

Model: 04-6052-0000
Battery Lift

03/2024 – Rev. 06

| REVISION | DATE | TEXT AFFECTED |
|----------|---------|---|
| 01 | 05/2015 | Original release |
| 02 | 08/2015 | Modified 1.4 Specifications and Parts List |
| 03 | 10/2015 | Modified Parts List |
| 04 | 08/2016 | Modified Parts List |
| 05 | 04/2017 | Modified 1.4 Specifications, 5.0 Additional Adapter Listing and Parts List |
| 06 | 03/2024 | Modified 1.4 Specifications, 5.3 Annually, 5.3.1 Stand Procedure and Parts List |

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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 PRODUCT INFORMATION

1.1 DESCRIPTION

This Tronair Battery Lift, Model 04-6052-0000, is designed to aid in the installation and removal of the ERJ-145 battery.

1.2 MODEL & SERIAL NUMBER

Reference nameplate on unit

1.3 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

1.4 SPECIFICATIONS

Maximum Capacity.....250 lbs (113 kg)
Height, Collapsed.....24.6 in (62.4 cm)
Height, Extended.....133.2 in (338.3 cm)
Length.....94 – 9/16 in (240 cm)
Width.....57 – 5/16 in (145.6 cm)
Height.....82 in (208 cm)
Weight.....285 lbs (129 kg)

2.0 SAFETY INFORMATION

2.1 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 battery lift.

3.2 OPERATOR TRAINING

The operator training should provide the required training for safe operation of the battery lift.

NOTE: Maintenance and Trouble Shooting are to be performed by a skilled and trained technician.

4.0 OPERATING INSTRUCTIONS**CAUTION!**

Operator injury and/or component damage can result.

1. Do not transport components on this lift.
2. This lift is designed to only lift or lower components at aircraft.

4.1 TO RAISE LIFT ARM

1. Place Universal Lift on hard level surface.
2. Close release valve.
3. Pump jack until desired height is reached.
4. If binding occurs, lubricate linkage.

4.2 TO LOWER LIFT ARM

Slowly open release valve.

**CAUTION!**

Component damage and/or operator injury could result if release valve is opened too quickly.

4.3 FILLING THE RESERVOIR

1. Remove reservoir plug.
2. Open release valve.
3. Fill reservoir with hydraulic jack oil, MIL-H-5606 or equivalent Mineral Base Fluid.
4. Stand unit on its base and let excess oil run out. Replace reservoir plug.
5. Pump operating handle rapidly with release valve open to exhaust any air in system.
6. Close release valve and pump operating handle.
7. Repeat above instructions if plunger fails to advance.

5.0 INSPECTION/MAINTENANCE

To keep your Tronair equipment fully operational and last for years you should adhere to the following suggestions.

5.1 BEFORE EACH USE

Visually inspect unit to ensure all components are present and functional

- All pivot bolts & nuts are secure
- Cylinder is free of leaks & relief valve is operational
- All casters & locks are operational
- No bent or, broken components



WARNING!

Ensure lift components are free of damage and or excessive wear. Never use lift if any component is bent or broken

5.2 PERIODIC INSPECTION

A qualified inspector shall perform a complete inspection at the following intervals

| SERVICE | INTERVAL | |
|------------------------|--|---|
| Normal | Yearly | Inspect equipment at site of use. Operation with various weights within the rated load limit, or uniform loads less than 65 percent of rated load. |
| Heavy | Semi-Annual | Inspect equipment at site of use unless external conditions indicate that disassembly should be done to permit detailed inspection. Operation within the rated load limit that exceeds normal service. |
| Severe | Quarterly | Inspect equipment at site of use unless external conditions indicate that disassembly should be done to permit detailed inspection. Operation at normal or heavy service under abnormal operating conditions. |
| Special/ Infrequent | As recommended by a qualified person before the first such use and as directed by the qualified person for any subsequent uses | |

1. Visually inspect unit to ensure all components are present and functional
 - All pivot bolts & nuts are secure
 - Cylinder is free of leaks & relief valve is operational
 - All casters & locks are operational
 - No bent or, broken components
2. Lubricate lift
 - All pivot points
 - Threaded adjustment areas
3. Check cylinder reservoir level. Replenish with MIL-PRF-5606
 - Ensure Fluid is at acceptable level
 - Flush reservoir if fluid is contaminated

5.3 ANNUALLY

1. Visually inspect unit to ensure all components are present and functional
 - All pivot bolts & nuts are secure
 - Cylinder is free of leaks & relief valve is operational
 - All casters & locks are operational
 - No bent or, broken components
2. Ensure lift has been load certified. Check for applicable codes for requirements on annual load testing/certifications.

It is recommended to send Equipment to Manufacturer or Authorized Service Center for Recertification.



WARNING!

Use safety stops behind casters. NEVER place hands/body under the lift when it is in the raised position. The lift must be in the collapsed position before performing any work to the lift.

EQUIPMENT NEEDED

- Weight(s) equal to 312 lbs or Equivalent

The rated capacity shall not be more than 80 percent of the maximum load sustained during the test. Test loads shall not be more than 125 percent of the rated capacity unless otherwise recommended by the manufacturer.

- 5.3.1 Stand Procedure
1. Raise and lower lift to maximum and minimum height several times
 2. Ensure that the lift is free of bind and/or excessive drag
 3. If bind occurs lubricate linkage
 4. Apply a load equal to 312 lbs or equivalent to Universal lift
 5. Hold for approximately two minutes
 6. Visually inspect to ensure welded joints and bolted components are secure and no damage has occurred
 7. Inspect for any signs of failure or fatigue

- 5.3.2 Battery Tray Adapter Procedure (If Applicable)
1. Apply a load equal to 150 lbs to battery lift
 2. Raise and lower lift to maximum and minimum height several times
 3. If bind occurs lubricate linkage
 4. Inspect for any signs of failure or fatigue

6.0 ADDITIONAL ADAPTER LISTING

PART NUMBER DESIGN INTENT

Z-4082..... Universal Flat Platform for installing/removing battery, APU, air conditioning unit, etc.
K-3057..... Converts the lift into a light duty crane
K-3189..... Installation/Removal of Lear 45 flaps
K-5036..... Pre-Cooler Lift Tool

7.0 PROVISION OF SPARES

7.1 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 PARTS LISTS & ILLUSTRATIONS

Reference the following page for Replacement Parts and Kits available.

8.0 IN-SERVICE SUPPORT

Contact Tronair for technical services and information.

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:

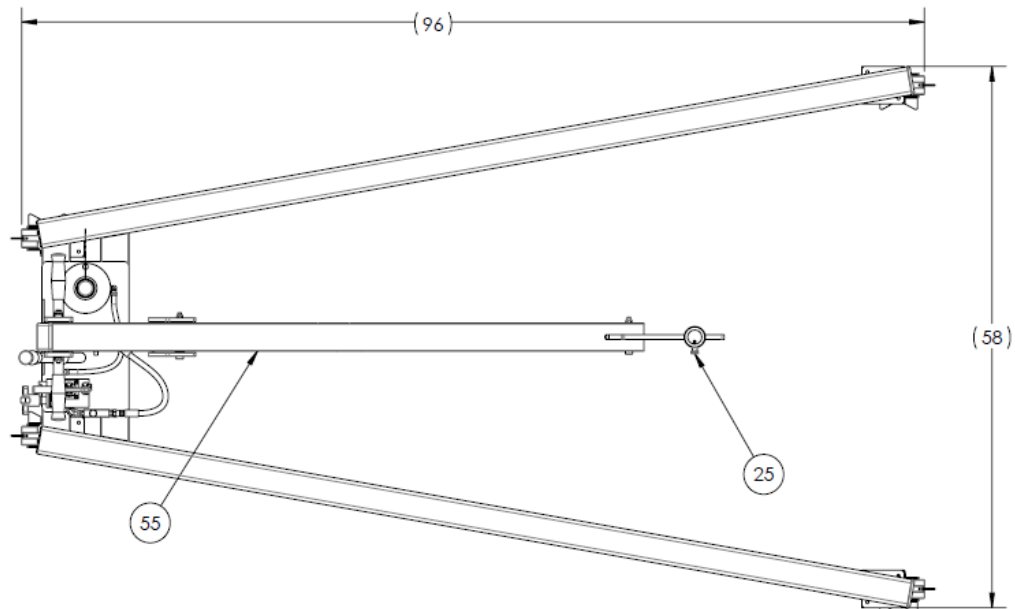
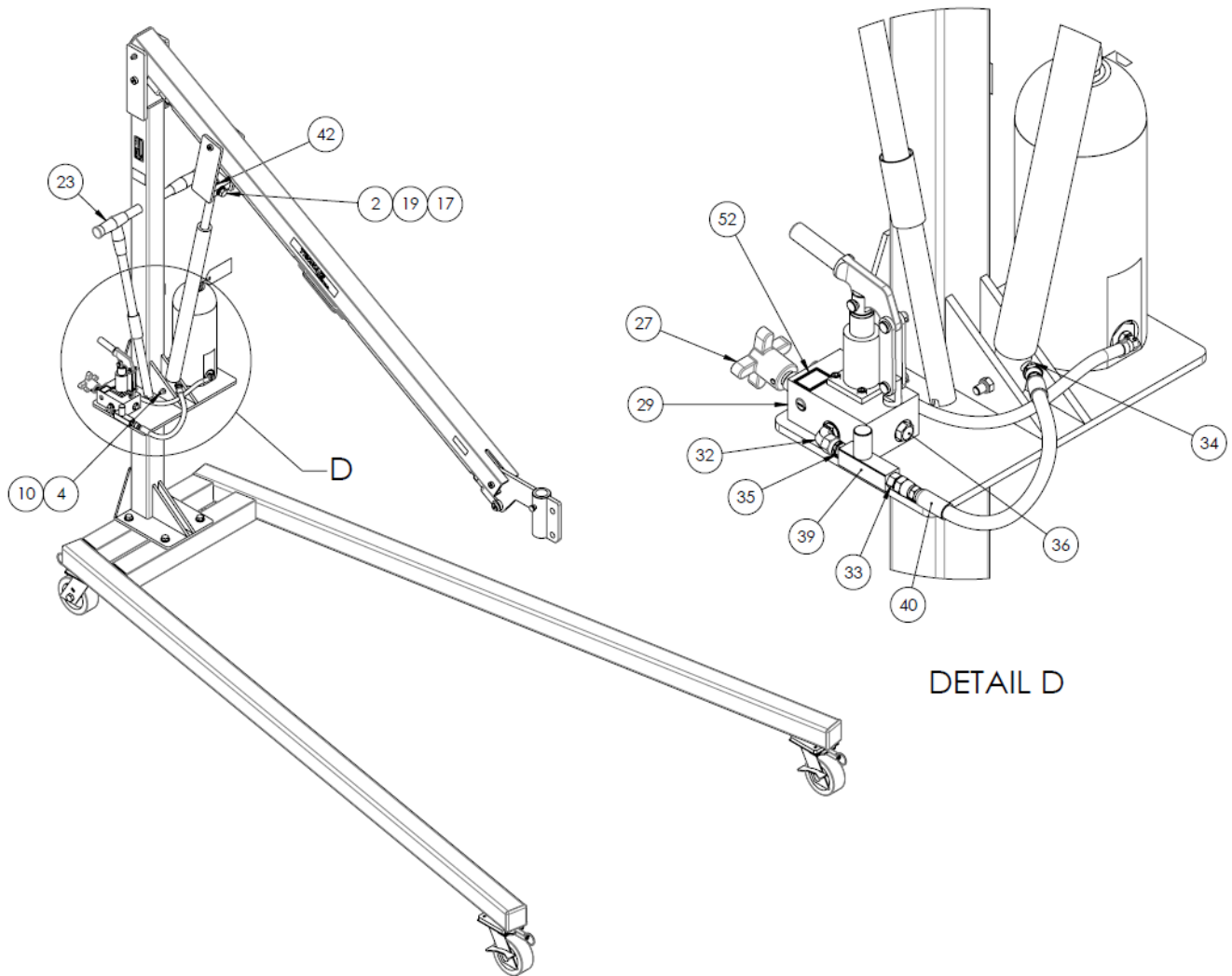
- a) Product Model Number
- b) Product Serial Number
- c) Description of the problem

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.**

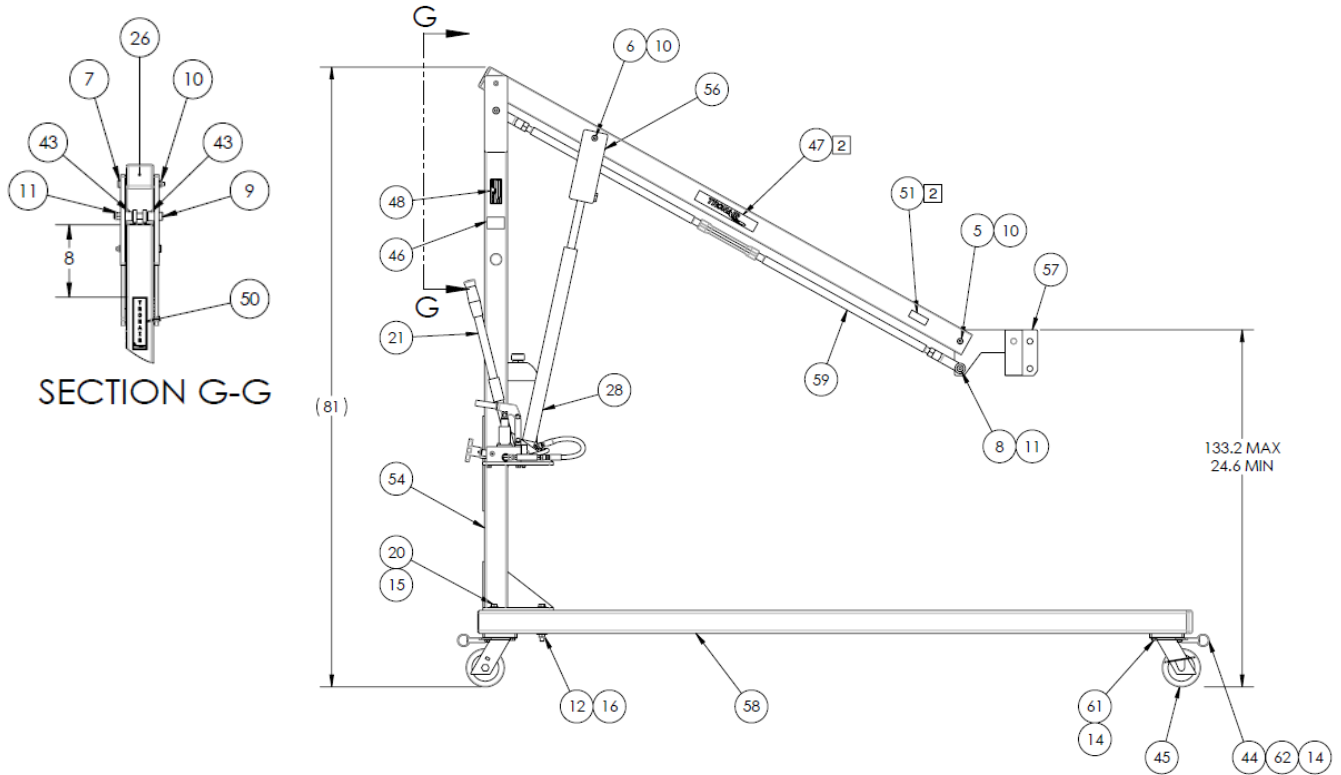
Parts List Illustration

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

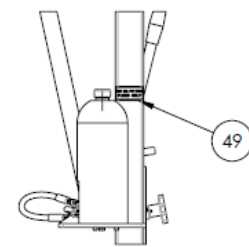
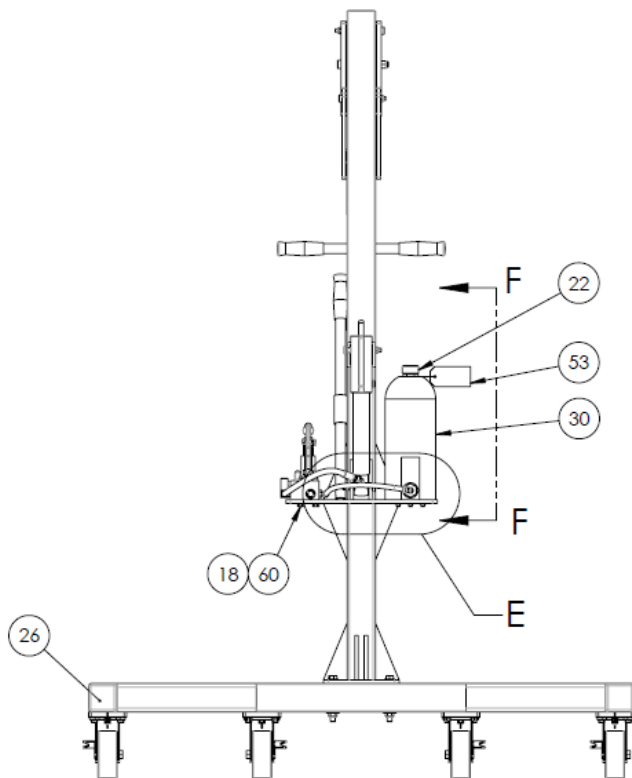


Parts List Illustration

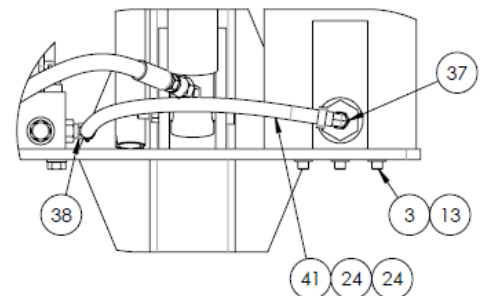
When ordering replacement parts/kits, please specify model, serial number and color of your unit.



SECTION G-G



SECTION F-F



DETAIL E

Parts List

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

| Item | Part Number | Description | Qty |
|------|-----------------|---|-----|
| 2 | G-1100-110026 | BOLT, 5/8-11 X 2-3/4" HEX HD GR 5 | 1 |
| 3 | G-1151-105006 | SCR, 1/4 - 20 HEX SOC HD CAP | 3 |
| 4 | G-1155-107224 | SCREW, 1/2 X 2-1/2" LG SOCKET HD SHOULDER | 1 |
| 5 | G-1155-107230 | SCREW, 1/2 X 3.0" LG SOCKET HD SHOULDER | 1 |
| 6 | G-1155-107240 | SCREW, 1/2 X 4.0" LG SOCKET HD SHOULDER | 1 |
| 7 | G-1155-107242 | SCREW, 1/2 X 4-1/4" LG SOCKET HD SHOULDER | 1 |
| 8 | G-1155-109214 | SCREW, 5/8 X 1-1/2" LG SOCKET HD SHOULDER | 1 |
| 9 | G-1155-109242 | SCREW, 5/8 X 4-1/4" LG SOCKET HD SHOULDER | 1 |
| 10 | G-1202-1070 | STOPNUT, 3/8-16 ELASTIC | 4 |
| 11 | G-1202-1090 | STOPNUT, 1/2-13 ELASTIC | 2 |
| 12 | G-1202-1095 | STOPNUT, 1/2-20 ELASTIC | 4 |
| 13 | G-1250-1050N | FLATWASHER, 1/4 NARROW | 3 |
| 14 | G-1250-1070N | FLATWASHER, 3/8 NARROW | 16 |
| 15 | G-1250-1090N | FLATWASHER, 1/2 NARROW | 4 |
| 16 | G-1250-1090W | FLATWASHER, 1/2 ID WIDE | 4 |
| 17 | G-1250-1100N | FLATWASHER, 5/8 NARROW | 1 |
| 18 | G-1251-1070R | LOCKWASHER, 3/8 REGULAR | 2 |
| 19 | G-1251-1100R | LOCKWASHER, 5/8 REGULAR | 1 |
| 20 | G-1420-109544 | BOLT, 1/2-20 X 4-1/2" HEX HD GR 8 | 4 |
| 21 | H-1009-01 | HANDLE, PUMP | 1 |
| 22 | H-1045 | BREATHER | 1 |
| 23 | H-1223 | GRIP, HANDLE | 2 |
| 24 | H-1516-08 | CLAMP, 2-EAR HOSE | 2 |
| 25 | H-1645 | KNOB | 1 |
| 26 | H-2649-18 | CAP, END (SQUARE) 3 | 3 |
| 27 | H-3881 | KNOB, MODIFIED | 1 |
| 28 | HC-1683-02 | CYLINDER, SINGLE ACTING | 1 |
| 29 | HC-2322 | PUMP, HYD HAND CE (3000 PSI) | 1 |
| 30 | HC-2328 | RESERVOIR, TRANSLUCENT | 1 |
| 31 | INS-2295 | INS, TESTING INSTRUCTION | 1 |
| 32 | N-2001-08-S-B | ELBOW, STRAIGHT THREAD | 1 |
| 33 | N-2007-38-S-B | CONNECTOR, STRAIGHT THREAD | 1 |
| 34 | N-2021-08-S | ELBOW, MALE 45 DEG | 1 |
| 35 | N-2036-16-S-B | SWIVEL, 37 DEG FEMALE | 1 |
| 36 | N-2053-05-S-B | PLUG, HEX HD W/ O-RING | 1 |
| 37 | N-2788-01-S-B | ELBOW, 1/4 HOSE 1/4 SAE PORT | 1 |
| 38 | N-2788-02-S-B | ELBOW, 1/4 HOSE, -06 SAE | 1 |
| 39 | N-3002 | VALVE, FLOW CONTROL | 1 |
| 40 | TF-1043-03-16.0 | ASSEMBLY, HOSE | 1 |
| 41 | TF-1047-01-14.0 | HOSE, 1/4' GREY | 1 |
| 42 | TR-2583 | BUSHING, PIVOT | 1 |
| 43 | TR417-06-000.75 | TBG, 6061-T6 1.00D-.125W | 2 |
| 44 | U-1087 | LOCK, DEMOUNTABLE SWIVEL | 4 |

Parts List

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

| Item | Part Number | Description | Qty |
|------|---------------|---------------------------------|-----|
| 45 | U-1183 | CASTER, SWIVEL | 4 |
| 46 | V-1001 | LABEL, MADE IN USA | 1 |
| 47 | V-1002 | LABEL, TRONAIR | 2 |
| 48 | V-1003 | LABEL, SERIAL NO. | 1 |
| 49 | V-1102 | LABEL, MIL-PRF-5606 | 1 |
| 50 | V-1198 | LABEL, TRONAIR | 1 |
| 51 | V-1769 | LABEL, MAX CAPACITY 250 LB | 2 |
| 52 | V-1776 | LABEL, DOWN | 1 |
| 53 | V-1807 | TAG, RESERVOIR FILL | 1 |
| 54 | Z-8648-00 | WELDMENT, POST (P) | 1 |
| 55 | Z-8649-00 | WELDMENT, BEAM (P) | 1 |
| 56 | Z-8654-00 | WELDMENT, MAIN PIVOT (P) | 1 |
| 57 | Z-8869-00 | WELDMENT, TRAY SUPPORT | 1 |
| 58 | Z-9174-00 | WELDMENT, BASE (P) | 1 |
| 59 | Z-9381 | ASSY, ROD CONNECTOR | 1 |
| 60 | G-1100-107010 | BOLT, 3/8-16 X 1.0" HEX HD GR 5 | 2 |
| 61 | G-1100-107004 | BOLT, 3/8-16 X 1/2" HEX HD GR 5 | 8 |
| 62 | G-1100-107006 | BOLT, 3/8-16 X 3/4" HEX HD GR 5 | 8 |