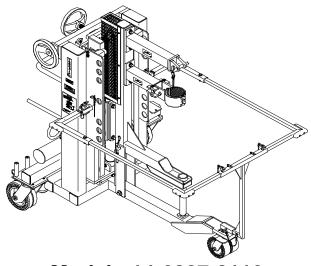


## **OPERATION & SERVICE MANUAL**



Model: 14-6887-8110
Landing Gear/Transportation
& Installation Dolly



10/2010 - Rev. 04

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



REVISION DATE TEXT AFFECTED
04 10/2010 Added Declaration of Conformity



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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 Landing Gear Installation Dolly incorporates the following quality features:

- Heavy-duty steel construction
- Easy maneuverability
- Hydraulic lifting with finite control
- Easily changeable adapter arm assembly
- Can be fixed into static position with stabilizer screws

#### Foot brake

SAFETY PIN

SAFETY BAR

- · Shock absorbing casters
- Tilting side-to-side lead screw adjustment

SHOWN WITHOUT GUARD

FIGURE 1

FOR CLARITY

Tilting forward-to-back lead screw adjustment

NLG ARM STORED POSITION

#### 2.0 USAGE

The purpose of this landing gear dolly is to allow for positioning of aircraft landing gear for installation.

#### 3.0 SPECIFICATIONS

Weight: 725 lbs.

Length: 69-13/16 inchesWidth: 45-5/16 inches

• Height: 52-1/16 inches (Collapsed, without spacer)

56-7/8 inches (Collapsed, with spacer)

103-7/8 inches (Extended)

#### 4.0 OPERATION

- Attach appropriate lifting arm and bolt to a torque of 85 ft-lbs (See Figure 1)
- 2. Load landing gear assembly onto dolly.
- 3. Install guarding if gear is being transported (Refer to Parts List Illustrations). Before installation of landing gear, remove guarding. See section 6.0 Transportation.
- 4. Locate dolly in approximate location for installation.
- 5. Using hand pump, raise gear into mounting location. Using supplied safety bar (See *Figure 1*), slide bar beneath lift arm through nearest holes in slide to lift arm. Secure safety bar with pin (See *Figure 1*). Use back and side adjusting screws to position landing gear for mounting pin installation.
- 6. Remove landing gear attachment points and lower arm from gear.

#### 5.0 MAINTENANCE

- 1. Lubricate swivel caster bearing race with multi-purpose grease.
- 2. Lubricate adjusting screws and all pivot points.
- 3. Maintain hand pump reservoir level with MIL-L-5606 fluid.
- 4. Periodically inspect:
  - Slides and rollers for wear and damage
  - Pivot pins and ball lok-T pins for wear and correct operation
  - Cylinder, reservoir and hydraulic lines for leakage. NOTE: Do not use if hydraulic leakage is found.

#### 6.0 TRANSPORTATION



#### **WARNING!**

Keep hands and personnel away from dolly while raising or lowering mast.

- 1. When landing gear is loaded onto dolly, install spacer (Item 102), flip transport lock (Item 135) upright and secure lock with attached ball lok-T pin. There should be no load on cylinder.
- 2. Install transport guarding (See Parts List Illustrations).
- Roll dolly over flat hard surfaces only. Use caution when loading onto vehicle.
- When dolly is in desired position for transport, actuate floor lock. Turn down stabilizer screws. Using high quality straps, secure dolly to vehicle at transport rings on each side of dolly mast.



#### 7.0 PROVISION OF SPARES

#### 7.1 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

#### 7.2 RECOMMENDED SPARE PARTS LISTS

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

### 8.0 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.

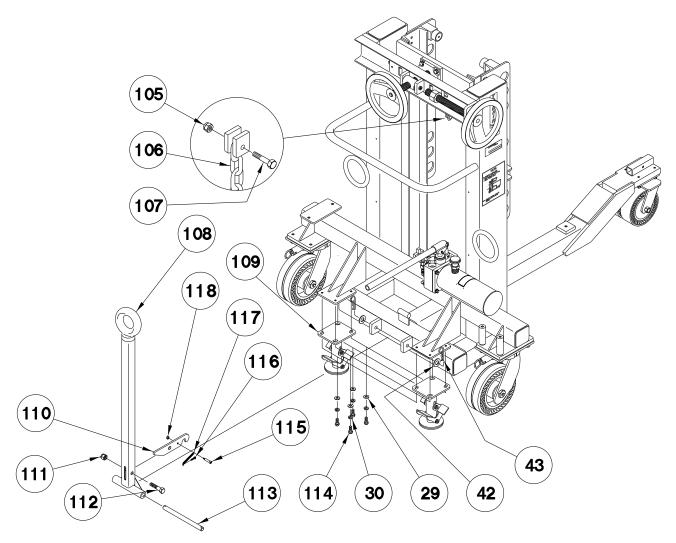
#### 9.0 APPENDICES

APPENDIX I Declaration of Conformity





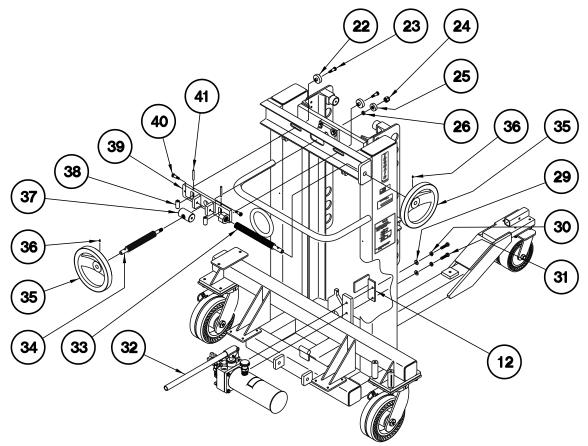
Parts List
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
	K-3396	Kit, Towbar Replacement; consists of:	
42	G-1250-1100N	Flatwasher, 5/8 Narrow	2
43	G-1313-07	Cotter, Hairpin	2
108	Z-5026-01	Weldment, Towbar	1
110	J-3221	Plate, Lever	1
111	G-1202-1095	Stopnut, 1/2-20 Elastic	1
112	G-1100-109522	Bolt, Hex Head, Grade 5, 1/2-20 x 2-1/4" long	1
113	R-1898	Pin, Towbar	1
117	G-1155-103210	Screw, Socket Head Shoulder, 1/4" diameter x 1" long	1
118	G-1179-103004	Screw, Self-Tapping, #10-32 x 1/2" long	1
119	H-1137	Spring	1
120	G-1202-1030	Stopnut, #10-24 Elastic	1



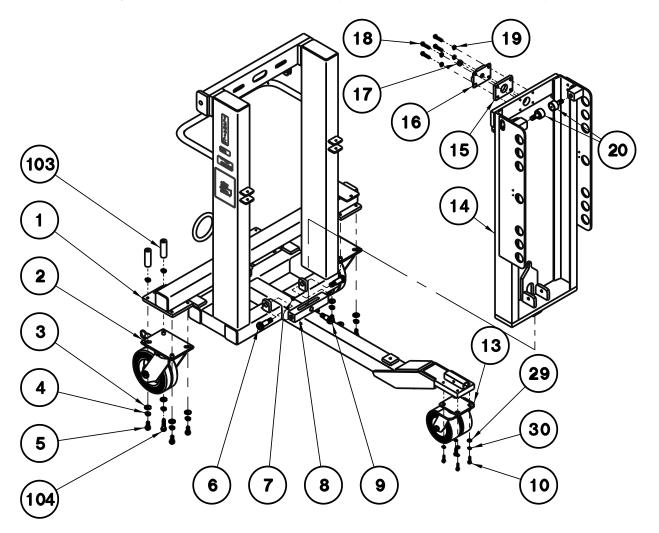
Parts List
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
	K-3044	Kit, Hand Pump Replacement; consists of:	
12	Z-5005	Weldment, Handle Stop	1
29	G-1250-1070N	Flatwasher, 3/8 Narrow	2
30	G-1251-1070R	Lockwasher, 3/8 Regular	2
31	G-1100-107012	Bolt, Hex Head, Grade 5, 3/8-16 x 1-1/4" long	2
32	Z-4219	Assembly, Hand Pump (Reference Page Error! Bookmark not defined.)	1
	K-3055	Kit, Slide Adjuster Replacement; consists of:	
22	R-1896	Roller, Slide	2
23	G-1155-106206	Screw, Socket Head Shoulder, 3/8" diameter	2
24	G-1202-1095	Stopnut, 1/2-20 Elastic	1
25	H-2107-05	Bearing, Thrust	1
26	TR-1569	Spacer	1
33	R-1893	Screw, Side	1
34	R-1897	Screw, Main	1
35	H-2242	Wheel, Modified Hand	2
36	G-1163-10	Screw, Set, 1/4-20 x 1" long	2
37	R-1894	Nut, Pivot	1
38	R-1895	Roller, Support	2
39	Z-4209	Weldment, Adjusting Plate	1
40	G-1155-106206	Screw, Socket Head Shoulder, 3/8" diameter	2
41	G-1315-05*2.50	Pin, Dowel	2



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



Item	Part Number	Description	Qty
1	Z-5009-01 (Reference Only)	Weldment, Frame (Not	Sold Separately)
14	Z-5016-01 (Reference Only)	Weldment, Base Slide (Not	Sold Separately)
17	H-2237-01	Bearing, Spherical Plain	1
20	H-2466	Bearing, Stud Mount	2
	K-2062	Kit, Floor Lock Replacement; consists of:	
29	G-1250-1070N	Flatwasher, 3/8 Narrow	4
30	G-1251-1070R	Lockwasher, 3/8 Regular	4
109	H-1175	Lock, Floor	1
114	G-1100-107506	Bolt, Hex Head, Grade 5, 3/8-24 x 3/4 " long	4
	K-3040	Kit, Caster Replacement; consists of:	
2	U-1076	Caster, Swivel (Large)	1
3	G-1250-1090N	Flatwasher, 1/2 Narrow	4
4	G-1251-1090R	Lockwasher, 1/2 Regular	5
5	G-1100-109510	Bolt, Hex Head, Grade 5, 1/2-20 x 1" long	2
103	R-1957-01	Stud, Spacer	2
104	G-1100-109516	Bolt, Hex Head, Grade 5, 1/2-20 x 1-3/4" long	2

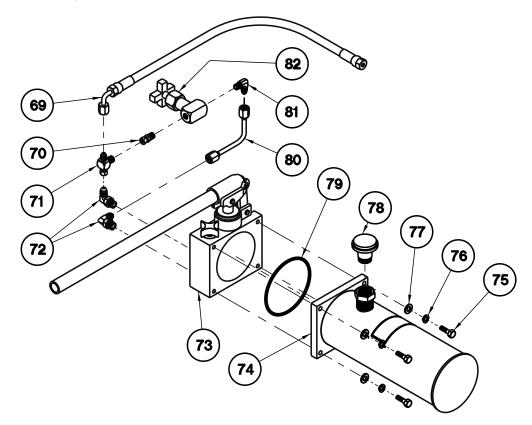


# Parts List When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
	K-3042	Kit, Pivot Bolt Replacement; consists of:	·
7	G-1202-1100	Stopnut, 5/8-11 Elastic	1
9	G-1155-110214	Screw, Shoulder, 3/4" diameter x 1-1/2" long	1
	K-3053	Kit, Pivot Block Replacement; consists of:	
6	G-1155-110210	Screw, Socket Head Shoulder, 3/4" diameter	2
8	J-2878	Block, Pivot	1
	K-3054	Kit, Pivot Plate Replacement; consists of:	
15	J-2900	Plate, Spacer	1
16	J-2899	Plate, Pivot	1
17	H-2237-01	Bearing, Spherical Plain	1
18	G-1420-107506	Bolt, Hex Head, Grade 8, 3/8-24 x 1-1/2" long	4
19	G-1251-1070R	Lockwasher, 3/8 Regular	4
	K-3403	Kit, Caster Replacement; consists of:	
10	G-1100-107510	Bolt, Hex Head, Grade 5, 3/8-24 x 1" long	4
13	U-1095	Caster, Swivel (Dual Wheel)	1
29	G-1250-1070N	Flatwasher, 3/8 Narrow	4
30	G-1251-1070R	Lockwasher, 3/8 Regular	4



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



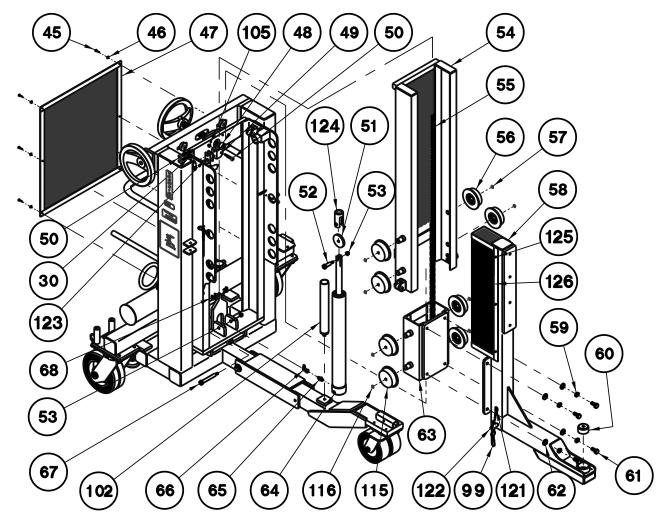
Item	Part Number	Description	Qty
69	TF-1043-11*19.0	Assembly, Hose	1
	K-3058	Kit, Reservoir Replacement; consists of:	
74	Z-4218-01	Weldment, Reservoir (includes Labels)	1
75	G-1100-105006	Bolt, Hex Head, Grade 5, 1/4-20 x 3/4" long	4
76	G-1251-1050R	Lockwasher, 1/4 Regular	4
77	G-1250-1050N	Flatwasher, 1/4 Narrow	4
78	H-1045	Breather	1
79	HC-2000-243	O-ring	1
32	K-3059	Kit, Hand Pump Replacement; consists of:	
73	Z-4220-01	Weldment, Hand Pump	1
75	G-1100-105006	Bolt, Hex Head, Grade 5, 1/4-20 x 3/4" long	4
76	G-1251-1050R	Lockwasher, 1/4 Regular	4
77	G-1250-1050N	Flatwasher, 1/4 Narrow	4
79	HC-2000-243	O-ring	1
	K-3060	Kit, Piping Assembly Replacement; consists of:	
70	N-2030-17-S	Swivel, 37 degree Female	1
71	N-2016-03-S	Tee, Run Swivel Nut	1
72	N-2001-03-S-B	Elbow, Straight Thread	2
80	Z-3728	Assembly, Tube	1
81	N-2005-03-S	Elbow, Male	1
82	HC-1202-01	Valve, Needle (Mineral Base)	1



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



Item	Part Number	Description	Qty
54	Z-4205-01	Weldment, Stage 1 Slide	1
60	R-1882	Pad, Protector	1
63	Z-4202-01	Weldment, Stage 2 Slide	1
N/S	Z-4434-01	Weldment, Spacer	1
	K-3045	Kit, Chain Replacement; consists of:	
105	G-1202-1050	Stopnut, 1/4-20 Elastic	2
106	H-2241-10*06.00	Chain	1
107	G-1100-105014	Bolt, Hex Head, Grade 5, 1/4-20 x 1-1/4" long	2
	K-3047	Kit, Screen Replacement; consists of:	
45	G-1157-103506	Screw, Panhead Cross Recess, #10-32 x 1/2" long	6
46	G-1250-1030N	Flatwasher, #10 Narrow	6
47	Z-4235-01	Weldment, Screen	1
	K-3049	Kit, Sprocket Replacement; consists of:	
51	R-1879	Sprocket, Chain	1
52	G-1155-107214	Screw, Soc Hd Shoulder, 1/2" diameter x 1-1/2" long	1
53	G-1202-1070	Stopnut, 3/8-16 Elastic	1
124	TR-1746	Guard, Chain	1



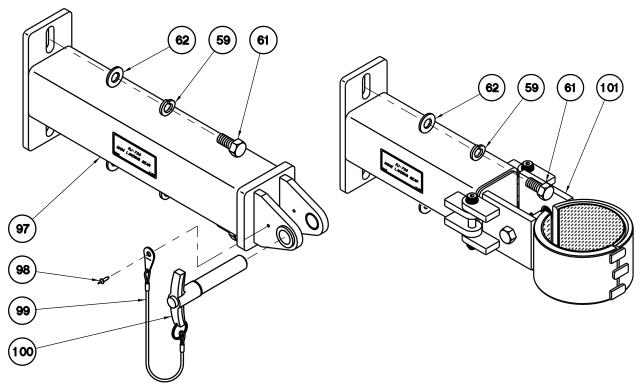
Parts List
When ordering replacement parts/kits, please specify model, serial number and color of your unit.

Item	Part Number	Description	Qty
	♦ K-3050	Kit, Slide Roller Replacement; consists of:	
56	Z-4204	Assembly, Roller	1
57	G-1395-02	Ring, External Retaining	1
	K-3160	Kit, Roller Replacement; consists of:	
115	Z-4519	Assembly, Roller	1
116	G-1395-10	Ring, External Retaining	1
N/S	TR-1753-01	Spacer, 0.060	2
N/S	TR-1753-02	Spacer, 0.040	1
	K-3051	Kit, Chain Replacement; consists of:	
55	H-1985-05*55.00	Chain, Single Strand Roller	1
68	H-1986-05	Link, Single Strand Master	2
	K-3052	Kit, Lift Arm Replacement; consists of:	
58	Z-4211-01	Weldment, Lift Arm	1
59	G-1251-1090R	Lockwasher, 1/2 Regular	4
61	G-1420-109510	Bolt, Hex Head, Grade 8, 1/2-20 x 1" long	4
62	G-1250-1090N	Flatwasher, 1/2 Narrow	4
	K-3056	Kit, Cylinder Replacement; consists of:	
53	G-1202-1070	Stopnut, 3/8-16 Elastic	1
64	Z-4195	Assembly, Cylinder (Reference Page Error! Bookmark not defined.)	1
65	N-2007-03-S-B	Connector, Straight Thread	1
66	N-2002-03-S	Elbow, Swivel Nut	1
67	G-1155-107234	Screw, Socket Head Shoulder, 1/2" diameter	1
	K-3395	Kit, Guide Roller Replacement; consists of:	
48	H-2467-03	Bearing, Yoke Roller	1
49	J-3217	Flat, Roller Mount	1
50	G-1155-105212	Screw, Soc Hd Shoulder, 5/16" diameter x 1.25" long	1
105	G-1202-1095	Stopnut, 1/4-20 Elastic	1
123	S-1738-01	Shim, Roller	2
N/S	S-1738-02	Shim, Roller	1
	K-3397	Kit, Ball Lok Pin Replacement; consists of:	
99	H-1026*07.0	Assembly, Lanyard	1
121	G-1351-19	Rivet, 1/8 Open-End Steel	1
122	G-1310-0615	Pin, Ball Lok-T, 3/8" diameter x 1.5" Grip	1
	K-3398	Kit, Cage Replacement; consists of:	
125	G-1179-103004	Screw, Pan Head Cross Recess Self-Tapping, #10 x 1/2" long	6
126	Z-5007-01	Weldment, Chain Guard	1

<sup>♦</sup> K-3050 is only used for slide rollers on units with Serial Numbers ending with 9808 through 9812. For all other units, request K-3160, Roller Replacement Kit.



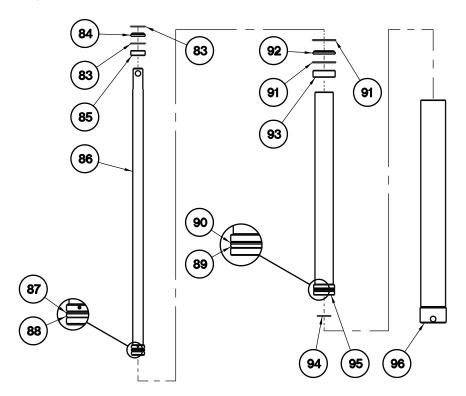
Parts List
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
	K-2998	Kit, Main Landing Gear Arm Adapter Replacement; consists of:	
59	G-1251-1090R	Lockwasher, ½ Regular	2
61	G-1420-109510	Bolt, Hex Head, Grade 8, 1/2-20 x 1" long	2
62	G-1250-1090N	Flatwasher, ½ Narrow	2
97	Z-4198-01	Weldment, Main Arm (includes Label)	1
98	G-1351-04	Rivet, Pop	1
99	H-1026*07.0	Assembly, Lanyard	1
100	G-1310-1230	Pin, Ball Lok-T, ¾" diameter x 3" long	1
	K-2999	Kit, Nose Landing Gear Arm Adapter Replacement; consists of:	
59	G-1251-1090R	Lockwasher, 1/2 Regular	2
61	G-1420-109510	Bolt, Hex Head, Grade 8, 1/2-20 x 1" long	2
62	G-1250-1090N	Flatwasher, 1/2 Narrow	2
101	Z-4242	Assembly, Nose Arm	1
	K-3065	Kit, Ball Lok Pin Replacement; consists of:	
98	G-1351-04	Rivet, 1/8 Open-End Steel	1
99	H-1026*07.0	Assembly, Lanyard	1
100	G-1310-1230	Pin, Ball Lok-T, 3/4" diameter x 3" long	1
	K-2998	Kit, Main Landing Gear Arm Adapter Replacement; consists of:	
59	G-1251-1090R	Lockwasher, ½ Regular	2
61	G-1420-109510	Bolt, Hex Head, Grade 8, 1/2-20 x 1" long	2
62	G-1250-1090N	Flatwasher, ½ Narrow	2
97	Z-4198-01	Weldment, Main Arm (includes Label)	1
98	G-1351-04	Rivet, Pop	1
99	H-1026*07.0	Assembly, Lanyard	1
100	G-1310-1230	Pin, Ball Lok-T, ¾" diameter x 3" long	1



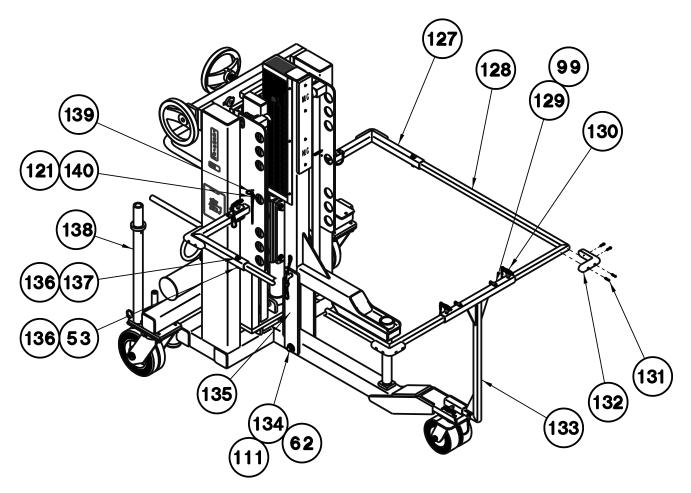
Parts List
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



Item	Part Number	Description	Qty
85	R-1887	Ring, Inner	1
86	Z-4193	Assembly, Piston	1
93	R-1888	Ring, Outer	1
95	TR-1640	Cylinder, Stage 1	1
96	Z-4194	Weldment, Cylinder	1
64	K-3061	Kit, Cylinder Seal Replacement; consist of:	
83	G-1399-137	Ring, Internal	2
84	HC-1619-1000	Wiper, Ring	1
87	HC-2023-316	Backup, Parbak	1
88	HC-2000-316	O-ring	1
89	HC-2000-326	O-ring	1
90	HC-2020-326	Backup, Parbak	1
91	G-1399-212	Ring, Internal	2
92	HC-1619-1750	Wiper, Ring	1
94	G-1391-12	Ring, Internal	1
85	R-1887	Ring, Inner	1
86	Z-4193	Assembly, Piston	1
93	R-1888	Ring, Outer	1
95	TR-1640	Cylinder, Stage 1	1
96	Z-4194	Weldment, Cylinder	1



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



Item	Part Number	Description	Qty
138	Z-5006-01	Weldment, Safety Tube	1
	K-3399	Kit, Transport Lock Replacement; consists of:	
62	G-1250-1090N	Flatwasher, 1/2 Narrow	2
111	G-1202-1055	Stopnut, 1/2-20 Elastic	1
134	G-1100-109550	Bolt, Hex Head, Grade 5, 1/2-20 x 5" long	1
135	Z-5012-01	Weldment, Transport Lock	1
	K-3400	Kit, Side Cage Replacement; consists of:	
53	G-1202-1070	Stopnut, 3/8-16 Elastic	1
99	H-1026*07.0	Assembly, Lanyard	1
127	Z-5029-01	Weldment, Guard Side	1
128	Z-5011-01	Weldment, Guard Side	1
129	G-1351-18	Rivet, 1/8 Open-End Steel	1
130	G-1310-0615	Pin, Ball Lok-T, 3/8" diameter x 1.5" Grip	1
131	G-1179-103510	Screw, Self-Tapping #10-32 x 1" long	8
132	H-1989	Bumper, Corner	2
136	G-1250-1070W	Flatwasher, 3/8 Wide	2
137	G-1202-107020	Bolt, Hex Head, Grade 5, 3/8-16 x 2" long	1



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

Item	Part Number	Description	Qty
	K-3401	Kit, Front Guard Replacement; consists of:	
99	H-1026*07.0	Assembly, Lanyard	3
129	G-1351-18	Rivet, 1/8 Open-End Steel	3
130	G-1310-0615	Pin, Ball Lok-T, 3/8" diameter x 1.5" Grip	3
133	Z-5010-01	Weldment, Front Guard	1
	K-3402	Kit, Safety Pin Replacement; consists of:	
121	G-1351-19	Rivet, 3/16 Open-End Steel	1
139	G-1307-0418	Pin, 1/4" diameter x 1.8" long, Model C	1
140	H-1026*12.0	Assembly, Lanyard	1



# **APPENDIX II**

**Declaration of Conformity** 



## **DECLARATION of CONFORMITY**

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

14-6887-8110 Landing Gear/Transportation & Installation Dolly

Relevant provisions complied with by the machinery: 2006/42/EC

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