

Model: 01-1390-0000
S-76 Flir Custom Towbar



10/2016 – Rev. 01

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TABLE OF CONTENTS**PAGE**

1.0	PRODUCT INFORMATION	1
1.1	DESCRIPTION.....	1
1.2	MODEL & SERIAL NUMBER.....	1
1.3	MANUFACTURER.....	1
1.4	SPECIFICATIONS	1
2.0	SAFETY INFORMATION.....	1
2.1	GENERAL.....	1
2.2	USAGE AND SAFETY INFORMATION.....	1
3.0	TRAINING.....	1
3.1	TRAINING REQUIREMENTS	1
3.2	TRAINING PROGRAM	1
3.3	OPERATOR TRAINING.....	1
4.0	OPERATION.....	2
4.1	TOWBAR CHECKLIST	2
4.2	USAGE PROCEDURE.....	2
4.2.1	Aircraft Attachment.....	2
4.2.2	Towbar Adjustment	2
4.2.3	Couplers.....	3
4.2.4	Towing Operation.....	3
5.0	PROVISION OF SPARES.....	4
5.1	SOURCE OF SPARE PARTS.....	4
10.2	RECOMMENDED SPARE PARTS LISTS	4
6.0	IN-SERVICE SUPPORT.....	4
7.0	GUARANTEES/LIMITATION OF LIABILITY	4
8.0	APPENDICES	4

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., 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 01-1390-0000 towbar is for use with S-76 (AUH-76) Aircraft manufactured by Sikorsky.

The remote towbar includes polyolefin plastic wheels. There is an eyebolt at the towing end of the towbar. The aircraft attachment is by machined pins on the towing head to the aircraft tow point.

1.2 MODEL & SERIAL NUMBER

Reference nameplate on unit

1.3 MANUFACTURER

TRONAIR, Inc.
1740 Eber Road
Holland, Ohio 43528-9794 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

Application.....	S-76 (AUH-76) Aircraft manufactured by Sikorsky
Maximum Aircraft Gross Weight.....	11,400 lbs (5.2 Metric ton)
Length	93 ¼ in (236.9 cm)
Width	17 5/16 in (44 cm)
Height.....	15 ¼ in (38.8 cm)
Weight.....	54lbs (24.5 kg)
Finish.....	Powder Coat
Material	Steel

2.0 SAFETY INFORMATION

2.1 GENERAL

The Tronair Model 01-1390-0000 remote towbar is used for moving S-76 (AUH-76) 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.

2.2 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, or substantial property damage** if the warning notice is ignored.

CAUTION! — Caution is used to indicate the presence of a hazard that **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 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 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.
- Check the towbar undercarriage. Inflate the pneumatic tires to the proper pressure; fix any air leaks or replace if needed, ensure the wheels can rotate freely, wheel rims are not bent, and tire axle is not bent. Ensure mounting fasteners are not loose or missing; tighten or replace as required. Grease the tire axle every 90 days to 6 months.

**WARNING!**

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

**WARNING!**

Towbars can 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.

4.2 USAGE PROCEDURE**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.

4.2.2 Towbar Adjustment

The 01-1390-0000 towbar may be adjusted for tow tractors of varying heights by setting the adjusting the Towbar eyelet.

1. Set the towbar eyelet next to the tug coupler
2. Select the correct setting for optimal towing and movement
3. Remove the two bolts, move the eyelet to the desired position, reinstall the bolts

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 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.**

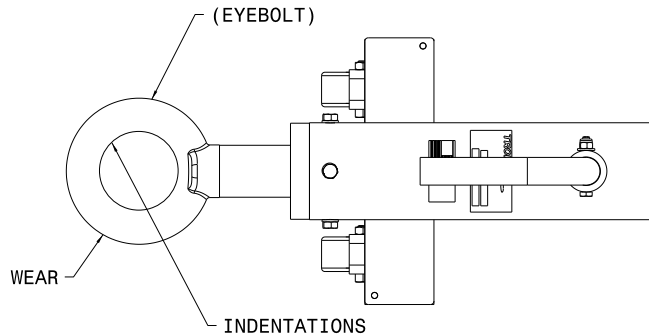


FIGURE 2

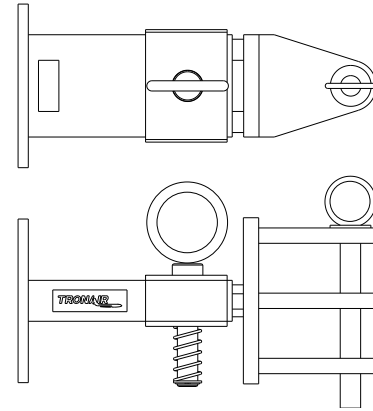


FIGURE 3

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 3.**

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 (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.

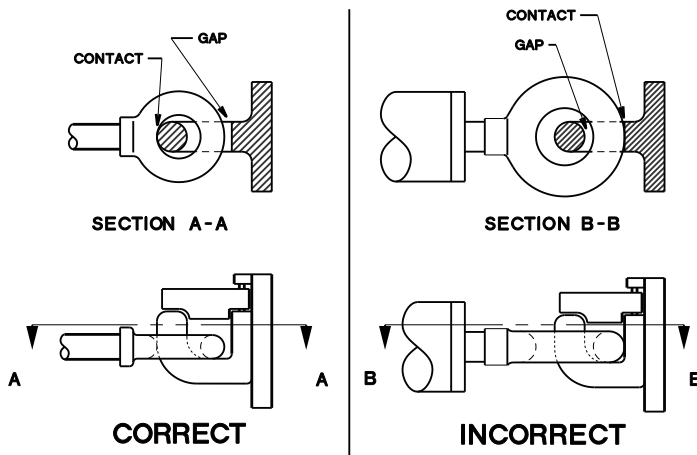


FIGURE 4

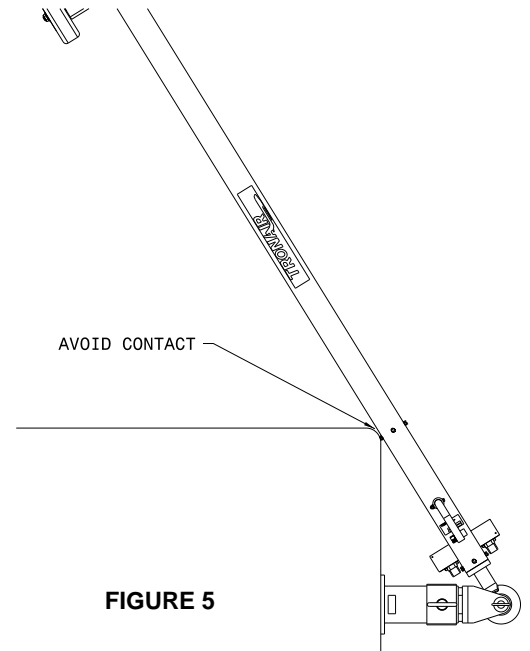


FIGURE 5

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.**

5.0 PROVISION OF SPARES

5.1 SOURCE OF SPARE PARTS

Spare parts may be obtained from the manufacturer:

TRONAIR , Inc.	Telephone: (419) 866-6301 or 800-426-6301
1 Air Cargo Pkwy East	Fax: (419) 867-0634
Swanton, Ohio 43558 USA	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



10.2 RECOMMENDED SPARE PARTS LISTS

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

Recommended Spares to be kept on hand:
K-3206.....Kit, Clevis Assembly Replacement
K-3208.....Kit, Female Rod End 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.

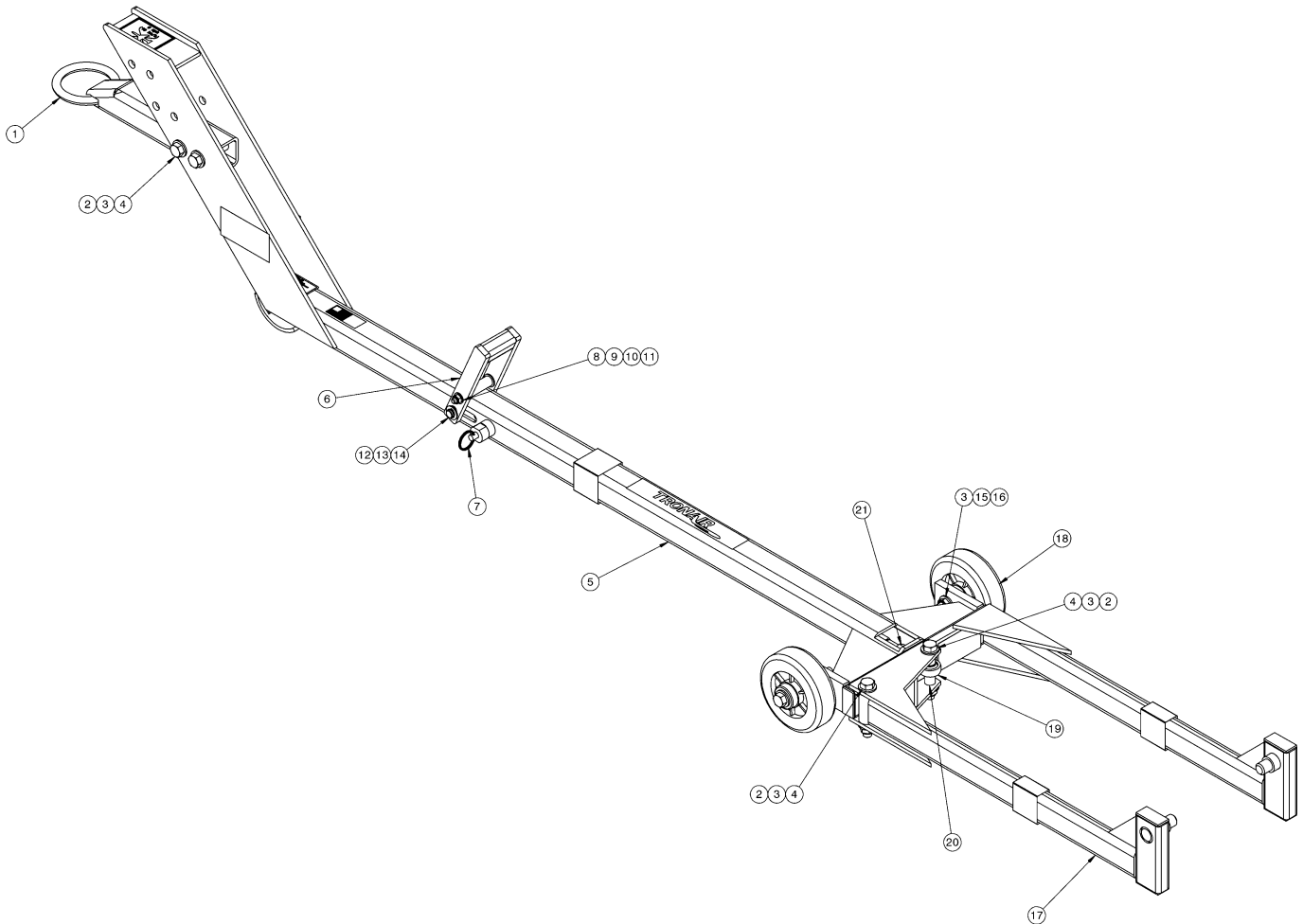
The obligations of Tronair expressly stated herein are in lieu of all other warranties or conditions expressed or implied. **Any unauthorized modification of the Tronair products or use of the Tronair products in violations of cautions and warnings in any manual (including updates) or safety bulletins 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.**

8.0 APPENDICES

APPENDIX I Declaration of Conformity

Parts List

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



Item	Part Number	Description	Qty
5	Z-9219-01	Weldment, Towbar	1
		Not Sold Separately	
8	Z-2626	Assembly, handle	1
19	G-1200-1095	Nut, Hex ½ - 20	1
20	G-1100-109540	Bolt, HH Grade 5, ½ - 20 x 4 LG	2
		Not Sold Separately	
22	U-1091	Wheel	2
24	Z-9220-01	Weldment, Movable Arm	1
N/S	Z-4598	Assembly, Clevis	1
	K-3204	Kit, Towbar Extension Replacement; consists of:	
1	Z-4590-01	Weldment, Towbar Extension	1
2	G-1100-109534	Bolt, HH Grade 5, ½ - 20 x 3 ½ LG	2
3	G-1250-1090N	Flatwasher, 1/2 Narrow	12
4	G-1202-1095	ESN, ½ - 20	2

Parts List

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

Item	Part Number	Description	Qty
	K-3206	Kit, Clevis Assembly Replacement; consists of:	
6	Z-5030-01	Weldment, Handle	1
9	G-1250-1060N	Flatwasher, 5/16 Narrow	1
10	G-1202-1060	Stopnut, 5/16-18 Elastic	1
11	G-1250-1070N	Flatwasher, 3/8 Narrow	3
12	G-1155-106230	Screw, 3/8" diameter Soc Hd Shld 5/16-18 x 3 LG	1
13	G-1255-09	Washer, AN .515" I.D. x .875" O.D.	2
14	R-2015	Pin, Remote Linkage	1
15	G-1392-50-S	Ring, External Retaining	2
N/S	Z-4598	Assembly, Clevis	1
	K-3208	Kit, Female Rod End Replacement; consists of:	
3	G-1250-1090N	Flatwasher, 1/2 Narrow	2
16	H-1140-07	End, Female Rod	1
17	TR-1710	Spacer	2
21	G-1203-1095	Jamnut, 1/2 - 20 Elastic	1
23	G-1100-109532	Bolt, HH Grade 5, 1/2 - 20 x 3 3/4 LG	1



APPENDIX I

Declaration of Conformity



DECLARATION of CONFORMITY

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

Towbar
01-1390-0000

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:

A handwritten signature in black ink that reads "Patrick Finch". The signature is written in a cursive style and is positioned above a horizontal line.

Quality Assurance Representative



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Swanton, OH 43558

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