

**Models: 01-1402-0000
Sikorsky VH-92
Remote Portable Towbar**



01/2024 – Rev. 05

**For Spare Parts, Operations & Service Manuals or Service Needs
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REVISION	DATE	TEXT AFFECTED
01	07/2022	Original Release
02	02/2023	Added 4.2.3 Adjustability, Modified Parts Lists
03	10/2023	Modified 4.2 Usage Procedure, Added 5.0 Maintenance
04	01/2024	Modified Parts List
05	01/2024	Added section 5.2.3 Loctite Disassembly

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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 01-1402-0000 towbar is for use with VH-92 Aircraft manufactured by Sikorsky.

The remote towbar includes solid 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.

1 Air Cargo Pkwy East
Swanton, Ohio 43558 USA

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Website: www.tronair.com

1.4 SPECIFICATIONS

Application.....	VH-92 Aircraft manufactured by Sikorsky
Maximum Aircraft Gross Weight.....	30,000 lbs (13.6 Metric ton)
Length.....	197-7/8 in (502.6 cm) overall
Width.....	32-1/8 in (81.6 cm)
Height.....	15-3/8 in (39.1 cm)
Weight.....	257 lbs (116.6 kg)
Finish.....	Powder Coat
Bar Material.....	Aluminum
Head Material.....	Steel

2.0 SAFETY INFORMATION

2.1 GENERAL

The Tronair Model 01-1402-0000 remote portable towbar is for moving VH-92 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 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. 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 using a multipurpose lithium grease.

**WARNING!**

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

**WARNING!**

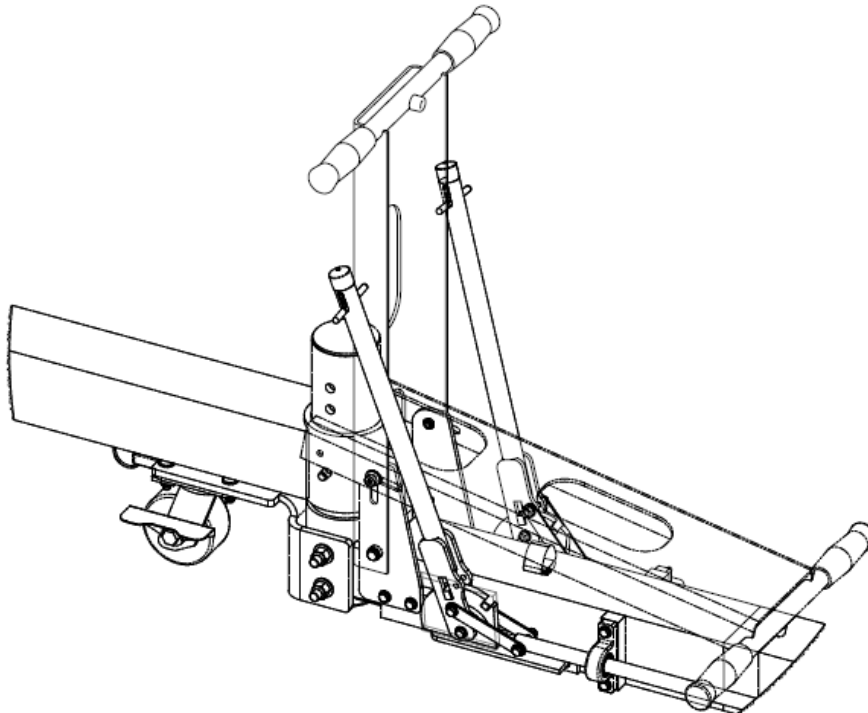
Tronair recommends the use of a towbar with a category 1 or category 2 tug and aircraft not exceeding 75,000 lbs gross weight. Using the towbar with aircraft weighing in excess of this specific limitation may result in excessive loads and stresses being applied to the towbar and/or the aircraft. These excessive loads may cause failure of the towbar which could cause damage (INCLUDING WITHOUT LIMITATION to the aircraft) and/or personal injury OR DEATH. **TRONAIR MAKES NO REPRESENTATION, WARRANTY OR GUARANTEE AS TO SUCH MISUSE AND DISCLAIMS ANY AND ALL LIABILITY FOR INJURY, LOSS OR DAMAGE ARISING FROM OR RELATING TO SUCH MISUSE.**

4.2 USAGE PROCEDURE**4.2.1 Handle Operation****To Deploy Handle:**

- Remove bottom bolts
- Rotate handle up
- Reinstall bottom bolts through handle bolts

To Store Handle:

- Remove bottom bolts
- Rotate handle down
- Reinstall bottom bolts to prevent misplacement



4.2.2 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.

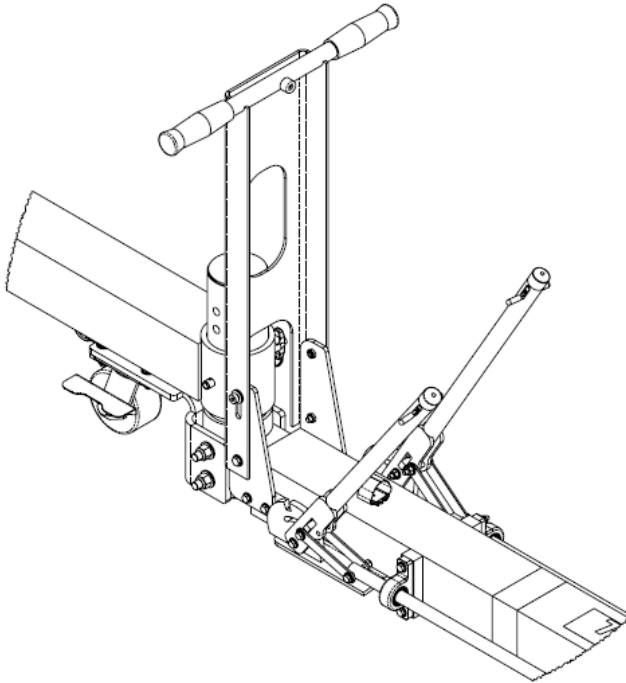


FIGURE 1

After disconnecting the towbar to/from the aircraft the levers on the landing gear and sliding pins should be in the position shown. **Reference Figure 1.**

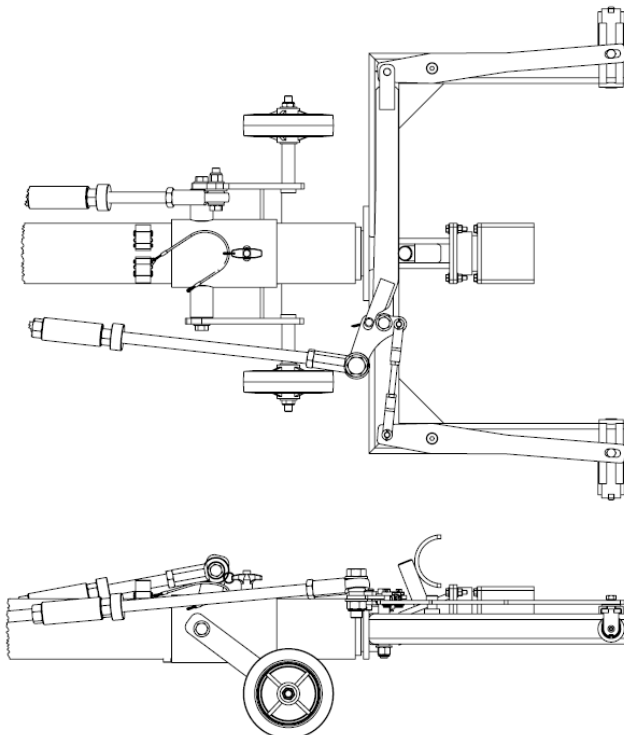
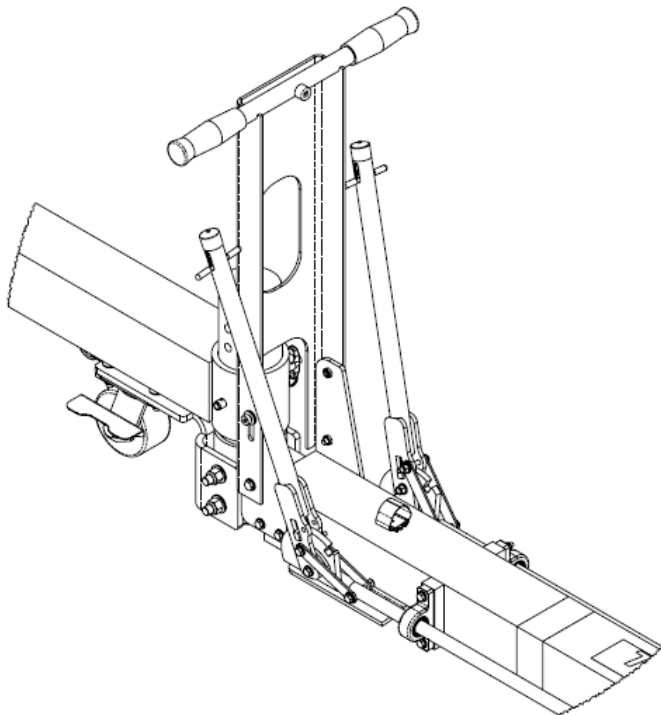
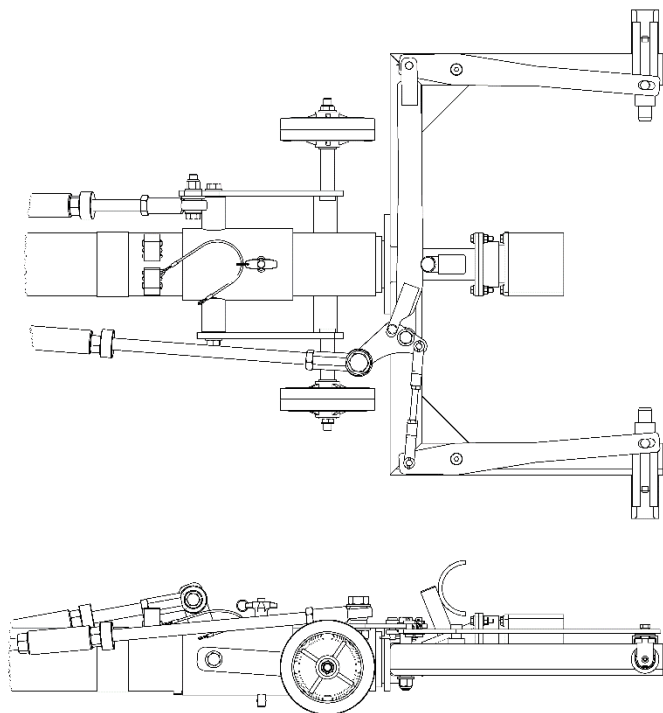


FIGURE 2

The landing gear should be down. **Reference Figure 2**

4.2.2 Aircraft Attachment (*continued*)**FIGURE 3**

When towing the aircraft the landing gear and sliding pins should be locked into position by lowering the levers. **Reference Figure 3**

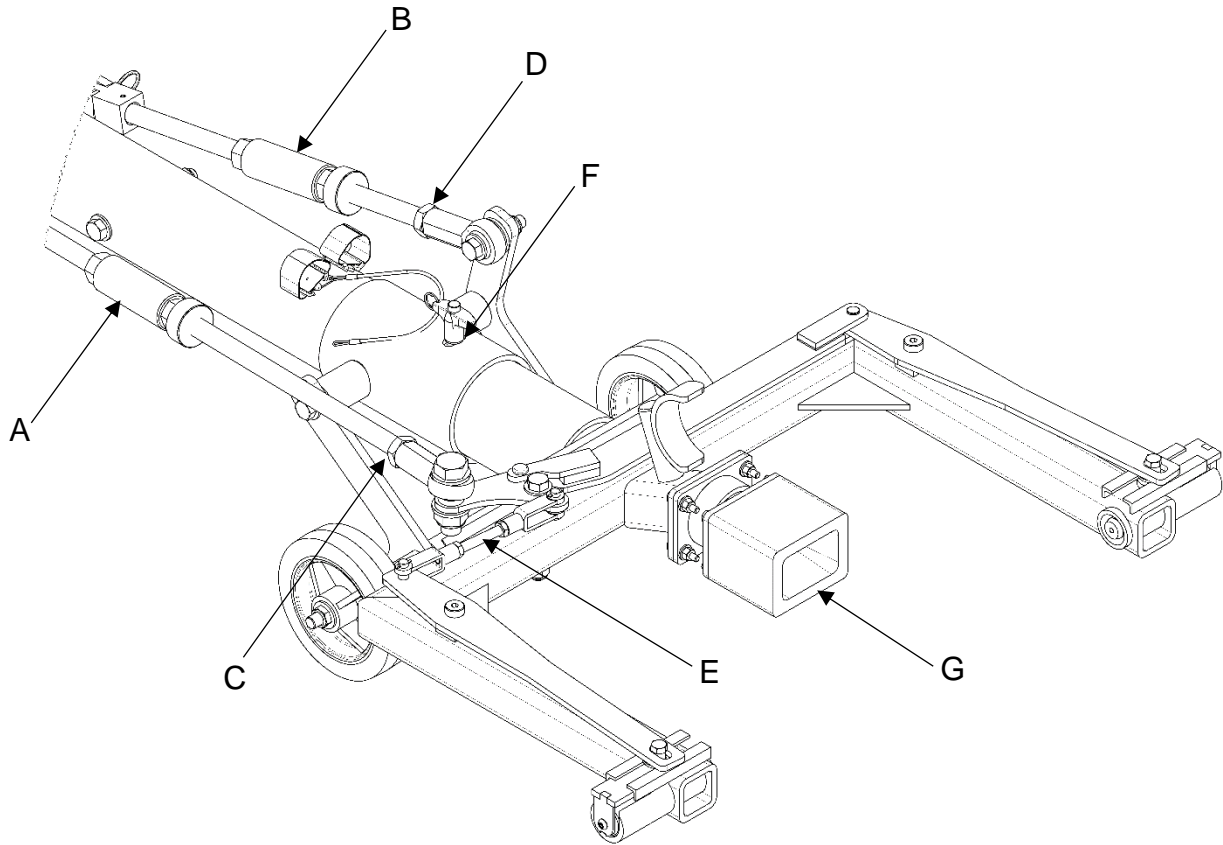
**FIGURE 4**

The landing gear should be retracted. **Reference Figure 4.**

**WARNING!**

Before towing the aircraft ensure that the towbar is securely attached to the aircraft.

4.2.3 Adjustability



The towbar includes several points of adjustment to improve performance as necessary. Points of adjustment are noted below with blue arrows and are listed as follows:

- A. Screw the turnbuckle to adjust the interface between the actuator and sliding pins. Be sure to lock the jam stop against the turnbuckle after adjustment.
- B. Screw the turnbuckle to adjust the interface between the actuator and landing gear. Be sure to lock the jam stop against the turnbuckle after adjustment.
- C. Screw the nut to adjust the interface between the actuator and sliding pins. Be sure the threaded rod remains engaged with the rod end.
- D. Screw the nut to adjust the interface between the actuator and sliding pins. Be sure the threaded rod remains engaged with the rod end.
- E. Turn the nuts and rod in the clevis assembly to adjust movement of the sliding pins.

The towbar also includes features that provide additional freedoms for easier aircraft attachment. Points of freedom are noted below with green arrows and are listed as follows:

- F. The landing gear is slotted, allowing the towbar to slightly rotate about the Z-axis, or the towbar length. If the rotation is too sloppy or difficult to manage, engage the rear swivel lock to keep the caster aligned.
- G. The guide block is fixed to a rubber mount, allowing it to move slightly when approaching and attaching to the aircraft.
- H. Ensure the swivel block is tight and snaps back into position after releasing from rotation.

4.2.4 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 5.**

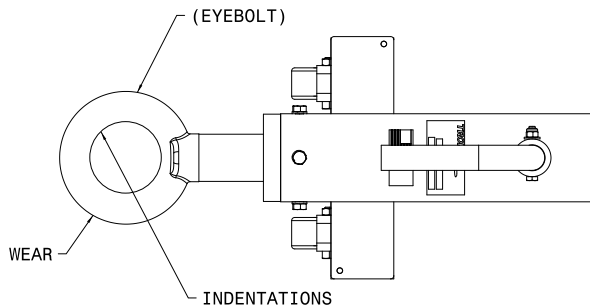


FIGURE 5

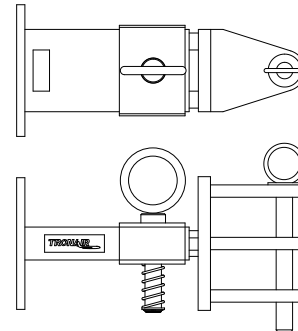


FIGURE 6
01-1950-5000 Standard Telecoupler

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 6.**

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 7.

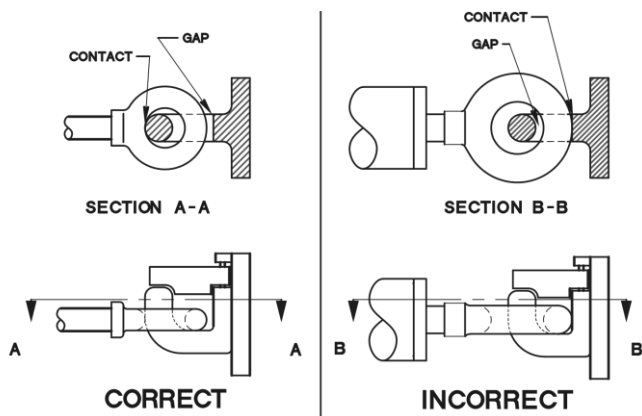


FIGURE 7

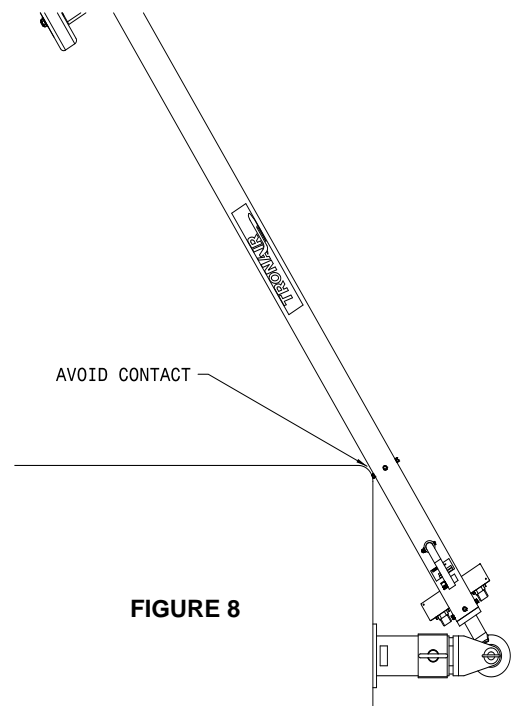


FIGURE 8

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.

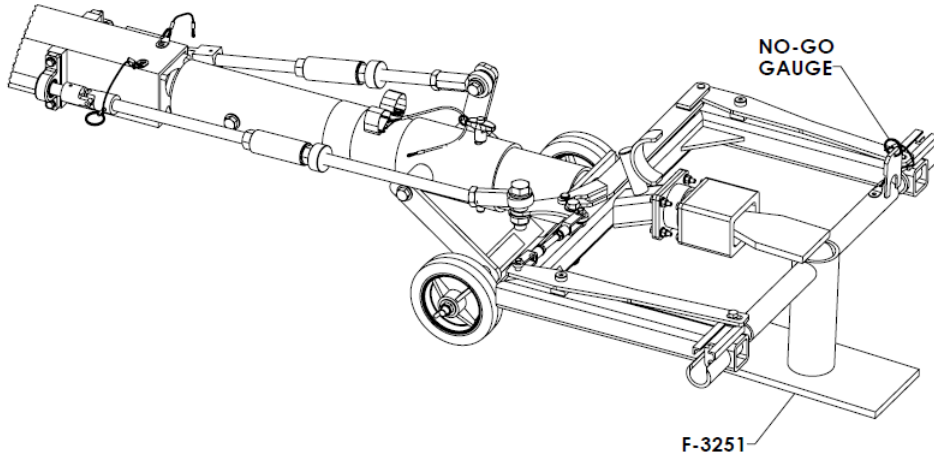
4.2.5 Towing Operation

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 8.**

5.0 MAINTENANCE

5.1 RESETTING PROCEDURES

- Interface unit with F-3251 fixture
- Adjust necessary points per Section 4.2.3 until optimal performance of levers and pins is achieved
- If no-go gauge (F-2797-02) fits between F-3251-01 and sliding pin, adjust so pins are closer to inside
- Repeat every 6 months or when performance noticeably diminishes



5.2 SERVICE

To ensure efficient and reliable operation, the towbar must be maintained through regular preventive maintenance practices. These practices include inspection, cleaning, and lubrication. All preventive maintenance must be performed at least once every six months. More frequent maintenance is recommended in conditions of heavy service or extreme weather. Replace any parts that do not meet inspection standards and cannot be repaired in the field.

1. Clean towbar assembly per section 5.1.1 Cleaning
2. Inspect towbar using the included maintenance schedules (INS-1792 and INS-2223)

5.2.1 Cleaning

1. Clean complete assembly with mild detergent solution, followed by clean water rinse
2. Dry all parts using clean cloth or low pressure compressed air

5.2.2 Lubrication

- Grease the tire axle every 90 days using a multipurpose lithium grease
- Lubricate moving pivot joints with quality silicon spray or liquid every 90 days

5.2.3 Loctite Disassembly

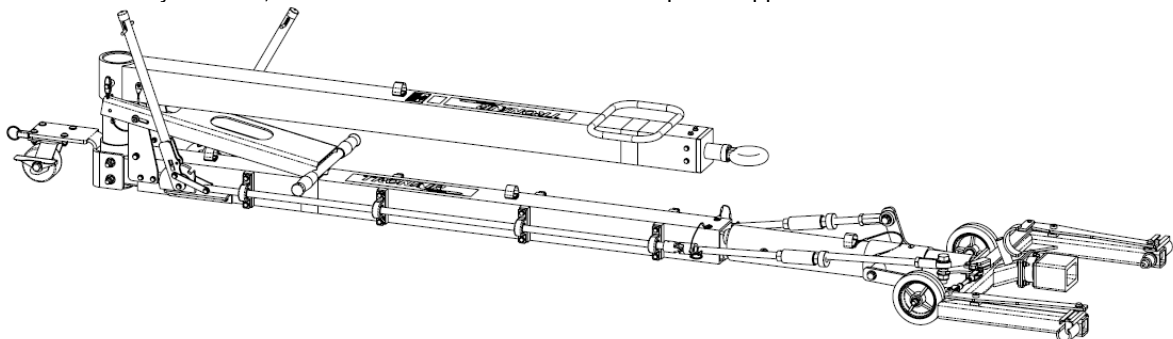
1. Remove with standard hand tools
2. If needed, apply localized heat to the assembly to approximately 250 °C. Disassemble while hot
3. If this temperature is not possible, heat as much as possible and use mechanical aids

6.0 PACKAGING AND STORAGE

6.1 STORAGE SPACE AND HANDLING FACILITIES

For Storage Or Improved Portability:

- Lower handle
- Remove eyelet tube, turn 180° and reinstall with T-handle pin on upper hole



7.0 PROVISION OF SPARES

7.1 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



7.2 RECOMMENDED SPARE PARTS LISTS

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

Recommended Spares to be kept on hand:

K-5604..... Guide Block Kit

H-1140-09 Rod Eye End

H-4873-08 Mounted Sleeve Bearing

U-1217 6" Solid Wheel

8.0 IN-SERVICE SUPPORT

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

9.0 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:

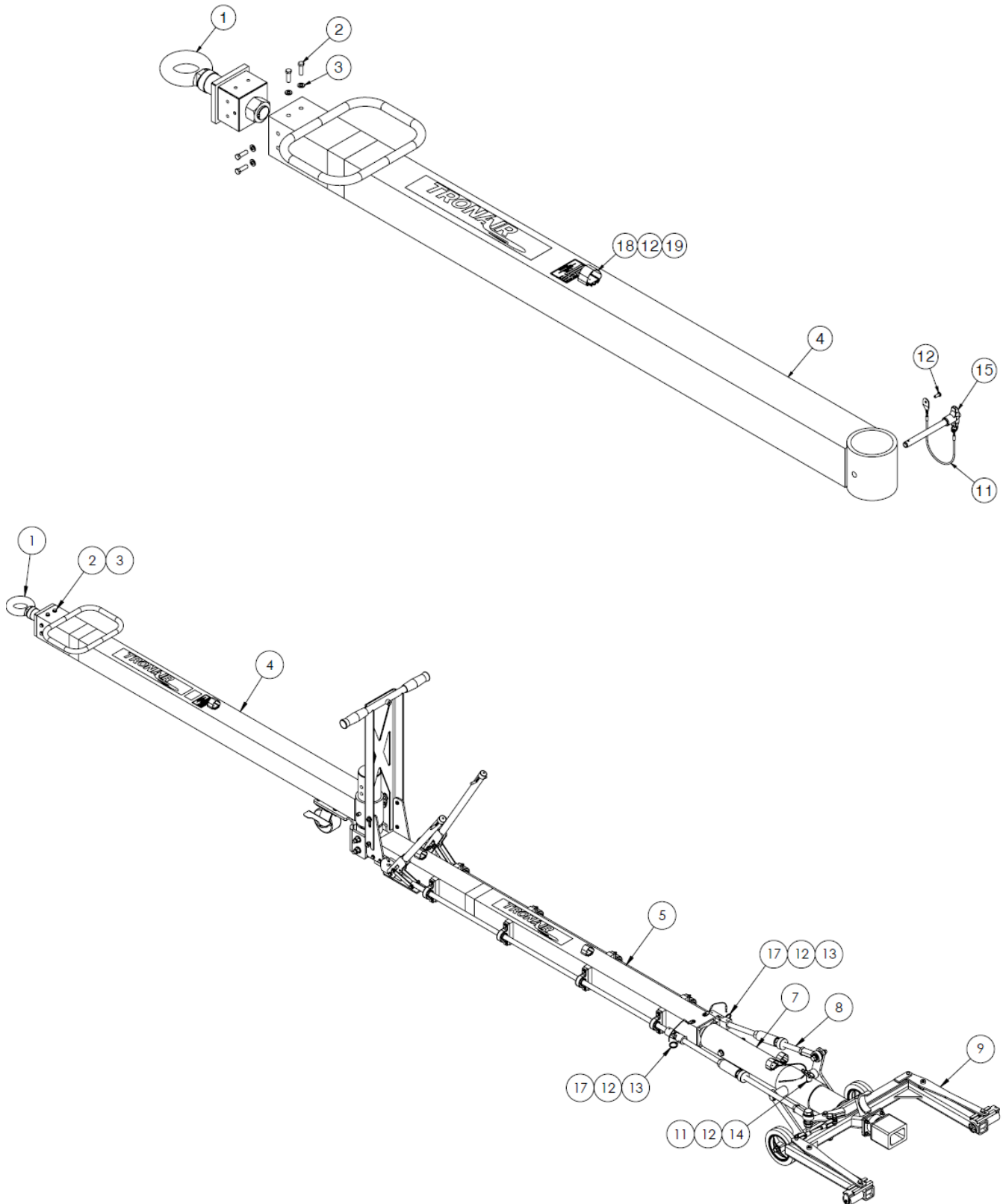
- a) Product Model Number
- b) Product Serial Number
- c) Description of the problem

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.



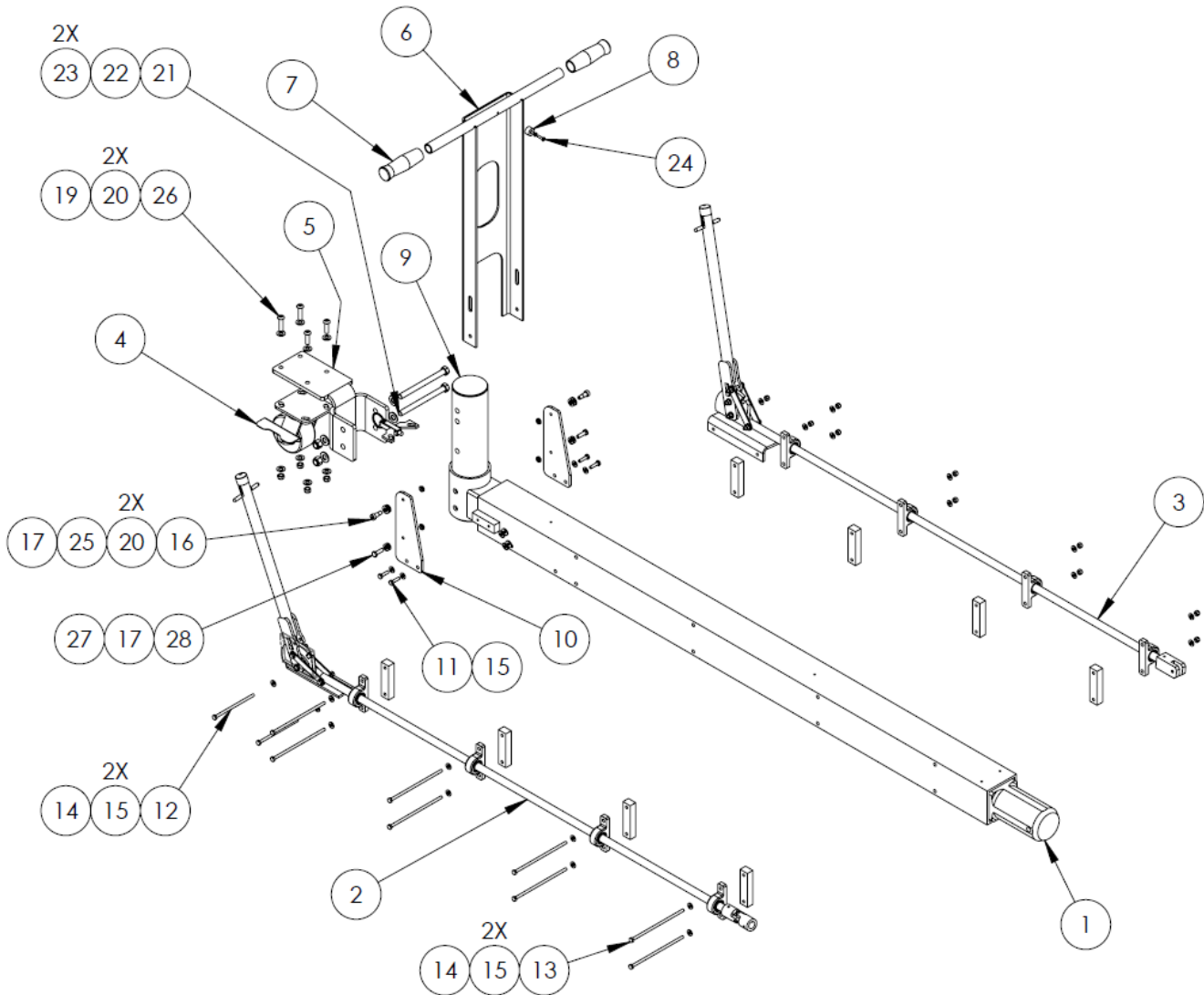
Parts List

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

Item	Part Number	Description	Qty
1	Z-11270	WELDMENT, EYEBOLT	1
2	G-1420-106010	BOLT, HH, GR 8, 5/16 - 18 X 1" LONG	4
3	G-1251-1060R	LOCKWASHER, 5/16" REGULAR	4
4	Z-11269	WELDMENT, EYELET TUBE	1
5	Z-11267	ASSY, MIDDLE TUBE	1
7	Z-11184	WELDMENT, TOWBAR	1
8	Z-11180	ASSEMBLY, LANDING GEAR	1
9	X-1268	ASSEMBLY, HEAD	1
11	H-1026*12.0	ASSEMBLY, LANYARD	1
12	G-1497-103104	SCREW. #10 - 32 ROUND HEAD MACHINE	10
13	H-1026*07.0	ASSEMBLY, LANYARD	3
14	G-1310-0848	PIN, T-HANDLE, ½" BALL LOK X 4.8" GRIP	1
15	G-1310-0843	PIN, T-HANDLE, ½ X 4.3 BALL LOK	1
17	H-4764	PIN, MODIFIED	2
18	H-4756	TIE, HOOK & LOOP CABLE	5
19	H-4754	MOUNT, TIE	5

Parts List

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



Item	Part Number	Description	Qty
	Z-11267	ASSEMBLY, MIDDLE TUBE; consists of:	
1	Z-11266-00	WELDMENT, MIDDLE TUBE (P)	1
2	Z-11277	ACTUATOR, HEAD	1
3	Z-11278	ACTUATOR, LANDING GEAR	1
4	U-1216	CASTER, 4" SWIVEL W/ BRAKE	1
5	J-7817-00	PLATE, MOUNTING (P)	1
6	Z-11285-00	WELDMENT, HANDLE (P)	1
7	H-1223	GRIP, HANDLE	2
8	H-3196	BUMPER	1
9	H-3795	CAP, MODIFIED PLASTIC	1
10	J-7835-00	BRACKET (P)	2
11	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	4
12	G-1100-105052	BOLT, 1/4-20 X 5-1/4" LG HEX HD GR 5	2
13	G-1100-105070	BOLT, 1/4-20 X 7" LG. HEX HD GR 5	8

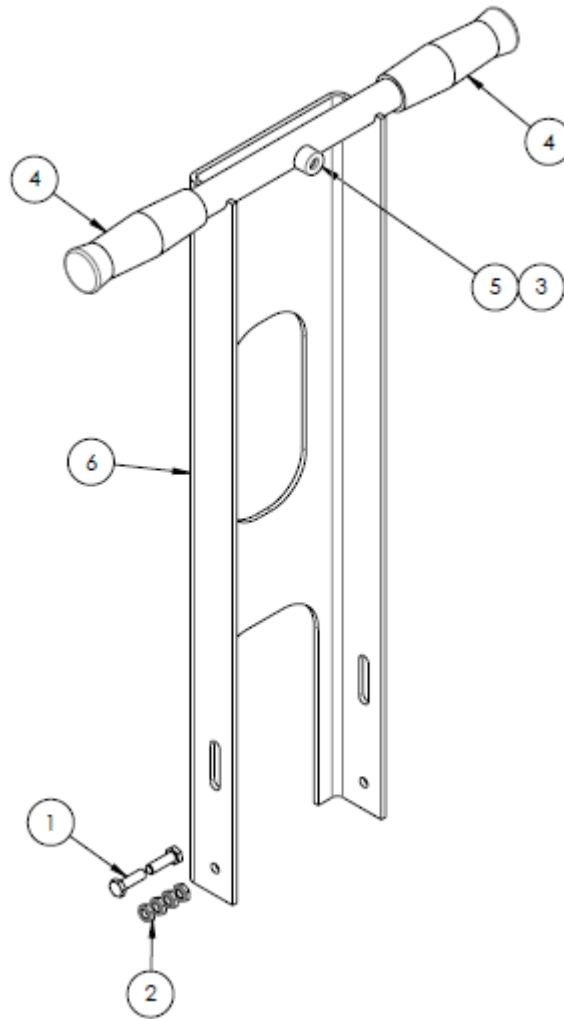
Parts List

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

Item	Part Number	Description	Qty
14	G-1202-1050	STOPNUT, 1/4-20 ELASTIC	10
15	G-1250-1050N	FLATWASHER, 1/4 NARROW	24
16	G-1155-106204	SCREW, 3/8" X 1/2" LG. HEX SOC HD SHLDR	2
17	G-1203-1060	JAMNUT, 5/16-18 ELASTIC	4
18	G-1154-107212	SCREW, 3/8-16 X 1-1/4" LG. SOCKET BUTT HD CAP	2
19	G-1202-1070	STOPNUT, 3/8-16 ELASTIC	4
20	G-1250-1070N	FLATWASHER, 3/8 NARROW	12
21	G-1100-109060	BOLT, 1/2-13 X 6.0" HEX HD GR 5	2
22	G-1202-1090	STOPNUT, 1/2-13 ELASTIC	2
23	G-1250-1090N	FLATWASHER, 1/2 NARROW	4
24	G-1497-103106	SCREW, #10-32 X 3/4" LG. SST PAN HD CROSS RECESS	1
25	G-1667	WASHER, PLASTIC	2
26	G-1154-107214	SCREW, 3/8-16 X 1-1/2" LG. SOCKET BUTT HD CAP	2
27	G-1250-1060N	FLATWASHER, 5/16 NARROW	4
28	G-1100-106010	BOLT, 5/16-18 X 1.0" LG. HEX HD GR 5	2
29	U-1087	LOCK, DEMOUNTABLE SWIVEL	1

Parts List

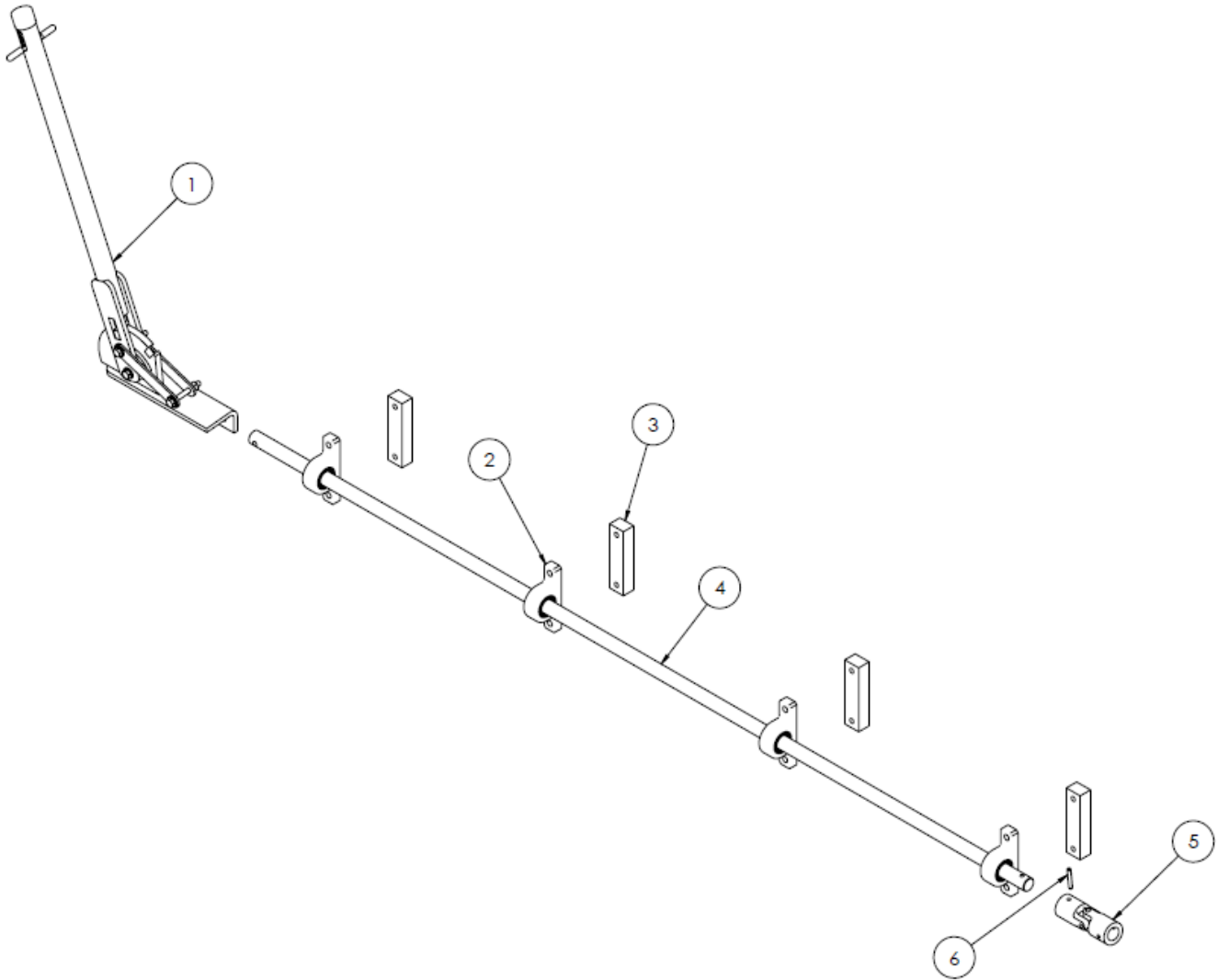
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
	K-5677	KIT, MANEUVERING HANDLE UPGRADE; consists of:	
1	G-1100-106010	BOLT, 5/16-18 X 1.0 LG HEX HD GR 5	2
2	G-1203-1060	JAMNUT, 5/16-18 ELASTIC	4
3	G-1497-103106	SCREW, #10-32 X 3/4 LG SST PAN HD CROSS RECESS	1
4	H-1223	GRIP, HANDLE	2
5	H-3196	BUMPER	1
6	Z-11285-00	WELDMENT, HANDLE	1

Parts List

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

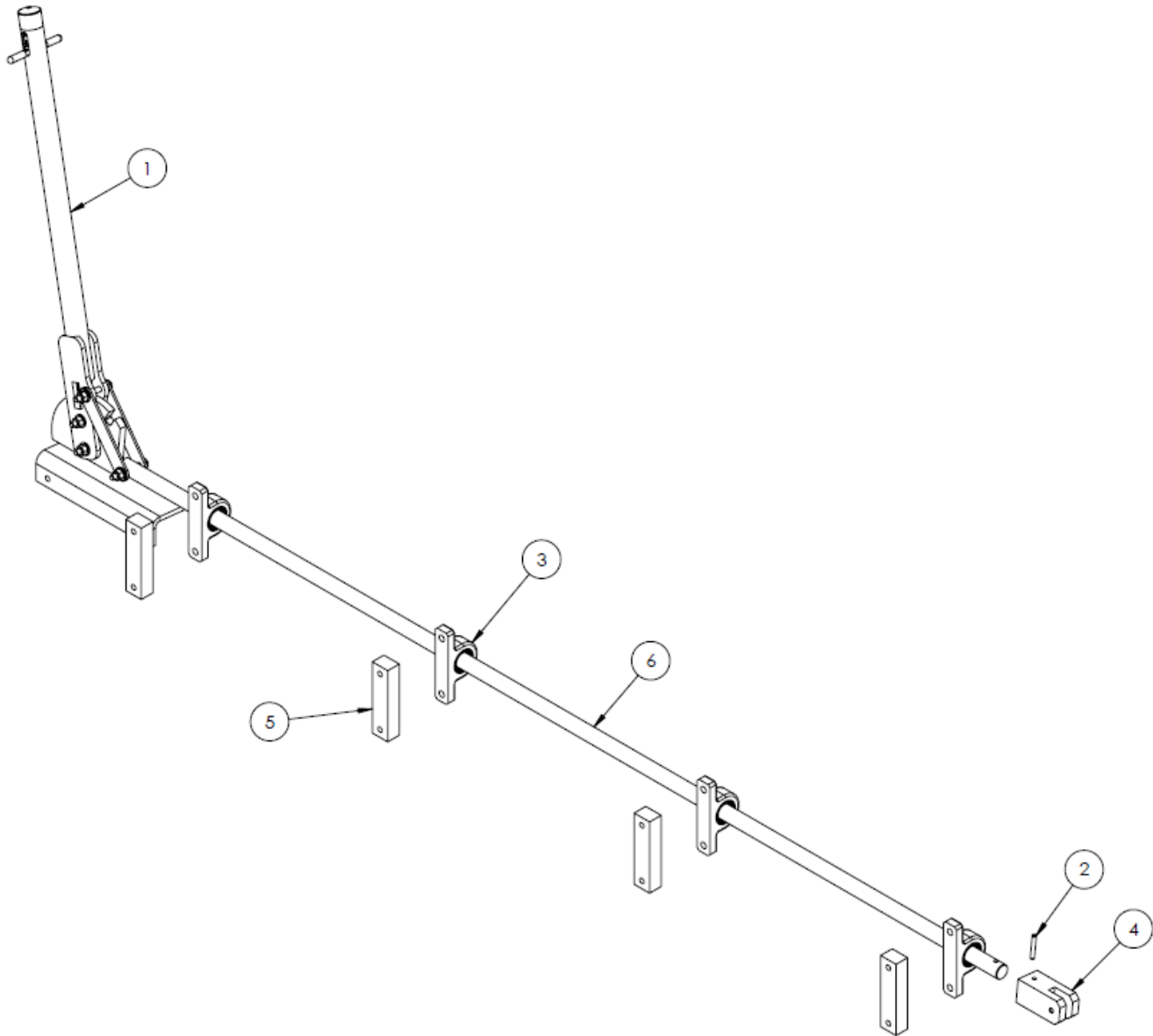


Item	Part Number	Description	Qty
	Z-11277	ACTUATOR, HEAD; consists of:	
1	Z-11405	ASSEMBLY, HEAD ACTUATOR HANDLE	1
2	H-4873-08	MOUNTED SLEEVE BEARING	4
3	J-7819	SUPPORT, ROD (P)	4
4	R-3279	ROD, MACHINED	1
	K-5694	KIT, U-JOINT UPGRADE; consists of:	
5	H-5226-00	JOINTS, MODIFIED UNIVERSAL (P)	1
6	*G-1300-19120	PIN, 3/16" X 1-1/4" LONG ROLL	1
	K-5512	KIT, HEAD ACTUATOR LEVER; consists of:	
1	Z-11405	ASSEMBLY, HEAD ACTUATOR HANDLE	1

*Use Loctite 603 or 648 or equivalent

Parts List

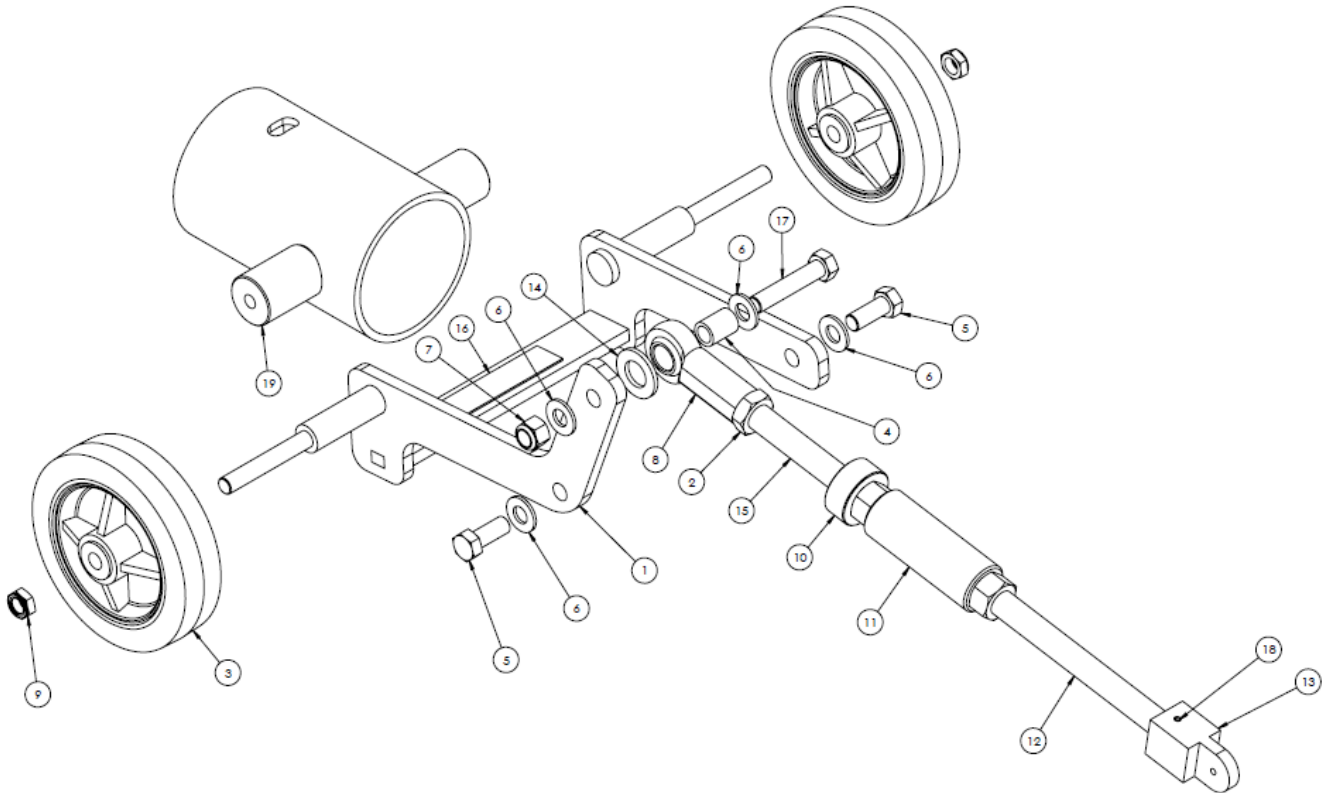
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
	Z-11278	ACTUATOR, LANDING GEAR; consists of:	
1	Z-11407	ASSEMBLY, WHEEL ACTUATOR	1
2	G-1300-19120	PIN, 3/16" X 1-1/4" LG ROLL	1
3	H-4873-08	MOUNTED SLEEVE BEARING	4
4	J-5395-00	JOINT, CLEVIS (P)	1
5	J-7819	SUPPORT, ROD (P)	4
6	R-3280	ROD, MACHINED	1

Parts List

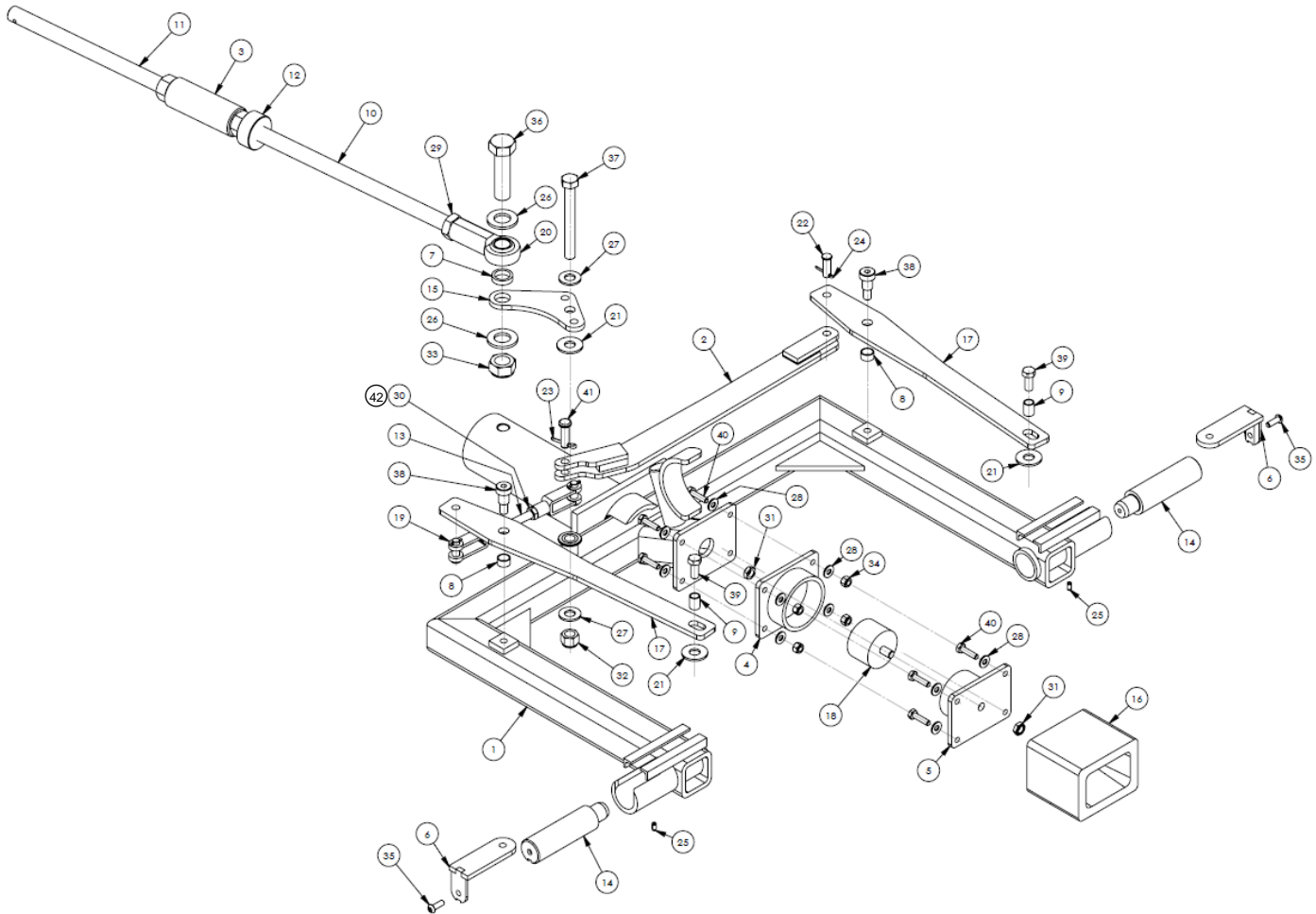
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
	Z-11180	ASSEMBLY, LANDING GEAR; consists of:	
1	Z-11181-00	WELDMENT, LANDING GEAR (P)	1
2	G-1207-1115	NUT, 3/4-16 JAM	1
3	U-1217	WHEEL, 6" SOLID	2
4	TR-1783	SPACER	1
5	G-1100-109012	BOLT, 1/2-13 X 1-1/4" HEX HD GR 5	2
6	G-1250-1090N	FLATWASHER, 1/2 NARROW	4
7	G-1202-1090	STOPNUT, 1/2-13 ELASTIC	1
8	H-1140-09	ROD END, FEMALE	1
9	G-1203-1090	JAMNUT, 1/2-13 ELASTIC	2
10	R-2846	JAM, STOP	1
11	Z-8532	WELDMENT, TURNBUCKLE	1
12	R-2838	ROD	1
13	J-5396-00	JOINT, CLEVIS	1
14	G-1250-1110N	FLATWASHER, 3/4 NARROW	1
15	R-3390	ROD, MACHINED	1
16	J951-02-004.00	FLAT, NEOPRENE 1/16 THK X 1.0 X 4.0 LG	1
17	G-1100-109024	BOLT, 1/2-13 X 2-1/2" HEX HD GR 5	1
18	G-1300-19120	PIN, 3/16" X 1-1/4" LG ROLL	1
19	Z-11182-00	WELDMENT, LANDING GEAR (P)	1

Parts List

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Item	Part Number	Description	Qty
	X-1268	ASSEMBLY, HEAD; consists of:	
1	Z-11179-00	WELDMENT, HEAD (P)	1
2	Z-8720-00	WELDMENT, CONNECTING ARM (P)	1
3	Z-8532	WELDMENT, TURNBUCKLE	1
6	Z-7498-00	WELDMENT, SLIDE (P)	2
7	TR-2353-00	SPACER (P)	1
8	TR-2334	SPACER	2
9	TR-2240	SPACER	2
10	R-2904	ROD, THREADED	1
11	R-2903	ROD, MACHINED	1
12	R-2846	JAM, STOP	1
13	R-2570	ROD, MACHINED	1
14	R-2532	PIN, SLIDING	2
15	J-7575-00	ARM, LEVER (P)	1
17	J-4311-00	ARM (P)	2
19	H-3390	CLEVIS, FORGED ZINC PLATED	2
20	H-1140-09	ROD END, FEMALE	1
21	G-1666	WASHER, PLASTIC	3

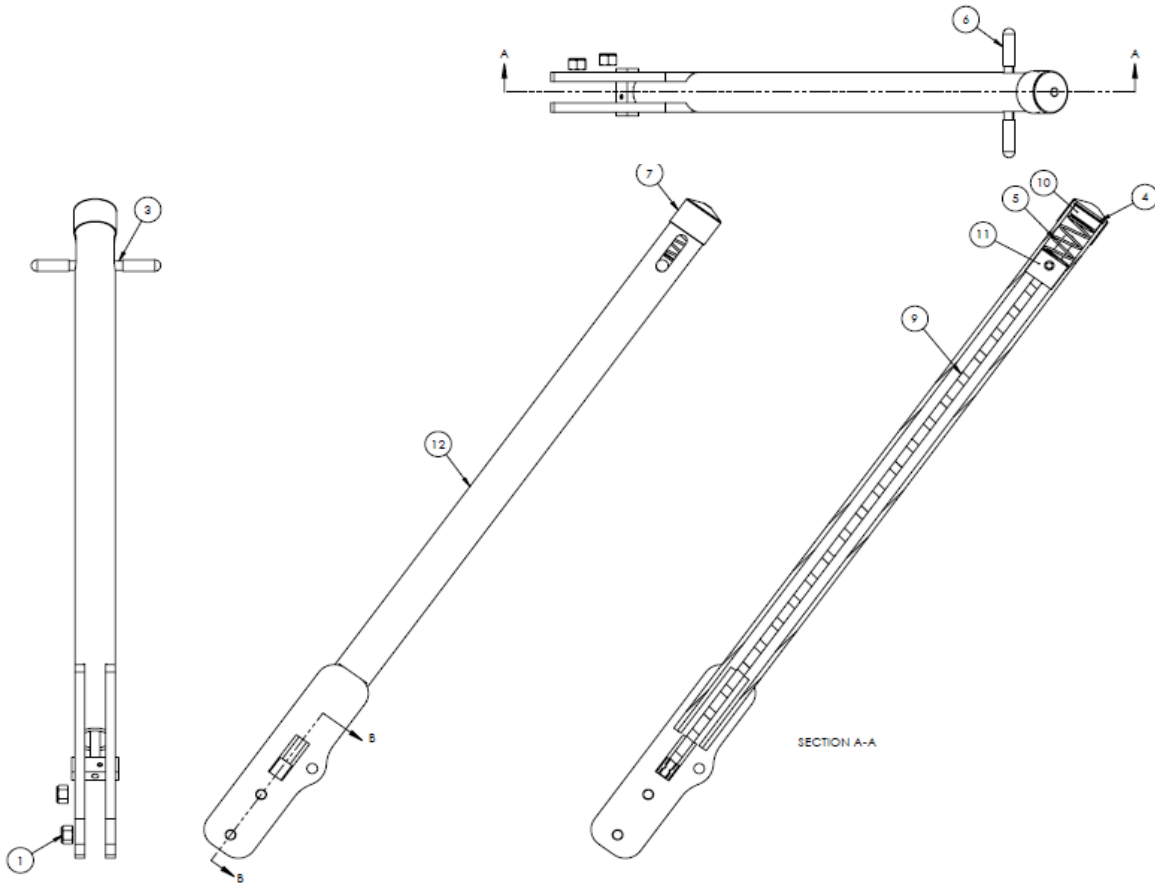
Parts List

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

Item	Part Number	Description	Qty
22	G-1302-18	PIN, 3/8 X 1.00 LG CLEVIS	1
23	G-1301-02	PIN, 1/8 X 1 LG COTTER	1
24	G-1301-01	PIN, 3/32 X 1 LG COTTER	1
25	H-3091	PLUNGER BALL	2
26	G-1250-1110N	FLATWASHER, 3/4 NARROW	2
27	G-1250-1090N	FLATWASHER, 1/2 NARROW	2
29	G-1207-1115	NUT, 3/4-16 JAM	1
30	G-1207-1075	NUT, 3/8-24 JAM	2
32	G-1202-1090	STOPNUT, 1/2-13 ELASTIC	1
33	G-1202-1110	STOPNUT, 3/4-10 ELASTIC	1
34	G-1202-1050	STOPNUT, 1/4-20 ELASTIC	4
35	G-1154-105006	SCREW, 1/4-20 X 3/4" LG. SOC BUTT. HD CAP	2
36	G-1100-111026	BOLT, 3/4-10 X 2-3/4" HEX HD GR 5	1
37	G-1100-109042	BOLT, 1/2-13 X 4-1/4" HEX HD GR 5	1
38	G-1155-107205	SCREW, 1/2 X 5/8" LG SOCKET HD SHOULDER	2
39	G-1100-107007	BOLT, 3/8-16 X 7/8" HEX HD GR 5	2
41	A-TT4-00193	.375 CLEVIS PIN	1
42	G-1251-1070R	LOCKWASHER, 3/8 REGULAR	2
	K-5604	KIT, GUIDE BLOCK; consists of:	
4	Z-8314-00	WELDMENT, OUTER SLEEVE (P)	1
5	Z-8313-00	WELDMENT, INNER SLEEVE (P)	1
16	J-5623	BLOCK, GUIDE	1
18	H-3734	MOUNT, VIBRATION DAMPING	1
28	G-1250-1050N	FLATWASHER, 1/4 NARROW	12
31	G-1203-1070	JAMNUT, 3/8-16 ELASTIC	2
40	G-1100-105010	BOLT, 1/4-20 X 1.0" LG HEX HD GR 5	8

Parts List

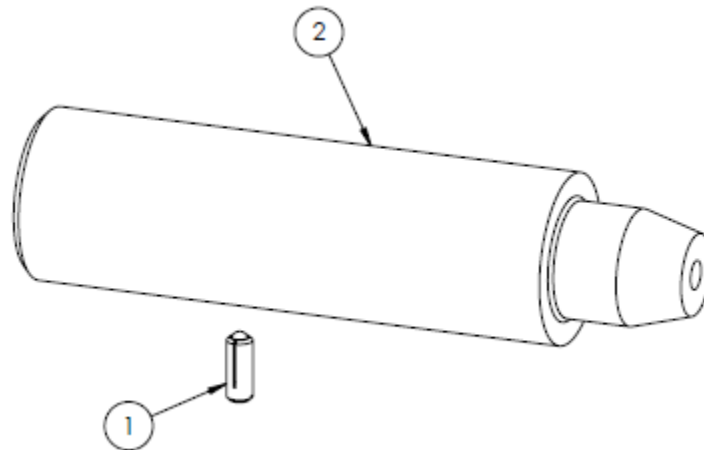
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
	K-5678	KIT, LEVER MECHANISM UPGRADE; consists of:	
1	G-1202-1050	NUT	2
2	G-1300-13030	SPRING PIN (LOCKING BLOCK)	1
3	G-1300-25300	SPRING PIN (HANDLE)	1
4	G-1391-09	RETAINING RING	1
5	H-4770	SPRING	1
6	H-4887	HANDLE COVER	2
7	H-4888	PLASTIC CAP	1
8	J-7938	LOCKING BLOCK	1
9	R-3394	LEVER ROD	1
10	R-3395	HANDLE PLUG	1
11	R-3396	SPACER	1
12	Z-11392	LEVER WELDMENT	1

Parts List

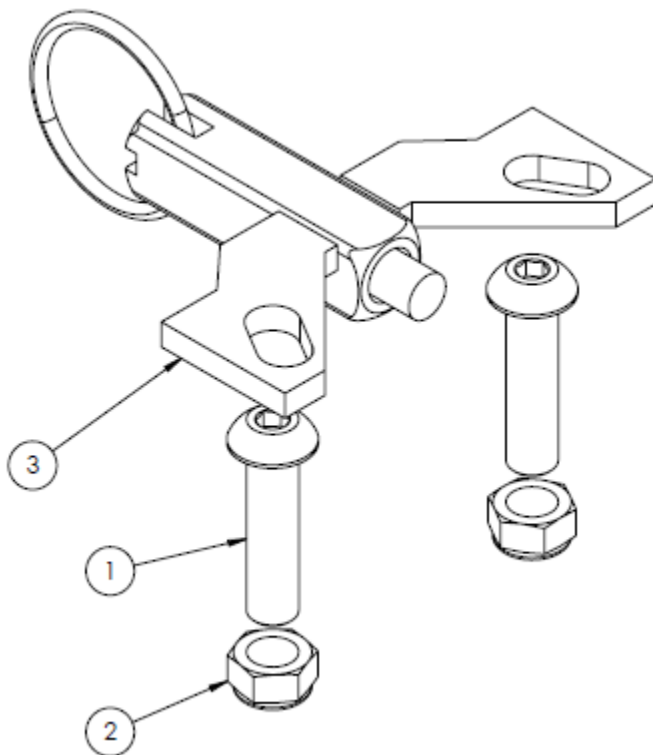
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
	K-5679	KIT, SLIDING PIN UPGRADE; <i>consists of:</i>	
1	H-3091	SPRING BALL PLUNGER	2
2	R-2532	SLIDING PIN	2

Parts List

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Item	Part Number	Description	Qty
	K-5680	KITSWIVEL CASTER LOCK UPGRADE; consists of:	
1	G-1154-107214	BUTTON HEAD SOCKET CAP SCREW	2
2	G-1202-1070	STOPNUT	2
3	U-1087	SWIVEL CASTER LOCK	1