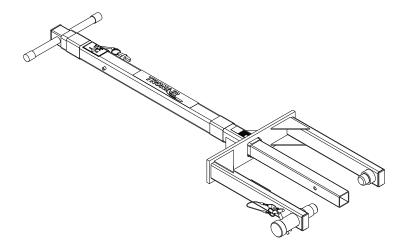


## **OPERATION & SERVICE MANUAL**



# Model: 01-1239-0000 Lear Portable Handling Towbar

# CE

04/2023 - Rev. 03

For Spare Parts, Operations & Service Manuals or Service Needs Scan the QR code or visit Tronair.com/aftermarket



REVISIONDATETEXT AFFECTED0304/2023Major revision



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Tronair towbars/heads must only be used with matching Tronair heads/towbars, and Tronair shear pins.

This product cannot be modified without the written approval of Tronair, Inc. Any modifications done without written approval voids all warranties and releases Tronair, Inc., it suppliers, distributors, employees, or financial institutions from any liability from consequences that may occur. Only Tronair OEM replacement parts shall be used.

#### 1.0 **PRODUCT INFORMATION**

## 1.1 DESCRIPTION

Tronair 01-1239-0000 is a portable handling towbar designed for towing Lear aircraft.

Fax:

## 1.2 MODEL & SERIAL NUMBER Reference nameplate on unit

#### MANUFACTURER 1.3

TRONAIR, Inc. 1 Air Cargo Pkwy East Swanton, Ohio 43558 USA

Telephone: (419) 866-6301 or 800-426-6301 (419) 867-0634 E-mail: sales@tronair.com Website: www.tronair.com

#### 2.0 SAFETY INFORMATION

#### 2.1 USAGE AND SAFETY INFORMATION

To insure safe operations please read the following statements and understand their meaning. Also refer to your equipment manufacturer's manual for other important safety information. This manual contains safety precautions which are explained below. Please read carefully.



## WARNING!

Warning is used to indicate the presence of a hazard that can cause severe personal injury, death, and/or substantial property damage if the Warning Notice is ignored.



## CAUTION!

Caution is used to indicate the presence of a hazard, which will or can cause *minor personal injury or property* damage is the Caution Notice is ignored.

#### 3.0 TRAINING

#### 3.1 TRAINING REQUIREMENTS

The employer of the operator is responsible for providing a training program sufficient for the safe operation of the unit.

#### 3.2 TRAINING PROGRAM

The employer provided operator training program should cover safety procedures concerning use of the unit in and around the intended aircraft at the intended aircraft servicing location.

#### 3.3 **OPERATOR TRAINING**

The operator training should provide the required training for safe operation of the unit.

NOTE: Maintenance and Trouble Shooting are to be performed by a skilled and trained technician.



## 4.0 OPERATION

Your Tronair towbar is engineered and built to the highest standards of quality and workmanship. Under normal usage and with minimal maintenance this towbar will provide exceptional service.

## 4.1 TOWBAR CHECKLIST

- Check towing eye for bending, excessive wear and/or deformity. Contact Tronair for repair/replacement if towing eye is bent, excessively worn or deformed.
- Check towing eye mounting bolts. Ensure fasteners are not loose or missing. Tighten to 25 ft-lbs or replace as required.
- Ensure that the towing eye does not turn; if the towing eye can turn it indicates that the centering pin within the shock assembly may have been broken and repairs are needed.
- Inspect the towbar tube for cracks, gouges greater than 1/16 inch, and bends or deformities. A damaged or bent towbar should not be used. Contact Tronair for replacement.
- Inspect towing head attachment ball loc pin. Verify that the factory supplied ball loc pin is used; contact Tronair for replacement if required. Do not substitute without Tronair approval.



## WARNING!

A damaged or bent towbar should not be used, but should be repaired or replaced.

Using a damaged or bent towbar can result in aircraft or equipment damage and possible personal injury.



4.2.1 Aircraft Attachment

## CAUTION!

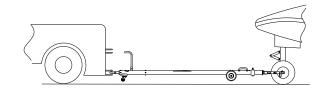
It is recommended that your towbar be attached to the aircraft first, and then connected to the tug to avoid possible aircraft damage.



# Tug Attachment CAUTION!

Damage to the towbar or aircraft can result from an excessive towbar angle during towing operations. *Reference Figure 1.* 

Use a pintle height so that the towbar is as level as possible during towing. Also, the pintle hook height should prevent contact of the towbar with the ground during towing.



Correct

Incorrect (Excessive Towbar Angle)

FIGURE 1



### Couplers 4.2.3

## **CAUTION!**

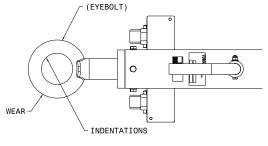
Damage to the towbar or aircraft can result while towing with the following types of couplers:

Vertical Side Swing Latch

**Standard Duty Latch** 

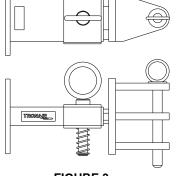
Swivel Hook

The couplers listed above are known to cause binding and failure in the lunette eye. Indicators of binding are wear on outside diameter of the eyebolt and indentation on the inside diameter of the eyebolt. Reference Figure 2.



Lift Head

## **FIGURE 2**

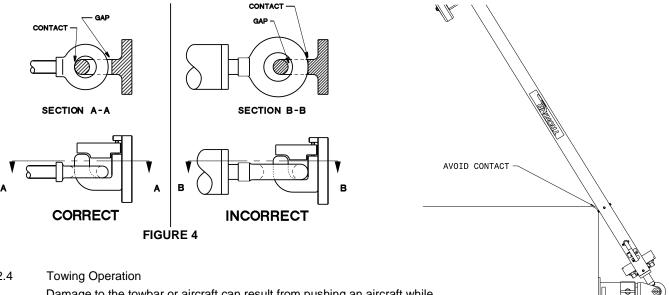


Tronair recommends a telecoupler pintle hook arrangement. This arrangement is known to eliminate binding. Tronair offers a Standard Telecoupler, Model Number 01-1950-5000, for use on tugs. Reference Figure 3.

**FIGURE 3** 01-1950-5000 Standard Telecoupler

Damage to the towbar and/or aircraft can result by towing or pushing an aircraft with an incorrect size eyebolt or pintle pin. A correct size evebolt will make contact with the pintle pin. A gap between the evebolt outside diameter and the coupler face plate should be easily seen. An eyebolt which is too large will cause the eyebolt to make contact with the face plate of the coupler. When the evebolt is too large for the coupler, a gap between the inside diameter of the eyebolt and the coupler face plate will be seen. Reference Figure 4.

To ensure proper towing and pushing, check to make sure the pintle pin diameter is not too long for the eyebolt's inside diameter. An approximate one-half inch (1/2") gap between the pin diameter and the eyebolt should be seen. If any of these conditions are not met, please contact Tronair for information to obtain a new coupler.



## 4.2.4

Damage to the towbar or aircraft can result from pushing an aircraft while maintaining too sharp of an angle between the tug and the aircraft. Contact between the towbar weldment and the tug must be avoided. It is recommended that the angle between the tug and towbar not exceed 90°. Reference Figure 5.

**FIGURE 5** 



#### 5.0 **PROVISION OF SPARES**

5.1 SOURCE OF SPARE PARTS

Spare parts may be obtained from the manufacturer:

TRONAIR, Inc. 1 Air Cargo Pkwy East Swanton, Ohio 43558 USA Telephone: (419) 866-6301 or 800-426-6301 (419) 867-0634 E-mail: sales@tronair.com Website: www.tronair.com

For Spare Parts. Operations & Service Manuals or Service Needs: Scan the QR code or visit Tronair.com/aftermarket

#### 5.2 RECOMMENDED SPARE PARTS LISTS

Reference the following page(s) for Replacement Parts and Kits available.

Fax:

Recommended Spares to be kept on hand: K-1882.....Kit, Ball Lok-T Pin Replacement K-2122.....Kit, Ball Lok-T Pin Replacement K-1550.....Wheel (Single) Replacement K-2051.....Kit, Sliding Pin Replacement K-2160.....Kit, Bushing Replacement K-2836......Kit, Shear Bolt Replacement K-3201.....Kit, Ball Lok-T Pin Replacement

### IN SERVICE SUPPORT 6.0

Contact Tronair, Inc. for technical services and information. See Section 1.3 - Manufacturer.

## **GUARANTEES/LIMITATION OF LIABILITY** 7.0

Tronair products are warranted to be free of manufacturing or material defects for a period of one year after shipment to the original customer. This is solely limited to the repair or replacement of defective components. This warranty does not cover the following items:

- Parts required for normal maintenance a)
- Parts covered by a component manufacturers warranty b)
- C) Replacement parts have a 90-day warranty from date of shipment

If you have a problem that may require service, contact Tronair immediately. Do not attempt to repair or

disassemble a product without first contacting Tronair, any action may affect warranty coverage. When you contact Tronair be prepared to provide the following information:

- a) Product Model Number
- Product Serial Number b)
- Description of the problem c)

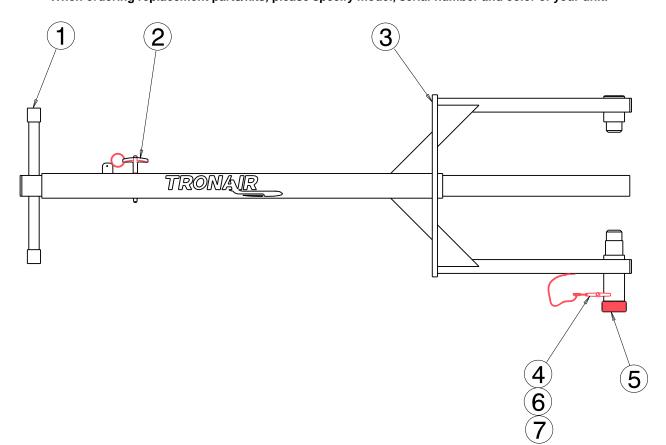
If warranty coverage is approved, either replacement parts will be sent or the product will have to be returned to Tronair for repairs. If the product is to be returned, a Return Material Authorization (RMA) number will be issued for reference purposes on any shipping documents. Failure to obtain a RMA in advance of returning an item will result in a service fee. A decision on the extent of warranty coverage on returned products is reserved pending inspection at Tronair. Any shipments to Tronair must be shipped freight prepaid. Freight costs on shipments to customers will be paid by Tronair on any warranty claims only. Any unauthorized modification of the Tronair products or use of the Tronair products in violation of cautions and warnings in any manual (including updates) or safety bulletins published or delivered by Tronair will immediately void any warranty, express or implied.

The obligations of Tronair expressly stated herein are in lieu of all other warranties or conditions expressed or implied. Any unauthorized modification of the Tronair products or use of the Tronair products in violations of cautions and warnings in any manual (including updates) or safety bulletins published or delivered by Tronair will immediately void any warranty, express or implied and Tronair disclaims any and all liability for injury (WITHOUT LIMITATION and including DEATH), loss or damage arising from or relating to such misuse.





Parts List When ordering replacement parts/kits, please specify model, serial number and color of your unit.



ltem	Part Number	Description	Qty
1	Z-2700-01	Weldment, Inner Tube	1
5	R-1460	Pin, Sliding	1
	K-2122	Kit, Ball Lok-T Pin Replacement; consists of:	
2	G-1310-0520	Pin, 5/16" diameter x 2" Ball Lok-T	1
6	G-1351-04	Rivet, 1/8 Open-End Steel	1
7	H-1026*07.0	Assembly, Lanyard	1
	K-1882	Kit, Ball Lok Pin Replacement; consists of:	
4	G-1310-0415	Pin, ¼ " diameter x 1 ½ " Ball Lok-T	1
6	G-1351-04	Rivet, 1/8 Open-End Steel	1
7	H-1026*07.0	Assembly, Lanyard	1
	K-2218	Kit, Head Weldment Replacement; consists of:	
3	Z-2701-01	Weldment, Head	1



# **APPENDIX II**

**Declaration of Conformity** 



# **DECLARATION of CONFORMITY**

The design, development and manufacture is in accordance with European Community guidelines

Lear Portable Handling Towbar 01-1239-0000

Relevant provisions complied with by the machinery: 2006/42/EC

Relevant standards complied with by the machinery: EN ISO 12100-1

Identification of person empowered to sign on behalf of the manufacturer:

Quality Assurance Representative









**Tronair, Inc.** 1 Air Cargo Pkwy East Swanton, OH 43558

Phone: (419) 866-6301 | 800-426-6301 Web: www.tronair.com Email: sales@tronair.com