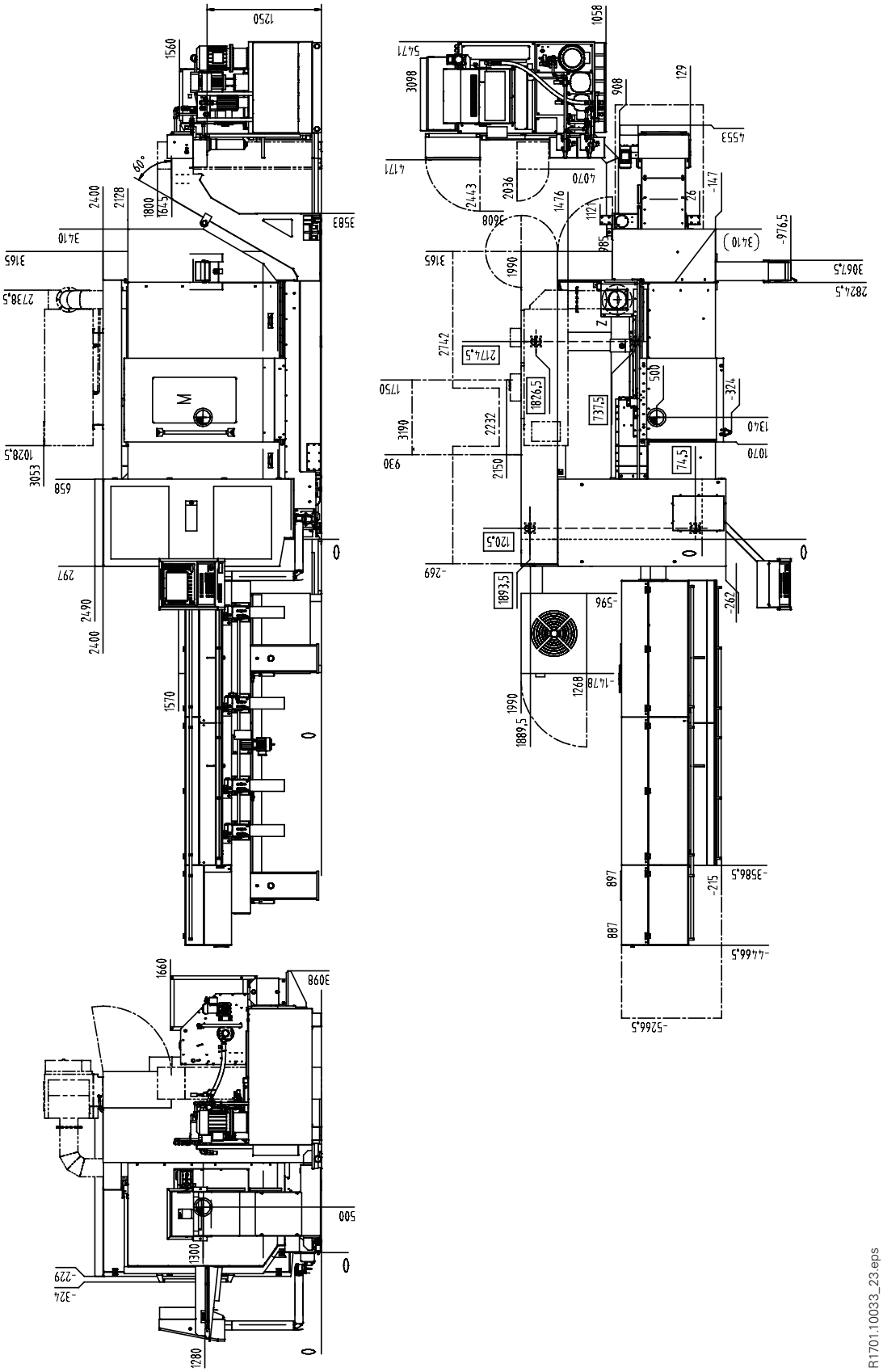


Installation plan



R1701.10033_22.eps

Installation plan with SBL 3200



Delivery

Machine

The machine is delivered by truck.

The machine is in the following condition when delivered:

– The hydraulic fluid and lubricating oil tanks are full.
(The filler neck of the hydraulic tank is closed.
Refit the filling and breathing filter before commissioning.)

Example:
Filling and breathing filter
by ARGO-HYTOS GmbH

DIE009ZZ_23.tif

Fig.: Blanking plug

DIE140ZZ_44.tif

DIE009ZZ_22.tif

Fig.:
Example of filler neck

– The cooling lubricant tank will be empty. (The machine has a chip conveyor with an integrated cooling lubricant tank or a separate cooling lubricant filtration system. The chip conveyor and cooling lubricant filtration system are separate units.)
– Certain moving parts on the machine, such as the work area doors and the swiveling operating terminal, are secured by transport locks or were removed.
– Protruding machine parts hampering the transport may have been removed.
– All blank parts of the machine were treated by spray-covering with an anti-rust agent.

Other separate units

Certain configuration levels or auxiliary units, such as chip conveyors, bar guides, bar loading magazines, etc., are usually separate units.

For transport and attachment of a robot cell – **iXcenter** – observe the corresponding documentation for **iXcenter**.

Chip conveyors usually rest on a transport base for shipping.

The bar guides and bar loading magazines are delivered in a special shipping crate.

Loose parts, such as keys, tools, and fittings, are supplied in a separate box, which may be included with a separate unit.

Before unloading, check the machine, the enclosed accessories, and any separate units for external damage and completeness (compare with bill of lading or delivery note).

Have the carrier confirm any damage or missing parts on the bill of lading or delivery note.

Document and photograph any transport damage.

Notify **INDEX** or the **INDEX** representative.

INDEX R200

Transporting the machine

Kunde: _____

Auftr.-Nr.: _____ Masch. Nr: _____

Machine mass

approx. 11000 kg

Do not step under suspended loads!
Lift the machine only as so far as absolutely necessary.

This procedure must be followed when moving the unit again.

– In order to achieve sufficient underride height/ground clearance for transportation with a forklift truck, the machine has been placed on squared timber.

– Also use anti-slip mats. Between the squared timbers and the machine, as well as between the truck loading area and the squared timbers.

– Be sure to attach the transport locks (item 2 in Fig. 2) before reaching with the forklift under the machine.

Fig. 1

R1701.10033_16.tif

R1701.10033_27.tif

R1701.10033_08.tif

Fig. 2

View: Rear of machine

R1701.10033_17.tif

Fig. 3

R1701.10033_18.tif

Fig. 4

Position	Pcs.	Description (see the next page)	Order no.
1	2	Transport lock for work area door	K80381.70
2	2	Transport lugs for forklift transport	R70561.60
3	5	Lifting ring M20	208310.4625
4	1	Lifting ring M10	208310.4621
5	1	Plate (attachment point for pull rope - forklift truck)	R70561.30
X	1	Transport carrier (only for transporting a machine with WHU) + 4 M20x100	R70562.40
	2	Square timber	

Transporting with a forklift

The forklift should approach the machine from the rear. When selecting the forklift, the following should be observed:

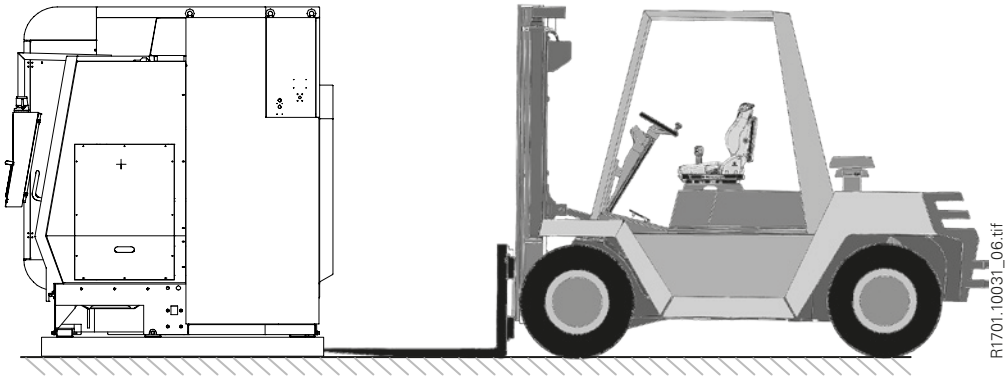
Load distribution on the forklift:

Right fork 4,000 kg
Left fork 7,000 kg

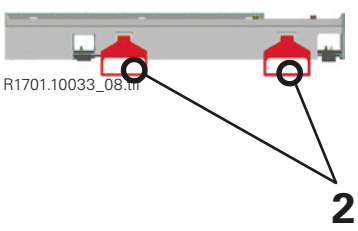
- **Fork width..... max. 300 mm**
- **Fork length.....min. 2,200 mm**

Ensure fork spacing (clearance) 1070 mm.
Attach the transport tabs (2) required for transporting with a forklift (Fig.).
This prevents the machine from tilting on the transport forks.

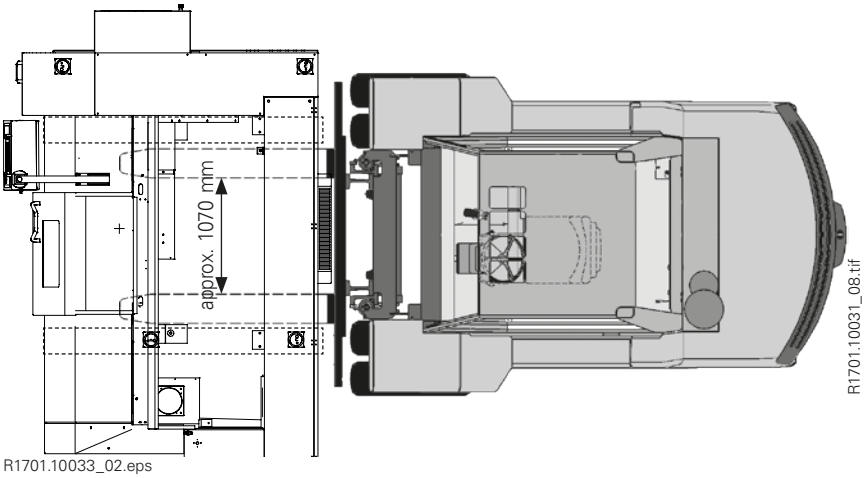
R1701.10033_27.tif



R1701.10031_06.tif



R1701.10033_08.tif



R1701.10033_02.eps

R1701.10031_08.tif

Working with hydraulic jacks

Due to the machine's high center of gravity, we stipulate transporting with armored rollers only on absolutely even and horizontal ground.

INDEX uses plastic plates or Teflon plates to bridge slightly uneven points and to reduce the 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, etc.

DIE002ZZ_04.tif

Fig.: Example
Hydraulic jack by GKS.

Only use sufficiently dimensioned hydraulic jacks to lift or lower the machine.

Always apply the hydraulic jacks only where indicated (see Fig.).

Be sure to provide three-point support when lifting or lowering the machine with hydraulic jacks: Two armored rollers or supporting on the floor on one side, hydraulic jacks on the other side.

Always lift the machine with hydraulic jacks on one narrow side only. The other narrow side must rest on the means of transport or on the floor.

Do not lift the machine more than absolutely necessary.

As the center of gravity is not in the center of the machine, if 2 hydraulic jacks are used, each hydraulic jack should have a minimum capacity of 1/3 of the machine mass.

If only one hydraulic jack is used, it should have a capacity of at least 2/3 of the machine mass.

In addition, use anti-slip mats between the machine bed and the lifting lug (**c**) on the hydraulic jack.

Also, use anti-slip mats between the machine bed and the armored rollers/steering undercarriage.

Lifting and lowering the machine with hydraulic jacks

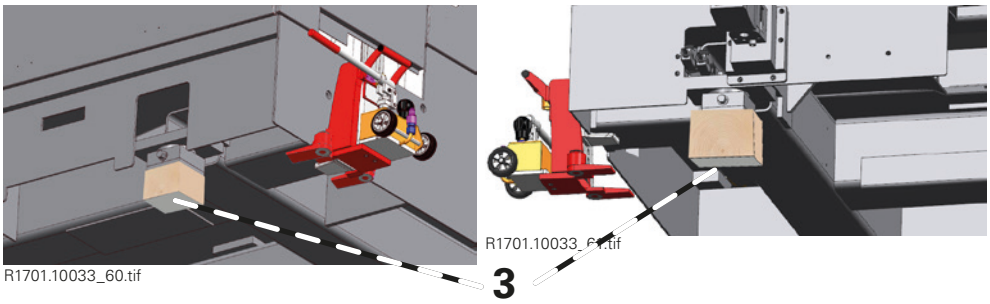
.... when transporting with rollers

If a forklift cannot be used for transporting, a means of transport must be selected for the transport to the installation site whose loading height matches the lifting height of the hydraulic jacks. The loading height must match the lifting height of the hydraulic jacks.
In this case, we recommend using armored rollers. They have a low loading height.

Use only armored rollers with a total minimum load capacity of **12 t**. The jack pad (dia. 170 mm) of the steerable armored roller fits into the receptacle (dia. 190 mm) provided for this purpose in the machine bed.

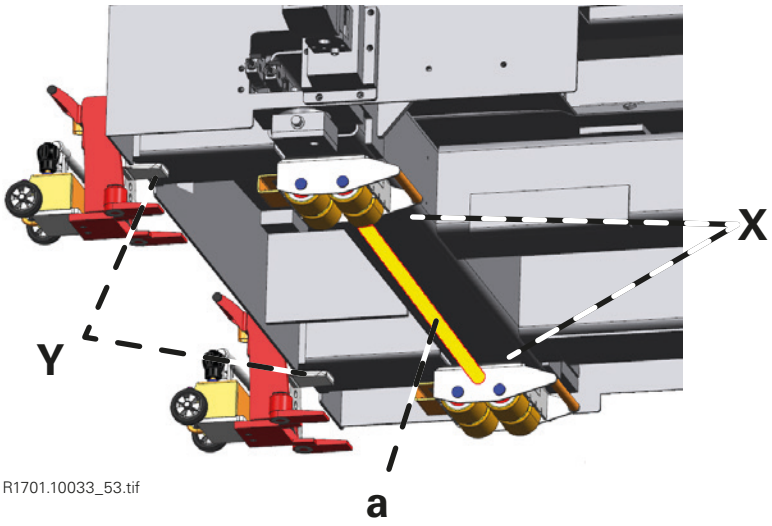
Positioning armored rollers

1. Place anti-slip mats between the lifting lugs of the hydraulic jacks and the machine bed (**Y**).
2. Lift using suitable hydraulic jacks.
3. Always use suitable timbers or beams (**3**) underneath.
4. Position the armored rollers under the cross member (**X**). Remove the hydraulic jack, if applicable.
5. Connect and secure armored rollers with a rod (**a**).
6. Reattach the hydraulic jack. Raise the machine, remove the timbers and lower the machine onto the armored rollers.



R1701.10033_60.tif

R1701.10033_61.tif

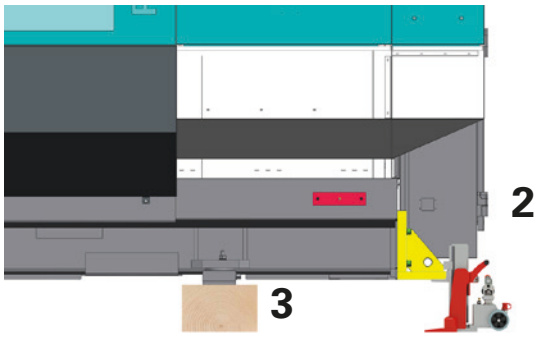


R1701.10033_53.tif

Positioning the steering roller

R1701.10033_62.tif

1. Mount the bracket (1).



R1701.10033_63.tif

2. Attach the hydraulic jack (**2**) to the bracket (**1**). If necessary, adjust the lifting lug on the hydraulic jack to the lifting position (**Fig: Example: Hydraulic jack ...**). Raise the machine and support it at the positions (**on both sides**) with suitable timbers (**3**).

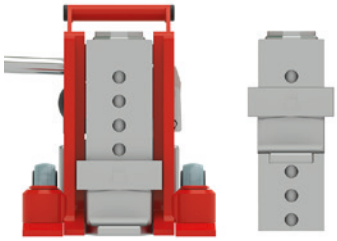
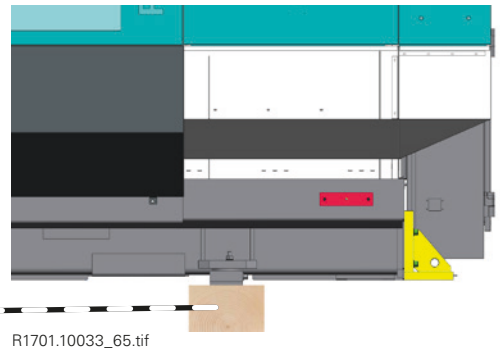
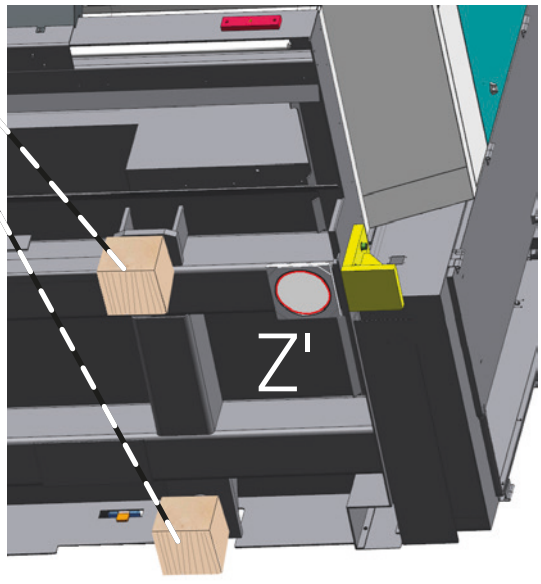


Fig.:
Example:
Hydraulic jack by Jung.



R1701.10033_65.tif

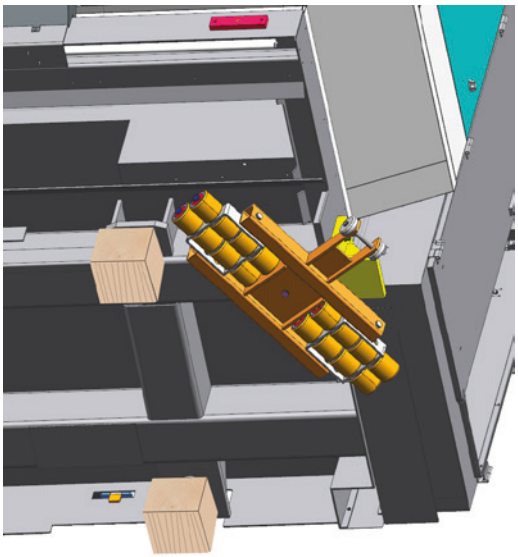
3. Set the machine down on the timbers (**3**) and remove the hydraulic jack.



R1701.10033_66.tif

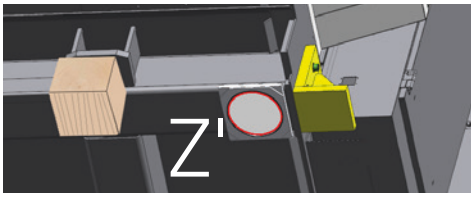
4. Insert the steering roller under the machine and position it under the marked point/support(**Z'**) in the machine bed.

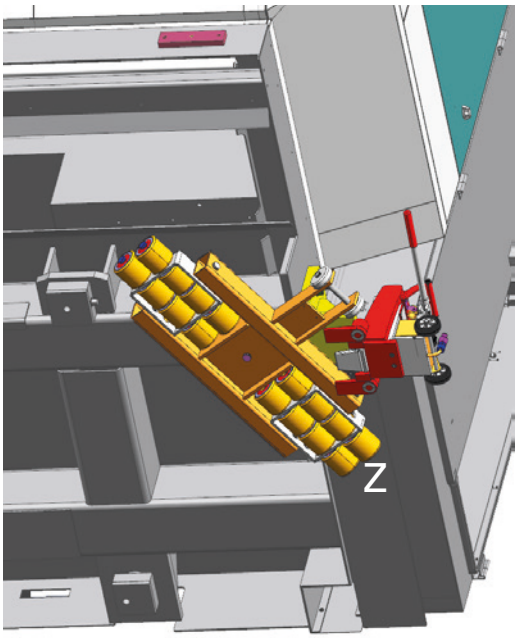
5. It is advisable to position the steering undercarriage at an angle of approx. 45° under the machine below the support (**Z'**). (Fig.)



R1701.10033_67.tif

6. Reattach the hydraulic jack. Raise the machine, remove the timbers and then lower the machine on the steering roller (**Z**). Make sure that the jack pad of the steering undercarriage is seated correctly in the provided support (**Z'**) of the machine bed.



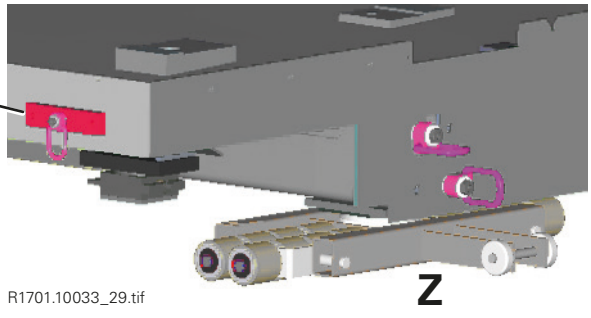


R1701.10033_68.tif

Use the steering roller (Z) only for steering.
By attaching a pull cable to the attachment point (O), the machine can be pulled by a forklift.

O

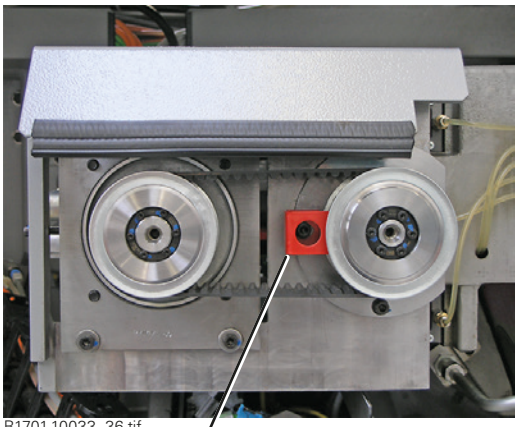
Attachment point
Pull rope for forklift truck



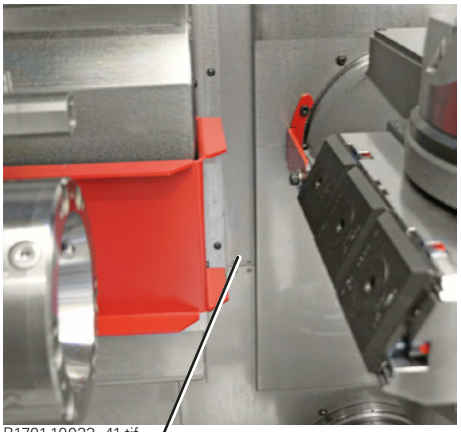
R1701.10033_29.tif

Locations of the transport locks on the machine

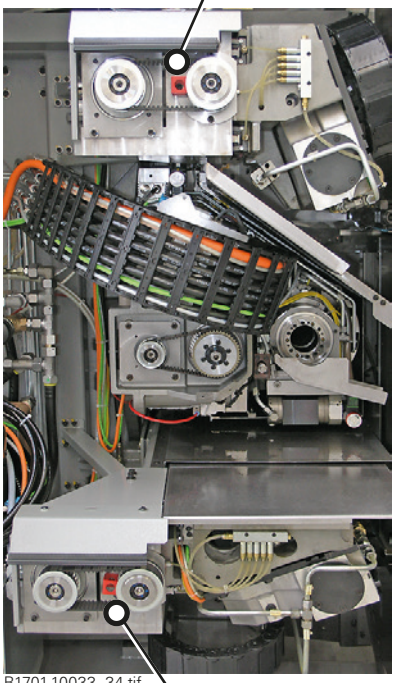
All transport locks must be removed prior to machine start-up. Transport locks can be identified by their red color. Close the fastening points of the transport locks using the provided screws.



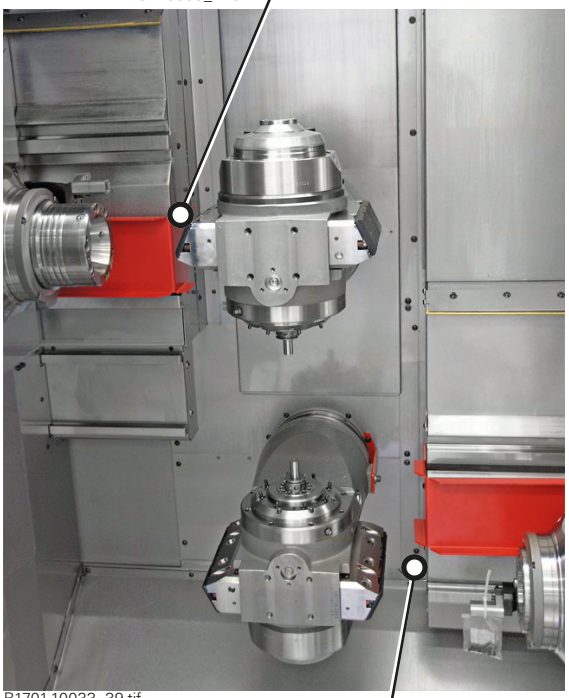
R1701.10033_36.tif



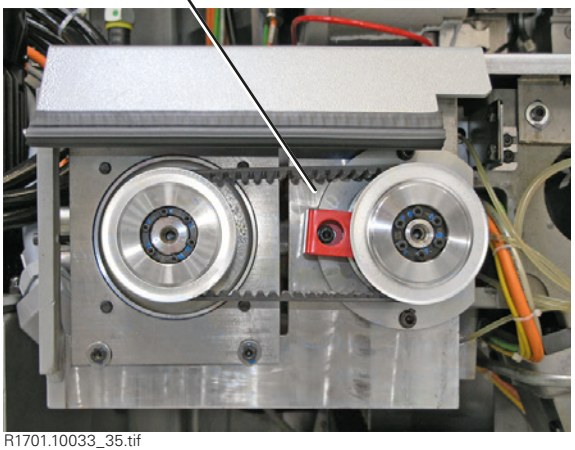
R1701.10033_41.tif



R1701.10033_34.tif



R1701.10033_39.tif



R1701.10033_35.tif

R1701.10033_40.tif

Transport lock at work area door

When the work area door is open, the door interlock of the safety switch remains open when the mains connection is disconnected.

Transport locks can be identified by their red color.

Remove all transport locks prior to commissioning.
Store the removed transport locks in a safe place so they are available for other transport in the future.

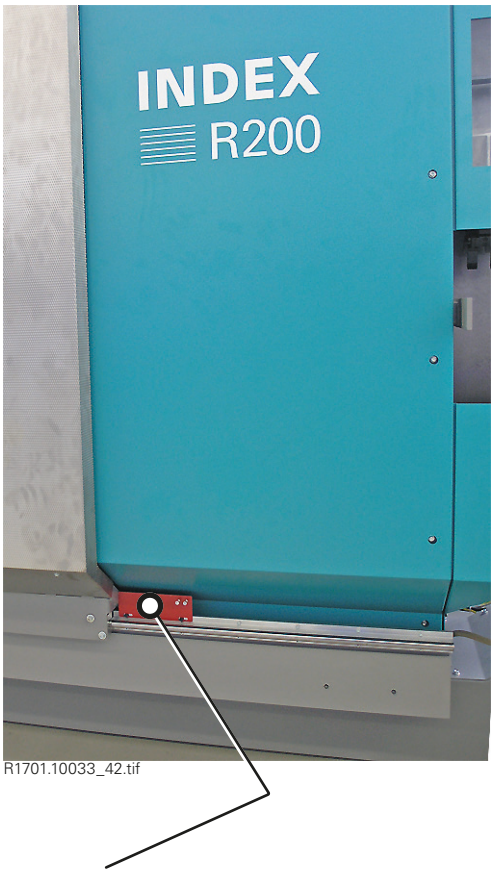


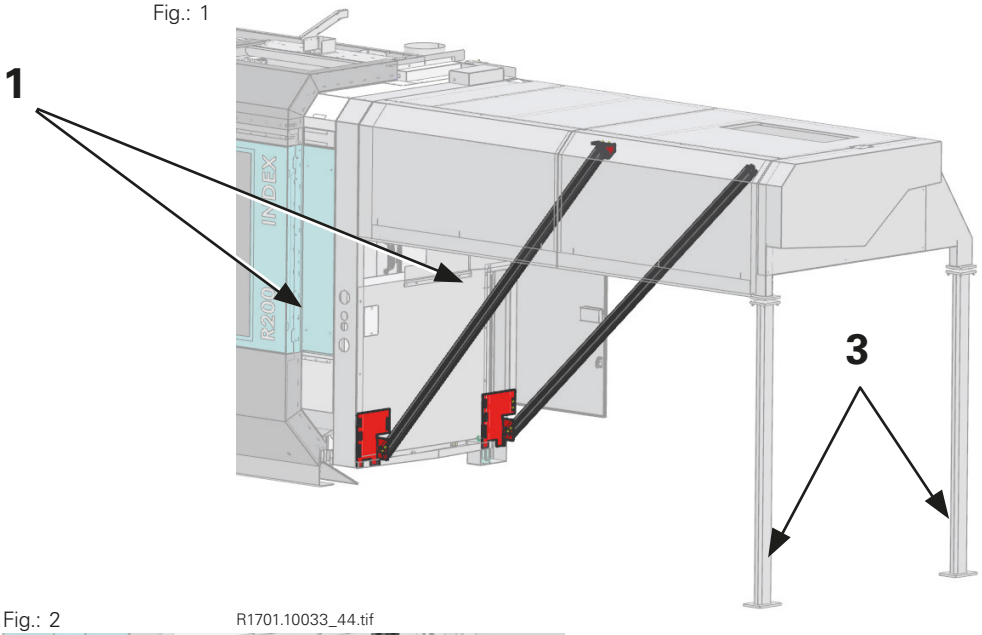
Fig.:
Transport lock at work area door

R200 with WHX from 11/2019

Caution!
When transporting the machine again with a workpiece handling unit, install two transport supports (1) using the brackets (2) before raising the machine.
Then remove the supports (3) of the workpiece handling unit.

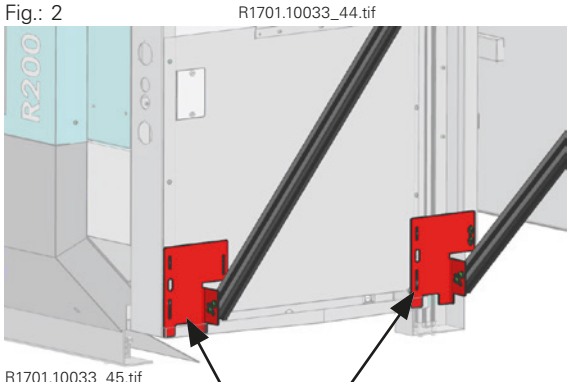
Once the machine is in its final installation site and leveled, first fit the supports of the workpiece handling unit (**3**). Then remove the transport supports (**1**) and the corresponding brackets (**2**).

Fig.: 1



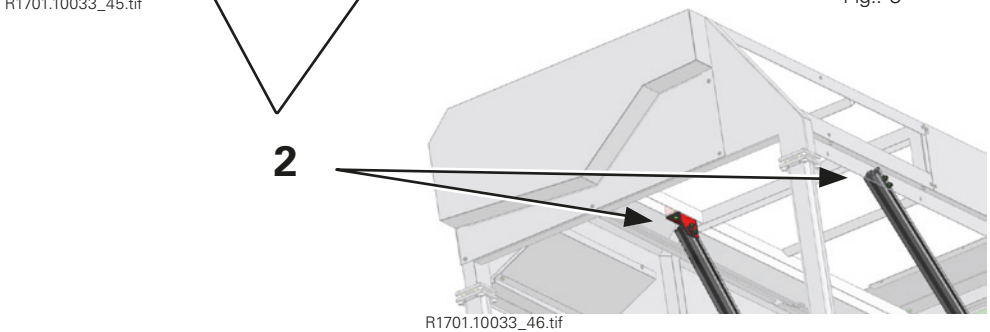
R1701.10033_44.tif

Fig.: 2



R1701.10033_45.tif

Fig.: 3



R1701.10033_46.tif

Unloading and transporting of separate units

Configuration levels or auxiliary units such as chip conveyors, bar guides, bar loading magazines are separate units.
They have dedicated transport regulations that must be observed for unloading and transporting.
Chapter 1, Instructions - Chapter 3, Third-party documentation

Do not step under suspended loads.

Minor separate units do not have specific transport regulations.
They either rest on a pallet or are included in the packaging of another unit.

Follow the manufacturer's documentation!

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

Use suitable round slings for unloading and transporting.

Attach the round slings, making sure they cannot slip and the load is securely suspended.

Attach the ropes or straps to any eyebolts that are provided for transport.

Unpacking the accessories and checking them for completeness

After unloading, unpack the machine accessories and check them against the information on the delivery form for completeness (compare with the bill of lading or delivery form).

In case of discrepancies, contact **INDEX** or your **INDEX** representative.

Installation

Electrical connection

Important notes

Caution: danger to life

All work on the electrical system 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 circuit diagram.

Only open the control cabinet when the main switch is switched off. When the main switch is switched on, secure the area in accordance with the applicable safety standards.

See the order confirmation for the precise electrical requirements. The electrical documentation supplied is definitive and binding. They should be available to **INDEX** customer service at all times.

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 diagram.

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, a transformer is required.

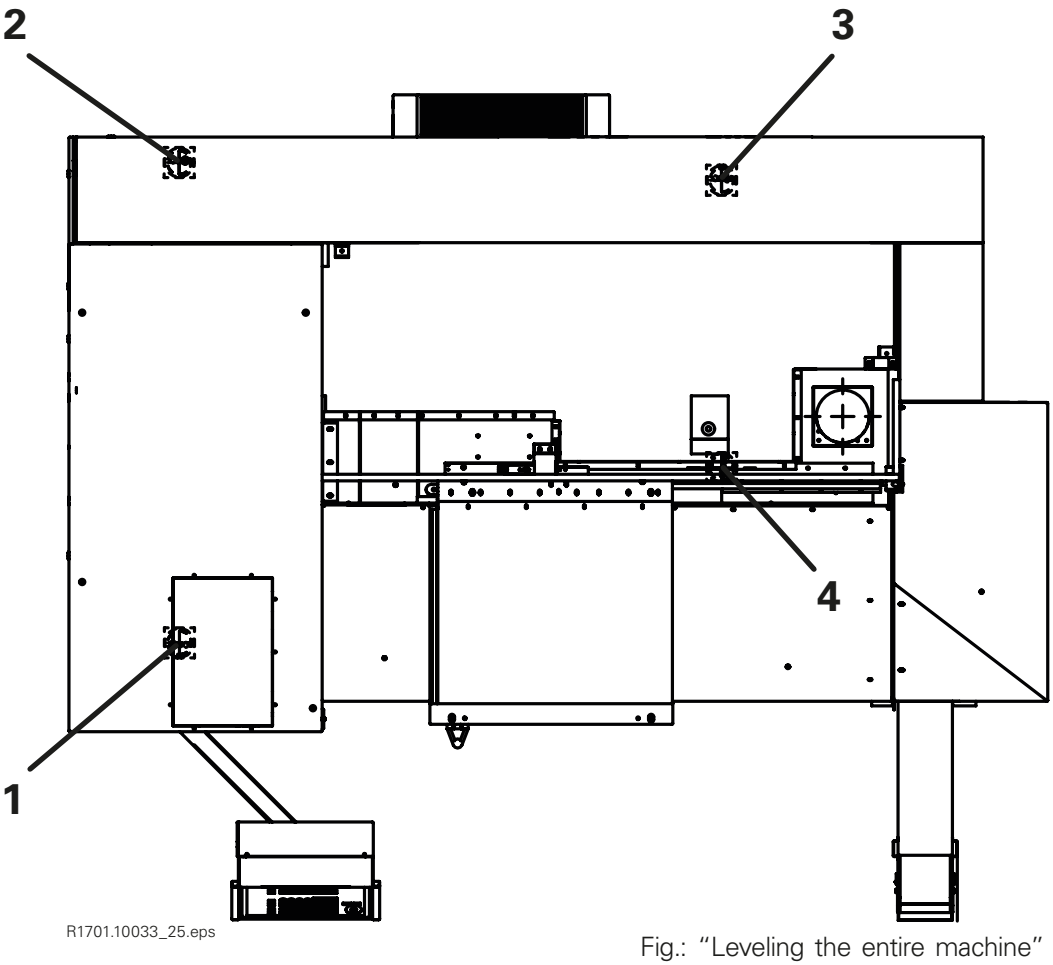
The guidelines and regulations applicable in the country of use must be followed.

Installing the machine

The machine R200 is equipped with four adjustable feet as standard (see Fig.: "Adjustable machine foot").

Screw in the machine foot 3 before lowering the machine onto the floor. **Machine foot 4 is loaded up to 5,500 kg.**

1-4 machine feet



R1701.10033_25.eps

Fig.: "Leveling the entire machine"

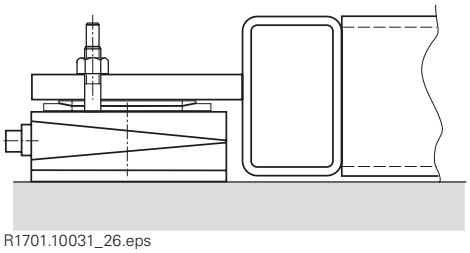


Fig.: Adjustable machine foot

R1701.10031_26.eps

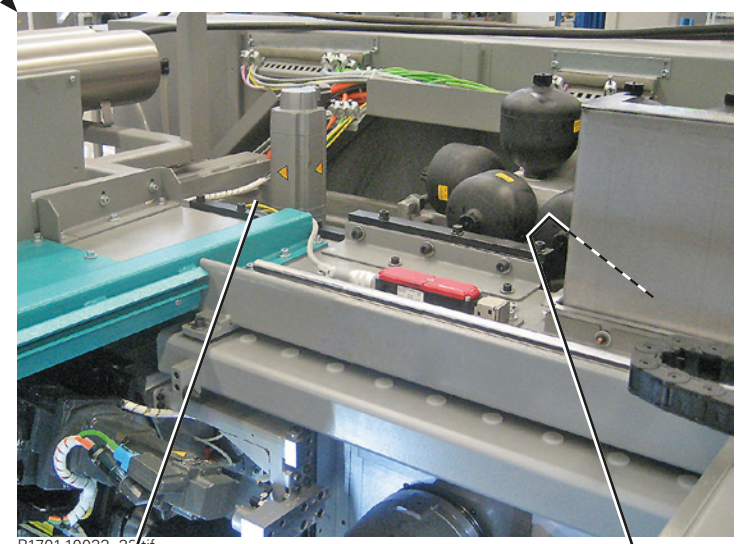
Leveling the machine

To level the machine, place precision spirit levels (see Fig. 1) at certain points on the machine bed.

– Place precision spirit level in the Y-direction as shown in Fig. 2.
– Place precision spirit level in the Z direction as shown in Fig. 3.

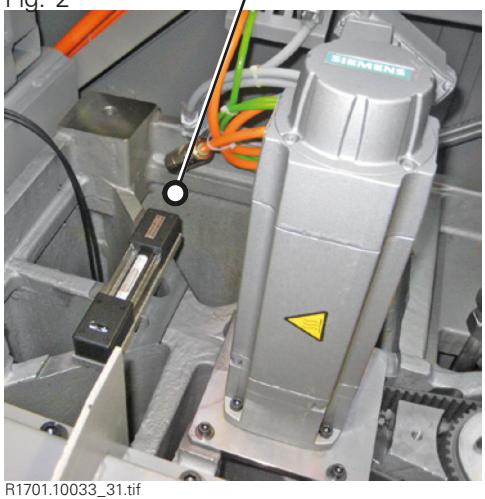
View from the work area

Fig. 1



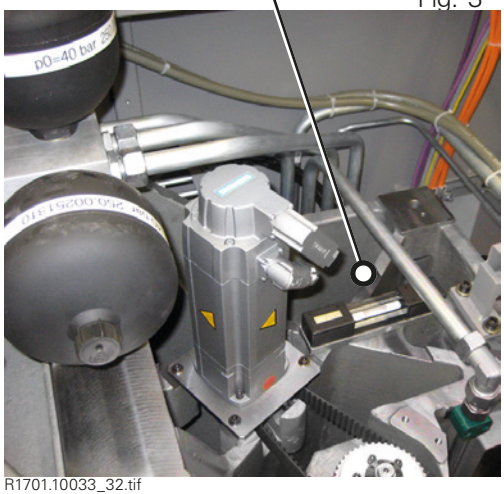
R1701.10033_33.tif

Fig. 2



R1701.10033_31.tif

Fig. 3



R1701.10033_32.tif

– Now level the machine by adjusting the machine feet 1, 2, and 4. (Fig.: "Leveling the entire machine")
– After the machine has been leveled, attach the machine foot 3 only slightly. Take care not to change the position of the machine.

Running machines on an external cooling compressor

To ensure reliable operation of one or more machines on an external cooling water system, the following points must be observed:

- Provide the cooling compressors with frequency-controlled pumps. This will compensate for pressure fluctuations and excessive pressure due to differing usage quantities. Ensure trouble-free operation of the cooling compressor at partial loads.
- Install an overpressure relief device in the cooling line.
- Consider the pressure difference (see table) in the cooling water line between the supply and return sections.
- Reduce the cooling water amount to the prescribed amount via a control valve on each machine. This is to ensure an even supply to all machines.
- The supply lines should be routed to the machines as straight as possible. This avoids swirls due to pressure booster pumps or line redirections resulting in problems of the flow sensors. (See the installation plan for details.)
- Install thermometers and pressure gauges in the forward and return flows of each cooling water line to be able to assess the cause of failure in case of problems.
- Install filters (fineness <0.1mm) with shut-down values in the inlet flow of the cooling water line of all machines.
- Install shut-off valves or valves for each machine, so each machine can be disconnected separately if repairs are necessary.
- Disconnect the machine from the water supply when switching off (main switch) so that no water continues to flow through the control cabinet (e.g., via valves).
- When connecting older machines to the external coolant supply, be sure to consult **Index** Werke or a representative beforehand.

Technical specifications of the coolant supply

Machine	Water temperature [°C]	Cooling water amount Q_{min}/Q_{max} [L/min]	Pressure difference P_{inlet} and P_{return} [bar]	Required cooling capacity [kW]	Coolant circuit pressure [bar]
R200	20°C ±2°K	70 - 90	4	15	8
R300	20°C ±2°K	70 - 90	4	21	8

Installation and leveling of configuration levels and auxiliary units

The bar feeder must always be doweled. In conjunction with a bar feeder, the machine does not need to be doweled.

Bar feeders have leveling elements that allow them to be aligned flush with the work spindle with ± 0.1 mm/m accuracy.

The conveyor belt, pallet station, etc., also have leveling elements that allow them to be aligned longitudinally and laterally to the main spindle's axis of rotation with ± 0.1 mm/m accuracy.

See the corresponding installation plan in Chapter 2, Plans and Drawings.

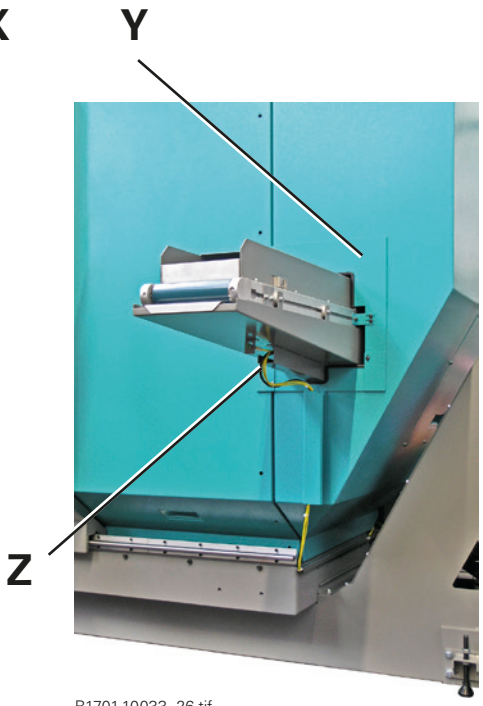
Conveyor belt

The conveyor belt was removed for transport. (Fig.: 1)

– Attach the conveyor belt and fasten it with screws at the positions X (Fig. 1).
– Slide cover sheet Y (Fig. 2) across the conveyor belt and fasten it.
– Connect all supply lines Z (Fig. 2) before starting the machine.

R1701.10033_24.tif

Fig.: 1



R1701.10033_26.tif

Fig.: 2

Commissioning

This section lists all the actions that must be carried out in the order given before the machine is ready for start-up.

Before commissioning the machine, unscrew all transport locks (**recognizable by their red color**) and keep them for another transport in the future.
Refer to Section "Location of transport locks".

Be sure to reattach the work area cover above the machine after removing the lifting device.

Cleaning the machine

All blank parts of the machine were treated by spray-covering with an anti-rust agent. Usually, this protective cover is flushed away by the cooling lubricant during the operation of the machine.

Solvent may splash into the eyes when cleaning the machine. Protect your eyes by wearing suitable safety goggles.
Protect your hands and arms during cleaning work in the work area of the machine. Wear 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 machine is put into operation after a long time and the protective layer has become very tough.

The mounting surfaces for tool holders and auxiliary units must also be cleaned.

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

Check the operating fluid levels and replenish, if necessary.

Hydraulic system: ..... Fluid level check.

Cooling lubricant system..... Replenish cooling lubricant.

Central lubrication system: ..... Fluid level check.

Auxiliary units: ..... Fluid level check.

Cooling: ..... Level check.

Observe the quality of working media such as lubricating oil, hydraulic fluid, cooling lubricant and cooling, as well as the filling quantities and filling points.
For information:
Chapter 1, Instructions: Information on operating fluids
Chapter 2, Diagrams and drawings: Installation plan and hydraulic diagram

Pressure accumulator

If the machine was shipped by plane, all pressure accumulators attached to the machine are depressurized.
Before commissioning the machine, a specialist must refill all pressure accumulators with nitrogen (N_2). The prescribed pressures must be observed.
Observe the specified pressures in Chapter 2, Plans and Drawings, Hydraulic Diagram.

Data loss due to prolonged downtime

The machine is functional only after all data have been entered.

After a prolonged downtime of the machine, data may be lost in the RAM.
In such a case, the lost data must be re-entered or re-loaded before the machine can be put back into operation.

The data are recorded in the start-up report and backed up on a storage medium.
The start-up report and the storage medium are located in the document pocket in the control cabinet door.

Only then is the machine ready for operation.

Switching on the machine

Read the document "Operating the Machine".

Be sure to fill the cooling lubricant tank before switching on the machine. The cooling lubricant pump will be damaged by running dry.

Relocation

Be sure to clean the contact surfaces of oil and grease before reattaching the transport locks.

Refer to Sections “Transporting the machine” and “Location of the transport locks”.

Replace filling/breathing filters on hydraulic and cooling units with blanking plugs.

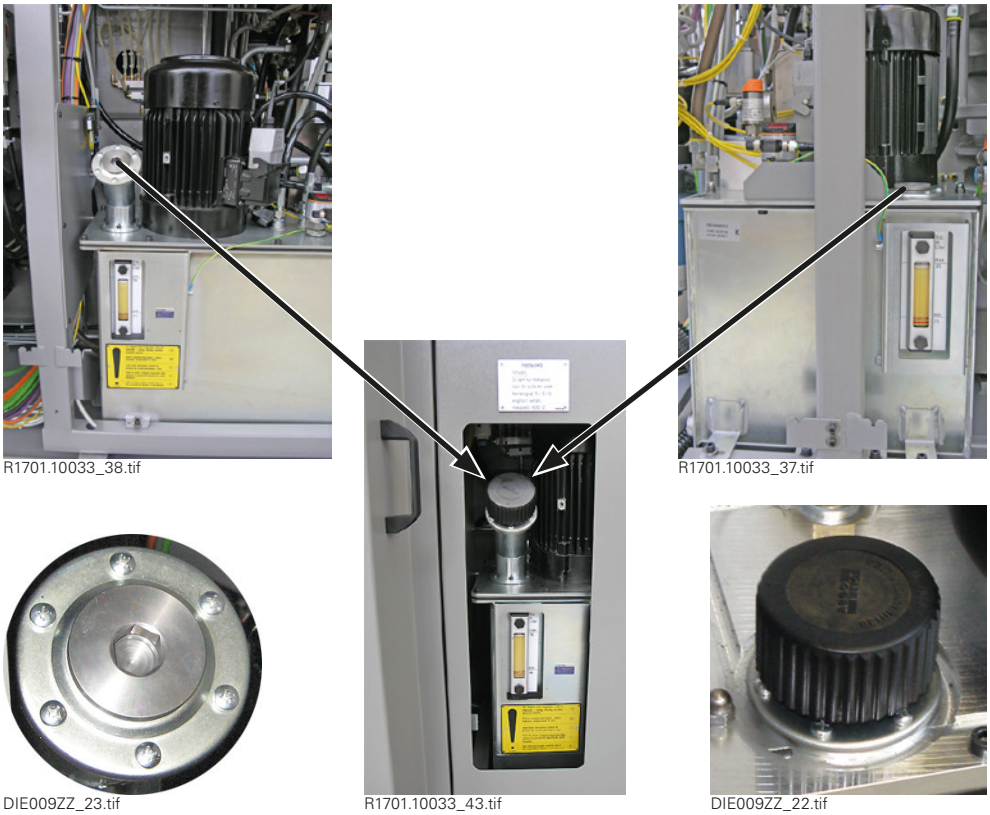


Fig.:
Example of filler neck and blanking plug

Only for machines equipped with chip conveyor

Unscrew the cooling lubricant line at the screw connection above the cooling lubricant tank. Disconnect the power supply to the cooling lubricant pump and the chip conveyor.

Pull out the chip conveyor and clean it.

Only for machines equipped with feeder or bar loading magazine

Loosen the two hydraulic lines P and T to the feeder or bar loading magazine.

For the feeder, disconnect the connector of one power line; for the bar loading magazine, disconnect the connectors of three power lines.

For transport by air, all pressure accumulators attached to the machine must be depressurized by a specialist.

Set the main switch to OFF and lock it against powering on. Depressurize the hydraulic system by opening the accumulator drain valves.

Provide transport devices suitable for the machine.
They can be ordered from **INDEX** by specifying the machine type and machine number.

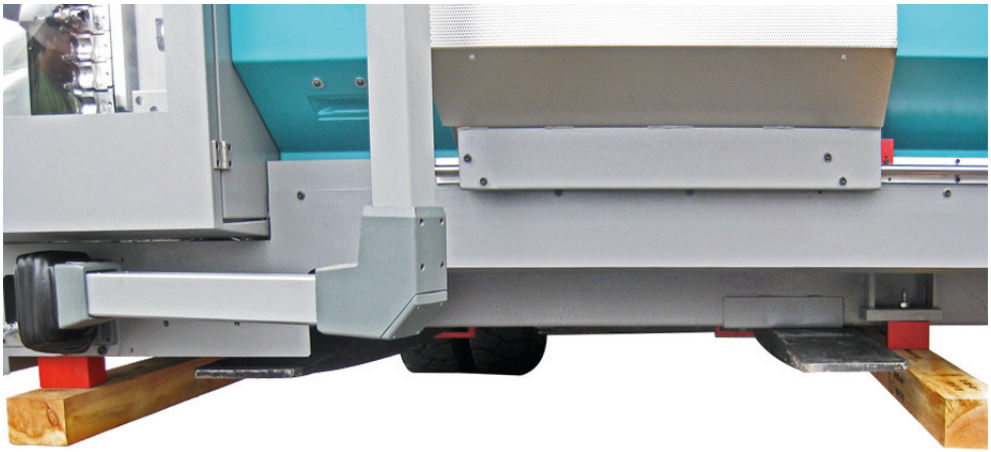
Replace the filling and breathing filters with blanking plugs.

See section on changing location.
Reverse the steps described there.

Suspension and lashing points

Anti-slip mats must be placed between the loading platform and the two screwed-on wooden planks. (Fig.: 1)

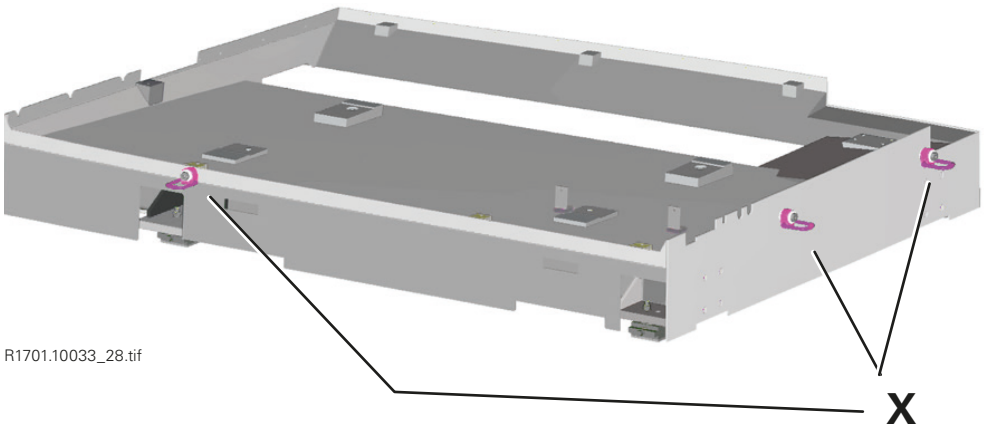
Fig.: 1



R1701.10033_18.tif

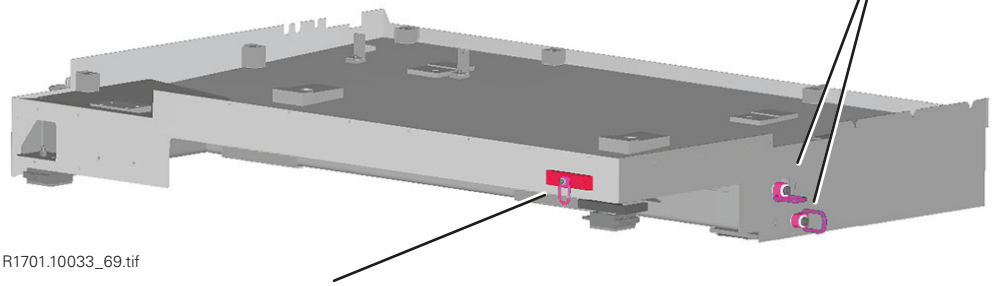
The machine must be secured using the lashing points (**X**) to prevent slipping on the loading platform.

Fig.: 2



R1701.10033_28.tif

Fig.: 3



R1701.10033_69.tif

Attachment point for pull rope - forklift truck

INDEX

INDEX-Werke GmbH & Co. KG
Hahn & Tessky

Plochinger Straße 92
D-73730 Esslingen

Fon +49 711 3191-0
Fax +49 711 3191-587

info@index-werke.de
www.index-werke.de