

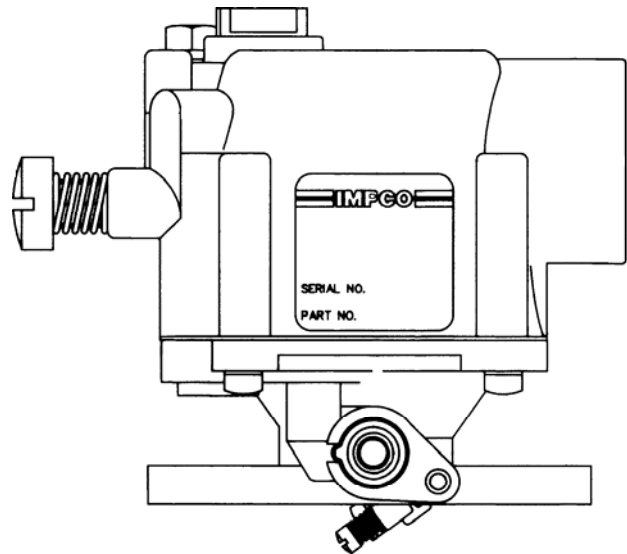


# CA55 Standard Carburetor/Mixer

## REPAIR KIT INSTRUCTIONS

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-55 repair kit instructions will provide the technician information to successfully repair the CA55 Carburetor. Always inspect the major casting pieces for damage, corrosion or cracks before attempting a service repair. Be sure the repair kit part number you are using is correct for the carburetor/mixer being serviced.



**CA55 Standard Carburetor Shown**



### WARNING

Do not use Teflon tape to seal any fuel fittings. Failure to follow this warning may cause the carburetor to leak internally, that may cause serious injury and/or property damage.

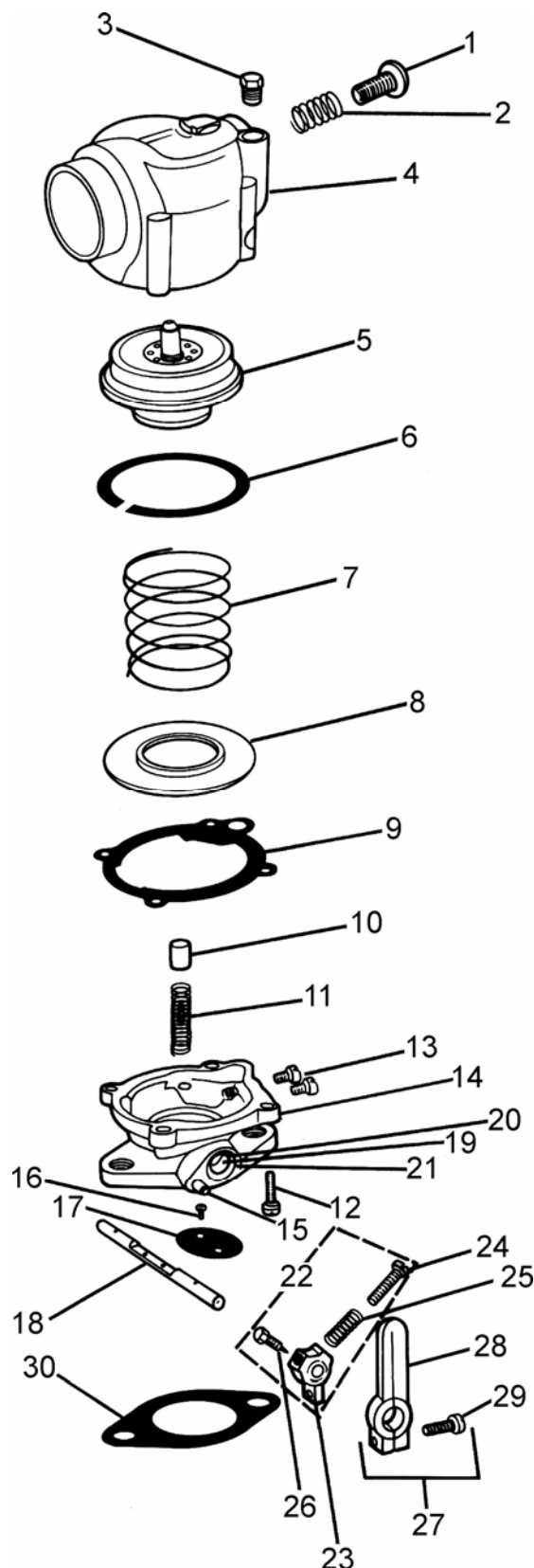
| Part #    | Description                            |
|-----------|--|
| RK-CA55   | Repair Kit, CA55 Carburetor (Standard) |
| RK-CA55-2 | Repair Kit, CA55 Carburetor (Lean)     |



## CA55 CARBURETOR/MIXER COMPONENTS

| Item | P/N        | Description                               |
|------|------------|---|
| 1    | S1-74      | Screw, idle                               |
| 2    | S2-88      | Spring, idle screw                        |
| 3    | P3-13      | Plug, 1/8 NPT                             |
| 4    | AB1-35-1C  | Body assy                                 |
| 5    | AV1-14925* | Air valve ass'y (std, used in RK-CA55)    |
|      | AV1-14926* | Air valve ass'y (lean, used in RK-CA55-2) |
| 6    | R1-14698   | Ring, air valve sealing                   |
| 7    | S2-45      | Spring, air valve                         |
| 8    | AP2-14700* | Plate, ass'y                              |
| 9    | G1-92*     | Gasket, throttle body to mixer            |
| 10   | P4-1*      | Piston, idle cutoff                       |
| 11   | S2-44*     | Spring, idle cutoff                       |
| 12   | S1-3*      | Screw, 10-24 x 5/8" SEMS (4)              |
| 13   | S1-69      | Screw, 1/4-28 x 5/16(2)                   |
| 14   | NSS        | (Refer to AT2 Throttle body charts)       |
| 15   | P1-5       | Pin, throttle stop (2)                    |
| 16   | S1-22      | Screw, 6-32 x 1/4 SAE (2)                 |
| 17   | F2-13      | Butterfly, 19.1 mm (.750")                |
|      | F2-2       | Butterfly, 25.4mm (1.000)                 |
| 18   | S5-6       | Throttle shaft, 6.4mm (.250) dia.         |
| 19   | B2-11      | Bearing, Oilite, 6.4mm (.250") ID. (2)    |
|      | B2-6       | Bearing, Needle, .687 x .500 x .625       |
| 20   | S3-8       | Seal, 6.4mm (.250") shaft (2)             |
| 21   | R1-9       | Ring, seal retainer (2)                   |
| 22   | AL1-8-1    | Throttle stop ass'y: 6.4mm (.250) ID.     |
| 23   | L1-8       | Throttle stop lever                       |
| 24   | S1-21      | Stop screw, 10-32 x 3/4                   |
| 25   | S2-15      | Spring, idle stop screw                   |
| 26   | S1-18      | Pin screw, throttle stop                  |
| 27   | AL1-7-1    | Throttle lever w/screw                    |
| 28   | L1-7-1     | Throttle lever                            |
| 29   | S1-17      | Screw, 10-24 x 5/8"                       |
|      | G1-91      | Gasket, 1/2 SAE flange                    |
|      | G1-16      | Gasket, 3/4" SAE flange                   |
| 30   | G1-17      | Gasket, 1" SAE flange                     |
|      | G1-18      | Gasket, 1-1/4" SAE flange                 |
|      | G1-120     | Gasket, flange                            |

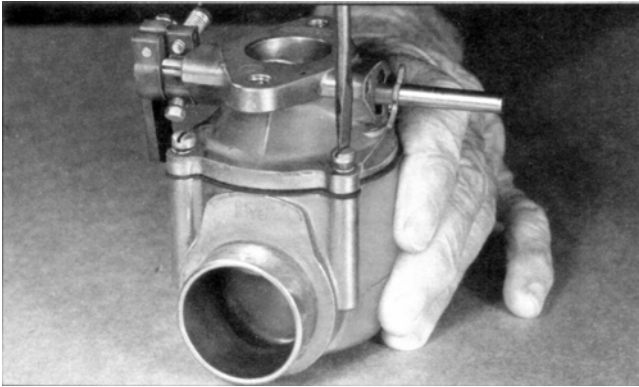
\*Included in Repair Kit



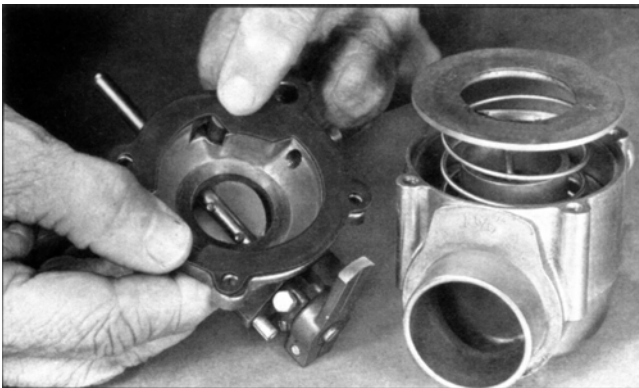


## REBUILD INSTRUCTIONS

### Disassembly

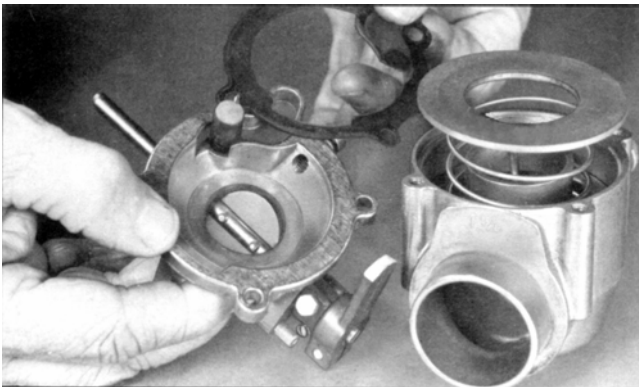


1. Remove the carburetor from the engine, then remove 4 screws (SI-3) holding throttle body to mixer bowl.

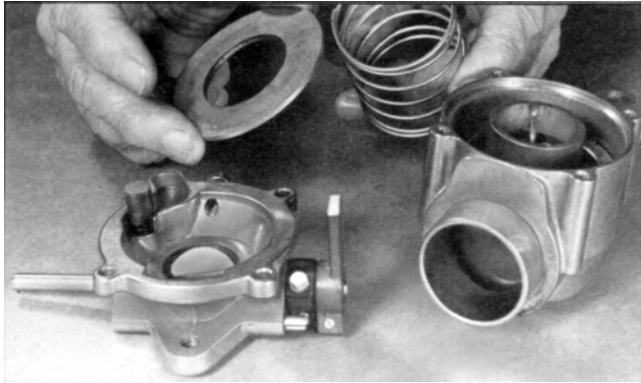


2. Remove the throttle body. Note that the gasket retains idle cutoff piston in place (shown under finger tip).

Note: Not all 55 Series Carburetors are equipped with the cutoff piston.



3. Remove the gasket which will release the Idle cutoff piston and spring.



4. Remove the check valve plate and air valve spring. Lift the air/gas valve from mixer bowl.

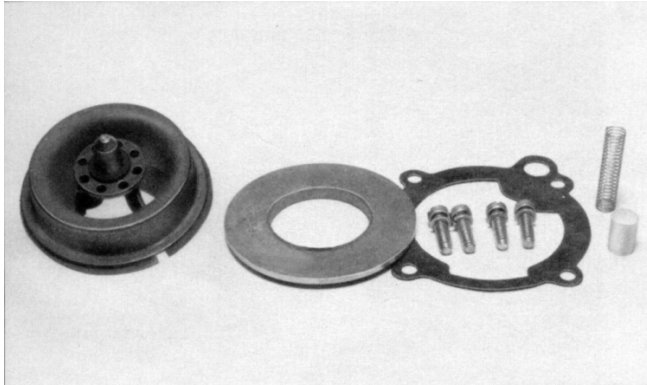


5. Clean the mixer bowl assembly in safety solvent. Do not use carburetor cleaner as it will attack synthetic rubber seals.



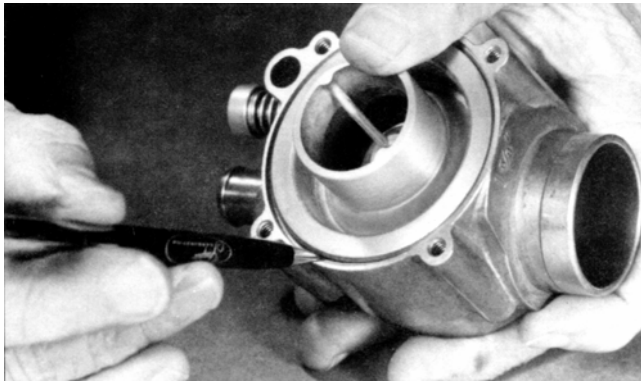


## Reassembly



1. The RK-CA55 kit includes:

- AV1-14925 Air/Gas Valve Assy (*RK-55-2 kit supplies the AV1-14926 "lean" valve.*)
- AP2-14700 Plate, Check Valve Assy
- P4-1 Piston, Idle Cutoff
- S2-44 Spring, Idle Cutoff
- S1-3 Screws (4), 10-24 x 5/8"
- G1-92 Gasket
- PPI-55 Repair Kit Instructions



2. Place the air/gas valve assembly in the mixer bowl.



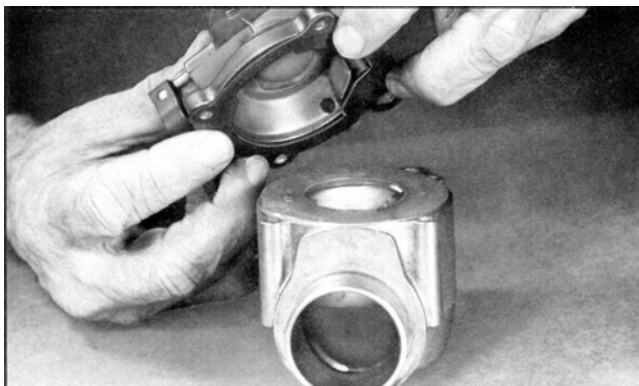
3. Place the air/valve spring and check valve plate in the mixer bowl.



4. This illustration shows the mixer bowl assembled with the check valve assembly centered towards air horn. The idle cutoff piston and spring are shown in place ready for assembly to the mixer bowl.



5. Place the gasket on the throttle body retaining the idle cutoff piston in its recess (under thumb, as shown in the illustration).



6. While holding the gasket and idle cutoff piston in place, turn the throttle body over. Note cutout of the gasket designed to clear the check valve assembly on plate.



7. Lower the throttle body gently onto the mixer bowl making sure idle cutoff piston does not escape from its recess. Once the throttle body is flush on the mixer bowl, align the holes and start the 4 screws.



8. Tighten 4 screws to 30 in lbs (3.4 N•m)



9. Once the assembly is completed, insert forefinger into the carburetor air horn and lift the air valve several times ensuring that it may move freely. The air valve should lift easily and return slowly due to action of check valve. Reinstall the carburetor/mixer on the engine and set idle speed and fuel mixture to OEM manufacturer's specifications.

## **WARNING:**

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

### **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.

### **IN CANADA**

REFER TO CAN/CGA PROPANE INSTALLATION CODES.

### **CNG INSTALLATIONS IN THE UNITED STATES**

MUST BE 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.

### **IN CANADA**

REFER TO CAN/CGA CNG INSTALLATION CODES.

### **LPG AND/OR NATURAL GAS INSTALLATIONS ON STATIONARY ENGINES**

MUST BE 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 SERIOUS 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.