Manufacturer AOG4JETS bv

USER MANUAL QR

Instruction manual

EMERCENGCY TELESCOPIC TOWBAR user manual.

Brand : JETSTOW
Type : JETSTOW CELT
Model no.: PLD0

These are the original English instructions

December 2025
Version 1.2

Product Modifications

Year	Type	Modifications
2023	JETSTOW CELT	Initial design
2024	JETSTOW CELT	Revision 01 - June 13, 2024
2025	JETSTOW CELT	Revision 02 - July 10, 2025
2025	JETSTOW CELT	Revision 03 – December 2025

Document Revisions

Date (YYY/MM/DD)	Version Number	Document Changes
2024-10-29	1.0	Initial draft
2025-07-10	1.1	User/Instruction Manual
2025-12-03	1.2	User/Instruction Manual

Approvals

This document requires following approvals:

Name	Title
Lorenzo Piero Tofoni	Founder & CEOAOG4JETS bv

Company Stamp & Signature

Ref. to Page 40/40

Table of Contents

1 Preface 4
- 1.1 Description of the user 4
- 1.2 Conventions used in this manual 5
- 1.3 Explanation of safety warnings 5
- 1.4 How to use these instructions 5
- 1.5 Obtaining documentation and information 6
- 1.6 Other documentation 7

2 Description of the product 7
- 2.1 Intended use and reasonably foreseeable misuse 7
- 2.2 Process overview 8
- 2.3 Product elements 9
- 2.4 Technical data of the JETSTOW 10
- 2.5 Technical data of the accessories 10
  - 2.5.1 Eye and tug tube 11
  - 2.5.2 Head and head tug tube 12
- 2.6 Identification plate 12

2.7 Compliance of the device 12

3 Safety instructions 12
- 3.1 How to use the product safely 12
  - 3.1.1 Safety information related to the intended use and reasonably foreseeable misuse 12
  - 3.1.2 Personal protective equipment 13
  - 3.1.3 Safety information regarding the use 13
  - 3.1.4 Maintenance and repair safety information 14
- 3.2 Explanation of safety information on the packaging and device 14

4 Preparation 15
- 4.1 How to unpack the towbar 15
- 4.2 Contents of the packaging 15

5. Using the towbar 16
- 5.1 How to set up the towbar and connect it 16
  - 5.1.1 Preparation 16
  - 5.1.2 Preparing the head 16
  - 5.1.3 Attaching the wheels to the towbar 18
  - 5.1.4 Preparing the eye 19
  - 5.1.5 Connecting the head to the aircraft nose landing gear towing attachment 21
  - 5.1.6 Extending the tubes 22
  - 5.1.7 Connecting the towbar to the tow truck 24
- 5.2 How to use the towbar to tow an aircraft 24
- 5.3 How to disconnect and store the towbar after use 25
  - 5.3.1 Preparation 26
  - 5.3.2 Retracting the tube 1-tube 2 -tube 3 (tubes) 26
  - 5.3.3 Disconnecting the head from the nose landing gear towing attachment 28
  - 5.3.4 Storing the tug tube 39
  - 5.3.5 Removing the wheels from the towbar 31
  - 5.3.6 Storing the head tug tube 32
  - 5.3.7 Storing the towbar 34

6 Inspection and maintenance 35
- 6.1 Inspection and maintenance intervals 35
- 6.2 How to inspect the towbar 35
- 6.3 How to clean the towbar 36
- 6.4 How to service the towbar 36
- 6.5 Technical lifespan and maintenance requirements 37
  - 6.5.1 Yearly inspection check points 38

7 Troubleshooting 39

8 Disposal 39
- 8.1 Recycling parts 39
- 8.2 Disposal of the packaging waste 39
- 8.3 Disposal of consumables 39

9 Appendix A Declaration of conformity 40

1 Preface

1.1 Description of the user

This user manual is intended for the end user of the JETSTOW. The end user can be described as someone who interacts directly with the JETSTOW and the accessories.

The end user typically includes but is not limited to the following:

- Ground handling staff
- Ramp agents
- Flight crew
- Tow truck operators
- Aircraft maintenance personnel

All use of the JETSTOW shall only be carried out by an authorized, properly qualified, and skilled person of 18 years or older who:

- Has read and understood this manual.
- Is familiar with operating similar equipment.
- Knows how to operate the JETSTOW.
- Is aware of all possible dangers and acts accordingly.

The required maintenance and/or inspection work, as stated in this user manual, is allowed by the aforementioned persons unless clearly indicated when this is not allowed. An exception to this is personal protective equipment. These shall always be inspected and certified by approved companies/authorities.

1.2 Conventions used in this manual

The following style conventions are used in this document:

The JETSTOW CELT is also called the “towbar".

Bold
Names of product elements

Helvetica Neue
Publication titles referenced in the text
Emphasis (for example, a new term)

1.3 Explanation of safety warnings

⚠DANGER Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

⚠WARNING Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

⚠CAUTION Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

NOTICE Indicates information considered important but not hazard-related. These can be useful information or instructions to avoid material or or property damage.

1.4 How to use these instructions

Read and understand this manual and its safety instructions before using this product.
Failure to do so can result in serious injury or death.

Follow all the instructions. This will avoid fire, explosions, electric shocks, or other hazards that may result in damage to property and/or severe or fatal injuries.

Make sure that each person who uses the product has read these warnings and instructions and follows them.

Keep all safety information and instructions for future reference and pass them on to subsequent users of the product.

The manufacturer is not liable for cases of material damage or personal injury caused by incorrect handling or non-compliance with the safety instructions. In such cases, the warranty will be voided. See JETSTOW warranty policy for more details.

1.5 Obtaining documentation and information

The latest version of the documentation is available through JETSTOW website.

If you have any questions regarding the documentation, the JETSTOW, special tools, materials, technical assistance, or ordering user instructions, please contact www. JETSTOW.com

Manufacturer details:

AOG4JETS bv
Steenstortstraat 23
3582 Beringen
BELGIUM

www.aog4jets.com
www.jetstow.com

Phone: +32 1178 5200
E-Mail: info@jetstow.com

1.6 Other documentation / Information

To watch the JETSTOW towbar in action, scan the QR code for video instructions and/or demonstrations.

Location: Laser printed next to the model No. on top of Tube 4 (j)

SCAN QR CODE

2 Description of the product

2.1 Intended use and reasonably foreseeable misuse

The JETSTOW CELT is intended to be used as an emergency portable towbar to safely move an aircraft with a towing vehicle (tug). The JETSTOW CELT can be used:

As a towbar for nose landing gear operation.
For the type of aircraft, weight, and towing speed as specified in the *Technical data*.
To move an aircraft in a confined space.
To position an aircraft at the gate.
To transport an aircraft between, for example, the runway and the hangar.
For staging an aircraft for maintenance.
with the engines out of operation.
that is an unladen aircraft with or without fuel.
With original accessories and spare parts only:
Tube 1-2-3-4
Tabs
Head and head tug tube
Eye and tug tube
Wheel assembly
Ball Locking Pins
Safety clips
Lifting Handles and holder

The JETSTOW CELT shall not be used:

As a towbar for vehicles other than those aircraft as specified in the *Technical data*.
For weights and towing speeds higher than specified in the *Technical data*.

Only use the JETSTOW CELT within the specified performance limits as indicated in the *Technical data*. The JETSTOW CELT shall only be used according to the instructions in this manual. All use other than that described in this manual is seen as unintended use. The JETSTOW CELT shall be used with original accessories and components only.

The manufacturer is not liable for cases of material damage or personal injury caused by incorrect handling or non-compliance with the user manual. In such cases, the warranty will be voided.See JETSTOW warranty policy for more details.

2.2 Process overview

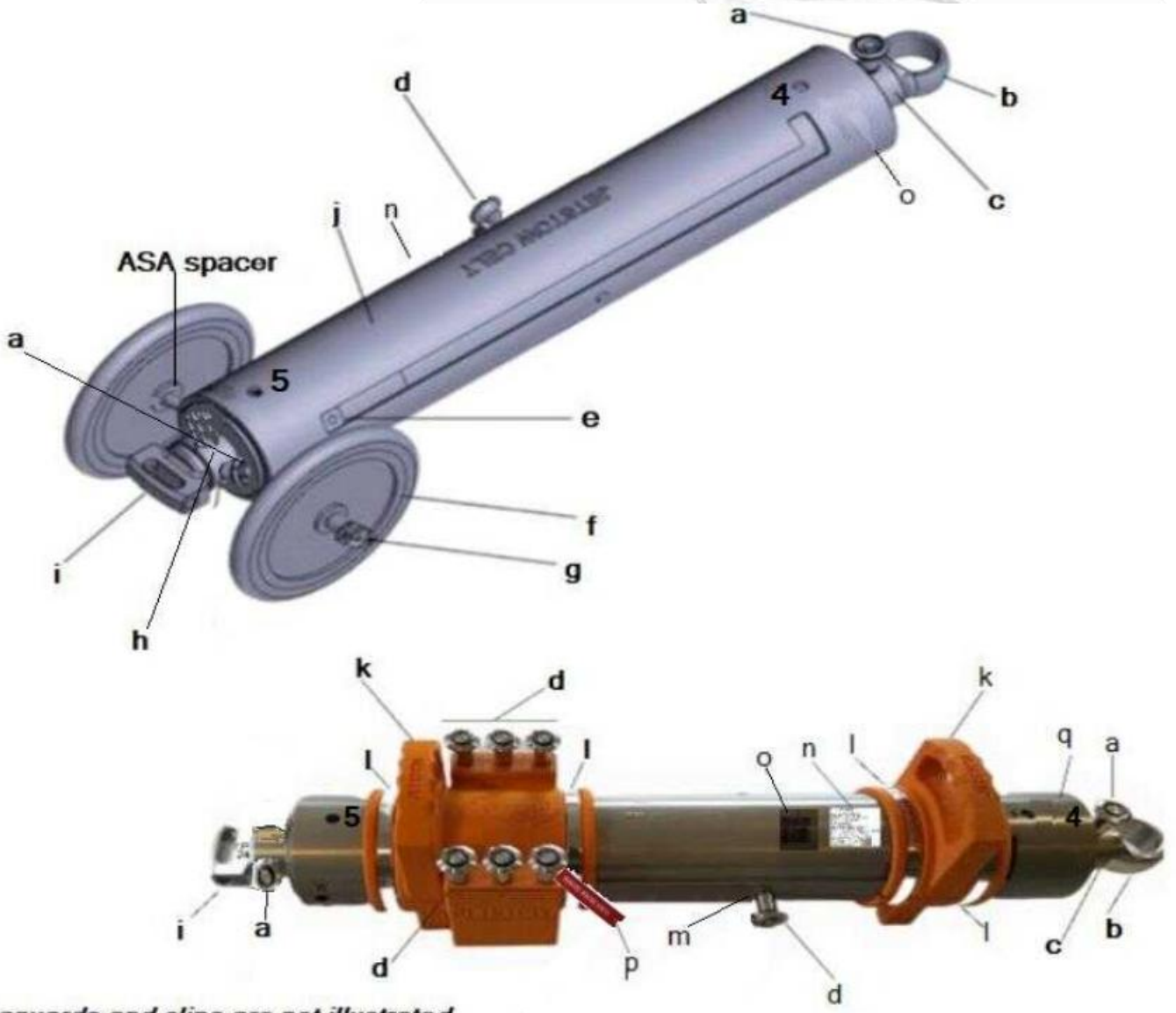
To move an aircraft, the JETSTOW CELT is extended to its full length. The EYE of the JETSTOW CELT is connected to the towing vehicle, and the HEAD is connected to the aircraft towing attachment.

After use, the JETSTOW CELT is disconnected from the towing vehicle and aircraft towing attachment and retracted to its original small size for storage with the optional CARRY bag or box.

2.3 Product elements

NOTICE

This is an example of a JETSTOW towbar, including the eye, tug tube, head, and head tug tube accessories for a Pilatus PC-12 and PC-24 series aircraft. Depending on your version, the JETSTOW could be different with the same operational principle.



*Lanyards and clips are not illustrated

ID	ELEMENT	ID	ELEMENT
a	Short ball-locking pin (Lanyard/Clip not illustrated) *2pcs*	**i**	Head (for the Pilatus aircraft PC-12 / PC-24) *1pc*
b	Eye (Tow truck connection and used as transport carrying handle) *1pc*	**j**	Tube 4 *1pc*
c	Tug tube *1pc*	**k**	Handle (for lifting and assembly aid) *2 pcs*
d	Long ball-locking pin (Lanyard/Clip not illustrated) 7pcs	**l**	Handle clamps *4pcs*
e	Tab 6pcs	**m**	Safety Lock hole for transportation (S)locking)
f	Wheel assembly (included ASA SPACER) *2pcs*	**n**	CE identification tag
g	T-handle ball-locking pin *2pcs*	**o**	QR-code (for a direct link to User Manual)
h	Head tug tube *1 pc*	**p**	Flag (is not mandatory but advised, with aircraft pin (P)
q	Model and Series No. (engraved on Tube 4) *1pc*		Flag is installed on (P) aircraft pin at model PLD0

2.4 Technical data of the JETSTOW

Parameter		**Unit**
Brand name		JETSTOW CELT
Model no.		PLD0
Type		CELT
	Designation	Towbar for Pilatus aircraft models PC-12 and PC-24 series.
	Maximum towing weight	< 10000 kg / < 22046LBS
	Weight	20,4 kg / 45 lbs (may vary depending on the adaptor) (including tug and head accessories) (without Cover bag, Lanyard and safety Clips)
	Dimensions (L X H X W) with wheels installed	**Retracted**: 865 mm x 300 mm x 215 mm / 34 inch x 12 inch x 8.5inch **Extended**: 3100 mm 300 mm x 215 mm / 122 inch x 12 inch x 8.5 inch
	Maximum towing speed	10 km/h / 6.2 miles/h
Technical life span		See step 6.5
Materials		Alloy 7075 Alu. treated Type III hard anodizing (Tube 1-2-3-4, Tug Tube, Head tug Tube) Stainless steel 316L (Tabs, all Ball locking Pins, Clips, Head, Eye) Galvanized Steel (Locking Wire) Acrylonitrile Styrene Acrylate (Orange lifting handles/storage pins, ASA spacer) Polyurethane – Rubber (isoprene) (Wheel rim - Tire assembly) PTFE lubricant (Polytetrafluoroethylene) (Scheduled surface)
Operation and storage temperature range		-50°C to + 50°C -58°F to + 122°F
Relative humidity		0 - 85%

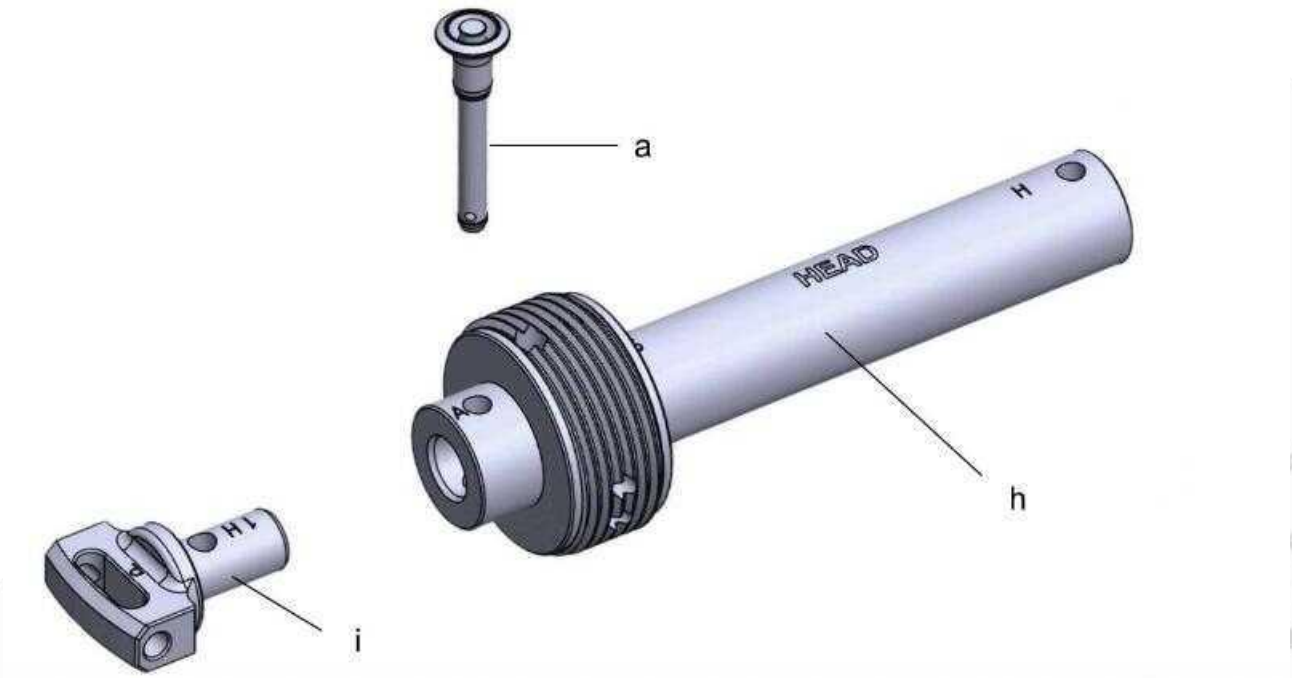
2.5 Technical data of the accessories

The EYE and TUG TUBE, HEAD and HEAD TUG TUBE, and SHORT ball-locking pins are included the delivery. These accessories are specific for the type of JETSTOWCELT and the aircraft that needs to be towed.

2.5.1 EYE and TUG TUBE

Component assembly	Value
EYE, TUG TUBE, and SHORT BALL LOCKING PIN (safety lanyard/clip)	
Compatible with aircraft type(s)	Pilatus aircraft PC-12 and PC-24
Compatible with tower type(s)	JETSTOW CELT
Maximum towing weight	< 10000kg/ < 22046LBS (see ID engr. at tube 4)
Weight	9 KG /6.4LBS
Technical lifespan	step 6.5

2.5.2 HEAD and HEAD tug TUBE



Component assembly	Value
HEAD, HEAD tug TUBE, and SHORT BALL LOCKING PIN (safety lanyard/clip)	
Compatible with aircraft type(s)	Pilatus aircraft PC-9/12/21 and PC-24
Compatible with tower type(s)	JETSTOW CELT (see ID engr. at tube 4)
Maximum towing weight	< 10000 kg / < 22046LBS
Weight	2. 8 KG
Technical lifespan	See step 6.5

2.6 Identification Tag

Location: laser printed on top of Tube 4 at engraved "jetstow celt" (j)

2.7 Compliance of the device

AOG4Jets bv, located at Beringen (BELGIUM), hereby declares that the device described in this manual conforms to the applicable European Union (EU) directives and standards and complies with the essential health and safety requirements as outlined in Annex I of the Machinery Directive 2006/42/EC. The full Declaration of Conformity can be found in *Appendix A*.

3 Safety instructions

⚠WARNING

READ AND UNDERSTAND THIS MANUAL AND ITS SAFETY INSTRUCTIONS BEFORE USING THIS PRODUCT. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH.

3.1 How to use the product safely

3.1.1 Safety information related to the intended use and reasonably foreseeable misuse

This device is not intended for use by persons (including children) with restricted physical, sensory, or intellectual capability or lack of experience and/or knowledge.

Do not exceed the maximum towing weight and towing speed. Consult the type identification plate of the device or the *Technical data* in the user manual.

Only use the device within the specified performance limits as described in these instructions.

Only use the device and its accessories for the aircraft and towing vehicles for which it is designed.

Do not use the device after it reaches its technical lifespan.

3.1.2 Personal protective equipment

- Always follow the operators' safety policy based on the aircraft maintenance manual procedures.
- Wearing safety gloves is recommended. Use safety gloves to improve grip in wet or cold conditions.
- Be mindful of personal injuries. For all tasks, always wear protective clothing and personal protective equipment as required by occupational safety and health regulations and/or that are appropriate for those tasks (including as required by instructions posted by the owner/operator in the work area).
- Wear appropriate personal protective equipment, such as gloves, safety shoes (minimum class S3), safety goggles, hearing protection, safety harnesses, helmets, and protective overalls.
- Always wear head protection and, if necessary, protective clothing against the sun.

  Use sunscreen to protect exposed body parts against the sun.

  Wear protective clothing when it is raining or against the cold.

3.1.3 Safety information regarding the use

The permitted working conditions, for example, wind load, snow load, retardation, ground slope, and maximum stabilizer ground pressure, consistent with design calculations, shall be stated in the operating instructions for each type of GSE.

Always keep the work area of the device clean and orderly to prevent hazards due to fouling, grease, oil waste, and parts lying around.

Always carry out tasks with more than **one** ***person, exception, NOT within the stowing and deployment of the towbar procedures***.

Make sure there is always a second person on standby who checks your safety and, if necessary, can assist during emergency situations.

Always keep a complete copy of this operating manual on hand in the vicinity of the device so that any operator, maintenance, or cleaning personnel can consult it at any time.

Be vigilant at all times, and always be careful what you are doing. Do not use the device if you are lacking in concentration or awareness or are under the influence of drugs, alcohol, or medication. Even a single moment of inattentiveness can lead to serious accidents and injuries when using the device.

Do not climb or stand on the device.

Always make sure that the device is fixed/secured during transportation so there is no possibility of sudden movements or instability.

Always store the device in a dry, clean, well-ventilated area.

Make sure there is sufficient work lighting when working in the dark.

Reaching some parts of the device could require bending or stretching. Always be mindful of your posture while working with the device, and do not over-bend or over-stretch. Keep the body in alignment while standing. Stop working with the device when you notice back pain or pain in your arms, legs, or feet. Move and exercise regularly when working with the device. Take breaks regularly.

Do not drop the device.

3.1.4 Maintenance and repair safety information

- Check for misalignment or binding of moving parts, damaged or broken parts, and any other condition that may affect the device's operation. If damaged, have the device repaired before use. Many accidents are caused by poorly maintained devices.
- Cleaning, maintenance, and visual inspections shall be done according to the intervals specified in this instruction manual.
- Only use the device with the original accessories and components provided from the manufacturer.
- Changes to the device and technical modifications are not permitted without written permission of the manufacturer. Any changes made to the device without written permission from the manufacturer will void the warranty. Unauthorized alterations could lead to hazardous situations.

3.2 Explanation of safety information on the packaging and device

Symbol	Meaning
	The CE mark on the device indicates that the manufacturer declares that the device complies with the requirements of the relevant European health, safety, and environmental protection legislation.

4 Preparation

4.1 How to unpack the towbar

⚠WARNING

Do not use a damaged device. In case of damage, contact JETSTOW or your representative.

To open the packaging:

1. Open the packaging in a controlled manner to prevent any damage to the device.
2. Remove any transport constraints from the device and its accessories.
3. Check that all the accessories are included and that there is no damage to the device or the accessories. See Section 4.2, *Contents of the packaging* for more information.

4.2 Contents of the packaging

1x **JETSTOW CELT emergency towbar**

a) 2x Short ball-locking pin (not illustrated lanyards and safety clip)
d) 7x Long ball-locking pin (not illustrated lanyards and safety clip)
f) 2x Wheel assembly (included (g) and ASA spacers)
g) 2x T-handle ball-locking pin
h) 1x Head
i) 1x Head tug tube
b) 1x Eye
c) 1x Tug tube

5. Using the towbar

⚠DANGER

Risk of serious injury or death! Always watch your surroundings while working near the aircraft, propellers, pitot tubes or aircraft components.
Always follow the procedures described in the Aircraft Maintenance Manual before handling it.
Risk of serious injury. The towbar is heavy. When the wheels are not installed, place it horizontally on the floor before starting to set it up.
Risk of serious injury. Install the towbar correctly. Incorrect installation could cause serious injury.
Risk of damage! Incorrect installation of the towbar could cause damage to the aircraft or the surroundings.
Do not use tools to rotate the tubes! Using hand force is sufficient. If using hand force is not sufficient, see Section 7, *Troubleshooting*.

5.1 How to set up the towbar and connect it

NOTICE

Follow all the paragraphs in the correct order.

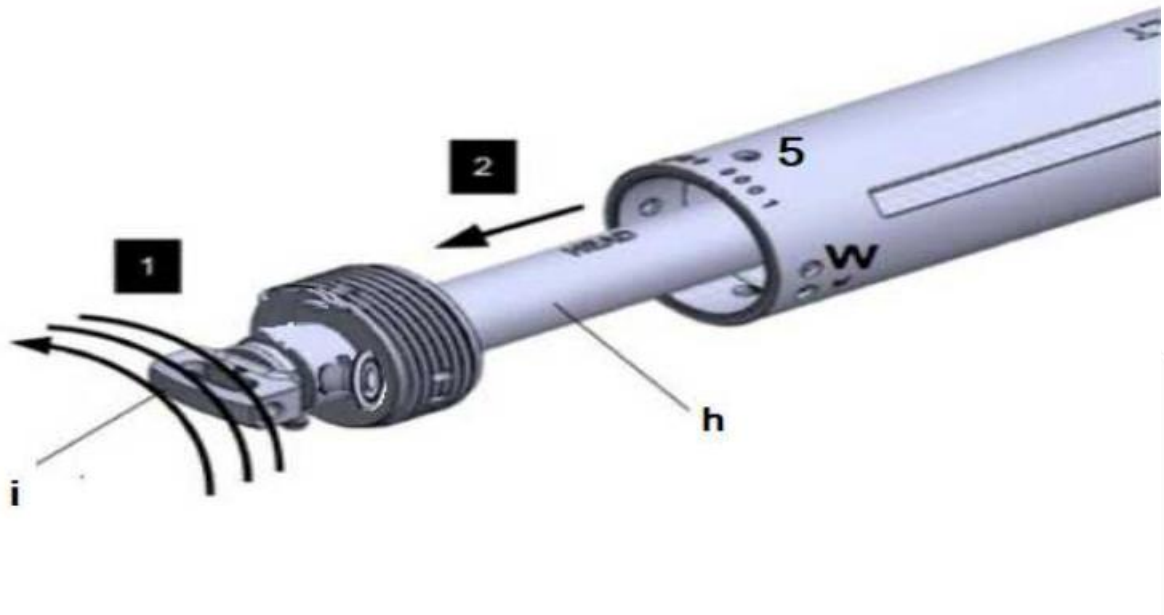
5.1.1 Preparation

1. Remove the towbar assembly from the carrying bag and read the instruction/user manual. Instruction video is also available via the QR-code, next to the JETSTOW CELT model and series nr.
2. Read the copy of the Declaration of Conformity or COC and check the Model -and Serie nr. are identical with the delivered towbar.
3. Inspect the towbar handles (k) for cracks or signs of damage before lifting out of the cargo (box)
4. Place the towbar horizontally on a flat and (clean) surface and visually inspect for signs of damage.

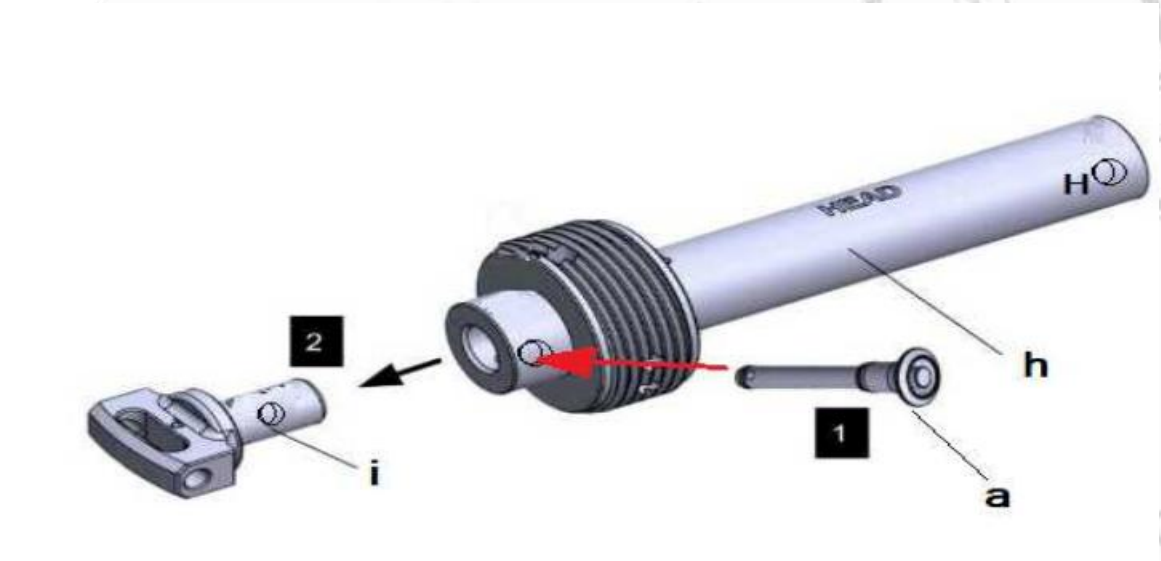
5.1.2 Preparing the HEAD

1. If the **wheels** (f) are installed, remove them.
   NOTICE Follow step 4 in reverse order.
2. Rotate the **head** (i) counterclockwise and remove the **head tug tube** (h) from **tube 4.**

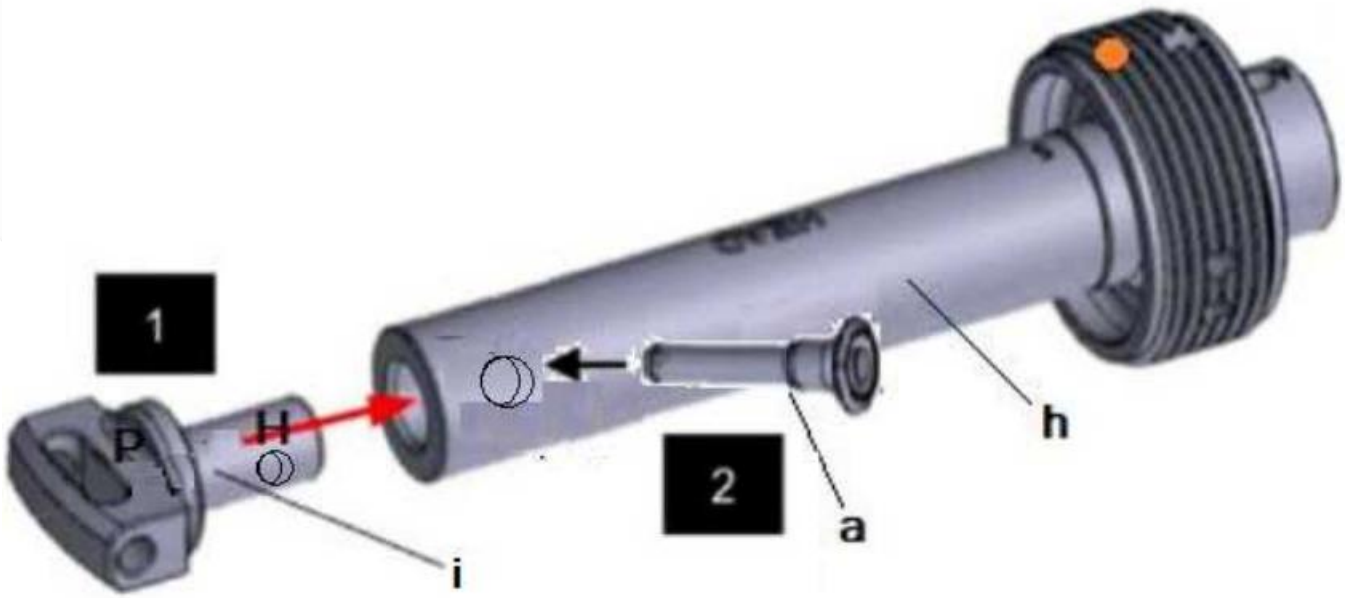
WARNING! Risk of serious injury. Hold the towbar when removing the head tube.



3. Unlatch the lanyard with the safety clip and remove the **short ball-locking pin** (a) **carefully** Remove the **head** (i) from the **head tug tube**.(h).



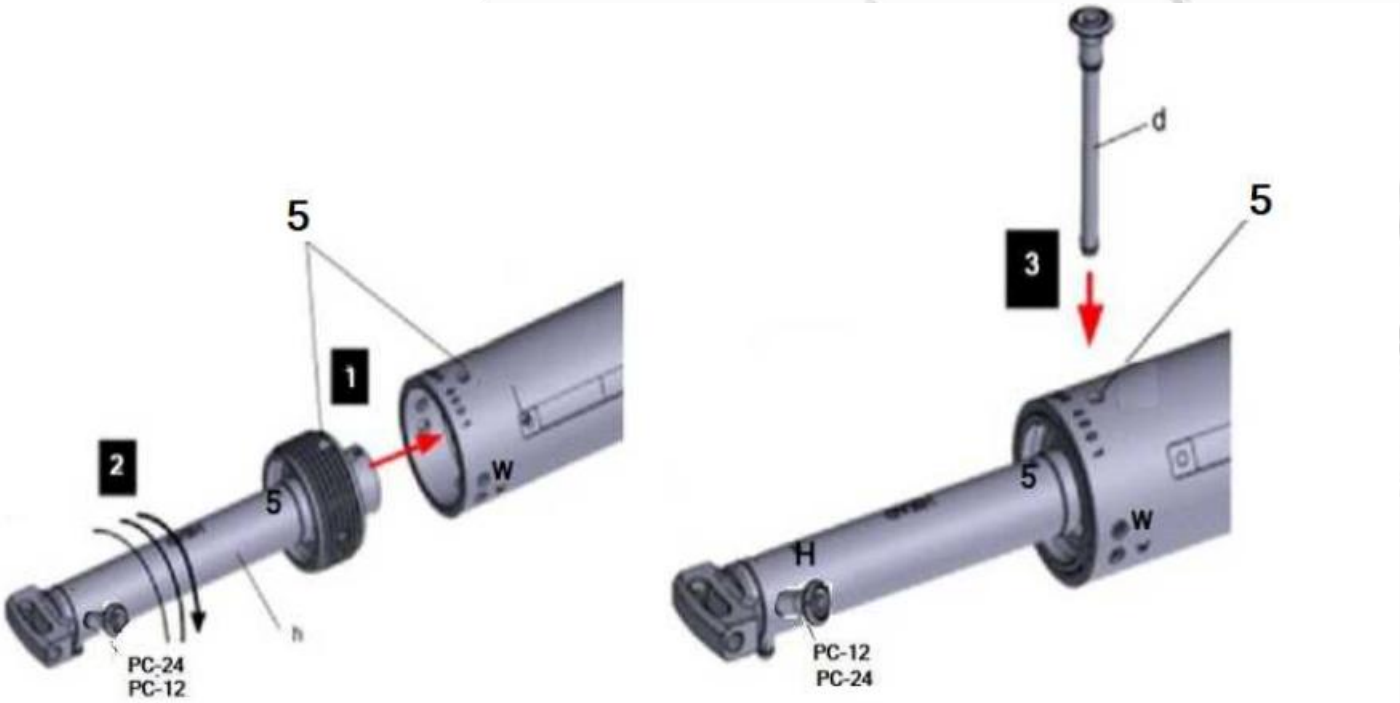
4. Insert the **head** (i) into the long end of the **head tug tube**(h). Insert the **short ball-locking pin** (a) into the hole marked H and SECURE the lanyard with the safety clip into the **short ball-locking pin END.**



5. Insert the short end of the **head tug tube** (h) into **tube 4**. Rotate the **head tube** clockwise to attach it to tube 4

Insert a **long ball-locking pin** (d) into the hole marked 5 and SECURE lanyard with the safety clip into the **Long ball-locking pin END.**

NOTICE Make sure the hole marked 5 and the hole within the thread of the headtug tube #5 are aligned.

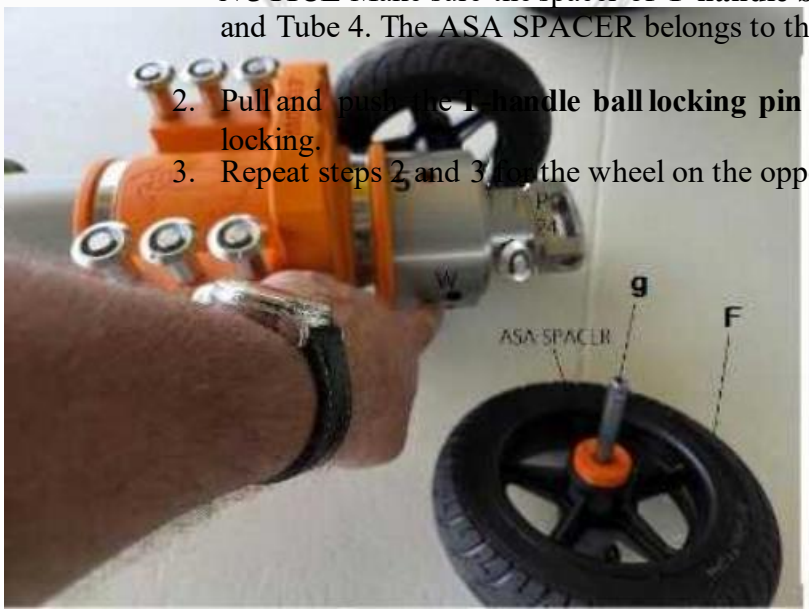


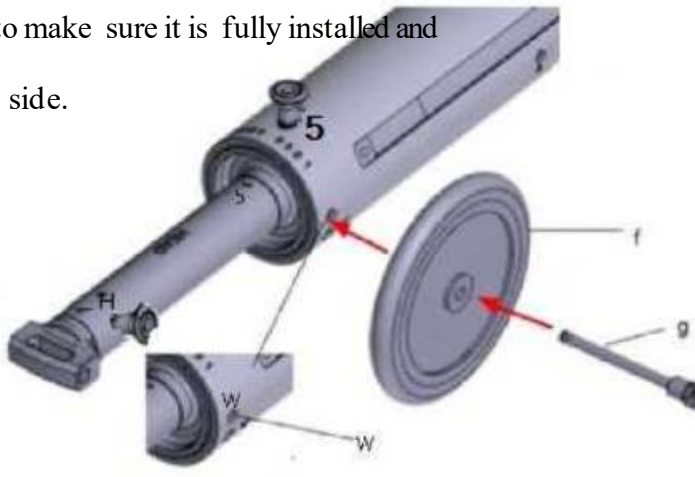
5.1.3 Attaching the wheels to the towbar

1. Insert the (assembly)**T-handle ball-locking pin** (g) through the **wheel** (f) and into the hole marked W in **tube 4** (center of the tube).

   NOTICE Make sure the spacer of **T-handle ball-locking pin** (g) are between the Wheel and Tube 4. The ASA SPACER belongs to the Wheel assembly (f).

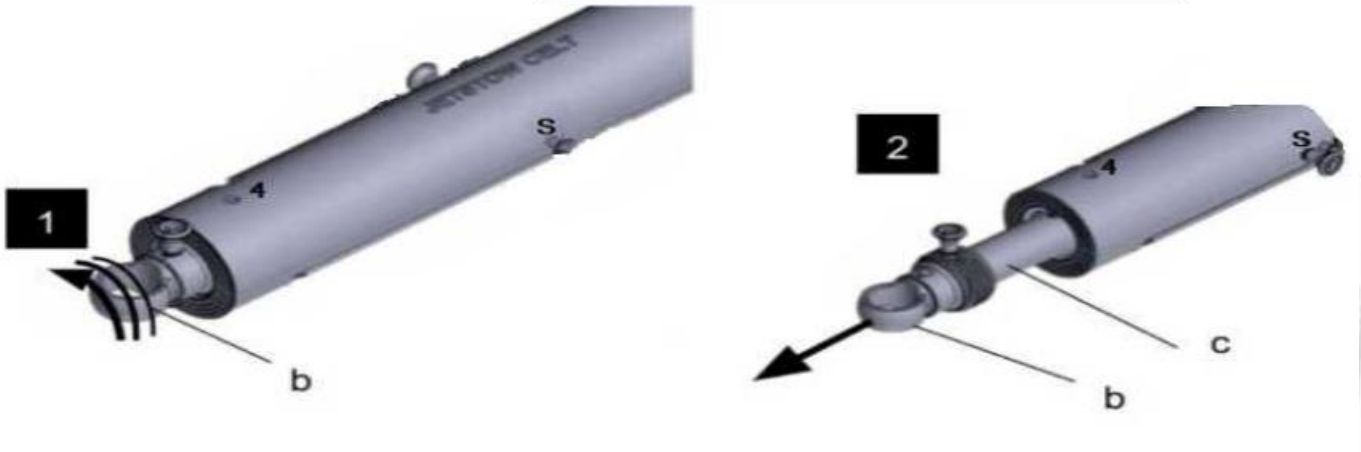
2. Pull and push the **T-handle ball locking pin** (g) to make sure it is fully installed and locking.
3. Repeat steps 2 and 3 for the wheel on the opposite side.



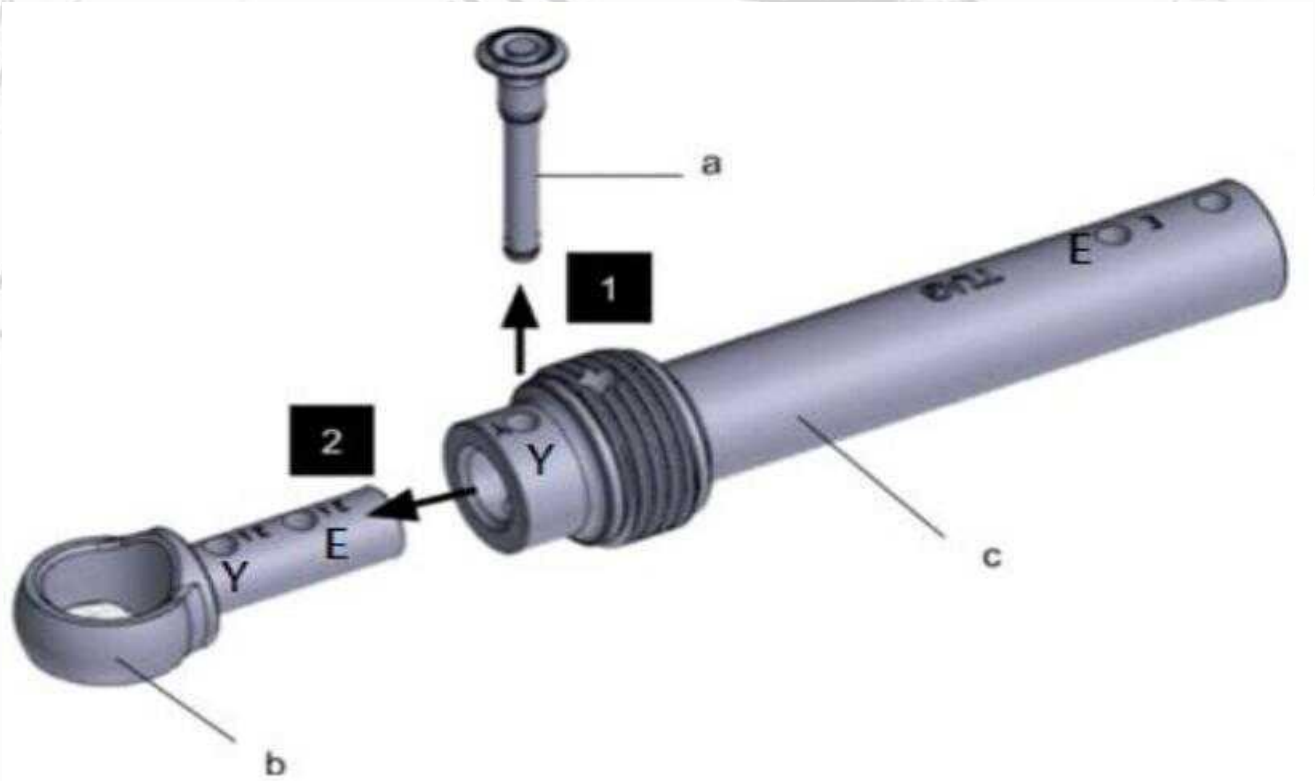


5.1.4 Preparing the EYE

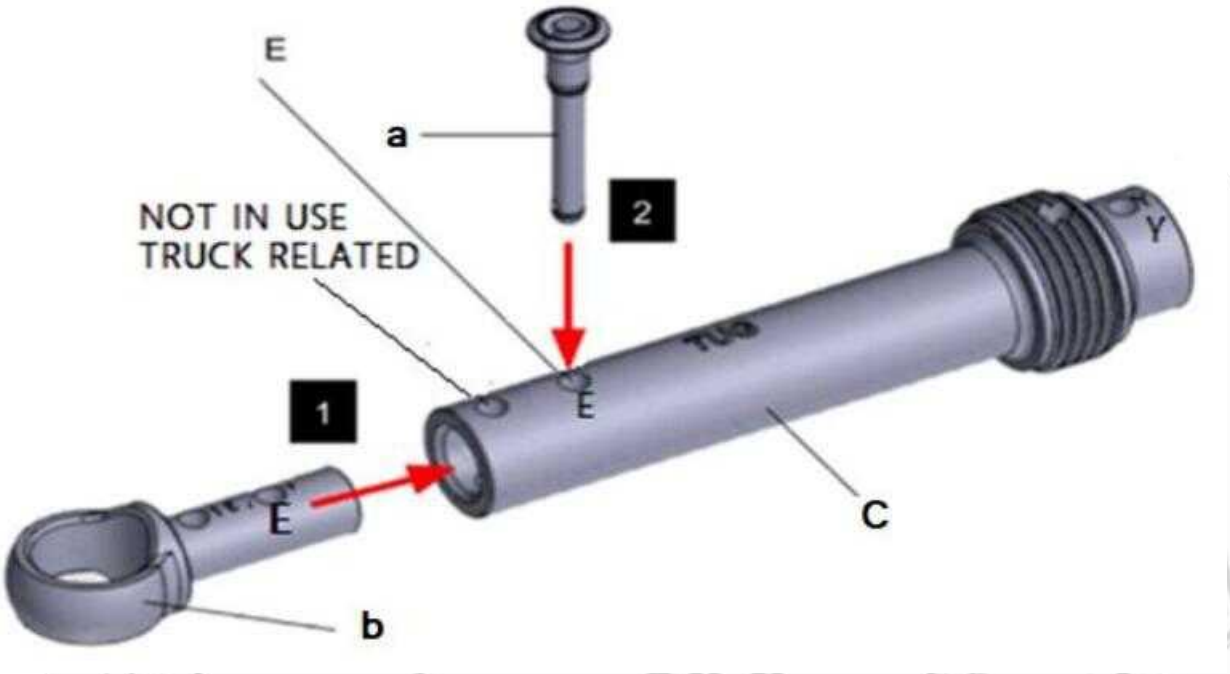
1. Rotate the **eye** (b) counterclockwise. Remove the **tug tube** (c) from **tube 4**.



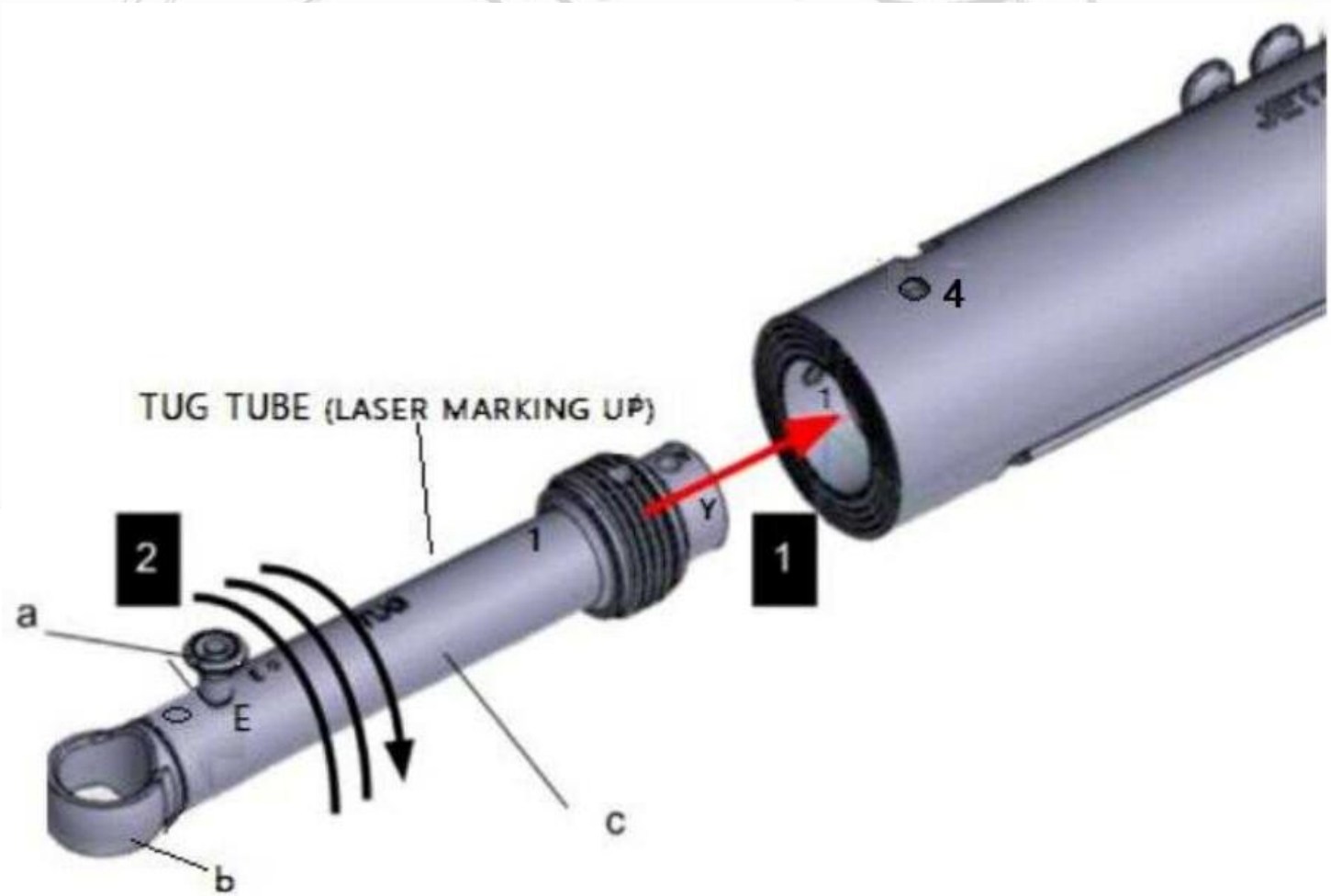
2. Unlatch the lanyard with the safety clip and remove the **short ball-locking pin carefully.** Remove the **eye** (b) from the **tug tube** (c).



3. Insert the **eye** (b) into the long end of the **tug tube** (c). Insert the **short ball-locking pin** (a) into the hole marked E and secure the lanyard with the safety clip through the end of the **short ball-locking pin hole.**



4. Insert the short end (Y)of the **tug tube** (c) into **tube 1**. Rotate the **tug tube** clockwise until the FULL END of the threats inside Tube 1 aligned with hole of tube 1.

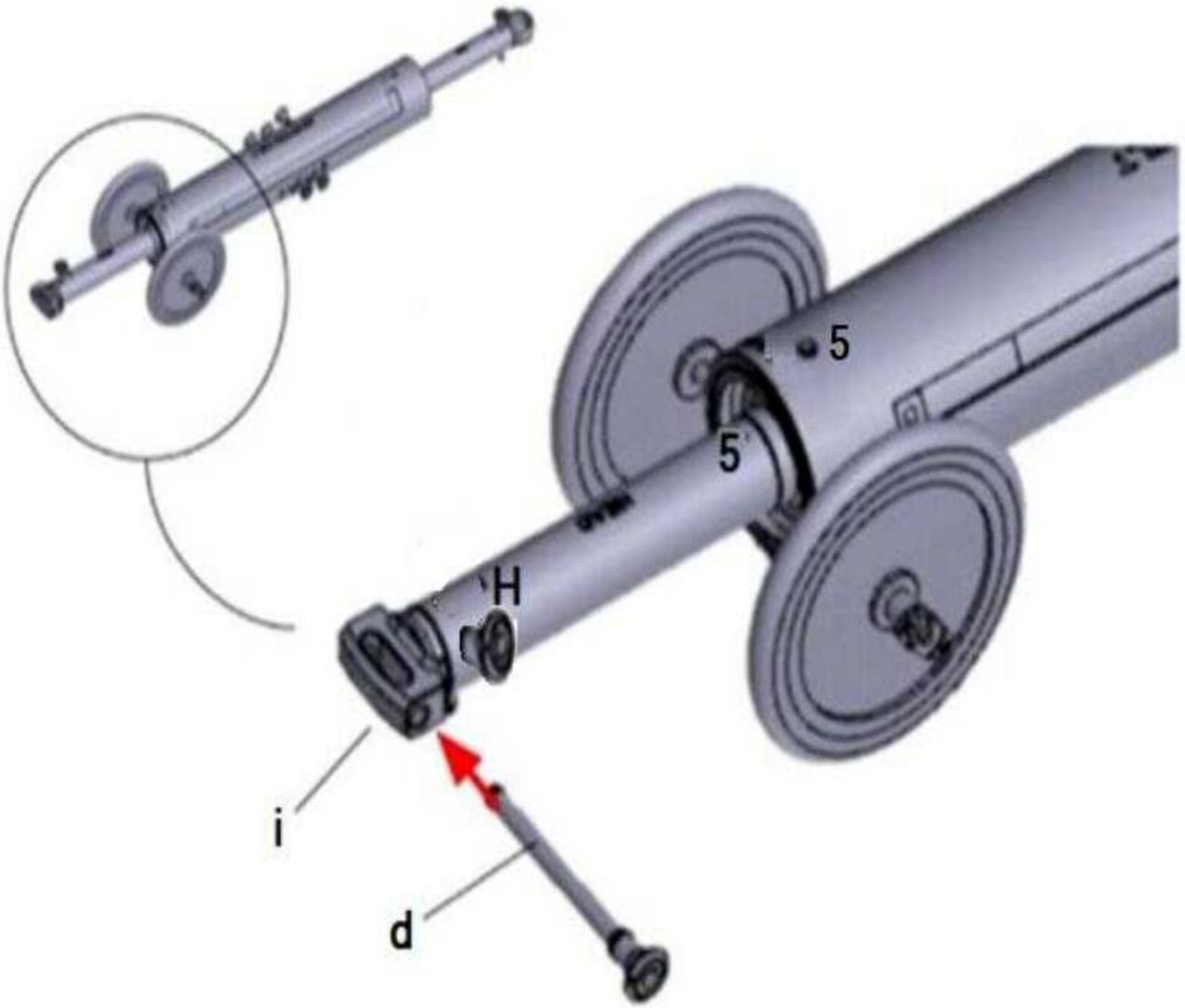


5.1.5 Connecting the HEAD to the aircraft nose landing gear towing attachment

1. Move the **head** (i) of the towbar NEAR the aircraft nose landing gear towing attachment.

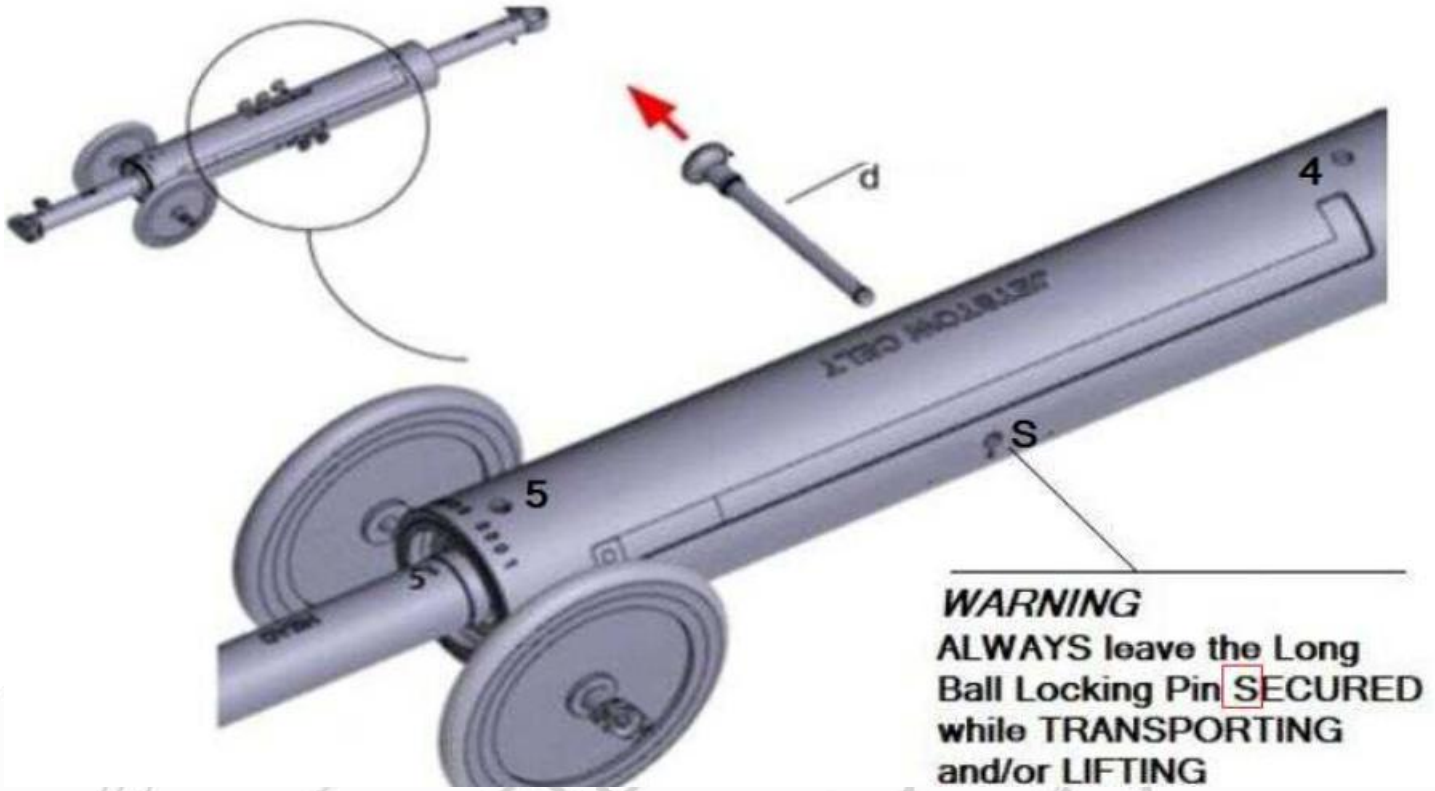
WARNING! Risk of serious injury or death! Always watch your surroundings while working near the aircraft, propellers, (HOT) pitot tubes and aircraft structure.

2. Follow the **aircraft maintenance manual** procedures before connecting the towbar to the nose landing gear towing attachment.
3. Use a **long ball-locking pin** (d) and connect the **head** (i) to the aircraft nose landing gear towing attachment and secure the lanyard with the safety clip(not illustrated).

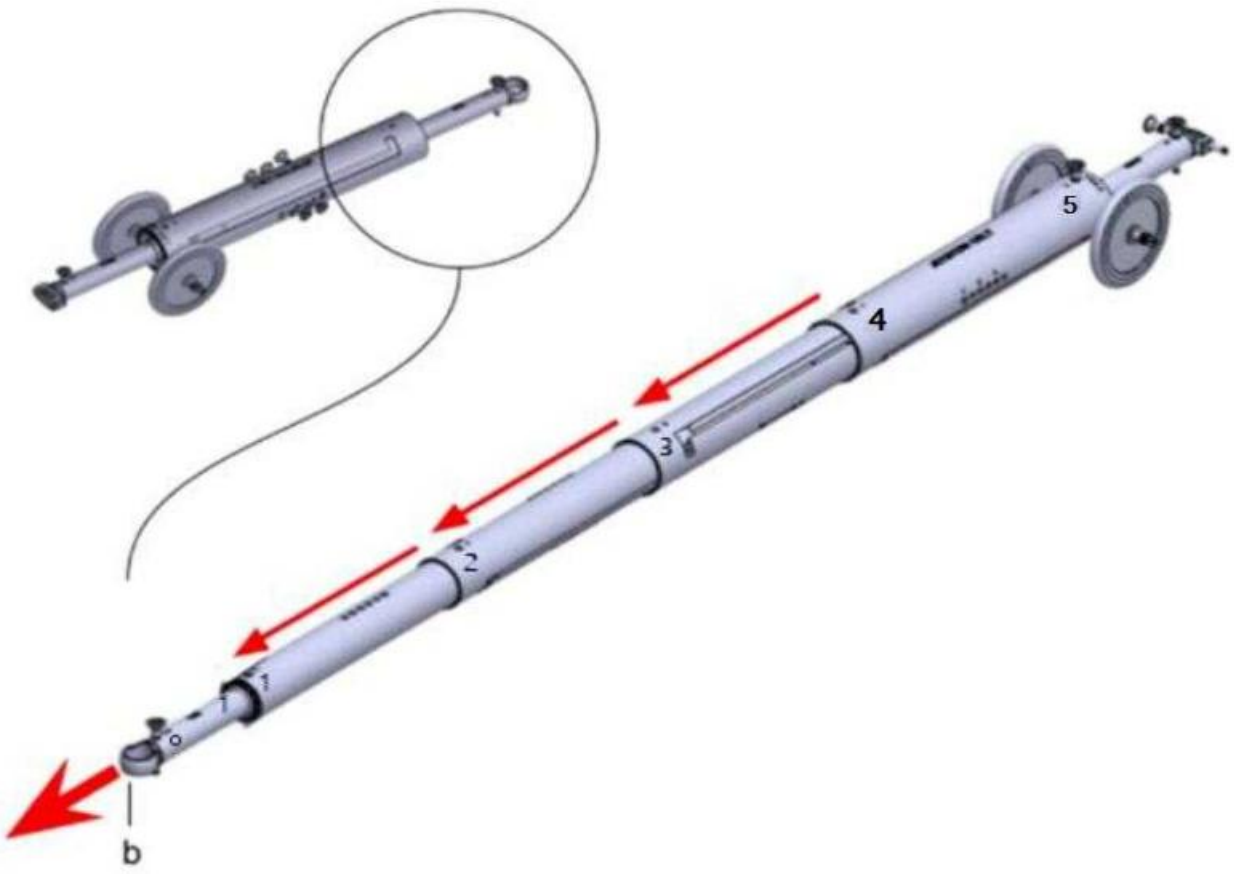


5.1.6. Extending the tubes

1. Unlatch the lanyard(s) with the safety clip(s). Remove the **single** (or all) **long ball locking pin** (d) from the storage holes in **tube 4**.

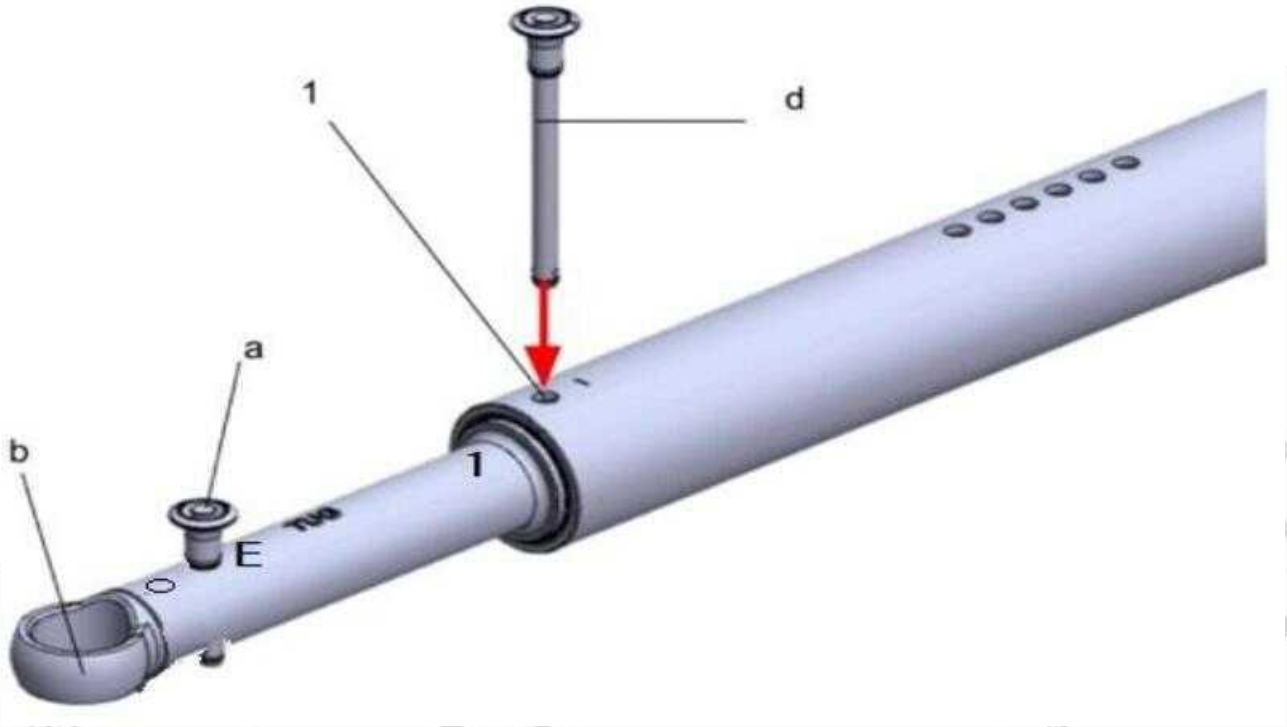


2. Pull **carefully** at the **eye (b)** and tug tube (c) away from the aircraft to fully extend the tubes 1 to 3.



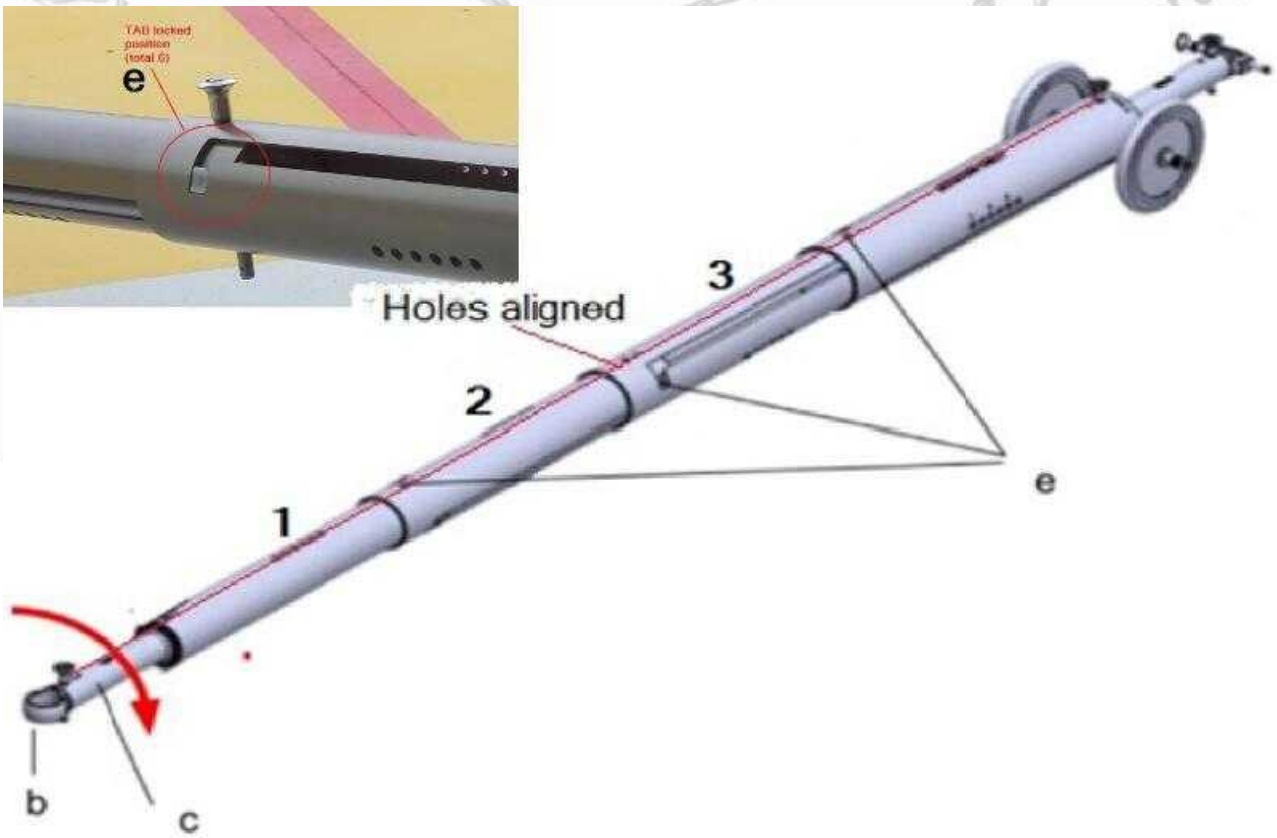
3. Insert a **long ball-locking pin** (d) into the hole in **tube 1** with the laser markings (TUG TUBE) to UPWARD position at 1 and secure the lanyard with the safety clip.

NOTICE Make sure the hole in the thread of the tug tube is aligned with the hole marked 1. Make sure the knob of the short ball-locking pin is facing up

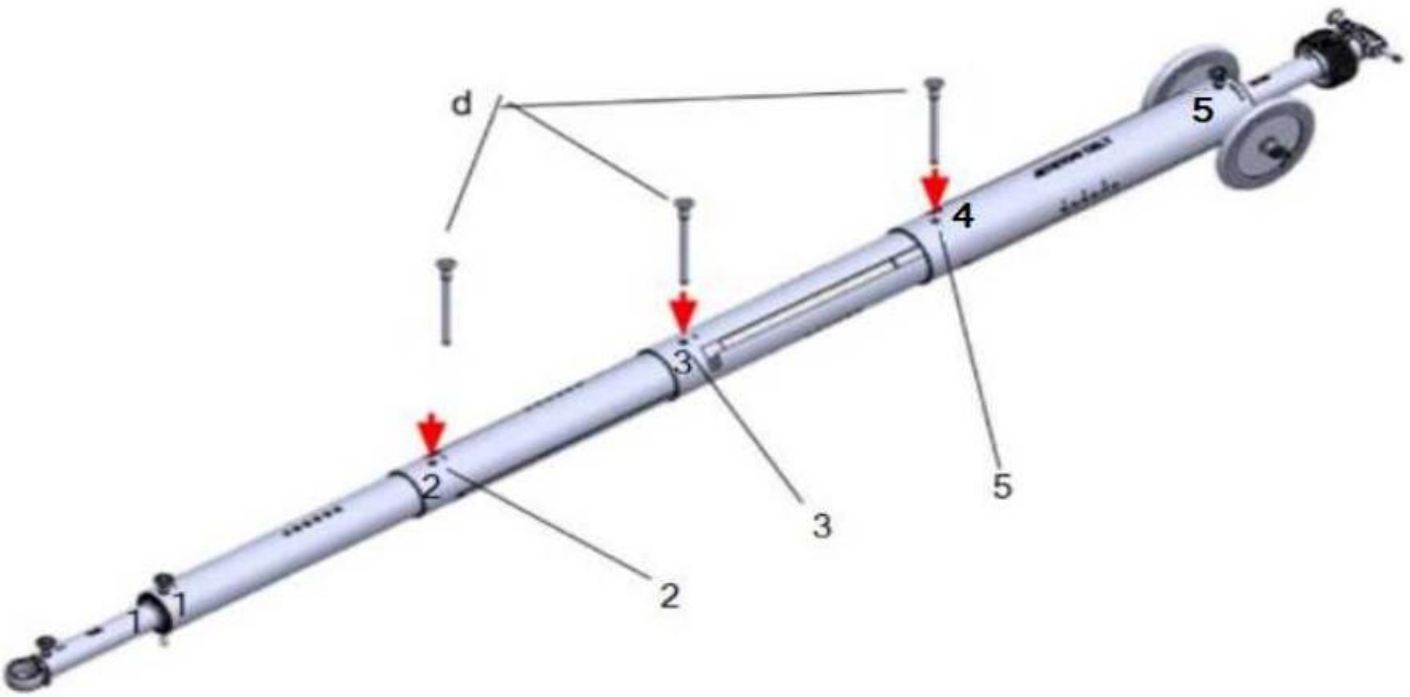


4. Hold the **eye** (b) with both hands and firmly rotate the **tug tube** (c) **clockwise** with the tabs fully locking.

NOTICE The **tabs** (e) at the tube 1, 2, and 3 are now locked and the holes of the tubes are aligned.



5. Insert 3 **long ball locking pins** (d) in the **holes marked 2, 3, and 5** of the tubes and secure the lanyard with the safety clip.



5.1.7 Connecting the towbar to the tow truck

• Lift the **eye** (b) and connect it to the tow truck and follow the safety procedure listed in the Aircraft Maintenance Manual and Tow truck (vehicle) operational manual.

NOTICE Risk of equipment or property damage! Make sure the eye and the head are horizontally aligned with the tow truck.

5.2 How to use the towbar to tow an aircraft

⚠DANGER

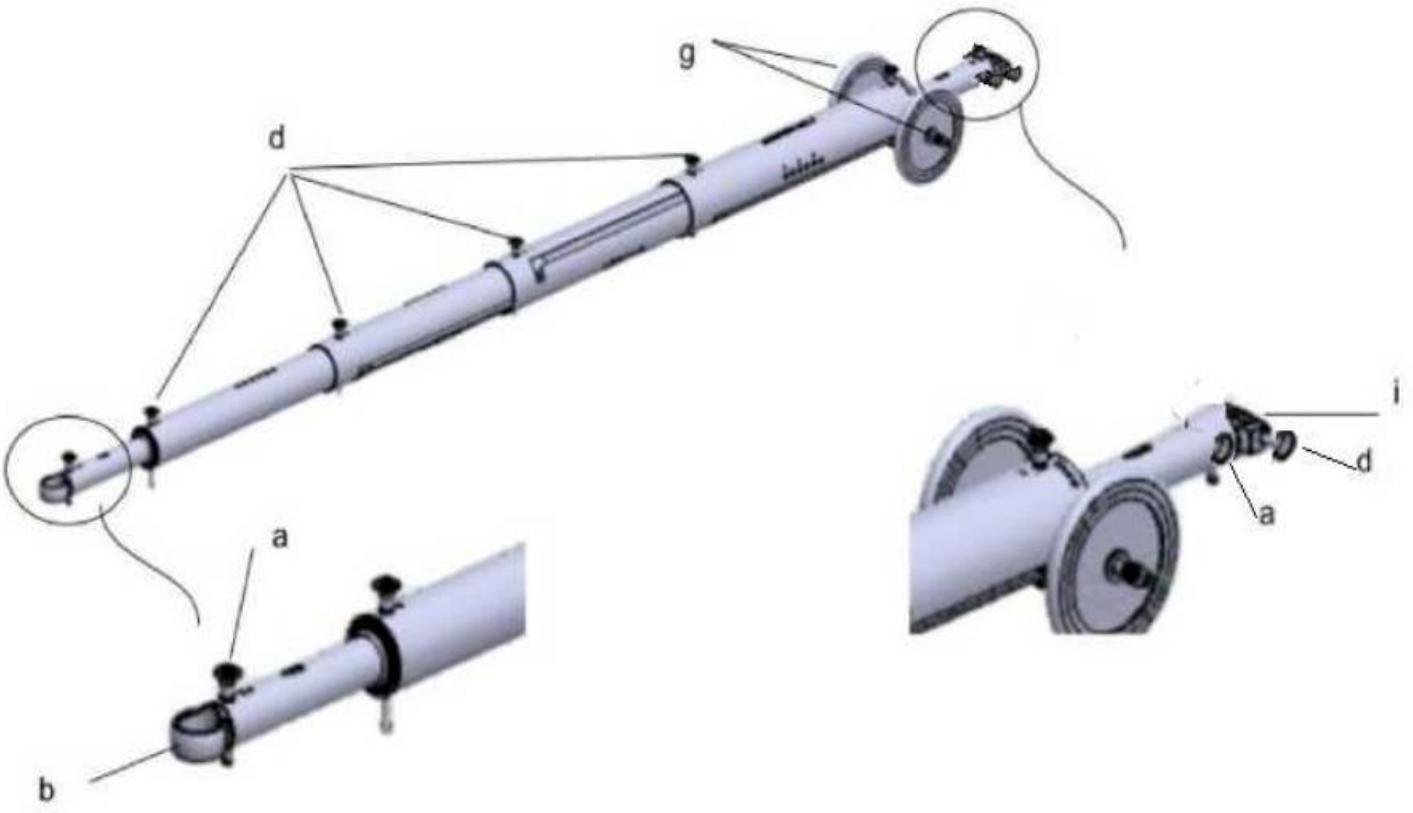
NO SHEAR BOLT(s) and DAMPER ARE INTEGRATED AND EXTREME CARE IS NEEDED BEFORE TOWING. BE SURE PARKING BRAKE IS OFF, CHOCKS REMOVED, LOW driving TORQUE is required while moving. RESPECT distances to avoid sudden brake or emergency stop. Follow the towing procedures described in the Aircraft Maintenance Manual!

Do not exceed the maximum towing speed or other aircraft types that are not specified in the user manual *Technical data*.

Before using the towbar to tow an aircraft:

1. **Visually inspect the towbar before towing an aircraft:**

a) Make sure the towbar is installed as described in the instructions.
b) Make sure the **T-handle ball-locking pins** (g) are fully inserted and secured.
c) Make sure all six **long ball-locking pins** (d) are fully inserted, locked and secured with the lanyard and clips.
d) Make sure the two **short ball-locking pins** (a) are fully inserted, locked and secured with the lanyard and clips.
e) Make sure the **head** (i) and **eye** (b) are in a horizontal position and aligned.
f) Make sure the towbar is correctly connected to the aircraft and the tow truck.
g) Follow the safe handling procedures as described in the maintenance manual of the aircraft that is towed.



5.3 How to disconnect and store the towbar after use

NOTICE

Follow all the paragraphs in the correct order.

5.3.1 Preparation

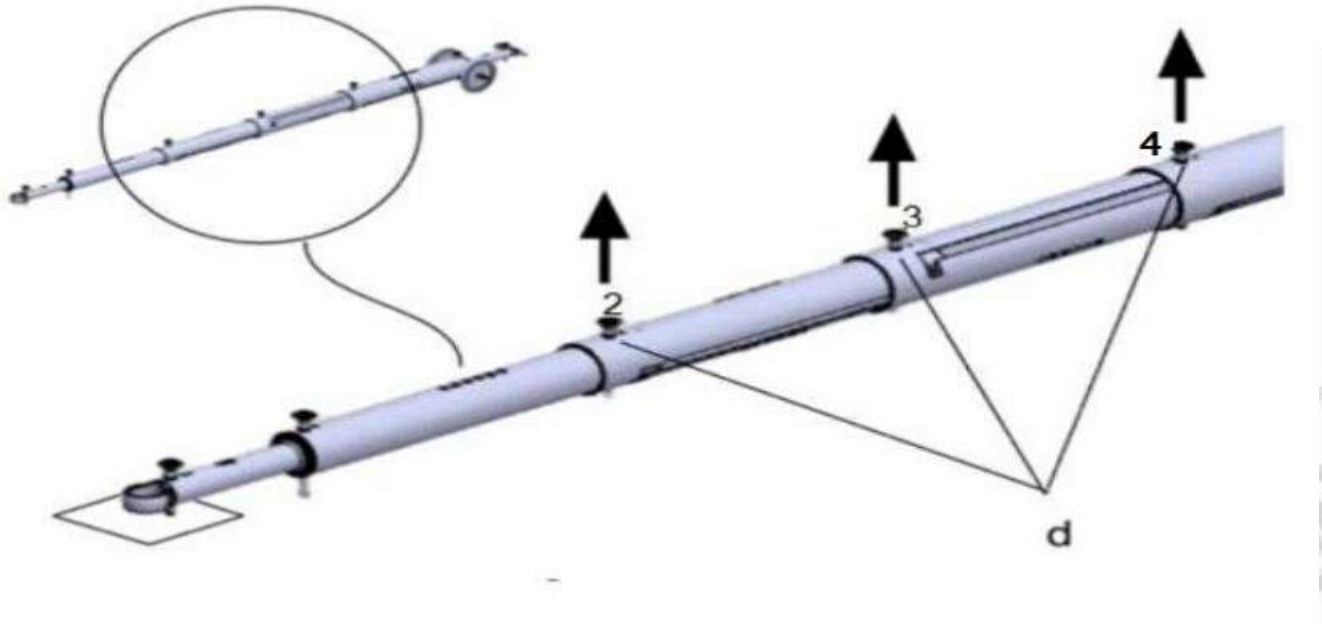
1. Park the aircraft and follow the Aircraft Maintenance Manual for safe parking instructions.
2. Disconnect the **eye** (b) from the towing vehicle and put gently on the floor.
3. Use a cleaning cloth to clean and dry the towbar surroundings.
   NOTICE Make sure to remove any dirt from the towbar. If necessary, rinse the tubes of the towbar with clean, fresh water.
4. Inspect the towbar for any damage:

a) Missing, (loose), or damaged **tabs** (e) on each of the tubes or with components.
b) Cracks.
c) Deep scratches.
d) Dents
e) Deformation
f) Bended or damaged ball locking pins.

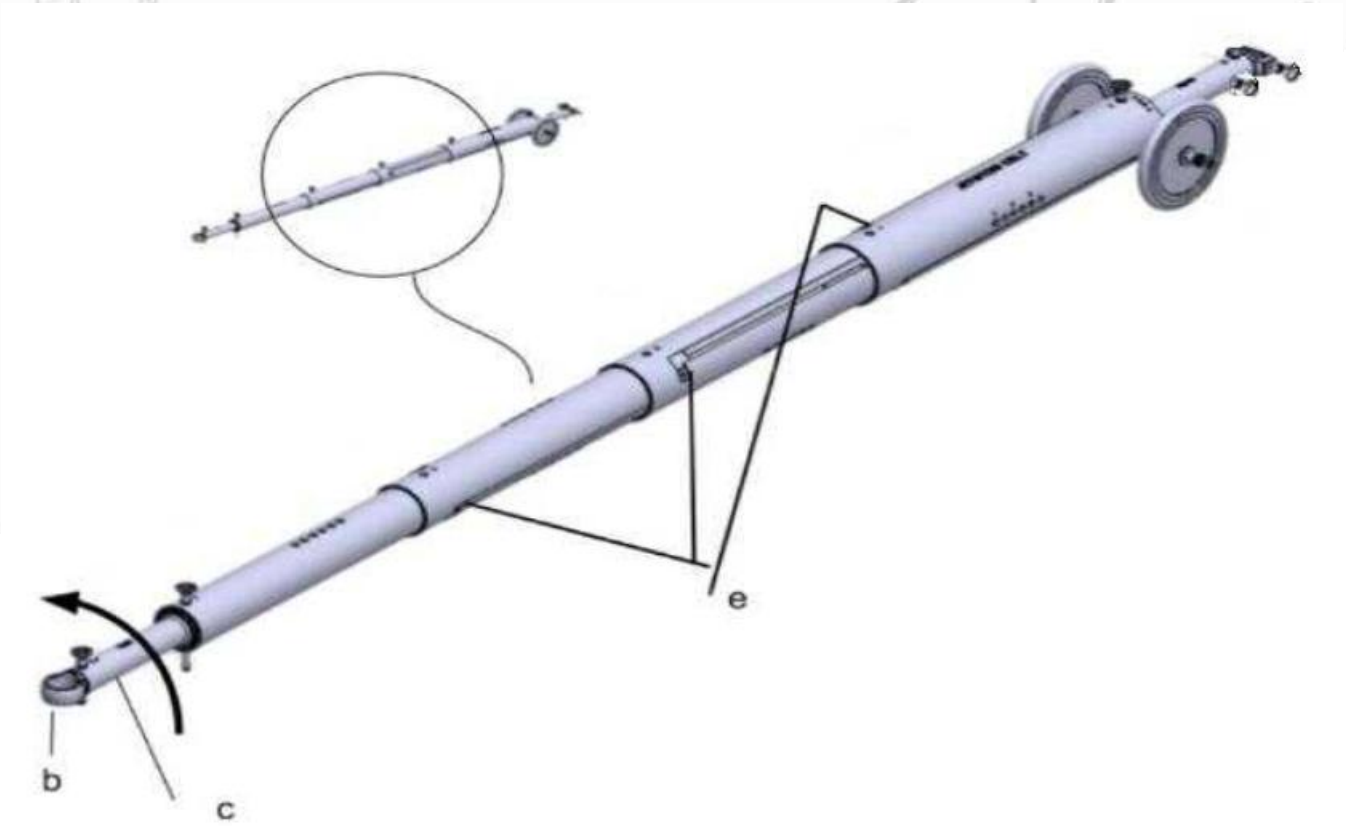
NOTICE If parts are missing or damaged, follow the instructions in 6.2, *How to inspect the towbar.*
NOTICE Do not drop the towbar.

5.3.2 Retracting the Tube 1 - Tube 2 - Tube 3

1. Remove the safety clip of the lanyard and 3 **long ball-locking pins** (d) from the tubes **marked with 2, 3, and 4.**

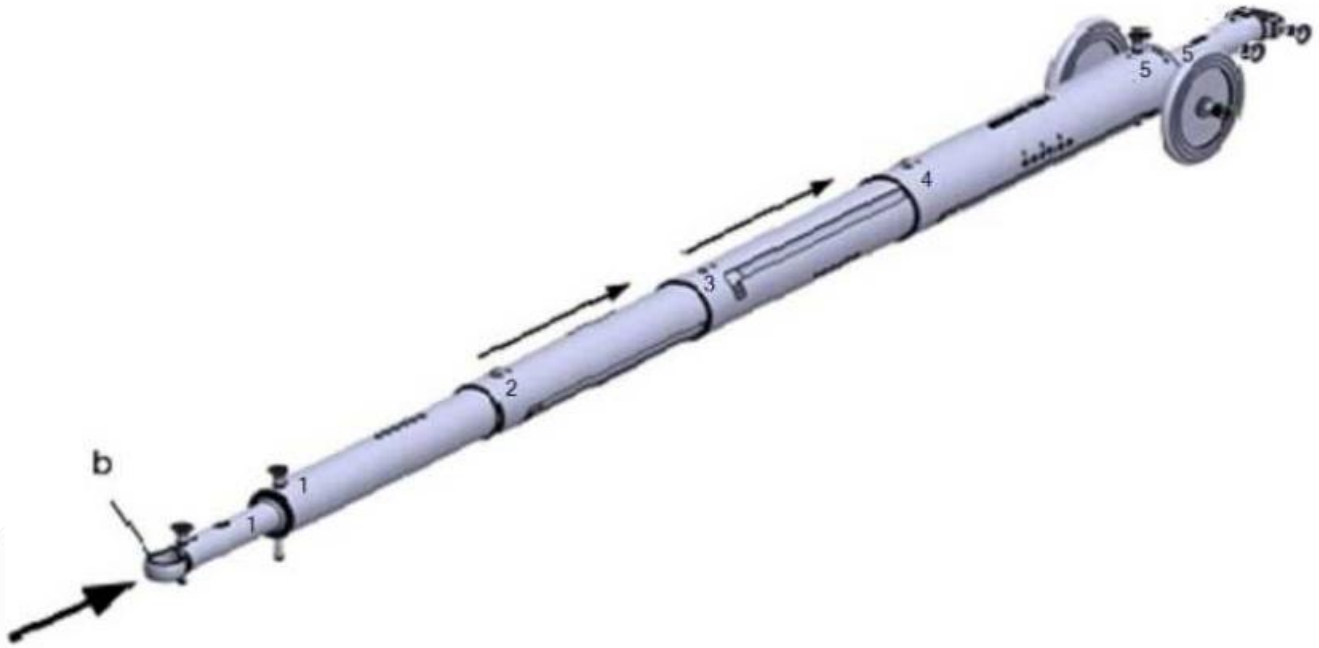


2. Place the 3 **long ball-locking pins** (d) in the Handle storage assembly nr 1,2,3,4,5, P (k).
.3. Hold the **eye** (b) and Tug Tube (c) with both hands and firmly rotate the **tug tube** (c) counterclockwise.
NOTICE This unlocks the **tabs** (e) in the tubes marked **2, 3, and 4.**

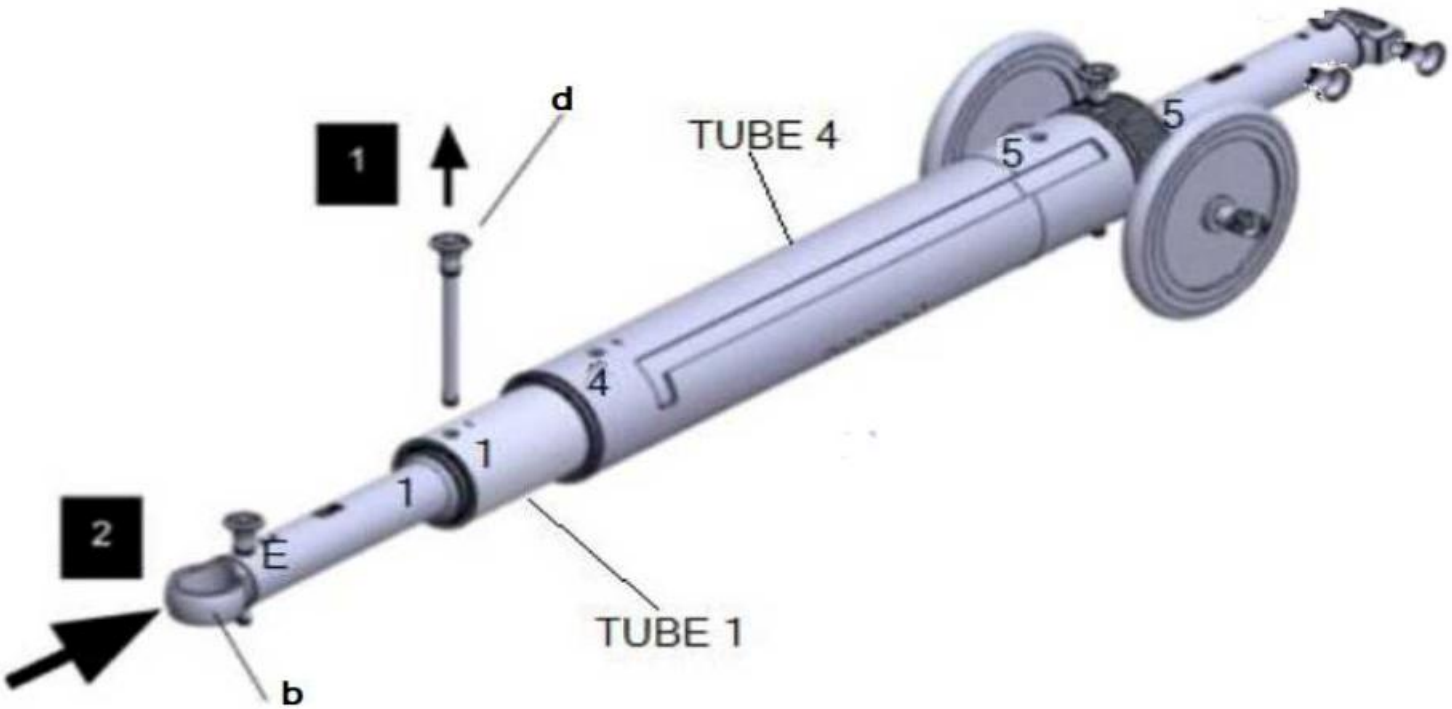


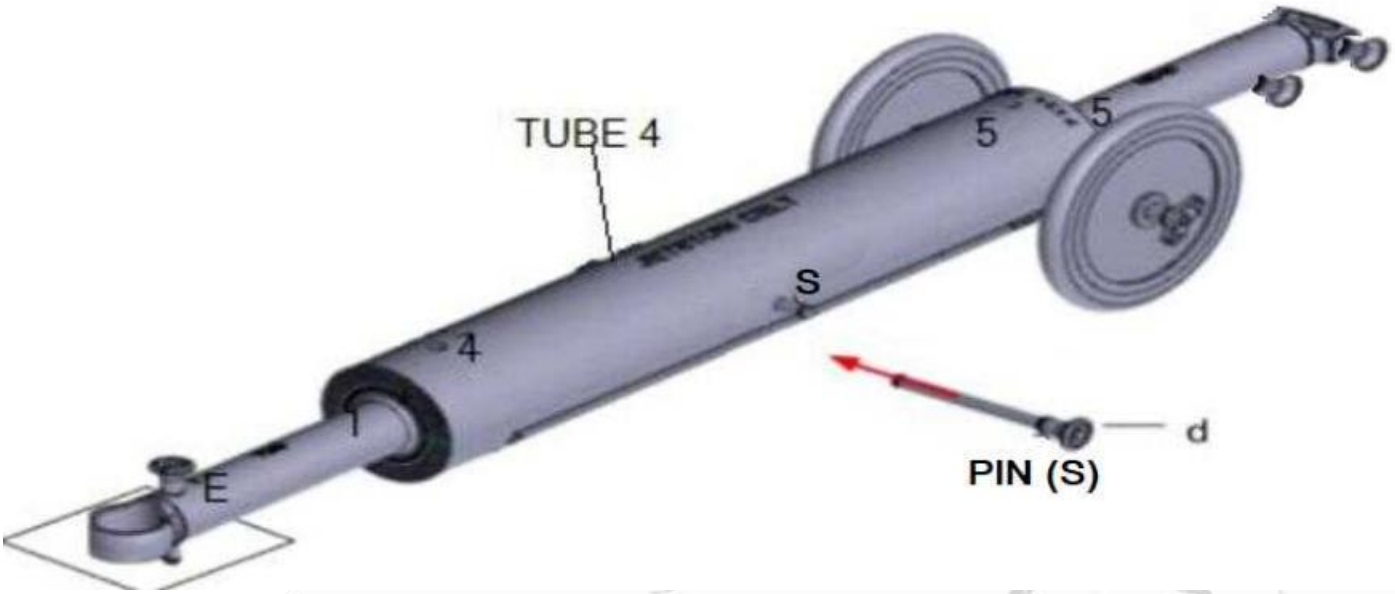
4. Retract or Stow the tubes by **gently** pushing the **eye** (b) toward the aircraft until the tubes **1, 2 and 3** are fully retracted into the tube 4 (j), **marked with 4 - 5.**

WARNING! Risk of serious injury or death! Always watch your surroundings while working near the aircraft, propellers, (HOT) pitot tubes and aircraft frame.
Retracting or handling requires **1 person only**. Never hold your hand or loose objects on the sleeve or tabs while stowing! Follow the procedure listed below with the arrows, starting with the EYE at (b) towards the HEAD.



5 Remove the safety clip of the lanyard and 1 **long ball-locking pin** (d) from **tube 1**.
Push the **EYE** (b) toward the aircraft until **tube 1** is fully retracted into **tube 4 (j)** and secure with the same 1 **long ball-locking pin** (d) into one of the side holes (P, 1,2,3,4,5) of tube 4 (j). It will avoid the tubes from extending unwanted. Secure with lanyard and clip.





NOTICE

The **long ball-locking pins are interchangeable** but inspect before installation is crucial.
One long SAFETY ball-locking pin (S) CAN BE USED ICE (In Case of Emergency).

5.3.3 Disconnecting the head from the nose landing gear towing attachment

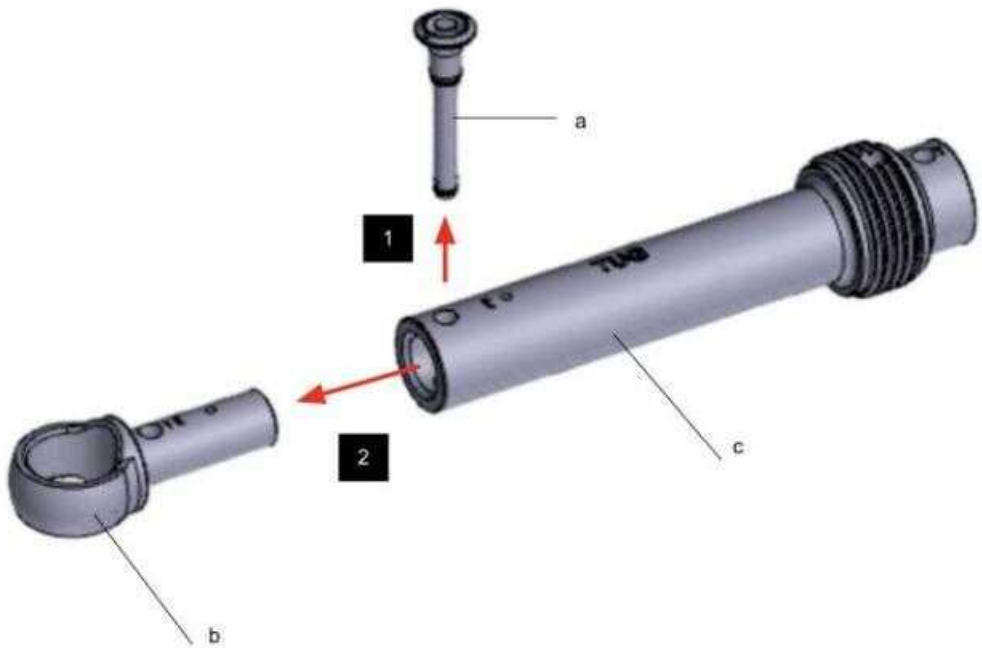
5. Disconnect the **head** from the nose landing gear towing attachment:
   a) Check the Aircraft Maintenance Manual to disconnect from the nose landing gear towing attachment.
   b) Remove the safety clip of the lanyard and the **long ball-locking pin** (d) from **the Aircraft Towing Nose attachment** and take the towbar aside from the aircraft, at a safe place. Visually inspect and Store the Aircraft **long ball-locking pin** (d) in **the Handle storage** area **OR** remaining **SAFETY Hole (S) in tube 4.** Secure with lanyard and clip

WARNING! Risk of serious injury or death! Always watch your surroundings while working near the aircraft, propellers, (HOT) pitot tubes or aircraft structure;

5.3.4 Storing the tug tube

1. Hold the **eye** (b) with both hands and rotate the **tug tube** (c) counterclockwise to remove it.

2. Remove the lanyard clip and 1 **short ball-locking pin** (a) from the **tug tube** (c). Gently remove the **eye** (b) from the **tug tube**.

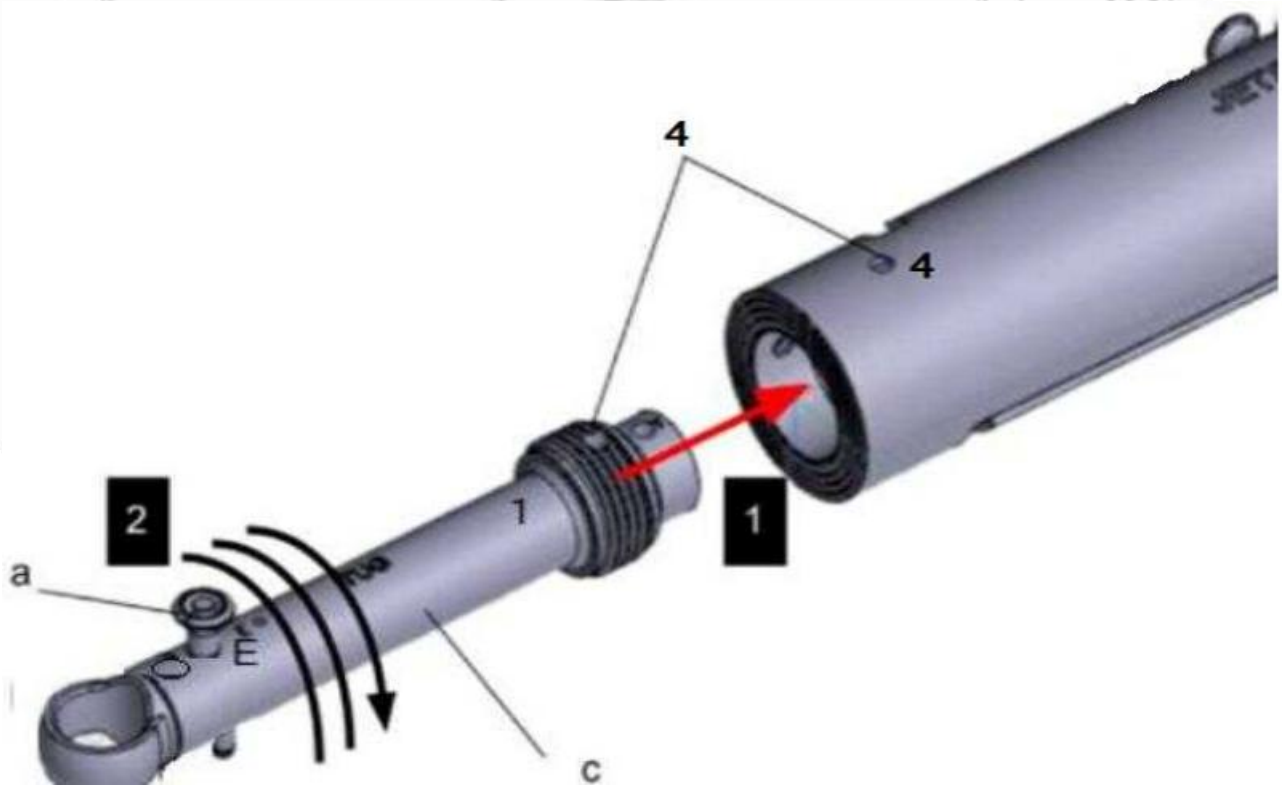


3. Insert the **eye** (b) into the *short end* of the **tug tube** (c). Insert the **short ball-locking pin** (a) into the hole marked Y and secure with the lanyard and clip.

4. Insert the long end of the **tug tube** (c) into **tube 4**. Rotate the **tug tube fully** clockwise into **Tube 4** until no threats are visual.

NOTICE Make sure the knob of the short ball-locking pin (a), secured with the lanyard clip is facing up. Free movement of the Tug Tube while transporting the towbar is allowed with a maximum of 1 turn counterclockwise (360° turn). The EYE tube threat is not locked or secured into Tube 1, what will makes it better to handle or transporting the towbar by hand for longer distances.

WARNING! Risk of serious injury or death! Always CHECK that the TUG TUBE threat is safe installed inside Tube 1 and AVOID turning counterclockwise by more than 1 turn or 360°, while moving or transporting it on the wheels! TUG TUBE assembly is not secured and will move freely inside Tube 1.

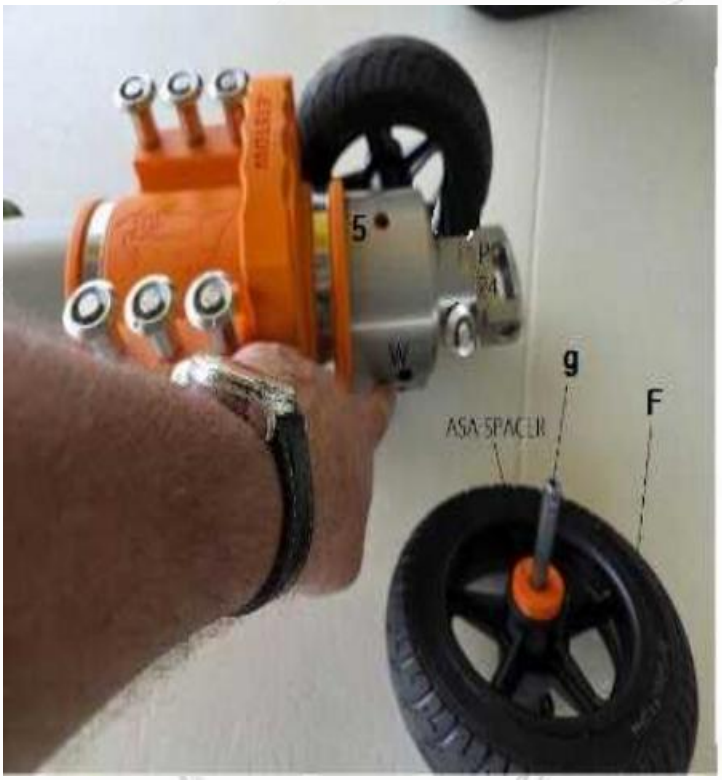


5.3.5 Removing the wheels from the towbar

1. Support the towbar and pull the **T-handle ball-locking pin** (g) wheel assembly out of **tube 4**.

NOTICE The wheel assembly comes loose immediately and make sure the **ASA spacer** is still attached.

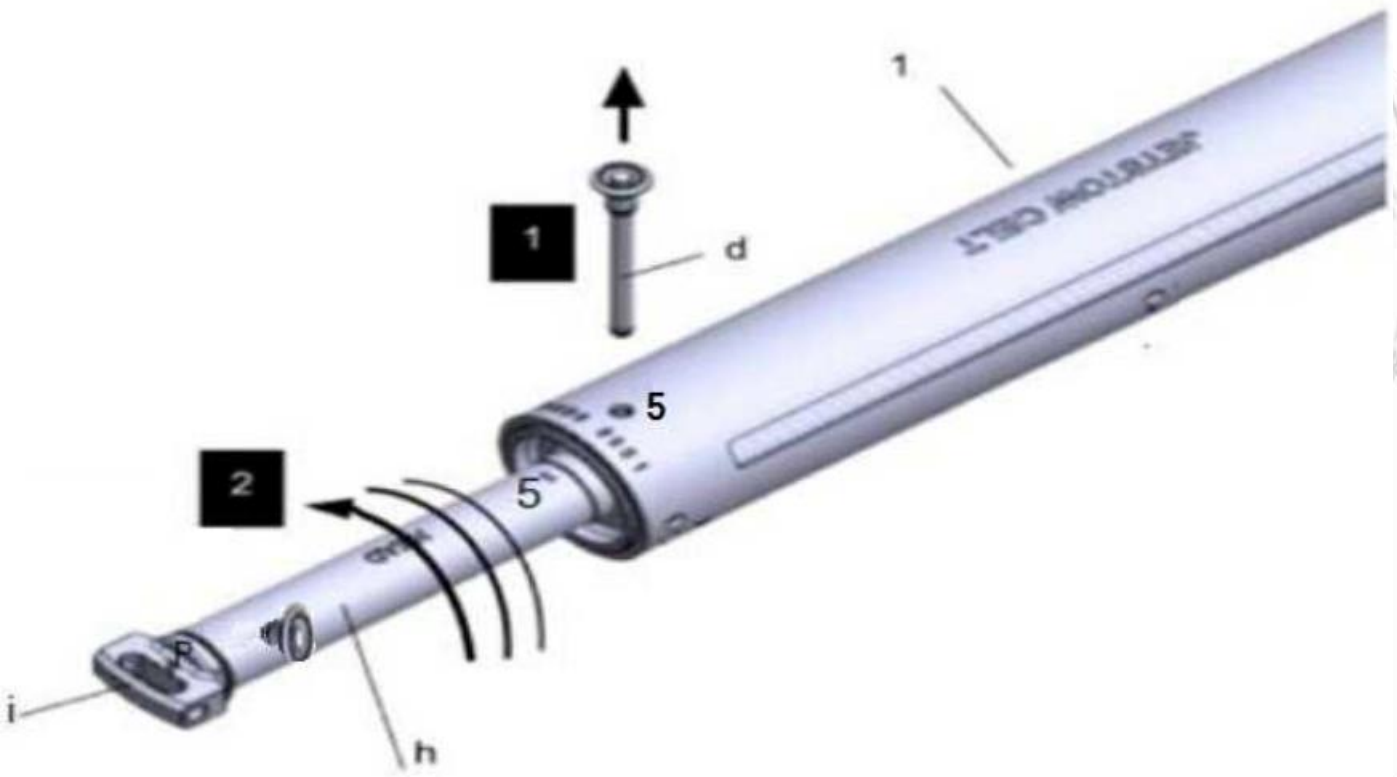
2. Repeat step 1 for the **wheel** (f) on the opposite side.



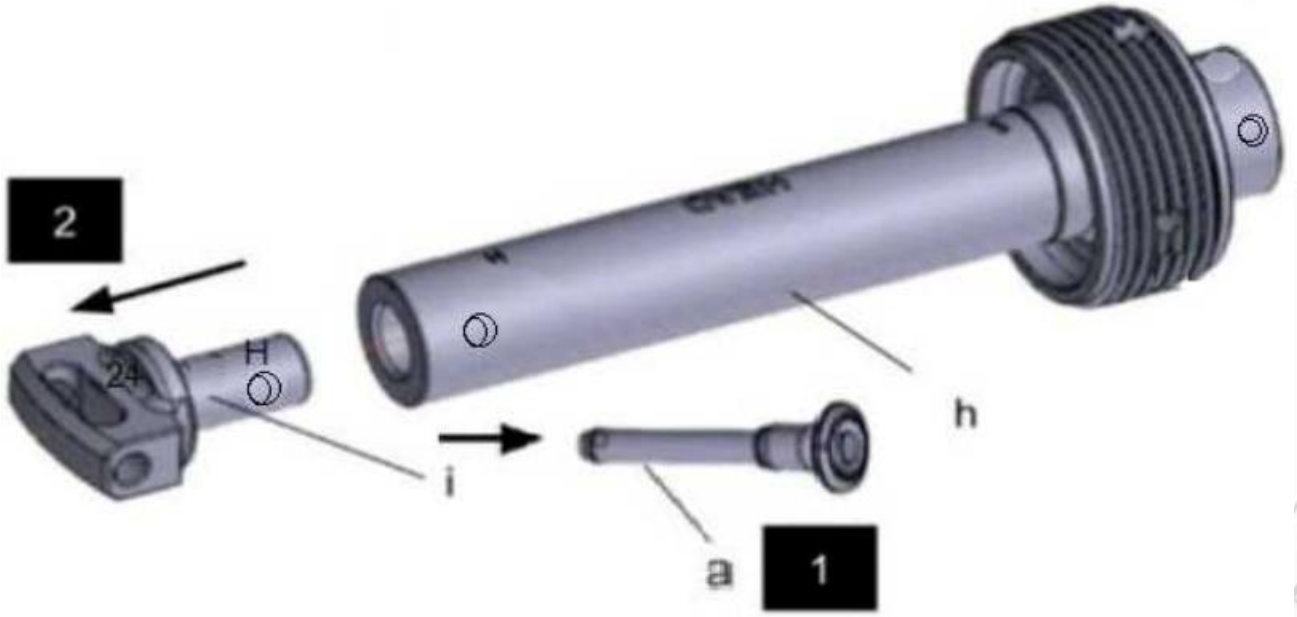
5.3.6 Storing the head tube

1. Remove the **long ball locking pin** (d) and store it in the Handle, storage assembly (k).

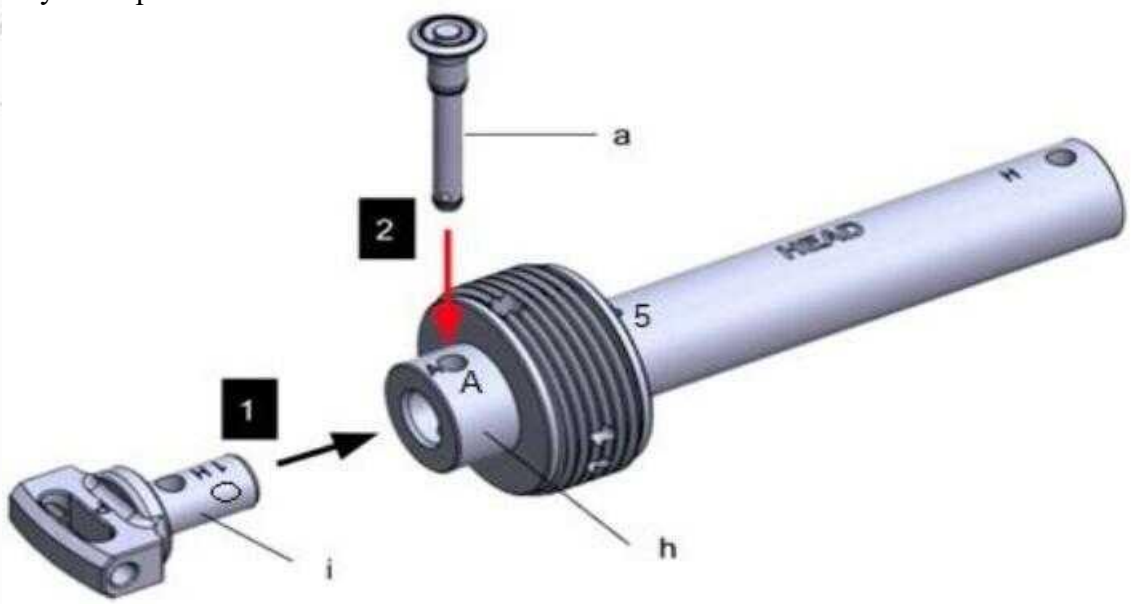
2. Hold the **head** (i) and rotate the **head tube** (h) counterclockwise to remove it from the **tube 4**.



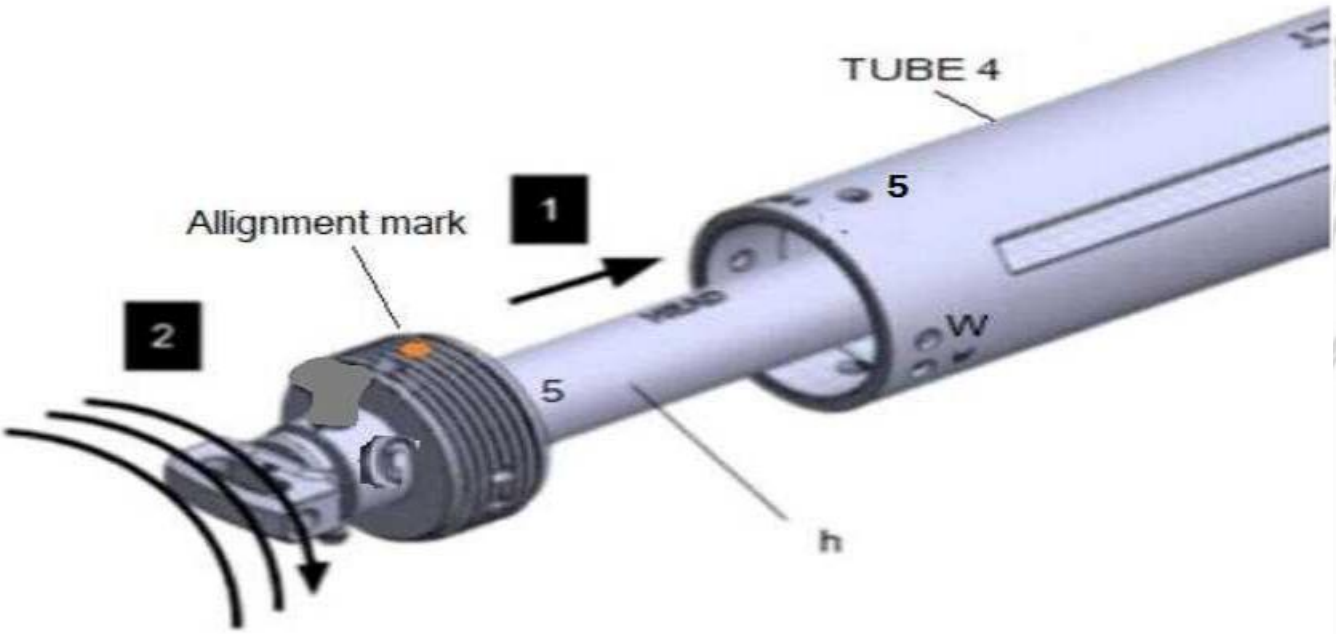
3. Remove the Lanyard Clip and **1 short ball-locking pin gently** (a) from the **head tug tube** (h). Hold **head** (i) and remove from the **head tug tube**.



4. Insert the **head** (i) marked with (H) into the *short end* of the **head tube** (A).
Insert the **short ball-locking pin** (a) into the hole marked A, lock and secure with the lanyard clip.



5. Insert the long end of the **head tug tube** (h) into **tube 4(j).** Rotate the **head tube** clockwise into **tube 4 (j) until orange dot is fully visible at marking 5**.
6. Install the Wheel assembly (f) at position **W** at **tube 4 (j),** with the T-handle ball locking pins (g) fully inserted and locked. Pull on the 2 **T-handle ball lock pins (g)** and make sure they are locked or secured.



6.3.7 Storing the towbar

1. Place the towbar assembly in the **cargo box or optional carrying bag**.
2. Store in a **dry, clean, well-ventilated area.**

6. Inspection and maintenance

⚠DANGER

• Always follow the inspection and maintenance intervals as indicated in these instructions.

• Immediately take action to correct an issue in case an inspection or maintenance fails. Stop using the device until the issue is resolved.

6.1 Inspection and maintenance intervals

Interval	Checkpoint	Task
Before and after every use	Full towbar	Inspect the tower for damages, missing or loose parts. See Section 6.2, *How to inspect the towbar*.
After every use	Full towbar	Clean the towbar See Section 6.3, *How to clean the towbar*.
When removing of installing the head tube of tug tube is difficult	All threads	Lubricate the threads. See Section 6.4, *How to service the towbar*.

6.2 How to inspect the towbar

⚠DANGER

DANGER! Risk of serious injury or death! Debris on runways, taxiways, or aprons/ramps can become hazardous. Always report missing parts to the airport authorities.

To inspect the towbar before and after every use:

1. Inspect the towbar for damages:
a) Visually inspect for missing, loose tabs, or damaged **(all) components.**
b) Visually inspect for cracks.
c) Visually inspect for deep scratches.
d) Visually inspect for dents
e) Visually inspect for deformation
f) Visually inspect for signs of corrosion.

2. In case of damage:
   - ÿ File an email report/description to JETSTOW within 24 hours for any damaged or missing parts. See **Preface 1.5** for contact information.
3. In case of icing condition:
   - ÿ Heating the components are allowed BUT with a **maximum of 50C°/ 122F**

⚠WARNING **In case of overheating condition with a temperature of 150 C°/ 302 F or more, all aluminum components are rejected and should be REPLACED!**

NOTICE

- Make sure to **take clear pictures** of the damage and send them with the summary **report/description by email**.

ICE (In Case of Emergency)

- If you are in a remote location, file the report as soon as the aircraft is back at base.
  - When tabs or parts are missing, find them immediately. Always report any missing parts to the airport authorities and report to JETSTOW or AOG4JETS bv.
  - At remote airfields or on special missions, report to the nearest competent authority at the airfield whenever possible.
- **MISSING TABS (ICE only) ARE ALLOWED to handle or tow your aircraft until end of your mission.**
- **MISSING Long Ball Lock pins at TUBE 2 -3 -4 are allowed too, unless NO loose or missing Tabs are present. Carefully handle or tow your aircraft until end of your mission.**
- The **long ball-locking pins are interchangeable** but visual inspection before installation is crucial.
  One spare **long ball-locking pin** is added **ICE. A (spare) long ball-locking pin can be used as replacement for Short ball-locking pins in case of broke or missing.**

6.3 How to clean the towbar

⚠WARNING

• Never use aggressive or abrasive cleaning agents, gasoline, detergents, chemically impregnated wipes, or other cleaning solutions. These can damage the frame and the cable hoist (A).

• Never spray down the machine with pressure jets.

• Do not use a steam cleaner to clean the device.

To clean the towbar:

1. Remove the dirt and moisture from the towbar with the included cleaning cloth.
2. In case the dirt/grease is hard to remove, rinse the towbar tubes with clean water OR with isopropyl alcohol/water mixture.(50/50).
3. Dry the towbar fully before storing it.

6.4 How to service the towbar

NOTICE

RISK OF DAMAGE! Do not use tools to rotate the head tube or tug tube. Using tools could cause deformation or damage and void the warranty.

When you notice the head tube or the tug tube is difficult to turn and no damage is noticed, the threads need to be cleaned and lubricated.

Required supplies:

- Polytetrafluoroethylene (PTFE) Lubricant (e.g. general store know as a Teflon spray)
- **ICE (In Case of Emergency),** ENGINE OIL

To clean the threads:

1. Clean the towbar and the threads of the **tug tube** (c), **head tube** (h), **tube 1**, and **tube 4 (j)**.
2. Spray Polytetrafluoroethylene (PTFE) Lubricant on the threads of:
   a. The **tug tube** (c) and **tube 1**.
   b. The **head tube** (h) and **tube 4**.

- **When you notice** that the **Tubes (1-2-3-4) are difficult to lock, unlock OR retracted, stowed** and no damage is noticed, rinse and cleaned all the components(tubes internally, surroundings) with clean water, dry completely and visually inspect. Lubricate the overlapping tubes and components that could cause friction or difficulties, and Spray with lubricant, Polytetrafluoroethylene (PTFE) or equivalent.
- **ICE (In Case of Emergency),** ENGINE OIL can also be used as a lubricant.

NOTICE

Do NOT use lubricants that contain **Hydrotreated Heavy Naphtha properties.**

6.5 Technical Lifespan and Maintenance requirements.

Depending on the use of the towbar assembly and components, a yearly detailed inspection is required after going back in service. Product warranty are 24 months.

An email with check points(see 6.5.1) should be send at info@jetstow.com with the model -and Serie nr. listed on TUBE 4. (PLD0 XXXX) with the date of last inspection.

Yearly inspections are crucial with a maximum Lifespan of 40 years or 20.000hrs. Whichever comes first.

A visual inspections of the (Emergency) Towbar assembly, can be implemented within the yearly/hourly maintenance inspection tasks within the aircraft airframe tasks.
The MRO or competent Maintenance Organization can contact JETSTOW for more details concerning inspections required during the maintenance planned or carried out.

Lifespan are estimated only, and cannot be claimed as warranty. Reason are, and depends on different factors that are difficult to predict, such as:

- Environmental hazards (Salts, air and water pollution, toxic waste, pesticides, and chemicals)
- Misuse or handling in uncontrolled areas (airports, roads, fields etc.)
- Force majeure like earthquakes, floods, fire, plague, Acts of God (as defined in the contract or in applicable law) and other natural disasters.

6.5.1 YEARLY/ 12 months INSPECTION CHECK POINTS

- **1.Visually inspect for missing, loose tabs and rivets.**
  Action: Reject, contact JETSTOW first
- **2.Visually inspect for cracks on all towbar components.**
  Action: Reject, contact JETSTOW first
- **3.Visually inspect for scratches, chafed or cut surfaces.**
  Action: Measure, contact JETSTOW first.
  Clean and treat with Alodine 1132 pens/brush e.g..
- **4.Visually inspect for dents**.
  Action: Measure, contact JETSTOW first
  Surface cuts/dents without tube deformation are allowed
- **5.Visually inspect for deformation.**
  Action: Measure, contact JETSTOW first.
- **6.Visually inspect for signs of corrosion**.
  Action: Measure, contact JETSTOW first
  Minor corrosion can be allowed after treatment procedure.
- **7.Visually inspect all towbar components of creep.**
  Action: Reject, contact JETSTOW first.
- **8.Visually inspect Lanyard and safety clip**
  Action: Inspect the Ball locking pin for damage or excessive wear.
  Replace parts when missing or damaged. Contact JETSTOW.
- **9.Visually inspect all Ball Locking pins listed at *2.3 Product Elements***
  Action: Lubricate with PTFE (Teflon spray) (step 6.4)
- **10.Visually inspect the Acrylonitrile Styrene Acrylate (orange) handles (k)**
  Action: Dents or scratches are allowed.
  Reject: When longitudinal cracks or delamination separation is found.
  Contact JETSTOW.
- **11.Visually inspect the handle CLAMPS (l)**
  Action: Reject when loose or damaged. Contact JETSTOW.
- **12.Visually inspect the HEAD base areas for corrosion, fatigue, cracks and creep.**
  Action: Reject. Contact JETSTOW
- **13.Visually inspect the EYE base areas for corrosion, fatigue, cracks and creep.**
  Action: Reject. Contact JETSTOW
- **14.Visually inspect the aluminium parts for worn-out holes, corrosion, fatigue, cracks and creep.**
  Action: Reject. Contact JETSTOW
- **15.Visually inspect the WHEEL assembly for worn bearings, deep wheel/tire cuts and missing alignment washers (orange Acrylonitrile Styrene Acrylate)**
  Action: Reject. Contact JETSTOW
- **16.Visually inspect for missing engravings, laser markings, identification tag, QR-code.**
  Action: Reject. Contact JETSTOW
- **17.Visually inspect for BOGUS parts, unregistered repairs or doubt.**
  Reject. Contact JETSTOW

- **18. CLEAN AND LUBRICATE FRICTION POINTS WHEN NECESSARY** (step 6.4)

- **NO FINDINGS? => SEND AN EMAIL with your *Company Details, Name with Inspection Date and Inspection Accomplished " No Findings".***
- **FINDING? => SEND AN EMAIL with your *Company Details, Name with the findings as per list nr. Reference (1-18).***

ÿ SEND THIS PAGE WITH YOUR (COMPANY) DETAILS TO: INFO@JETSTOW.COM
NOTICE: THE FORM 6.5.1, IS MANDATORY in order TO MAINTAIN TOWING OPERATION!

7 Troubleshooting

Problem	Cause	Solution
The head tube of tug tube is difficult to rotate or cannot be rotated by hand to remove it.	• The threads could be dirty or damaged. • Overtorque during towing events. • Misuse previous handling. • Frozen. Ice formation.	Follow the steps in Section 6.4, *How to service the towbar.* ***NOTICE*** Do not use tools to rotate the head tube or tug tube.
	• The holes inserts of the long ball locking pins could be damaged.	Follow the steps in Section 6.2, *How to inspect the towbar.*
It is not possible to install the long of short ball locking pins.	The holes in the different parts of the towbar are not aligned correctly.	Adjust the alignment of the holes by rotating the parts.

8 Disposal

8.1 Recycling parts

Old or worn parts should be disposed of in the most environmentally friendly way, for example, by bringing them to an acknowledged recycling center.

8.2 Disposal of the packaging waste

Dispose of the packaging materials through your local recycling facilities. By disposing of the packaging and packaging waste in the proper manner, you help to avoid possible hazards for the environment and public health.

8.3 Disposal of consumables

Dispose of used lubricants, oily cleaning clots, etcetera, in an environmentally responsible manner. Follow the local regulations on environmental protection. Select oils and lubricants according to their environmental compatibility and look for a supplier who takes care of proper disposal. Familiarize yourself with the national and local regulations with respect to environmentally friendly disposal of harmful substances.

7 Troubleshooting

Problem	Cause	Solution
The head tube of tug tube is difficult to rotate or cannot be rotated by hand to remove it.	• The threads could be dirty or damaged. • Overtorque during towing events. • Misuse previous handling. • Frozen. Ice formation.	Follow the steps in Section 6.4, *How to service the towbar.* ***NOTICE*** Do not use tools to rotate the head tube or tug tube.
	• The holes inserts of the long ball locking pins could be damaged.	Follow the steps in Section 6.2, *How to inspect the towbar.*
It is not possible to install the long of short ball locking pins.	The holes in the different parts of the towbar are not aligned correctly.	Adjust the alignment of the holes by rotating the parts.

8 Disposal

8.1 Recycling parts

Old or worn parts should be disposed of in the most environmentally friendly way, for example, by bringing them to an acknowledged recycling center.

8.2 Disposal of the packaging waste

Dispose of the packaging materials through your local recycling facilities. By disposing of the packaging and packaging waste in the proper manner, you help to avoid possible hazards for the environment and public health.

8.3 Disposal of consumables

Dispose of used lubricants, oily cleaning clots, etcetera, in an environmentally responsible manner. Follow the local regulations on environmental protection. Select oils and lubricants according to their environmental compatibility and look for a supplier who takes care of proper disposal. Familiarize yourself with the national and local regulations with respect to environmentally friendly disposal of harmful substances.

9. Appendix A Declaration of conformity

EU Declaration of Conformity (DoC)

We

Company name:	AOG4JETS BV
Postal address:	STEENSTORTSTRAAT 23
Postcode:	3582
City:	BERINGEN
Telephone number:	+32 11 78 52 00
E-Mail address:	info@jetstow.com

declare that the DoC is issued under our sole responsibility and belongs to the following product:

Apparatus model/Product:	DEMO_EMERGENCY TELESCOPIC TOWBAR
Type:	JETSTOW CELT
Batch:	PXD0 / PLD0 compatible
Serial number:	0001

Object of the declaration (identification of apparatus allowing traceability; it may include a colour image of sufficient clarity where necessary for the identification of the apparatus):

IDENTIFICATION TAG ENGRAVED IN THE OUTER TUBE(4) ASSEMBLY.

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

EMC Directive 2014/30/EU	
DIRECTIVE 2006/42/CE	...
...	...
...	...
...	...

The following harmonised standards and technical specifications have been applied:

Title, Date of standard/specification:	
ISO 8267-2:20195(E) CAT I	...
EN 1915-2:2001+A1:2009	...
EN 10204	...
...	...
...	...
...	...

Notified body (where applicable):	**4 digit notified body number:**
DLG TestService GmbH	N/A

Testreport No. PRCS 009 343- B ECE-R55 Annex 6 point 3.1.5 /

Additional information:

Detailed Technical Documentation AOG4JETS bv

Signed for and on behalf of:

BERINGEN, BELGIUM	2024-09-18	LORENZO P. TOFONI, FOUNDER CEO
Place of issue	Date of issue	Name, function, signature

AOG4JETS bv

LORENZO TOFONI