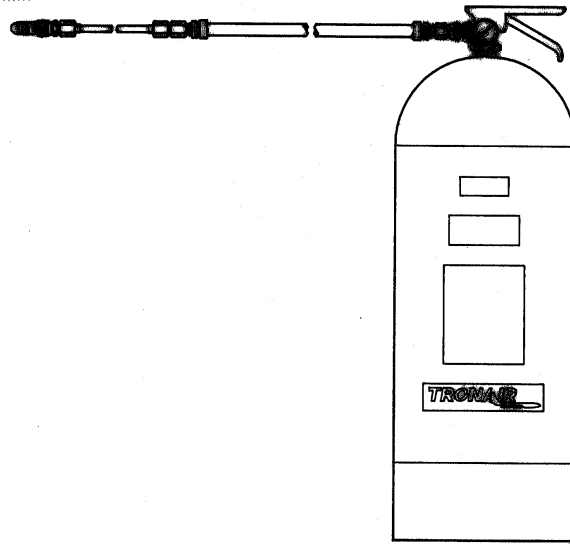




OPERATION & SERVICE MANUAL



Model: 08-4040-4010
Engine Compressor Washer

04/2023 – Rev. 05

REVISION	DATE	TEXT AFFECTED
OR	08/2001	Original Release
01	11/2006	Parts List – Modified Item 5
02	12/2006	Parts List – Modified Item 5
03	10/2019	Major Revision
04	07/2022	Modified Parts List
05	04/2023	Modified 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

The Tronair 08-4040-4010 Engine Compressor Washer is a portable unit with a 2-1/2 gallon capacity, designed to spray cleaning solution and/or clean, fresh water into jet and turbo prop engines.

The purpose of the engine compressor washer is to neutralize salts and acids collected in the engine by rinsing the engine's compressor section.

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

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, 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.

2.2 SAFETY ISSUES



WARNING!

- **Personal injury may result if procedures are not followed.**
- **Never open fluid tank while contents are under pressure.**
- **Never pressurize air tank more than 100 psi.**



CAUTION!

- **Use only clean water and/or engine cleaning fluids approved by engine manufacturer.**
- **Consult aircraft manual for correct procedure in performing engine wash.**

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 unit.

3.2 TRAINING PROGRAM

The employer provided operator training program should cover safety procedures concerning use of the unit in and around the intended aircraft at the intended aircraft servicing location.

3.3 OPERATOR TRAINING

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

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

4.0 PREPARATION AND OPERATION

Follow engine manufacturer's recommendations for cleaning and rinsing engine(s). Use only engine manufacturer's approved fluids. Refer to label (V-1013) on unit. Nozzle is rated for ½ gal/min.

1. Ensure the tank is depressurized by depressing the tank handle prior to opening tank.
2. Fill with desired amount of fluid through fill connection.
3. Pressurize tank with shop air (100 psi Maximum).
4. Remove safety pin.
5. Connect hose assembly.
6. Depress tank handle to dispense pressurized fluid.

5.0 MAINTENANCE

1. Cleaning after each use
Remove cleaning agents from tank after each use and empty tank as follows:
 - a. Invert tank (this saves the remaining fluid in the tank from being emptied).
 - b. Depress tank handle to discharge any remaining pressure left in the tank.
 - c. With tank de-pressurized, remove the tank discharge assembly.
 - d. Pour out any remaining fluid to be salvaged for future use.
 - e. Rinse out tank with clean fresh water.
 - f. Re-install the tank handle.
 - g. Disconnect hose assembly.
 - h. Drain hose assembly from coupling.
 - i. Re-install the hose assembly.
 - j. Pressurize tank to approximately 20 psi.
 - k. Blow out lines. Depress tank handle to run air through the unit.
 - l. Re-install safety pin.
2. Replace worn hoses as required.
3. Hydrostatically test tank as required due to physical damage; or as required by local law.
4. Perform the following prior to storage of Engine Compressor Washer:
 - a. Ensure fluid tanks are clean.
 - b. Clean the unit exterior prior to storage.
 - c. Cover unit and store in a clean, dry area.

6.0 PROVISION OF SPARES**6.1 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

6.2 RECOMMENDED SPARE PARTS LISTS

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



7.0 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.

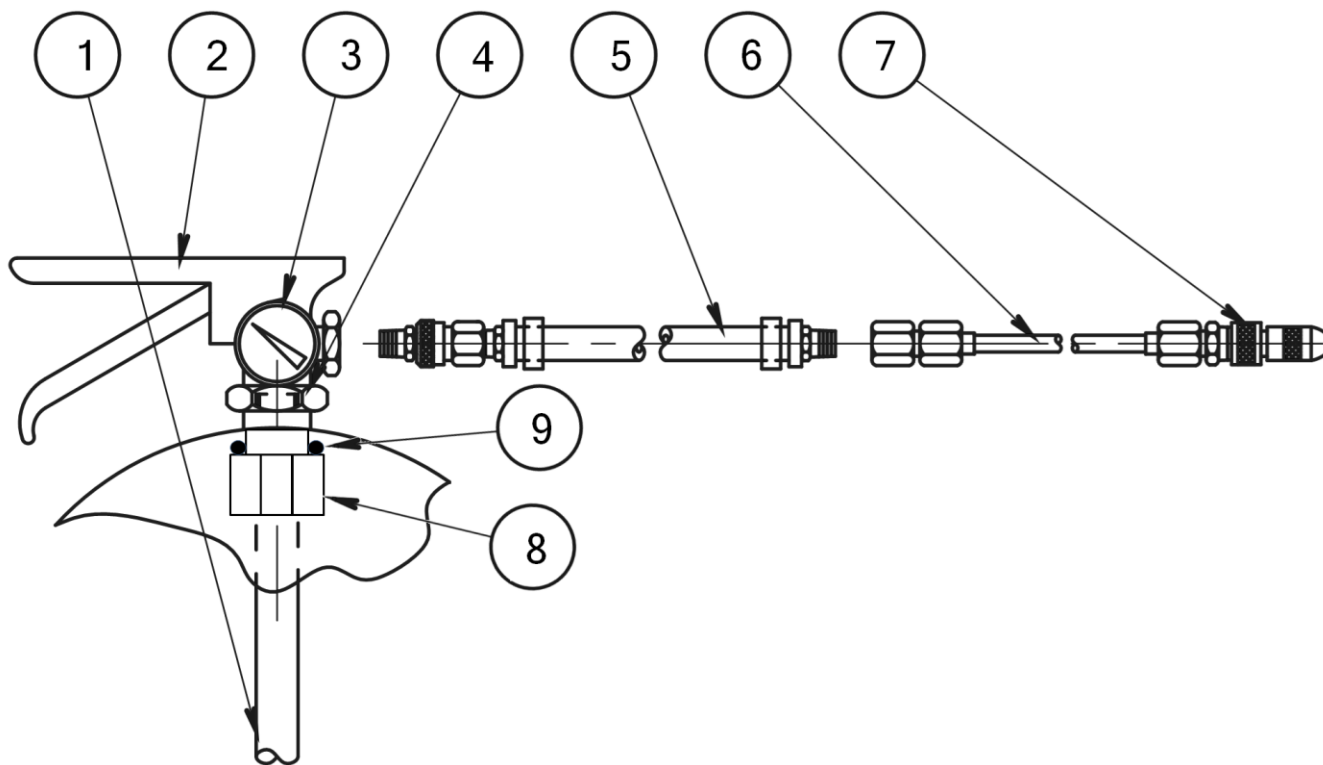
The obligations of Tronair expressly stated herein are in lieu of all other warranties or conditions expressed or implied. **Any unauthorized modification of the Tronair products or use of the Tronair products in violations of cautions and warnings in any manual (including updates) or safety bulletins 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.**

8.0 APPENDICIES

APPENDIX I Instrument Certification Notice

Parts List

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



Item	Part Number	Description	Qty
1	TR-1285	TUBE	1
2	H-1182	TANK	1
3	16988	GAUGE, CHARGE IND	1
4	HC-2000-216	O-RING	1
7	H-1327	NOZZLE, ADJUSTABLE SPRAY	1
8	HS-1012	TUBE ADAPTER	1
9	H-2000-018	O-RING	1
5	K-1791	KIT, HOSE ASSEMBLY REPLACEMENT ; <i>consists of:</i>	
	H-1516-08	CLAMP, TWO EAR HOSE	2
	N-2402-010-B	SOCKET, FEMALE THREAD	1
	N-2403-01-B	PLUG, MALE THREAD	1
	N-2412-04	CONNECTOR, STRAIGHT MALE	2
	TF-1064-04*192	HOSE, YELLOW	1
6	K-1793	KIT, WAND ASSEMBLY REPLACEMENT ; <i>consists of:</i>	
	H-1327	NOZZLE, ADJUSTABLE SPRAY	1
	N-2000-03-S	NUT, #4 JIC X 37°	2
	N-2010-03-S	CONNECTOR, FEMALE	1
	N-2014-03-S	PLUG	1
	N-2019-03-S	SLEEVE, 1/4 TUBE (#4)	2
	TR373-05*21.50	TUBING, STAINLESS STEEL, 4-1/2 LONG	1



APPENDIX I

Instrument Certification Notice



Instrument Certification Notice

The gauge Certificates of Calibration supplied for the gauge(s) on this unit contain the calibration data for the actual instrument calibrated, along with the calibration date of the **STANDARD** used to perform the calibration check.

The due date for re-calibration of the instrument should be based upon the date the instrument was placed in service in your facility. Re-calibration should be done on a periodic basis as dictated by the end user's quality system or other overriding requirements.

Note that Tronair, Inc. does not supply certificates of calibration on flow meters or pyrometers unless requested at the time of placed order. These instruments are considered reference indicators only and are not critical to the test(s) being performed on the aircraft.