

## Instructions for upgrading the GROCO HC or HE toilets to an HF toilet

The evolution of GROCO's HC model toilet to HE and now HF has necessitated the addition, deletion, or modification of some parts. The changes have resulted in greatly improved toilet operation.

Owners of HC, HE and early (prior to 11/86) HF model should upgrade to the current HF configuration. Two convenient

parts kits are available to simplify the conversion, depending upon which toilet model you have. The drawing below represents the current HF layout, but will serve as a parts and assembly key for all models. Listed below is an explanation of the two parts kits as well as the parts which have been changed, added, or deleted.

### HF Cam Kit

Includes items 5, 8, 10 and 25 (*drawing at right*), and is intended to upgrade early HF models to the current configuration. The kit will prevent unwanted bowl filling from the toilet inlet by providing a positive shut-off when the valve handle is placed in 'DRY-BOWL'. (*See note below*)

### HF Upgrade Kit

Includes HF Cam Kit items plus items 17 and 18, and is intended to upgrade HC and HE models to the current HF configuration. Also included is a new 'FLUSH' label and an HT-49-B plug to close off the HT-49-A vacuum breaker, which is no longer used. In addition to the improvements provided by the HF Cam Kit, the HF Upgrade Kit also prevents back-flow from the discharge side of the toilet.

**NOTE:** With the installation of either of the kits mentioned, you will now have an HF toilet. Specify HF parts or service kits in the future.

### Parts changes

**Item 5: HF-20 Cam Assembly.** The HF-20 combines the cam action required to open and close the toilet inlet with a more effective vacuum breaker, resulting in easier dry-bowl pumping and a more positive shut-off of inlet water when the valve handle is placed in 'DRY BOWL'.

**Item 8: HF-28 Bridge.** Provides support for items 9 and 10, thus preventing loss of pump suction.

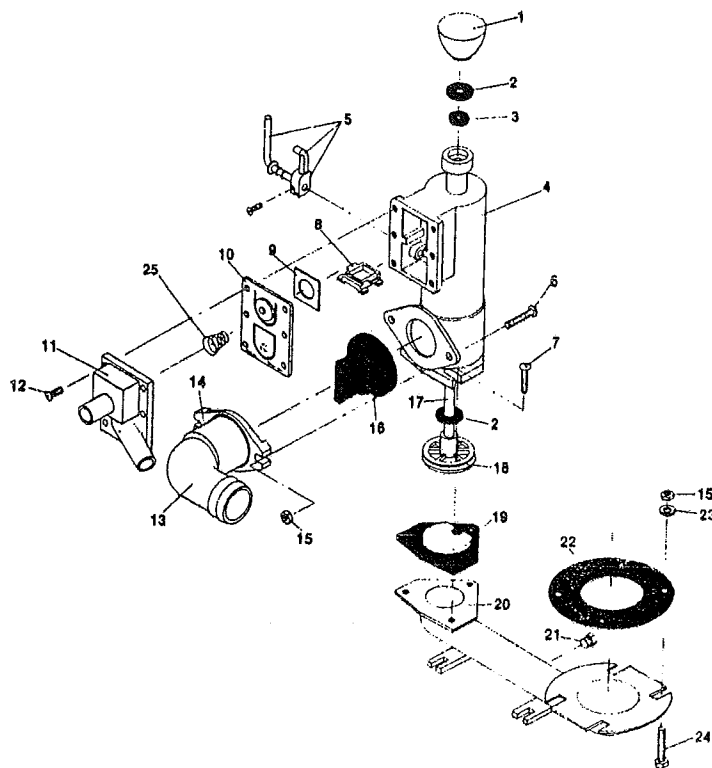
**Item 10: HF-1 Gasket.** This injection-molded part replaces former neoprene gaskets with bronze weights. It provides greater accuracy and more positive flushing with the valve handle in the 'FLUSH' position.

**Items 17, 18: HF-10 Piston/Ring Assembly and HF-21 Shaft.** This new design provides more positive flushing and a positive seal against back-flow from the toilet discharge. The HF-21 shaft is required in order to restrict the pump stroke length to 7-1/4".

**Item 25: HF-26 Spring.** Assures that the HF-1 gasket is properly seated in the 'FLUSH' position, allowing the pump to prime itself.

**HT-49-A Joker Valve (not shown).** HC and HE models used HT-49-A to break the vacuum for dry-bowl pumping, but is not used on HF. The HF Upgrade Kit includes a plug to close off the HT-49-A.

### PARTS & ASSEMBLY



HC and HE pump cylinders are no longer available. When you order a pump cylinder you will receive the HF-C cylinder with an adapter kit to fit it to your HC base.

For service assistance or information, call **GROCO**. Ask for TOILETS SERVICE DEPARTMENT