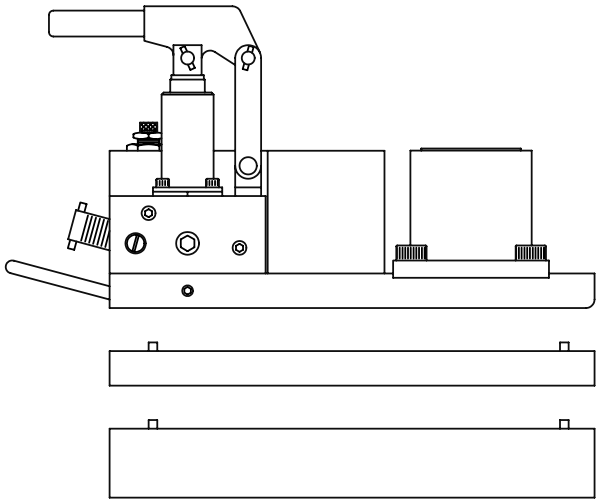
Operation & Service Manual



Model: 02-7813C0100

12 Ton (10.8 Metric Ton) Two Stage

Hydraulic Axle Jack

CE

06/2006 – Rev. OR

Includes Illustrated Parts List

Tronair, Inc.

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Revision	Date	Text Affected
OR	06/2006	Original Release

Model: 02-7813-0100
12 Ton Two Stage Hydraulic Axle Jack

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.

1.0 DESCRIPTION

The Tronair Model 02-7813C0100 Hydraulic Axle Jack incorporates the following quality features:

- Steel construction
- Two-stage hydraulic extension
- Two stage mechanical extension
- Single speed, manually operated pump
- Uses standard MIL-H-5606 hydraulic fluid
- Preset relief/release valve
- Two sizes of base spacer blocks

2.0 USAGE

The purpose of this jack is to lift aircraft for maintenance. It has a maximum capacity of 12 tons (106.75 kN).

Optional Kit K-1945 is offered which includes one each of the two different base spacer blocks. These may be required on some aircraft in order to raise the jack closer to the jack pad.

3.0 SPECIFICATIONS

- Vertical capacity 24,000 lbs (106.75 kN)
- Minimum closed height 4.63 in (11.76 cm)
- Mechanical extension 4.50 in (11.43 cm)
- Hydraulic extension 6.00 in (15.24 cm)
- Maximum height obtainable 15.13 in (38.43 cm)
- Weight 40 lbs (177.93 N)
- BUNA 'N' Seals

NOTE: These numbers increase accordingly when base spacer blocks are used.

4.0 ASSEMBLY INSTRUCTIONS

4.1 GENERAL INFORMATION

This product should be assembled and/or repaired using good workmanship practices and proper tools.

All replacement parts must be the same as or equal to the original parts supplied.

4.2 PRE-USE CHECKS

Refer to the Illustrated Parts List to identify and ensure that all parts are present.

- Generally check over unit to assure the tightness of all nuts, bolts and screws.
- With rams completely collapsed, check hydraulic fluid level is between one- half (1/2) and three-quarter (3/4) inches from top of reservoir fitting. Replenish with MIL-H-5606 fluid as required.

5.0 OPERATING INSTRUCTIONS

The user should be familiar with the following statements prior to using the jack(s).

CAUTION!

- **Never put hands between aircraft and jack pad.**
- **Always open reservoir vent screw before operating.**

5.0 Operating instructions continued on following page

5.0 OPERATING INSTRUCTIONS *(continued)*

5.1 JACK INSTRUCTIONS

To Raise Aircraft:

1. Place jack on a hard level surface.
2. Raise jack as close to aircraft jack pad as possible, with appropriate base spacer blocks. Screw out the center mechanical extension for final adjustment.
3. Open reservoir vent screw.
4. Close pump release valve and operate pump.

To Lower Aircraft:

1. Loosen pump release valve slightly to slowly lower aircraft.

6.0 MAINTENANCE

GENERAL

- All maintenance and/or repair work should be done using good workmanship practices and proper tools.
- The work area should be clean and free of dirt.
- When O-rings and backup rings are removed, every effort should be made to avoid the contact of tools with the critical surfaces of parts. Surface deformities could cause degradation of seals and failure.
- It is good practice to replace all O-rings and backup rings once removed. Cut and damaged rings normally result in fluid leakage.
- At this time flush old hydraulic fluid and dirt from overall system and replenish with new, clean hydraulic fluid.
- No modifications shall be carried out which adversely affect the compliance of the jack with draft standard 98/37/EC.

6.1 SERVICING JACK

To Disassemble Jack

1. Collapse jack rams.
2. Remove vent screw and drain all fluid from reservoir.
3. Remove cap screws (Item 25) surrounding jack cylinder, then remove flange, (Item 23).
4. Lift cylinder from jack base (Item 16). Operate jack hand pump to help remove cylinder.
5. Remove retaining ring (Item 12) and unscrew retaining plug, (Item 15).
6. Separate rams and replace all seals including retaining ring.

To Reassemble Jack

1. Reassemble in reverse order of above.
2. Torque each cap screw (Item 25) to 50-55 ft-lbs.

6.2 REMOVING AND SERVICING PUMP

NOTE: If pump is found faulty, call the factory for replacement or replace seals as follows:

Review Appendix I - HC-2332-01 Hand Pump Parts List during the following procedure:

1. Drain all fluid from reservoir.
2. Remove pump from jack.
3. Remove cotter pin (Item 16) from clevis pin.
4. Remove four (4) socket head cap screws.
5. Remove flanges.
6. Remove tube assembly (Item 14).
7. Replace O-rings and backup ring. See Pump Parts List for kits available.
8. Re-assemble in reverse order.
9. Torque each **3/8** socket head cap screw to 20-25 ft-lbs. Torque each ¼ socket head cap screw 10 to 12 ft-lbs.

6.0 MAINTENANCE *(continued)*

6.3 JACK FUNCTION LOAD TEST

1. Take all necessary precautions to prevent injury.
2. Always jack against a load and never against the jack itself.
3. Do not exceed a test load equal to the jack rated capacity plus 10%.

7.0 TROUBLE SHOOTING

Ram will not rise or rises erratically

PROBABLE CAUSE	CORRECTIVE ACTION
High pressure leaks (at joint, plugs or tubing)	Re-tighten or repair
Leaky discharge check valve	Open release valve. Pump rapidly to dislodge; Or repair pump
Leaky ram O-ring seal	Replace seals (Order: K-1934 Kit)
Leaky release valve	Tighten release valve
Leaky pump O-ring seal	Repair pump (Ref. Appendix I: K-1939 Kit)
Lack of oil	Refill reservoir check system for leaks
Sticking inlet check valve	Open release valve. Pump rapidly to dislodge; Or repair pump
Closed air vent	Open air vent
Air under ram	Bleed system
Plugged inlet diffuser inside reservoir tank	Replace inlet diffuser (Order: H-2679)

Jack will not lower or lowers slowly

PROBABLE CAUSE	CORRECTIVE ACTION
Closed air vent or release valve	Open air vent
Broken pump release valve	Replace release valve
Bent ram	Replace suspected ram assembly
Plugged inlet diffuser inside reservoir tank	Replace inlet diffuser (Order: H-2679)

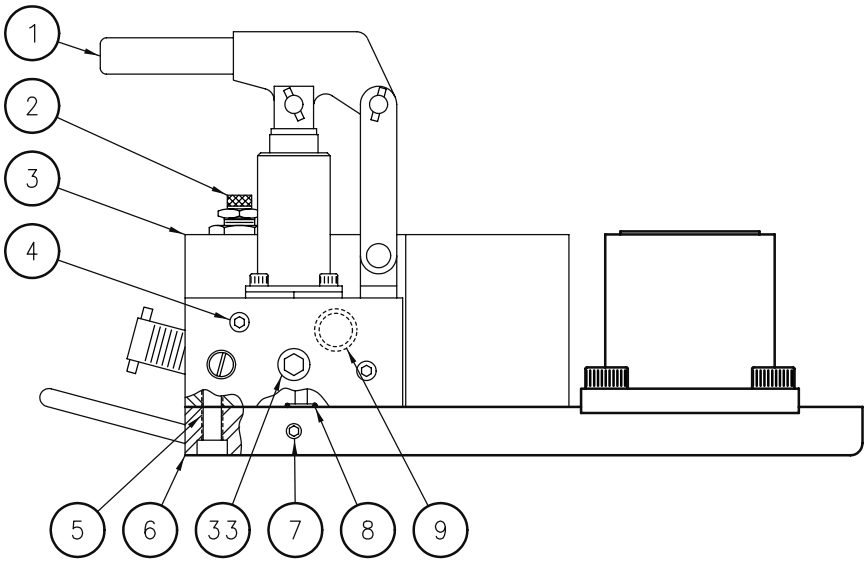
8.0 PARTS LIST

Reference Pages 4 – 8 for ordering information of Replacement Parts and Kits.

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

Parts List

This Axle Jack uses MIL-H-5606/MIL-H-83282 Fluid Only.



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

ITEM	PART NUMBER	DESCRIPTION	QTY
2	H-1720	Screw, Vent	1
6	J-3418-01	Assembly, Base Plate	1
7	N-2248	Plug, 1/16 NPT Pipe	1
8	HC-2000-111	O-ring, Pump/Base	1
9	HC-2000-210	O-ring, Pump/Reservoir	1
33	N-2205-04-S	Plug, 3/8" Pipe	1
	K-4026	**Kit, Pump Replacement**; *consists of:*	
1	HC-2332-01	Hydraulic Hand Pump (Assembled)	1
4	G-1151-105224	Socket Head Cap Screw, ¼-20 x 2 ½" long	2
5	G-1151-107210	Socket Head Cap Screw, 3/8 -16 x 1" long	4
8	HC-2000-111	Pump/Base O-ring	1
9	HC-2000-210	Pump/Reservoir O-ring	1
	K-1931	**Kit, Reservoir Replacement**; *consists of:*	
2	H-1720	Vent Screw	1
3	HC-1536-01	Reservoir	1
4	G-1151-105224	Socket Head Cap Screw, ¼-20 x 2 ½" long	2
9	HC-2000-210	Pump/Reservoir O-ring	1

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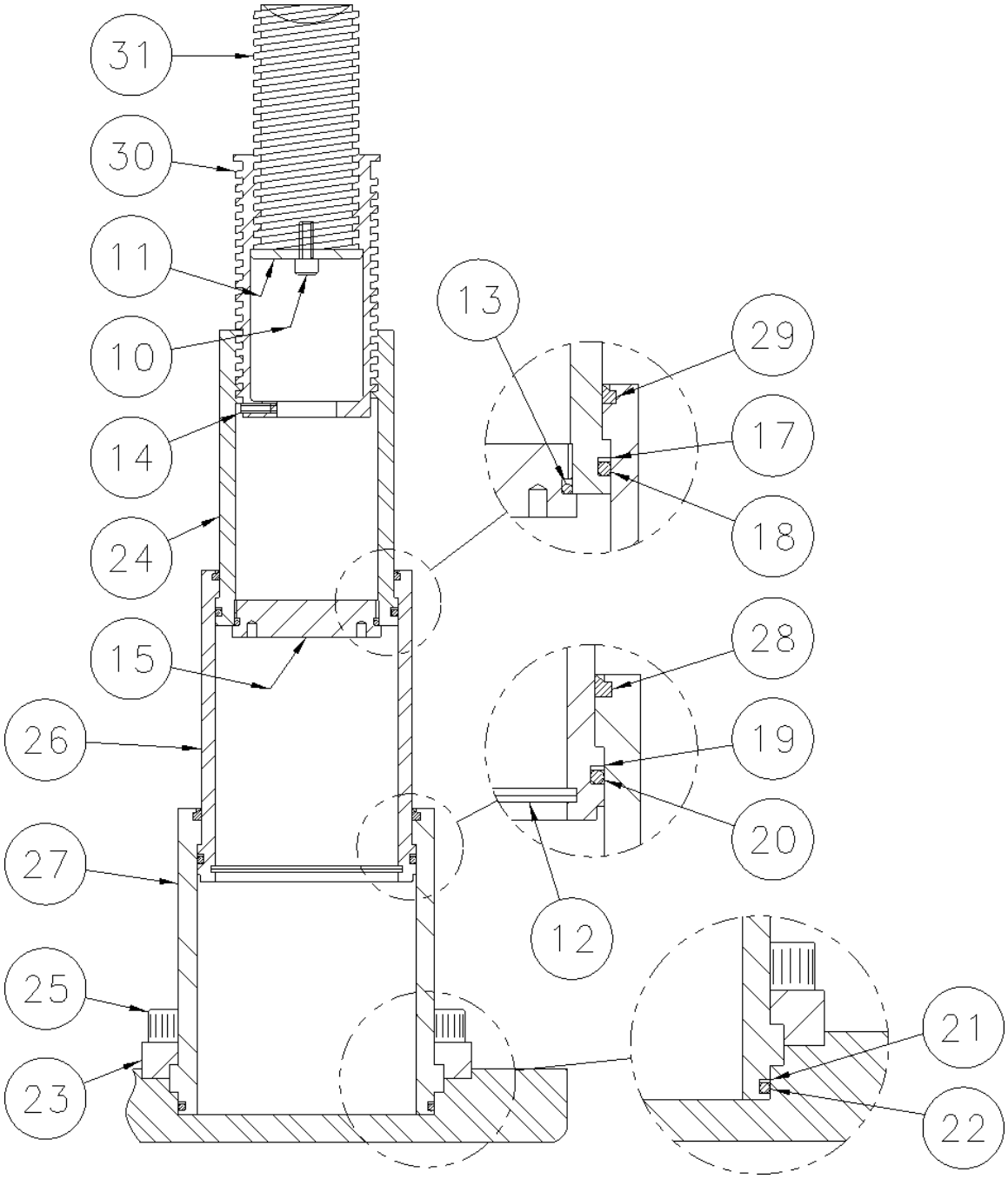
Parts List

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



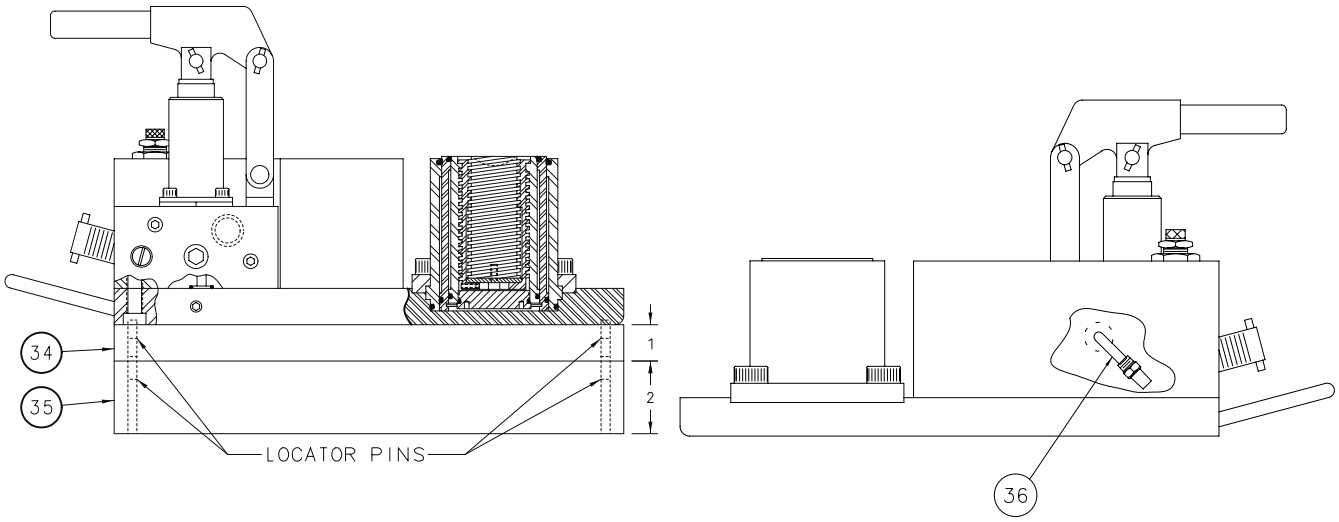
Parts List

This Axle Jack uses MIL-H-5606/MIL-H-83282 Fluid Only.

ITEM	PART NUMBER	DESCRIPTION	QTY
10	G-1151-105006	Socket Head Cap Screw, ¼-20 x ¾" long	1
11	G-1475	Retaining Washer	1
12	G-1394	Retaining Ring	1
14	G-1187-01	Set Screw, Hex 10-32 x 3/8" long	1
15	R-1325	Retaining Plug	1
23	J-1845	Flange	1
24	TR-1299	2nd Stage Ram	1
25	G-1165	Socket Head, Cap Screw, ½-20 x 1 ½" long	4
26	TR-1298	1st Stage Ram	1
27	TR-1300	Outer Tube	1
30	TR-1809	Outer Mechanical Extension	1
31	TR-1810	Inner Mechanical Extension	1
	K-1934	**Kit, Seal Replacement**; *consists of:*	
12		Retaining Ring	1
13		Retaining Plug O-ring	1
17		2nd Stage Backup Ring	1
18		2nd Stage O-ring	1
19		1st Stage Backup Ring	1
20		1st Stage O-ring	1
21		Outer Tube Backup Ring	1
22		Outer Tube O-ring	1
25		Socket Head Cap Screw	4
28		1st Stage Rod Wiper	1
29		2nd Stage Rod Wiper	1
	K-3701	**Kit, Cylinder Assembly Replacement**; *consists of:*	
10		Screw, Socket Head Cap, ¼-20 x ¾" long	1
11		Washer, Retaining	1
12		Ring, Retaining	1
13		O-ring, Retaining Plug	1
14		Screw, Hex Set, 10-32 x 3/8" long	1
15		Plug, Retaining	1
17		Backup Ring, 2nd Stage	1
18		O-ring, 2nd Stage	1
19		Backup Ring, 1st Stage	1
20		O-ring, 1st Stage	1
21		Backup Ring, Outer Tube	1
22		O-ring, Outer Tube	1
24		Ram Tube, 2nd Stage	1
26		Ram Tube, 1st Stage	1
27		Tube, Outer	1
28		Rod Wiper, 1st Stage	1
29		Rod Wiper, 2nd Stage	1
30		Tube, Outer Extension	1
31		Tube, Inner Extension	1

Parts List

This Axle Jack uses MIL-H-5606/MIL-H-83282 Fluid Only.



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

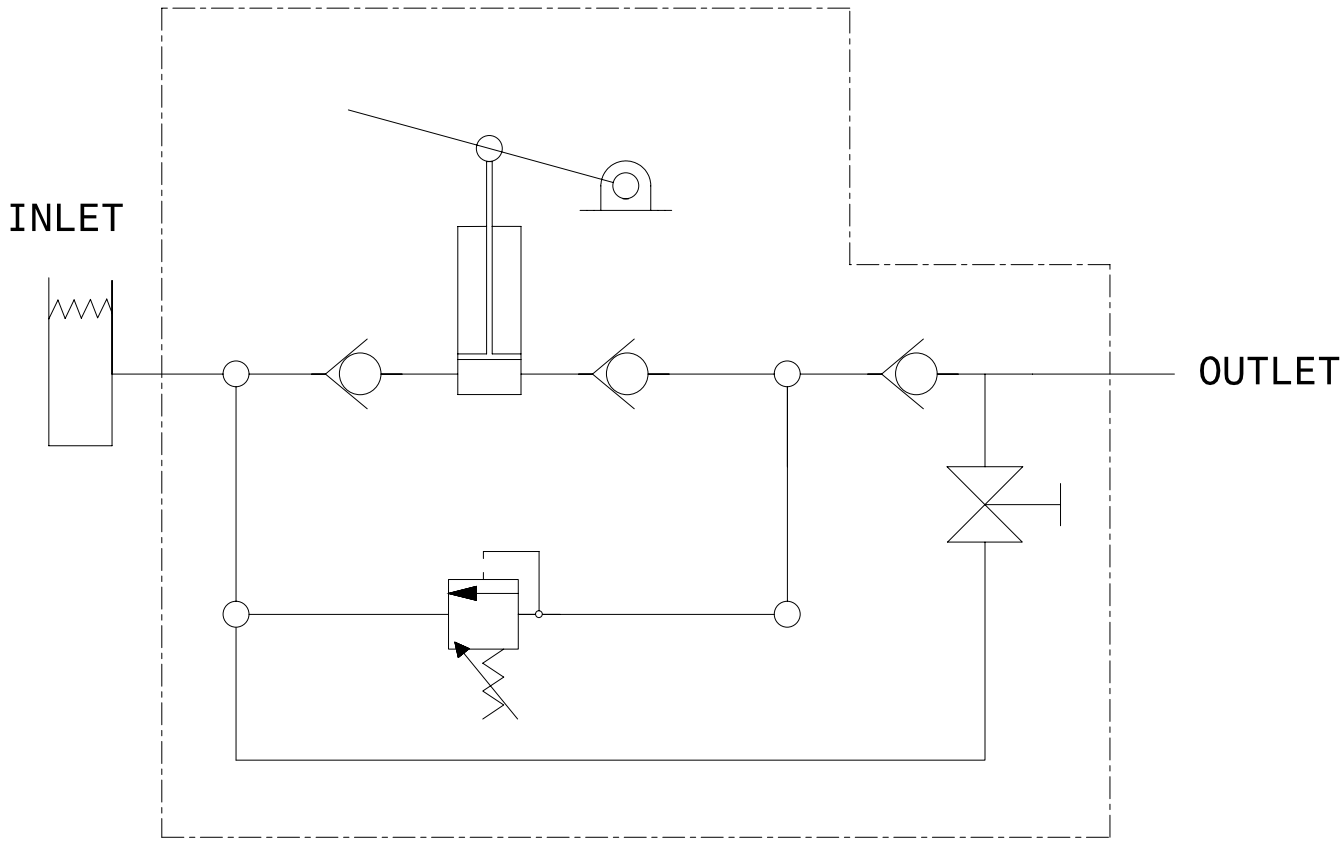
ITEM	PART NUMBER	DESCRIPTION	QTY
34	Z-2168-01	1" Base Spacer Block	1
35	Z-2169-01	2" Base Spacer Block	1
36	H-2679	Inlet Diffuser	1

NOTE:
Optional Kit Available for Axle Jack (K-1945); consists of:
One (1) Extension Base Blocks (Z-2168-01, 1 inch height)
One (1) Extension Base Blocks (Z-2169-01, 2 inches height)

APPENDIX I

Hydraulic Schematic

Hydraulic Schematic



HYDRAULIC SCHEMATIC

APPENDIX II

HC-2332-01
5,250 psi
Hand Pump
Parts List

Model: HC-2332-01
5250 psi
Hand Pump

***

Parts List
With Illustrations

06/2006 – Rev. OR

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

Tronair, Inc.

1740 Eber Road
Holland, Ohio 43528-9794
USA
Telephone: (419) 866-6301 • 800-426-6301
Fax: (419) 867-0634
Web Site: www.tronair.com E-mail: sales@tronair.com

Model: HC-2332-01
5250 PSI Hand Pump

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.

Parts List

This pump is compatible with MIL-H-5606/MIL-H-83282 hydraulic fluid.

Reference Parts List Illustration on Page 3.

REPLACEMENT PARTS

ITEM	PART NUMBER	DESCRIPTION	QTY
1	CXD-060025-001	Pump Body	1
9	506-000	Flange Half	4
11	511-360-001	Handle	1
13	507-050	Piston	1
15	504-050	Tube	1
16	529-000	Handle Grip	1
19	520-050	Snap Ring	1
23	518-000	Socket Head Cap Screw, 1/4-20 x 3/4" long	4
24	503-001	Valve Body	1
25	540-000	Pipe Plug	1
34	CXD-000003-04	Screw Retainer	1

All other parts available in Replacement Kits only.

REPLACEMENT KITS

ITEM	PART NUMBER	DESCRIPTION	QTY
	K-4027	**Kit, Release Valve Replacement**; consists of:	
34		Screw Retainer	1
35		Release Valve	1
	K-1068	**Kit, Linkage Replacement;** *consists of:*	
10		Pivot	1
12		Pin Assembly	2
14		Strap	2
17		Pump Handle Bracket	1
18		Clevis Pin Assembly	1
	K-4028	**Kit, Internal Parts Replacement;** *consists of:*	
4		Outlet Check Spring	1
5		Outlet Check Ball	1
6		Inlet Check Spring	1
8		Inlet Check Ball	1
30		Ball	1
31		Spring	1

Replacement Kits List continued on following page.

Parts List

This pump is compatible with MIL-H-5606/MIL-H-83282 hydraulic fluid.

Reference Parts List Illustration on Page 3.

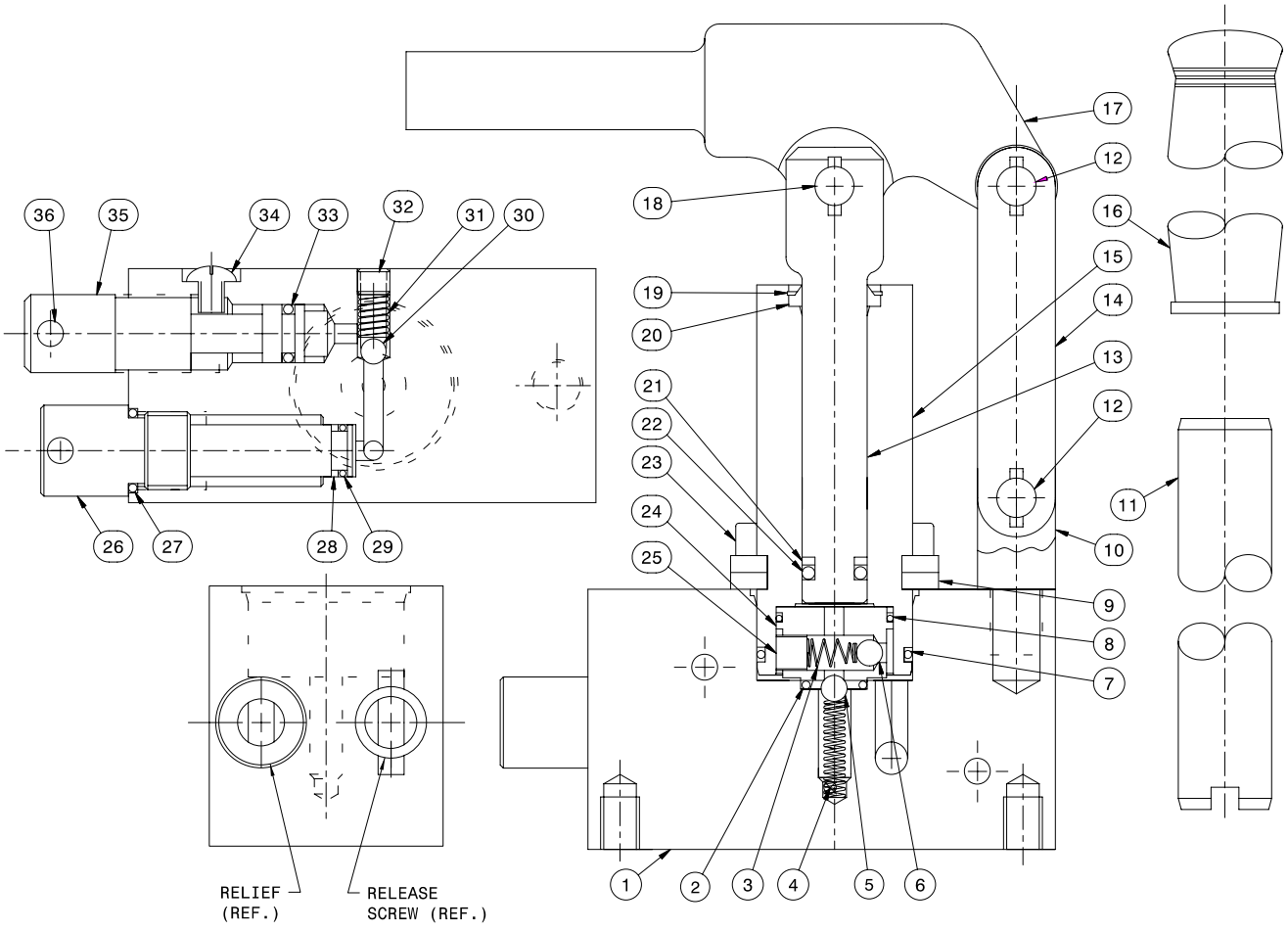
REPLACEMENT KITS

ITEM	PART NUMBER	DESCRIPTION	QTY
	K-4029	**Kit, Seal Replacement;** *consists of:*	
2		Outlet Check O-Ring	1
7		Tube Seal O-Ring	1
8		Valve Body O-Ring	1
20		Rod Wiper	1
21		Backup Ring	1
22		Piston Seal O-Ring	1
27		Relief Valve O-Ring	1
28		Relief Valve Back Up Ring	1
29		Relief Valve O-Ring	1
33		Release Valve O-Ring	1
Not Shown		♦♦ Pump / Reservoir O-Ring	1
Not Shown		♦♦ Pump / Base Plate O-Ring	1

♦♦ ***Refer to your axle jack parts list for correct location.***

NOTE: Entire pump assembly can be purchased as a kit. See Hydraulic Jack Parts List pertaining to your model.

Parts List Illustration



WARNING!

Item 26 (H-2934) is a preset relief valve. Do Not disassemble this valve. Replacement parts are available as a preset relief valve assembly

TRONAIR

APPENDIX III

MSDS
Hydraulic Fluid
(MIL-H-5606)

ExxonMobil

490110-00 MOBIL AERO HFA
MATERIAL SAFETY DATA BULLETIN

---

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MOBIL AERO HFA
SUPPLIER: EXXONMOBIL OIL CORPORATION
3225 GALLOWS RD.
FAIRFAX, VA 22037

24 - Hour Health and Safety Emergency (call collect): 609-737-4411

24 - Hour Transportation Emergency:
CHEMTREC: 800-424-9300 202-483-7616
LUBES AND FUELS: 281-834-3296

Product and Technical Information:
Lubricants and Specialties: 800-662-4525 800-443-9966
Fuels Products: 800-947-9147
MSDS Fax on Demand: 613-228-1467
MSDS Internet Website: http://emmsds.ihssolutions.com/

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES

GLOBALLY REPORTABLE MSDS INGREDIENTS:

None.

OTHER INGREDIENTS:

Substance Name	Approx. Wt%
HYDROTREATED LIGHT NAPHTHENIC DISTILLATE (PETROLEUM) (64742-53-6)	85-95

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION

This product is considered hazardous according to regulatory guidelines (See Section 15).

EMERGENCY OVERVIEW: Red Liquid. DOT ERG No. : NA
POTENTIAL HEALTH EFFECTS: Low viscosity material-if swallowed may

enter the lungs and cause lung damage. Prolonged repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis.

For further health effects/toxicological data, see Section 11.

---

4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. Discard shoes if material has penetrated to inside surfaces. High pressure accidental injection through the skin requires immediate medical attention for possible incision, irrigation and/or debridement.

INHALATION: Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance and call a physician. If breathing has stopped, use mouth to mouth resuscitation.

INGESTION: Get medical assistance and call a physician immediately. Do not induce vomiting or give anything by mouth to an unconscious person.

NOTE TO PHYSICIANS: Material if ingested may be aspirated into the lungs and can cause chemical pneumonitis. Treat appropriately.

---

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

COMBUSTION PRODUCTS: Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

Flash Point C(F): > 105(221) (ASTM D-93).

Flammable Limits (approx.% vol.in air) - LEL: NE, UEL: NE

NFPA HAZARD ID: Health: 1, Flammability: 1, Reactivity: 0

---

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Eliminate all ignition sources. Ventilate area. Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up with spark-resistant

shovel and remove to appropriate waste disposal facility in accordance with current applicable laws and regulations.
ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering storm sewers or drains and contact with soil.
PERSONAL PRECAUTIONS: See Section 8

---

7. HANDLING AND STORAGE

HANDLING: Avoid prolonged repeated skin contact. Avoid inhalation of vapors or mists. Wash thoroughly after handling. High pressure injection under the skin may occur due to the rupture of pressurized lines. Always seek medical attention.
STORAGE: Do not store in open or unlabelled containers. Store away from strong oxidizing agents and combustible materials. Store in a cool, dry, well ventilated area away from heat.
SPECIAL PRECAUTIONS: Prevent small spills and leakages to avoid slip hazard.
EMPTY CONTAINER WARNING: Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

---

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS: When mists/aerosols can occur, the following are recommended: 5 mg/m3(as oil mist)- ACGIH Threshold Limit Value (TLV), 10 mg/m3 (as oil mist)
- ACGIH Short Term Exposure Limit (STEL), 5 mg/m3 (as oil mist) - OSHA Permissible Exposure Limit (PEL)

VENTILATION: Use in well ventilated area. If mechanical ventilation is necessary, equipment should be explosion proof.
RESPIRATORY PROTECTION: Approved respiratory protective equipment must be used when vapor or mists concentrations exceed applicable standards. No special requirements under ordinary conditions of use and with adequate ventilation.
EYE PROTECTION: Normal industrial eye protection practices should be employed.
SKIN PROTECTION: If prolonged or repeated skin contact is likely, impervious gloves should be worn. Good personal hygiene practices should always be followed.

---

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.

APPEARANCE: Liquid
COLOR: Red

ODOR: Mild
ODOR THRESHOLD-ppm: NE
pH: NA
BOILING POINT C(F): NE
MELTING POINT C(F): NA
FLASH POINT C(F): > 105(221) (ASTM D-93)
FLAMMABILITY (solids): NE
AUTO FLAMMABILITY C(F): NE
EXPLOSIVE PROPERTIES: NA
OXIDIZING PROPERTIES: NA
VAPOR PRESSURE-mmHg 20 C: NE
VAPOR DENSITY: NE
EVAPORATION RATE: NE
RELATIVE DENSITY, 15/4 C: 0.85
SOLUBILITY IN WATER: Negligible
PARTITION COEFFICIENT: NE
VISCOSITY AT 40 C, cSt: 13.8
VISCOSITY AT 100 C, cSt: 5.3
POUR POINT C(F): -70(-94)
FREEZING POINT C(F): NE
VOC: < 80.00 (Wt. %); 5.669 lbs/gal
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

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10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable.
CONDITIONS TO AVOID: Heat, sparks, flame and build up of static electricity. Protect from direct sunlight.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Product does not decompose at ambient temperatures.
HAZARDOUS POLYMERIZATION: Will not occur.

---

11. TOXICOLOGICAL DATA

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.
DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.
INHALATION TOXICITY (RATS): Not established
EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: greater than 6 but 15 or less). ---Based on testing of similar products and/or the components.
SKIN IRRITATION (RABBITS): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). ---Based on testing of similar products and/or the components.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Severely solvent refined and severely hydrotreated mineral base oils have been tested at Mobil Environmental and Health Sciences Laboratory by dermal application to rats 5 days/week for 90 days

at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects. These results are confirmed on a continuing basis using various screening methods such as the Mobil Modified Ames Test and IP-346.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: This environmental assessment was conducted using information on the individual components as no test data was available for this specific formulation.

ECOTOXICITY: This material is not expected to be harmful to aquatic organisms.

MOBILITY: Dissolution of the higher molecular weight hydrocarbon components in water will be limited, but losses through sediment adsorption may be significant.

PERSISTENCE AND DEGRADABILITY: The majority of the components in this product are expected to be inherently biodegradable.

BIOACCUMULATIVE POTENTIAL: This product contains components with the potential to bio-accumulate.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity. The unused product is not formulated with substances covered by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14. TRANSPORT INFORMATION

USA DOT: NOT REGULATED BY USA DOT.

RID/ADR: NOT REGULATED BY RID/ADR.

IMO: NOT REGULATED BY IMO.

IATA: NOT REGULATED BY IATA.

15. REGULATORY INFORMATION

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined to be hazardous.

EU Labeling: Product is not dangerous as defined by the European Union Dangerous Substances/Preparations Directives.

Symbol: Not applicable.

Risk Phrase(s): Not applicable.

Safety Phrase(s): S24-62.
Avoid contact with skin. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Contains: Low Viscosity Oil.

Governmental Inventory Status: All components comply with TSCA, EINECS/ELINCS, AICS, METI, and DSL.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES:
CHRONIC ACUTE

This product contains no chemicals subject to the supplier notification requirements of SARA (313) toxic release program.

The following product ingredients are cited on the lists below:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
TRIPHENYL PHOSPHATE (0.15%)	115-86-6	22

--- REGULATORY LISTS SEARCHED ---

1=ACGIH ALL	6=IARC 1	11=TSCA 4	16=CA P65 CARC	21=LA RTK
2=ACGIH A1	7=IARC 2A	12=TSCA 5a2	17=CA P65 REPRO	22=MI 293
3=ACGIH A2	8=IARC 2B	13=TSCA 5e	18=CA RTK	23=MN RTK
4=NTP CARC	9=OSHA CARC	14=TSCA 6	19=FL RTK	24=NJ RTK
5=NTP SUS	10=OSHA Z	15=TSCA 12b	20=IL RTK	25=PA RTK
				26=RI RTK

Code key: CARC=Carcinogen; SUS=Suspected Carcinogen; REPRO=Reproductive

16. OTHER INFORMATION

USE: AVIATION HYDRAULIC FLUID

NOTE: PRODUCTS OF EXXON MOBIL CORPORATION AND ITS AFFILIATED COMPANIES ARE NOT FORMULATED TO CONTAIN PCBS.

Health studies have shown that many hydrocarbons pose potential human health risks which may vary from person to person. Information provided on this MSDS reflects intended use. This product should not be used for other applications. In any case, the following advice should be considered:

INJECTION INJURY WARNING: If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

Precautionary Label Text:

CONTAINS LOW VISCOSITY OIL

CAUTION!

LOW VISCOSITY MATERIAL-IF SWALLOWED, MAY BE ASPIRATED AND CAN CAUSE SERIOUS OR FATAL LUNG DAMAGE. MAY CAUSE NOSE, THROAT AND LUNG IRRITATION, DIZZINESS, NAUSEA, LOSS OF CONSCIOUSNESS.

PROLONGED, REPEATED SKIN CONTACT MAY CAUSE IRRITATION.

Keep away from heat, sparks, and flame. Avoid breathing vapor. Avoid contact with skin or clothing. Keep container closed. Use with adequate ventilation.

FIRST AID: If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician immediately. In case of contact, wash skin with soap and water. Remove contaminated clothing. Call a physician if irritation persists. Wash or dispose of contaminated clothing. If swallowed, seek immediate medical attention. Do not induce vomiting. Only induce vomiting at the instruction of a physician.

For industrial use only. Not intended or suitable for use in or around a household or dwelling.

Empty container may contain product residue, including flammable or explosive vapors. Do not cut, puncture, or weld on or near container. All label warnings and precautions must be observed until container has been thoroughly cleaned or destroyed.

Refer to product Material Safety Data Bulletin for further safety and health information.

****
For Internal Use Only: MHC: 1* 1* NE 1* 1*, MPPEC: C, TRN: 490110-00, ELIS: 400275, CMCS97: 970584, REQ: MIAMI, SAFE USE: C
EHS Approval Date: 12AUG2003
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Prepared by: ExxonMobil Oil Corporation
Environmental Health and Safety Department, Clinton, USA

TRONAIR

APPENDIX - IV

Declaration of Conformity

DECLARATION of CONFORMITY

Axle Jack
02-7813C0100

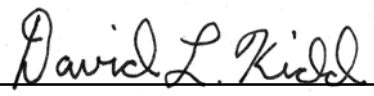
Relevant provisions complied with by the machinery:

98/37/EC

Relevant standards complied with by the machinery:

DIN EN 292-1
DIN EN 292-2

Identification of person empowered to sign on behalf of the manufacturer:



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