

EN

LISSMAC

CONSTRUCTION TECHNOLOGY

OPERATING INSTRUCTIONS MASONRY WORK PLATFORM

MAB 2001

MAB 2801

MAB 3001



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Imprint

The operating instructions apply to:
LISSMAC Masonry Work Platform

- MAB 2001
- MAB 2801
- MAB 3001

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BASIC SAFETY NOTES

Warning notes and icons used in this manual

	
	
SIGNAL WORD	
Type and source of hazard	
Consequences of non-compliance	
➤ Actions to avert the danger.	

The signal word next to the danger symbol indicates the degree of danger.

 DANGER	This signal word signifies an extremely dangerous situation. If the situation is not avoided, fatal or serious injuries will result.
 WARNING	This signal word signifies a dangerous situation. If the situation is not avoided, fatal or serious injuries will result.
 CAUTION	This signal word signifies a dangerous situation. If the situation is not avoided, medium to slight injuries will result.
NOTICE	This signal word signifies a situation which presents risks to objects. If the situation is not avoided, property damage will result. The signal word is present without a danger symbol.

	Important information is denoted by »i«.
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The following warning and safety notes are used:

	Observing the operating instructions
	Disconnect from mains before performing maintenance work
	High-pressure cleaning forbidden
	Attachment point for crane transports
	Forklift transport
	High voltage hazard
	Electric shock hazard
	Fall hazard
	Suspended load hazard
	Crushing hazard
	Warning of a danger area

OPERATING INSTRUCTIONS

Preface

These operating instructions are to make it easier to get to know the machine and to use its intended applications.

The operating instructions contain important notes for safe, proper and economic operation of the machine. Their observation helps avoid danger, repair costs and downtimes and to increase the reliability and service life of the machine.

The operating instructions must be supplemented with instructions due to present national provisions on accident prevention and environmental protection.

The operating instructions must be available at the site of use of the machine at all times.

The operating instructions must be read and applied by every person who is charged with work at the machine, e.g.:

- Operation, including equipment, troubleshooting in the work process, removal of production wastes, care, disposal of operating and auxiliary substances
- Servicing (maintenance, inspection, repair) and/or
- Transport

In addition to the operating instructions and the binding rules on accident prevention that apply in the country of use and at the site of use, the recognised technical rules for safety-technical and professional work must be observed.

Changes and reservations

We strive to keep these operating instructions accurate and up to date. To maintain our technology head start, it may be required to perform changes to the product and its operation without announcement. We do not assume any liability for interferences, failures and resulting damage.

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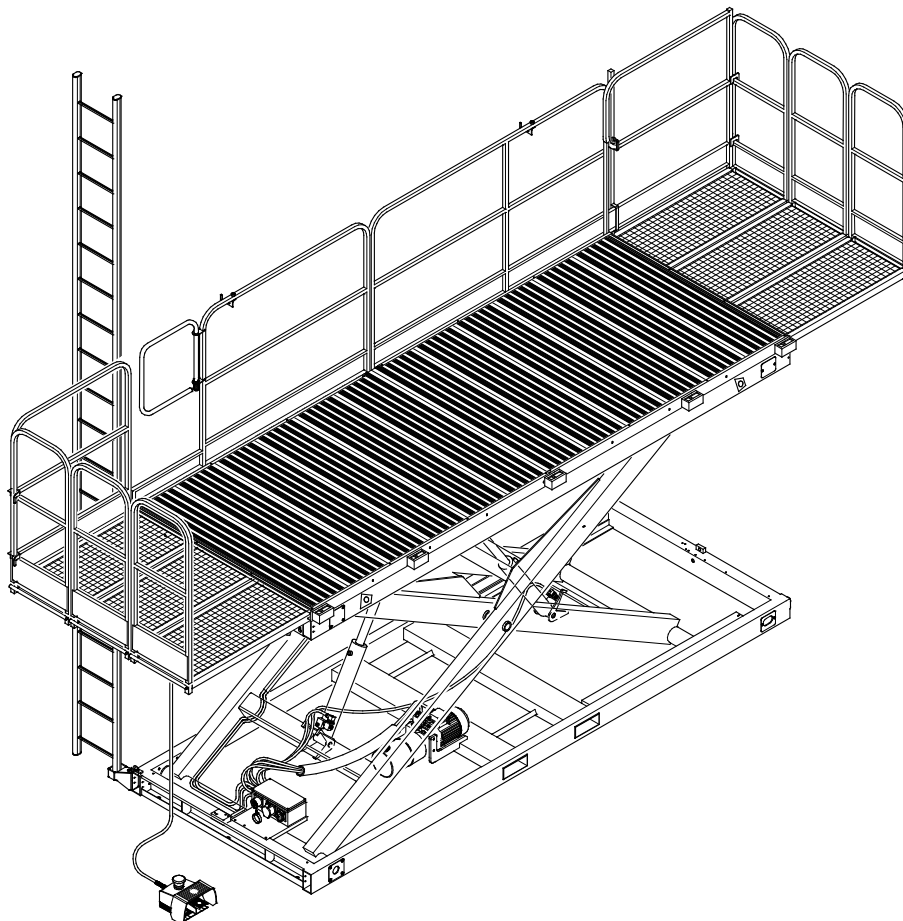
1. FEATURES & BENEFITS

With the LISSMAC masonry work platforms, pioneering standards are set in economic efficiency, cost savings and simple operation. The MAB supports the worker in ergonomics and work processes. It can be used very flexibly because of its short equipment times.

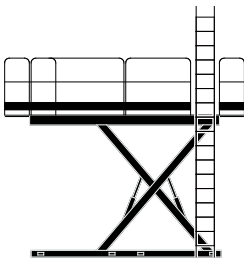
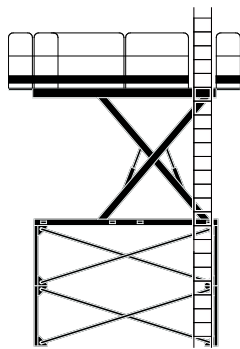
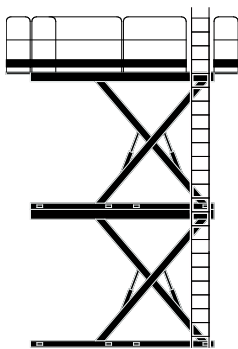
- Base frame, shears and platform are hot-dip-galvanised
- Three extensions of the same build on the right and left permit extending the platform length on both sides smoothly up to 1 m.
- Slip-proof aluminium beaded sheet lining
- Serial phase control
- Low dead weight
- Flexibly usable foot switch, serial
- Minimum setup time of the platforms - simple and efficient
- Double-acting hydraulic cylinders with safety valve
- Best weight distribution due to completely supported base frame
- Quickly pluggable wheel set available optionally - for easy movement of the platforms
- Central electrical circuit box, with 400-V-connection for additional connection of further platforms



We expressly inform you that according to C STANDARD EN 280, all masonry working platforms may only be used **WITH** railings, without exception.



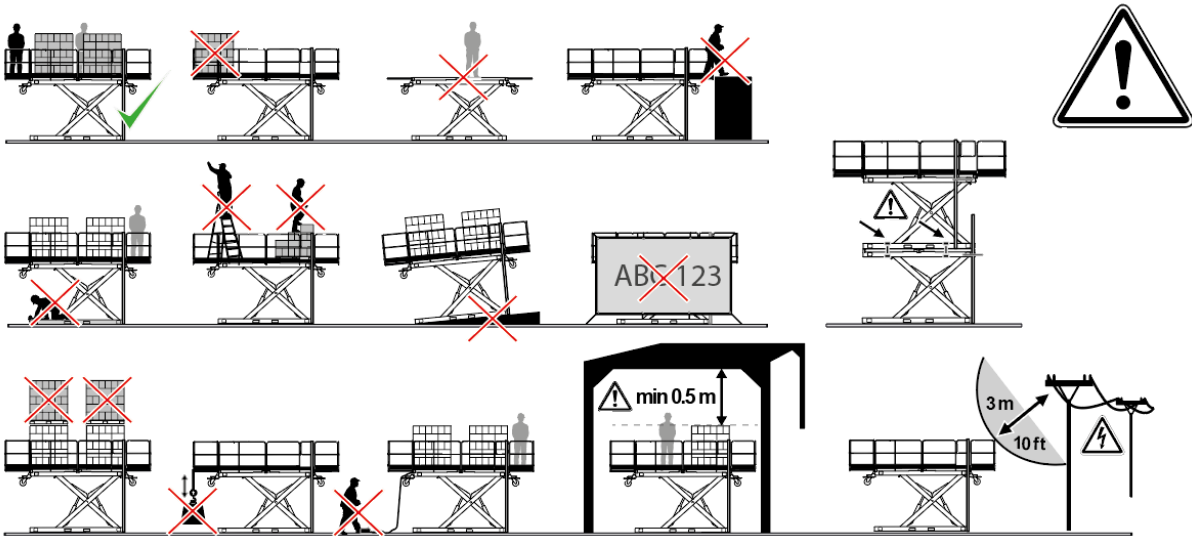
1.1. Principle of Intended Use

Intended use	The manufacturer or supplier does not assume any liability in case of wrong or non-intended use. Any change to the machine that is not performed by the manufacturer is forbidden. Changes by attachments or conversions are only permitted with the written consent of the manufacturer.		
	The machine is built according to the state of the art and the recognised safety-technical rules. Nevertheless, its use may cause danger to life and limb of the user or third parties, or impairment of the machine and other property.		
	The machine must only be operated in a technically impeccable condition, as intended, in a safety and danger-conscious manner and under observation of the operating instructions. Specifically remove problems that may impair safety at once (have them removed).		
	The LISSMAC masonry work platform MAB is a mobile lifting work platform. It is intended solely for the raising and lowering of workers and building material during mason`s work by competent persons. Lifting serves to adjust the work height and is limited to the maximum carrying capacity indicated. The masonry work platform may be used separately, with two on top of each other or with <u>one</u> subframe UG 250. Any use beyond this is deemed non-intended. If the masonry work platform is used with a subframe, the operating instructions of the LISSMAC subframe must be observed. Intended use also includes observation of the operating instructions and compliance with the inspection and maintenance instructions.		
			
	Masonry work platform, separate	Masonry work platform with a subframe	Masonry work platform, double

Non-intended use

Foreseeable misuse/non-intended use:

- Use as lift for access to higher floors
- Use as support of a building or any other construction
- Use as a lift for suspended loads
- Operation from outside the platform
- Placement of construction material on the lateral extensions
- Work with the masonry work platform at a slope
- Use under a structural element with possible top contact in fully raised state.
- Use of the masonry work platform without guard rails
- Use of two masonry work platforms and one subframe at once
- The use of ladders or equipment to extend reach or working height
- Entering the space below the raised platform without maintenance supports in place



1.2. Organisational Measures

	The operating instructions must be available at the site of use of the masonry work platform at all times.
	In addition to the operating instructions observe and order observation of generally applicable and other binding rules on accident prevention and environmental protection. Such obligations may include the handling of hazardous substances or the provision/use of personal protection equipment or road-traffic rules.
	The staff charged with work at the masonry work platform must have read the operating instructions and specifically the chapter on safety notes, before taking up work. It is too late during work. This specifically applies to staff working at the masonry work platform only occasionally, e.g. during equipment, maintenance.
	Regularly check safety- and danger-conscious work of the staff and operation of the operating instructions.
	Where required or demanded by provisions, wear personal protection equipment.
	Observe all safety and danger notes at the masonry work platform.
	Keep all safety and danger notes on/at the masonry work platform completely legible.
	For safety-relevant changes to the operating conduct of the machine, shut down the machine at once and report the interference to the relevant office/person.
	No changes must be performed by attachments or conversions without the written consent of the manufacturer.
	Only use genuine spare parts of the manufacturer.
	Comply with periods prescribed or indicated in the operating instructions for inspections. An annual inspection by an expert (TÜV or manufacturer) is required.
	Before the inspection, machine parts and components must be cleaned thoroughly.
	The annual inspection of the masonry work platform must be documented in writing. If a sub-frame is used, it must be reviewed as well.
	The mains plug must be pulled before any maintenance or repair work.
	The masonry work platform generally must be secured against possible lowering during repairs and maintenance (danger of crushing).
	After any extended standstill, a function test (hydraulic oil level, tightness of the cylinders and hydraulic screws) must be performed.
	When working with the masonry work platform, it must be ensured that no objects can fall down.

1.3. Staff Selection and Qualification, General Obligations

	Only persons who have completed their 18th year of life, who have been instructed in operation of the masonry work platform and who have been expressly charged with operation of the masonry work platform by the entrepreneur must operate the masonry work platform.
	The unnecessary presence on or below the masonry work platform is forbidden.
	The operators must observe during any movement of the masonry work platform that they do not endanger themselves or others.
	Work at electrical equipment of the machine must only be performed by an electrician or by instructed staff under the management and supervision of an electrician according to the electronic rules.
	Staff to be trained, instructed, taught or in the scope of general training must only work at the machine under the continuous supervision of an experienced person.

1.4. Safety Notes on Specific Operating Phases

1.4.1. Setup

	The masonry work platform must be set up on clean, horizontal and load-bearing ground (minimum load capacity 1,000 kg/m²).
	The masonry work platform must not be used on a slope.
	The masonry work platform must be kept at a safe distance from live electrical lines.
	Collision with fixed structures or other objects must be avoided.
	For use under structural objects, at maximum lifting height, a minimum safety distance of 0.5m must remain between the railing or respectively the highest point on the platform (material).
	Without a fault interrupter (FI) in the supply line or the distributor box, the masonry work platform must not be connected to power. The line protection switch must be designed for 3 x 16A against overcurrent.
	If the masonry work platform is used with a subframe, the operating instructions of the LISSMAC subframe must be observed. Only a LISSMAC subframe must be used.

1.4.2. Regular Operation

	Do not perform any work that may endanger safety!
	Take measures to ensure that the masonry work platform is only operated in safe and functional condition and with the intended railings as fall protection.
	Check the masonry work platform for outwardly visible damage and defects at least once per shift. Report any changes that occurred (including to operating behaviour) to the relevant office/person. Shut down machine at once if applicable and secure it against reactivation.
	Shut down the masonry work platform at once and secure it in case of operating faults. Have faults removed at once.
	The masonry work platform must not be overloaded. Observe admissible load.

	The admissible load for a lateral extension is 150 kg. It is used as a pure walking area and not intended for supporting loads.
	Increasing the range or the working height must not be achieved by additional scaffolding or ladders.
	The ladder must only be used at the masonry work platform with ladder guide and receptacle.
	The masonry work platform must only be left via the emergency ladder when lifted. Entering and leaving the lifted masonry work platform is forbidden.
	The masonry work platform must not be used as a crane.
	Do not enter the work area below the lifted masonry work platform.
	Collisions with fixed structures must be avoided.

1.4.3. Recommissioning after Extended Downtimes

	After extended downtimes of the machine, the following items must be observed/inspected before recommissioning: • Inspection of all electrical and hydraulic lines for cracks and tightness • Function inspection up and down • Check oil level • Check frame for corrosion and cracks in the welding seams
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1.4.4. Special Work in the Scope of Use of the Machines and Maintenance Work, as well as Troubleshooting during Work:

	Setting, maintenance and inspection work and dates prescribed in the operating instructions, including information on the replacement of parts/partial equipment must be observed! This work must only be performed by specialists.
	Inform operating staff of any special and repair work before starting them! Designate supervisors.
	If the masonry work platform is completely powered down during maintenance or repair work, it must be secured against unexpected reactivation.
	Before cleaning the machine with water or other cleaning agents, cover/tape shut all openings into which no water/steam/cleaning agents must enter for reasons of safety and/or function; electrical motor, switches and plug connections are particularly endangered.
	After cleaning, remove the covers/tapes entirely.
	Always tighten any screw connections that have come loose during maintenance and repair work.
	If disassembly of safety facilities is required during equipment, maintenance and repair, assembly and inspection of the safety facilities must be performed at once after completion of maintenance and repair work.
	Ensure safe and environmentally compatible disposal of operating and auxiliary materials, as well as spare parts.

1.5. Reference to Special Types of Danger

1.5.1. Electrical Energy

	Only use original fuses with prescribed current strength. In case of interferences in the electrical power supply, switch off the masonry work platform at once.
	Only perform maintenance or repair work if the masonry work platform has been separated from the power. Capacitors may be live if defective.
	The electrical equipment of the machine must be inspected/checked at regular intervals. Defects such as loose connections or damaged cables must be removed at once.
	No more than 3 platforms must be connected to one supply.
	Live electrical lines must be kept away from the masonry work platform.

1.5.2. Dust

	When working on close spaces, observe any national provisions that may apply.
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1.5.3. Noise

	The emission sound pressure at the operating station is at 70 dB(A).
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1.5.4. Danger of Falling

	The masonry work platform must only be used with railings as fall protection and a ladder as emergency ladder.
	Increasing the range or the working height by objects of any kind is forbidden.

1.5.5. Wind Power

	The attachment of parts of any kind that would increase the range of the masonry work platform is forbidden.
	In case of strong wind above Beaufort scale 6 (12.5 m/sec.) or rising storm, the masonry work platform must be lowered and left immediately.

1.6. Transport

	Transport is only permitted if the masonry work platform is lowered and all railing elements have been disassembled.
	When relocating the masonry work platform, a suspension of four with sufficient carrying capacity must be used. No persons or equipment must be present on the masonry work platform.
	Determine a qualified instructor for lifting.
	Only lift the masonry work platform professionally with lifting gear by the crane eyelets according to the information in the operating instructions.
	Only use a suitable transport vehicle with sufficient carrying capacity.
	Reliably secure load. Use suitable attachment points.
	Even if it is moved only a little, the machine must be disconnected from the mains! Before recommissioning, connect the machine properly to the mains again.
	Only proceed according to the operating instructions when recommissioning.
	Observe national road traffic rules.
	Collision with stationary buildings, vehicles or other objects must be avoided.

1.7. Packaging and Storage

	Check the machine for damage at receipt. In case of damage, the machine must not be taken into operation. Damaged cables and plug connections also pose a safety risk and must not be used. Inform the manufacturer company in this case. If the machine is not taken into operation at once after unpacking, it must be protected from moisture and dirt.
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1.8. Environmental Protection

	Packaging material, cleaning agents, consumed or residual operating materials, as well as unpacked wear parts such as drive belts or motor oils must be recycled according to the environmental protection provisions applicable at the site of use.
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1.9. Disposal

	If the end of the machine's service life has been reached, specifically if any functional impairment occurs, the useless machine must be made unusable. Dispose of the machine according to the environmental protection provisions applicable in your country. Electrical wastes must not be disposed of together with household waste.
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2. MACHINE DESCRIPTION

2.1. Component Overview

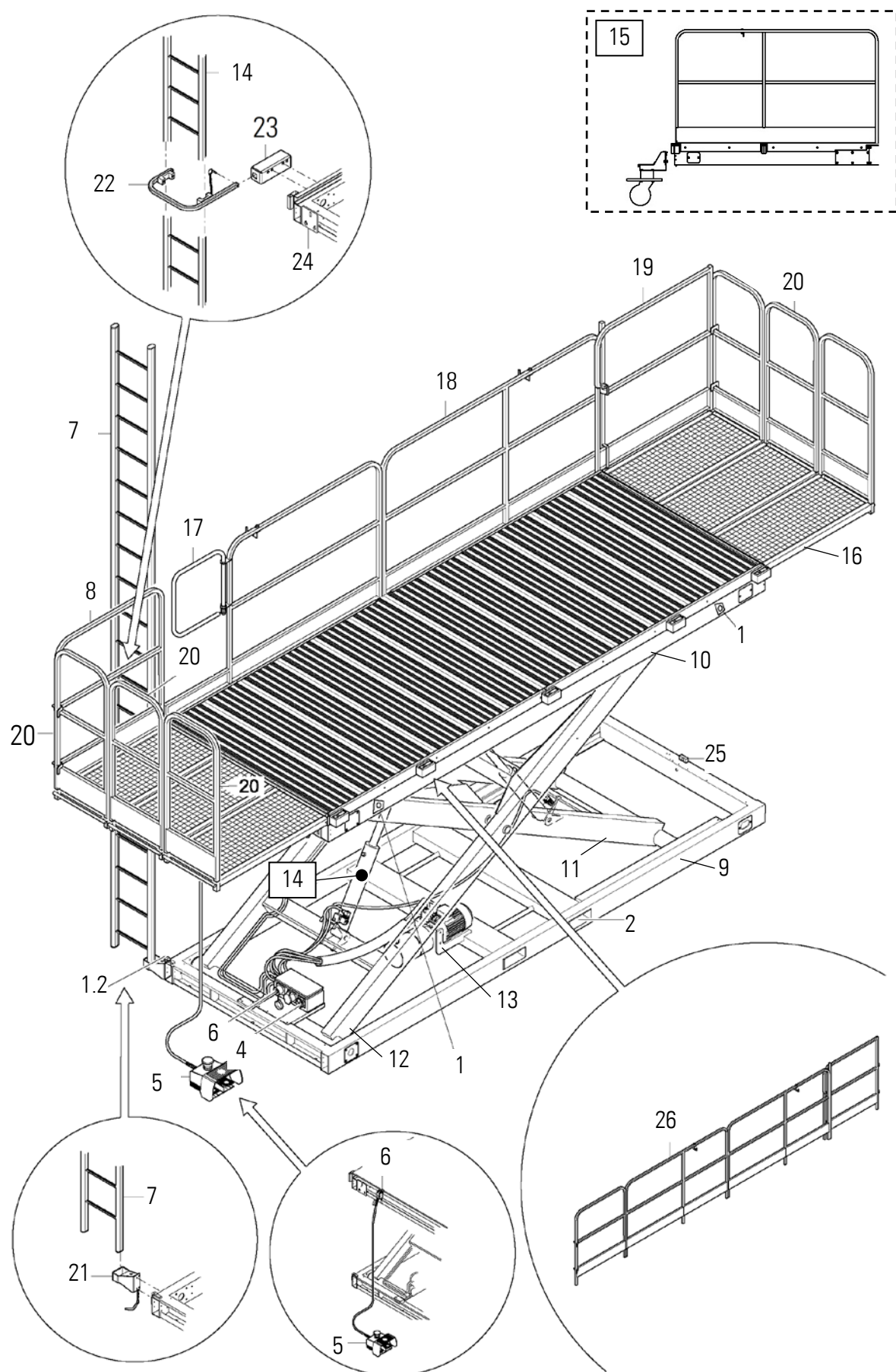
Pos. 1	Crane eyelets (attachment point)
Pos. 2	Forklift receptacles
Pos. 3	Socket of power connection (phase inverter plug)
Pos. 4	Main switch
Pos. 5	Foot switch with EMERGENCY OFF
Pos. 6	Socket for the foot switch
Pos. 7	Ladder
Pos. 8	Railing element (stationary)
Pos. 9	Lower frame
Pos. 10	Upper frame
Pos. 11	Shears, inside
Pos. 12	Shears, outside
Pos. 13	Hydraulics unit
Pos. 14	Hydraulics cylinder
Pos. 15	Wheel set
Pos. 16	Extension
Pos. 17	Railing element with entrance
Pos. 18	Railing element
Pos. 19	Railing element (adjustable)
Pos. 20	Railing element (extension)
Pos. 21	Ladder attachment
Pos. 22	Ladder guide
Pos. 23	Ladder holder
Pos. 24	Reception plate wheel set
Pos. 25	Spirit level
Pos. 26	Railing element (optional)

2.2. Accessories

Pos. 15	Wheel set
Pos. 16	Subframe

2.3. Protective Devices

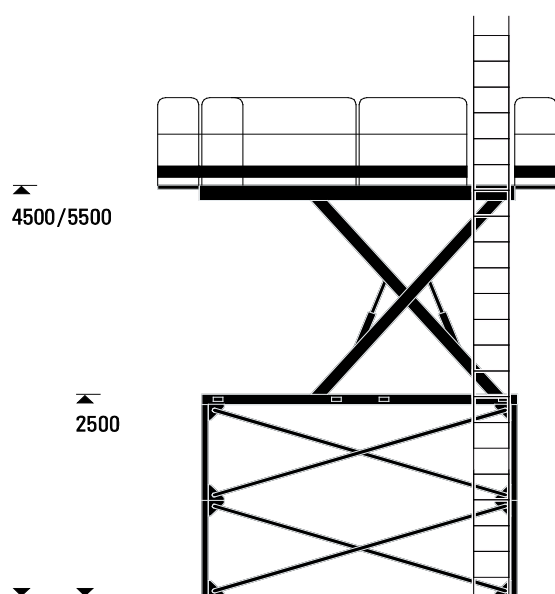
Pos. 5	Foot switch with EMERGENCY OFF
Pos. 7	Ladder
Pos. 8, 17, 18, 19, 20	Railing element



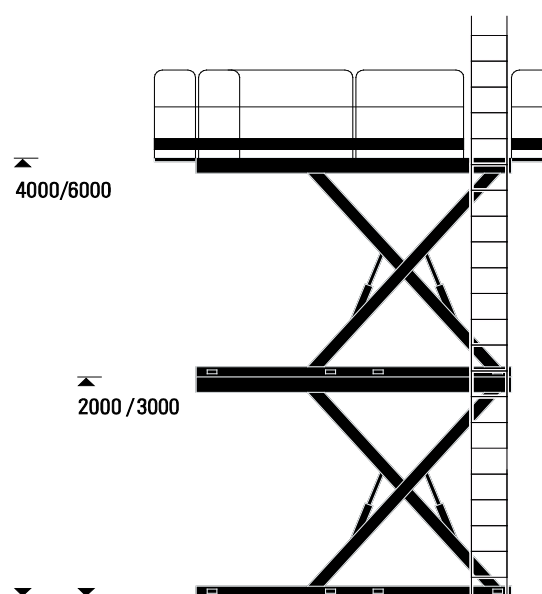
2.4. Technical Data

	MAB 2001	MAB 2801	MAB 3001
Length	3.1 m		4.1 m
Length with extensible walking bridges left/right	5 m		6 m
Width	1.62 m		
Lifting height	0.49 – 1.99 m		0.57 – 3.00 m
Lifting speed	1.5 m/min	1.8 m/min	2.1 m/min
Drive	Electrical/hydraulic		
Carrying capacity	2000 kg	3000 kg	
Drive output	1,6 kW S3 – 3 min/60 min	3,3 kW S3 – 3 min/60 min	
Voltage	400 V / 4,7 A 230 V / 8,1 A	400 V / 7,5 A 230 V / 13 A	
Subframes	Height max. 2.5 m		
Max. height with subframe (m)	4.5 m		5.5 m
Width extension	0.5 m		
Length extension	1 m		
Perm. load of walking bridge	150 kg Only for walking, no putting down or storing of construction materials or parts!		
Weight	960 kg	998 kg	1240 kg

The technical data listed here are subject to change without notice.



Masonry work platform with a subframe



Masonry work platform, double

2.5. Sound Power Level



WARNING

Risk of hearing damage

Regulations state that hearing protection must be worn above a noise level of 85 dB (A).

- Wear personal hearing protection

The information defines the volume of the noise load, regarding the operator's workplace.

The emission sound pressure at the operating station is at 70 dB(A).

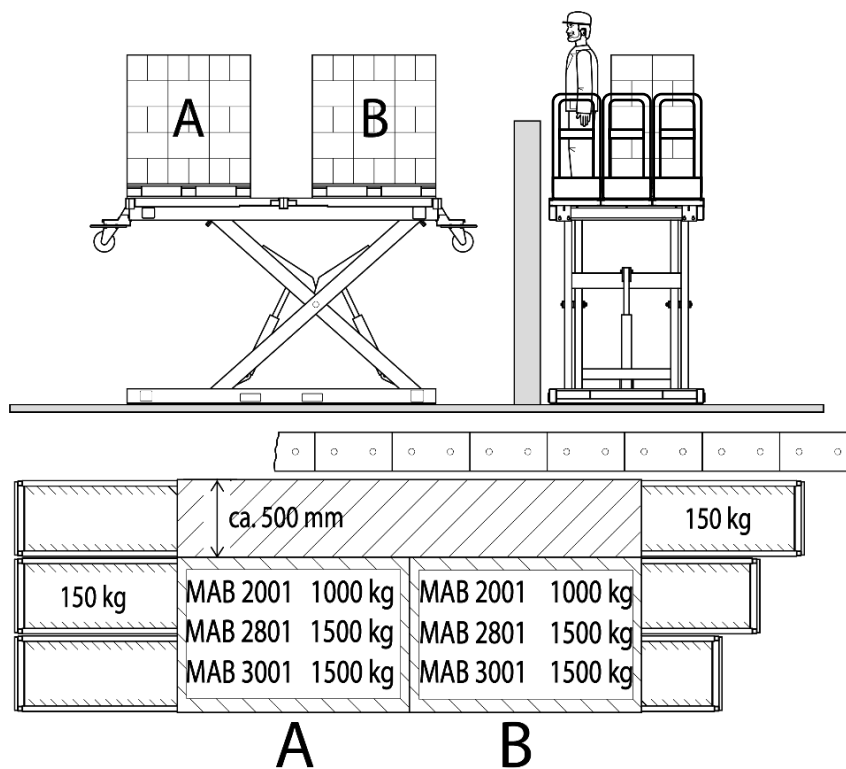
The values have been determined by the sound emission measurement.

The inspection took place without load on the work area.

The emission sound pressure was determined under consideration of the standard EN 280.

2.6. Load capacity of the Platform

	MAB 2001	MAB 2801	MAB 3001
Perm. overall load (persons and half)	2000 kg	3000 kg	3000 kg
Perm. load per half	1000 kg	1500 kg	1500 kg
Perm. load of extension element	150 kg Only for walking, no putting down or storing of construction materials or parts!		

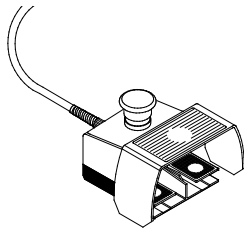


3. COMMISSIONING

3.1. Connections

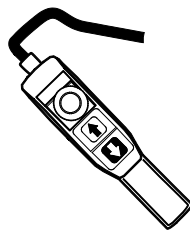
Power connection	Reliable power source with the operating voltage indicated on the rating plate (400V or 230V) and the corresponding protection must be present.
Operating hydraulic oil	The motors are filled with hydraulic oil by the manufacturer. Only hydraulic oil approved by the manufacturer may be used.

3.2. Controls



Foot switch with EMERGENCY OFF function

The foot switch is used to lift and lower the masonry work platform. The foot switch is placed on the masonry work platform and controlled via the operator's foot. The foot switch has an EMERGENCY OFF function at the top.



Manual control with EMERGENCY OFF function

The manual control is used to lift and lower the masonry work platform.
The manual control has an EMERGENCY OFF function at the top.



WARNING



Toppling of the machine

The platform may topple, sink or cant if set down carefully.

- The masonry working platform must be set down on a clean, horizontal and solid surface (minimum load carrying capacity 1000 kg/m²).



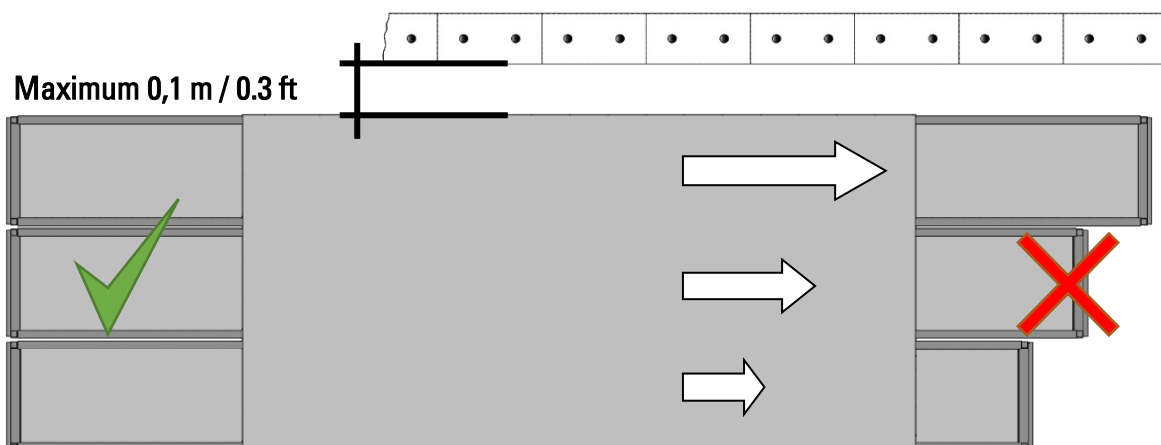
CAUTION



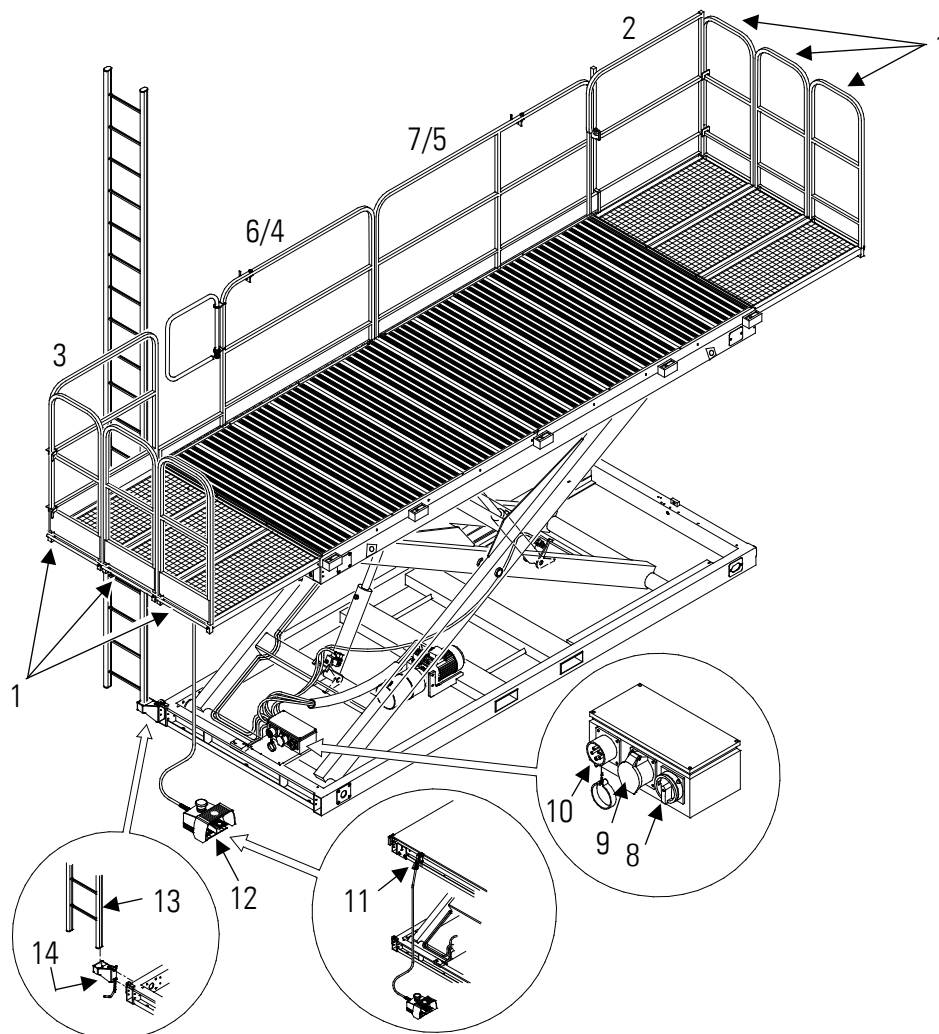
Personnel injury due to improper use

It is possible the machine will fall over between the open intermediate spaces if the pull outs are not completely extended

- The distance may not be larger than **-0.1 m-** on the railing-free side.
- It is prohibited to work on the machine if the pull outs are not completely extended!



3.4. Setup of the Masonry Work Platform



WARNING



Supply cables and power connection

Death or personnel injury may result from electrical shocks.

- Check the supply cable used for power connection for damage and place it so it is protected.
- Consider dangers from water and falling objects.

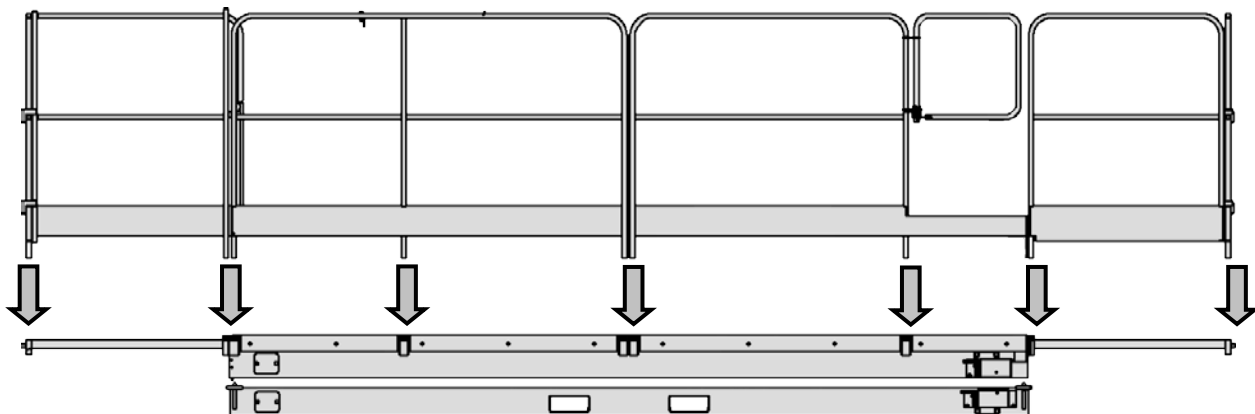
Sequence

- Put foot switch (Pos. 12) on the masonry work platform.
- Plug foot switch cable into the socket (Pos. 11).
- Turn the main switch (Pos. 8).
- Operation via the foot switch (Pos. 12)
- Set up railing (Pos. 1 to 7).
- The railing (Pos. 2) can only be plugged in with the extension completely extended.
- Plug the ladder (Pos. 13) into the ladder holder (Pos. 14) and secure it.

3.5. Installation of Railings



When transporting, all railing elements must be disassembled.



- The railing elements are plugged into the railing folders at the top of the frame.

Overview of the railing elements:

	1	2	3	4	5	6	7
	#001104	#001109	#001105	#000143	#001100	#000145	#001108
MAB 2001	X	X	X	X	X		
MAB 2801	X	X	X	X	X		
MAB 3001	X	X	X			X	X

2 7 / 5 6 / 4 3

#212069

3.6. Installation of emergency escape ladder



The ladder is a means of emergency evacuation, not a standard point of access.
During regular operation, the platform is to be lowered completely and accessed via the door from ground level.



WARNING



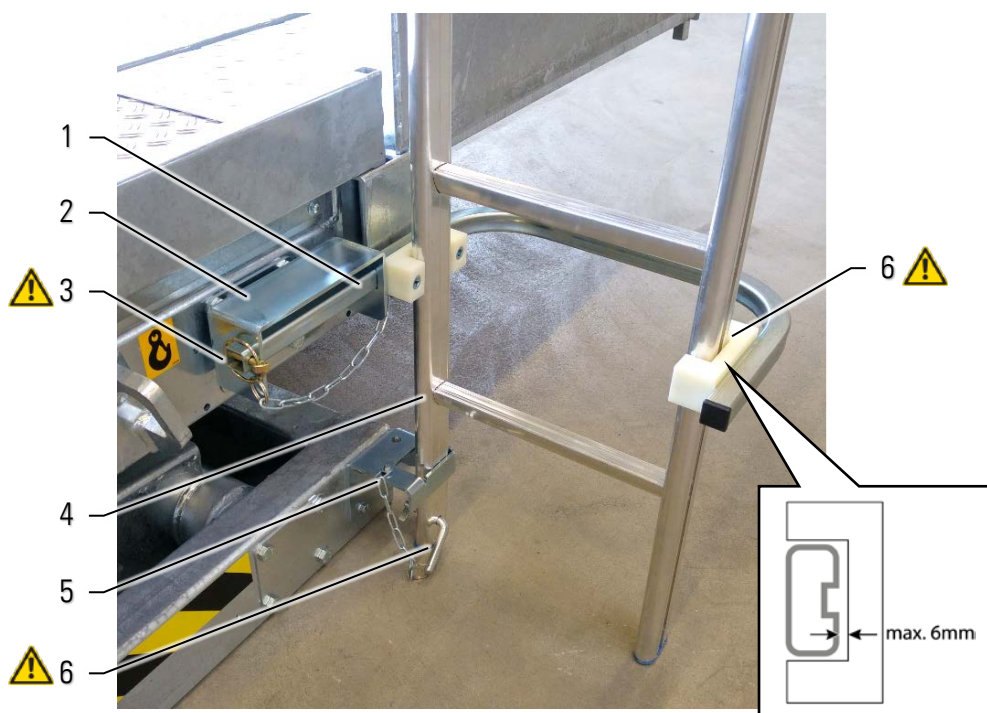
Fall hazard

If the ladder guide rail is not secured correctly or the guide is structurally damaged, the operator may fall.

- Check ladder guide at the beginning of each shift for damage and structural integrity.

Succession

- Insert ladder guide (Pos.1) into ladder holder at platform (Pos. 2) and secure with linchpin (Pos.3).
- Insert ladder (Pos.4) into ladder attachment at the platform base (Pos. 5) and secure with pin (Pos. 6).
- Check lateral play of ladder at the ladder guide (max. 6 mm).



The play between ladder guide and guide rail must be less than 6mm.
Replace worn or bent parts immediately.

4. TRANSPORT

4.1. Transport on Truck



CAUTION



Unsafe transport

Personnel injury or property damage may result.

- No persons or objects may be on the masonry working platform during transport!
- Transport the masonry working platform only completely lowered and with all railing elements removed.
- Only use suitable lifting and securing materials.



Transport is only permitted if the masonry work platform is lowered and all railing elements have been disassembled.

Conditions

- The masonry work platform has been lowered and is not placed on the wheels of the wheel set.
- The ladder and all railing elements have been removed.
- The masonry work platform is tied to the crane eyelets.

4.2. Relocation with the Forklift



CAUTION



Unsafe transport

Personnel injury or property damage may result.

- No persons or objects may be on the masonry working platform during transport!
- Transport the masonry working platform only completely lowered and with all railing elements removed.
- Only use suitable lifting and securing materials.



Transport is only permitted if the masonry work platform is lowered and all railing elements have been disassembled.

Sequence

- Lower masonry work platform with the foot switch.
- Disconnect supply cable from the power connection.
- Disconnect foot switch.
- Remove the ladder and all railing elements.
- Move stacker forks into the receptacles.
- Lift carefully and observe weight distribution.



WARNING



Unsafe transport

Personnel injury or property damage may result.

- No persons or objects may be on the masonry working platform during transport.
- Transport may only be done when the masonry working platform is lowered and all railing elements are removed.
- Only use suitable lifting and securing materials.
- Do not stand under a suspended load!



Transport is only permitted if the masonry work platform is lowered and all railing elements have been disassembled.

Conditions

- The masonry work platform is lowered with the foot switch.
- Disconnect supply cable from the power connection.
- Disconnect foot switch.
- The ladder and all railing elements must be disassembled.
- Attach attachment means to the four crane eyelets.
- Lift carefully and observe weight distribution.



CAUTION



Unsafe transport

Personnel injury or property damage may result.

- No persons or objects may be on the masonry working platform during transport!
- Transport may only be done when the masonry working platform is lowered and all railing elements are removed.
- Only use suitable lifting and securing materials.



WARNING



Danger of crushing by a masonry platform without an operator

Personnel injury or property damage are the result.

- Moving the masonry platform on wheels over inclines or declines is prohibited!
- Masonry working platform may only be moved if there are no persons or objects on the masonry working platform!
- The wheels may only be used for short stretches and on level concrete surfaces.

Sequence

- Install wheel set in the holding plate. Move the platform down until the lower frame lifts off.
- Two persons can move the masonry work platform.
- To secure it, lift the masonry work platform and put the frame at the bottom onto the floor.

5. OPERATION

5.1. Operation



WARNING



Leaving the masonry platform

Danger of crushing between the lift scissors or falling may result.

- Getting onto or leaving the masonry working platform when in the raised condition may only be done using the emergency escape (ladder). Non-intended getting onto or leaving the raised masonry working platform is prohibited!
- The masonry working platform must only be used with the railings designed for it!



CAUTION



Risk of falling due to improper use

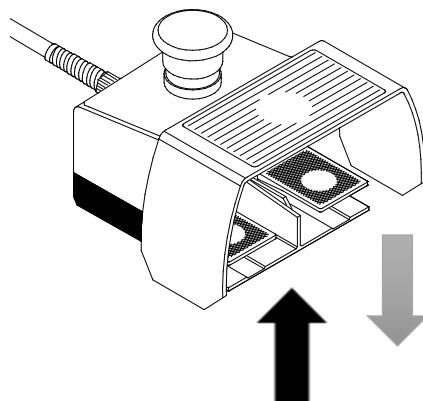
Personnel injury or material damage during work with the platform without railings is possible.

- The masonry working platform must only be used with the railings designed for it!



The masonry work platform must not be overloaded. Observe admissible load capacity!

- Operation via the foot switch.
 - * Left button - platform moves up
 - * Right button - platform moves down



5.2. Switch Off



The masonry work platform must be moved to the bottom position when switching off and must be secured against reactivation by unauthorised persons. The main switch can be secured with a padlock.

- Move the masonry work platform all the way down via the foot switch.
- Put the main switch in the OFF position.
- Disconnect supply cable from the power connection.
- Secure the main switch with a padlock.

5.3. Work Interruption



The masonry work platform must be moved to the bottom position when switching off and must be secured against reactivation by unauthorised persons. The main switch can be secured with a padlock.

- Move the masonry work platform all the way down via the foot switch.
- Put the main switch in the OFF position.
- Disconnect supply cable from the power connection.
- Secure the main switch with a padlock.

6. DISASSEMBLY



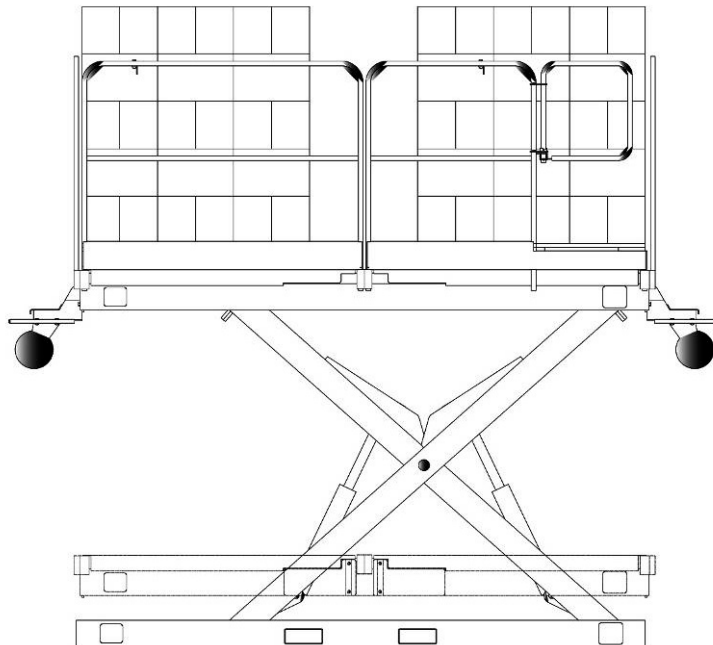
CAUTION



Unsafe transport

Personnel injury or property damage may result.

- No persons or objects may be on the masonry working platform during transport!
- Transport may only be done when the masonry working platform is lowered and all railing elements are removed.
- Only use suitable lifting and securing materials.
- Do not stand under a suspended load!



Sequence

- Lower the masonry work platform all the way down via the foot switch.
- Remove railing elements, ladder, ladder guide and ladder holder.
- Push in and lock the walking bridges
- Unplug on the foot switch
- Switch off the masonry work platform via the main switch.



The masonry work platform must be protected against reactivation by unauthorised persons after deactivation. The main switch can be secured with a padlock.

7. SERVICING



WARNING

Maintenance and repair work

Personnel injury or property damage may result.

- Maintenance and repair works must only be carried out by qualified personnel.
- Pull the power plug before any maintenance or repair work.
- The masonry working platform must be secured against activation by other people.
- The masonry working platform must always be well secured against possible lowering during repair or maintenance work (risk of crushing).

Cleaning



No aggressive cleaning agents must be used to protect the surface.

Do not use a high pressure washer in the marked area.

Hydraulic oil

Put a suitable collection vessel with a funnel under the oil drain screw. Professionally and environmentally consciously dispose of old hydraulic oil at your disposal company. Particularly observe the safety and maintenance provisions!

Lubrication

Use only high-quality grease according to the desired specifications at the lubrication nipples. The lubrication grease used at the masonry work platform is designated "Energrease LS2 BP".

7.1. Maintenance Work

	daily	weekly	monthly	before every use
Thoroughly clean the machine.	●			
Visual inspection for visible defects and damage Observe wear, crack formation, corrosion and deformation of the load-bearing parts and the welding seams.	●			●
Perform visual inspection of the electrical cables, hydraulic hoses and switches for damage and defects.	●			●
Visually inspect the hydraulic system for tightness.	●			●
Check hydraulic oil level in the tank.	●			
Cleaning of the masonry work platform	●			
Checking all screw connections		●		
Screw connections	Tighten all screw connections after 20 operating hours.			
Hydraulic oil change	After the first 50 operating hours, then every 2,000 operating hours!			



Replacement of the hydraulic lines on demand - but no later than after 6 years!
Replacement of the hydraulic lines must be noted in the maintenance plan!



WARNING

Crushing hazard

Severe to fatal crushing injuries when working under the platform in the area of the lifting scissors.

- Before entering the area under the platform, the maintenance supports must be set
- Always insert both supports and engage them securely in the end position.

Sequence

1. lower the masonry work platform completely.
2. completely unload the platform.
3. lift platform approx. 1.2m.
4. leave platform via ladder, lift maintenance braces and fold out completely.
ATTENTION: The supports must always lock in the end position!
5. climb onto the platform and lower platform to the stop.
6. leave platform via ladder and carry out maintenance work.

Dismantling in reverse order.

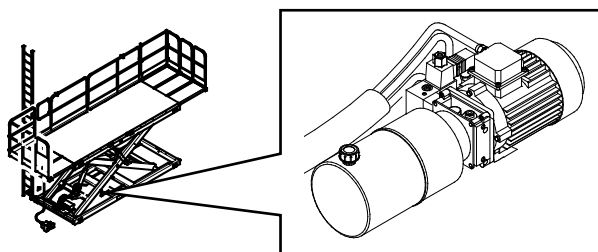
- Transport position



- Maintenance position



7.3. Oil Level Inspection



- Move the masonry work platform all the way up via the foot switch.
- The oil level must be between min. and max.

7.4. Hydraulic Oil

The hydraulic unit is filled with pure hydraulic oil that is bio-degradable.
Only use one type of hydraulic oil and do not use any mixtures.

Hydraulic oil used

AGIP Arnica Extra Plus 46



To avoid damage, you must only use this or another synthetic hydraulic liquid based on "Estern HE".

7.5. Torque values of Screw Connections

Strength class	8.8	10.9	12.9
Dimensions	Max. tightening torque in Nm	Max. tightening torque in Nm	Max. tightening torque in Nm
M4	3.3	4.8	5.6
M5	6.5	9.5	11.2
M6	11.3	16.5	19.3
M8	27.3	40.1	46.9
M10	54	79	93
M12	93	137	160
M14	148	218	255
M16	230	338	395
M18	329	469	549
M20	464	661	773
M22	634	904	1057
M24	798	1136	1329
M27	1176	1674	1959
M30	1597	2274	2662

7.6. Recurring Inspections

Recurring inspections must be performed depending on the usage conditions and frequency of use. Content of the recurring inspection

- Visual inspection of the masonry work platform with special observation of corrosion and other damage to load-bearing parts and welding seams
- Inspection of the mechanical, hydraulic and electrical systems under special consideration of the safety facilities
- Effectiveness of the overload protection
- Function inspection of the complete masonry work platform



To avoid damage, you must only use this or another synthetic hydraulic liquid based on "Estern HE".

The results of inspections and the name and address of the performing person/s must be indicated in a signed test report.

7.6.1. Safety Facilities

Securing the load attachment means (masonry work platform) against inadvertent lifting or lowering in case of leaks in the control system by an unlockable check valve at each cylinder. The valves are electrically controlled and equipped with a spring return.

7.6.2. Regular Inspections by the Expert

Masonry work platforms are to be inspected by an expert (manufacturer, TÜV) at intervals of no more than one year after the first commissioning. The masonry work platform must be cleaned thoroughly before the inspection.

General information

Manufacturer

LISSMAC Maschinenbau GmbH
Lanzstraße 4
D-88410 Bad Wurzach

Designation: Masonry work platform MAB

Serial number:

Power connection:

Year of build:

Delivery date/

Commissioning on.....

7.7. Maintenance Plan



This section is to serve as proof for already-performed maintenance and as a service manual. All maintenance and service work must be entered as proof.

Machine/type:

Serial number/year of build:

Date	Maintenance or service work performed	Date/signature
------	---------------------------------------	----------------

[illegible]

8. TROUBLESHOOTING



WARNING

Maintenance and repair work

Personnel injury or property damage may result.

- Maintenance and repair works must only be carried out by qualified personnel.
- Pull the power plug before any maintenance or repair work.
- The masonry working platform must be secured against turning on by other people.
- The masonry working platform must always be well secured against possible lowering during repair or maintenance work (risk of crushing).

Errors	Cause	Remedy
When operating the foot switch, the platform does not move up although the unit is running.	Directional seat valve at the unit defective	The valve must only be replaced by the manufacturer or by trained staff.
The platform does not move up to the end position.	Not enough hydraulic oil in the tank	Replenish oil
Platform does not move down	Magnetic valve at the cylinder defective	The valve must only be replaced by the manufacturer or by trained staff.
	Foot switch defective	Repair only by trained staff
Lifting force of the platform reaches no rated load	Pressure is too low	Only by the manufacturer or by trained staff
Oil loss at the screw connections	Screw connections loosened	Tighten screw connections.
	Seal defective	Only by the manufacturer or by trained staff
Platform lifts with jerks	Air in the hydraulics	Venting by the manufacturer or by trained staff
Lifting speed is reduced	Temperature of the hydraulic oil is too low	Depending on the outdoor temperature
		Venting by the manufacturer or by trained staff
Unit is not running	Foot switch defective	Must only be removed by a specialist electrician
	Motor defective	

9. ACCESSORIES

9.1. Subframes

There is the possibility of increasing the working height of the masonry work platform by using a subframe.



Only subframes of type UG 250 must be used. When using subframes, additionally observe the operating instructions of the respective subframe!

9.2. Wheel Set



CAUTION



Unsafe transport

Personnel injury or property damage may result.

- Masonry working platform may only be moved if there are no persons or objects on the platform surface.
- Transport may only be done when the masonry working platform is lowered and all railing elements are removed.



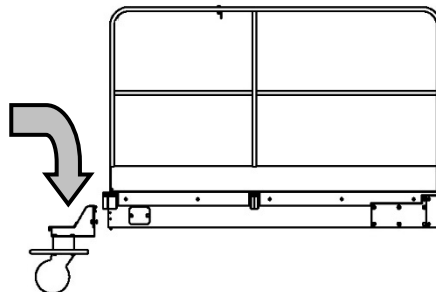
WARNING



Danger of crushing by a masonry platform without an operator

Personnel injury or property damage may result.

- Moving the masonry platform on wheels over inclines or declines is prohibited.
- Masonry working platform may only be moved if there are no persons or objects on the masonry working platform.
- The wheels may only be used for short stretches and on level concrete surfaces.



- Retract all extensions of the masonry work platform.
- Attach the wheel set to the receptacles.



The wheel set latches via a safety latch.
To remove the wheel set, you only need to pull the safety latch.

9.3. Masonry Work Platforms, Double

9.3.1. Safety Notes

- The upper platform must be attached with connection clamps.



The carrying force of the lower platform must not be exceeded by the dead weight of the upper platform!
Only work on the upper platform with the railing and emergency ladder.

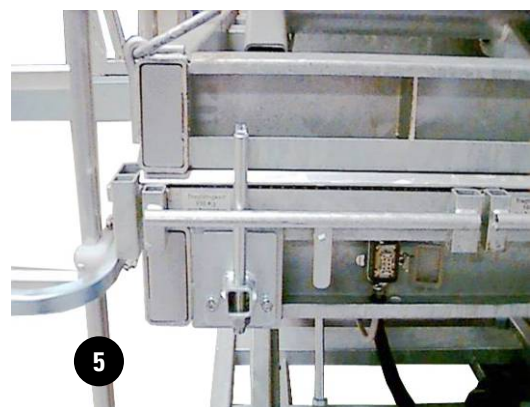
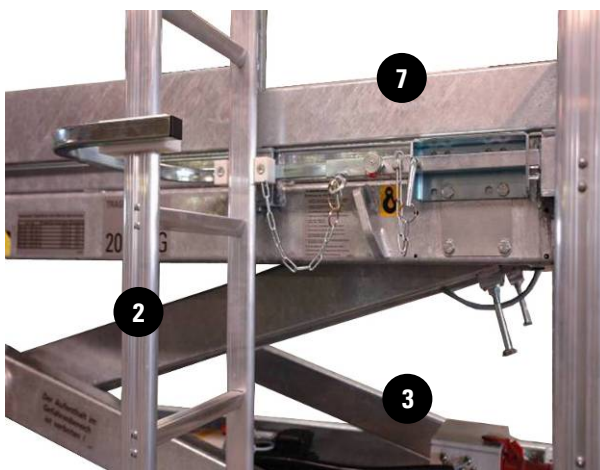
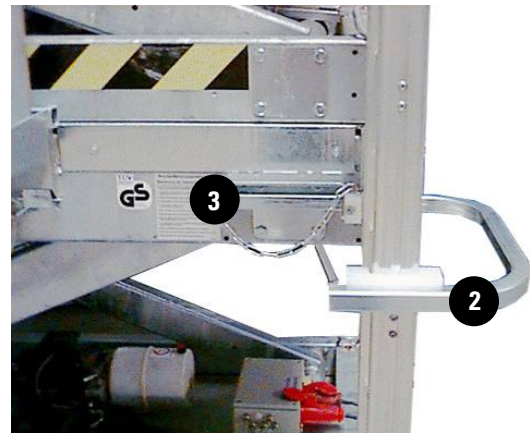
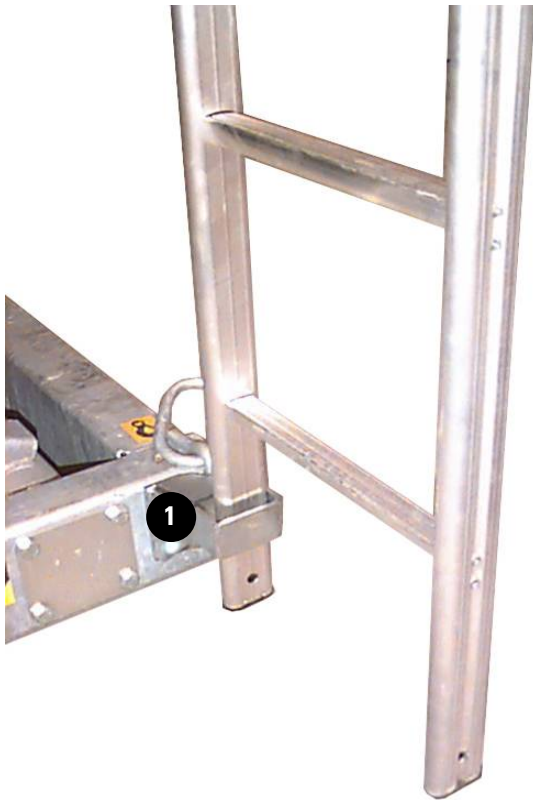
9.3.2. Technical Data

	Carrying capacity of the upper masonry work platform	Work height
MAB 3001 + MAB 3001	1,650 kg	6.00 m
MAB 2801 + MAB 2801	1,950 kg	3.98 m
MAB 2001 + MAB 2001	1,020 kg	3.98 m
MAB 3001 + MAB 2801	1,950 kg	4.98 m
MAB 3001 + MAB 2001	2,000 kg	4.98 m
MAB 2801 + MAB 2001	2,000 kg	3.98 m

Sequence

- Put the first masonry work platform on a horizontal, clean and load-bearing ground.
- Check that the platform is level with a spirit level.
- Put the second masonry work platform on the first masonry work platform.
- Connect the masonry work platform with connection clamps.
- For the MAB 3001 with MAB 2801/2001, two connection clamps must be used at the side.



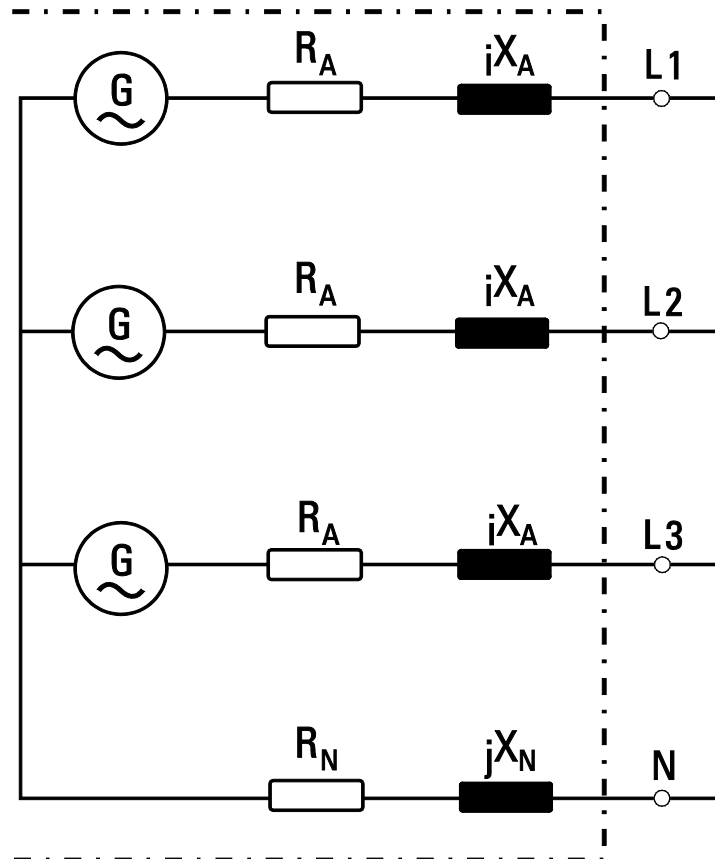


- Install the lower ladder receptacle at the lower frame of the first platform (1).
- Attach and secure the ladder guide holder (3) and the ladder guide (2) at the top frame of the first masonry work platform.
- Insert and secure the ladder.
- Mount the ladder guide holder (6) at the top frame of the first masonry work platform and secure it.
- Attach and secure the ladder guide holder (3) and adapter (7) and the ladder guide (2) at the top frame of the second masonry work platform.
- Insert and secure the second ladder.
- Check all safety elements for their professional assembly again.

10. DECOMMISSIONING

Professional disposal of all parts of the masonry work platform, including the operating materials (e.g. hydraulics oil). All EU and national provisions must be observed.

11. SPECIAL CONNECTION CONDITIONS



Special connection conditions according to EN 61000-3-3 or IEC 61000-3-11

$R_A=0.15\Omega$

$jX_A=0.1\Omega$ at 50 Hz

$R_N=0.1\Omega$

$jX_N=0.06\Omega$ at 50 Hz

12. WARRANTY

The warranty for this machine is 12 months. For the wear parts listed below, warranty is only assumed if the wear is not for operational reasons.

Wear parts are parts that are subject to operational wear at intended use of the machine. The wear time cannot be defined consistently; it differs by intensity of use. The wear parts require device-specific maintenance, setting and poss. replacement according to the operating instructions of the manufacturer.

Operational wear does not lead to any claims for defects.

- Feed and drive elements, such as toothed racks, gears, pinions, spindles, spindle nuts, spindle bearing, cables, chains, chain wheels, belts
- Seals, cable, hoses, collars, connectors, couplings and switches for pneumatics, hydraulics, , electrical
- Guide elements, such as guide strips, guide bushings, guide rails, rollers, bearings, anti-slide plating
- Tension elements from quick-coupling systems
- Plain and roller bearings, which do not run in oil bath
- Shaft sealing rings and sealing elements
- Carbon brushes, collectors
- Fuses
- Auxiliary and operating materials
- Fastening elements, such as pegs, anchors and screws
- Running and drive wheels

Translation of the original declaration of conformity:

LISSMAC



This EC declaration of conformity is valid for the following machine:
LISSMAC masonry work platform MAB 2001, MAB 2801 and MAB 3001.

This declaration refers solely to the machine in the condition in which it was marketed; any parts subsequently attached by the end user and/or any subsequent manipulation shall not be considered. It is confirmed that the machine corresponds to the relevant provisions of the directive 2006/42/EC and 2000/14/EG.

Manufacturer

LISSMAC Maschinenbau GmbH
Lanzstrasse 4
D-88410 Bad Wurzach

The technical documents are kept by
LISSMAC Maschinenbau GmbH, Lanzstraße 4, D-88410 Bad Wurzach

Description of the machine:

The LISSMAC masonry work platform MAB is a mobile lifting work platform. It is intended solely for the raising and lowering of workers and building material on construction sites by competent persons. Lifting serves to balance out the work height and limits itself to the maximum carrying capacity indicated.

	MAB 2001	MAB 2801	MAB 3001
Length	3.1 m	3.1 m	4.1 m
Width	1.62 m	1.62 m	1.62 m
Lifting height	0.49 – 1.99 m	0.49 – 1.99 m	0.57 – 3,00 m
Lifting speed	1.5 m/min	1.8 m/min	2.1 m/min
Carrying capacity	2000 kg	3000 kg	3000 kg
Drive	Electrical/hydraulic		
Voltage	400 V / 4,7 A 230 V / 8,1 A S3 – 3min/60min	400 V / 7,5 A 230 V / 13 A S3 – 3min/60min	
Weight	960 kg	998 kg	1240 kg

Harmonised standards:

EN ISO 12100 Corrigendum 1:2013-08
DIN EN 60204-1; VDE 0113-1:2007-06
EN 55014-1:2012-05; VDE 0875-14-1:2012-05
EN 55014-2:2016-01; VDE 0875-14-2:2016-01
EN 61000-3-2:2015-03; VDE 0838-2:2015-03
EN 61000-3-3:2014-03; VDE 0838-3:2014-03

Legally valid authorised person:

LISSMAC Maschinenbau GmbH
Lanzstrasse 4
D-88410 Bad Wurzach
Telephone: +49 (0) 7564 / 307 - 0
Fax: +49 (0) 7564 / 307 - 500
Email: lissmac@lissmac.com
www.lissmac.com

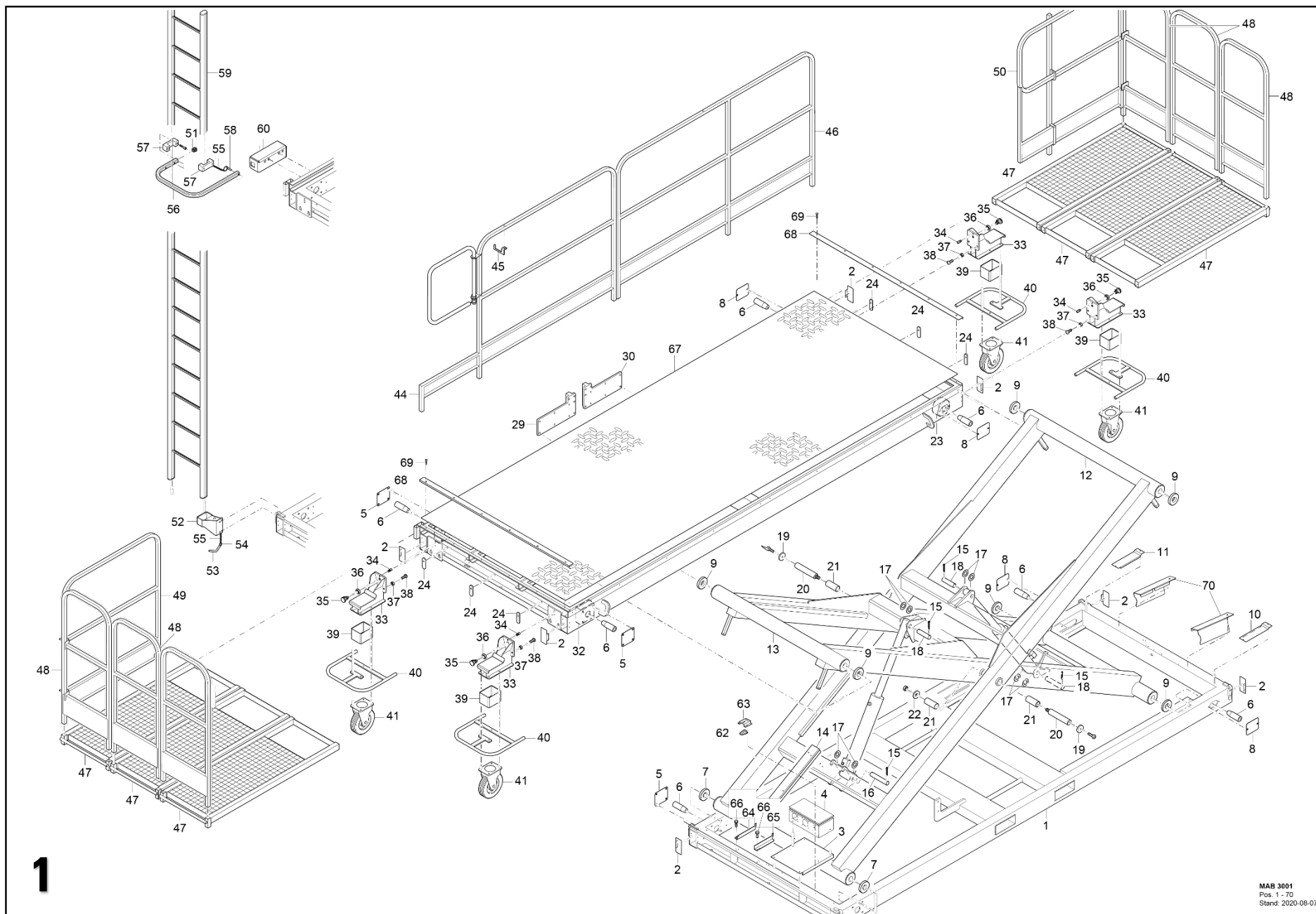
Bad Wurzach, 04.08.2017

ppa. Benjamin Mayer
(Technical Director)

13. SPARE PARTS

FIG. 1 Pos.	Designation	Specification	Qty	Spare parts recommendation	MAB 2001	MAB 2801	MAB 3001
1	LOWER FRAME		1		691066		691086
2	PIPE COVER		4		622282		
3	CONTROL PANEL		1		622461		
4	ELECTRICAL KIT		1		681659	681686	681409
5	COVER	Ø 13,5	4		622275		
6	CONICAL BOLT		8		622271		
7	GUIDE DISC	90x12	-		204693		
	GUIDE DISC	90x14	2		202755		
	GUIDE DISC	90x16	-		204694		
	GUIDE DISC	90x18	4		202756		
8	COVER		4		622274		
9	GUIDE DISC	90x18	4		202756		
10	COVER SHEET MAB		1		622489		
11	COVER SHEET MAB		1		622488		
12	EXTERNAL SHEAR		1		691068	691103	691088
13	INTERNAL SHEAR		1		691069	691104	691089
16	CYLINDER BOLT		2		201927	201928	
17	SPACER		4		622520		
18	CYLINDER BOLT		2		201928	201927	
19	WASHER		2		621052		
20	SCISSOR BOLTS		2		622139		
21	CYLINDER SOCKET PLASTIC		8		201580		
22	WASHER FOR SCISSORS BOLT		2		621053		
23	ROLLER		4		202753		
24	BAR GALVANIZED		6		621051		
32	BRACKET POLYAMIDE		4		201892		
33-41	WHEEL SET MAB 2001/2801		1		820093		-
33-42	WHEEL SET MAB 3000		1		-		820094
33	RECEPTACLE		4		691072		
34	SHAFTSCREW WITH NOTCH	DIN 427 10 x 25	4		300267		
35	SPRING LOCK GALVANIZED		4		201767		
36	HEXAGON NUT	DIN 439 18 x 1,0	4		300664		
37	HEXAGON NUT	DIN 934 12,0	8		300559		
38	LENS HEAD SCREW	M 12 x 30	8		300699		
40	PROTECTIVE BAR		4		690483		
41	STEERING ROLLER HEAVY DUTY		4		200989		
42	TUBE FOR WHEEL ADAPTER		-		-		691090
43	RAILING SET		-		820107		820126
44	RAILING WITH ACCESS POINT		1		680144		680143
45	LADDER HOOK RAILING		1		622090		
46	RAILING		1		691190		691188
47	WALKWAY		6		692083		
48	RAILING SIDE		6		691184		
49	RAILING RIGHT FIXED		1		691185		
50	RAILING LEFT FREE		1		691189		
51	SLIDE STOPPER BLACK		1		201529		
52-55	LADDER LOCKING MECHANISM COMPLETE		-		680276		
52	LADDER LOCKING MECHANISM		1		690831		
53	LOCKING BOLTS		1		623233		
54	KEY RING		1		202653		
55	CHAIN C. LINK		2		200324		
56	SAFETY CATCH		1		622973		
57	SLIDING GUIDE		2		205274		
58	FOLDING SPINT	8 x 41 x 47	-		280041		

FIG. 1 Pos.	Designation	Specification	Qty	Spare parts recommendation	MAB 2001	MAB 2801	MAB 3001
51+ 55-58	LADDER LOCKING MECHANISM COMPLETE, UPPER		-		680274		
52-55	LADDER LOCKING MECHANISM COMPLETE, LOWER		-		680276		
59	ALUMINUM LADDER		1		621115		
60	LADDER RECEPTACLE		1		622972		
61	FRAME, TOP		1		692521	692147	
62	SPIRIT LEVEL		1		201215		
63	IMPACT PROTECTION		1		621139		
64	FOOT CONTROL PANEL 2		1		623232		
65	FOOT CONTROL PANEL 3		1		623231		
66	HEX BOLT	DIN 933 6 x 16	-		300276		
67	ALUMINIUM PLATE		1		102094	102095	
68	COVER		2		623238		
69	COUNTERSUNK SCREW	DIN 7991 6 x 12	-		360044		
70	MAINTENANCE SUPPORT		1		1078056		



1

FIG. 2 Pos.	Part No.	Designation	Specification	Qty	Spare parts recommend ation	MAB 2001 400 V	MAB 2001 230 V	MAB 2801 400 V	MAB 2801 230 V	MAB 3001400 V	MAB 3001 230 V
1	1038783	E-Motor 1.1kW 230/400V		1		x					
	1038786	E-Motor 2.2kW 230/400V		1				x		x	
4.1+4.2	403765	MAIN SWITCH		1		x		x		x	
4.1+4.2	404512	MAIN SWITCH		1	x		x		x		x
5	400694	SOCKET ATTACHMENT EQUIPMENT		1		x		x		x	
6	400693	CONNECTING DEVICES		1	x	x		x		x	
7	403784	CLAMPING BOX		1		x		x		x	
	623272	CLAMPING BOX		1			x		x		x
	1038791	CLAMPING BOX		1		x	x				
10	1014470	BRIDGE RECTIFIER		2		x		x	x	x	x
not shown	202621	GASKET FOR PLUG		1		x		x		x	
11	400400	FLEXIBLE CABLE		1		x		x		x	
12	402300	PLUG 3-PIN BLACK		2		x		x		x	
not shown	202621	GASKET FOR PLUG		2		x		x		x	
13	400400	FLEXIBLE CABLE		1		x		x		x	
14	400497	FLEXIBLE CABLE		1		x		x		x	
15	400289	SLEEVE BUSHING		1	x	x		x		x	
16.1	400437	REDUCTION BRASS		1		x		x		x	
16.2	400454	CABLE CONNECTION		1		x		x		x	
17	400418	SOCKET HOUSING 6 PIN		1		x		x		x	
18	400414	SOCKET INSERT 6 PIN		1		x		x		x	
not shown	1036668	ELECTRICAL KIT		1		x					
not shown	1038905	ELECTRICAL KIT with socket		1		x					
not shown	681659	ELECTRICAL KIT		1			x				
not shown	1036672	ELECTRICAL KIT		1				x			
not shown	1038916	ELECTRICAL KIT with socket		1				x			
not shown	681686	ELECTRICAL KIT		1					x		
not shown	1035980	ELECTRICAL KIT		1						x	
not shown	681405	ELECTRICAL KIT		1							x
not shown	1038915	ELECTRICAL KIT with socket		1							x
not shown	682023	ELECTRICAL KIT with socket		1						x	
19	400415	PIN INSERT 6 PIN		1	x	x	x	x	x	x	x
20	400416	SLEEVE HOUSING 6 POL		1		x	x	x	x	x	x
21	400437	REDUCTION MS		1		x	x	x	x	x	x
22-23	401346	CABLE CONNECTION		1		x	x	x	x	x	x
24	400536	FLEXIBLE CABLE		1		x	x	x	x	x	x
25	403192	CABLE CONNECTION		1		x	x	x	x	x	x
26	400398	FOOT SWITCH with EMERGENCY STOP		1		x	x	x	x	x	x
26.1	200959	"LIFT" ADHESIVE LABEL		1		x	x	x	x	x	x
26.2	200960	"Lower" ADHESIVE LABEL		1		x	x	x	x	x	x
26.3	600639	EMERGENCY STOP switch		1		x	x	x	x	x	x
26.4	400640	AUXILIARY CONTROL BLOCK		1		x	x	x	x	x	x
26.5	203052	DECAL emergency stop		1		x	x	x	x	x	x
(19-26.5)	680571	FOOT SWITCH complete		1		x	x	x	x	x	x
not shown	1038787	FAN BLADES		1		x	x				
not shown	1038788	FAN BLADES		1				x	x	x	x
not shown	1028789	FAN HOOD		1		x	x				
not shown	1038790	FAN HOOD		1				x	x	x	x

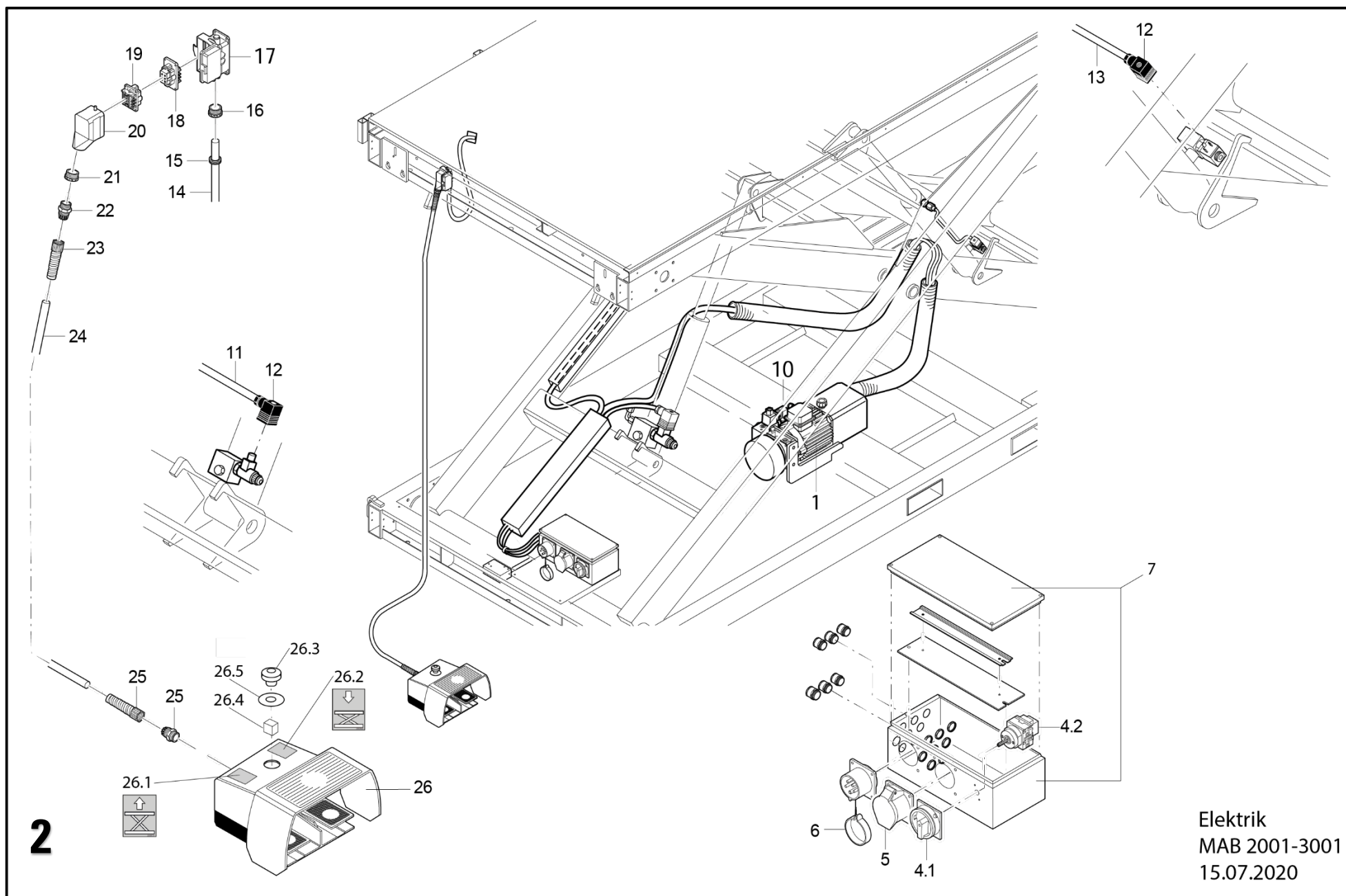


Bild 3/4/5 Pos.	Part. No.	Designation	Qty	MAB 2001 400V	MAB 2001 230V (HPI)	MAB 2801 400 V	MAB 2801 230 V (HPI)	MAB 3001 400 V	MAB 3001 230 V (HPI)
1	1031819	HYDRAULIC UNIT 1.1KW 400V	1	x					
	210368	HYDRAULIC UNIT 1,1KW 230V	1		x				
	1031820	HYDRAULIC UNIT 2,2KW 400V	1			x			
	1013760	HYDRAULIC UNIT 2,2KW 230V	1				x		
	1031821	HYDRAULIC UNIT 2,2KW 400V	1					x	
	208037	HYDRAULIC UNIT 2,2KW 230V	1						x
1.1	201181	HOSE CLAMP	1	x		x		x	
1.2	205051	STICKER OIL LEVEL CHECK	1	x		x		x	
1.3	1038783	E-MOTOR 1.1 KW 230/400 V	1	x					
	1038786	E-MOTOR 2.2 KW 230/400 V	1			x		x	
1.3.1	1038787	FAN BLADE MAG2001	1	x					
	1038788	FAN BLADE MAG2801/3001	1			x		x	
1.3.2	1038789	FAN BLADE MAG2001	1	x					
	1038790	FAN BLADE MAG2801/3001	1			x		x	
1.4	1038791	TERMINAL BOX MAB 2001	1	x					
	1038792	TERMINAL BOX MAB 2801/3001	1			x		x	
1.5	1038793	HP-TANK 8 L	1	x		x		x	
1.6	1038794	FASTENING KIT TANK	1	x		x		x	
1.7	1038795	FILLING CAP	1	x		x		x	
1.8	1038796	2-WAY VALVE ASSY.	1	x		x		x	
1.9	1038798	MAGNETIC COIL 230 V	2	x		x		x	
1.9.1	1040446	FASTENING NUT FOR MAGNETIC COIL MAB	2	x		x		x	
1.10	1014470	BRIDGE RECTIFIER	2	x		x		x	
1.11	1038801	PRESSURE LIMITING VALVE	1			x		x	
1.12	1038803	HP-PUMP 1.2 CCM	1	x					
	1038804	HP-PUMP 2.5 CCM	1			x		x	
1.13	1038805	MINATURE TEST PORT G1/4 M16X2	1	x		x		x	
1.14	1038799	INTAKE PIPE ASSY.	1	x		x		x	
1.15	1038800	CHECK VALVE	1	x		x		x	
1.16	1038802	GASKET SET	1	x		x		x	
2	300176	HEX BOLT M10x30	2	x		x	x	x	x
	301592	HEX BOLT M10x30	2		x		x		x
2.1	618178	SPACER HPI	2		x		x		x
3	300327	WASHER	2	x	x	x	x	x	x
4	204692	HP THREADED UNION	1	x	x	x		x	
	205175	HP THREADED UNION HPI	1				x		x
5	202884	HP SCREW FITTING	1	x	x	x		x	
	207712	HP SCREW FITTING HPI	1				x		x
5.1	201173	HD WINKELVERSCHRAUBUNG 90°	2				x		x
6	201942	HP HOSE	1	x	x				
	208110	HP HOSE	1			x	x		
	201280	HP HOSE	1					x	x
7	201279	HP HOSE	1	x	x			x	x
	208111	HP HOSE	1			x	x		
8	201180	HP HOSE	1			x	x		
	207713	HP HOSE	1					x	x
9	201177	HP HOSE	1			x	x		
	204772	HP HOSE	1					x	x
10	201174	HP REDUCER - CONE	1	x	x				
	201174	HP REDUCER - CONE	2			x	x		
11	200314	HP SCREW SWIVEL	1	x	x				
	200314	HP SCREW SWIVEL	2			x	x		
12	213350	HP CYLINDER	1	x	x				
	213350	HP CYLINDER	2			x	x		
	201163	HP CYLINDER	2					x	x
13	204499	HP VALVE	1	x	x				
	204499	HP VALVE	2			x	x	x	x

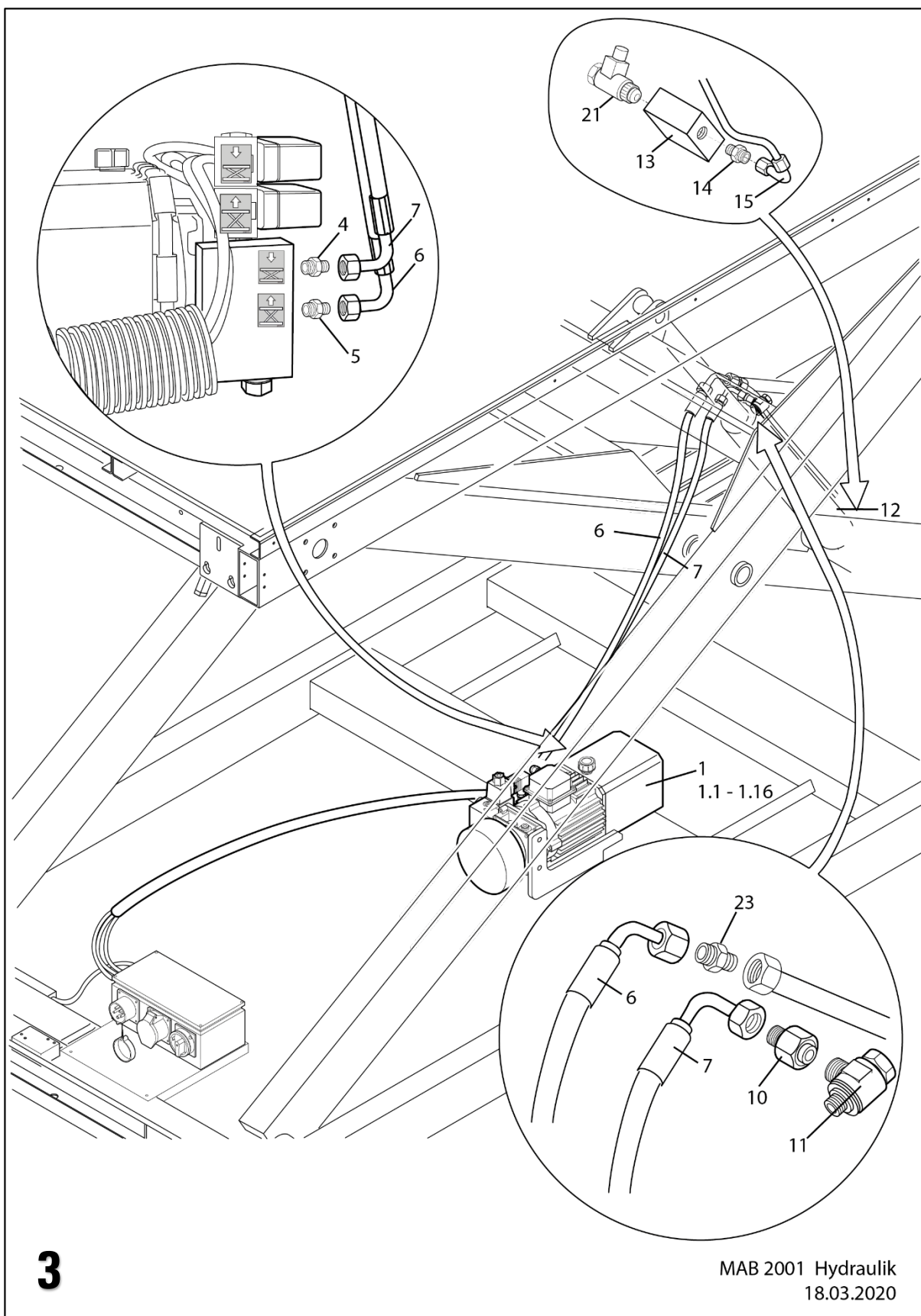
Bild 3/4/5 Pos.	Part. No.	Designation	Qty	MAB 2001 400V	MAB 2001 230V (HPI)	MAB 2801 400 V	MAB 2801 230 V (HPI)	MAB 3001 400 V	MAB 3001 230 V (HPI)
14	201170	HP THREADED UNION	2			x	x	x	x
15	201173	HP THREADED UNION	2			x	x	x	x
16	201185	HP PIPE	1	x	x				
	201176	HP PIPE	1			x	x		
	201283	HP PIPE	2					x	x
17	201172	HP THREADED UNION-T	1			x	x		
	201172	HP THREADED UNION-T	2					x	x
18	201171	HP THREADED UNION-T	1			x	x		
19	201175	HP ANGLE FITTING	1			x	x		
20	201185	HP PIPE	1			x	x		
21	403612	E-MAGNETIC COIL	1	x	x				
	403612	E-MAGNETIC COIL	2			x	x	x	x
22	400960	PROTECTIVE HOSE	1	x	x	x	x	x	x
23	201282	HP SCREW SWIVEL STRAIGHT	1	x	x			x	x
24	201168	HP SCREW SWIVEL STRAIGHT	2					x	x
25	201401	HP SCREW SWIVEL STRAIGHT	2					x	x
26	400526	PROTECTIVE HOSE	1	x	x	x	x	x	x

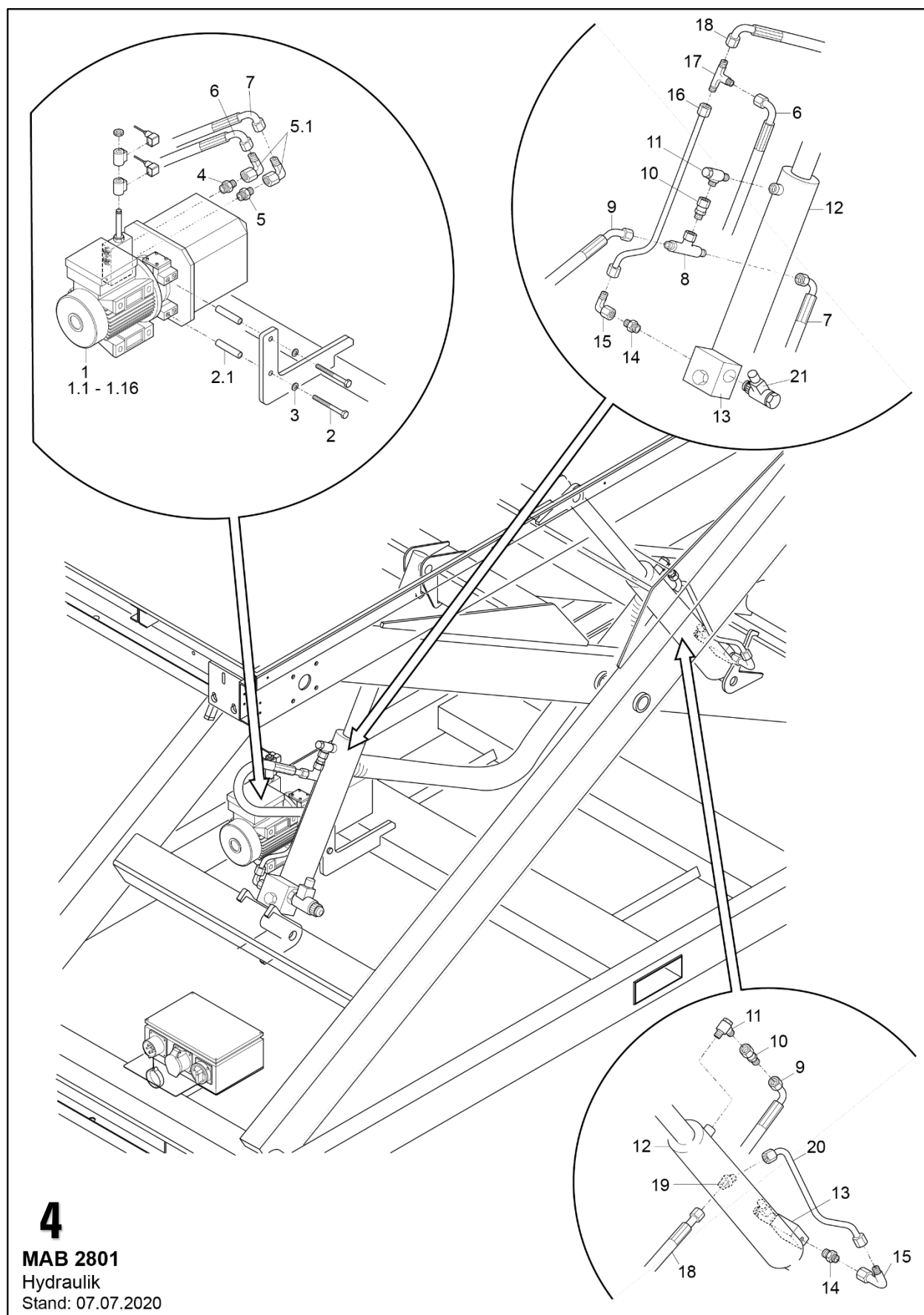


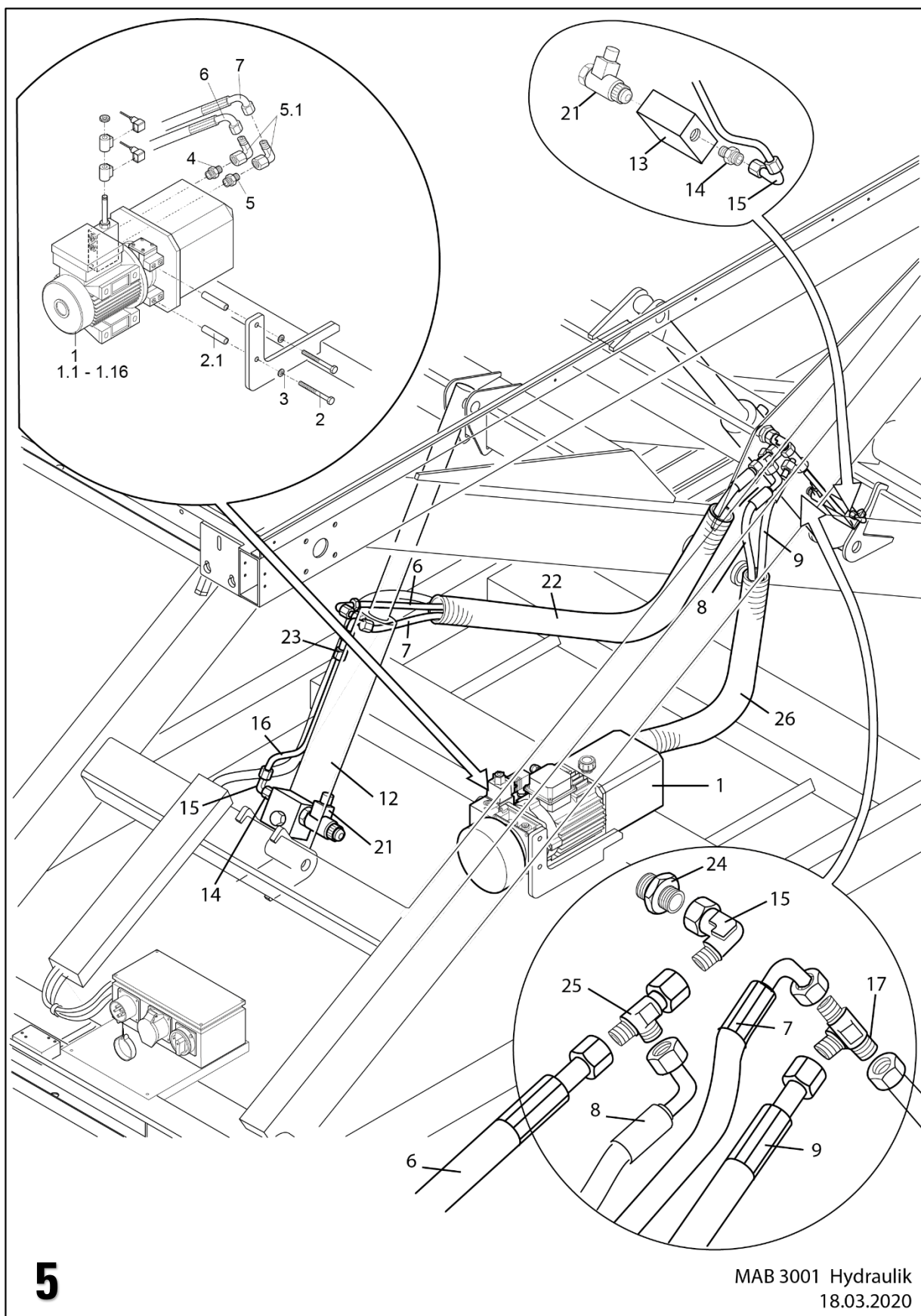
To avoid incorrect deliveries, please specify the complete designation, year of manufacture and machine number when ordering spare parts.

Technical changes reserved!

We would expressly draw your attention to the fact that parts not supplied by us have also not been tested or approved by us. The installation and use of such products can negatively affect the properties of your device and thereby impair safety. We cannot accept any liability for damage caused by the use of non-genuine parts and accessories.



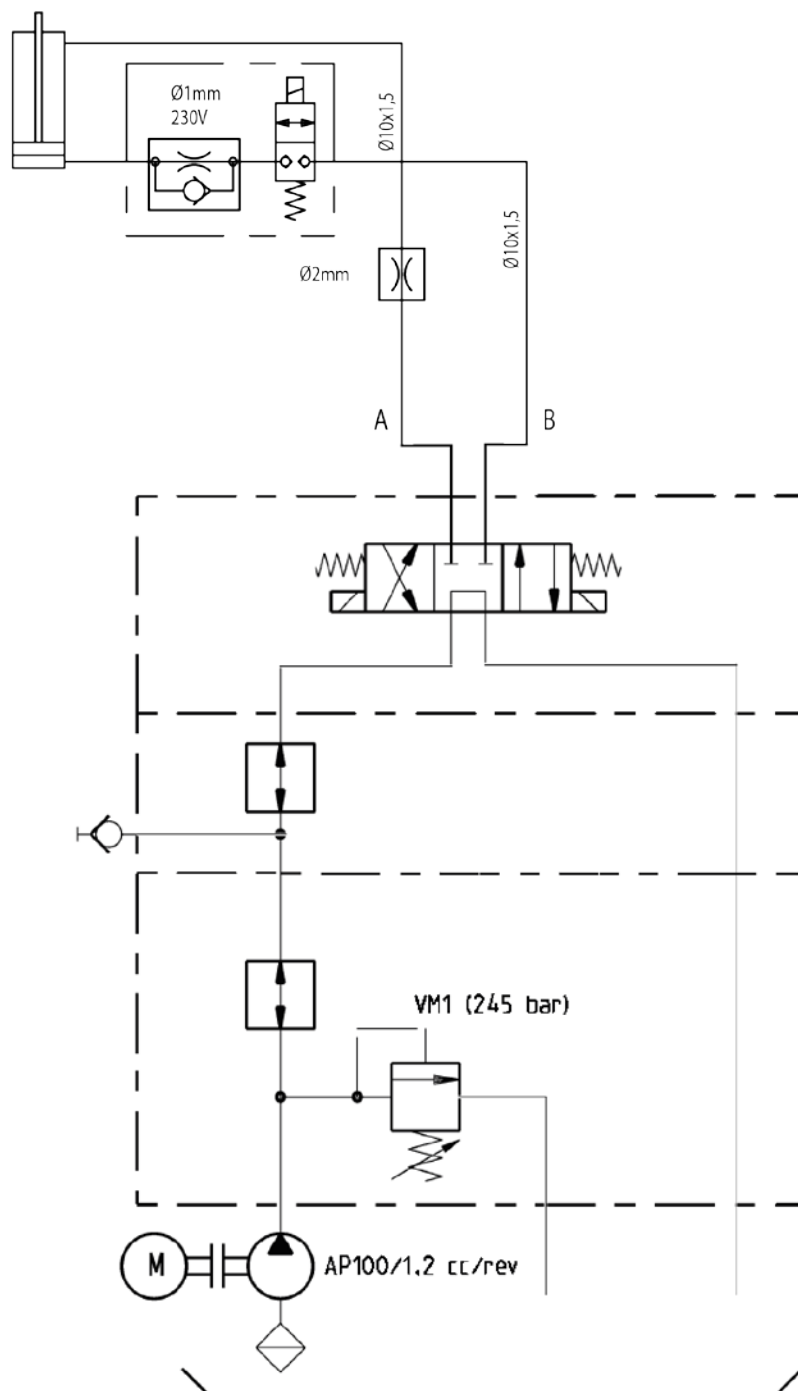




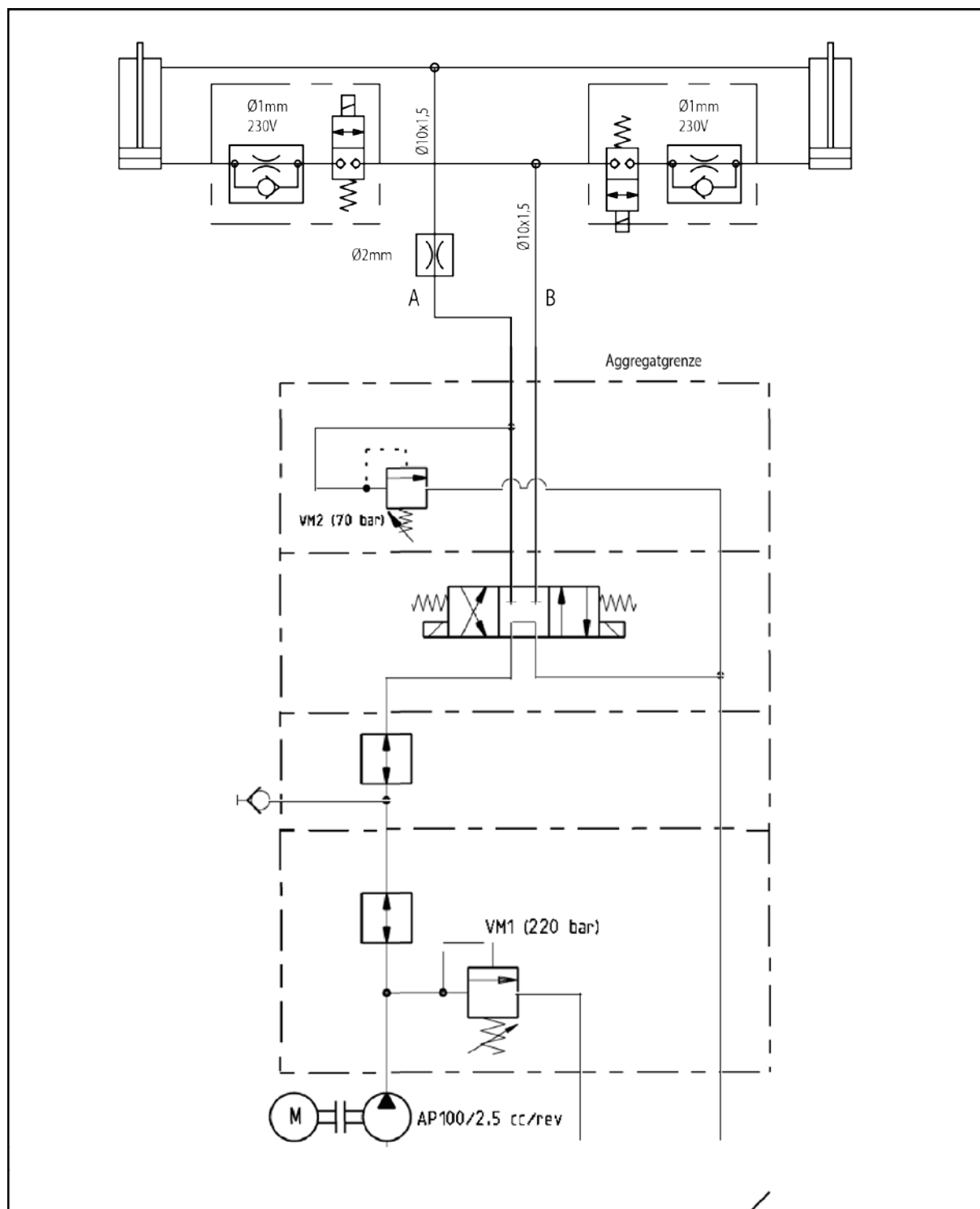
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MAB 3001 Hydraulik
18.03.2020

14. HYDRAULIC DIAGRAM



LISSMAC				✓ - ▽ R _z =100 ▽			
				✓ - ▽ R _z =25 ▽ ▽			
				✓ - ▽ R _z =6.3 ▽ ▽ ▽			
				2017	Datum	Name	Hydraulikplan MAB 2001
				Bearb.	14.08.	TM	
				Gepr.			
				Norm			
				Freima			2001
				DIN 2768, mittel			
				Schwei			
Zust.	Aenderung	Datum	Name	DIN 8570 - A			



LISSMAC				✓ - ✓ Rz=100 ▽			
				✓ - ✓ Rz=25 ▽ ▽			
				✓ - ✓ Rz=6.3 ▽ ▽ ▽			
				2017	Datum	Name	Hydraulikplan MAB 3001
				Bearb.	14.08.	TM	
				Gepr.			
				Norm			
				Freima			3001
				DIN 2768, mittel			
				Schwei			
Zust.	Aenderung	Datum	Name	DIN 8570 - A			

15. CIRCUIT DIAGRAM

