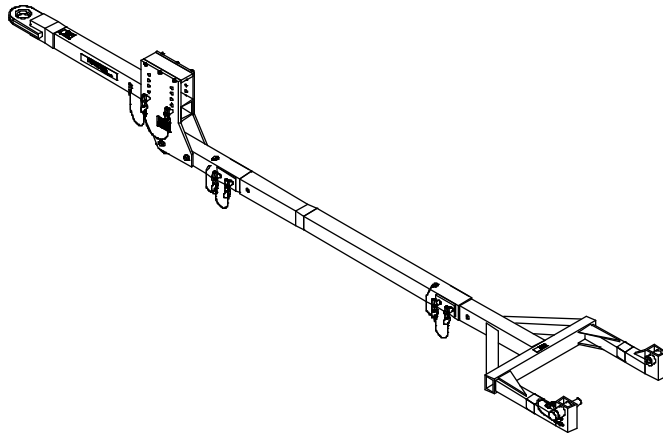




Operation & Service Manual



Model: 01-1339-0000
Eurocopter
Dauphin AS365N
Portable Towbar



04/2010 – Rev. 01

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

Tronair, Inc.

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Model: 01-1339-0000
Eurocopter Dauphin AS365N Towbar

REVISION
01

DATE
03/2010

TEXT AFFECTED
Original release

Model: 01-1339-0000
Eurocopter Dauphin AS365N Portable Towbar

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 DESCRIPTION

The Tronair Model 01-1339-0000 towbar is for use with Dauphin AS365N Aircraft manufactured by Eurocopter.

The remote towbar includes pneumatic tires. 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.

1.1 SPECIFICATIONS

Application: Dauphin AS365N Aircraft manufactured by Eurocopter

Maximum Aircraft Gross Weight: 11,000 lbs (5 Metric ton)

Dimensions: Length 141 $\frac{3}{4}$ in (360 cm) From eyebolt centerline to end of towbar.

Width 24 $\frac{15}{16}$ in (63.3 cm)

Height 17 in (43.2 cm) diameter

Weight: 91lbs (41.3 kg)

Finish: Powder Coat

Material: Aluminum

2.0 SAFETY INFORMATION

2.1 GENERAL

The Tronair Model 01-1339-0000 remote towbar is used for moving Dauphin AS365N 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.

3.0 OPERATION

3.1 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.
- 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.



WARNING!

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

WARNING!



Tronair recommends that towbars be used with the same category determined for the tug as the category designated for the aircraft in accordance with AHM 955 "Functional specifications for an aircraft tractor" Using a category 2 tug is permissible but may result in excessive loads and stresses being applied to the towbar and/or the aircraft if appropriate safety and handling precautions are not followed. These excessive loads may cause failure of the towbar which could cause damage to the aircraft or personal injury.

3.2 USAGE PROCEDURE

3.2.1 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.

3.2.2 Couplers

CAUTION!



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

- Lift Head
- 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.**

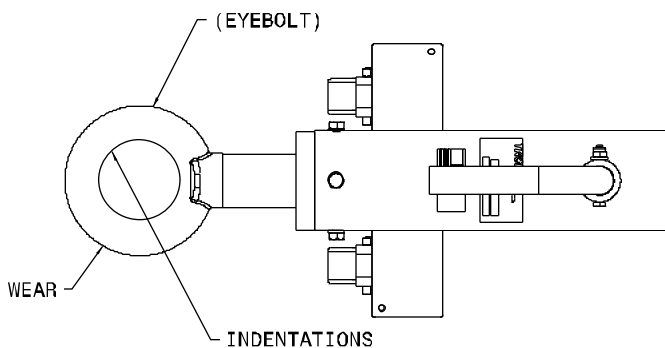


FIGURE 2

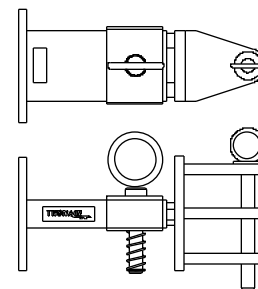


FIGURE 3
01-1950-5000 Standard Telecoupler

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.**

3.2.2 Couplers (continued)

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.

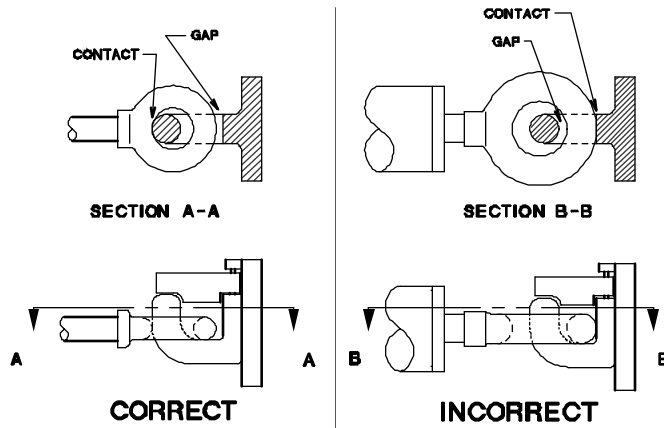


FIGURE 4

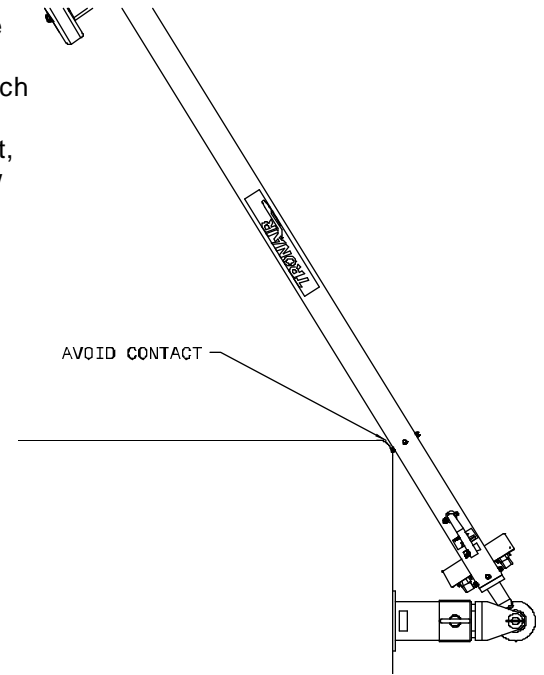


FIGURE 5

3.2.3 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.**

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 aircraft 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

Spare parts may be obtained from the 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

5.2 PARTS LIST

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

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

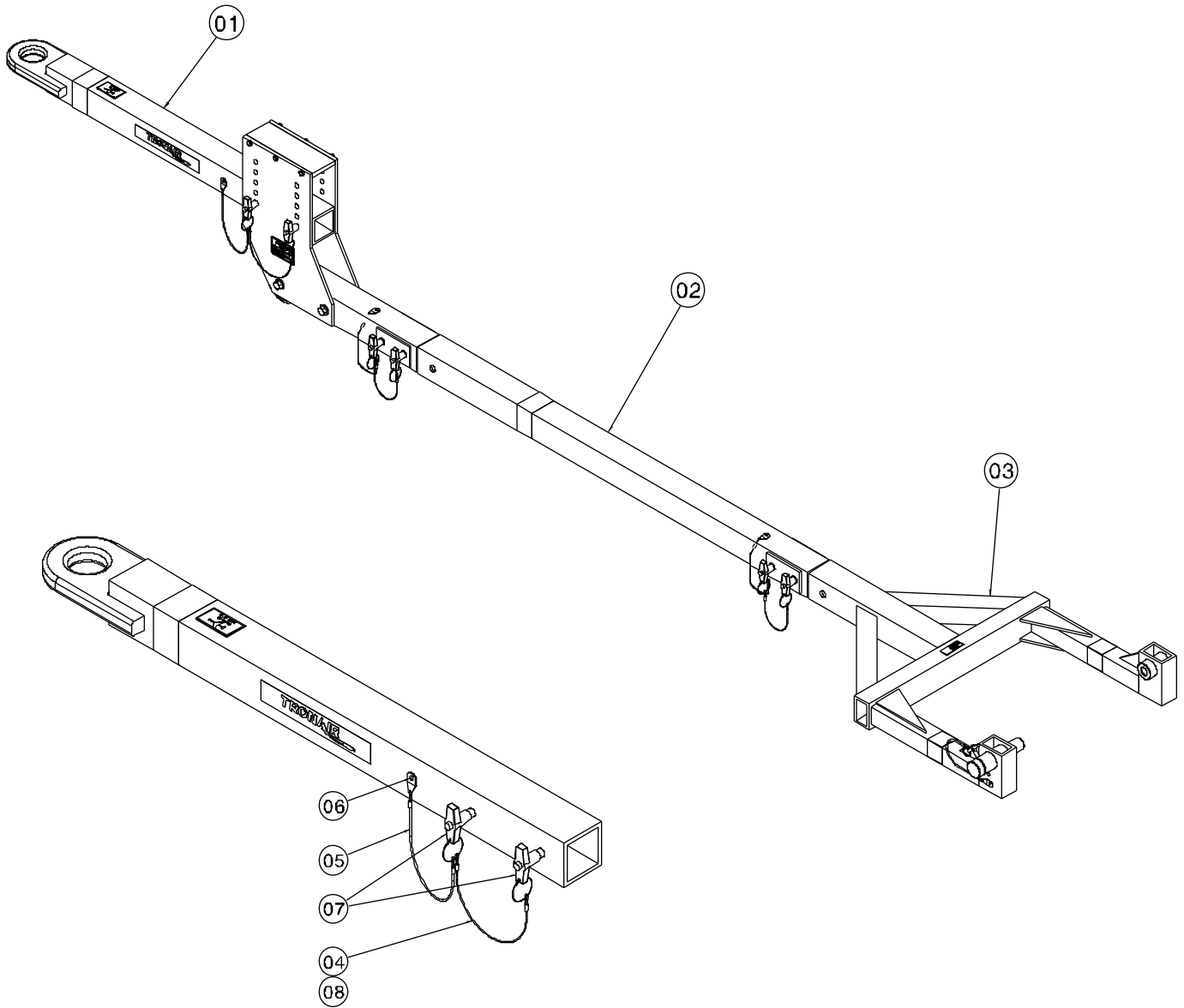
If you have a problem that may require service, contact Tronair immediately. Do not attempt to repair or disassemble a product without first contacting Tronair, any action may affect warranty coverage. When you contact Tronair be prepared to provide the following information:

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

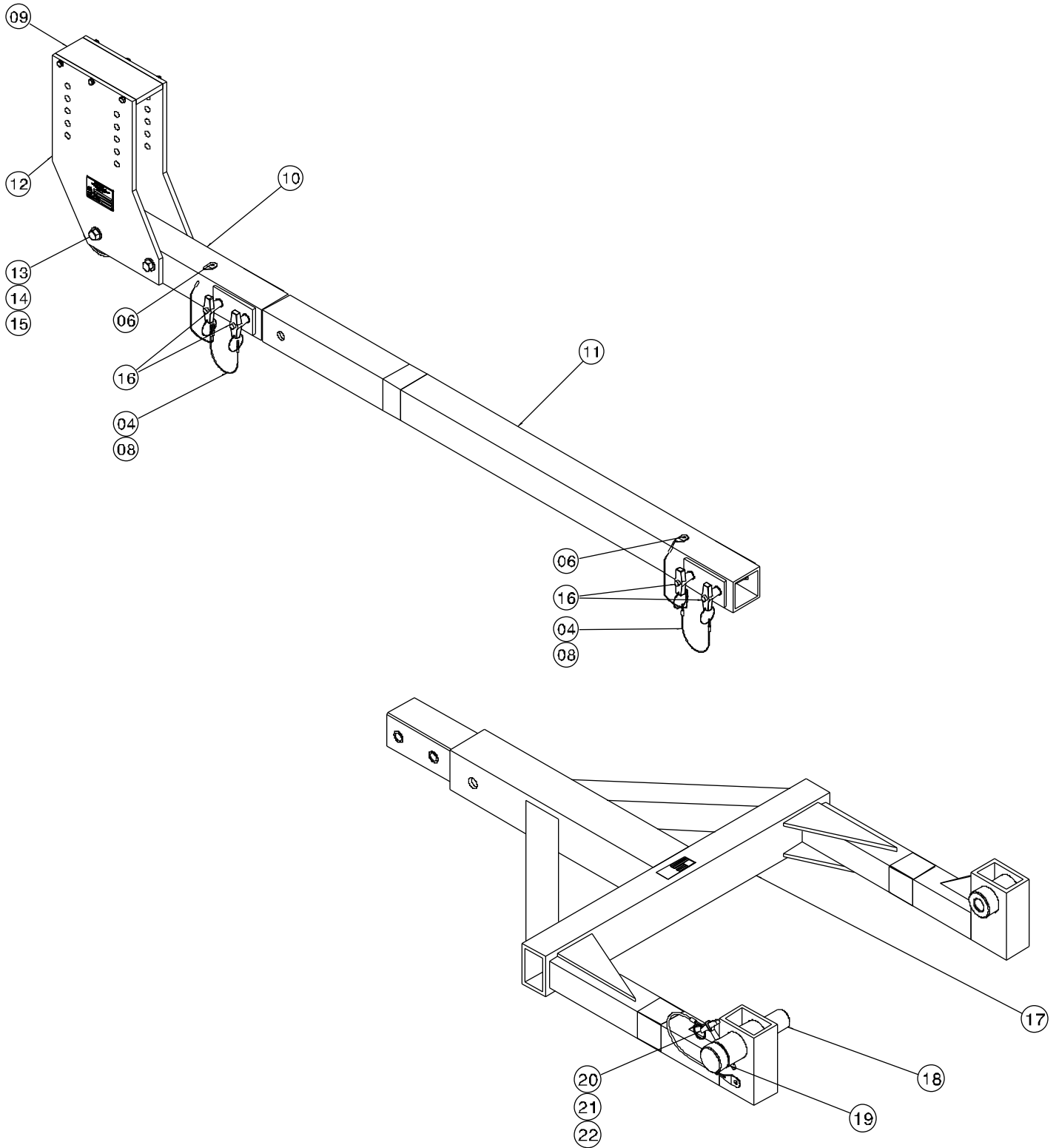
If warranty coverage is approved, either replacement parts will be sent or the product will have to be returned to Tronair for repairs. If the product is to be returned, a Return Material Authorization (RMA) number will be issued for reference purposes on any shipping documents. Failure to obtain a RMA 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. Without limitation, to the fullest extent allowable by law, this exclusion of all other warranties and conditions extends to implied warranties and conditions of satisfactory quality, merchantable quality, and fitness for a particular purpose, and those arising by statute or otherwise in law, or from a course of dealing or usage of trade.

Parts List Illustrations



Parts List Illustrations



Parts List

Reference Illustrations on prior pages

ITEM	PART NUMBER	DESCRIPTION	QTY
1	Z-7313-01	Assembly, Towbar Extension; consists of:	
4.....	H-1389	Cable, Nylon Coated.....	1
5.....	H-1026*12.0.....	Assembly, Cable.....	2
6.....	G-1351-07	Rivet, Open End Steel, 1/8"	1
7.....	G-1310-0840.....	Pin, T-Handle, ½ " Ball Lok x 4" Grip.....	2
8.....	H-1390	Ferrule	2
2	Y-1109	Assembly, Towbar; consists of:	
4.....	H-1389	Cable, Nylon Coated.....	2
6.....	G-1351-07	Rivet, Open End Steel, 1/8"	1
8.....	H-1390	Ferrule	4
9.....	J-4655-01	Plate, Spacer.....	2
10.....	Z-7181-01	Weldment, Bar.....	1
11.....	Z-7309-01	Weldment, Towbar Connector	1
12.....	J-4653-01	Plate, Side	2
13.....	G-1420-109044	Bolt, HH, GR 8, ½ - 13 x 4 ½ " LG.....	2
14.....	G-1202-1095.....	ESN, ½ - 20	2
15.....	G-1250-1090N	Flatwasher, ½ ID Narrow.....	4
16.....	G-1310-0835.....	Pin, T-Handle, ¼ Ball Lok x 1.5 Grip	4
3	X-1206	Assembly, Head; consists of:	
17.....	Z-7310-01	Weldment, Head.....	1
18.....	R-1091	Pin, Sliding.....	1
19.....	G-1300-19040.....	Screw, HH, Machine, #10 – 32 x 3/8" LG.....	1
20.....	G-1310-0415.....	Pin, T-Handle, ¼ Ball Lok x 1.5 Grip	1
21.....	H-1026*07.0.....	Assembly, Cable.....	1
22.....	G-1351-04	Rivet, Open End, Steel.....	1



APPENDIX - I

Declaration of Conformity



DECLARATION of CONFORMITY

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

Towbar
01-1339-0000

Relevant provisions complied with by the machinery:

98/37/EEC

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 "David L. Kiehl". The signature is written in a cursive style and is positioned above a horizontal line.

Quality Assurance Representative

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