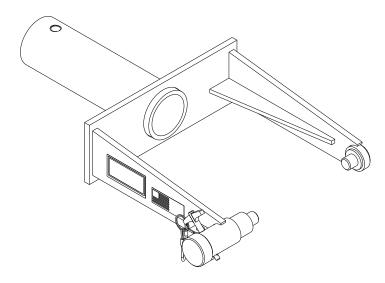


OPERATION & SERVICE MANUAL



Model: 01-0598-0000 Towbar Head Attachment Eclipse 500 Aircraft



10/2007 - Rev. 02

REVISION 02 DATE 10/2007

TEXT AFFECTED
Added CE marking and Declaration of Conformity



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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., 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 DESCRIPTION

The Tronair Model 01-0598-0000 Multi-Head Towbar is a towbar head attachment for the Eclipse 500 Aircraft manufactured by Eclipse Aviation.

The towbar head attachment is designed for use with Tronair Multi-Head Towbar Models 01-1201-0010, 01-1202-0000, 01-1215-0000, 01-1216-0000, and 01-1290-0100 for towing the previously stated aircraft. The towbar head attachment uses a sliding pin/stationary pin arrangement to interface with the aircraft tow point.

1.1 SPECIFICATIONS

Aircraft Appli	cation	Eclipse 500 manufactured by Eclipse Aviation		
Maximum Aircraft Gross Weight		. 7,500 lbs (3.4 Metric tons)		
Dimensions Length		. 20.5 in (52.1 cm)		
	Width	. 13.2 in (33.5 cm)		
	Height	. 4.0 in (10.2 cm)		
Weight		. 20 lbs (9.1 kg)		
Finish		. Blue Powder Coat		

2.0 SAFETY INFORMATION

2.1 GENERAL

The Tronair Model 01-0598-0000 Towbar Head Attachment is used for towing the Eclipse 500 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* is the Caution Notice is ignored.



WARNING!

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





3.0 OPERATION

3.1 PRELIMINARY CHECKLIST

3.1.1 Head Attachment Weldment

- Check weld between connector tube and head plate for cracks.
- Check weld between side rails and head plate for cracks.
- Check weld between side rail and stationary pin for cracks.
- Check weld between side rail and sliding pin sleeve for cracks.

3.1.2 Sliding Pin

- Check sliding pin for bending or excessive wear. Ensure sliding pin slides freely.
- Check sliding pin ball lok-T pin. Ensure ball lok-T pin is securely attached to the head attachment via its lanyard.
- Ensure ball lok-T pin is not loose or missing.

3.2 USAGE PROCEDURE

3.2.1 Multi-Head Attachment

Secure the towbar head attachment using the ball lok-T pin (supplied with the multi-head towbar) onto one of the following Tronair Multi-Head Towbar Models:

• 01-1201-0010

- 01-1202-0000
- 01-1215-0000

- 01-1216-0000
- 01-1290-0100
- Ensure the sliding pin is locked in place using the ball lok-T pin.



CAUTION!

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

4.0 TRAINING

4.1 TRAINING REQUIREMENTS

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

4.2 TRAINING PROGRAM

The employer provided operator training program should cover safety procedures concerning use of the towbar in and around the Eclipse 500 at the servicing location.

4.3 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.

5.0 PROVISION OF SPARES

5.1 SPARE PARTS

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

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

5.2 PARTS LIST AND ILLUSTRATIONS

Reference the following pages for ordering information of Replacement Parts and Kits

6.0 IN-SERVICE SUPPORT

Contact Tronair for technical services and information.





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:

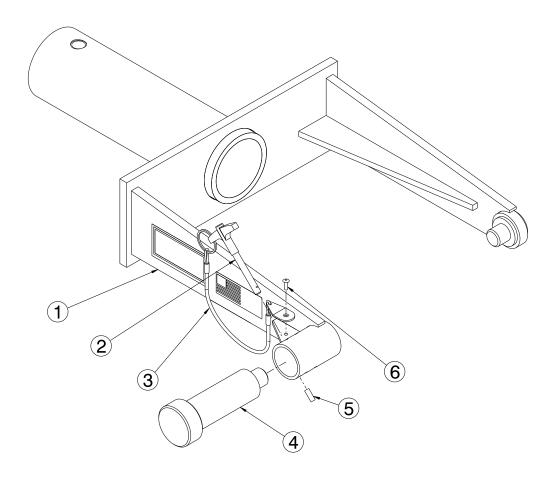
- a) Product Model Number
- b) Product Serial Number
- c) Description of the problem

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.



Item	Part Number	Description	Qty
1	Not Sold Separately	Weldment, Head	1
2	G-1310-0415	Pin, Ball Lok-T (1/4" diameter x 1/2" long)	1
3	H-1026*07.0	Assembly, Lanyard	1
4	4 R-2101 Pin, Sliding		1
5	5 G-1300-19040 Pin, Roll (3/16" diameter x ½" long)		1
6	G-1351-04	Rivet, 1/8 Open-End Steel	1
	K1308	Kit, Ball Lok Pin Replacement; consists of:	
2	G-1310-0415	Pin, Ball Lok-T (1/4" diameter x 1/2" long)	1
3	H-1026*07.0	Assembly, Lanyard	1
6	G-1351-04	Rivet, 1/8 Open-End Steel	1
	K-3718	Kit, Sliding Pin Replacement; consists of:	
4	R-2101	Pin, Sliding	1
5	G-1300-19040	Pin, Roll (3/16" diameter x 1/2" long)	1



APPENDIX II

Declaration of Conformity



DECLARATION of CONFORMITY

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

Multi-Head 01-0598-0000

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

Phone: (419) 866-6301 | 800-426-6301

Web: www.tronair.com Email: sales@tronair.com

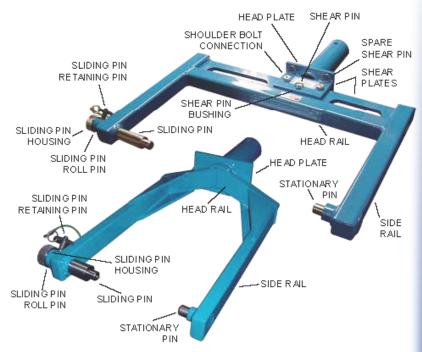
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Maintenance Schedule

Standard Attachment Heads

Models:

01-0506-0000, 01-0507-0000, 01-0508-0000, 01-0511-0000, 01-0513-0000, 01-0514-0000, 01-0516-0000, 01-0518-0000, 01-0518-0010, 01-0524-0000, 01-0525-0000, 01-0529-0000, 01-0531-0000, 01-0532-0000, 01-0534-0000, 01-0538-0000, 01-0540-0000, 01-0540-0010, 01-0542-0000, 01-0542-0010, 01-0543-0000, 01-0545-0000, 01-0545-0010, 01-0545-0011, 01-0546-0000, 01-0547-0000, 01-0551-0000, 01-0551-0010, 01-0552-0000, 01-0552-0010, 01-0552-0011, 01-0556-0000, 01-0569-0000, 01-0570-0000, 01-0570-0010, 01-0571-0000, 01-0571-0010, 01-0571-0011, 01-0577-0000, 01-0577-0010, 01-0579-0000, 01-0581-0000, 01-0582-0000, 01-0582-0010, 01-0582-0000, 01-0582-0011, 01-0597-0000, 01-0598-0000, 01-0599-0000, 01-0801-0000, 01-0801-0010, 01-0802-0000, 01-0802-0010, 01-0803-0000, 01-0600-0000



Tronair recommends towbar inspections at least once a week.

- ☐ Inspect for weld cracks, If found remove the towbar multi-head from service and contact Tronair for repair.
- Inspect the side rails, head rail, and head plate for bending. If found remove the towbar multi-head from service and contact Tronair for repair.
- For towbar multi-heads with shear, inspect the shear plates for bending. If found remove the towbar multi-head from service and contact Tronair for repair.
- Inspect the sliding pin(s) and (if applicable) the stationary pin for bending, cracks, and excessive wear. If found remove the towbar multi-head from service and contact Tronair or your Tronair distributor for replacement.
- □ Ensure the sliding pin(s) can move freely within its housing. If any binding occurs, inspect the sliding pin for bending and the housing for out-of-roundness. If either condition exists, contact Tronair for repair options.
- Inspect the sliding pin retaining pin assembly. Ensure the retaining pin is not missing. Ensure the retaining pin can engage the sliding pin through its housing and that it positively locks the sliding pin into place. If it does not, contact Tronair or your Tronair distributor for replacement/repair.
- Verify the sliding pin is secure to the towbar multi-head via its lanyard. Replace the lanyard if missing.
- Inspect the sliding pin roll pin (located through the sliding pin housing). Ensure the sliding pin roll pin is not loose or missing, contact Tronair or your Tronair distributor for replacement if needed.
- For towbar multi-heads with shear, check the shoulder bolt connections through the shear plates. Verify they are not clamping the shear plates together. There should not be any clamping force applied to the shear plates so the assembly functions properly. If required, back the stopnut off to remove any clamping force applied.
- For towbar multi-heads with shear, inspect the shear pin. If the shear pin is bent, broken, or missing contact Tronair or your Tronair distributor for replacement. Tronair recommends purchasing spare shear pins for rapid replacement, use only Tronair specified shear pins.
- □ For towbar multi-heads with shear, inspect the shear pin bushings. If the shear pin bushings are cracked or chipped, contact Tronair or your Tronair distributor for replacement, use only Tronair specified shear pin bushings.
- Inspect all steel components for signs of rust. Touch up with paint as required.

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