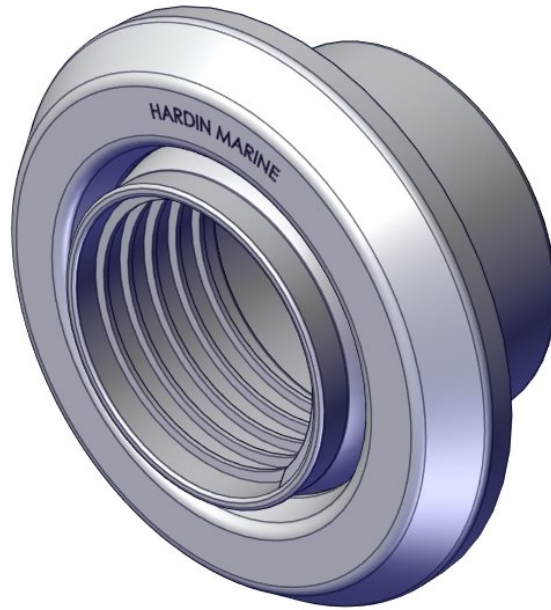




SWIVEL RIGGING HOSE KIT

620-336180



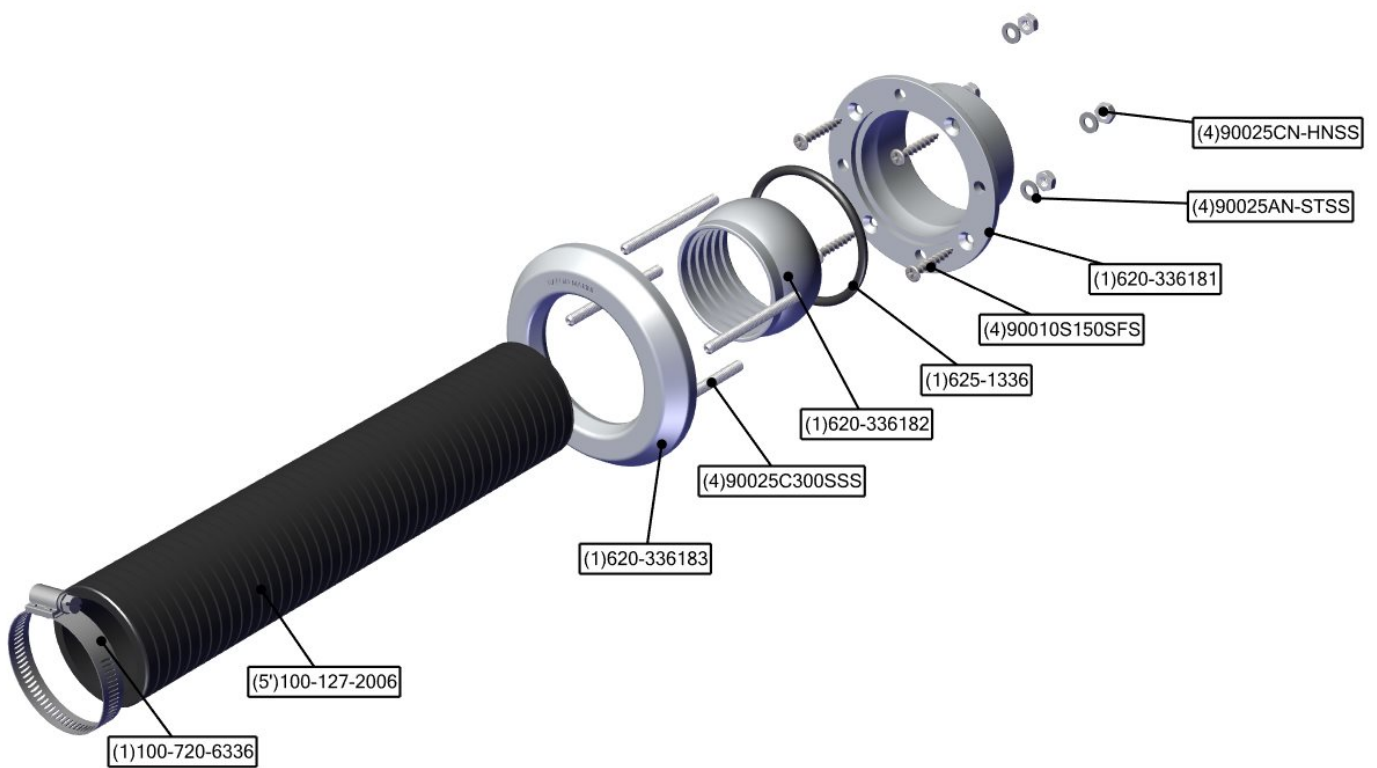
SWIVEL RIGGING HOSE KIT FOR
VERADO AND OPTIMAX MODELS



SWIVEL RIGGING THRU HULL

620-336180

Components Contained in Kit

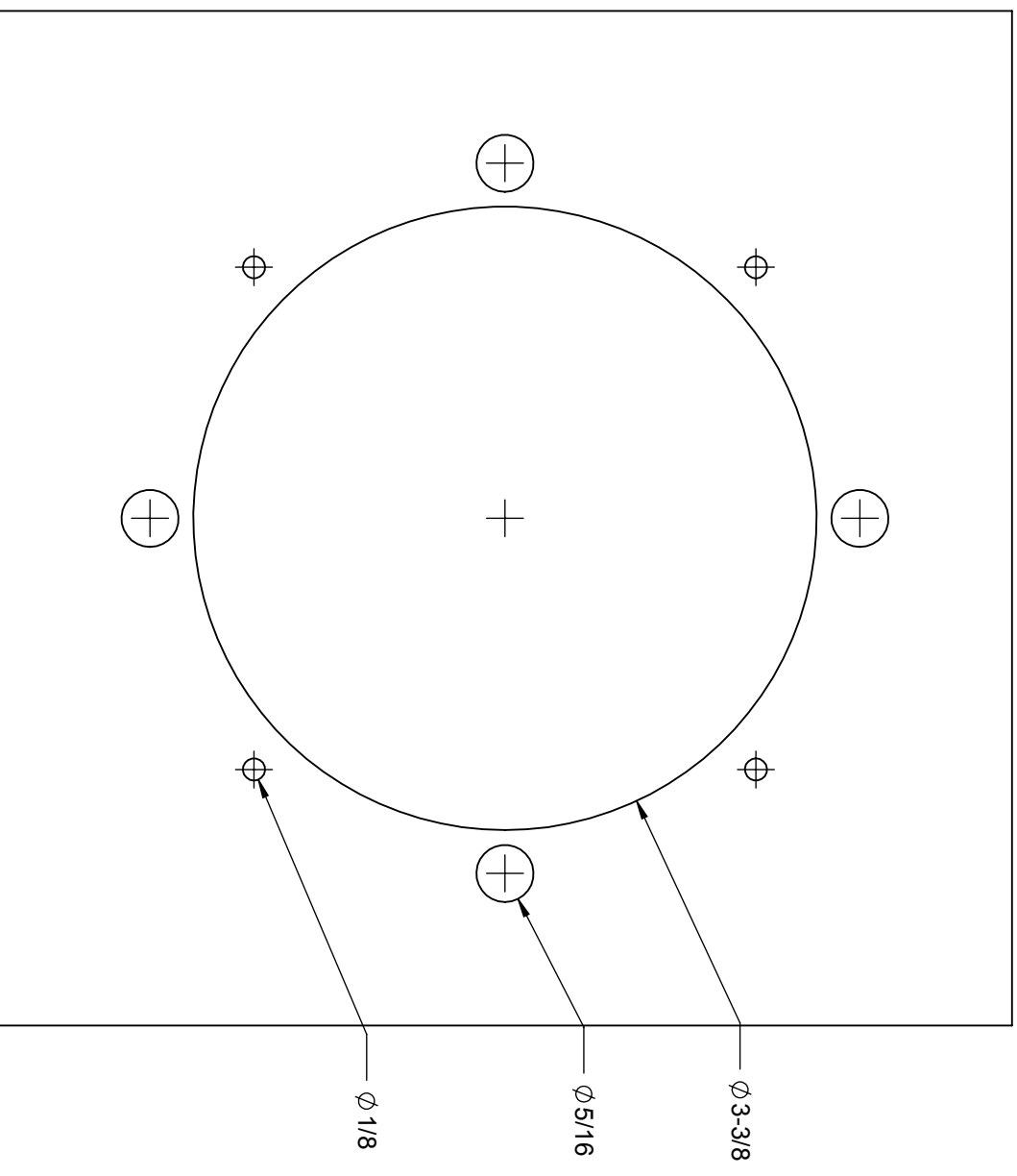


TITLE:

RIGGING THRU HULL - DRILL TEMPLATE

INSTRUCTIONS:

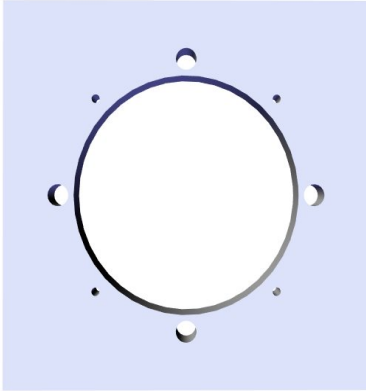
- 1) MAKE SURE PRINTER IS SET AT 100%.
- 2) POSITION THE THRU HULL AHEAD OF THE ENGINE SO THAT IT ALLOWS FOR SUFFICIENT PLAY IN THE HARNESESSES, CABLES AND FUEL LINES BEING ROUTED THROUGH THE RIGGING HOSE. THE RIGGING HOSE SHOULD HAVE LARGE SWEEPING BENDS DURING STEERING.
- 3) CHOOSE A PATH FOR THE HARNESESSES, CABLES AND FUEL LINES THAT WILL ALLOW THEM TO BE ROUTED AS STRAIGHT AS POSSIBLE TO AVOID SHARP BENDS.
- 4) THIS RIGGING THRU HULL WILL SWIVEL 12 DEGREES IN A 360 DEGREE PATTERN TO HELP WITH MISS ALIGNMENT.
- 5) TAPE TEMPLATE TO THE TRANSOM.
- 6) USE HOLE SAW FOR THE CENTER 3-3/8 HOLE.
- 7) DRILL (4) 1/8 AS SHOWN.
- 8) DRILL (4) 5/16 HOLES AS SHOWN.



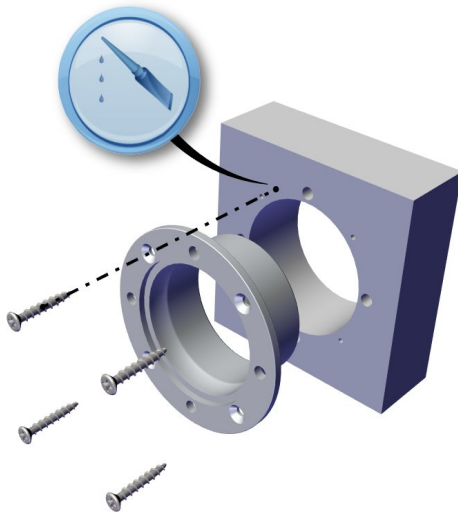


SWIVEL RIGGING THRU HULL 620-336180

Step 1

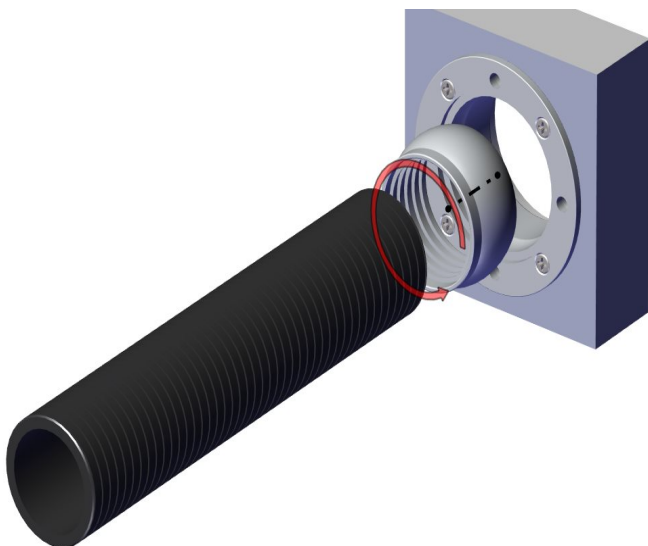


- Use previous page template to position drill the required mounting hose for the base.



Step 2

- Use 5200 silicone between base and transom.
- Using the supplied #10 screws mount base to the transom.



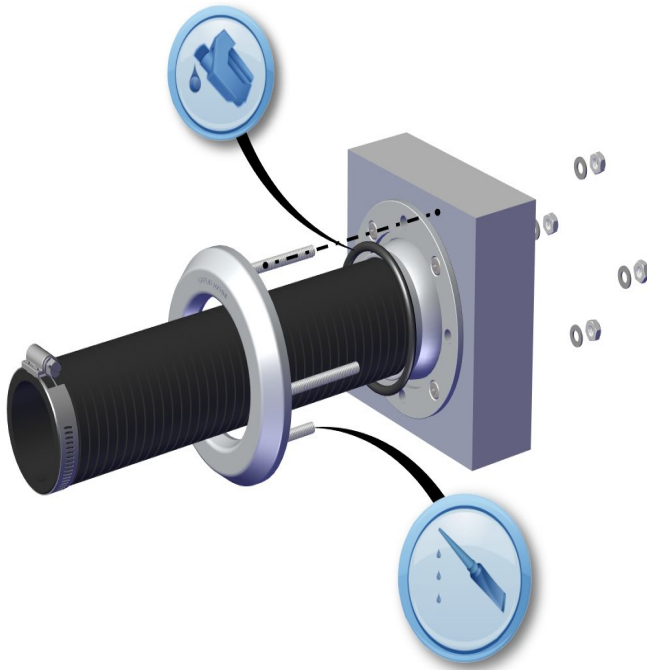
Step 3

- Turning counter clockwise, install hose into the swivel.



SWIVEL RIGGING THRU HULL

620-336180



Step 4

Install oil to o-ring and install into the base groove.

Apply anti-sieze to all 4 studs.

Install cover into the base.

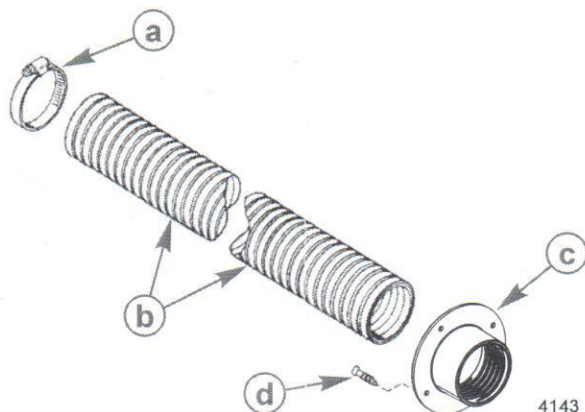
Install washers and nuts. Keep nuts loose so hose can swivel until the hose is installed to the outboard cowling.

32-825191A03

RIGGING HOSE KIT

VERADO AND OPTIMAX MODELS

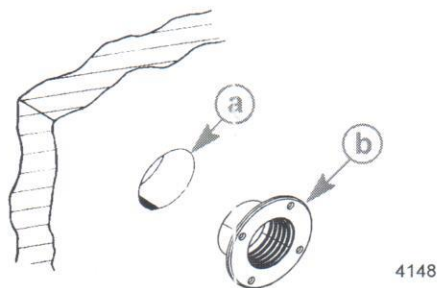
Components Contained in Kit



| Ref. | Qty. | Description | Part Number |
|------|------|-----------------|--------------|
| a | 1 | Clamp | 54-815504232 |
| b | 1 | Rigging hose | 32-859055--5 |
| c | 1 | Transom housing | 895318 |
| d | 4 | Screw | 10-47994 |

Selecting Location On Transom

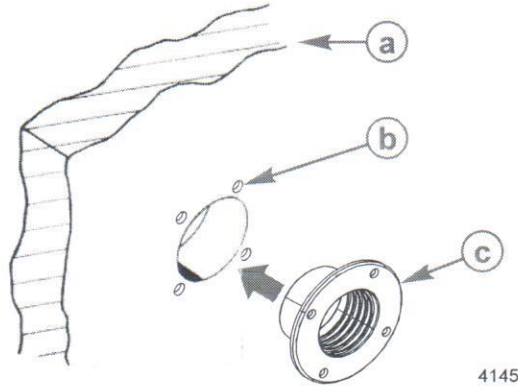
1. Position the transom housing ahead of the engine so that it allows for sufficient play in the harnesses, cables, and fuel lines being routed through the rigging hose. The rigging hose should have large sweeping bends during steering
2. Choose a path for the harnesses, cables, and fuel lines that will allow them to be routed as straight as possible to avoid any sharp bends.
3. Make a 73 mm (2-7/8 in.) diameter hole in the location for the transom housing.



a - Hole cut in transom

b - Transom housing

4. Insert transom housing into the hole in transom. Mark and drill 3 mm (1/8 in.) pilot holes for the 4 mounting screws using the transom housing as a template. Do not attach transom housing to transom at this time.



a - Transom
b - Pilot hole (4)

c - Transom housing

Determining Rigging Hose Length

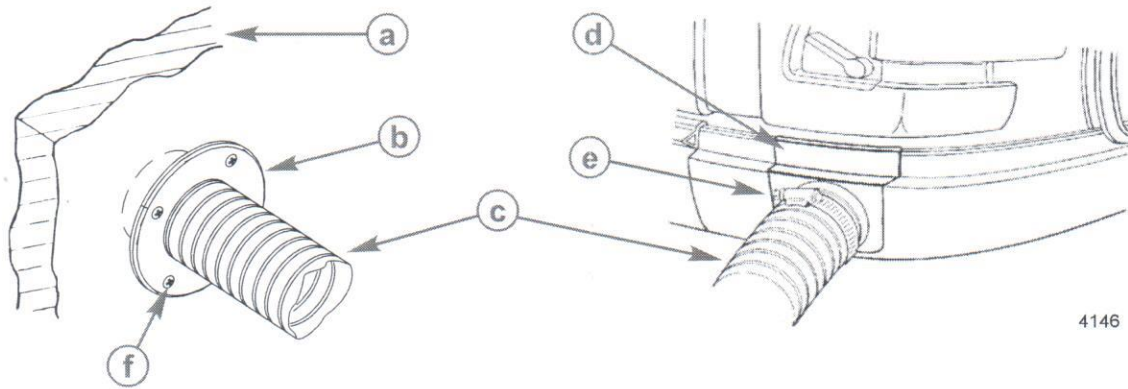
Establish length of rigging hose needed by turning engine from full port to full starboard and all tilt angles. Rigging hose should have large sweeping bends so wiring harness, hoses, and cables inside rigging hose do not bend. Make allowance for the length of hose threaded into the transom housing and cowl adaptor.

Installation

OptiMax Models

1. Thread transom housing on rigging hose in a counterclockwise direction (left hand thread).
2. Pull harnesses, cables, and fuel lines through the rigging hose in the following order:
 - a. Helm harness (10 or 14 pin connector) from boat to engine
 - b. Wire harnesses
 - c. Fuel line
 - d. Battery cables
3. Fasten transom housing to transom with 4 screws.
4. Adjust rigging hose length by threading hose in or out of transom housing. Maintain a minimum of 32 mm (1.25 in.) hose engagement in transom housing.
5. Connect rigging hose to engine cowl adaptor.

6. Fasten rigging hose to engine cowl adaptor with clamp.



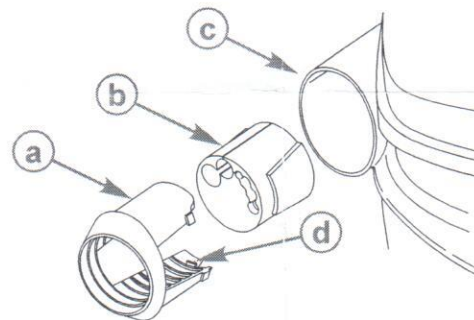
a - Transom
b - Transom housing
c - Rigging hose

d - Cowl adaptor
e - Clamp
f - Screw (4)

7. Check operation of outboard to ensure steering is not obstructed.

Verado Models

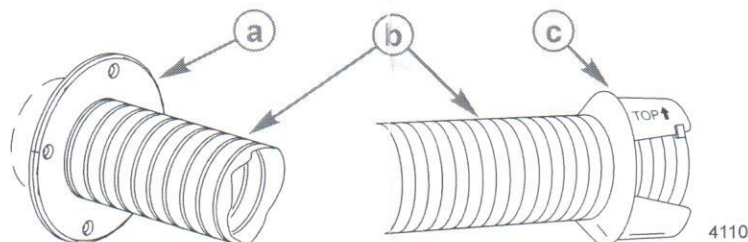
1. Remove cowl adaptor and grommet from cowl.
2. Retain cowl adaptor for rigging hose installation. Discard grommet.



a - Cowl adaptor
b - Grommet

c - Cowl
d - Rigging hose stop

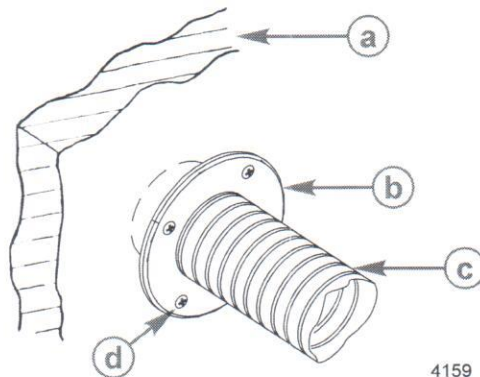
3. Thread transom housing (from kit) and retained cowl adaptor on rigging hose in a counterclockwise direction (left hand thread). Thread cowl adaptor until hose contacts rigging hose stop. Maintain a minimum of 32 mm (1.25 in.) hose engagement in transom housing.



a - Transom housing
b - Rigging hose

c - Cowl adaptor

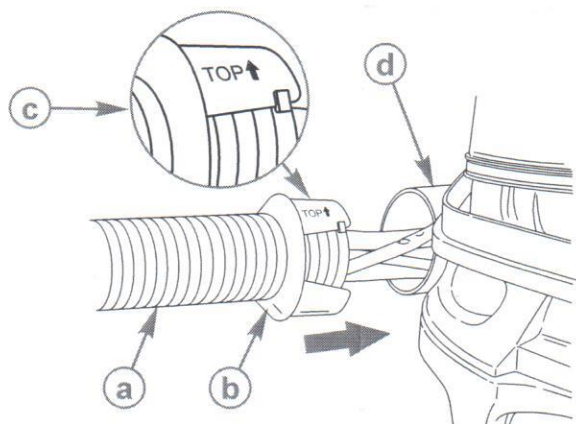
4. Pull harnesses, cables, and fuel line through the rigging hose in the following order:
 - a. Helm harness (14 pin connector) from boat to engine
 - b. Wire harnesses
 - c. Fuel line
 - d. Battery cables
5. Fasten transom housing to transom with 4 screws.



4159

- | | |
|---------------------|------------------|
| a - Transom | c - Rigging hose |
| b - Transom housing | d - Screw (4) |

6. Adjust rigging hose length by threading hose in or out of transom housing. Maintain a minimum of 32 mm (1.25 in.) hose engagement in transom housing.
7. Position adaptor on rigging hose so the end marked "TOP" is facing up.
8. Push cowl adaptor with rigging hose into cowl.



4108

- | | |
|------------------|-------------------------|
| a - Rigging hose | c - Top of cowl adaptor |
| b - Cowl adaptor | d - Cowl |

9. Check operation of outboard to ensure steering is not obstructed.