

EXHAUST SYSTEM

Section 7C - Collectors

Table of Contents

Torque Specifications	7C-2	Silent Choice Exhaust System	7C-8
Lubricants / Sealants / Adhesives	7C-2	Exhaust Tube Installation	7C-8
Bullhorn Exhaust	7C-3	Air Tube Routing	7C-10
Shutter Replacement	7C-3	Maintenance	7C-11
Component Replacement	7C-4	Exhaust Muffler Kit	7C-12
Thru-Transom Exhaust	7C-5	Cleaning and Inspection	7C-13
Shutter Replacement	7C-5	Installation	7C-14
Component Replacement	7C-6	Maintenance Instructions	7C-15
Below Swim Platform Exhaust Pipe	7C-7		

Torque Specifications

Fastener Location	lb-in.	lb-ft	Nm
Block-Off Plate		20-25	27-34
Exhaust Pipe to Gimbal Housing			
Exhaust Pipe to T-Pipe			
T-Pipe to Gimbal Housing			
Upper Exhaust Pipe to Lower Exhaust Pipe			
Exhaust Elbow			
Air Pump Mount	Securely		
Muffler End Plate			
Mode Switch			
Hose Clamps			
Water Shutter Bolt/Nut			

Lubricants / Sealants / Adhesives

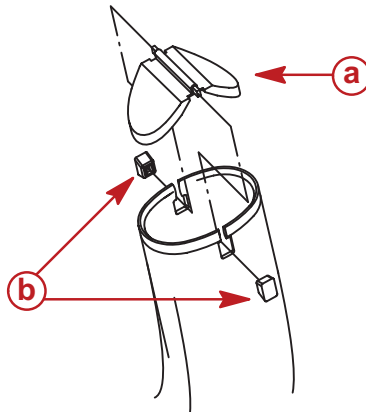
Description	Part Number
Quicksilver 2-4-C Marine Lubricant With Teflon	92-825407A3
Loctite 35	92-809833
Loctite Primer	92-809824
3M Brand Adhesive	92-86166--1
Quicksilver Perfect Seal	92-34227--1
Quicksilver Liquid Neoprene	92-25711--3
Quicksilver Sound Blanket Glue	92-25234

Bullhorn Exhaust

Shutter Replacement

IMPORTANT: Engine does not have to be removed to change shutters.

1. Loosen clamps and remove exhaust pipe, elbow and exhaust hose.
2. Replace water shutter.
3. Reinstall pipe, elbow and hose. Tighten clamps securely.



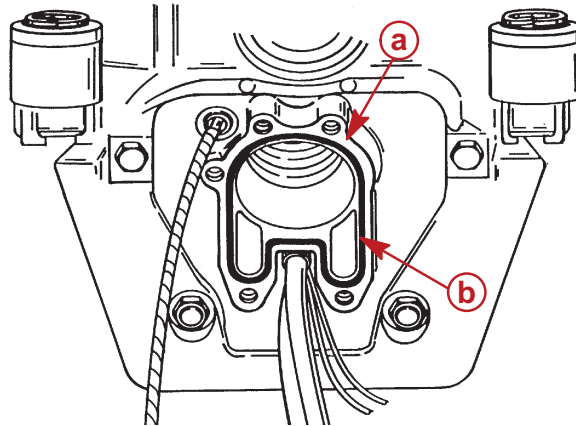
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- a** - Exhaust Flapper
b - Rubber Grommets

Component Replacement

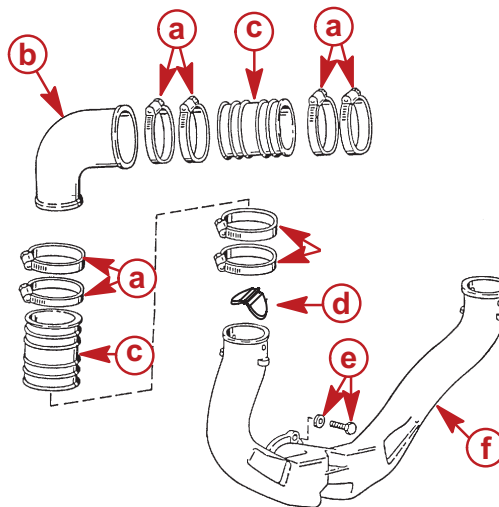
To replace any components in exhaust system, the following must be adhered to:

- All mating surfaces must be clean.
- O-ring must remain in groove to properly seal joints to prevent leakage.
- Torque all bolts to 20-25 lb-ft (27-34 Nm).
- Tighten all clamps securely.



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- a** - Mating Surface
b - O-Ring



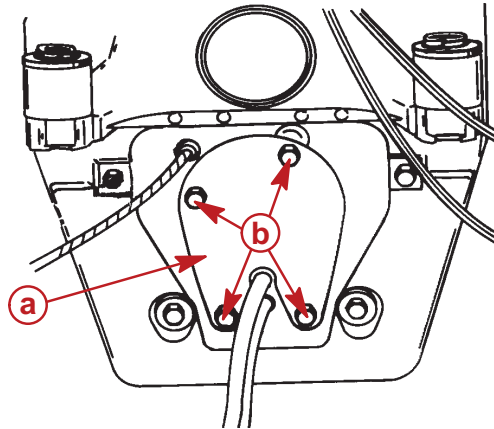
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- a** - Clamps
b - Exhaust Pipe Elbow
c - Exhaust Hose
d - Water Shutters
e - Bolts and Lockwashers
f - Exhaust Pipe

Thru-Transom Exhaust

Shutter Replacement

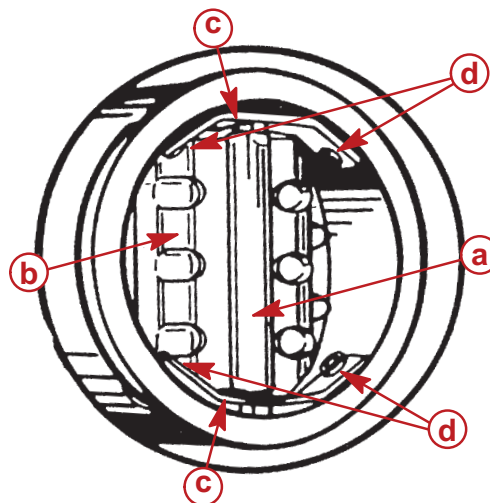
IMPORTANT: A block off plate must be installed when using thru-transom exhaust or below swim platform kits.



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- a** - Block Off Plate
- b** - Bolts (4)

1. Remove exhaust hose clamps, then hose.
2. Chisel rivets away from both support members.

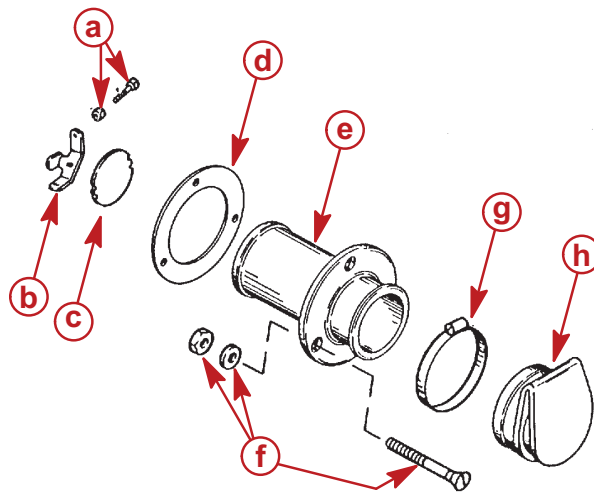


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- a** - Shutter Hinge
- b** - Water Shutter - Opens Toward Outside Of Boat
- c** - Support Member
- d** - Rivets (4)

3. Install new shutter as shown in "Component Replacement" following. Tighten screws and nut securely.
4. Reinstall exhaust hose. Tighten clamps securely.

Component Replacement



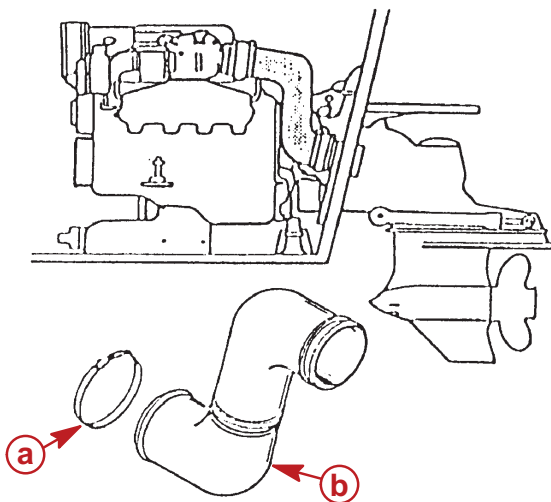
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Transom Exhaust Kit

- a** - Screw And Nut (4)
- b** - Support Member
- c** - Water Shutter (Hinge Must Be Vertical)
- d** - Gasket
- e** - Exhaust Flange
- f** - Bolts, Washers and Nuts (3)
- g** - Clamp
- h** - Cover (Flapper)

Below Swim Platform Exhaust Pipe

This exhaust kit may be used on any MerCruiser installation having a 4 in. (102 mm) exhaust elbow.

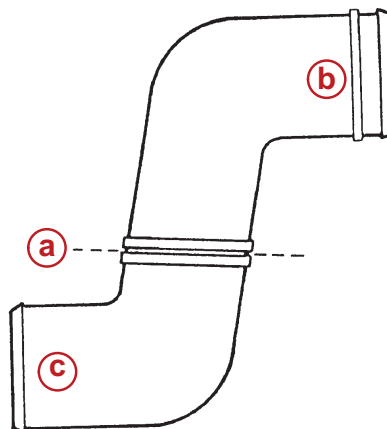


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a - 8 Per Kit

b - 2 Per Kit

The below swim platform exhaust pipe can be modified for specific height applications by cutting pipe at location shown.



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a - Cut Line (See Notes)

b - To Engine

c - To Transom

NOTE: If riser kits are installed, or if more vertical drop is required, cut "a" must be made, and the upper and lower sections of the pipe rejoined with a 4 in. (102 mm) I.D. exhaust hose of the required length. Secure with hose clamps.

NOTE: Prime and paint any raw (cut) aluminum surface.

IMPORTANT: Each exhaust bellows must be double clamped at each connection. The hose clamps are torqued to 30-40 lb-in. (3-5 Nm).

Silent Choice Exhaust System

If engine is equipped with thru-prop exhaust, a thru-transom kit [4 in. (102 mm)], two exhaust bellows and eight bellows hose clamps are required.

If engine is equipped with thru-transom exhaust, an exhaust pipe kit (P/N 44266A6) is required, containing the exhaust pipe and necessary parts.

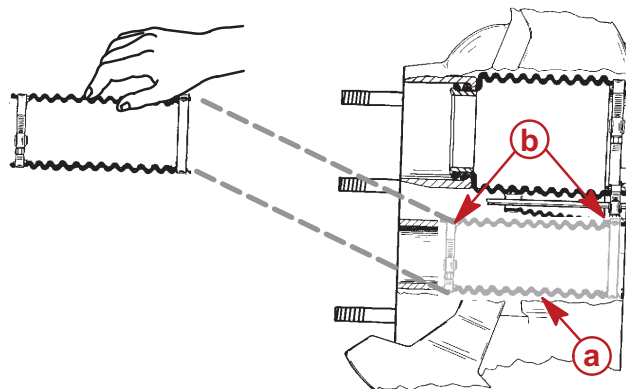
IMPORTANT: When installing Silent Choice exhaust, it is recommended that the exhaust bellows on the transom assembly be removed. This is necessary to avoid creating a vacuum at the exhaust outlet in the propeller at higher boat speeds. This vacuum could degrade propeller performance on some boats.

⚠ CAUTION

It is the responsibility of the boat manufacturer or installing dealer to properly locate the engine and install exhaust system. Improper installation may allow water to enter the exhaust manifolds and combustion chambers, and severely damage the engine. Damage caused by water in the engine will not be covered by Mercury MerCruiser Warranty, unless this damage is the result of defective part(s).

Exhaust Tube Installation

1. If required, remove and discard clamps and bellows from gimbal housing.



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2. If required, install exhaust tube on gimbal housing as follows:
3. Remove and discard clamps and exhaust bellows.

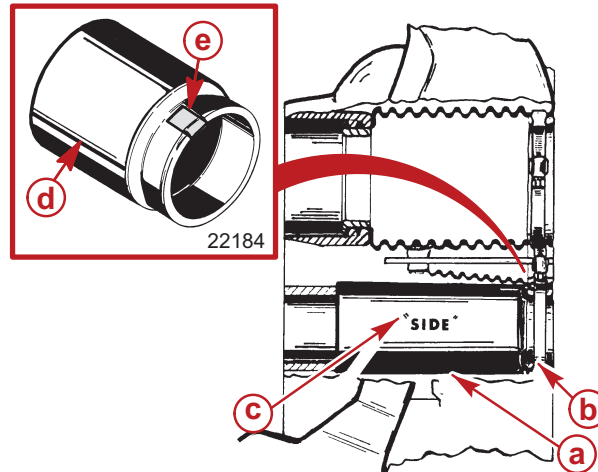
⚠ CAUTION

Exhaust tube clamp may corrode if grounding clip is not installed.

- a. Install grounding clip on tube.

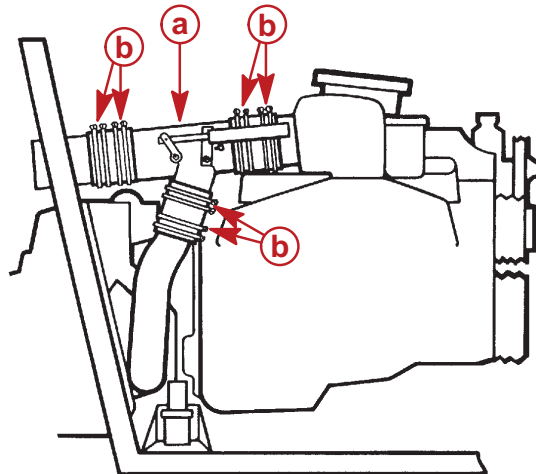
NOTE: Bellows adhesive is not used when installing an exhaust tube.

- (1.) Position tube so that SIDE markings on tube are facing toward the right and left sides.
- (2.) Install clamp.
- (3.) Tighten clamp securely.



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- a** - Exhaust Tube
- b** - Clamp
- c** - Side Marking
- d** - Exhaust Tube
- e** - Grounding Clip

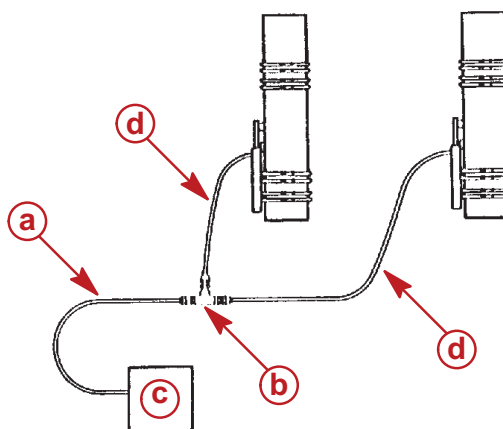


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- a** - Silencer Valve Assembly
- b** - Hose Clamps

Air Tube Routing

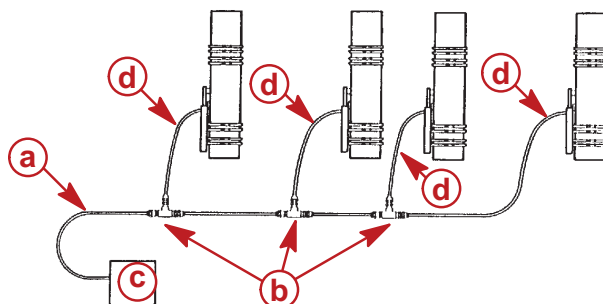
1. Route air tubing from air pump to silencer valve cylinders. Do not route air tubing close to hot surfaces. Excessive heat will damage air tubes.



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Single Engine

- a** - Air Tube
- b** - T-Fittings
- c** - Air Pump Assembly
- d** - Air Tube To Air Cylinder - On Each Silencer Valve



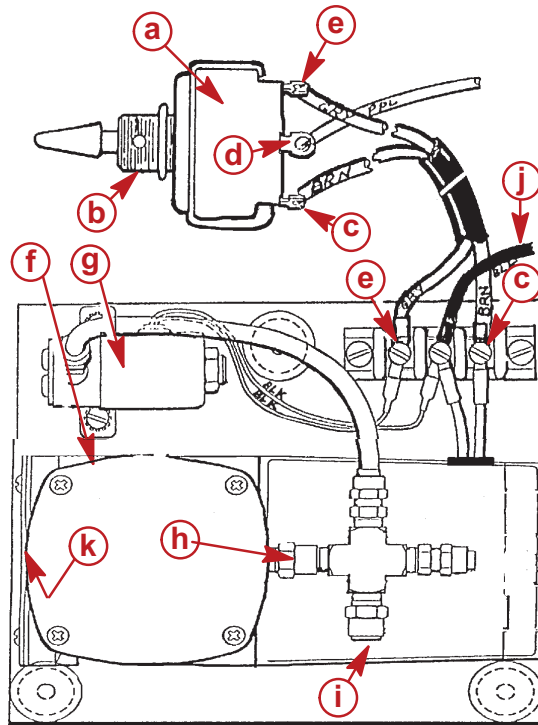
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Dual Engine

- a** - Air Tube
- b** - T-Fittings
- c** - Air Pump Assembly
- d** - Air Tube To Air Cylinder - On Each Silencer Valve

Maintenance

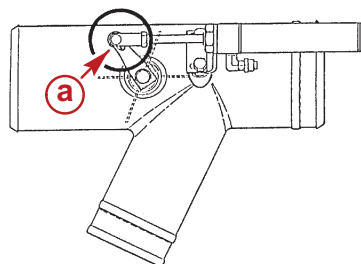
1. Air Intake Filter (32-17272) must be checked once each year. If filter is clogged or partially clogged, replace. The filter pad is glued in and may be removed with needle-nose pliers. Clean surface in casting, apply a single dot of Quicksilver Sound Blanket Glue to center of casting, and install new filter. Be careful not to coat filter or clog air intake holes with adhesive.



72534

- a** - Mode Switch
- b** - Keyway - Install In DOWN Position
- c** - BROWN Wire To Terminal 3 - Activates Compressor
- d** - PURPLE Wire - 12 Volt; Connect To 12 Volt Source In Control Panel Area
- e** - GRAY Wire To Terminal 1 - Activates Solenoid
- f** - Air Pump
- g** - Solenoid
- h** - Check Valve
- i** - Relief Valve - 30 PSI
- j** - 2 Ft. (610 mm) Ground Wire - Connect To Terminal - Must Be Grounded To Engine
- k** - Air Intake Filter

2. Lubricate air cylinder-to-silencer pipe flapper at clevis and pin, as needed, with Quicksilver 2-4-C Marine Lubricant.



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- a** - Lubricate Clevis And Pin With Quicksilver 2-4-C Marine Lubricant

Exhaust Muffler Kit

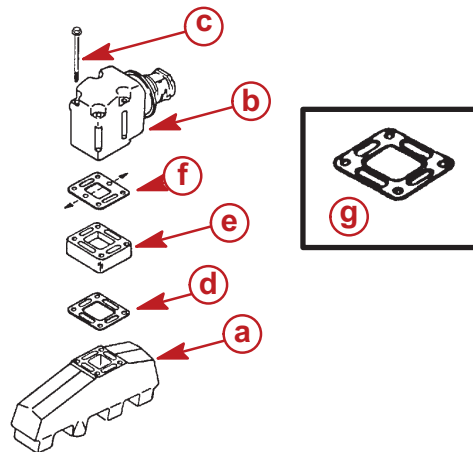
This muffler, designed for use on all V-8 engines with Plus Power™ exhaust systems (4 in., 7 degrees downward outlets), requires the installation of 1-1/4 in. (32 mm) exhaust elbow risers, which are included in the kit.

IMPORTANT: If a thru-transom exhaust kit other than the one from Mercury Marine is used, the exhaust kit must be equipped with internal shutters and external flappers.

⚠ CAUTION

It is the responsibility of the boat manufacturer or installing dealer to properly locate the engine and install exhaust system. Improper installation may allow water to enter the exhaust manifolds and combustion chambers, and severely damage the engine. Damage caused by water in the engine will not be covered by Mercury MerCruiser Warranty, unless this damage is the result of defective part(s).

IMPORTANT: Restrictor gaskets (if equipped) must be installed in order shown.



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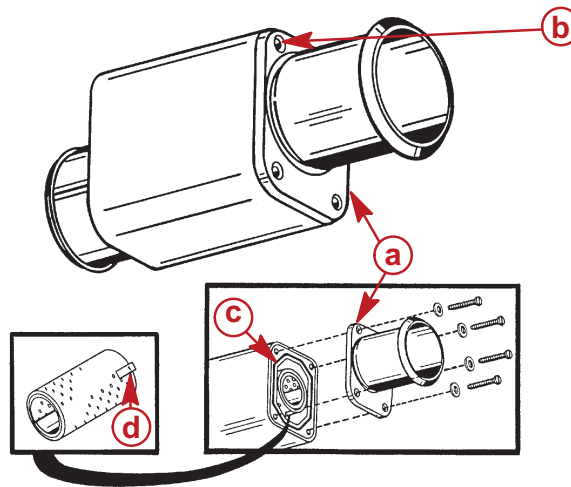
1-1/4 Inch Muffler Riser Installation

- a** - Exhaust Manifold
- b** - Exhaust Elbow
- c** - Bolt (4 Each Manifold)
- d** - Gasket - Lightly Coat Both Sides With Quicksilver Perfect Seal
- e** - Riser 1-1/4 Inch (32 mm) Height
- f** - Restrictor Gasket (Open Gasket on Later Models)
- g** - Refer To Note Following

NOTE: Later models will have an open gasket (four slots) instead of a restrictor gasket (two slots and two holes). If replacing gaskets, it is acceptable to replace the old gaskets with the open gaskets. Be sure that the same type of gasket is used on both manifolds.

Cleaning and Inspection

1. Disassemble muffler as shown.



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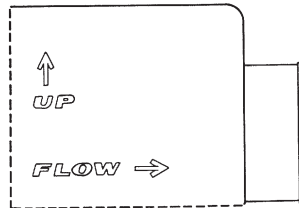
- a** - Removable End Plate
- b** - 4 Screws Secure End Plate
- c** - O-Ring Seal
- d** - Element - When Reassembling, Seat Tab In Slot In Casting

2. Clean (using pressurized water) and inspect parts, including filter element and O-ring seal. If required, replace O-ring, securing in place with Quicksilver Sound Blanket Glue.
3. Reassemble as shown above. Tighten end plate screws securely.

Installation

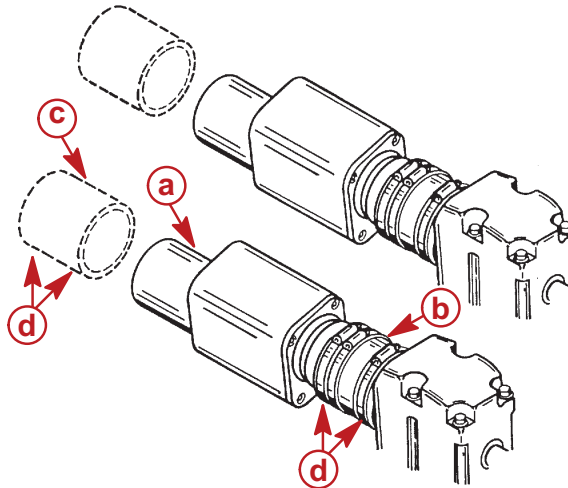
1. Install muffler, as shown, into exhaust hose and molded tube. Fabricate muffler to transom using 4-in. I.D. exhaust hose, cut to required length.

NOTE: Removable end of muffler ALWAYS goes toward exhaust elbow. This places direction marks on muffler body casting at the upper rear corner on the port side.



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IMPORTANT: A MOLDED exhaust tube **MUST** be used at exhaust elbow connection to maintain positive separation of exhaust outlet and muffler inlet.



72781

- a** - Muffler
- b** - Molded Exhaust Tube - Muffler To Elbow
- c** - Exhaust Hose - Muffler To Thru-Transom Fitting - Cut To Length
- d** - Double Clamp Each Connection (Not Shown On Hose C)

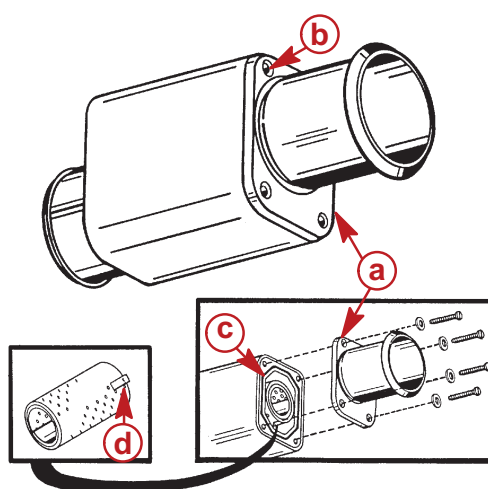
2. Double clamp each connection. Tighten each clamp securely.

IMPORTANT: After starting engine, check installation for leaks.

Maintenance Instructions

Maintenance inspection is owner's responsibility and must be performed at intervals specified in owner's Operation and Maintenance Manual.

1. Check exhaust elbow attaching nuts for adequate tightness [20-25 lb-ft (27-34 Nm)].
2. Check hose clamps for adequate tightness.
3. Periodically check tubes/hoses for soft spots, brittleness, cracks, and general condition. Replace as necessary.
4. As needed, depending on use conditions, remove mufflers, then remove four screws securing forward end plate, and remove end plate and element and interior of muffler. Clean thoroughly, at least once each year, using pressurized water.



72782

- a** - Removable End Plate
- b** - 4 Screws Secure End Plate
- c** - O-Ring Seal
- d** - Element - When Reassembling, Seat Tab In Slot In Casting

- a. Check condition of O-ring seal; if dried out or shrunk below mating surface, remove and replace. Clean groove thoroughly.
 - b. Glue new O-ring seal in groove, using Sound Blanket Glue. Wipe off excess glue immediately.
5. Reinstall muffler end plate with four screws. Tighten securely.
 6. Reinstall muffler into tubes/hoses. Double clamp. Tighten securely.
 7. Check area around exhaust elbow and riser gaskets for leakage. Replace gaskets, if necessary.

CAUTION

Water must be completely drained from exhaust elbow riser during freezing temperatures, or water may freeze and cause severe damage to riser.