

SERVICE BULLETIN

DATE: May 25, 1984
MODEL: All Propulsion and Generator Models
SUBJECT: Hydro-Hush Muffler Installations

BULLETIN NUMBER: 139

Engines & GED.

The illustrations shown with this text should be used as a guide when making an installation of a Hydro-Hush Muffler.

When used in conjunction with propulsion engine, the Hydro-Hush Muffler should be mounted close to the fore-aft center line of the boat. When used with a generator unit, the muffler should be as close as possible to the generator.

All installations should be such that the entry of water into the engine exhaust manifold and cylinders is prevented while under sail and at various angles of heel, from following seas, when backing down, or any other condition.

Units installed with the exhaust manifold/water injected exhaust elbow at or below the water line of the vessel must install a vent or syphon break in the sea water supply line to the water injected exhaust elbow. The seawater supply line must be looped above the water line a minimum of six (6) inches with the vent or syphon break installed at the top of this loop.

* The vented loop, when used, can be a mechanical syphon break as shown in the illustration or a simple tee arrangement with a small hose or tube (3/16-1/4 inch I.D.) routed to the transom exhaust discharge or to a separate thru-hull fitting located above the water line. This hose or tube must be routed in such a way that it will drain of water when the engine is shut down and allow air into the sea water supply hose and injection elbow.

VERY IMP.

* The syphon break or vent is installed to break the vacuum in the sea water cooling circuit and thereby discourage syphoning of sea water through this circuit, and subsequent filling of the exhaust and engine cylinders with sea water. When used, syphon breaks should be checked periodically for proper operation and should be installed in a location where, should they leak sea water, it would not leak onto the engine or its accessories.

* The Hydro-Hush Muffler remains approximately 30% full of water after engine shut-down when there is a maximum of 48 inches of lift on the discharge side.

Measured from bottom of pickup inside can (near bottom)

The installation information given in this text is to be used as a guide only. Westerbeke cannot be responsible in any way for muffler installations. Westerbeke presumes the installer to have a basic knowledge of marine installation requirements.



J. H. WESTERBEKE CORP.

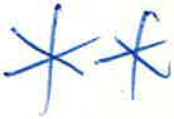
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Use as few right angle fittings as possible. The use of wire reinforced hose is recommended and the hose should be routed to produce the bends needed.

The use of 90° and 45° fittings contribute to the rise of engine exhaust back pressure. (Refer to the Unit Technical Manual for back pressure specifications.)

The exhaust hose diameters shown are minimums. Exhaust hose diameter for the discharge hose will have to be increased if the length of run from the Hydro-Hush Muffler to the thru-hull discharge is excessive (25' to 30' depending on the number of bends).

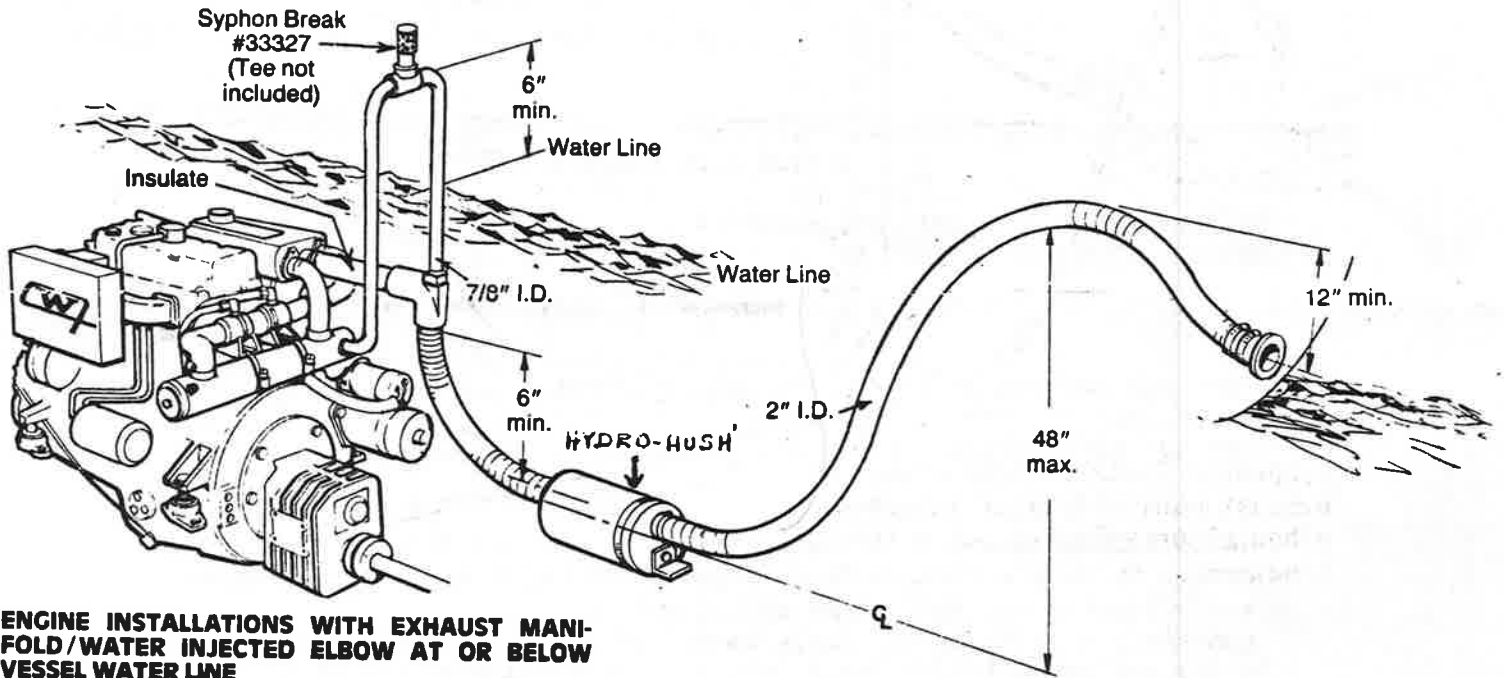
CAUTION



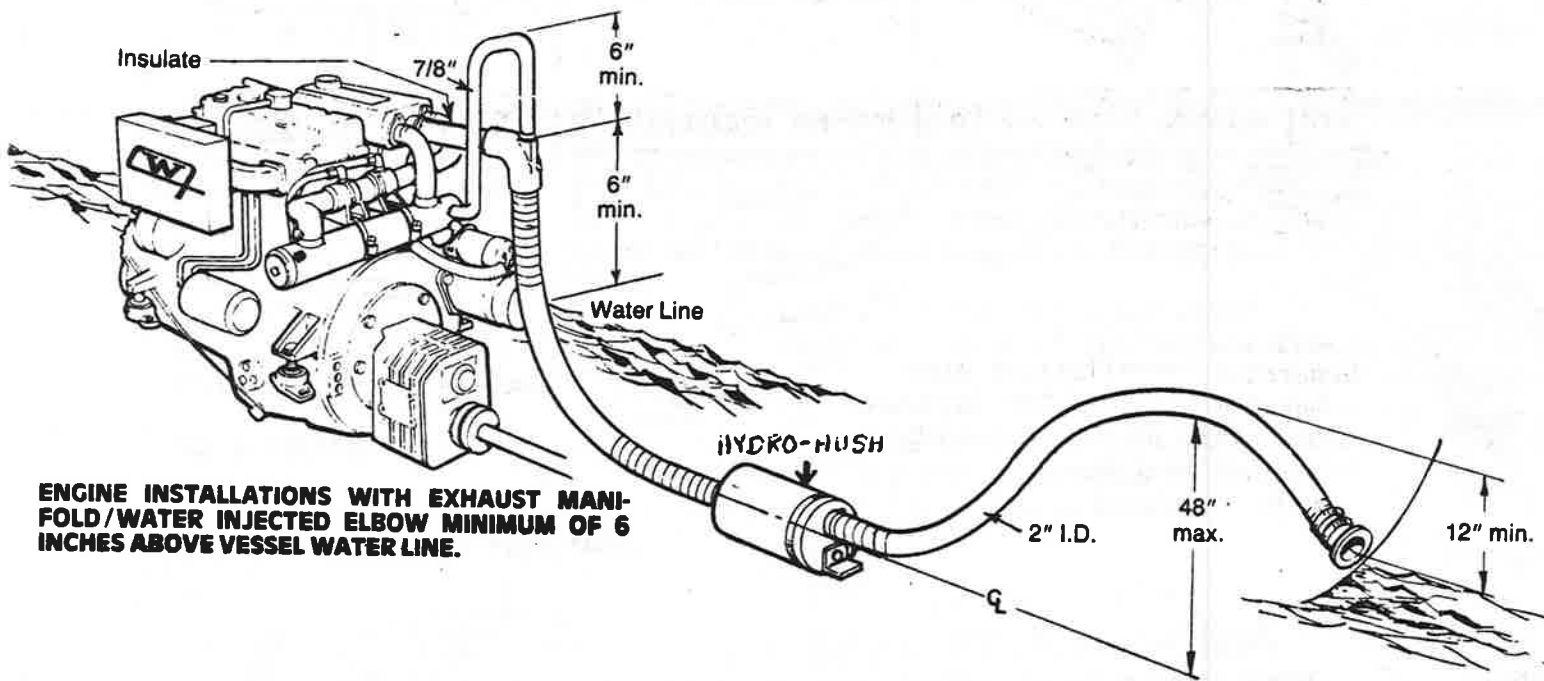
THE SEA WATER PUMP WILL CONTINUE TO FILL THE EXHAUST SYSTEM WITH SEA WATER DURING CRANKING. THE ENGINE EXHAUST PRESSURE DURING CRANKING MAY NOT BE STRONG ENOUGH TO EXPEL THE WATER FROM THE MUFFLER AND PREVENT THE SYSTEM FROM FILLING UP WITH SEA WATER AND ENTERING THE EXHAUST MANIFOLD AND CYLINDERS.

IF ENGINE CRANKING EXCEEDS 30-40 SECONDS APPROXIMATELY, CLOSE THE SEA WATER THRU HULL AND OPEN IT IMMEDIATELY AFTER THE ENGINE STARTS.

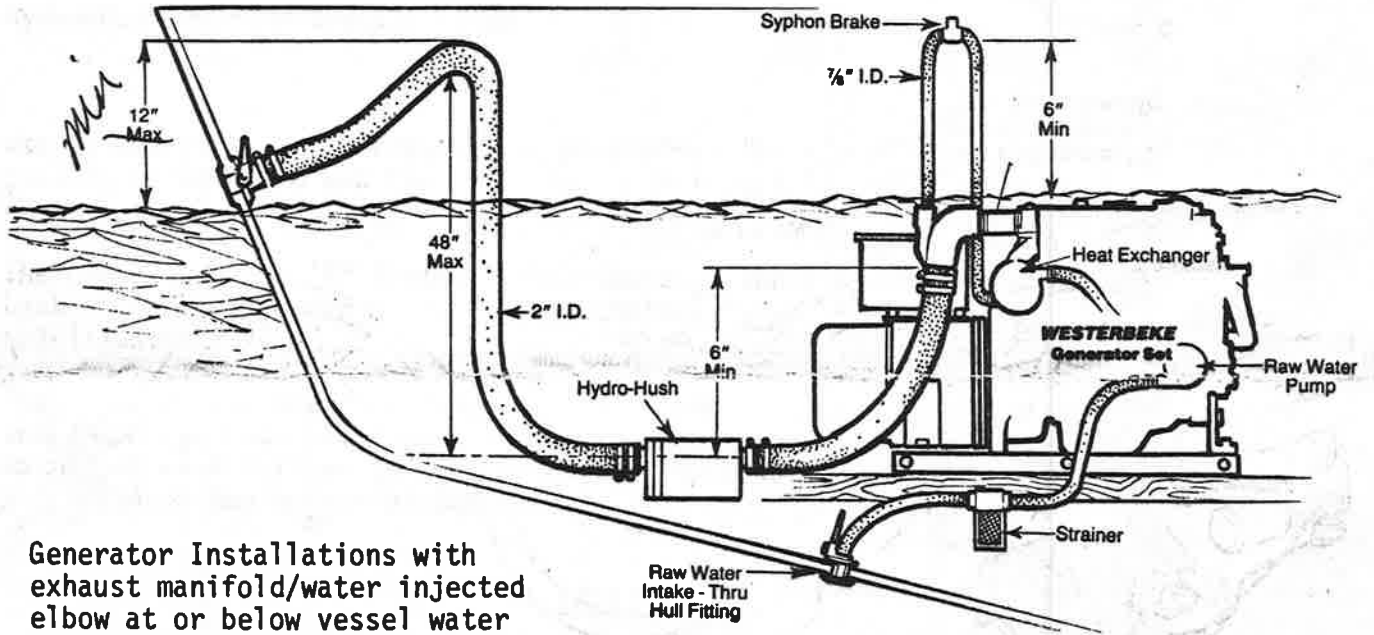
ENGINE INSTALLATIONS



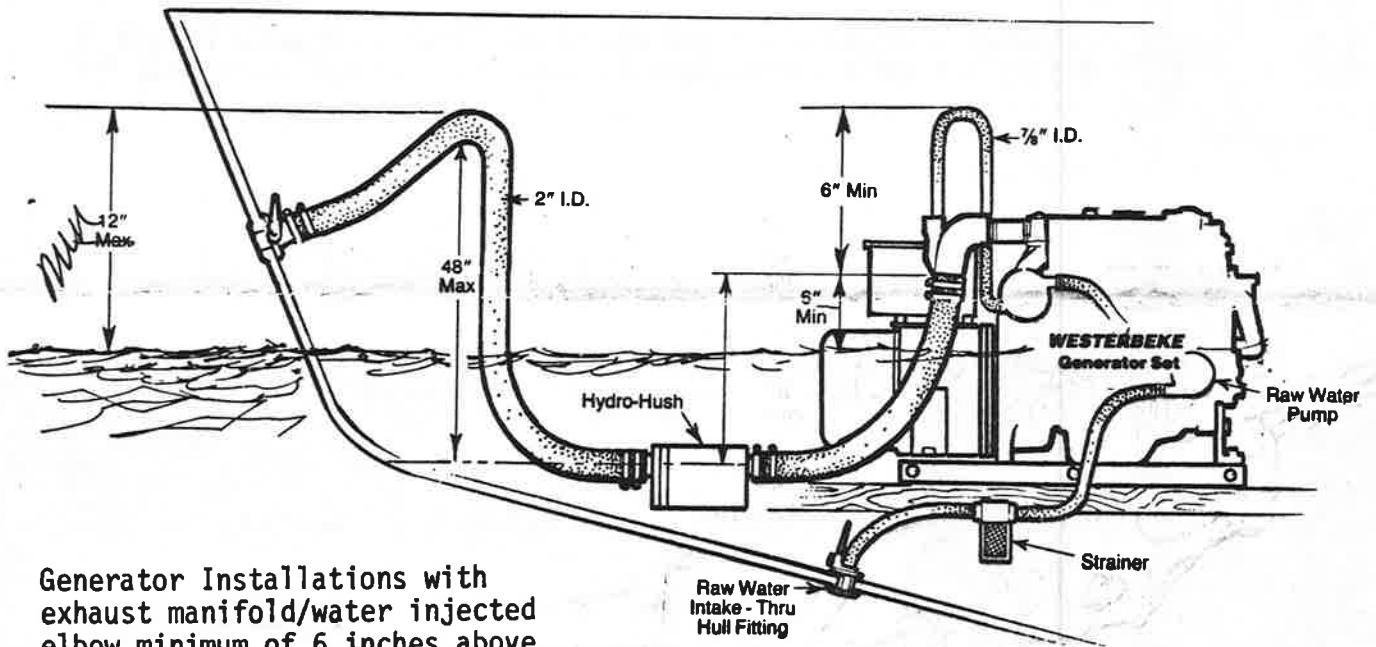
ENGINE INSTALLATIONS WITH EXHAUST MANIFOLD/WATER INJECTED ELBOW AT OR BELOW VESSEL WATER LINE



ENGINE INSTALLATIONS WITH EXHAUST MANIFOLD/WATER INJECTED ELBOW MINIMUM OF 6 INCHES ABOVE VESSEL WATER LINE.



Generator Installations with exhaust manifold/water injected elbow at or below vessel water line.



Generator Installations with exhaust manifold/water injected elbow minimum of 6 inches above vessel water line.