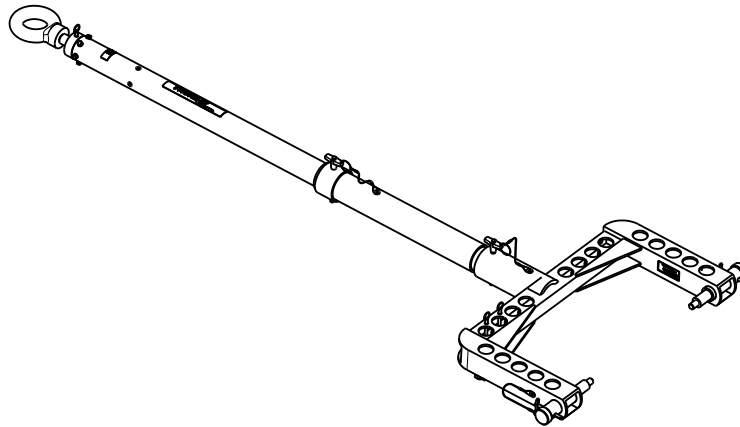




OPERATION & SERVICE MANUAL



Model: 01A1275-0020
Portable Towbar
Global Express



03/2010 – Rev. 02

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



REVISION	DATE	TEXT AFFECTED
OR	03/2006	Original Release
01	02/2007	Added CE marking
02	03/2010	Modified Parts List
03	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 Tronair Model 01A1275-0020 Portable Towbar is designed for towing Global Express aircraft manufactured by Canadair.

The portable towbar separates into three sections for compact storage. It interfaces to the aircraft by machined pins. It provides overload protection to the landing gear by use of a shear pin and incorporates shock protection after the shear pin breaks.

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 Canadair Global Express manufactured by Canadair
Maximum Aircraft Gross Weight..... 100,000 lbs (45.4 Metric tons)
Length 91 1/8 in (234cm) From eyebolt centerline to aircraft attachment centerline
Width 37 1/4 in (94.6 cm)
Height 6 in (15.2 cm)
Weight 58.5 lbs (26.5 kg)
Finish Blue Powder Coat

2.0 SAFETY INFORMATION

2.1 USAGE AND SAFETY INFORMATION

The Tronair Model 01A1275-0020 Portable Towbar is to be used for moving the Global Express aircraft only.

To ensure safe operation, please read the following statements and understand their meaning. This manual contains safety precautions which are explained as follows. 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.



WARNING!

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

Towbars should be used with category 1 tugs ONLY in accordance with AHM 995 "Functional specifications for an aircraft tractor" Using a category 2 or higher tug may result in excessive loads and stresses being applied to the towbar and/or the aircraft. These excessive loads may cause failure of the towbar which could cause damage to the aircraft or personal injury.

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 towbar.

3.2 TRAINING PROGRAM

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

3.3 OPERATOR TRAINING

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

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

4.0 OPERATION

4.1 TOWBAR CHECKLIST

- Check eyebolt for bending, excessive wear and/or deformity. If located, remove towbar from service and contact Tronair for repair/replacement.
- Inspect shear bolt. If shear bolt is bent or broken remove towbar from service and contact Tronair for replacement.



WARNING!

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

- Check shock/shear assembly mounting bolts. Ensure fasteners are tight and not missing. Tighten to 25 ft-lbs or replace as required.
- Inspect towbar tube and towbar extension tube for cracks, gouges greater than 1/16 inch, and bends or deformities. If located, remove towbar from service and contact Tronair for repair/replacement.
- Check towbar section connecting ball lok-T pins. Ensure they are not missing and are connected to the towbar via their lanyards. Replace as required.
- Check head weldment mounting bolts. Ensure they are tight and not missing. Tighten or replace as required.
- Inspect all welds for cracks. If located, remove towbar from service and contact Tronair for repair/replacement.
- Inspect all members of head weldment for bending or damage. If located, remove towbar from service and contact Tronair for repair/replacement.
- Inspect sliding pins for bending, cracks, and excessive wear. If located, remove towbar from service and contact Tronair for repair/replacement.
- Check sliding pin retaining ball lok-T pins. Ensure they are not missing and are connected to the head weldments via their lanyards. Replace as required.
- Check sliding pin roll pins. Ensure they are tight and not missing. Tighten or replace as required.

4.2 USAGE PROCEDURE

4.2.1 Aircraft Attachment



CAUTION!

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

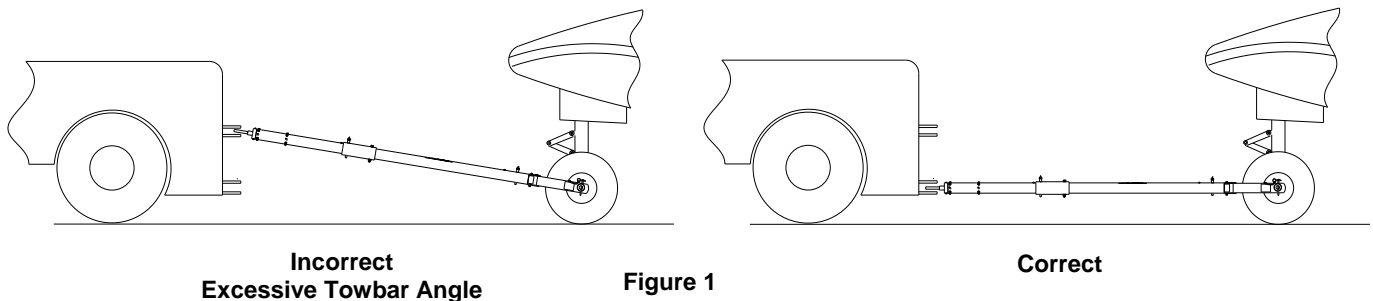
4.2.2 Tug Attachment

- 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.



CAUTION!

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



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 2.**

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

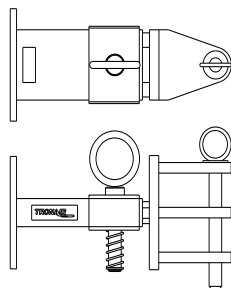


FIGURE 3

01-1950-5000 Standard Telecoupler

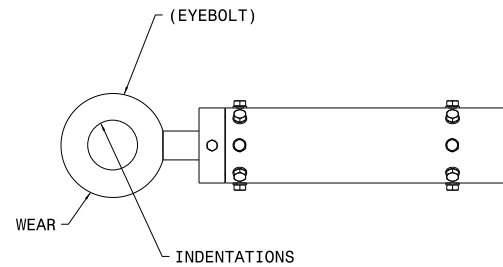


Figure 2

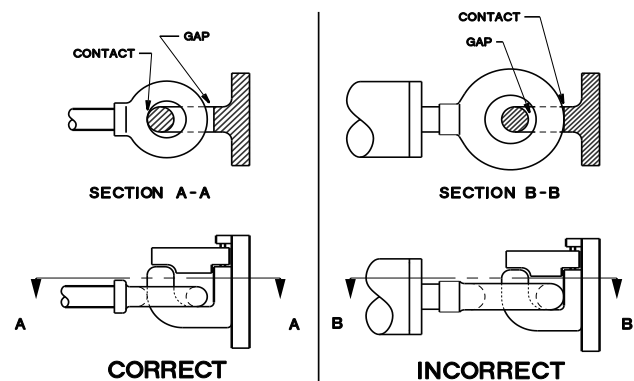


FIGURE 4

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 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 ($\frac{1}{2}$ ") 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

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 5**

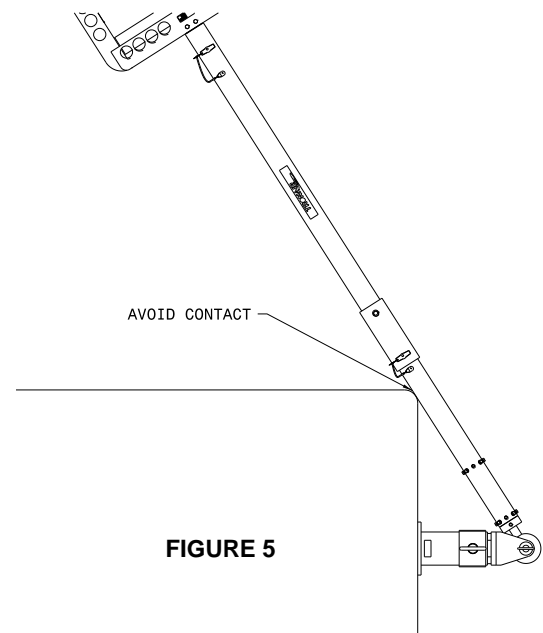


FIGURE 5

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

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



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-3990.....Kit, T-Handle Ball-Lok Pin

K-1337.....Kit, Ball-Lok Pin Replacement

6.0 IN-SERVICE SUPPORT

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

7.0 GUARANTEES

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

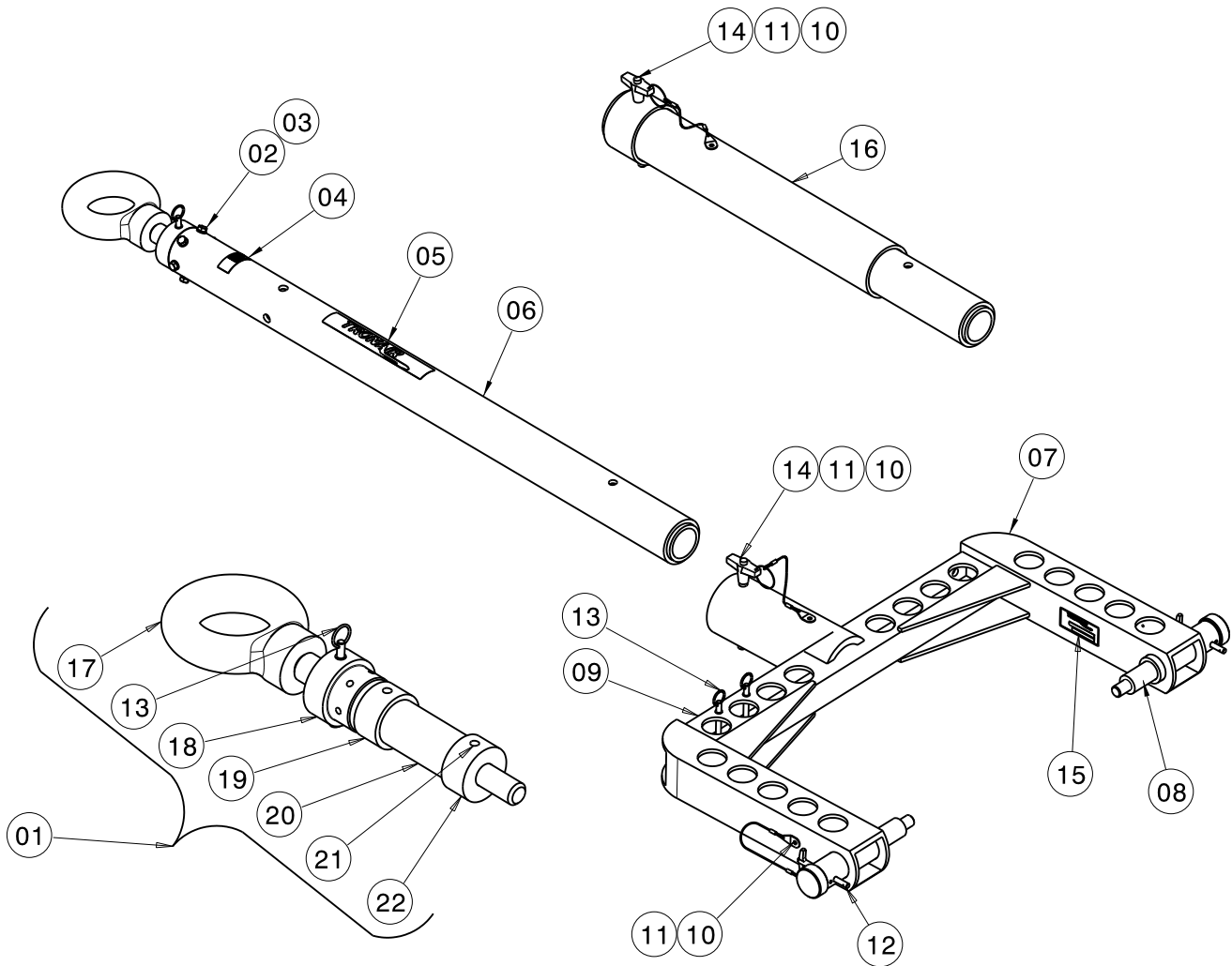
If warranty coverage is approved, either replacement parts will be sent or the product will have to be returned to Tronair for repairs. If the product is to be returned, a Return Material Authorization (RMA) number will be issued for reference purposes on any shipping documents. Failure to obtain a RMA 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.**

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Parts List

When ordering Replacement Parts/Kits, please specify Model & Serial Number of your product.



Parts List

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

Item	Part Number	Description	Qty
17	Z-2238-04	Weldment, Eyebolt (Not Sold Separately)	1
18	R-1766	Sleeve, Outer 6-Bolt (Not Sold Separately)	1
19	B-224-02	Sleeve, Guide (Not Sold Separately)	1
20	H-2168	Spring, Medium PR Urethane (Not Sold Separately)	1
21	B-224-01	Sleeve, Guide (Not Sold Separately)	1
22	R-1666	Sleeve, Inner (Not Sold Separately)	1
	K-1337	Kit, Replacement Ball Loc Pin; consist of:	1
10	G-1351-04	Rivet, 1/8 Open-End Stl	1
11	H-1026*07.0	Assembly, Lanyard	1
12	G-1310-0525	Pin, 5/16 X 2.5 Ball Lok-T	1
	K-3988	Kit, Weldment Towbar 6-Bolt; consist of:	1
4	V-1001	Label, Made In USA	1
5	V-1002-02	Label, Tronair	1
6	Z-3323-01	Weldment, Towbar - 6 Bolt	1
	K-3989	Kit, Assembly Towbar Extension; consist of:	1
16	Z-3672	Assembly, Towbar Extension	1
14	G-1310-0845	Pin, T-Handle Ball Lock	1
10	G-1351-04	Rivet, 1/8 Open-End Stl	1
11	H-1026*07.0	Assembly, Lanyard	1
	K-3990	Kit, Pin T-Handle Ball Lock; consist of:	1
14	G-1310-0845	Pin, T-Handle Ball Lock	1
10	G-1351-04	Rivet, 1/8 Open-End Stl	1
11	H-1026*07.0	Assembly, Lanyard	1
	K-3992	Kit, Assembly Weldment Head; consist of:	1
7	Z-6169-01	Weldment, Head	1
8	R-1776	Pin, Sliding	2
9	V-1319	Label, Spare Shear Pins	1
10	G-1351-04	Rivet, 1/8 Open-End Stl	1
11	H-1026*07.0	Assembly, Lanyard	1
12	G-1310-0525	Pin, 5/16 X 2.5 Ball Lok-T	2
13	G-1453-30	Pin, Shear	3
14	G-1310-0845	Pin, T-Handle Ball Lock	1
15	V-1003	Label, Serial Number	1
	K-4392	Kit, Assembly Shock/Shear; consist of:	1
1	Z-3745-10	Assembly, Shock/Shear-6blt	1
2	G-1420-106006	Bolt, 5/16-18 Hex Hd Gr 8	6
3	G-1251-1060R	Lockwasher, 5/16 Regular	6



APPENDIX I

Declaration of Conformity



EU Declaration of Conformity

Model Number(s) 01A1275-0020

Product Type/Name: Portable Towbar

Serial Number(s): Enter serial number(s)

Declaration: Tronair has assessed the equipment described above against the Essential Health and Safety Requirements of one or more Directives. Based on this assessment, the equipment described above is deemed to comply with the directive(s) listed below.

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Directives: European Machinery Directive 2006/42/EC

Standards: EN ISO 12100:2011 Safety of machinery – General principles for design – Risk assessment and risk reduction

Markings:



The technical documentation for the machinery is available from:

Mr. Joel Nunn
34 Epirus Road, SW6 7UH, London, UK
Email: jnunn@tronair.com

Location of Issue: Tronair, 1 Air Cargo Parkway East, Swanton, OH 43558

Certificate: EU_DoC_01A1275-0020

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


Quality Assurance Representative

Enter a date

Date



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