



PHT- ATTACHMENTS OPERATOR'S MANUAL

THIS MANUAL IS A TRANSLATION OF THE ENGLISH VERSION

REV0318

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FORWARD

Thank you for purchasing a MAKINEX product.

This manual provides information and procedures to safely operate and maintain the *PHT ATTACHMENT* devices. For yours and/or other's safety and protection from injury, carefully read, understand and observe the safety instructions described in this manual.

Keep this manual or a copy of it with the machine. If you lose this manual or need an additional copy, please contact MAKINEX. This machine is designed and built with user safety in mind; however, it can present hazards if improperly operated and/or serviced. Please follow the operating instructions carefully. If there are any questions regarding operating or servicing of this machine, please contact MAKINEX.

The information contained in this manual was based on machines in production at the time of publication. MAKINEX reserves the right to change any portion of this information without notice.

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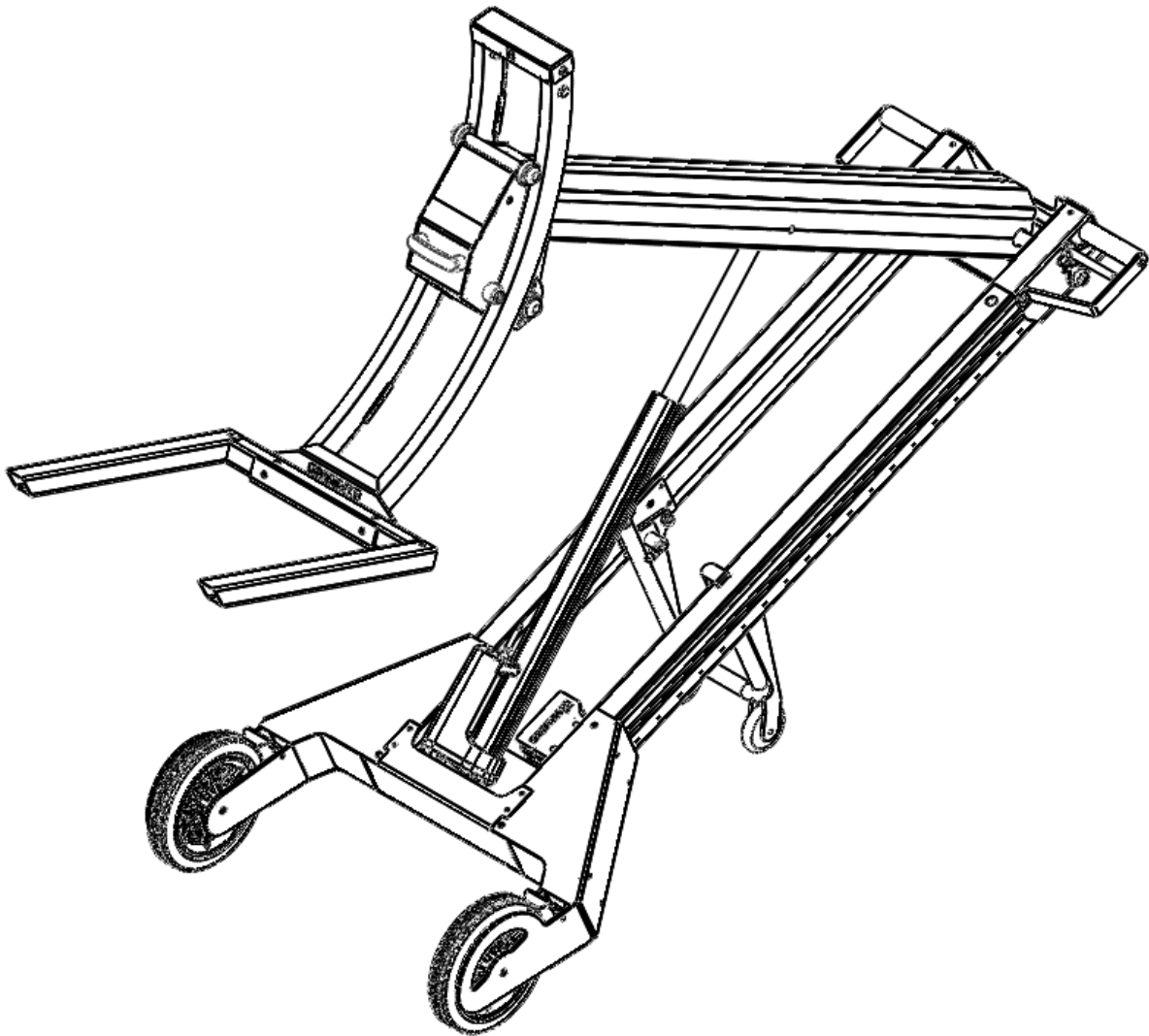
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DISCLAIMER

Makinex and its affiliates take no responsibility for any damage, injury or death resulting from the incorrect or unsafe use of this product. Use of this product should be undertaken by competent persons only. It is the operator's responsibility to ensure that the following safety procedures are followed. If you are unsure, do not operate this product.

1. MAK PHT-140-FA- FORKLIFT ATTACHMENT



1.1 INTRODUCTION

The fork lift attachment is an extremely versatile device, ideally designed to lift skid pallets. The fork lift attachment alleviates the troubles of entering tight access areas and does not require a license to operate the device. The fork lift attachment can carry a maximum load of up to 120kg or 264 pounds.

1.2 SAFETY INFORMATION

1.2.1 Training

- All operators should be trained. The owner is responsible for training the users.
- Never let children or untrained people operate or service the equipment.
- Read all attachment manuals.
- The owner/user can prevent and is responsible for accidents or injuries occurring to himself or herself, other people or property.
- Read the Operator's Manual and other training material. If the operator(s) can't read English, it is owner's responsibility to explain this to them.
- Become familiar with the safe operation of the equipment, operator's control, and safety signs.

1.2.2 Preparation

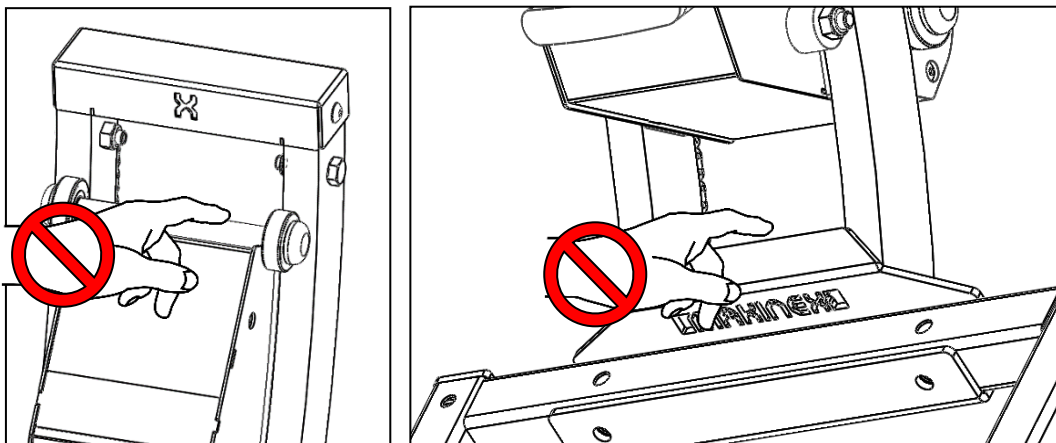
- Check brakes are operating.
- Inspect machine for deformation damage.
- Check battery power level using the indicator button on the battery.
- Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the lift and/or translation of the load. Only use accessories and attachments approved by the manufacturer.
- Check terrain to determine slope + ground condition suitability.
- Try to avoid slopes.
- Wear appropriate Personal Protective Equipment (PPE) clothing; long pants and safety shoes.
- Warn bystanders of planned operation to stay clear.

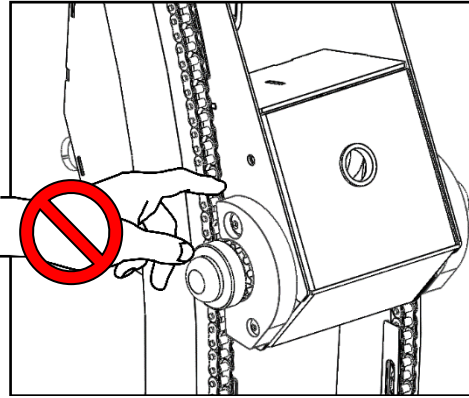
1.2.3 Operation

- Keep bystanders away.
- Only operate in good light, keeping away from holes and hidden hazards.
- Do not operate machine in slippery environment.
- Do not operate the machine under the influence of alcohol or drugs.
- Remove obstacles from work area, watch for holes, ruts, or bumps and make sure work area is free of clutter.
- Only operate the machine from behind the handles with each hand on a respective handle, thus avoiding potential pinch or crush injuries.

- Do not exceed the rated lifting capacity – **120kg.**
- Understand the LOAD DATA page and operate within comfortably manageable limits – the PHT-140 device’s capacity should never be more than comfortably manageable by user and always less than or equal to **120kg.**
- Do not lift item bulky enough to hit the lift arm in lifted position - some fixed lifting eyes may be positioned so that parts of the load hit the lift arm in raised position.
- Do not lean beyond balanceable point for user as per training procedure.
- Keep each hand on a respective handle while machine is loaded.
- Lower or raise the load while wheels are stationary.
- Do not rest machine on rear wheels with a load
- Do not walk away from the machine even if it seems stable. Machine may tip forward.
- Do not swing the load.
- Do not let person sit on the lift arm.
- Do not raise the load when not in the presence of raised platform or potential bracing wall.
- Always position load at a safe distance from edge of elevated platform.
- Have load at low height when moving across the ground.
- Use the brakes while engaging or disengaging the load at height.
- Move handles slowly with heavy load at height.
- Avoid slopes altogether if possible.
- Never load or unload at height across a slope of any significance – see SLOPE GUIDE in section 5 of the PHT manual.
- Understand recommended limits on SLOPE GUIDE section 5 (PHT manual) and work within these limits.
- Do not exceed slope recommended limits while moving load across ground.
- Do not exceed slope recommended limits while loading or unloading at height.
- Slow down and use extra care on slopes.
- Increase risk of load topple forward when loading up hill.
- Do not tow trailers with the machine.
- Do not lift or lever with any part of machine except the hook.
- Never use the machine as a step or ladder.
- Beware of the various pinch points located around the fork attachment (as seen in the figures below)

Pinch Point Areas





1.2.4 Maintenance and Charging

- Park the machine on level ground.
- Never allow untrained personnel to service the machine.
- Keep all parts in good working condition and all hardware tightened. Replace any worn or damaged decal.
- Keep equipment in good condition.
- Stop and inspect the equipment if you strike an object. Make any necessary repairs before reusing.
- Check for loose fasteners.
- Do not disassemble any part of machine.
- Charge battery regularly.
- DO NOT leave machine switched ON when it is not in use as this will drain the battery and effectively destroy it.
- Charge in a well-ventilated area.
- Do not use damaged leads for charging.
- Do not modify the machine.

1.2.5 Transport and Storage

- Do not leave machine propped against wall (in flattened state) where it could fall over and cause injury or damage, always lock wheels by applying brakes.
- Store clear of bystanders and make sure it's not obstructing fire exits or walk ways
- Use correct lift posture (bend knees and use leg muscles instead of your back) when loading PHT-140 device on or off transport
- Pack the device for transport so that on/off switch can't be accidentally turned ON during transport
- Store out of weather, do not leave the machine in the rain or wet conditions.

1.3 INSTALLATION

1.3.1 Fork lift attachment assembly instructions

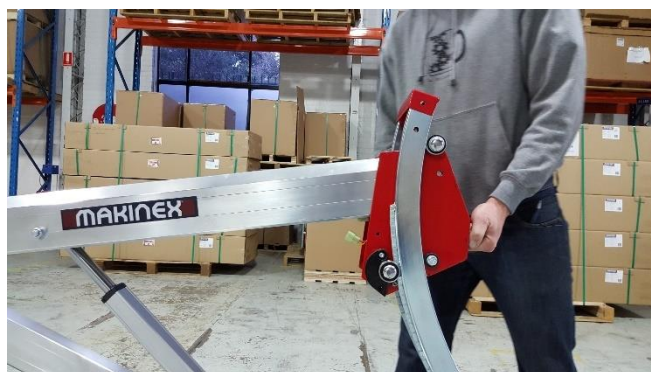
Step 1: Place the PHT in an upright position



Step 2: Insert the fork attachment into the jib



Step 3: Line up the mounting holes of the jib and the fork attachment



Step 4: Insert the bolt provided into the mounting hole



Step 5: Pull the wire harness from the clip located under the jib



Step 6: Connect the fork attachment wire to the jib wire

Note: When disconnecting, make sure to unplug wires before pulling out the fork attachment



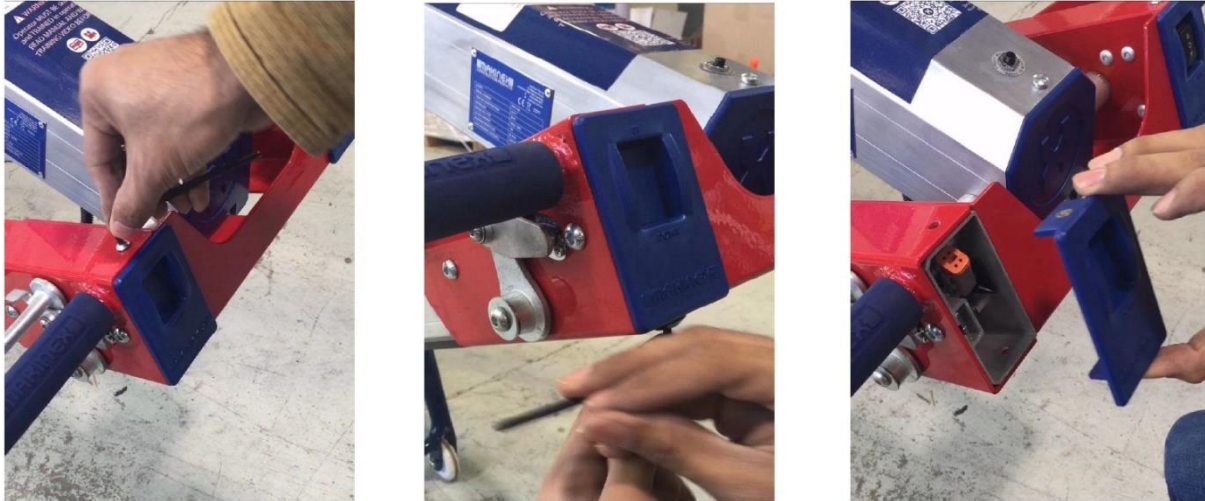
Step 7: Place the fork tine on the tine holder and secure it using the bolts provided



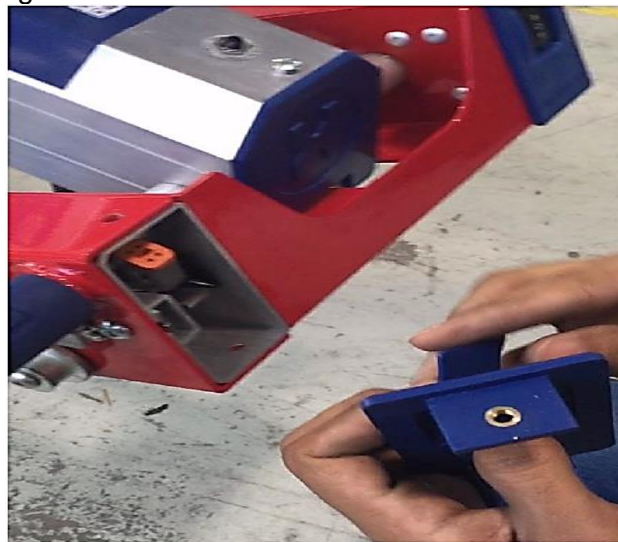
When disassembling, conduct the steps in reverse

1.3.2 Switch installation instructions

Step 1: Undo the screws using a 4mm Allen key



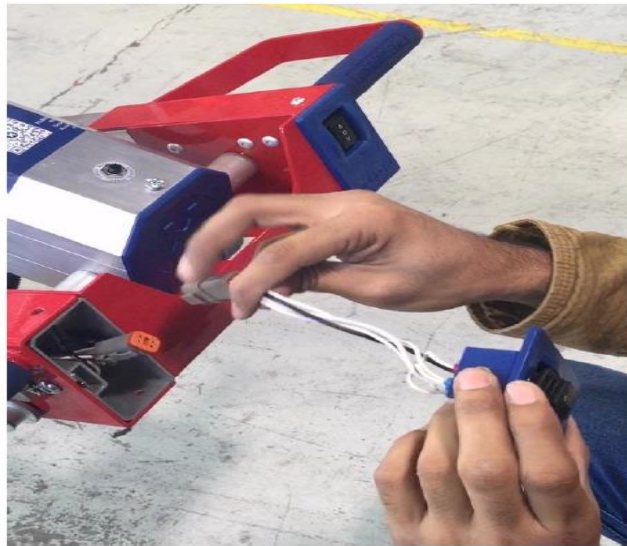
Step 2: Pop the blanking cover from the switch cover



Step 3: Feed the wire through the switch cover



Step 4: Connect the Switch



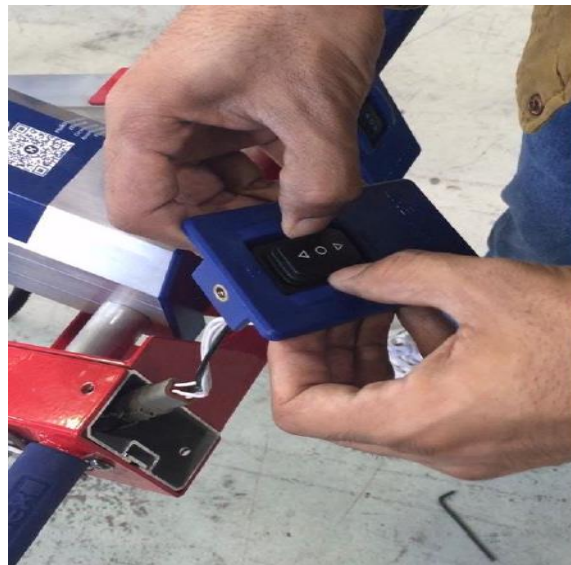
Step 5: Orientation of wiring, red-blue-red, facing inwards of the handle



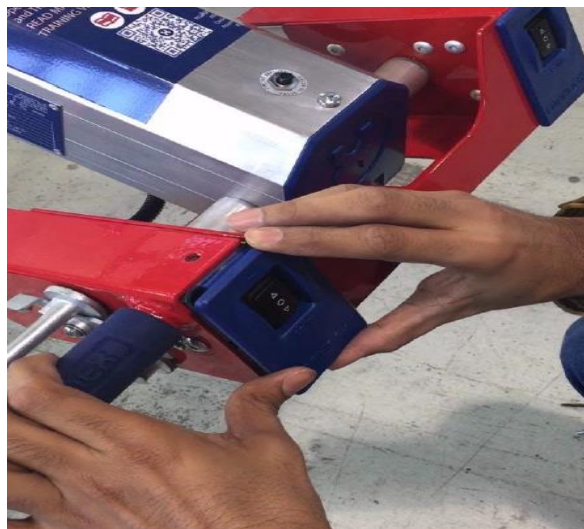
Step 6: Check the orientation of the switch by pressing Up & Down while looking at the fork attachment



Step 7: After aligning to the correct orientation, press the switch into the cover



Step 8: Feed the wire back in, press the cover back into place

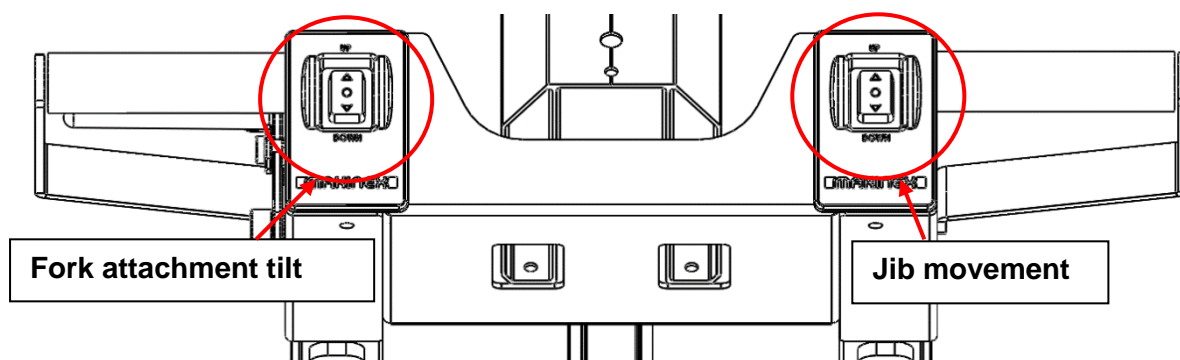


Step 9: Fasten the cover with the original allen key screws



1.4 OPERATION

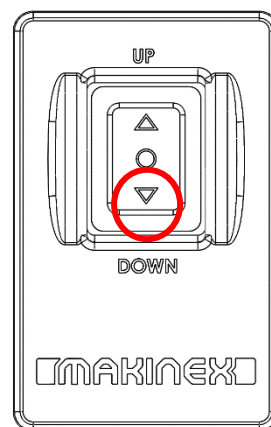
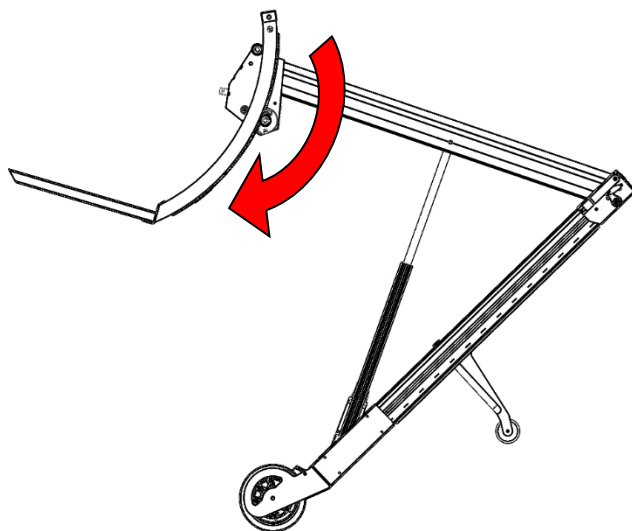
1.4.1 Controls/ Layout



1.4.2 Fork attachment tilt

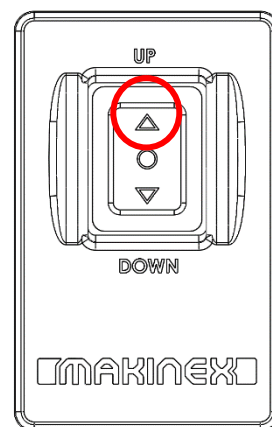
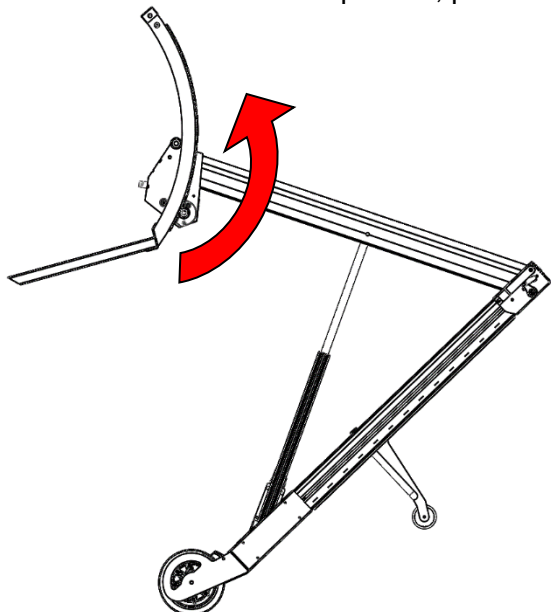
Tilt downwards

To tilt the fork attachment downwards, press the down button on the left set of switches



Tilt upwards

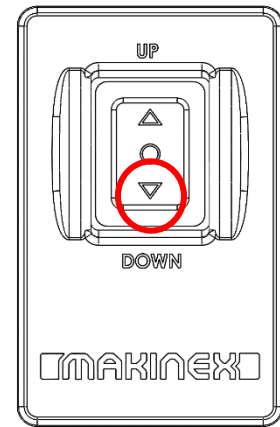
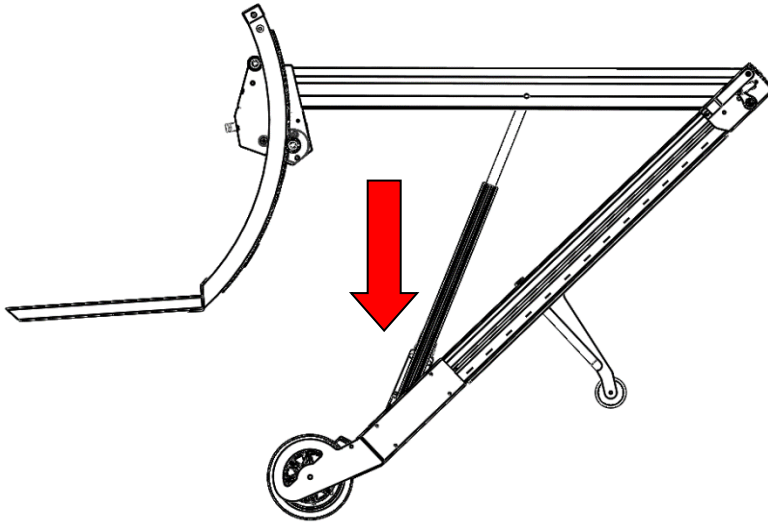
To tilt the fork attachment upwards, press the up button on the left set of switches



1.4.3 Jib movement

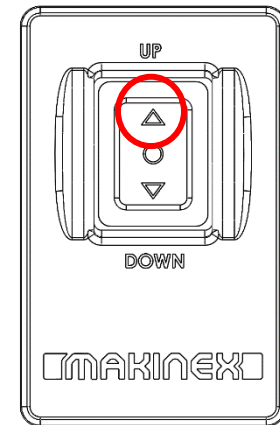
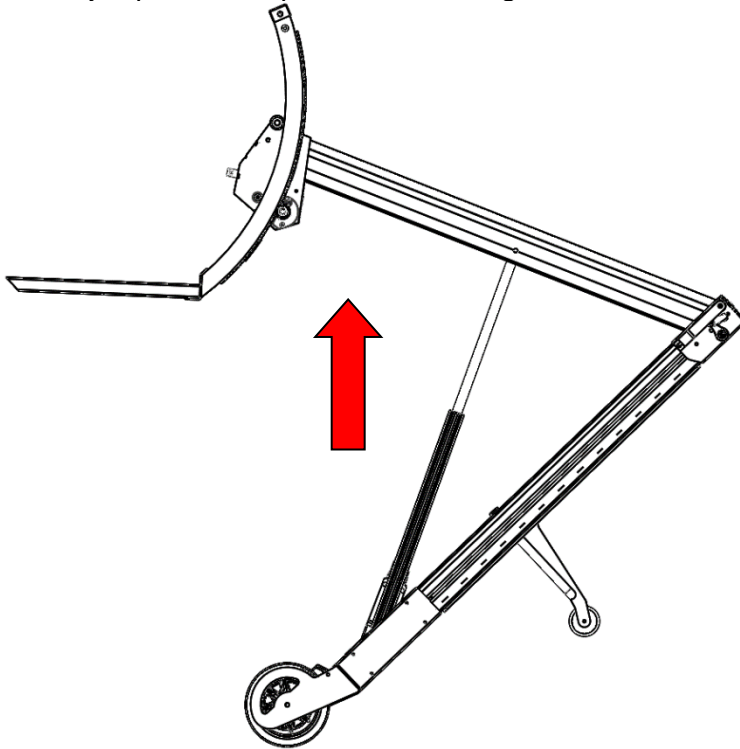
Lowering

To lower the jib, press the down button on the right set of switches



Lifting

To lift the jib, press the up button on the right set of switches

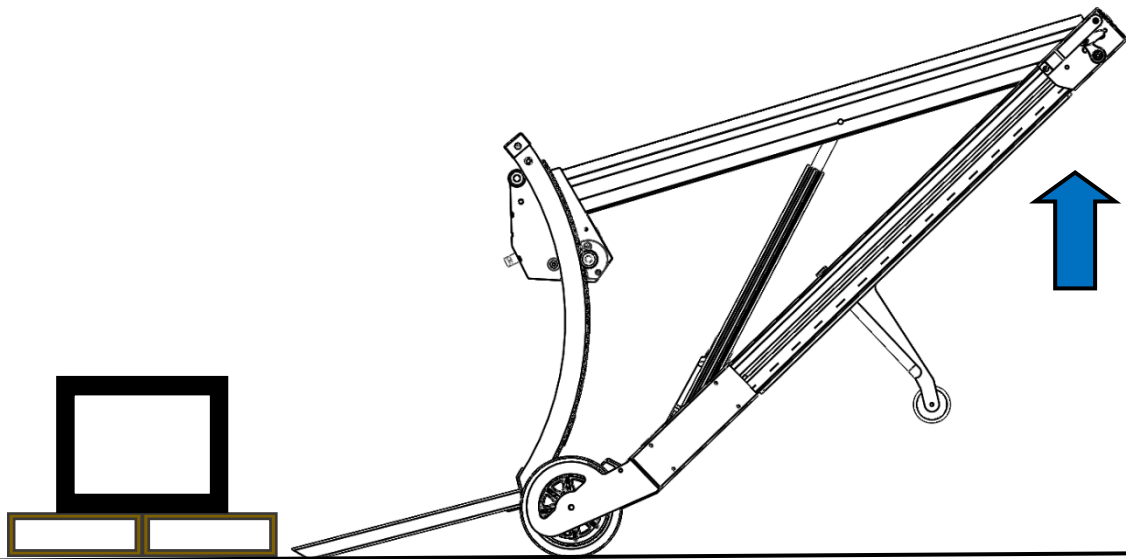


The tilting motion of the fork attachment and the jib movement can operate simultaneously. The fork attachment tilt must be frequently adjusted to varying jib position to maintain the upright and flat positioning of the fork tines.

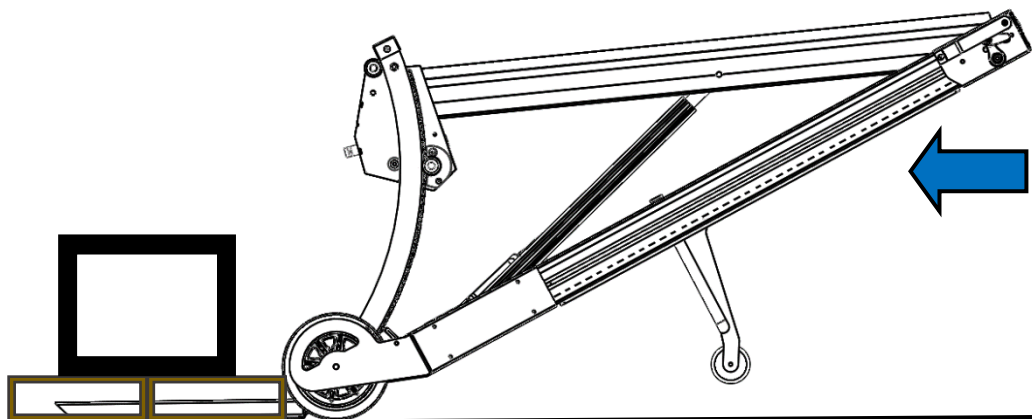
1.4.4 Lifting Procedure

1. Lifting positions

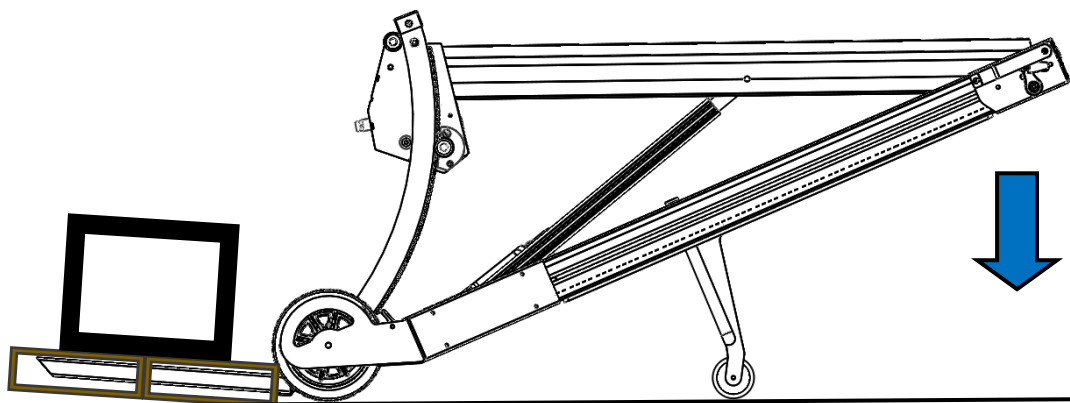
Lift the PHT upwards and in a “scooping” motion approach the pallet



Slowly move the PHT towards the pallet and ensure that the fork-tines are sufficiently inserted far enough into the pallet.

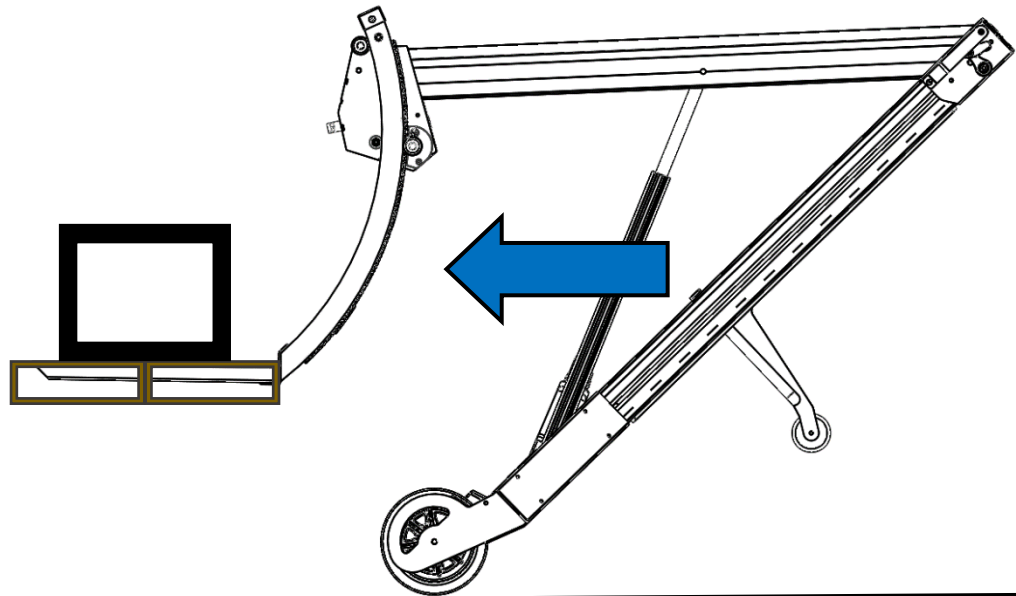


Slowly lower the PHT down to raise the pallet. Use the controls to lift the jib and tilt the fork attachment.



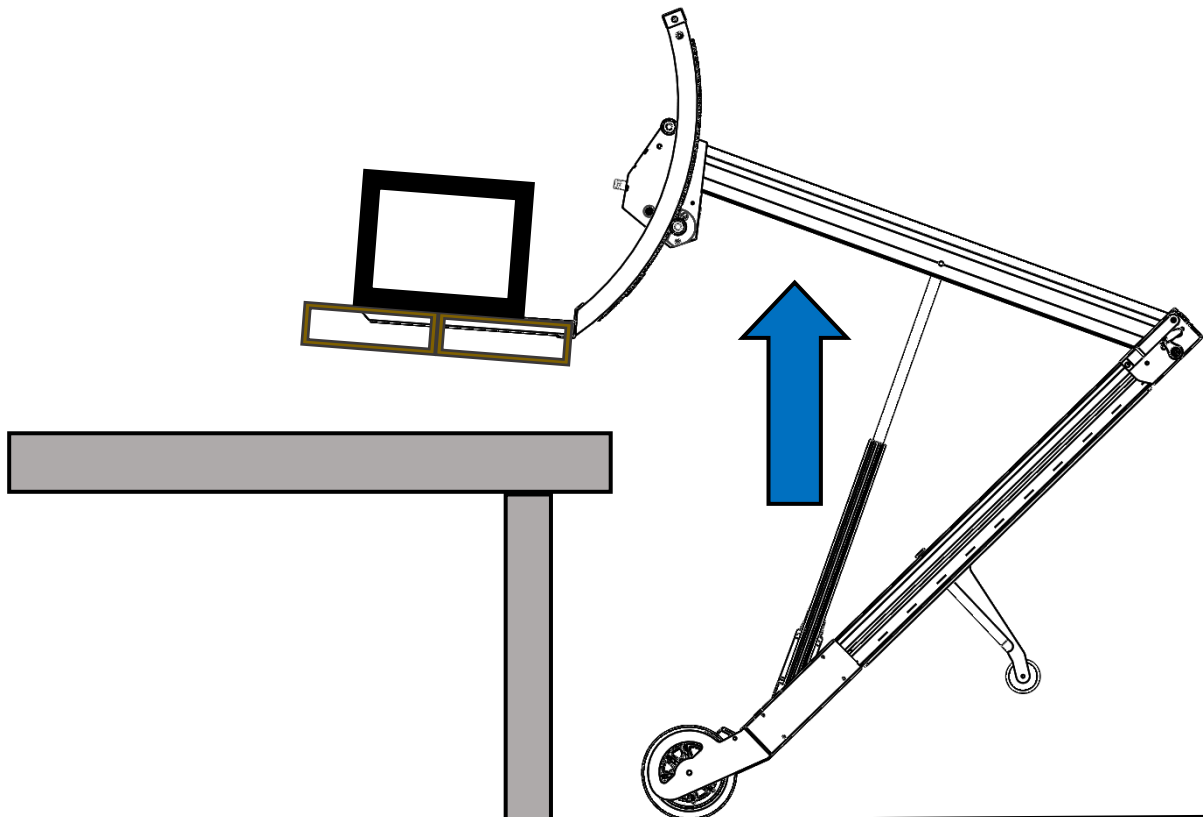
2. Mobile position

When moving the object, slightly lift the PHT such that the back wheels are off the ground and ensure that the fork attachment is set flat. This position will maximise stability and manoeuvrability when mobile.

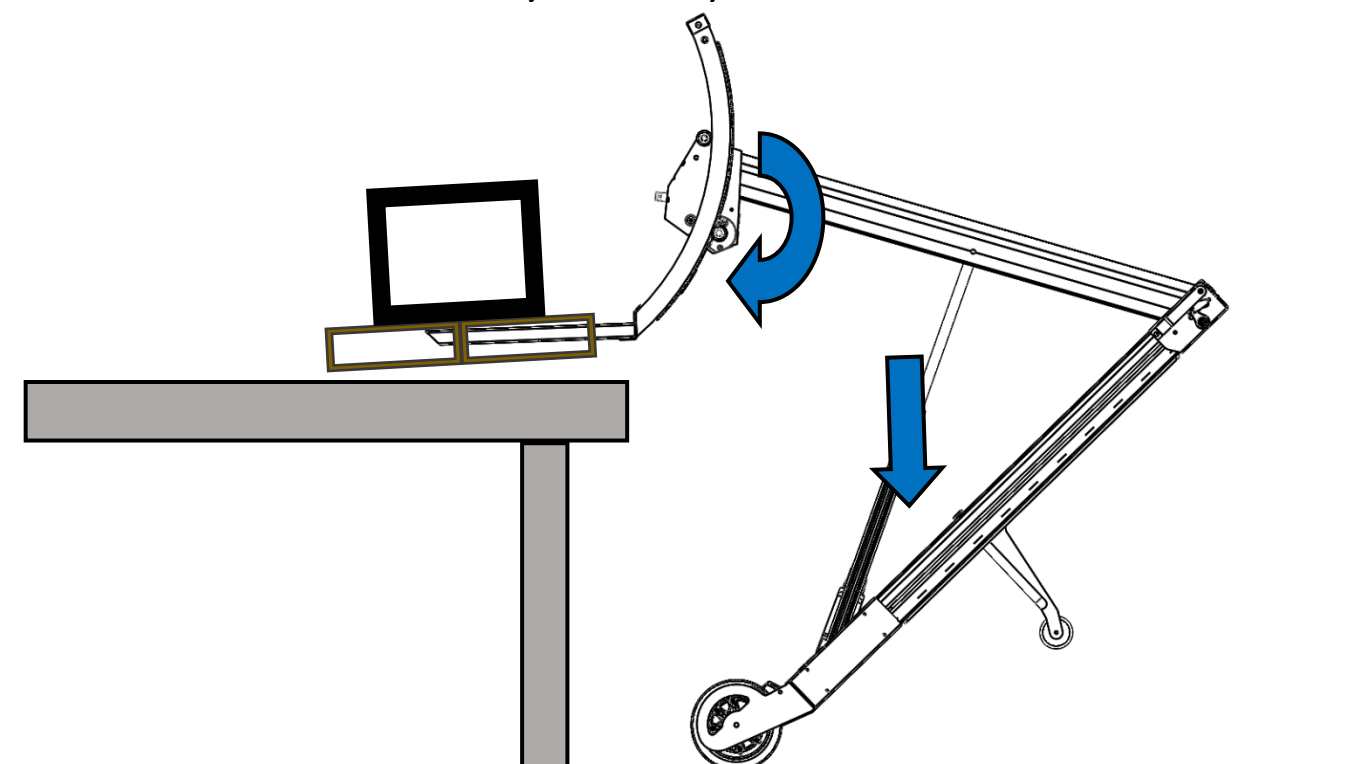


3. Lowering positions

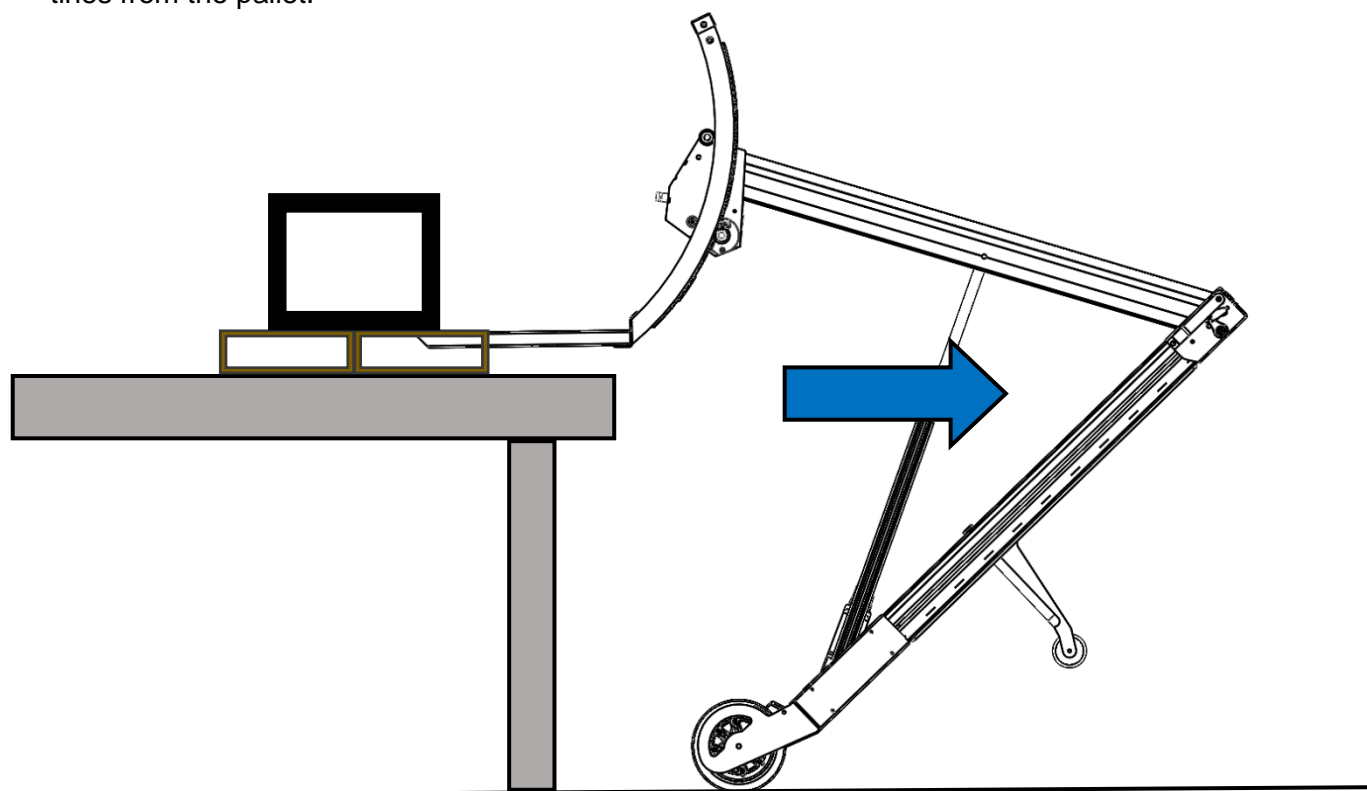
When lowering the object, lift the jib to a height slightly above the designated location and push the PHT closer to the surface.



Once the object is positioned right above the designated surface, the object can be lowered down. Use the switch controls to slowly lower the object.



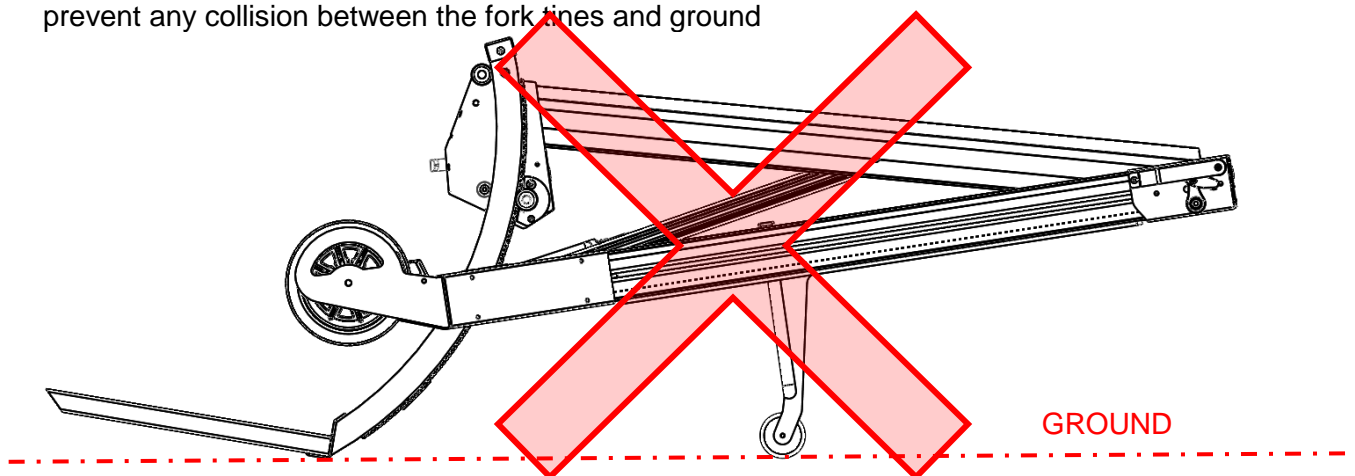
Once the object is placed firmly on top of the designated surface. Slowly pull out the fork-tines from the pallet.



1.4.5 Hazards and Safety

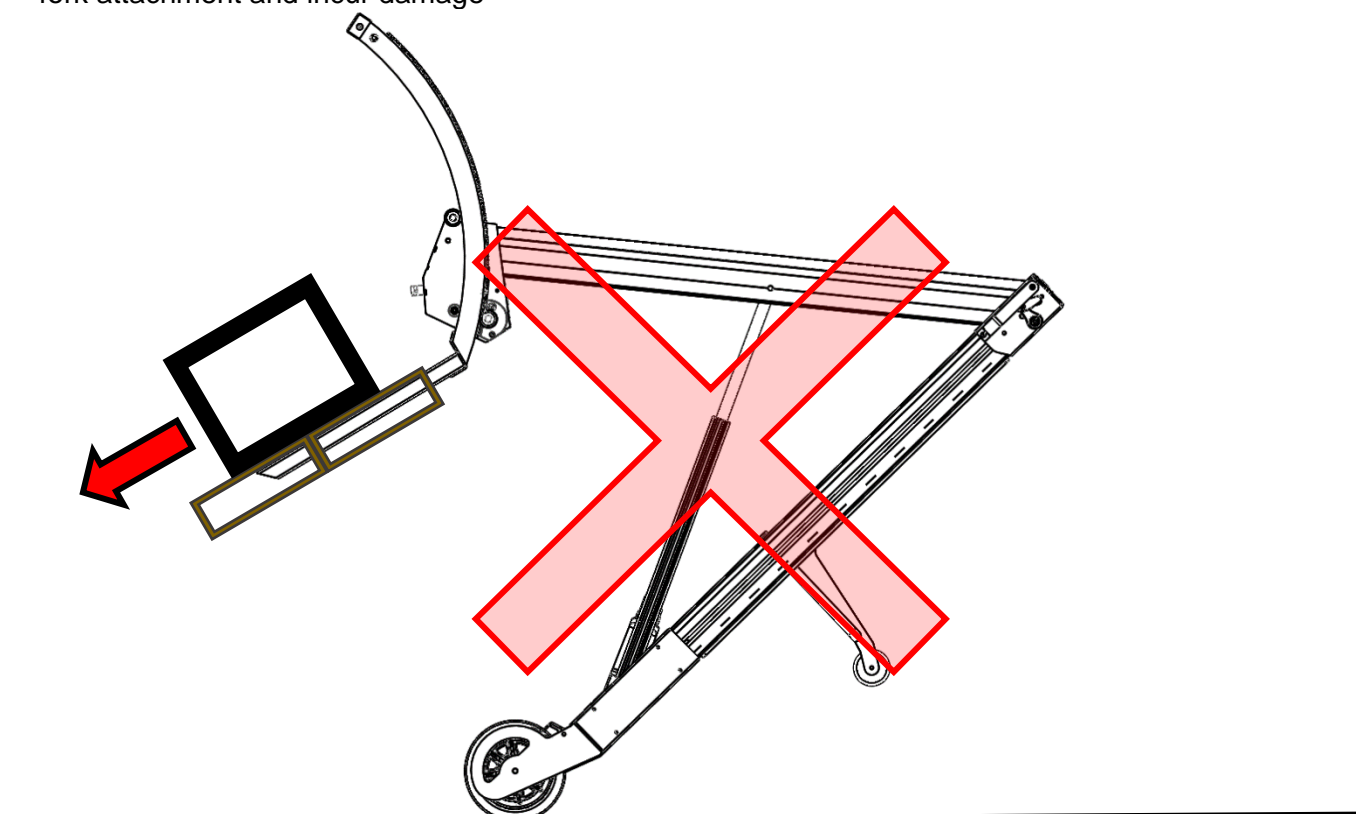
Lowering limit

Ensure that the lowering of the fork tines and jib is frequently observed during operation, to prevent any collision between the fork tines and ground



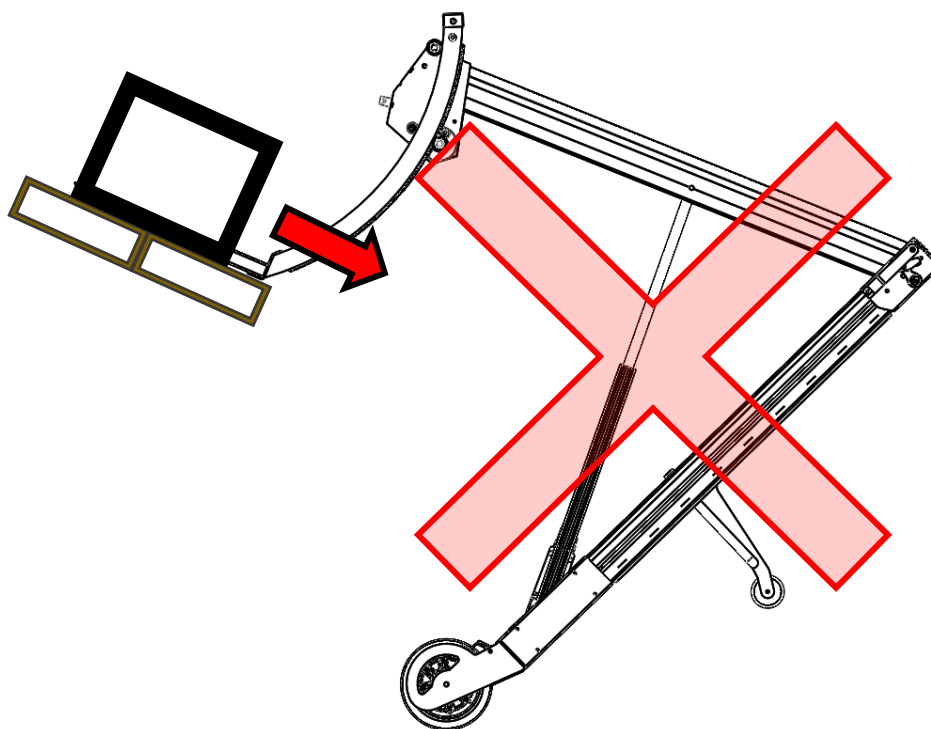
Sliding forwards

Avoid over-tilting the fork attachment upwards, which may cause the object to slide off the fork attachment and incur damage



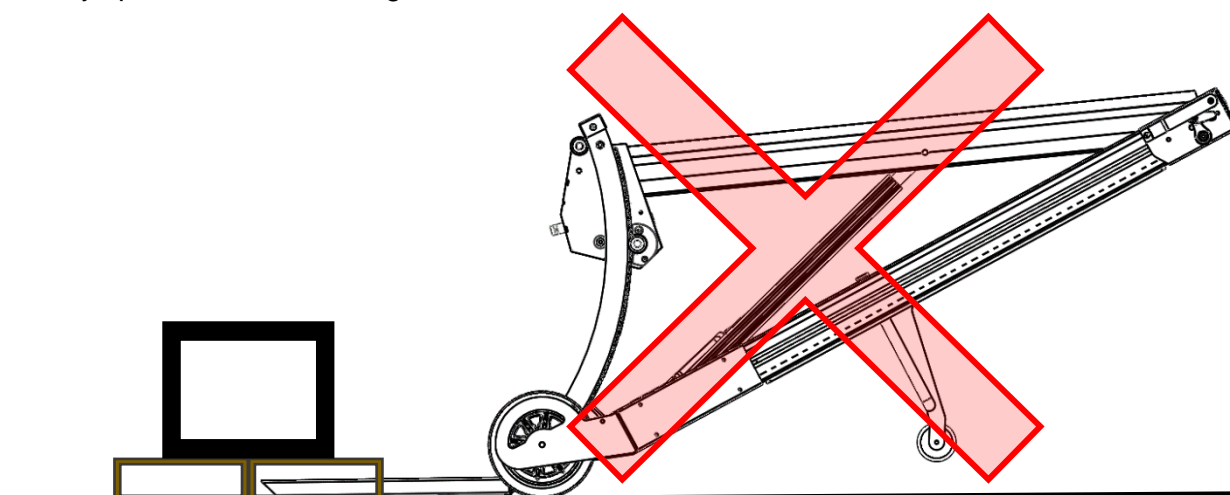
Sliding backwards

Over-tilting the fork attachment downwards may cause the object to slide backwards and damage the side arms.

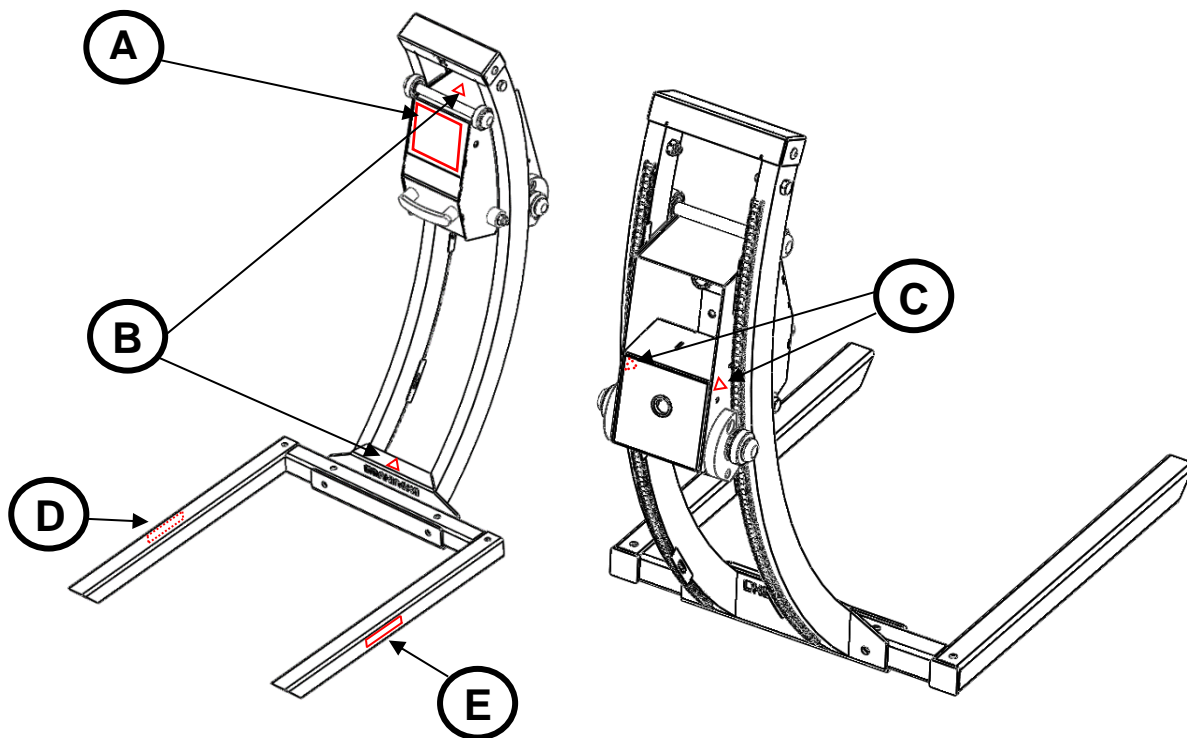


Insufficient insertion of fork-tines

When engaging the object to be lifted, ensure that the fork tines are sufficiently inserted far enough into the pallet. If the fork tines are inadequately inserted into the pallet, the pallet may tip over and risk sliding off the tines.



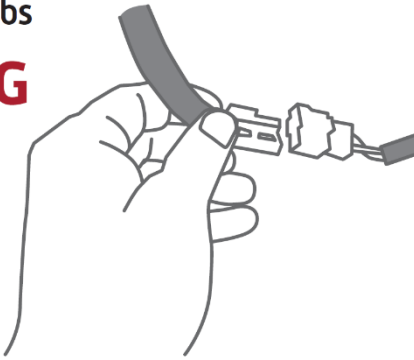
1.5. SAFETY AND INSTRUCTION DECAL



A

MAKINEX PHT FORKLIFT ATTACHMENT

- WLL 120Kg / 265lbs
- **! WARNING**
- Disconnect power cable before removing fork attachment
- Beware of pinch points



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D



LOAD CENTRE

← 300mm

E



LOAD CENTRE

300mm →

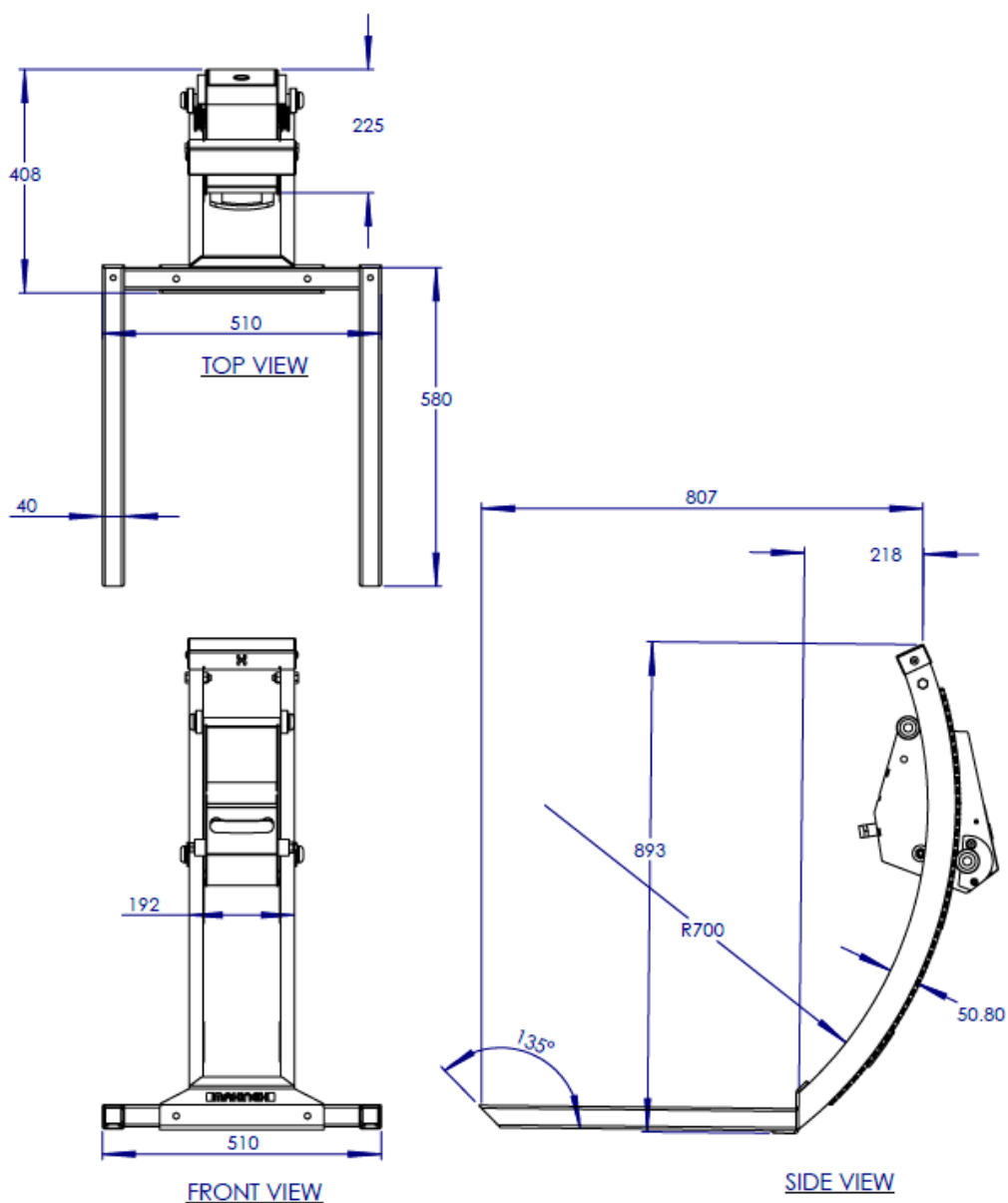
B



C

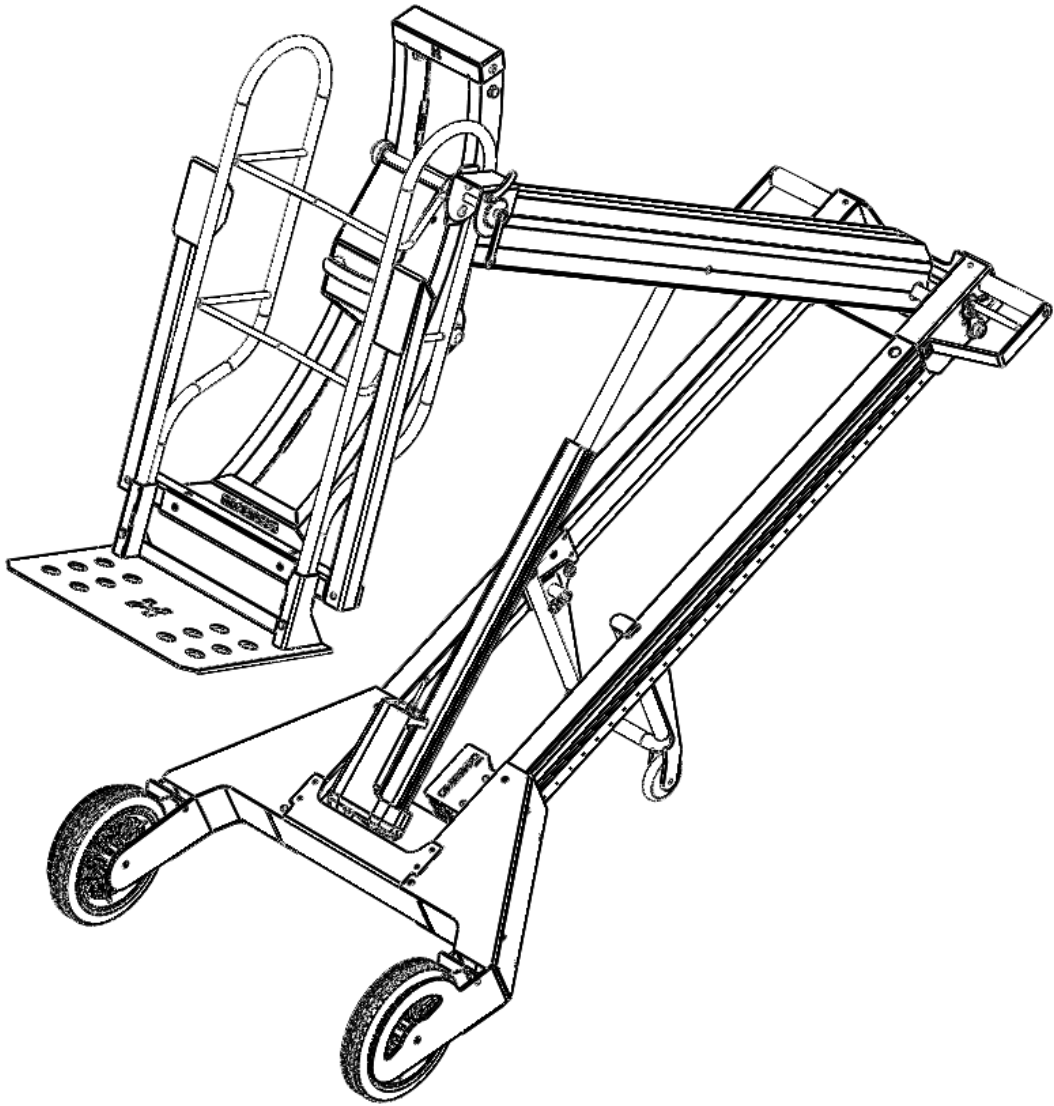


1.6. TECHNICAL DATA AND SPECIFICATIONS



MACHINE SPECIFICATIONS	
Mass (kg/lb)	20kg / 44.1lb
Rated Voltage	18V
Rated Current	5A
Maximum Lift Height	1550mm / 5ft 1in
Safe Working Load (SWL)	120kg / 264lb

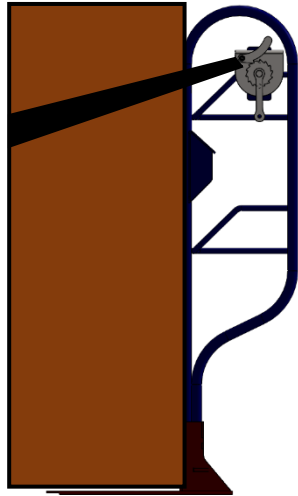
2. MAK PHT-140-SF STRAP FRAME ATTACHMENT



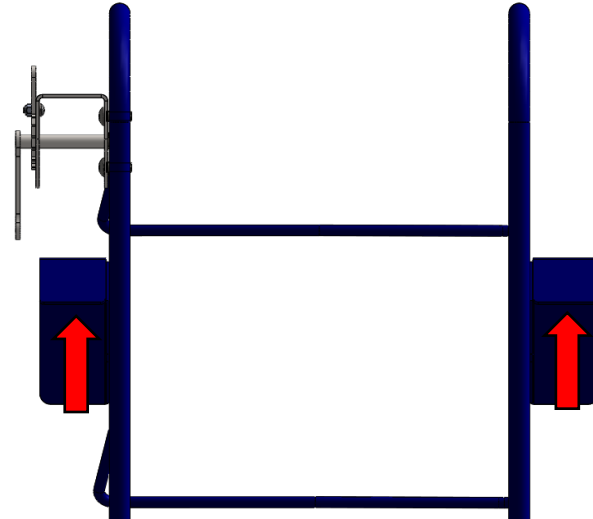
2.1 STRAP FRAME INSTALLATION & OPERATION INSTRUCTIONS

Step 1: Strap the heavy object securely onto the strap frame

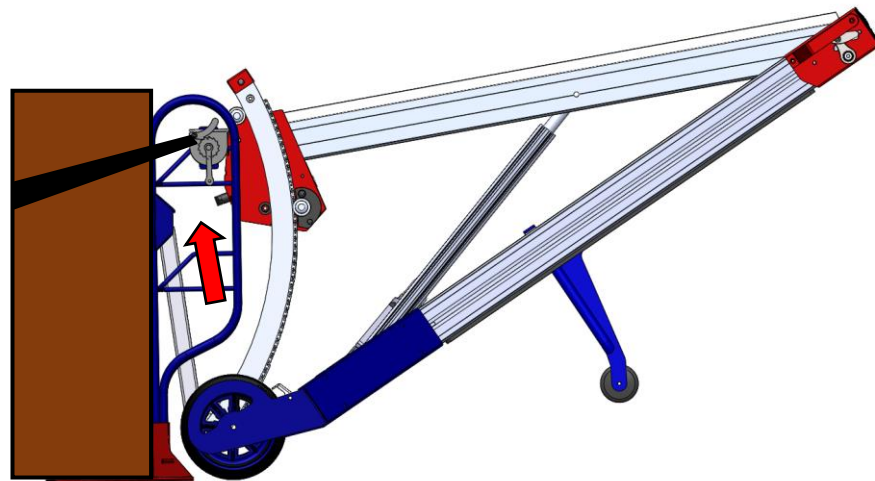
Position the object securely onto the foot plate of the strap frame and tighten the winch by turning the handle in anti-clockwise motion.



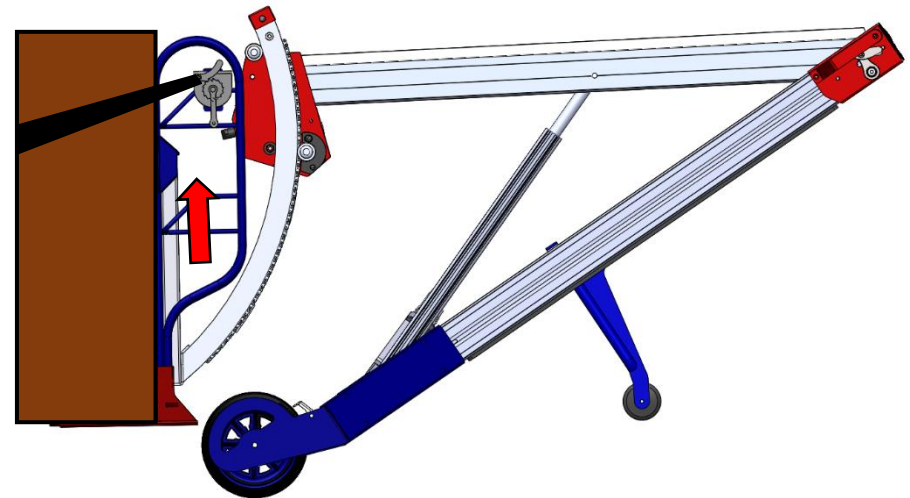
Step 2: Strap frame pickup brackets indicated in the diagram below



Step 3: Insert fork-tines into strap frame pickup brackets

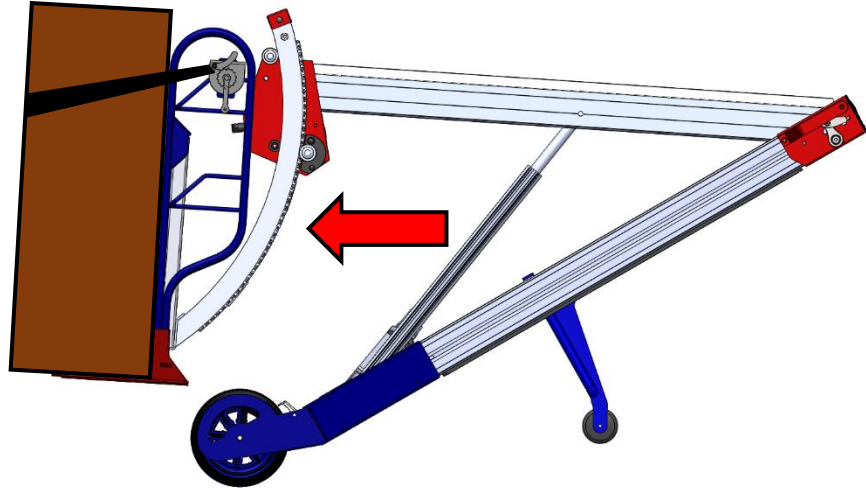


Step 3 (Continue): Insert fork-tines into strap frame pickup brackets



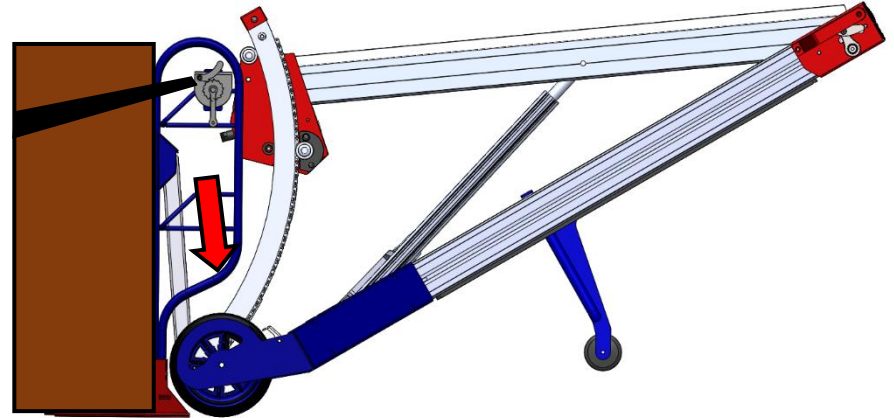
Step 4: Move the heavy object to desired location

Tilt the fork tines backwards during transport to prevent object from tipping forward



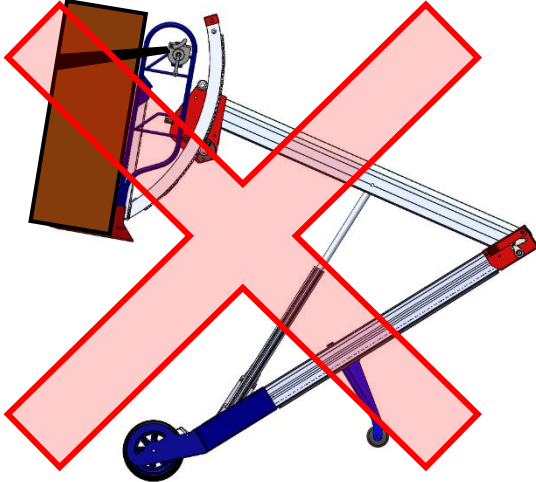
Step 5: Lower the Jib and detach winch strap at the desired location

At the desired location, slowly lower the strap frame onto the ground or a surface and pull fork tines out of the strap frame brackets

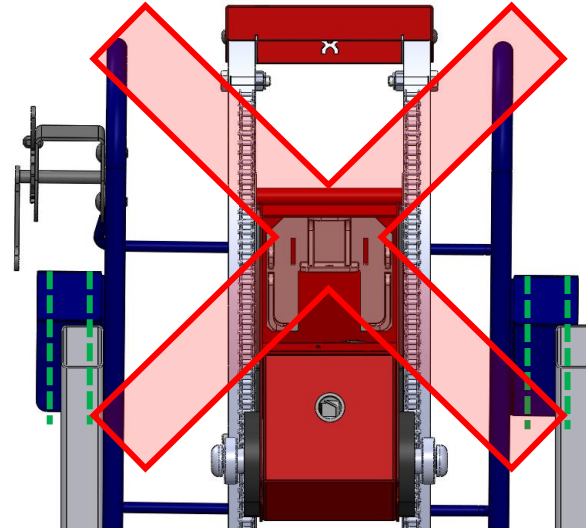


BEWARE OF THE FOLLOWING SITUATIONS

1) Do not lift object too high from ground level during transport



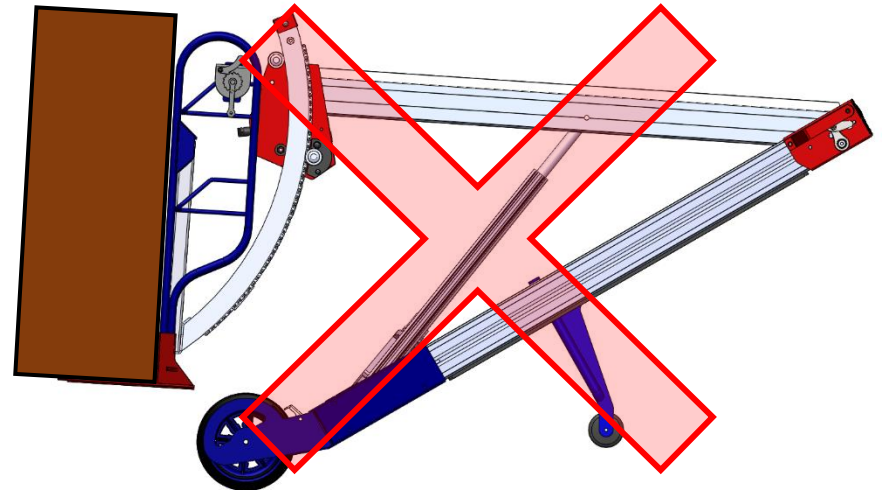
2) Misaligned insertion of the fork tines into the strap frame bracket



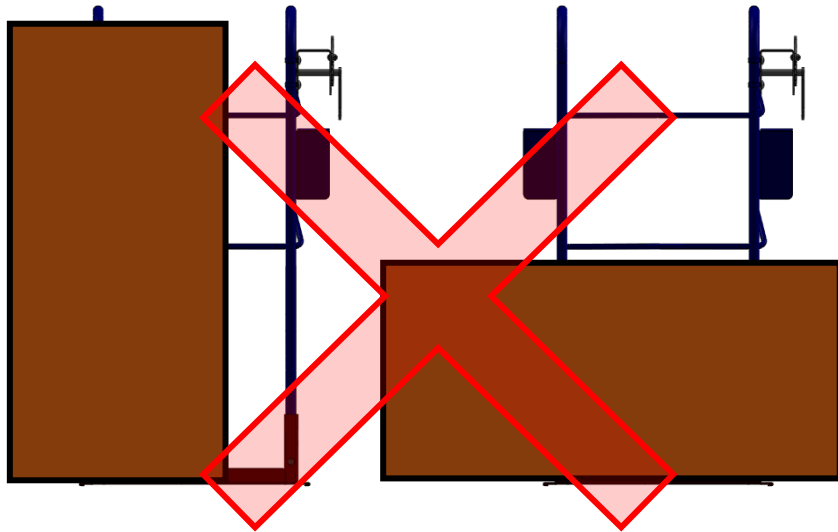
3) Over-tilting the fork attachment forwards
Strap is to help secure the object from moving around during transport. Too much stress on the strap may cause it to snap



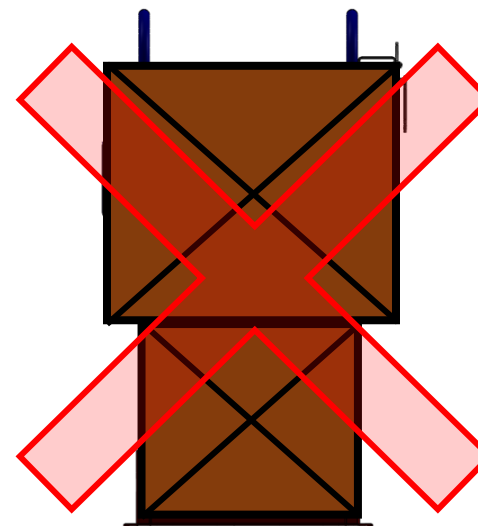
4) Object not strapped during transport
Not strapping the object may cause it to tip over during transport



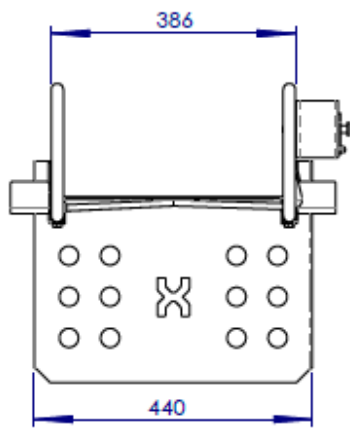
5) Positioning the heavy object in an awkward position



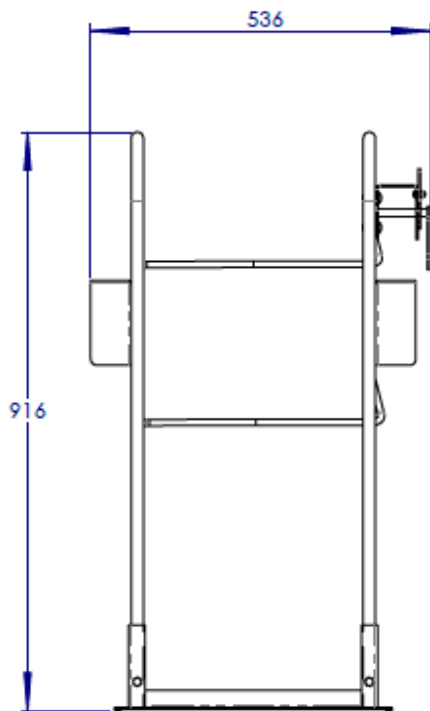
6) Positioning two objects on top of each other at the same time



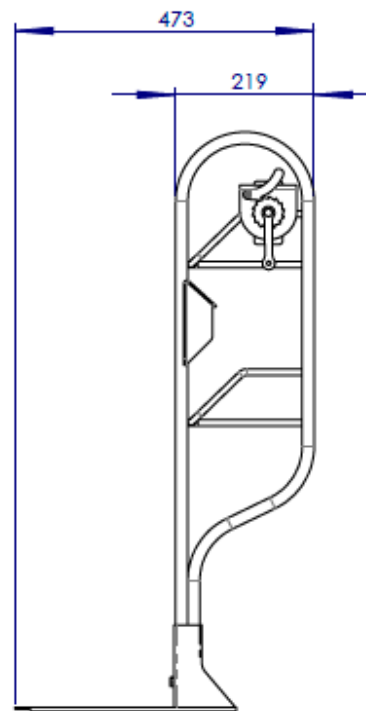
2.2 TECHNICAL DATA AND SPECIFICATIONS



TOP VIEW



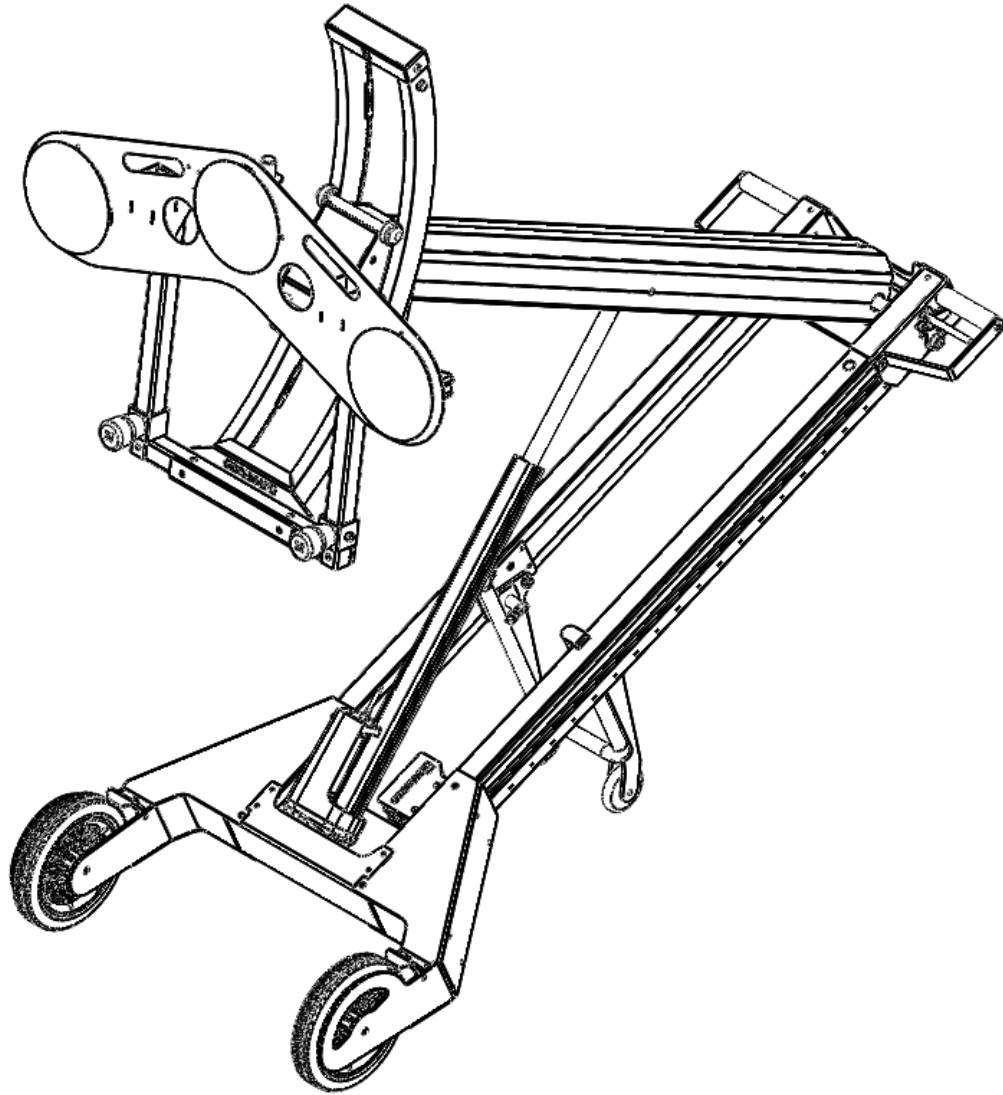
FRONT VIEW



SIDE VIEW

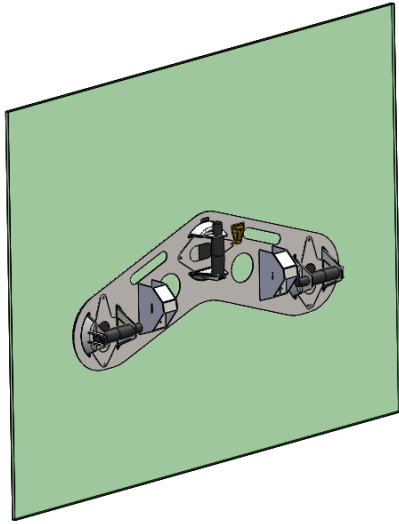
MACHINE SPECIFICATIONS	
Mass (kg/lb)	9.44kg / 20.7lb
Maximum Lift Height	1520mm / 5ft
Safe Working Load (SWL)	120kg / 264lb

3. MAK PHT-140-GS GLASS SUCKER ATTACHMENT

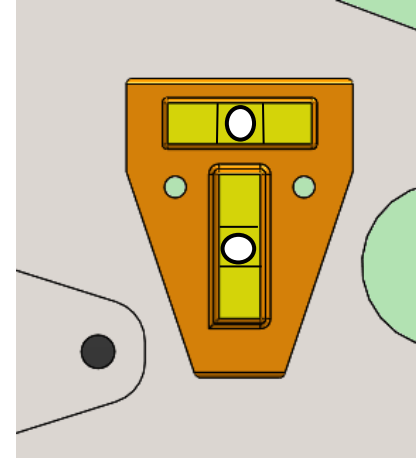


3.1 GLASS SUCKER INSTALLATION & OPERATION INSTRUCTIONS

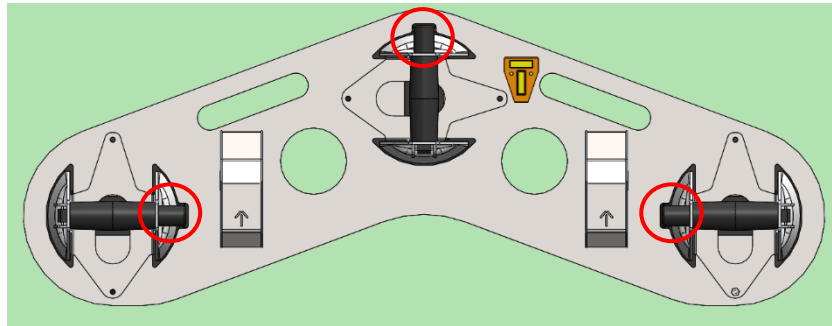
Step 1: Position the glass sucker onto the glass panel



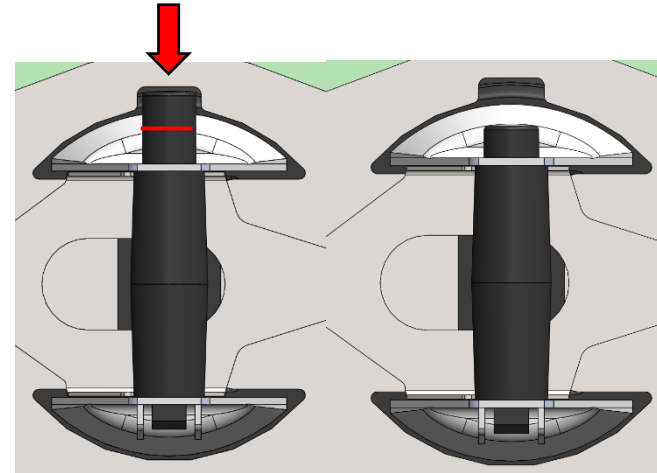
Step 2: Check that the glass sucker is level using the spirit level
Reposition the glass sucker until both bubbles in the spirit level are in-between the two lines. This will indicate that the glass sucker is level.



Step 3: Press the three suction buttons on the glass suckers to lock onto the glass panel

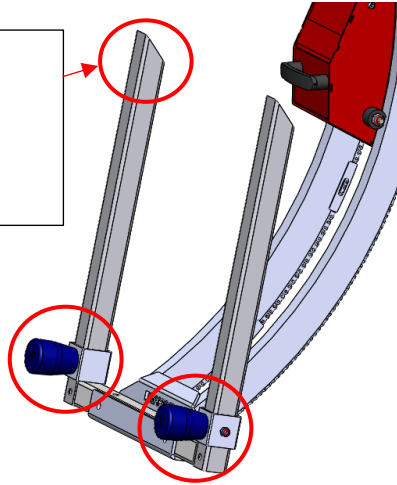


Step 3 (Continue): Repeatedly press down the suction button until the red line cannot be seen, repeat for all three of the glass suckers

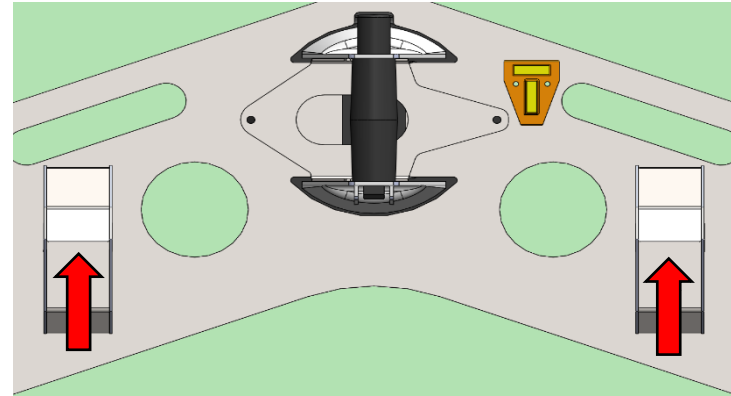


Step 4: Slide the two rubber spacers into the fork tines and tighten the bolts

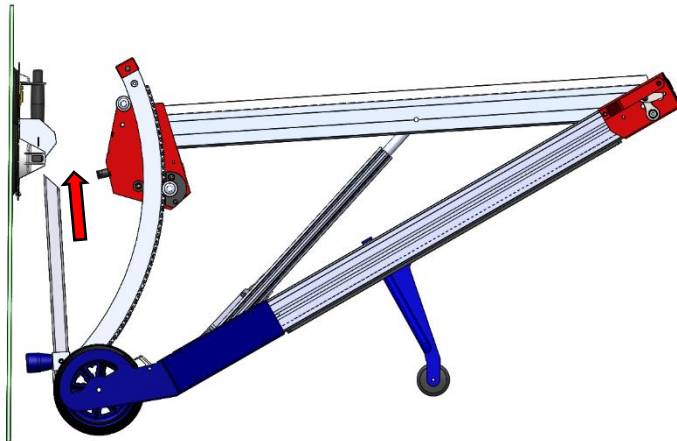
Note: Ensure fork tines are correctly oriented (long side front)



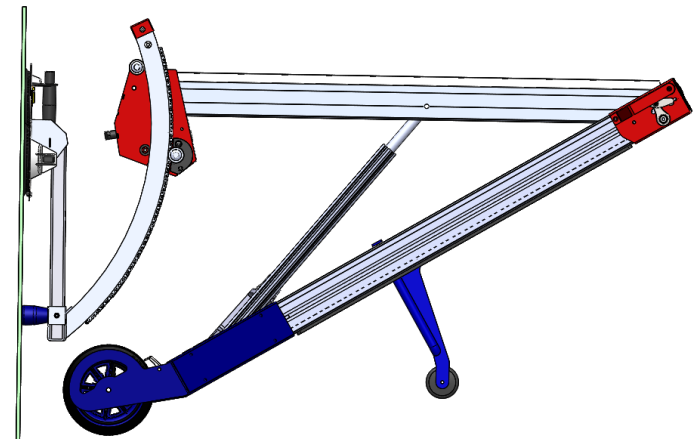
Step 5: Pickup brackets indicated in the diagram below



Step 5: Insert the fork tines securely into the pick-up bracket

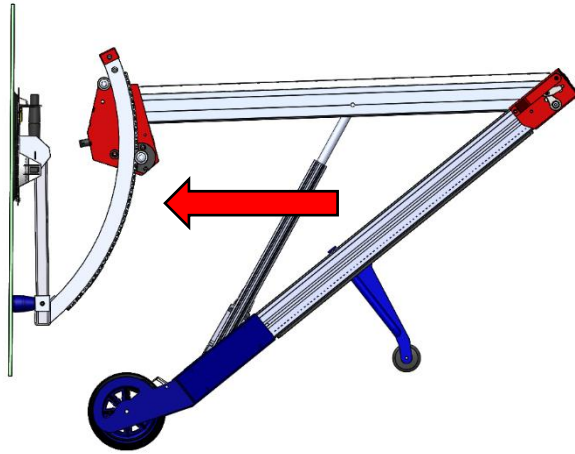


Step 5(Continue): Insert the fork tines securely into the pick-up bracket



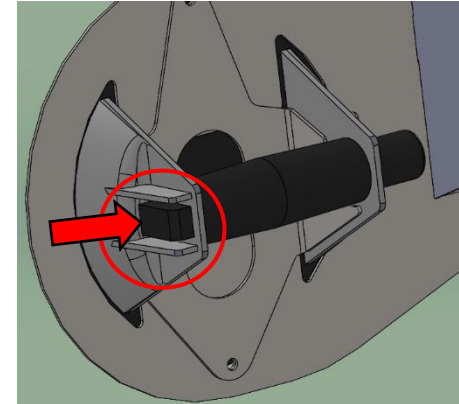
Step 6: Move the glass panel to desired location

Lift the jib and adjust the tilt of the fork attachment to keep glass panel vertical. While transporting, always keep the load low to the ground



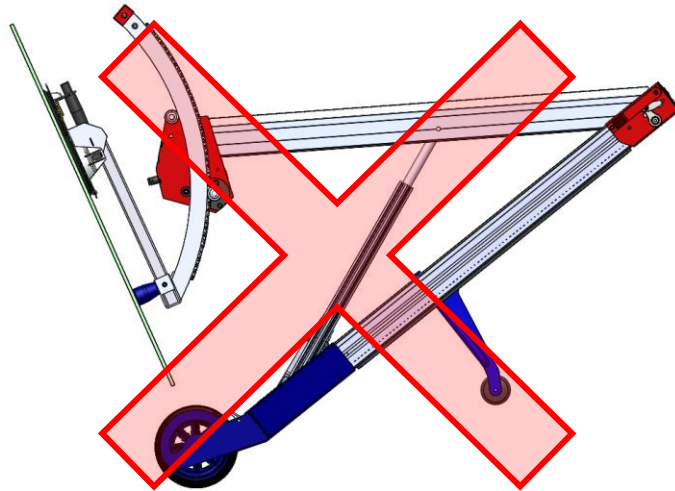
Step 7: Detach the glass panel from the glass sucker

Press the button on the other side of the sucker to release the suction and detach the glass

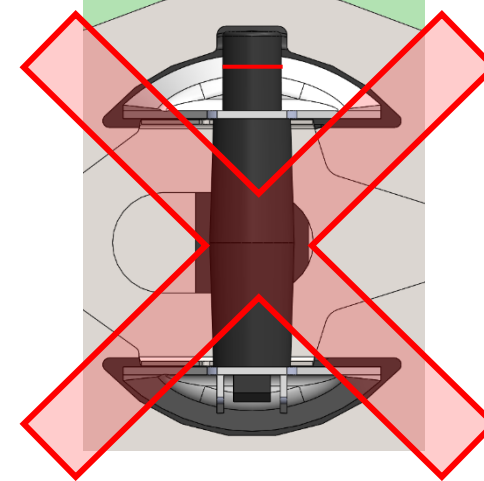


BEWARE OF THE FOLLOWING SITUATIONS

1) Tilting the glass panel forward

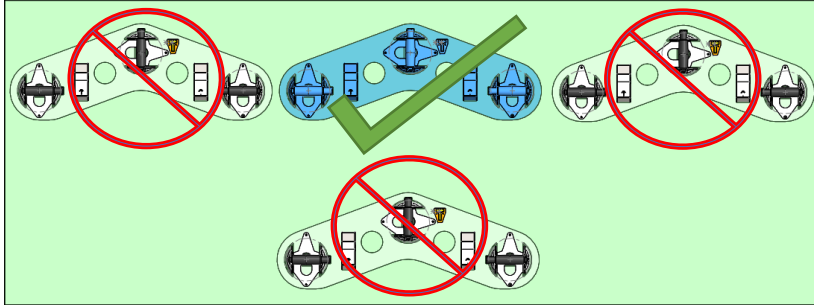


2) Do not lift glass panel, if the red line is still seen (the glass panel is not properly secured onto the glass sucker).

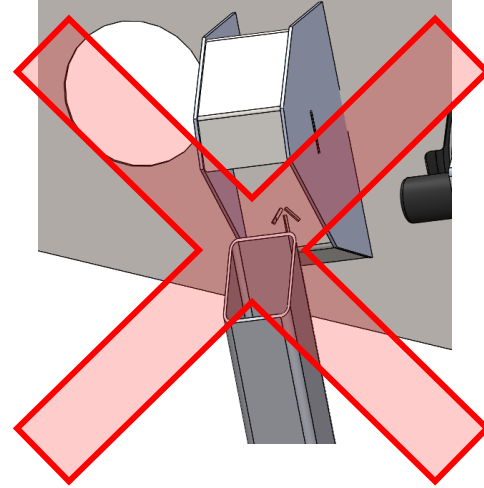


3) Ideal positioning of the glass suckers onto the glass panel

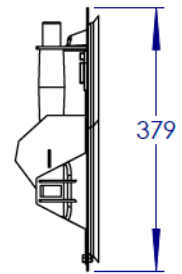
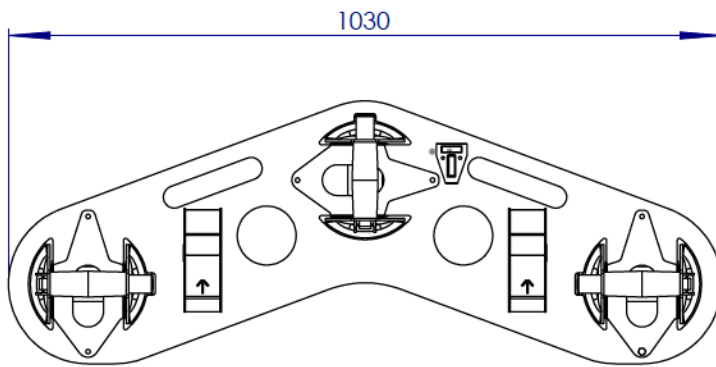
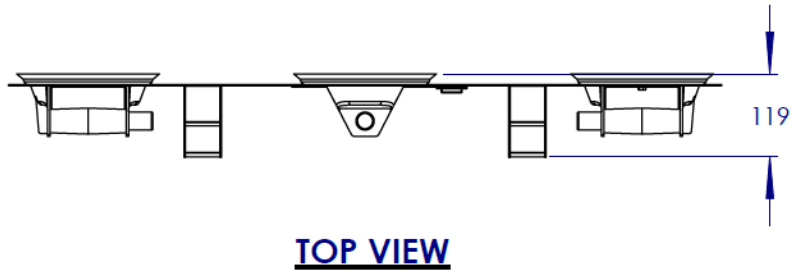
Ideal positioning of the glass suckers are center top of the glass panel.



4) Fork tines do not properly fit into the pickup bracket

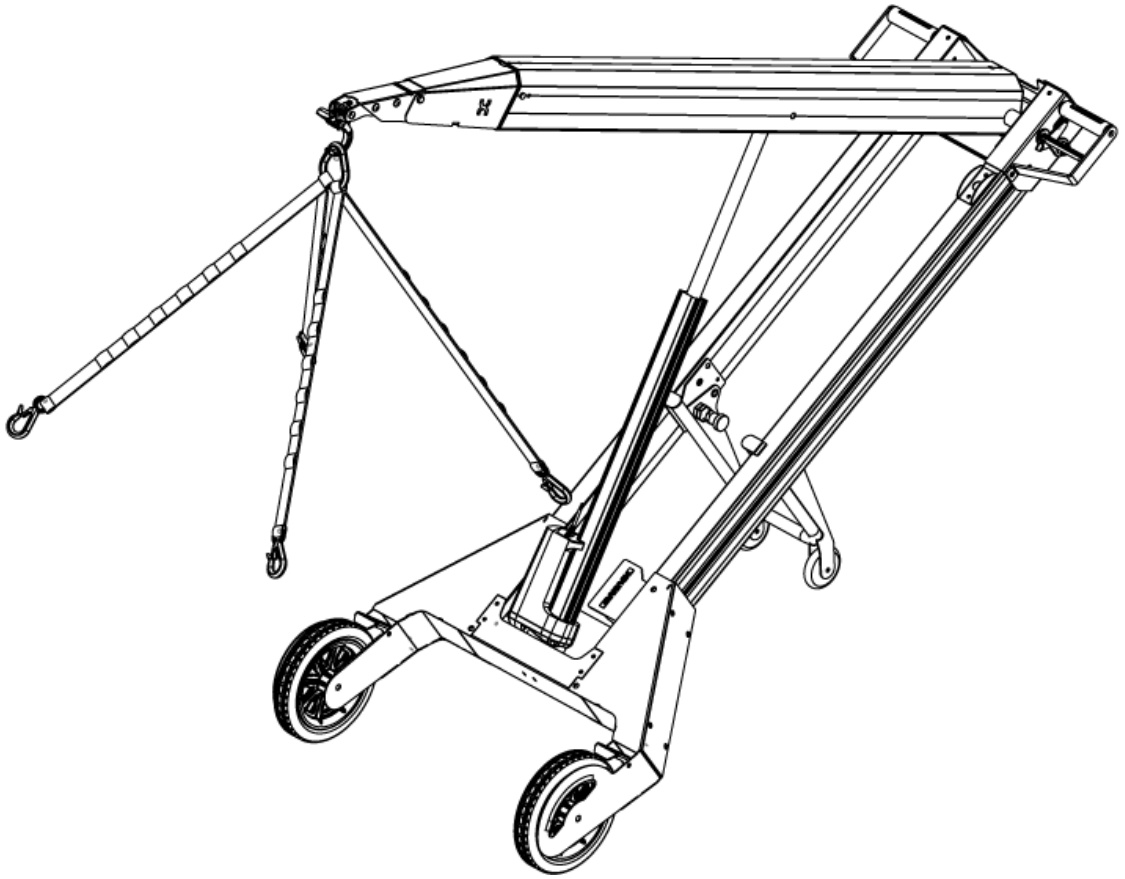


3.2 TECHNICAL DATA AND SPECIFICATIONS



MACHINE SPECIFICATIONS	
Mass (kg/lb)	7.9kg / 17.4lb
Maximum Lift Height	2000mm / 6ft 5in
Safe Working Load (SWL)	120kg / 264lb

4. MAK PHT-140-SA SLING ATTACHMENT



4.1 SLING ATTACHMENT INSTALLATION & OPERATION INSTRUCTIONS

Step 1: Insert the jib hook into the slings anchor and slide the hook-catch tab upwards to lock the hook.



Step 2: Loop the four slings around the corners of an objects frame and insert each hook into its designated straps. For objects with lifting points/ round-bar frames the sling hooks can be used directly without looping. Always check that all hooks are securely fastened onto the straps/ frame before lifting.



4.2 TECHNICAL DATA AND SPECIFICATIONS

MACHINE SPECIFICATIONS	
Mass (kg/lb)	1kg / 2.2lb
Maximum Lift Height	1600mm / 5ft 2in
Sling Length	914mm / 3ft
Safe Working Load (SWL)	140kg / 308lb

5. LIMITED WARRANTY

In order to take advantage of the MAKINEX limited warranty, you must have maintenance performed according to the schedule (contained in relevant owner's manual supplied with this product), by an authorised MAKINEX dealer or MAKINEX service technician. You are free to have your MAKINEX product serviced by any suitably qualified mechanic or electrician (depending on the mechanical or electrical requirement) and this will not affect your statutory warranties, however, failure by the owner to have the recommended servicing carried out by an authorised MAKINEX dealer/service technician means that you cannot take advantage of the MAKINEX limited warranty.

In order to ensure your safety, we strongly recommend that you only use an authorised MAKINEX dealer for servicing. Only authorised MAKINEX dealers have access to all the special tools, technical information, parts and training required to maintain your MAKINEX product in peak operating condition.

MAKINEX warrants each new PHT Attachment to be free from defects in material and workmanship under normal domestic and industrial use and service for the period specified below, conditional to the limitations and exclusions printed on this page. This warranty applies only to new MAKINEX PHT attachments distributed by us and by our authorised MAKINEX dealers.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

WARRANTY: (Ex-factory/ Reseller premise)

PHT-attachments will be free of defects in material and workmanship for the period specified in the table below.

Product Code	Product Name	Warranty Period
MAK PHT2-140-FA	Forklift Attachment	1 year
MAK PHT2-140-SF	Strap Frame Attachment	1 year
MAK PHT2-140-GS	Glass Sucker Attachment	1 year
MAK PHT2-140-SA	Sling Attachment	1 year

Warranty exclusions:

This warranty does not cover the following repairs and equipment:

Normal Wear

This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

Installation, Use and Maintenance

This warranty will not apply to parts and/or labour if the PHT attachment is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the PHT attachment's limits, modified, installed improperly.

Other Exclusions

This warranty excludes:

- Cosmetic defects such as paint, decals, etc.
- Wear items such as wheels, brake components
- Failures due to acts of God and other force majeure events beyond the manufacturer's control.
- Problems caused by parts that are not original MAKINEX parts.

Responsibility of the consumer under this Limited Warranty:

- Proper maintenance and safety checks need to be performed before operation of the machine.
- Strict adherence to the maintenance daily checks and schedule with proof of scheduled maintenance service required by an authorised agent or qualified mechanic and/or electrician.
- Maintenance services are not covered under warranty.
- It is the consumer's responsibility to deliver the machine in question to our service premises or to the premises of our appointed agent at the consumer's expense for replacement or repair as applicable.

Claim Procedure:

- Contact MAKINEX by phone or email informing us of your machines problem or defect.
- Once the extent of the claim has been assessed, we retain the right to compensate the consumer for such defect, or repair (parts & labour), or replace the machine under warranty.
- All warranties will be carried out by MAKINEX authorised staff or appointed agents at a premises to be determined by the Manufacturer.
- Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

- It is the responsibility (and cost) of MAKINEX or our appointed agent to return the machine to be repaired or replaced under warranty to the consumer- this is valid for domestic territories only (e.g. Australian units will be delivered within Australian territory, USA units will be delivered within USA territory and European units will be delivered within its designated country's territories).
- Where the specific warranty component (e.g. Actuator) is under a Manufacturer's warranty other than MAKINEX (e.g. LINAK), the consumer can either contact MAKINEX or the applicable Manufacturer for repairs where such warranty was registered with that manufacturer at purchase.
- Warranty calls will only be carried out by our representatives and not via client's choice of repairer. We will not accept back charges for any work not carried out by our representatives, or accept any charges due to equipment being un-operational for any reason even during its warranty period.

CONTACT INFORMATION

For sales, service, warranty and part orders, please call

	SALES	SERVICE, SPARE PARTS & WARRANTY
AUSTRALIA	<p>TEL +61 2 9460 8071</p> <p>FAX +61 2 9439 9815</p> <p>EMAIL sales@makinex.com.au</p> <p>ADDRESS 15 Waltham Street Artarmon NSW 2064</p>	<p>TEL 1300 795 953 or +61 2 9460 8071</p> <p>EMAIL service@makinex.com.au</p>
USA	<p>TEL 855-625-4639</p> <p>EMAIL sales@makinex.com</p> <p>ADDRESS 811 North Catalina Avenue Suite 1310 Redondo Beach CA 90277 USA</p>	<p>TEL 855-625-4639</p> <p>EMAIL service@makinex.com</p>
EUROPE	<p>TEL +31 (0)6 24881203 or +31 (0)6 50841849</p> <p>EMAIL info@mttools.eu</p> <p>ADDRESS Rietdijk 4 3994 AJ Houten The Netherlands</p>	<p>TEL +31 (0)6 24881203 or +31 (0)6 50841849</p> <p>EMAIL info@mttools.eu</p>
CHINA	<p>TEL 18951118278</p> <p>EMAIL sales@makinex.com.cn</p> <p>ADDRESS Suzhou Industrial Park Xinghai Street on the 16th Jinying Pioneering Park, 2nd Floor, Area C</p>	<p>TEL 18951118278</p> <p>EMAIL sales@makinex.com.cn</p>

Or your nearest MAKINEX distributor

We have very knowledgeable, experienced staff to assist you with help and advice.

