ET98 SHUTOFF/LOCKOFF WITH FILTER

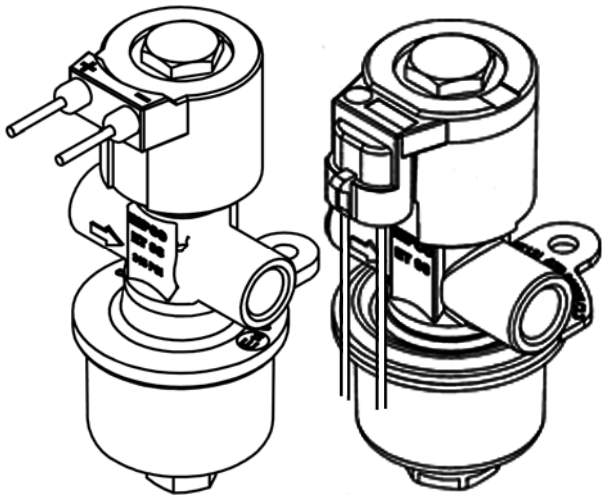
REPAIR KIT INSTRUCTIONS RK-ET98

Important: Any maintenance, service or repair should be performed by trained and experienced service technicians. Proper tools and equipment should be used to prevent injury to the servicing technician, property or system components. Service repairs should always be performed in a safe environment and the technician should always wear protective clothing to prevent injury.

The IMPCO PPI-118 repair kit instructions will provide the technician information to successfully repair the ET98 Lockoff with Filter.

NOTE: This repair kit cannot be used to repair an ET98 not originally equipped with an integrated fuel filter.

Always inspect the major casting pieces for damage, corrosion, cracks, or pits before attempting a service repair.



Old (with wire leads) and new (integrated electrical connector) ET98-51315-001 Shutoff/Lockoff Valves

PRIOR TO ANY REPAIR OR MAINTENANCE:

1. Close the valve on the LPG or Natural Gas source.
2. Run engine until it stalls from lack of fuel.

CAUTION

Do not allow LPG to contact the skin. LPG is stored in the fuel tank as a liquid. When LPG contacts the atmosphere, it immediately expands into a gas, resulting in a refrigeration effect that can cause severe burns to the skin and/or eyes.

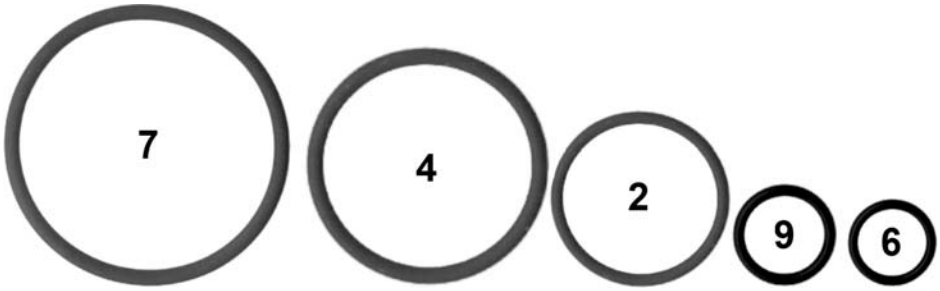
REBUILD INSTRUCTIONS

1. Remove the Bolt (10) at the bottom of the Filter Bowl (8) and remove the Filter Bowl assembly.

CAUTION

Some residual pressure may be present

2. Remove the Bracket (3) and O-ring (2).
3. Remove the Filter (5) from the Filter Bowl (8) and O-rings (6, 9) from the Bolt (10) and rim of Filter Bowl. Discard Filter and O-rings.
4. Thoroughly clean the Filter Bowl (8), Bolt (10), Bracket (3) and the Valve Body (1) with a safety solvent. DO NOT submerge the induction coil in cleaning solvent, water or any type of liquid.
5. Lubricate O-rings with Vaseline or petroleum jelly.
6. Place the O-ring (7) in the rim of the Filter Bowl (8).
7. Place O-ring (9) on the Bolt (10). Insert Bolt all of the way into the Filter Bowl (8).
8. Place O-ring (6) on the Bolt (10) and slide down to the bottom of the Filter Bowl (8). NOTE O-ring (6) may already be installed in the filter (5). Place Filter (5) over Bolt.
9. Place O-ring (4) on the top of the Filter (5).
10. Insert O-ring (2) into the ET98 Valve Body (1). If necessary, apply extra Vaseline or petroleum jelly to the O-ring to hold in place during assembly.
11. Place the Bracket (3) on top of the Filter Bowl (8) and mount the entire assembly on the Lockoff Body (1). Thread Bolt (10) into the Lockoff Body (1), ensuring that the O-ring (3) is properly seated. Torque bolt to 11.1 +/- 1.1 ft/lbs. (15 +/- 1.5 Nm).
12. Open fuel valve and inspect for leaks using an approved leak detector solution. If no leaks are found, re-connect the negative battery cable. If a leak is detected, correct the problem before proceeding with these instructions.
13. Turn Key to ON and inspect for leaks again using an approved leak detector solution. Perform a final leak test with the engine running.

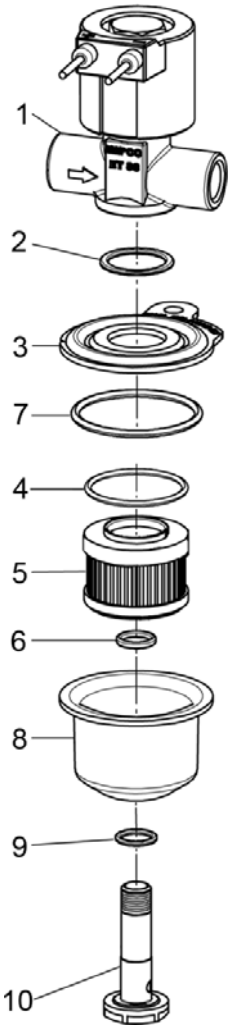


O-Rings included in the RK-ET98. (Not to scale--use relative size to determine application)

Item	Part #	Description
1	NSS	Valve Body
2*	NSS	O-ring
3	NSS	Bracket
4*	NSS	O-ring
5*	NSS	Filter
6*	NSS	O-ring
7*	NSS	O-ring
8	NSS	Filter Bowl
9*	NSS	O-ring
10	NSS	Bolt

*Included in Repair Kit

Note: The parts are called out by number and designated by parentheses () in the Rebuild Instructions.



WARNING:
IMPROPER INSTALLATION OR USE OF THIS PRODUCT MAY CAUSE SERIOUS INJURY AND/OR PROPERTY DAMAGE.

THE FOLLOWING IS SPECIFIC TO USA AND CANADA. IF INSTALLED, REPAIRED OR MAINTAINED OUTSIDE OF THE USA OR CANADA, REFER TO LOCAL STANDARDS AND LAWS GOVERNING THIS AND RELATED PRODUCTS. **CANADA:** REFER TO CAN/CGA PROPANE INSTALLATION CODES.

SERVICE TECHNICIANS AND USERS
SHOULD CAREFULLY READ AND ABIDE BY THE PROVISIONS SET FORTH IN NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET #37 FOR STATIONARY ENGINES, #52 FOR CNG VEHICULAR FUEL SYSTEMS OR #58 FOR LPG SYSTEMS.

INSTALLERS
LPG INSTALLATIONS IN THE UNITED STATES MUST BE DONE IN ACCORDANCE WITH FEDERAL STATE OR LOCAL LAW, WHICHEVER IS APPLICABLE AND NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET #58, STANDARD FOR STORAGE AND HANDLING OF LIQUEFIED PETROLEUM GASES TO THE EXTENT THESE STANDARDS ARE NOT IN VIOLATION WITH FEDERAL, STATE OR LOCAL LAW. **CANADA:** REFER TO CAN/CGA PROPANE INSTALLATION CODES.

CNG INSTALLATIONS IN THE UNITED STATES/CANADA
MUST RE DONE IN ACCORDANCE WITH FEDERAL STATE OR LOCAL LAW AND NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET #52, COMPRESSED NATURAL GAS (CNG) VEHICULAR FUEL SYSTEMS TO THE EXTENT THESE STANDARDS ARE NOT IN VIOLATION WITH FEDERAL, STATE OR LOCAL LAW. **CANADA:** REFER TO CAN/CGA CNG INSTALLATION CODES.

LPG AND/OR NATURAL GAS INSTALLATIONS ON STATIONARY ENGINES
MUST RE DONE IN ACCORDANCE WITH FEDERAL, STATE OR LOCAL LAW AND NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET #37, STATIONARY COMBUSTION ENGINES AND GAS TURBINE ENGINES, TO THE EXTENT THESE STANDARDS ARE NOT IN VIOLATION WITH FEDERAL, STATE OR LOCAL LAW. FAILURE TO ABIDE BY THE ABOVE WILL VOID ANY IMPCO WARRANTY ON THE PRODUCTS AND MAY CAUSE SERIES INJURY OR PROPERTY DAMAGE. DUE TO THE INHERENT DANGER OF GASEOUS FUELS THE IMPCO PRODUCTS SHOULD NOT BE INSTALLED OR USED BY PERSONS NOT KNOWLEDGEABLE OF THE HAZARDS ASSOCIATED WITH THE USE OF GASEOUS FUELS.

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