# **Installation Instructions**

# 999DF Series Deck Fills

# BIG DO

# TOOLS/ HARDWARE REQUIRED (not included)

- ☐ Four (4) screws #6 stainless steel, pan head
- ☐ Screwdriver or hex driver (depending on fasteners selected)
- ☐ 3/32" (2.4mm) drill bit and drill (pilot holes)
- □ 2-½" (63mm) hole saw
- Stainless steel hose clamps
  - ☐ Two (2) 1-1/2" ID clamp min 1/2" wide
  - One (1) 5/8"ID clamp min 3/8" wide (999DF**PV** series only)
- Pen/Marker
- ☐ 1-1/2" (38mm) I.D. fill hose
- □ 5/8" (16mm) I.D. vent hose (999DF**PV** series only)

#### LOCATION

- 1. In accordance with A.B.Y.C., U.S. Coast Guard and E.P.A. requirements.
- 2. Surface must be flat and in an area where spilled fuel cannot enter boat.
- 3. Must allow for standard fuel nozzle to be correctly inserted.
- 4. Ensure adequate clearance to install and route hose(s) to the tank predominantly vertically toward fuel tank.
- 5. Deck thickness must be 1/2" (13mm) or less.
- 6. Straight Deck Fills cannot be mounted on a vertical surface +/- 30°. Angled Deck Fills can be mounted on a vertical surface right side up.

#### **MOUNTING**

- 1. Use mounting template to locate and mark center of five (5) holes to be drilled. (Figure 1)
- 2. Drill single 2-1/2" through hole for deck fill body.
- 3. Mark and drill pilot holes for screws in four (4) locations.
- 4. Apply caulk if necessary.
- 5. Firmly insert the Deck Fill fully into the hole. Four centering ribs will interfere with hole to insure optimal centering which may result in a "crunching" noise.
- 6. Secure with #6 screws suited for deck material (not provided). Do not over torque.
- 7. Attach and clamp 1-1/2" fill hose with two (2) clamps and 5/8" vent hose with one (1) clamp (999DFPV series only) in accordance with the above referenced standards. (Figure 2) See part markings for guidance. (Figure 3)
- 8. Torque clamps to 35 +/- 4 in-lb or as required to make proper seal.
- 9. Leak test installed deck fill per USCG CFR 33 183.580 at pressure of at least 3psi for at least 10 minutes. May require use of test adaptor 999DFTESTER.

FIGURE 3



**THOSE STOP** CLAMP HERE CLAMP HERE **CHOSE** CLAMP

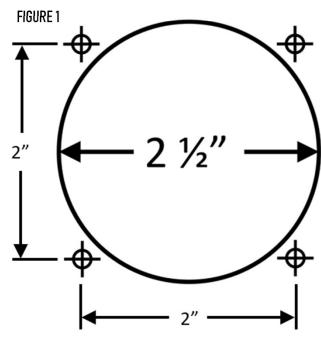
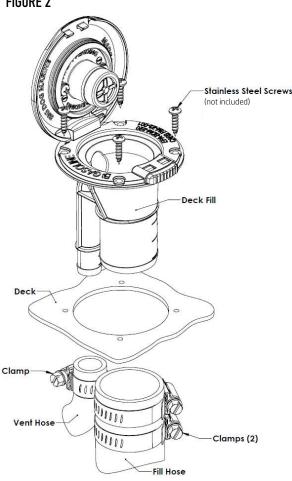


FIGURE 2



**BIG DOG MARINE LLC** www.bigdogmarinellc.com

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## **COMPLIANCE WARNING**

The vessel manufacturer must comply with the requirements of CFR 40 1060.202.

Failure to follow these instructions may result in unintended fuel system over-pressurization or refueling issues. Users must follow these instructions to ensure vessel function and operation.

#### **EMISSION-RELATED INSTALLATION INSTRUCTIONS**

Failing to follow these instructions when installing the evaporative emissions deck fill in a piece of nonroad equipment violates federal law (40 CFR 1068.105(b)), and is subject to fines or other penalties as described in the Clean Air Act.

## **FEDERAL REGULATIONS**

Federal regulations (CFR 40 1060.101 (f) (3)) require that you must design and build your equipment such that operators can reasonably be expected to <u>fill the fuel tank without spitback</u> or spillage during the refueling event. There are many acceptable devices and system designs to achieve this requirement.

Federal regulations (CFR 33 183.544) require that each fuel system fitting, joint, and connection must be arranged so that it <u>can</u> <u>be reached for inspection, removal, or maintenance</u> without removal of permanent boat structure.



The use of Big Dog Marine 999DFPV series deck fills will result in a pressurized fuel system designed to meet diurnal requirements of CFR 40 1060. Care must be taken to prevent pressurized fuel from reaching fuel lines and engine.

## **WARRANTY**

The 999DF series deck fills are covered by a two (2) year limited warranty from the date of a boat's first retail sale.

Big Dog Marine warrants that any 999DF series deck fill is free from manufacturing defects and is designed to conform with 40CFR.1060 at the time of sale to the boat builder. For two (2) years from the date of the boats first retail sale, Big Dog Marine will repair or replace any deck fills that fail due to a defect in material or workmanship. This warranty is void if the deck fill has been damaged or altered by accident or unreasonable use, neglect, improper service, installation, or other causes not arising out of defects in material or workmanship. BIG DOG MARINE OFFERS NO WARRANTIES REGARDING ANY COMPONENT NOT MANUFACTURED BY BIG DOG MARINE. Boat builder is responsible for the installation of all systems, whether installed by boat builder or under its direction.

## **CARE AND MAINTENENCE**

The deck fill has been designed and built with premium craftmanship and materials to provide a worry free experience. Care should be taken to prevent contamination of the valves and internal components of the deck fill. Clean exterior with mild soapy water as required. All joints and connections should be inspected annually.

### <u>NMMA</u>

National Marine Manufacturers Association 601 Pennsylvania Ave NW Suite 320 North Washington, DC 20004 www.NMMA.org

#### E.P.A

Environmental Protection Agency 1200 Pennsylvania Avenue, N.W. Washington, DC 20460 www.epa.gov

#### A.B.Y.C.

American Boat & Yacht Council 613 Third Street, Suite 10 Annapolis, MD 21403 www.abycinc.org

#### **U.S. Coast Guard**

Washington, DC 20460 www.uscgboating.org



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