



# OPERATION & SERVICE MANUAL

**Model: 01-1224-0010  
C-130 Towbar**

01/2023 – Rev. 01

**For Spare Parts, Operations & Service Manuals or Service Needs  
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REVISION	DATE	TEXT AFFECTED
OR	06/1999	Original release
01	01/2023	Major revision

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

This product can not be modified without the written approval of Tronair, Inc. Any modifications done without written approval voids all warranties and releases Tronair, Inc., its 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

The 01-1224-0010 is a custom towbar designed for towing the Lockheed C-130 aircraft.

### 1.2 MODEL & SERIAL NUMBER

Reference nameplate on unit

### 1.3 MANUFACTURER

**TRONAIR**, Inc.

1 Air Cargo Pkwy East  
Swanton, Ohio 43558 USA

Telephone: (419) 866-6301 or 800-426-6301

Fax: (419) 867-0634

E-mail: sales@tronair.com

Website: www.tronair.com

### 1.4 SPECIFICATIONS

Aircraft Application ..... Lockheed C-130

Length ..... 163 in (414 cm) From eyebolt centerline to aircraft attachment centerline

Weight ..... 130 lbs (59 kg)

Maximum Aircraft Gross Weight.. 155,000 lbs (69 Metric Ton)

## 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** if 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

### 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!**

**Towing an aircraft using a towbar with a broken or missing shear pin may cause damage to the aircraft.**

### 4.2 USAGE PROCEDURE



#### **CAUTION!**

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

- Ensure the sliding pin is locked in place using the ball lok-T pin.

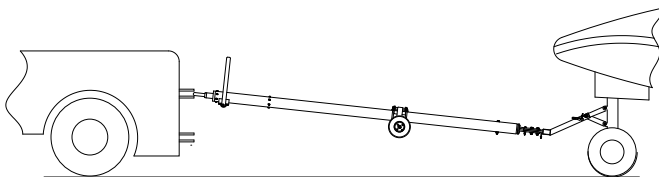
#### 4.2.2 Tug Attachment



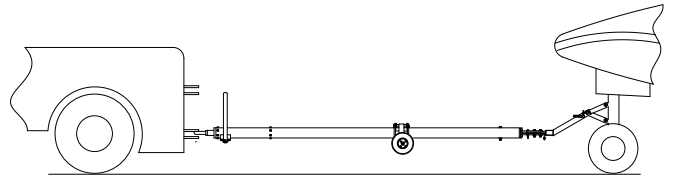
#### **CAUTION!**

**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.



**FIGURE 1 – Incorrect**



**FIGURE 2 – Correct**

### 4.2.3

#### Couplers

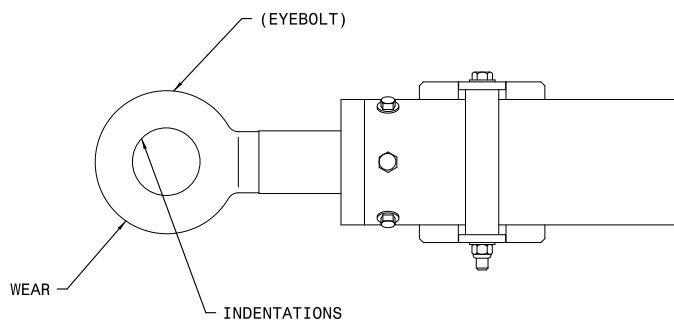


#### CAUTION!

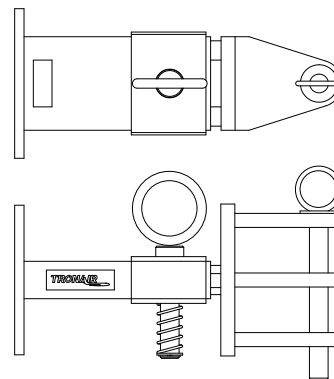
Damage to the towbar or aircraft can result while towing with the following types of couplers:

- Lift Head
- Standard Duty Latch
- Vertical Side Swing Latch
- Swivel Hook

The couplers listed above are known to cause binding and failure in the eyebolt. Indicators of binding are wear on outside diameter of the eyebolt and indentation on the inside diameter of the eyebolt. **Reference Figure 3.**



**FIGURE 3**



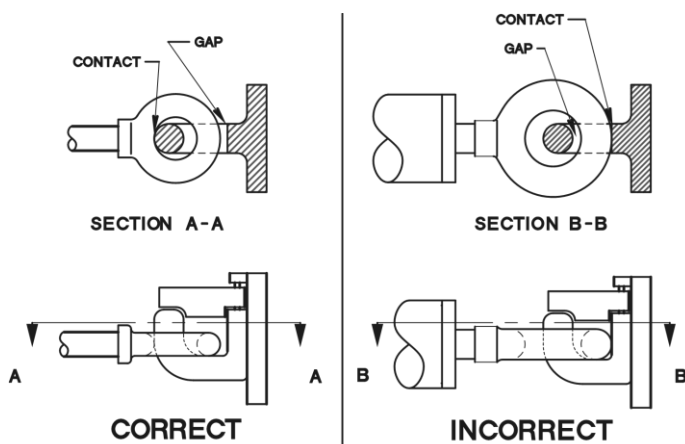
**FIGURE 4**

01-1950-5000 Standard Telecoupler

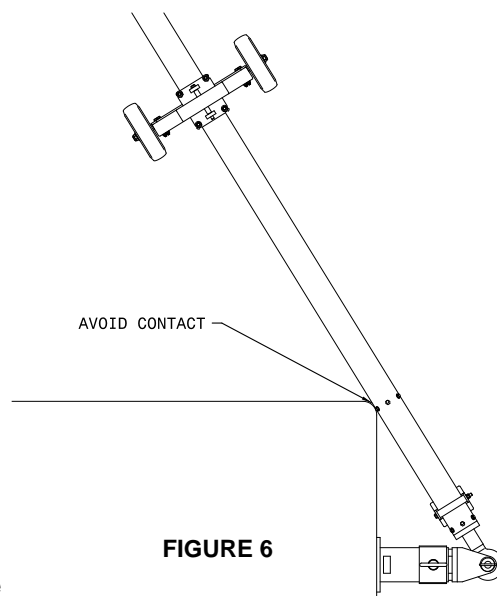
Tronair recommends a telecoupler pintle hook arrangement. This arrangement is known to eliminate binding. Tronair offers a Standard Telecoupler, Model Number 01-1950-5000, for use on tugs. **Reference Figure 4.**

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 eyebolt will make contact with the pintle pin. A gap between the eyebolt 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 eyebolt 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 5.**

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.



**FIGURE 5**



**FIGURE 6**

### 4.2.4

#### Towing Operation

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 6.**

## 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

Fax: (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](http://Tronair.com/aftermarket)



### 5.2 RECOMMENDED SPARE PARTS LISTS

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

Recommended Spares to be kept on hand:

K-1550.....Kit, Wheel Replacement (Single)

K-3120.....Kit, Bolt Replacement

K-3161.....Kit, Bolt Replacement

## 6.0 IN-SERVICE SUPPORT

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

## 7.0 GUARANTEES/LIMITATION OF LIABILITY

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:

- a) Parts required for normal maintenance
- b) Parts covered by a component manufacturers warranty
- 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:

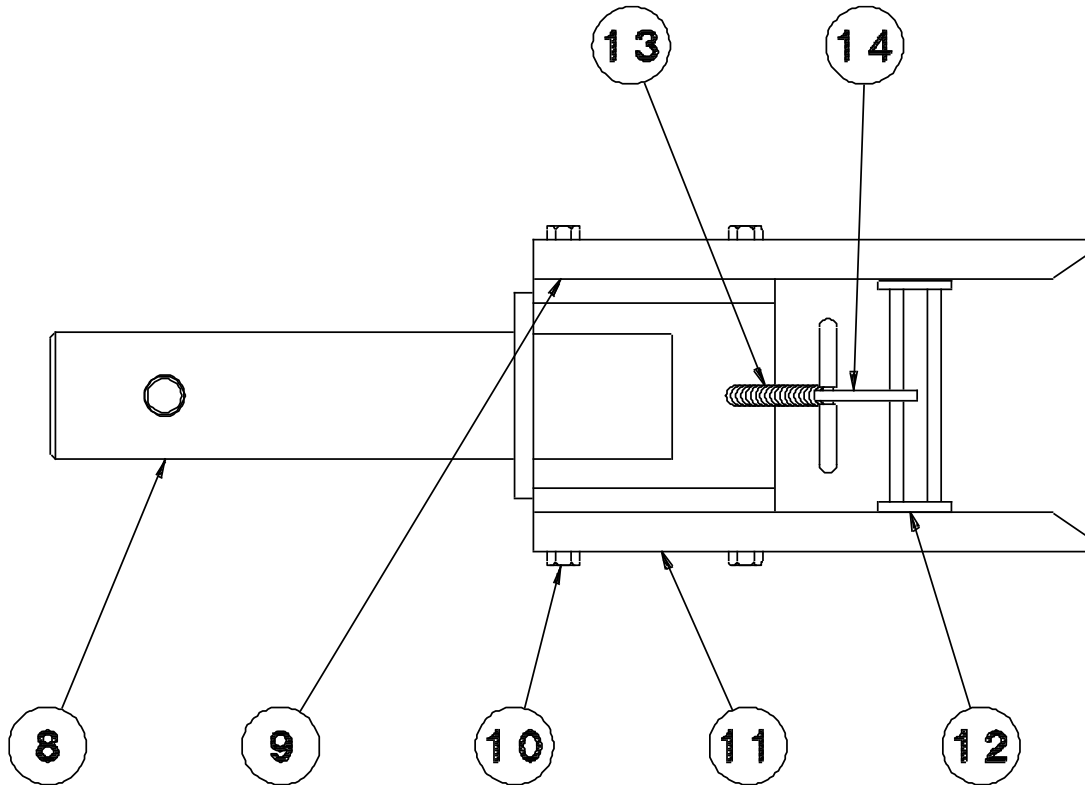
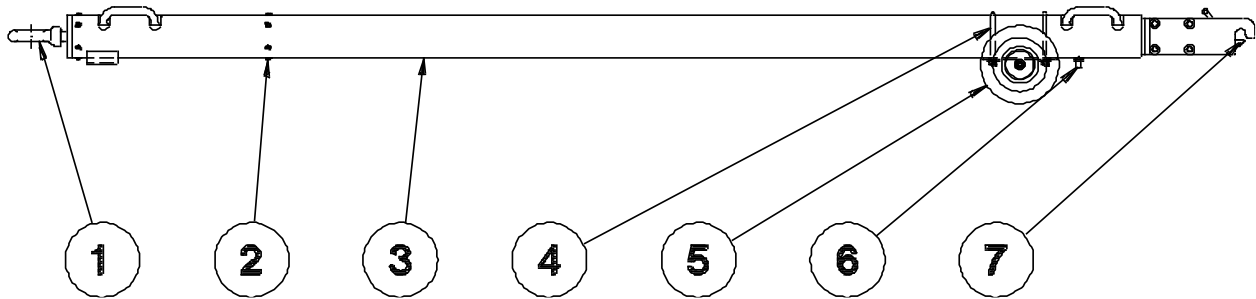
- a) Product Model Number
- b) Product Serial Number
- c) Description of the problem

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.





### Parts List

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

Item	Part Number	Description	Qty
1	Z-3548	Weldment, Eyebolt	1
3	Z-4468-01	Towbar	1
4	Z-3552	Assembly, Movable Wheel Bracket	1
7	J-1213	Bar, Sliding	1
8	Z-4469-01	Head, Machined	1
9	J-1827	Plate, Side (Right)	1
10	G-1100-109520	Bolt, Hex Head, Grade 5, 1/2-20 x 2" long	1
11	J-1828	Plate, Side (Left)	1
12	Z-2158	Weldment, Actuator	1
13	H-1263	Spring	1
14	G-1300-25340	Pin, Roll, 1/4" diameter x 3-1/2" long	1
	<b>K-3120</b>	<b>Kit, Bolt Replacement;</b> consists of:	
	G-1251-1060R	Lockwasher, 5/16 Regular	12
	G-1420-106006	Bolt, Hex Head, Grade 8, 5/16-18 x 3/4" long	12
	<b>K-1550</b>	<b>Kit, Wheel (Single) Replacement;</b> consists of:	
	G-1203-1115	Jamnut, 3/4-16 Elastic	1
	G-1250-1110N	Flatwasher, 3/4 Narrow	1
	TR-1585	Spacer	1
	U-1027	Wheel, Pneumatic Tire	1
	<b>K-3161</b>	<b>Kit, Bolt Replacement;</b> consists of:	
	G-1203-1110	Jamnut, 3/4-10 Elastic	1
	G-1250-1110N	Flatwasher, 3/4 Narrow	1
	G-1420-111070	Bolt, Hex Head, Grade 8, 3/4-10 x 7" long	1