

**EQUIPMENT MANUFACTURER:**

AEROMOB HELICOPTER PARTS INDUSTRY  
Rua Carlos Willy Boehm, 990  
89218-325  
Costa e Silva  
Joinville/SC – Brazil

### ORIGINAL INSTRUCTIONS

**EQUIPMENT NAME:**

UNIVERSAL CARTMOB

**MODEL:**

K02

**MACHINERY DESIGNATION:**

UNIVERSAL HELICOPTER TOW BAR

**EQUIPMENT PART NUMBER:**

AM-CRT-K02

**LANGUAGE:**

ENGLISH

INTENTIONALLY LEFT BLANK

<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24

**1 INTRODUCTION**

The equipment you are receiving was developed under the most advanced engineering concept. Congratulations on your operational choice!

This manual contains instructions and approved operating procedures for using CARTMOB, the universal tow bar for fixed ski helicopters.

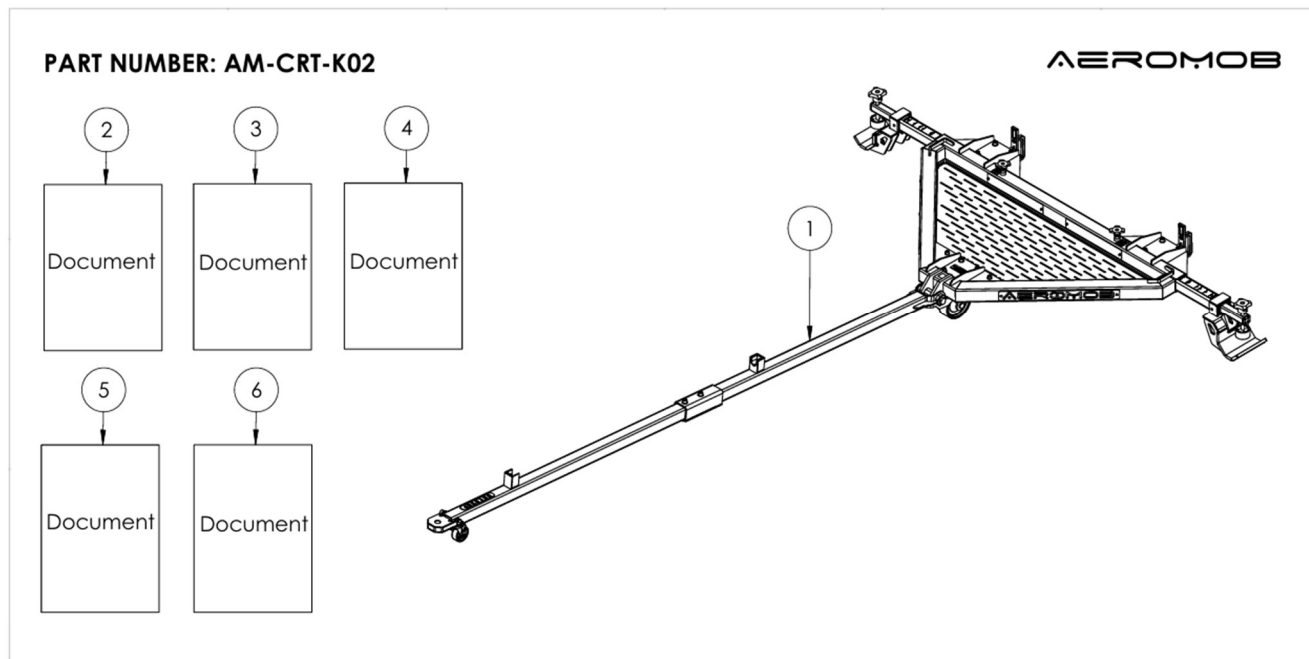
This User Manual is a mandatory read by anyone wishing to operate the equipment, assuring quality and safety in the operation.

In addition to this User Manual, your equipment is accompanied by the following documents: Flight Manual Supplement (FMS), Maintenance Manual (MM), Illustrated Parts Catalog (IPC), and Assembly Manual (AMS). For more information on these documents, as well as on Warranty and Support, see chapters 9 and 10 of this manual.

INTENTIONALLY LEFT BLANK

<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24

**2 GENERAL INFORMATION**



**ITEMS OF PART NUMBER: AM-CRT-K02**

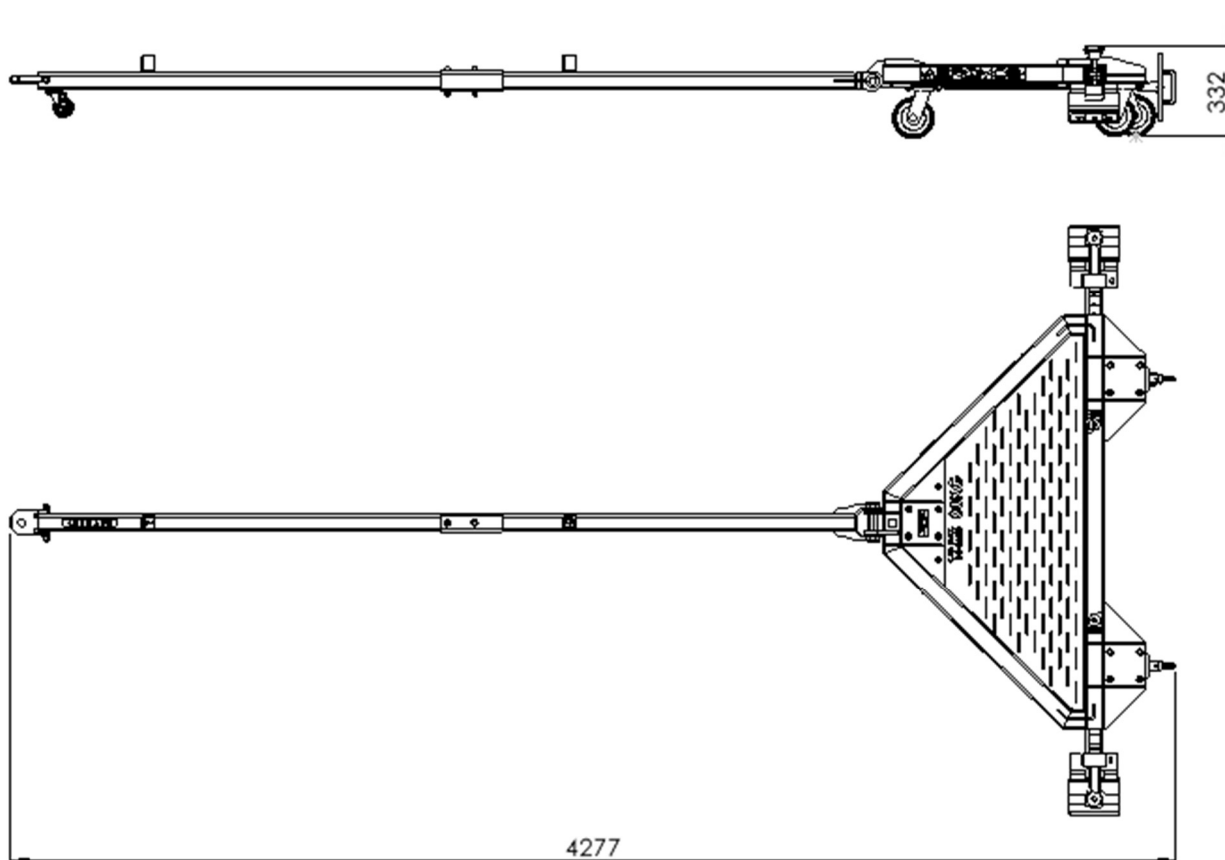
ITEM NUMBER	DESCRIPTION	PART NUMBER	QTY
1	TOWING CART (UNIVERSAL)	AM-CRT-K02	1
2	USER MANUAL	UM-AM-CRT-K02	1
3	ILLUSTRATED PARTS CATALOGUE - IPC	IPC-AM-CRT-K02	1
4	FMS - FLIGHT MANUAL SUPPLEMENT - FMS	FMS-AM-CRT-K02	1
5	MAINTENANCE MANUAL - MM	MM-AM-CRT-K02	1
6	ASSEMBLY MANUAL - AMS	AMS-AM-CRT-K02	1

INTENTIONALLY LEFT BLANK

<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24

The main structure is made of carbon steel.

Total weight: 139 kg



### 3 APPROVED USE

The equipment UNIVERSAL TOWING CART has the function of moving the aircraft from the hangar to the take-off point and from the landing point to the hangar. The towing cart is approved for use on Airbus H120, Airbus H125, Airbus H130, Airbus H135, Airbus H145, Robinson R44, Robinson R66, Leonardo AW09, Leonardo AW119, BELL 206JR, BELL 206LR, MD500, MD600, MD900, MD920, BELL 505, BELL 407 and BELL 429. The CARTMOB is designed to be towed by tractors, golf carts, cars, quad bikes or other vehicles.

The use of this equipment in other helicopter models or for functions not approved in this manual is prohibited. Consult the manufacturer in advance before using it to transport other helicopter models (more contact information in chapter 9).

<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24

**4 LIMITATIONS**

The speed limit of moving the equipment, loaded or empty, is 10 km/h.

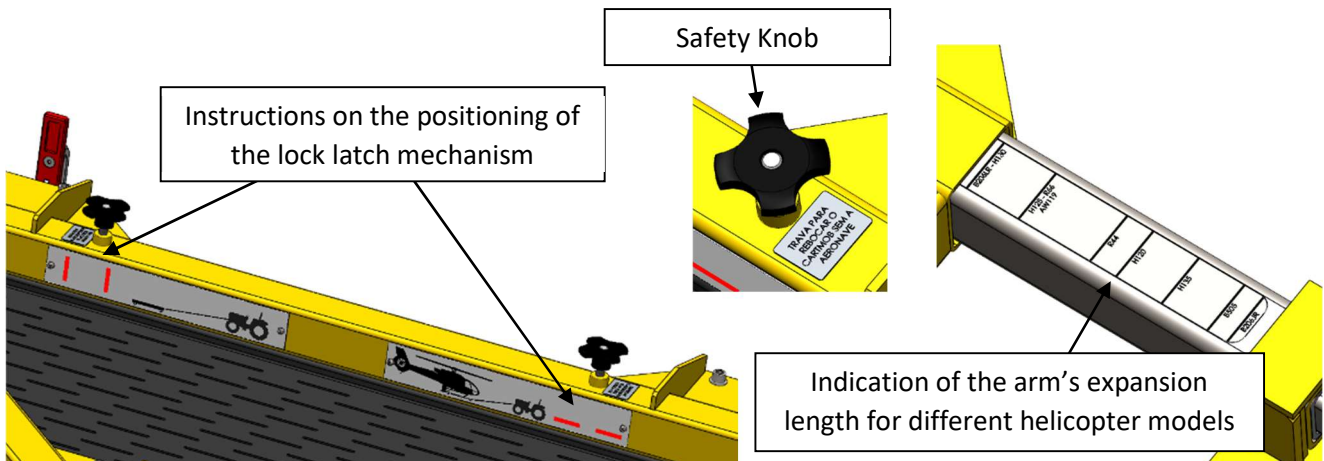
The vehicle's hitch must be between 30 cm and 60 cm off the ground.

CARTMOB has a standard coupling hole that accepts the tractor's locking pin with a diameter of 1". If you require a different size hitch hole, please contact our team.

The equipment is approved for working on paved floors, firm ground grass or firm ground soil. the maximum slope of the floor must be 5%. The operation on uneven terrain is prohibited.

The use of the equipment is only permitted if it is complete and in perfect working order. It is expressly prohibited and dangerous to use equipment with any part, information plate, missing component or use of a component that is not part of this set and/or that has not been supplied by the manufacturer. If it is necessary to order an item or component, contact AEROMOB.

Shown below, are information plates that must be attached to the CARTMOB.



INTENTIONALLY LEFT BLANK

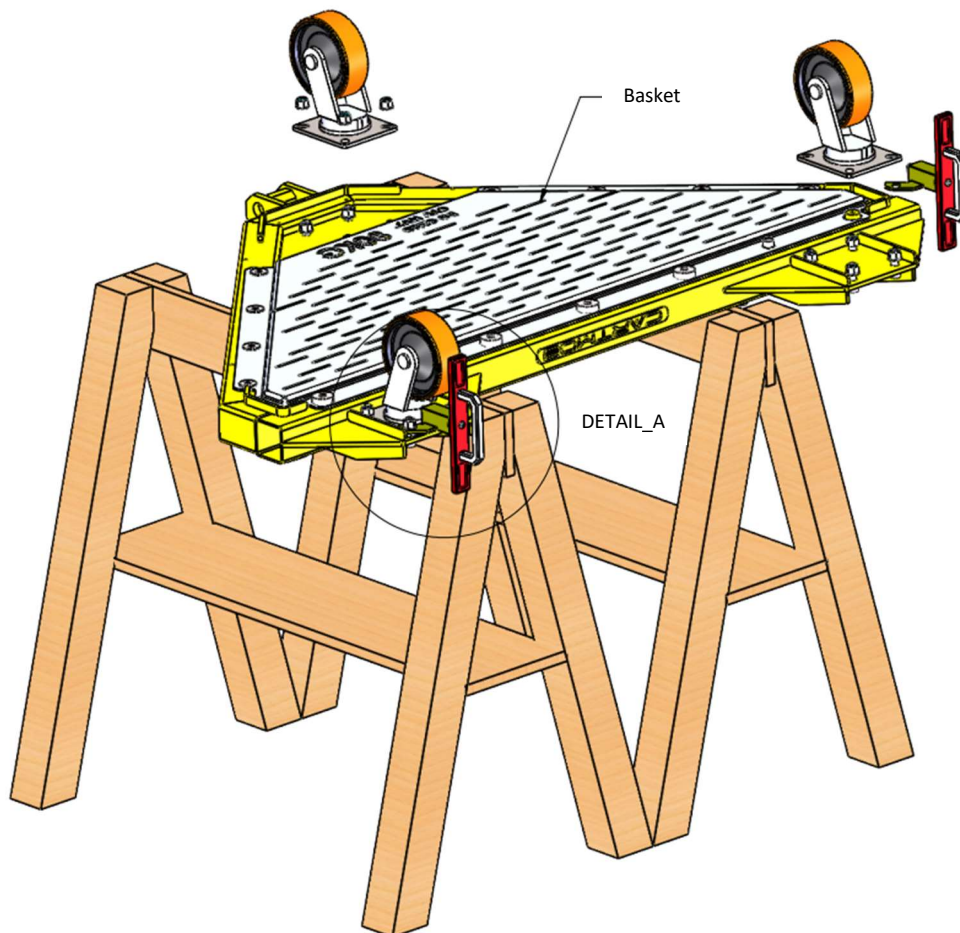
<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24

## 5 REMOVAL FROM BOX AND ASSEMBLY

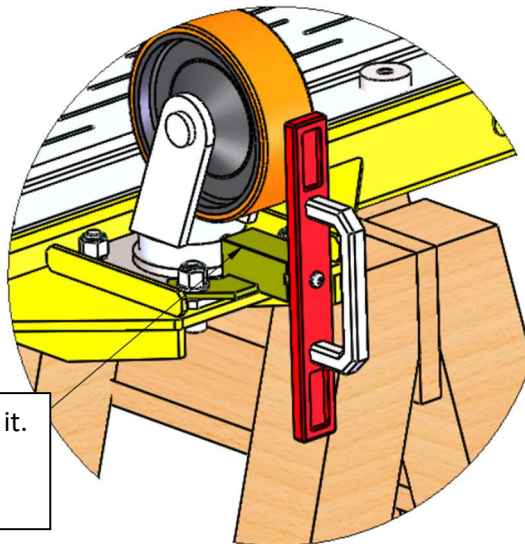
To ensure the safe transportation of the equipment, it is packed in boxes and sent disassembled. Use a screwdriver to remove the screws from the box lid. For assembly, use the ASSEMBLY MANUAL (AMS) or follow the instructions and illustrations below.

To assemble the casters and locks, follow these steps:

- Support the CARTMOB frame on a suitable surface, such as two reinforced trestles, with bottom facing up;
- Remove the basket from the set;
- Position the casters on the frame, in their respective positions, as shown below;
- Insert the screws from bottom to top, as shown;
- Replace the basket;
- Place the lock on the caster flange as shown in the image (DETAIL\_A);
- Tighten the caster screws.



<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24

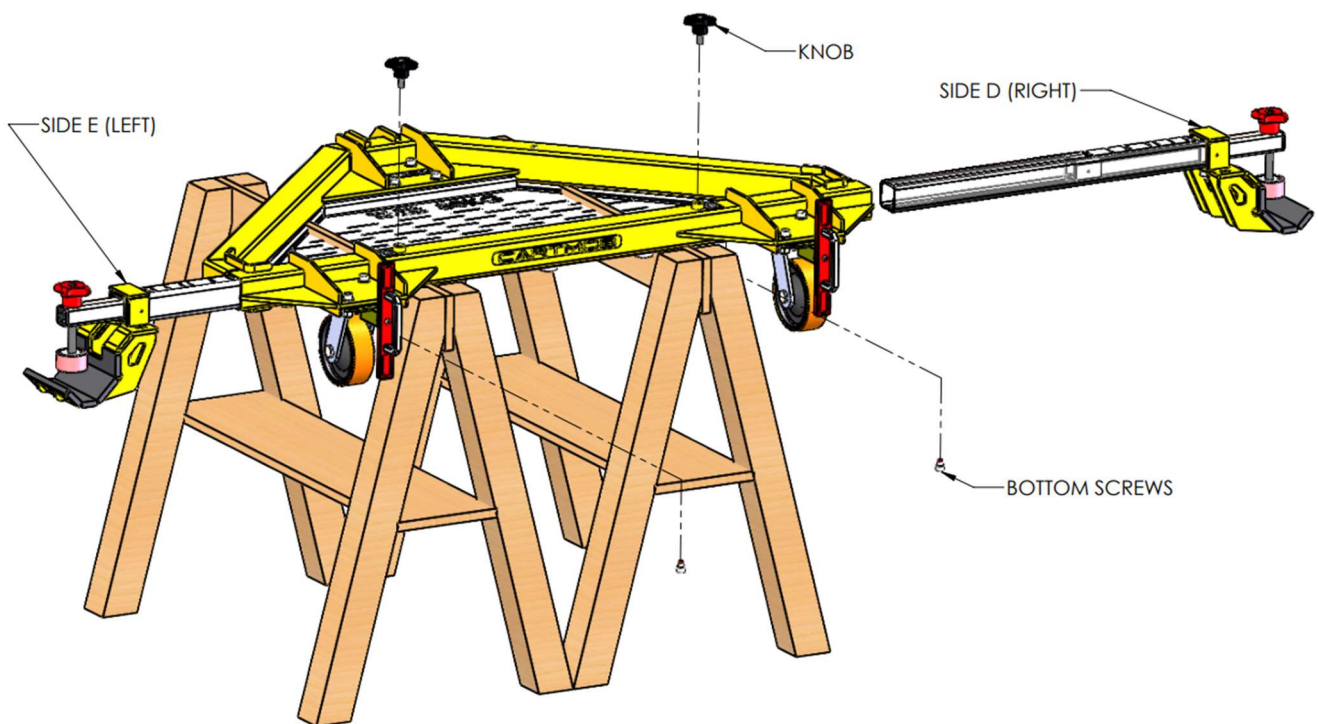


To lock the latch, pull it out and turn it.  
**Vertical position:** locked  
**horizontal position:** loose

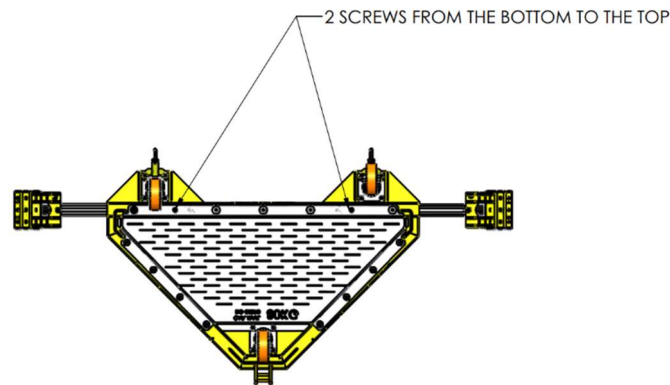
DETAIL\_A

To assemble the telescopic claw arms of the CARTMOB, follow the instructions below:

- Place the CARTMOB frame on a suitable surface, such as two reinforced trestles, as shown below;
- Place the telescopic arms on their respective sides, D and E, as shown;
- Lock the telescopic arms with the 2 handles from above and the 2 screws from below, as shown in the following image.

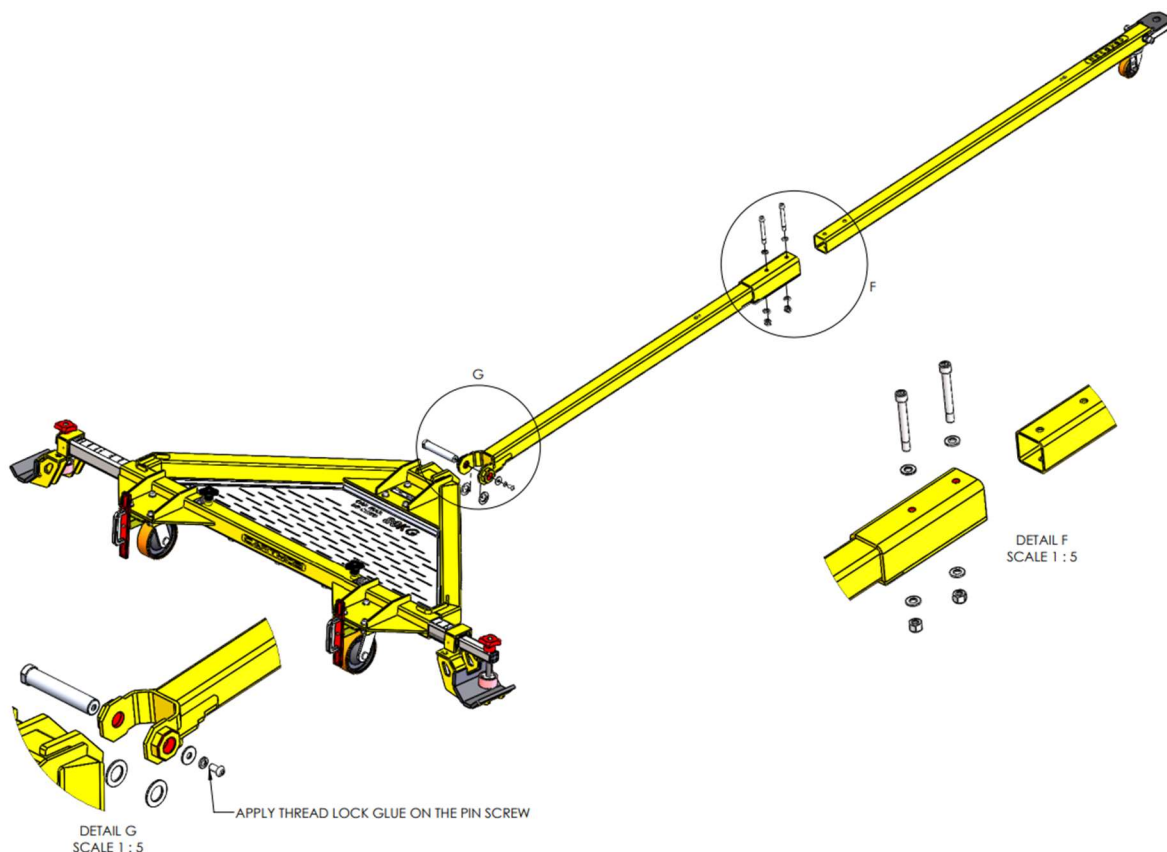


<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24



To assemble the CARTMOB UNIVERSAL, follow the steps below:

- Position the equipment on the ground;
- Attach part of the towbar to the equipment. Insert the pin to attach the towbar to the equipment, according to DETAIL G. **IMPORTANT:** The towbar must be aligned with the ground. It must not be positioned at an angle. Engage the pin by hand, without knocking or forcing it into place. Move the towbar and pin slightly until they are safely attached;
- Apply threadlocker to the pin screw, as indicated in DETAIL G.
- Join the parts of the towbar with the M12 bolts, washers and self-locking nuts (DETAIL F);



<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24



**6 BASIC OPERATIONAL DESCRIPTION**

**6.1 BEFORE USE**

If the empty CARTMOB has to be moved along a long, winding or highly jittery path, lock the red and black knobs to ensure that the telescopic arms are safely locked during movement.

Before connecting the CARTMOB to the aircraft, the helicopter's wheels must be properly attached and the helicopter fully suspended, so that the aircraft's CG is as forward as possible.

When moving the CARTMOB close to the aircraft, use the transport basket to carry the rear wheels, other equipment or luggage, compatible with the space and load capacity declared on your basket.

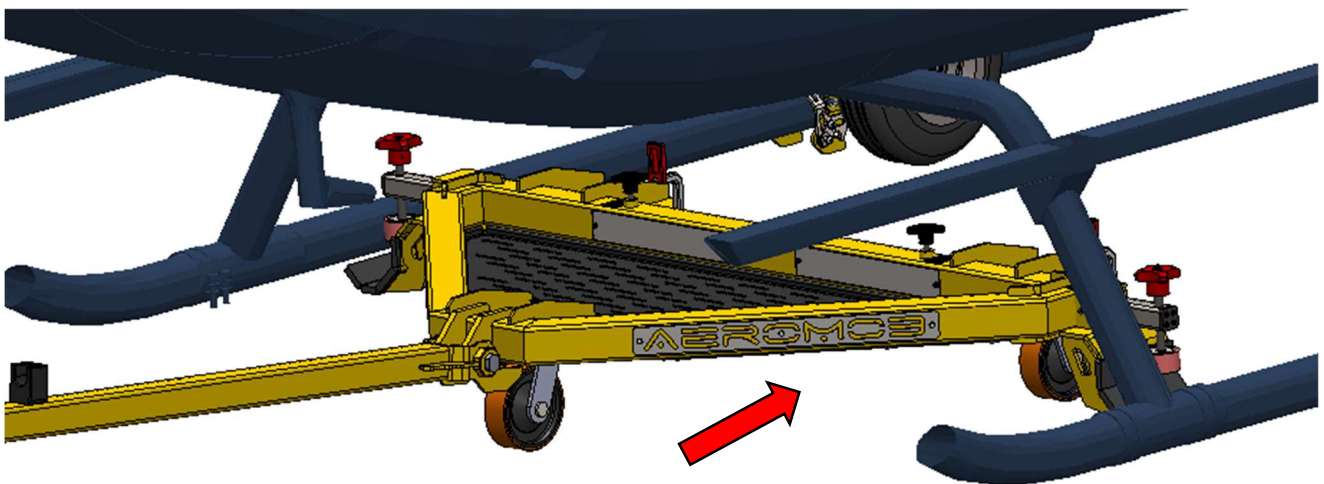
It is recommended to use AEROMOB wheels, as they favor the ideal front CG and provide 30% more skid elevation than standard market wheels.

Before moving the CARTMOB under the helicopter, ensure that:

- The claw arms are retracted;
- The caster locks are in an upright position.

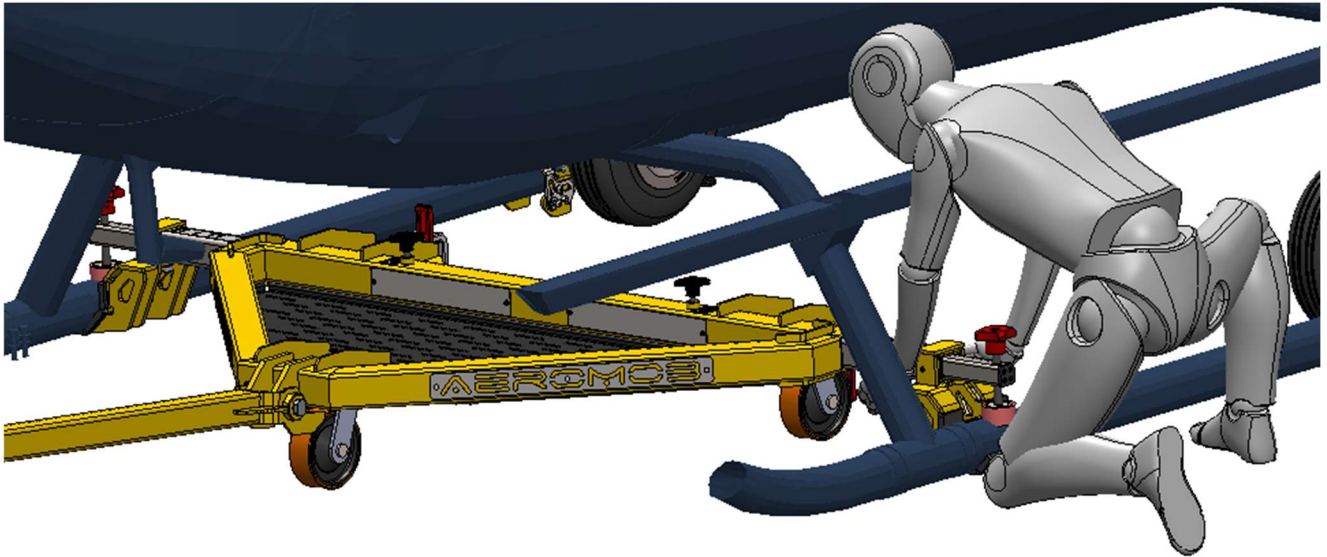
**6.2 ATTACHMENT TO THE AIRCRAFT**

With the drive wheels engaged and leveraged on the aircraft's ski, one operator, located at the tail of the helicopter, must hold the aircraft in such a way that the front of the ski is suspended in relation to the ground, always holding at approved grip points. Another operator should bring the CARTMOB closer, placing it under the helicopter, until the claw arms line up with the first straight and free section of the ski, as shown below.

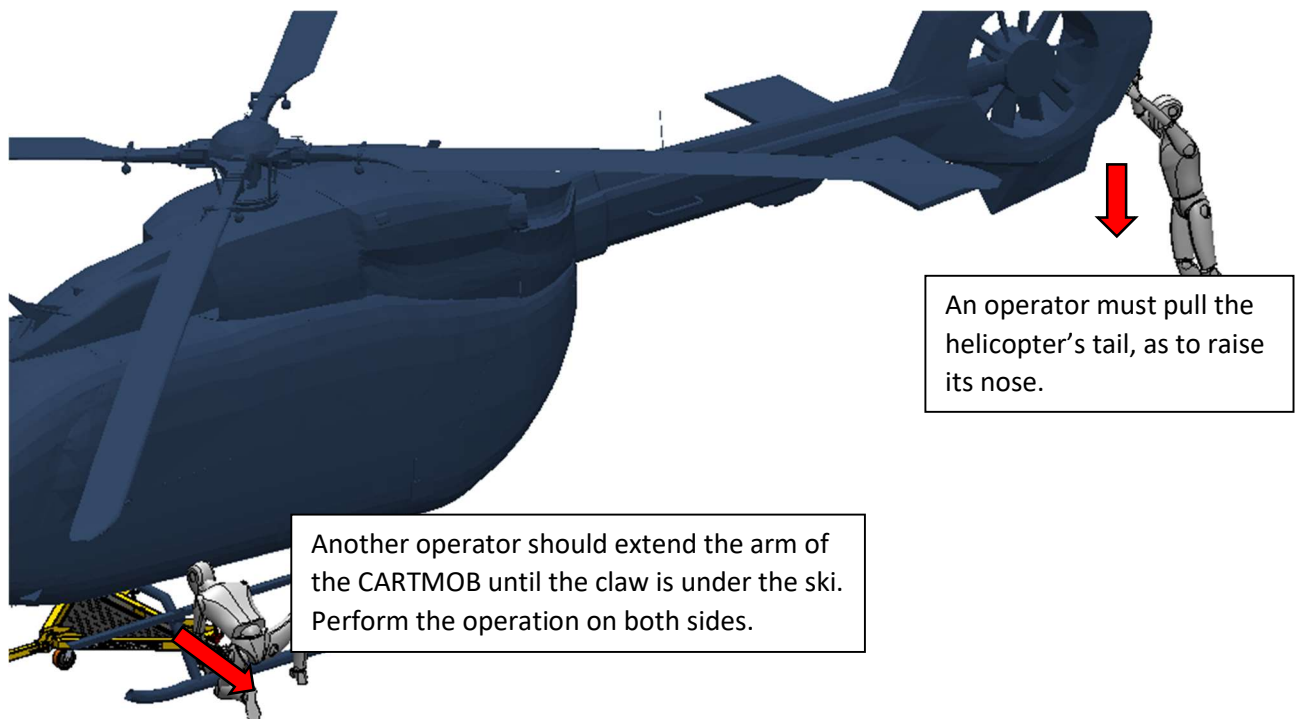


<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24

While the operator keeps the aircraft suspended, keeping the helicopter's tail down, expand the telescopic arm until the claw is under the ski, as shown below. Repeat the operation on the other side.



With the claws positioned under the skis, the tail operator must lower the nose of the aircraft until the skid touches the claw.

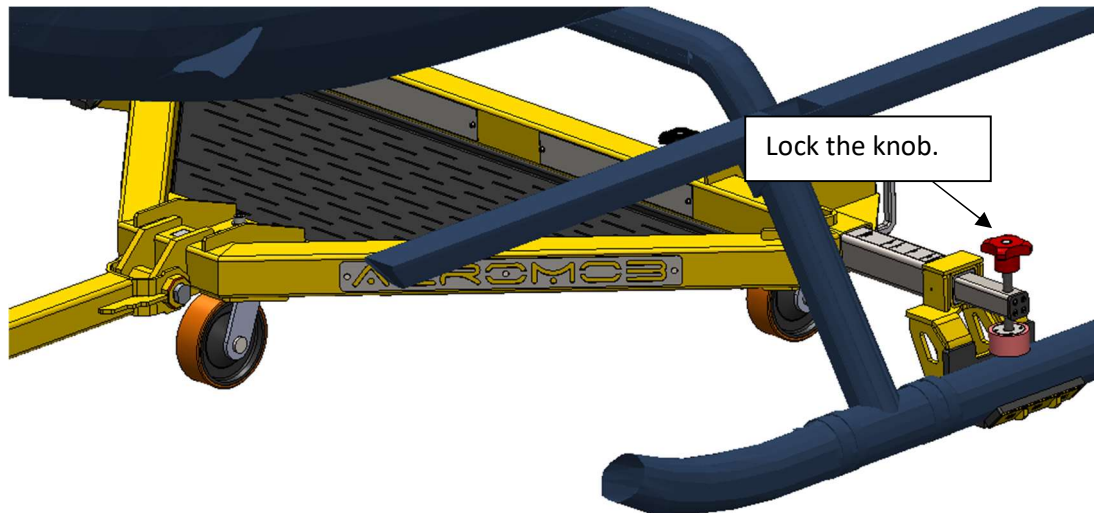


An operator must pull the helicopter's tail, as to raise its nose.

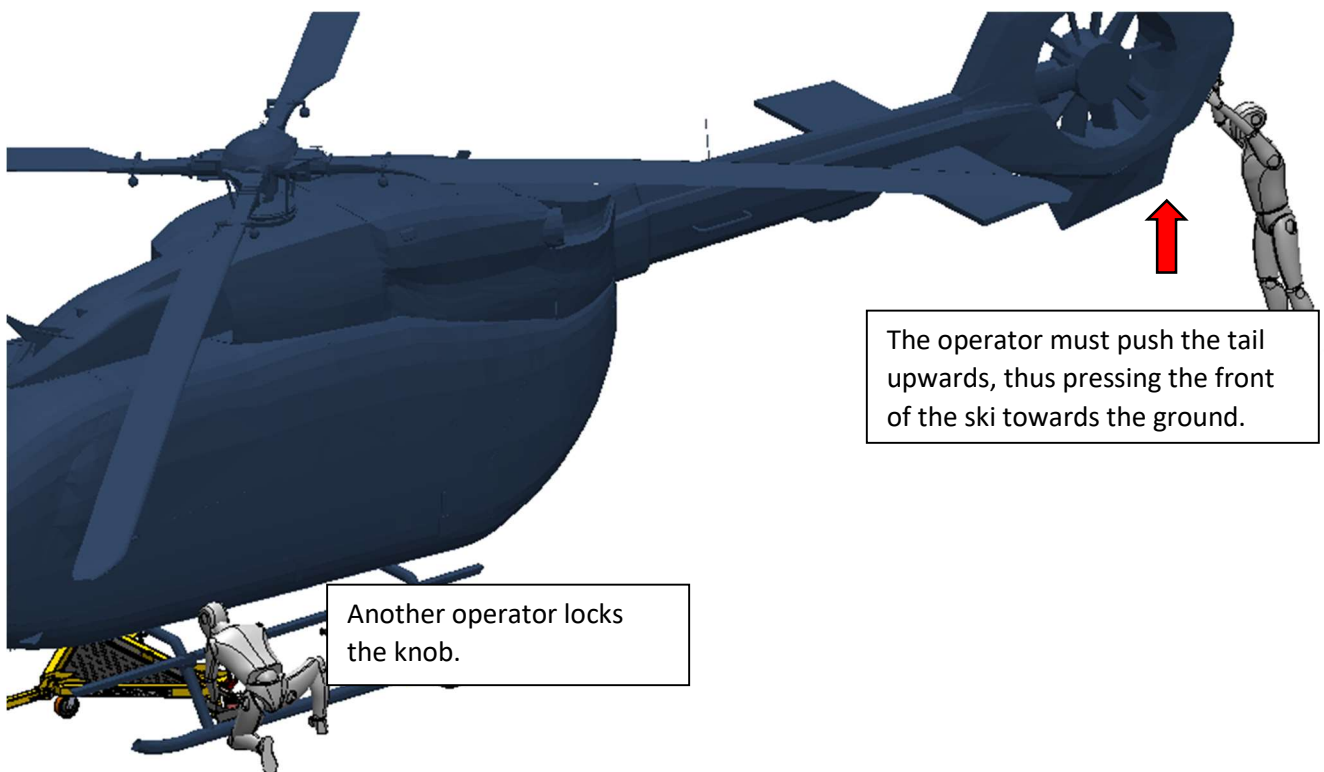
Another operator should extend the arm of the CARTMOB until the claw is under the ski. Perform the operation on both sides.

Then lock the red knob into place, thus safely attaching the claw to the helicopter ski.

<b>Written by</b>   Date: LUÍS MENEGHELLI   11/ABR/24	<b>Approved by</b>   Date: PHIL XAVIER   11/ABR/24
<b>Updated by</b>   Date: MATEUS FREITAS   18/NOV/24	<b>Approved by</b>   Date: PHIL XAVIER   18/NOV/24

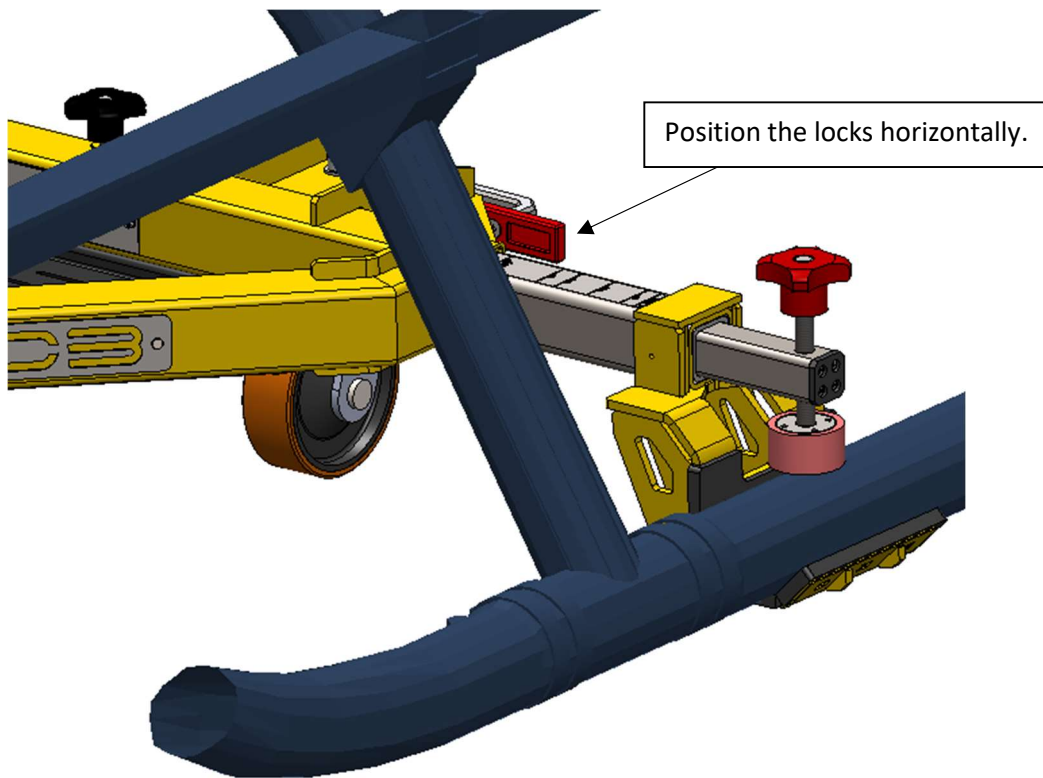


The operator on the helicopters tail can apply light pressure, pushing the tail upwards and thus, pressing the front of the ski towards the ground. This will ensure that the CARTMOB claw locks onto the ski.



<b>Written by</b>   Date: LUÍS MENEGHELLI   11/ABR/24	<b>Approved by</b>   Date: PHIL XAVIER   11/ABR/24
<b>Updated by</b>   Date: MATEUS FREITAS   18/NOV/24	<b>Approved by</b>   Date: PHIL XAVIER   18/NOV/24

Place the caster locks in the HORIZONTAL position on both sides, as shown below.



Locking the black handle is only necessary when moving the CARTMOB freely (uncoupled from the helicopter).

### 6.3 MOVEMENT

Connect the CARTMOB to your vehicle and tractor your aircraft.

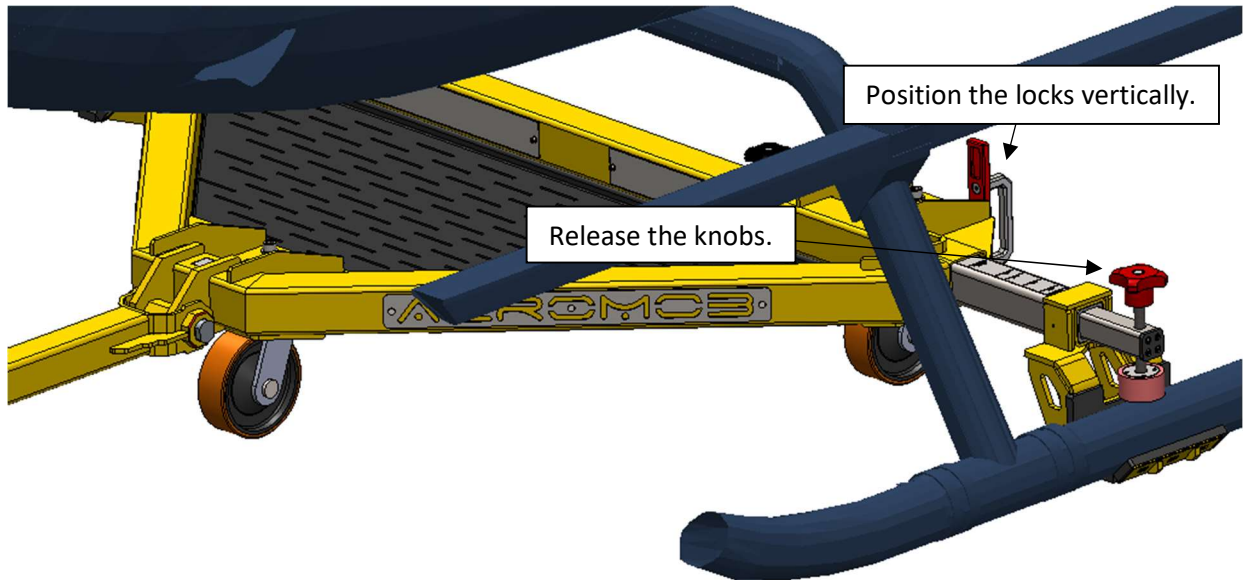
**CAUTION**

**IF THE HANDLING WHEELS INSTALLED ON THE SKID ARE NOT AEROMOB OR DO NOT FAVOR FRONT CG, A SAFETY OPERATOR IS REQUIRED TO ACCOMPANY THE HELICOPTER'S TAIL TO ENSURE THAT THE AIRCRAFT DOES NOT TIP BACKWARDS.**

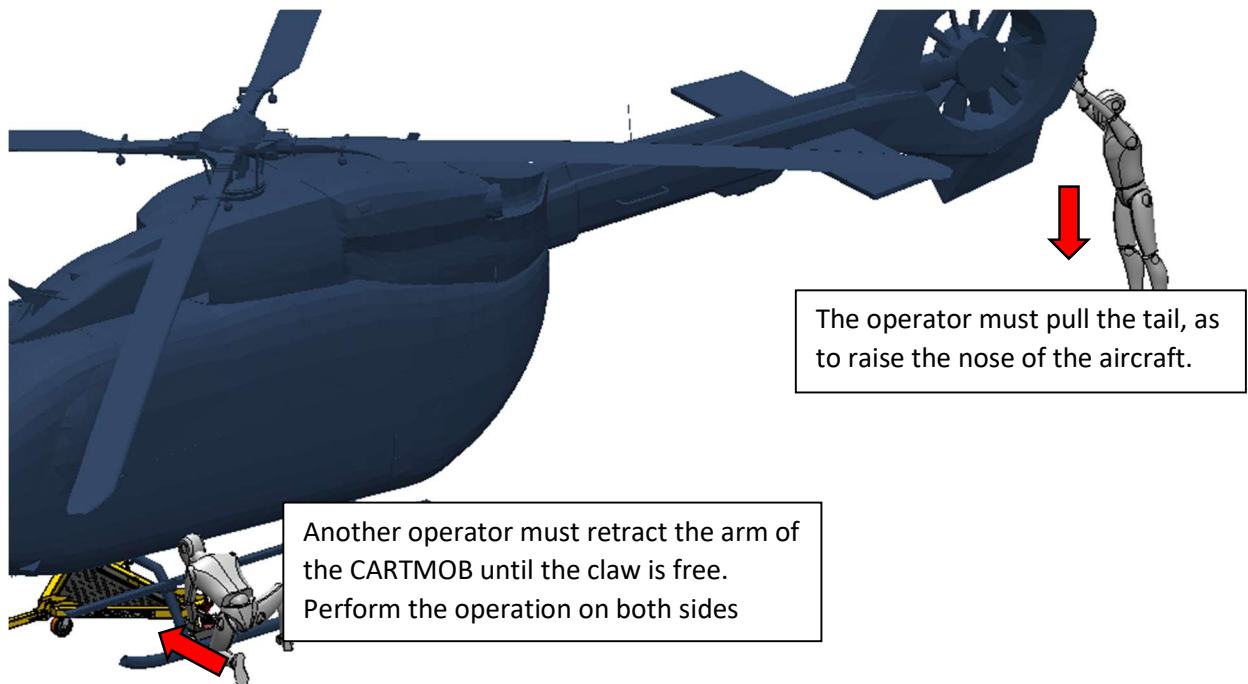
<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24

### 6.4 UNATTACHMENT

After arrival at the desired parking point, an operator must place the caster lock in the VERTICAL position and release the red handles, thus releasing the skid, as illustrated below.



The operator at the tail should lift the nose of the aircraft so that the CARTMOB's claws are free. With the claws free, retract the telescopic arms and pull the CARTMOB out from under the aircraft.



<b>Written by</b>   Date: LUÍS MENEGHELLI   11/ABR/24	<b>Approved by</b>   Date: PHIL XAVIER   11/ABR/24
<b>Updated by</b>   Date: MATEUS FREITAS   18/NOV/24	<b>Approved by</b>   Date: PHIL XAVIER   18/NOV/24

## 7 STORING

Between operations, it is recommended to leave the equipment under the aircraft with the telescopic arms retracted, so that its next use is practical and efficient. Keep the equipment protected from the weather, the sun and the environment, such as inside a hangar. Make sure its positioning does not pose an obstacle to the movement of people or aircraft. Keep the equipment out of the reach of children.

## 8 PROHIBITIONS

- **NEVER** authorize anyone to use this equipment without first reading this Instruction Manual;
- **DO NOT** use this equipment with people or luggage inside the aircraft;
- **DO NOT** use this equipment on uneven terrain that causes severe shaking or jolting, as this may pose a risk of damage to the aircraft and/or operators near the aircraft;
- **DO NOT** use this equipment to move the aircraft at a speed larger than 10 km/h;
- **DO NOT** move the equipment unloaded (without it being attached to the aircraft) without assuring the caster locks are engaged;
- **DO NOT** unlock the knobs or locks while the docked aircraft is in movement;
- **DO NOT** use the equipment on helicopter models other than those mentioned in this manual or without consulting the manufacturer, above the approved weight, or for unapproved functions;
- **DO NOT** use the equipment if you are unsure of any operational procedure. Contact our support team and clear up any doubts before operating the equipment;
- **NEVER** open or unlock the aircraft doors while the CARTMOB is attached;
- **NEVER** use this equipment if any part, protection, component or identification plate is missing or damaged;
- **NEVER** use the equipment with any part or component that is not part of this set and/or has not been supplied by the manufacturer;
- **DO NOT** allow this equipment to be operated or handled by children;
- **DO NOT** leave the equipment exposed to the elements, the sun or the environment for long periods of time;

## 9 PRODUCT DOCUMENTS

### 9.1 FLIGHT MANUAL SUPPLEMENT (FMS)

The Flight Manual Supplement (FMS), sent printed with the equipment and available for digital consultation, should be inserted into the flight manual (POH), in the SUPPLEMENTS section, for quick access of basic information relating to this equipment. To access the updated version of the Flight Manual Supplement (FMS), go to: [www.aeromob-industry.com/support-am-crt-k02](http://www.aeromob-industry.com/support-am-crt-k02) or just scan the QR CODE available in this Manual.

<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24

## 9.2 USER MANUAL

This document is the User Manual. It is mandatory reading before operating the UNIVERSAL CARTMOB. To access the updated version of the User Manual, go to: <https://www.aeromob-industry.com/support-am-crt-k02> or just scan the QR CODE available in this Manual.

## 9.3 ASSEMBLY MANUAL (AMS)

The ASSEMBLY MANUAL (PN AMS-AM-CRT-K02), or Assembly Manual, contains information on assembling the CARTMOB. The same instructions are also contained in this Manual. To access the updated version of the ASSEMBLY MANUAL, go to: <https://www.aeromob-industry.com/support-am-crt-k02> or just scan the QR CODE available in this Manual.

## 9.4 MAINTENANCE PROCEDURES

The overhaul plan and any necessary maintenance procedures must be carried out in accordance with the maintenance manual, document part number MM-AM-CRT-K02. To access the updated version of the Maintenance Manual, go to: [www.aeromob-industry.com/support-am-crt-k02](http://www.aeromob-industry.com/support-am-crt-k02) or just scan the QR CODE available in this Manual.

## 9.5 SPARE PARTS

The Illustrated Parts Catalog - IPC is the official reference document for ordering spare parts, part number IPC-AM-CRT-K02. To access the updated version of the Illustrated Parts Catalog, go to: [www.aeromob-industry.com/support-am-crt-k02](http://www.aeromob-industry.com/support-am-crt-k02) or just scan the QR CODE available in this Manual.

## 9.6 WARRANTY

Your equipment has a 1-year warranty and, if necessary, can be requested directly from AEROMOB via the link: [www.aeromob-industry.com/support-am-crt-k02](http://www.aeromob-industry.com/support-am-crt-k02) or by scanning the QR CODE available in this Manual.

## 9.7 SUPPORT

If you have any questions about how to use the equipment, please contact our support team. Do not use the equipment if you have any doubts about its operation. If you notice any faults with the equipment, if components are missing, or in any other case where support is required, please contact us via the website, which can be accessed via the link: [www.aeromob-industry.com/support-am-crt-k02](http://www.aeromob-industry.com/support-am-crt-k02) or by scanning the QR CODE available in this Manual.

<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24

**10 ACCESS TO ALL UPDATED DOCUMENTATION**

Below is a list of files and documents available to the customer of this equipment and the QR CODE for access to the always up-to-date version:

**(PN FMS-AM-CRT-K02) FLIGHT MANUAL SUPPLEMENT**

**(PN UM-AM-CRT-K02) USER MANUAL**

**(PN MM-AM-CRT-K02) MAINTENANCE MANUAL**

**(PN IPC-AM-CRT-K02) ILLUSTRATED PARTS CATALOG**

**(PN AMS-AM-CRT-K02) ASSEMBLY MANUAL**



[www.aeromob-industry.com/support-am-crt-k02](http://www.aeromob-industry.com/support-am-crt-k02)

<b>Written by   Date:</b> LUÍS MENEGHELLI   11/ABR/24	<b>Approved by   Date:</b> PHIL XAVIER   11/ABR/24
<b>Updated by   Date:</b> MATEUS FREITAS   18/NOV/24	<b>Approved by   Date:</b> PHIL XAVIER   18/NOV/24