

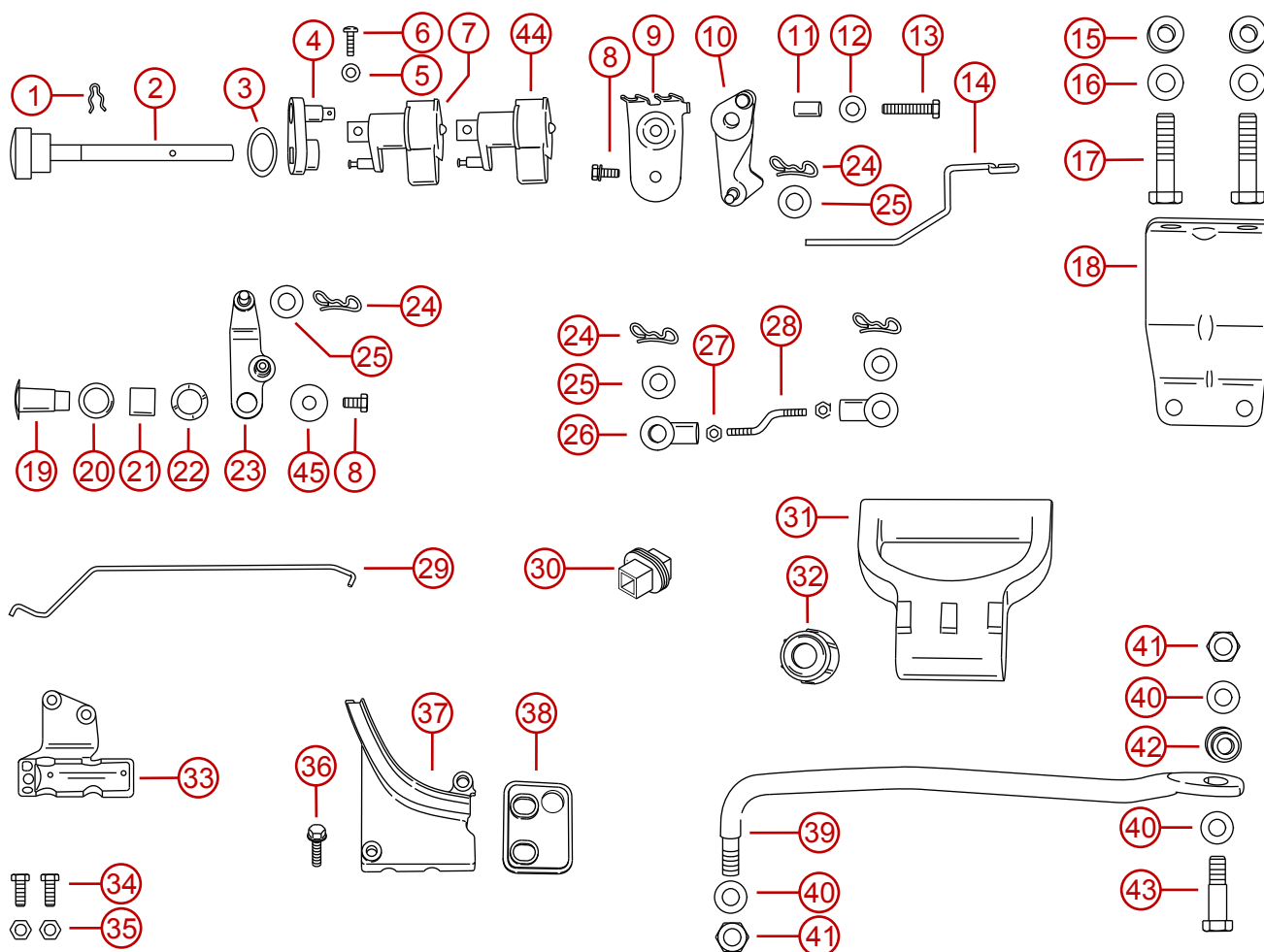
889246A80

REMOTE CONTROL CONVERSION KIT 8/9.9 FOURSTROKE MANUAL START MODELS

IMPORTANT: This document is written to aid our dealers and company service personnel in the proper installation or service of our products. Persons who are not familiar with these or similar products produced by Mercury Marine, and who have not been trained in the recommended servicing or installation procedures should have the work performed by an authorized Mercury Marine dealer technician. Improper installation or servicing of the Mercury product could result in damage to the product or personal injury to the installer or persons operating the product.

NOTE: After completing installation, these instructions should be placed with the product for the owner's future use.

Components Contained in Kit



27286

REMOTE CONTROL CONVERSION KIT

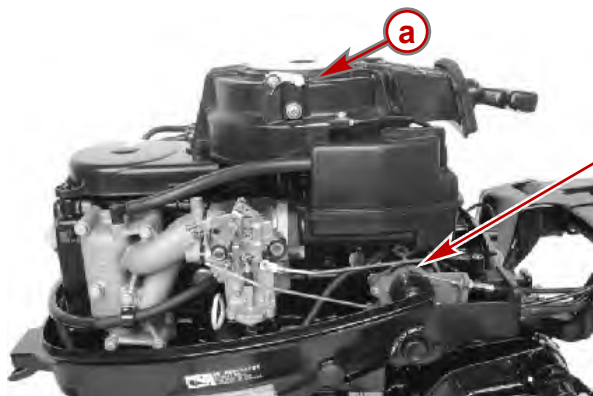
Ref.	Qty.	Description	Part Number
1	1	Snap retainer	54-851863
2	1	Shift arm shaft	851865003
3	1	Seal ring	26-16219003
4	1	Shift arm (remote control)	898101903
5	1	Washer	12-16335
6	1	Screw	10-855544014
7	1	Shift detent (Non-BigFoot) (black)	803768003
8	2	Bolt	10-823042 34
9	1	Throttle bracket	853739003
10	1	Throttle lever	898101905
11	1	Spacer	23-853715 4
12	1	Washer	12-16140 4
13	1	Bolt	10-823042044
14	1	Throttle rod	803574001
15	2	Spacer	23-95286026
16	2	Washer	12-895141
17	2	Bolt	10-804367001
18	1	Steering bracket	17024003
19	1	Pivot (shoulder bolt)	10-17640001
20	1	Seal ring	26-16219
21	1	Bushing	23-16220
22	1	Wave washer	13-16221
23	1	Shift lever (remote control)	898101904
24	4	Bow tie clip	54-8M0021224
25	4	Washer	12-95392 5
26	2	Cable joint	892775
27	2	Nut	11-853722 5
28	1	Shift lever rod	892774
29	1	Choke link rod	855561008
30	1	Grommet	25-881305007
31	1	Carrying handle	815082002
32	1	Seal ring (cap)	853825
33	1	Cable stay	898101635
34	2	Bolt	10-16832
35	2	Nut	11-853722022
36	1	Bolt	10-825702002
37	1	Cable stay cover	898101651
38	1	Grommet	25-898101902
39	1	Steering link rod	N.S.S.
40	3	Washer	12-95392 10
41	2	Nylon insert locknut	11-16147 3
42	1	Spacer	23-853826001
43	1	Bolt	10-851866007

Ref.	Qty.	Description	Part Number
44	1	Shift detent (BigFoot) (blue)	802971002
45	1	Washer	12-895118002

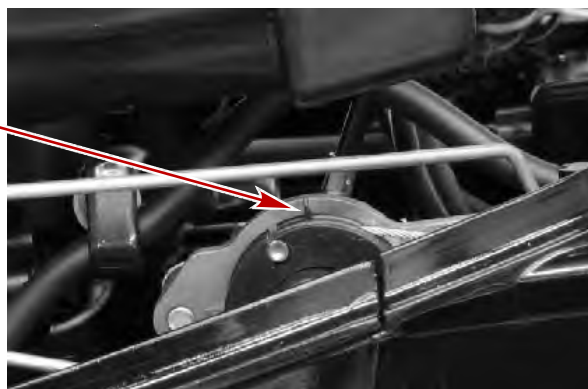
Tiller Handle/Throttle Linkage Disassembly

Throttle Cable Removal

1. Rotate the tiller twist grip to neutral.
2. Ensure that the gearcase is in neutral and the neutral start interlock is engaged.
3. Ensure that the pointer on the throttle cable pulley is aligned with the mark on the bracket.



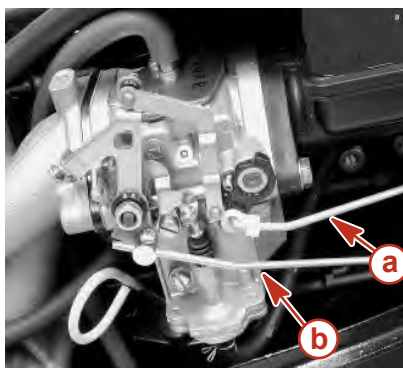
a - Neutral start interlock



b - Neutral pointers aligned

2916

4. Remove throttle link rod and choke link rod from carburetor.



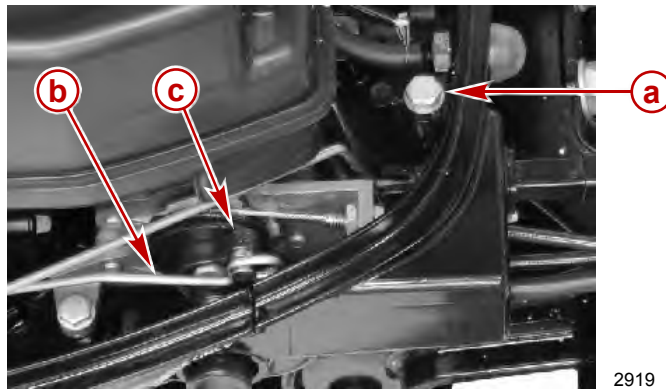
4354

a - Choke link rod

b - Throttle link rod

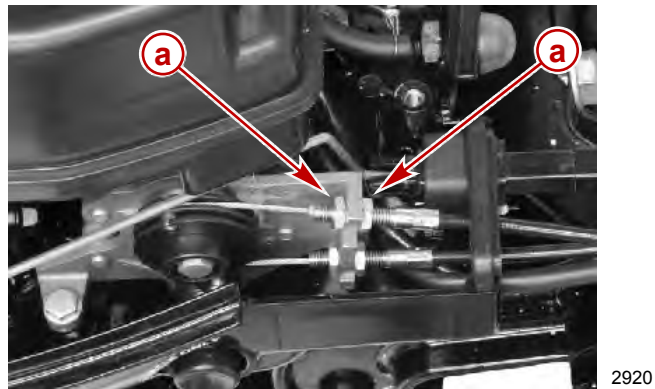
5. Remove cover attaching screw.

6. Remove throttle link from throttle lever.



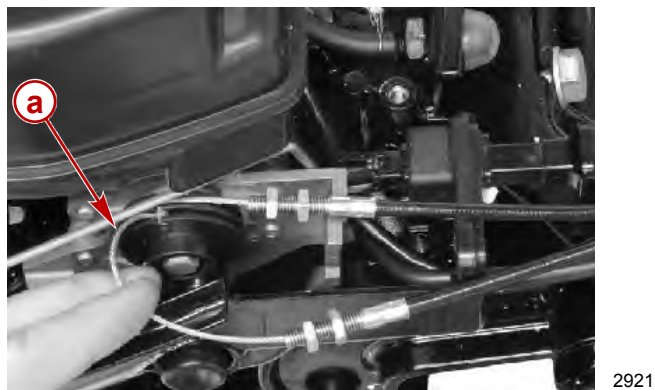
a - Cover attaching screw
b - Throttle link
c - Throttle lever

7. Loosen cable jam nuts on both upper and lower cable ends.



a - Cable jam nut

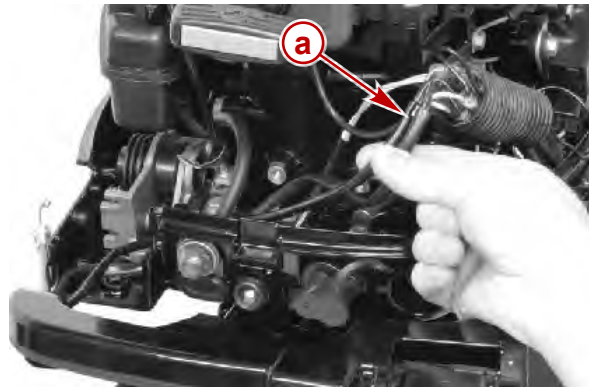
8. Remove both throttle cables from bracket slots. Remove both cable ends from pulley.



a - Throttle cable

Tiller Handle Disassembly

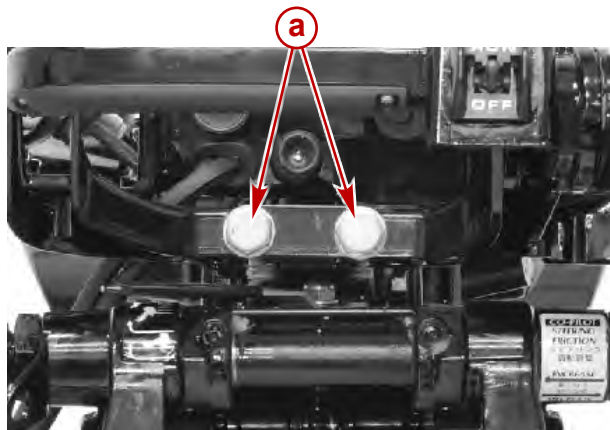
1. Disconnect stop switch and lanyard switch bullet connectors.



2922

a - Stop switch wires

2. Remove 2 tiller handle bracket mounting screws. Remove tiller handle and bracket.

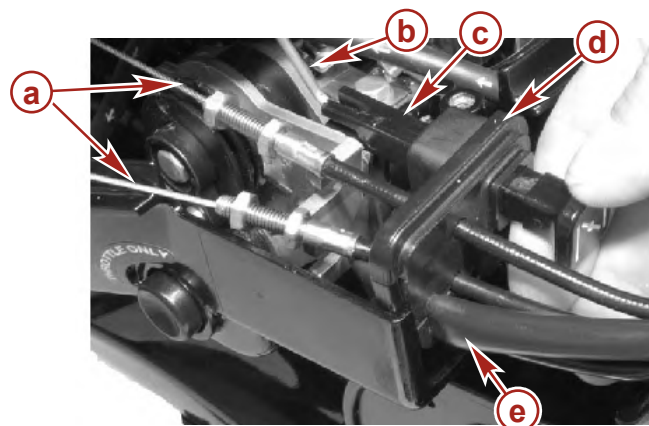


2923

a - Tiller handle bracket mounting screws

Throttle Only/Shift Lever Removal

1. Lift the grommet out of the lower cowl to remove the tiller handle cables, tiller handle wire harness, choke rod and choke knob. Retain the choke knob for reassembly.

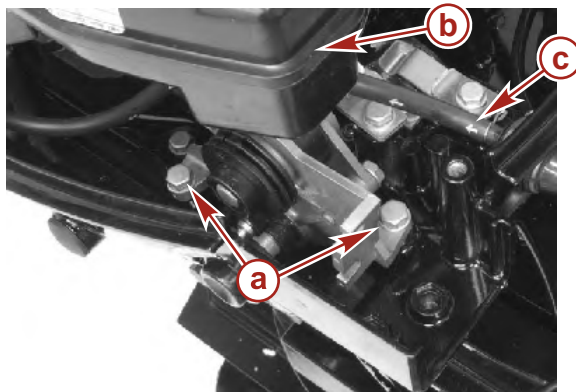


8368

a - Throttle/shift cables
b - Choke rod
c - Choke knob

d - Grommet
e - Tiller handle wire harness

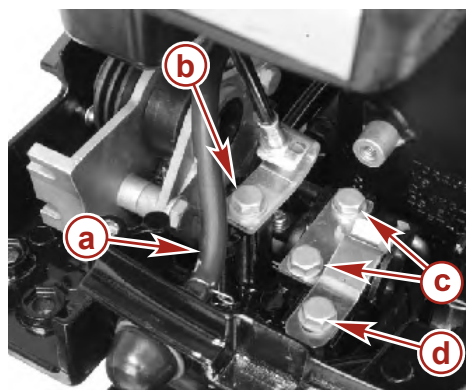
2. Remove 2 bolts securing throttle only control platform to the lower cowl.



8370

- a** - Bolts securing throttle only control platform **c** - Fuel primer hose
b - Air box

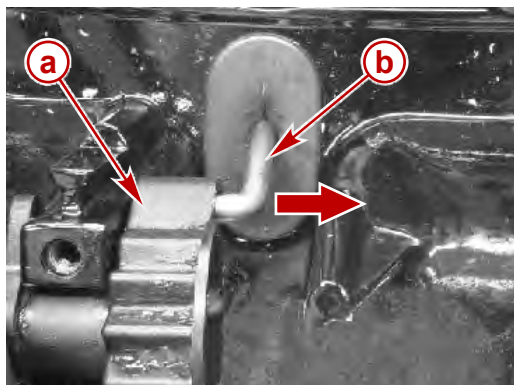
3. Remove 4 bolts securing brackets and detent spring to the lower cowl. Retain the bolts, brackets and detent spring for reassembly.
4. Remove the fuel primer hose from the fuel primer.



8372

- a** - Fuel primer hose **c** - Shift shaft lever bracket mounting bolts (2)
b - Recoil interlock bracket mounting bolt (1) **d** - Detent bracket mounting bolt (1)

5. Remove the vertical shift shaft from the shift shaft lever.

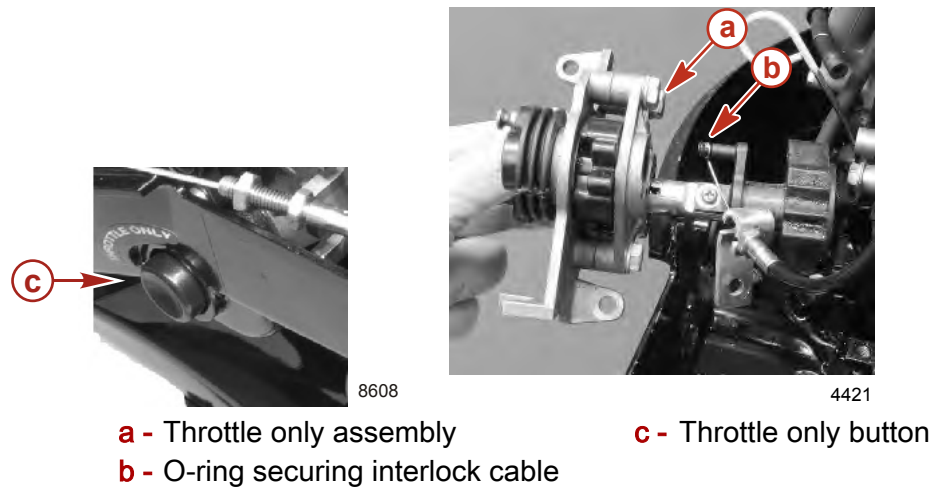


3563

- a** - Shift shaft lever **b** - Vertical shift shaft

6. Remove the throttle/shift control platform.

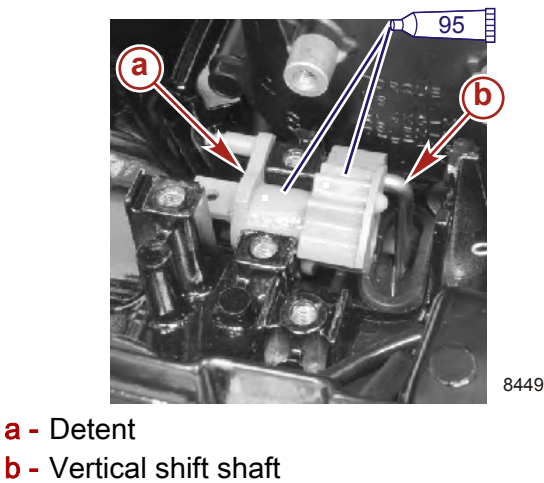
7. Push the throttle only button in and remove the throttle only assembly from the lower cowl. Remove the O-ring securing the shift interlock cable to the throttle only assembly. Retain the O-ring for reassembly.




Remote Control Kit Installation

Shift Arm/Detent Installation

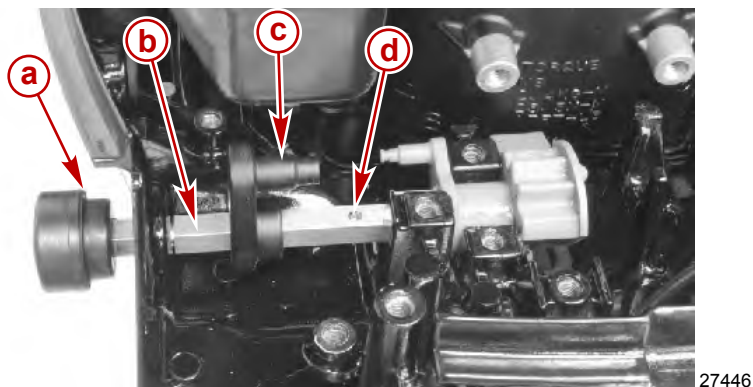
1. Select the correct detent for the outboard.
 - Non-BigFoot models use the black detent
 - BigFoot models use the blue detent
2. Lubricate the detent bearing area with 2-4-C with Teflon. Install the detent onto the lower cowl. Install the vertical shift shaft into the detent.



Tube Ref No.	Description	Where Used	Part No.
	2-4-C Marine Lubricant with Teflon	Detent bearing	92-802859A1

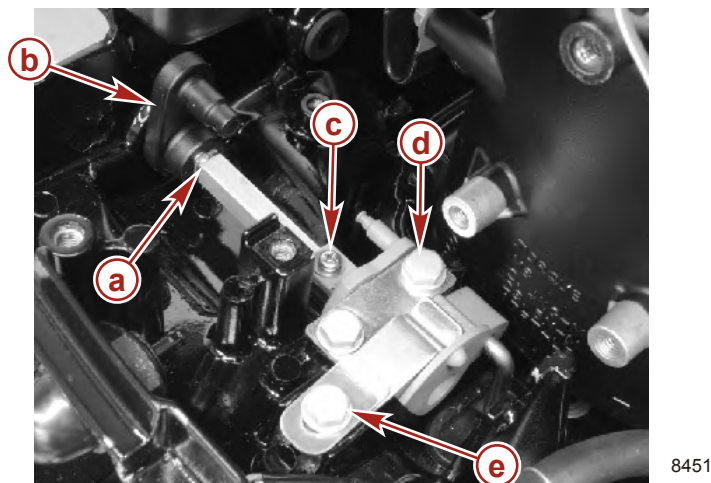
3. Install the seal onto the shift arm shaft.
4. Install the shift arm shaft into the cowl.

5. Align and install the shift detent onto the shift arm shaft. Ensure that the shift arm and the threaded hole on the shift arm shaft are aligned.



- a** - Seal
- b** - Shift arm shaft
- c** - Shift arm
- d** - Shift arm shaft threaded hole

6. Push the shift arm shaft into the detent.
7. Secure the shift arm shaft to the detent with a washer and screw; drive the screw tight.
8. Push the shift arm to the left and install the retaining clip.
9. Install the shift arm shaft plate. Secure with two bolts. Tighten to the specified torque.
10. Install the detent springs. Secure with a bolt. Tighten to the specified torque.

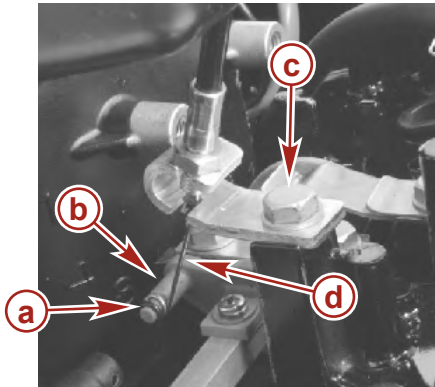


- a** - Shift arm retaining clip
- b** - Shift arm
- c** - Retaining washer and screw
- d** - Shift arm shaft plate bolt (2)
- e** - Detent spring bolt

Description	Nm	lb. in.	lb. ft.
Shift lever shaft plate bolt	6	53	
Detent spring bolt	6	53	

11. Install the neutral interlock cable bracket onto the lower cowl. Secure with a bolt. Tighten to the specified torque.

12. Install the neutral interlock cable onto the detent cable lever. Secure the neutral interlock cable to the detent cable lever with the O-ring retained during disassembly.



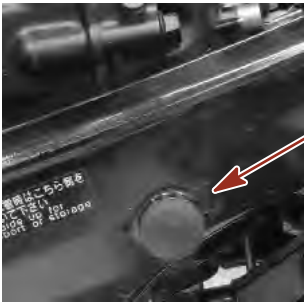
8453

- a - O-ring
- b - Detent cable lever
- c - Interlock cable bracket bolt
- d - Interlock cable

Description	Nm	lb. in.	lb. ft.
Neutral interlock cable bracket bolt	6	53	

Shift Lever Installation

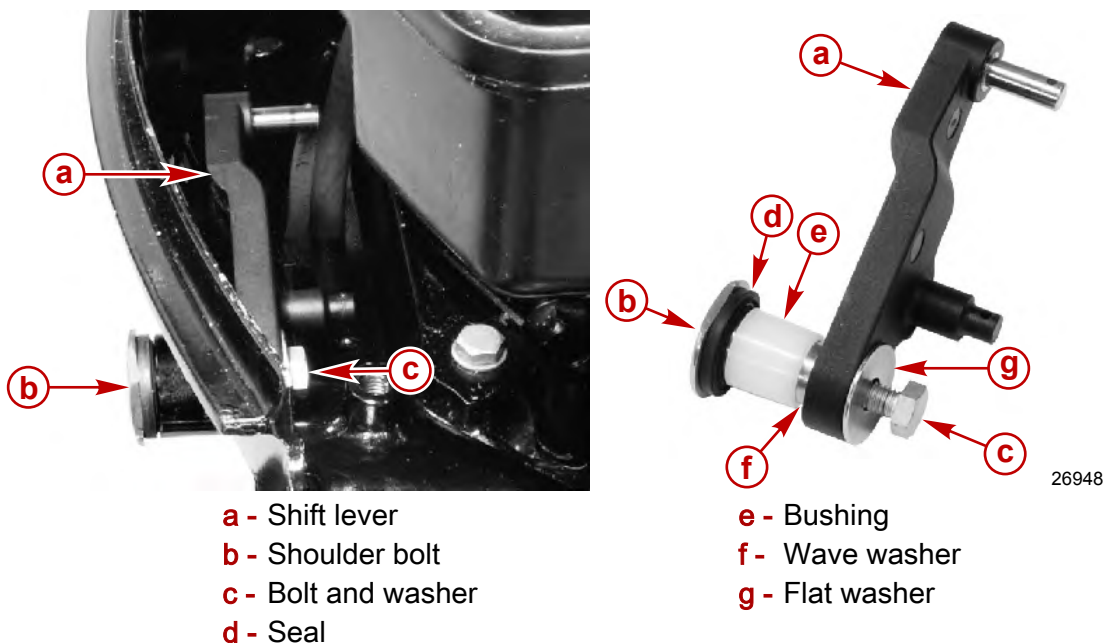
1. Remove the grommet from the lower cowl.




4923

2. Lubricate the shift lever shoulder bolt with 2-4-C with Teflon.
3. Assemble the bushing and seal onto the shoulder bolt.
4. Insert the shoulder bolt with the seal and bushing through the cowl opening.

5. Install the wave washer over the shoulder bolt. Install the shift lever and secure the shift lever to the shoulder bolt with a flat washer and bolt. Tighten the bolt to the specified torque.

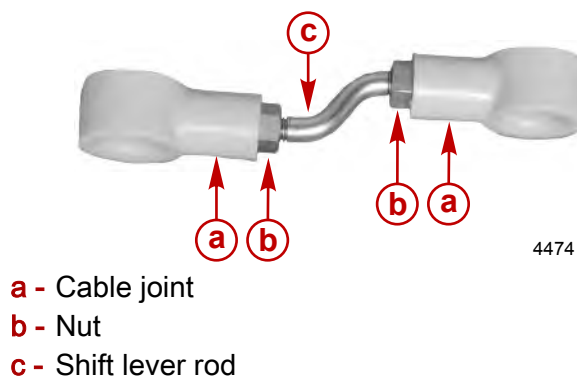


Tube Ref No.	Description	Where Used	Part No.
 95	2-4-C Marine Lubricant with Teflon	Shift arm shoulder bolt	92-802859A1

Description	Nm	lb. in.	lb. ft.
Shift arm bolt	6	53	

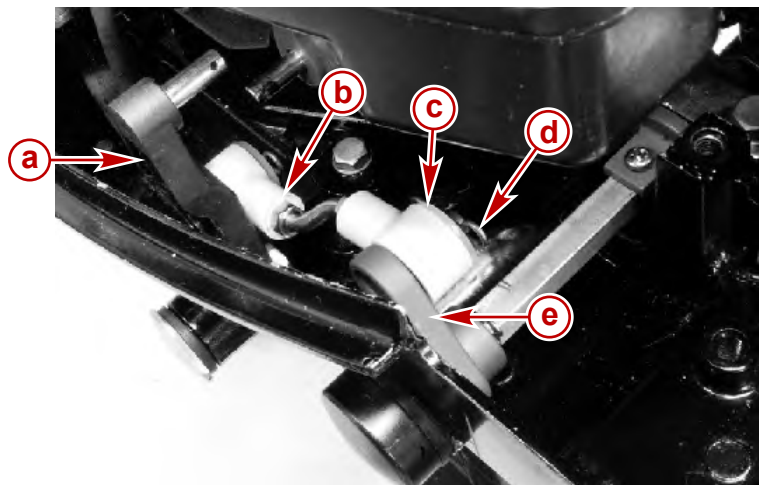
LINKAGE

1. Assemble the cable joints, nuts, and shift lever rod. Adjust the components so the cable joints are at the maximum offset and the distance between centers is 72 mm (2.8 in.).



2. Install the assembly onto the shift arm and shift lever.

3. Secure each cable joint with a plastic washer and bow tie clip.



26963

- a** - Shift lever

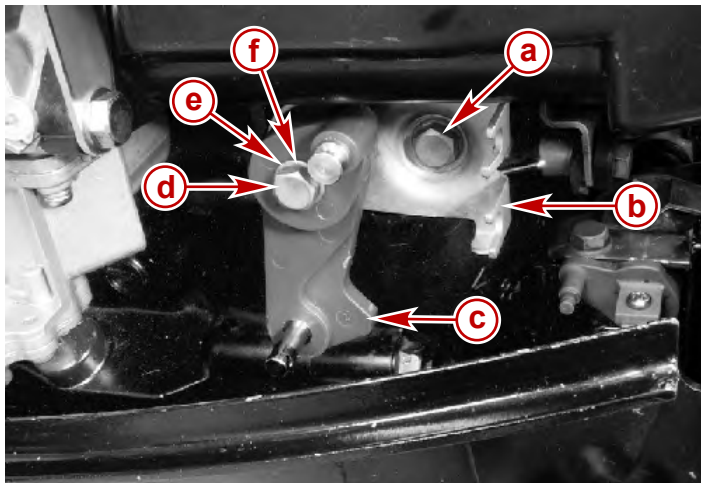
b - Cable joint

c - Plastic washer (2)
- d** - Bow tie clip (2)

e - Shift arm

Throttle Lever Installation

1. Lubricate the throttle lever spacer with 2-4-C with Teflon.
2. Install the washer onto the throttle lever bolt and insert the bolt through the spacer.
3. Install the spacer into the throttle lever.
4. Install the throttle lever assembly onto the throttle bracket.
5. Install the throttle lever bracket assembly to the cylinder block. Do not tighten bolt.
6. Install the throttle bracket retaining bolt. Tighten the throttle drum bracket assembly bolts to the specified torque.



27208


- a** - Throttle bracket bolt

b - Throttle lever bracket

c - Throttle lever
- d** - Throttle lever bolt

e - Washer

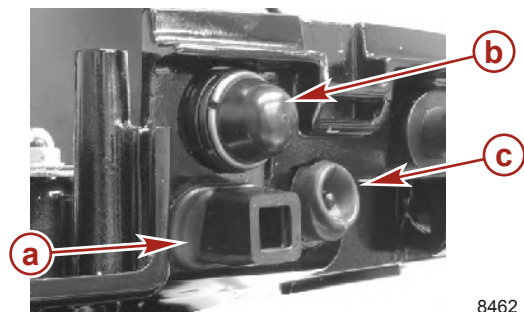
f - Spacer (hidden)

Tube Ref No.	Description	Where Used	Part No.
 95	2-4-C Marine Lubricant with Teflon	Throttle lever spacer	92-802859A1

Description	Nm	lb. in.	lb. ft.
Throttle lever bolt	6	53	
Throttle bracket bolt	6	53	

Throttle Rod and Choke Rod Installation

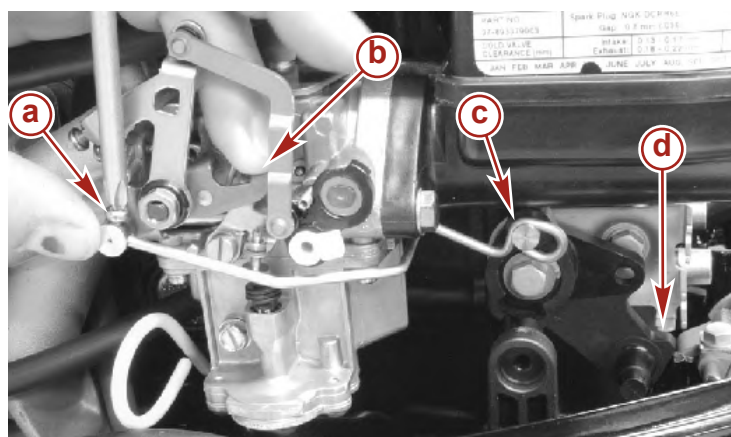
1. Install the choke knob grommet into the lower cowl. The choke knob grommet must extend outside the lower cowl.



a - Choke knob grommet
b - Fuel primer

c - Low oil warning light

2. Install the throttle rod onto the carburetor and throttle drum pin.
3. Hold the throttle fully open with your finger.
4. Pull the throttle drum towards the front of the engine.
5. Push the throttle rod towards the throttle drum pin with your thumb.
6. Ensure the throttle drum is contacting the throttle wire bracket stop while holding the throttle to wide open while pushing on the throttle rod. Tighten the throttle rod set screw.

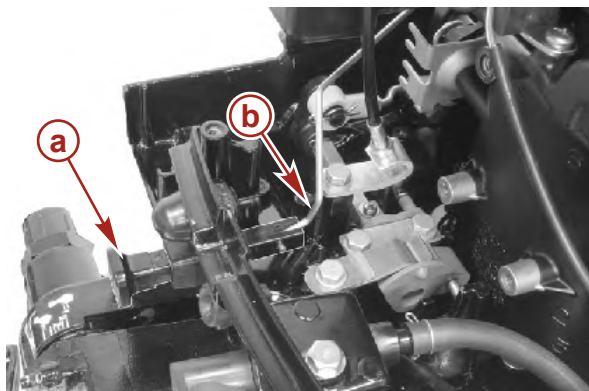


a - Throttle rod set screw
b - Finger holding throttle wide open

c - Throttle rod contacting throttle drum pin
d - Throttle drum contacting throttle wire bracket stop

7. Insert choke knob through choke grommet.

8. Install choke rod onto choke knob.

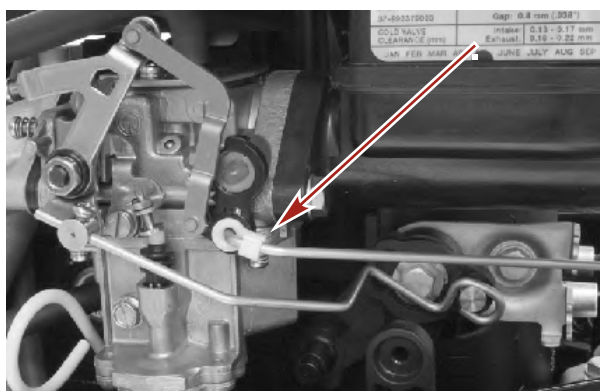


8464

a - Choke knob

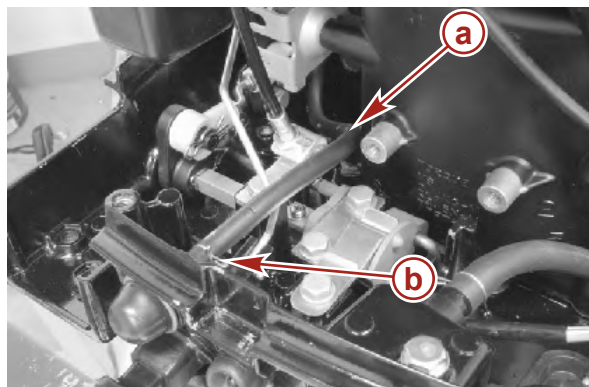
b - Choke rod

9. Insert the choke rod into the carburetor and secure with the rod snap.



8465

10. Connect the primer hose to the primer. Secure with hose clamp retained during disassembly.



8467

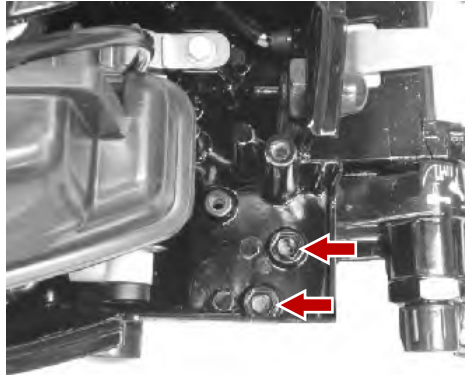
a - Primer hose

b - Hose clamp

Remote Control Throttle and Shift Cable Installation

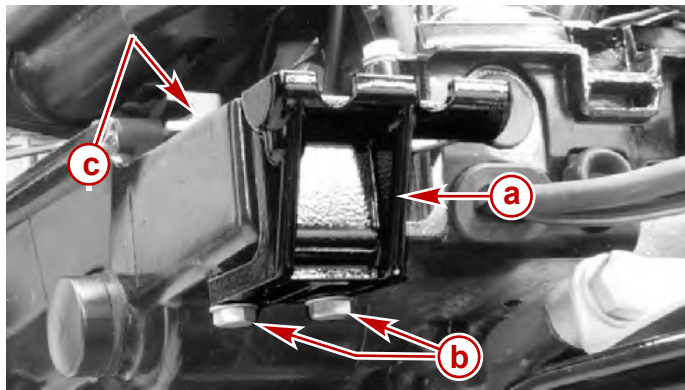
1. Verify that the holes for the cable stay mounting bolts are open.

2. If the holes are closed, drill out the lower cowl cable stay bolt holes with a 6 mm (0.250 in.) drill bit.



27295

3. Install the remote control cable stay by inserting two bolts from underside of cowl and secure with nuts. Tighten the bolts to the specified torque.



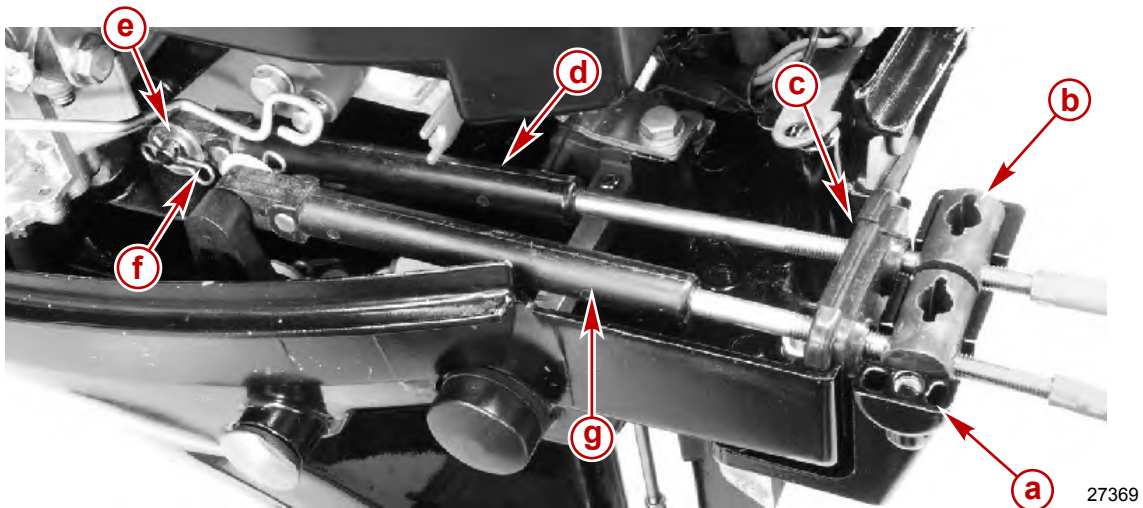
27390

- a** - Remote control cable stay
- b** - Bolt (M6 x 25) (2)
- c** - Nut (2)

Description	Nm	lb. in.	lb. ft.
Remote control cable stay bolt (2)	6	53	

4. Install the throttle cable end to the throttle lever pin.
5. Install the shift cable end to the shift lever pin.
6. Install the plastic washers and bow tie clips.
7. Route the throttle and shift cables through the grommet.

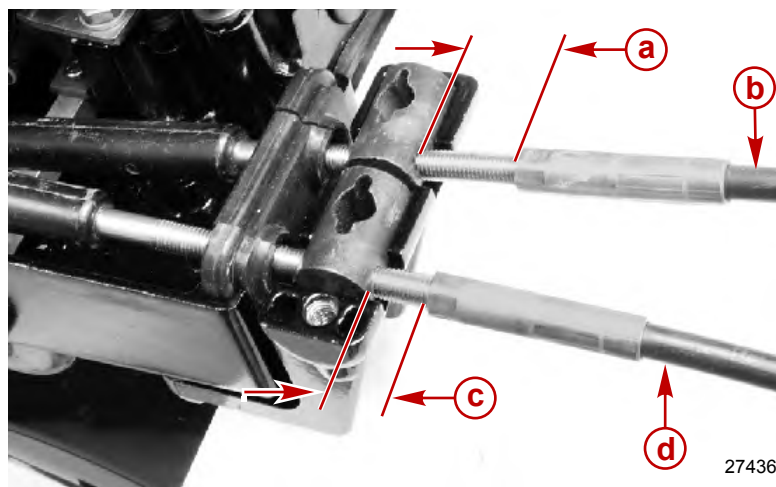
8. Install the grommet and cable barrels into the remote control cable stay.



- | | |
|--------------------------------------|-----------------------------|
| a - Remote control cable stay | e - Washer (2) |
| b - Cable barrel | f - Bow tie clip (2) |
| c - Grommet | g - Shift cable |
| d - Throttle cable | |

9. Adjust the distance between the throttle cable barrel to the end of the cable to 18 mm (0.708 in.).
10. Adjust the distance between the shift cable barrel to the end of the cable to 11 mm (0.433 in.).

NOTE: These are the preliminary adjustments for installing the throttle and shift cables. Refer to **System Checklist** for operation.



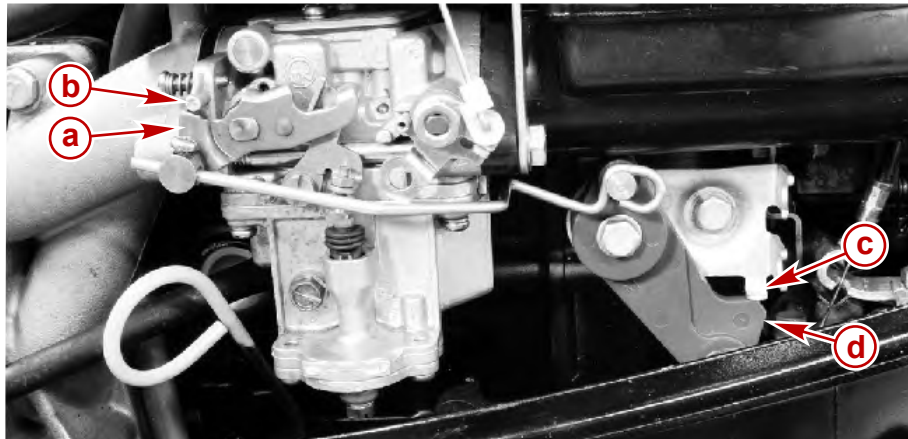
- | |
|------------------------------|
| a - 18 mm (0.708 in.) |
| b - Throttle cable |
| c - 11 mm (0.433 in.) |
| d - Shift cable |

11. Shift the remote control to forward and reverse. Verify the following operation.

NOTE: It may be necessary to rotate the propeller in order to shift into reverse gear.

- The propeller should ratchet clockwise in forward gear. If not, adjust the barrel closer to the cable guide.

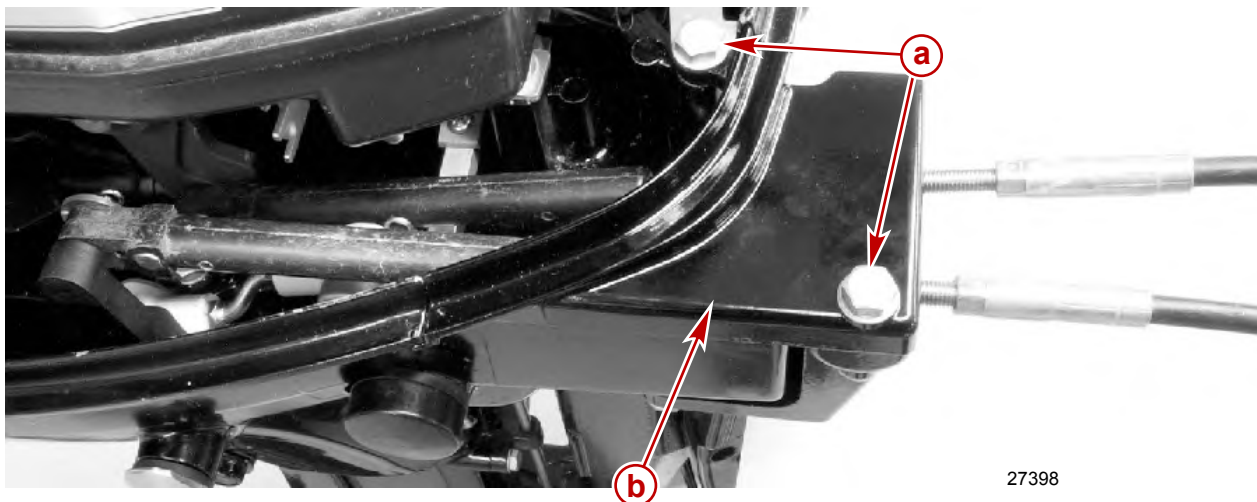
- b. The propeller should lock in reverse gear. If not, adjust the barrel away from the cable guide.
- c. The starter rope must not pull out in forward or reverse gear.
- 12. Shift the remote control to neutral. Verify the following operation.
 - a. The propeller should move freely.
- 13. Shift the remote control to forward and wide open throttle.
 - a. Ensure that the throttle valve actuating lever touches the carburetor stop at wide open throttle.
 - b. Ensure that the throttle lever touches the throttle bracket stop at wide open throttle.



27349

- a** - Throttle valve actuating lever
- b** - Carburetor stop
- c** - Throttle bracket stop
- d** - Throttle lever

- 14. Attach the remote control cable stay cover with two bolts and washers. Tighten the bolts to the specified torque.



27398

- a** - Bolt (1 retained, 1 provided)
- b** - Remote control cable stay cover

Description	Nm	lb. in.	lb. ft.
Remote control cable stay cover bolt	6	53	

Carrying Handle Installation

1. Remove and discard tilt tube end caps.
2. Remove the port side tilt tube nut. Retain nut for reassembly.

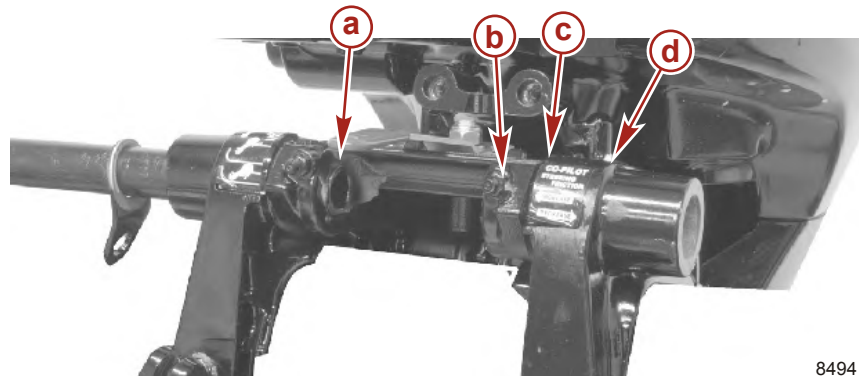


a - Tilt tube end cap

b - Port side tilt tube nut

3. Push the tilt tube out of the port side transom bracket, washer and port side of swivel bracket.

IMPORTANT: Removing the tilt tube will cause the engine to fall off the transom or repair stand. Do not push the tilt tube all the way through the swivel bracket while removing or installing the carrying handle.



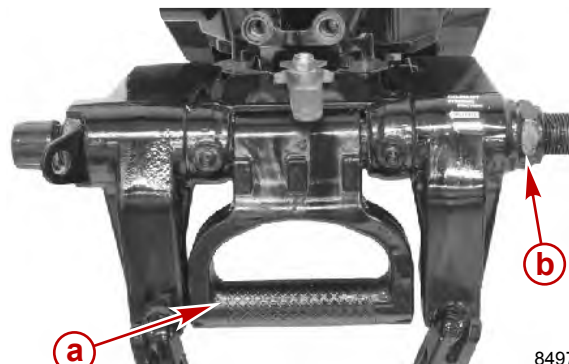
a - Tilt tube end

b - Port side of swivel bracket

c - Washer

d - Port transom bracket

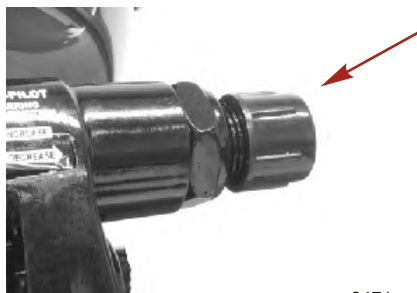
4. Insert carrying handle and push tilt tube through handle, swivel bracket, washer and port side transom bracket.
5. Tighten the port side swivel tube nut.



a - Carrying handle

b - Port side tilt tube nut.

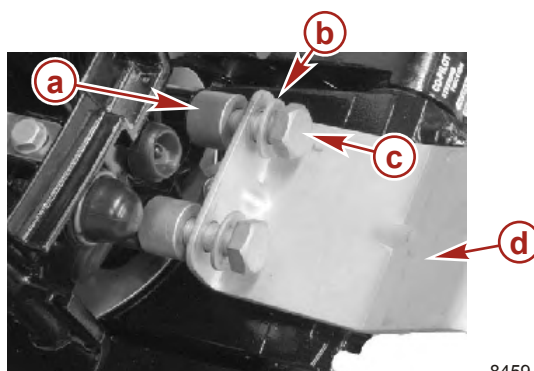
6. Install the seal ring on the tilt tube.



8471

Steering Bracket Installation

1. Insert washer over bolt.
2. Insert washer/bolt through the steering bracket.
3. Insert the steering bracket spacers onto bolt. Install steering bracket. Tighten to the specified torque.



8459

a - Spacer (2)
b - Washer (2)

c - Bolt (2)
d - Steering bracket

Description	Nm	lb. in.	lb. ft.
Steering bracket bolt	30		22.1

Installing Steering Link Rod

1. Assemble steering link rod to steering cable with a washer under the nylon insert locknut.

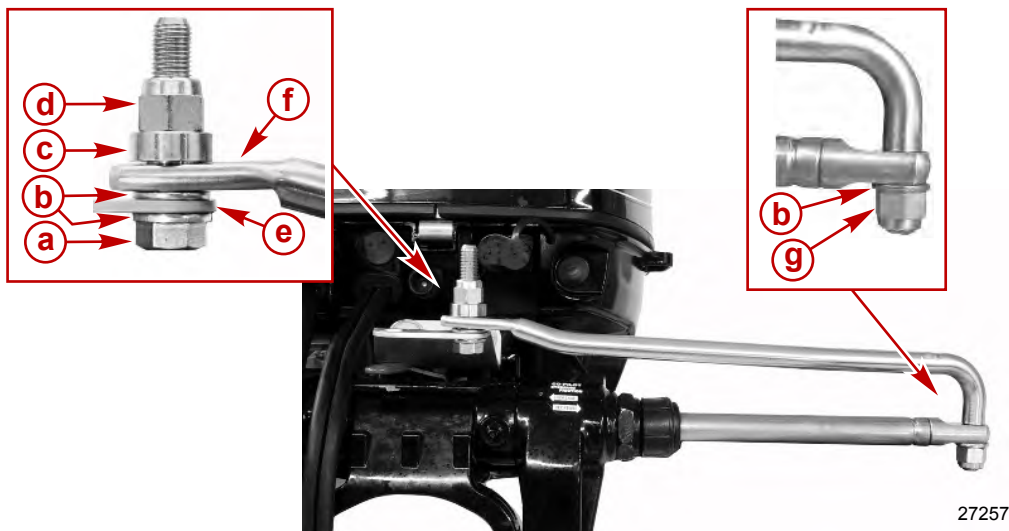
IMPORTANT: The steering link rod that connects the steering rod to the engine must be fastened using the steering link rod fastening hardware supplied. Never use common bolts and nuts (non-locking) as they may work loose and vibrate off freeing the link rod to disengage.

⚠ WARNING

Improper fasteners or improper installation procedures can result in loosening or disengagement of the steering link rod. This can cause a sudden, unexpected loss of boat control, resulting serious injury or death due to occupants being thrown within or out of the boat. Always use required components and follow instructions and torque procedures.

2. Tighten the locknut until it seats, then back nut off 1/4 turn.

3. Assemble steering link rod to engine with bolt, washers, spacers and locknut. Tighten the bolt/nylon insert locknut to the specified torque.

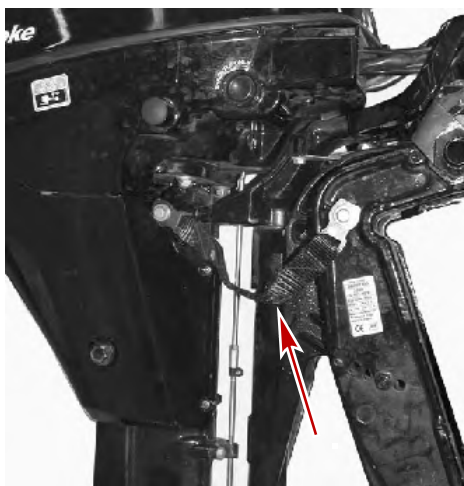


- | | |
|---------------------------------|---------------------------------|
| a - Bolt | e - Steering bracket |
| b - Washer (3) | f - Steering link |
| c - Spacer | g - Nylon insert locknut |
| d - Nylon insert locknut | |

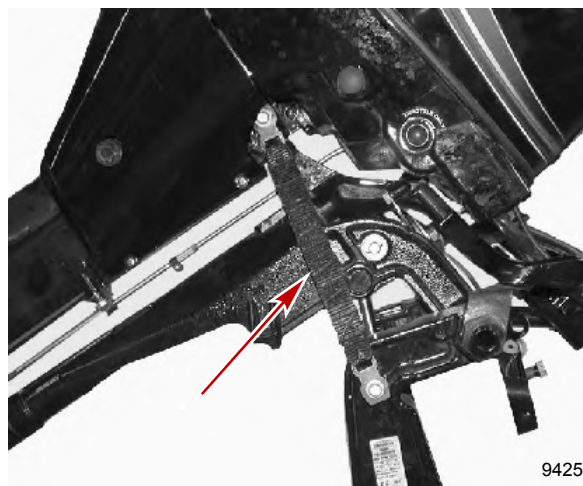
Description	Nm	lb. in.	lb. ft.
Nylon insert locknut "d"	27.1		20
Nylon insert locknut "g"	Tighten then back off 1/4 turn		

Kicker Strap Removal

Some tiller handle models are equipped with a kicker strap located on each side of the outboard. The straps prevent the outboard from pivoting when the outboard is tilted up. When converting to a remote control model the kicker straps must be removed from the outboard.



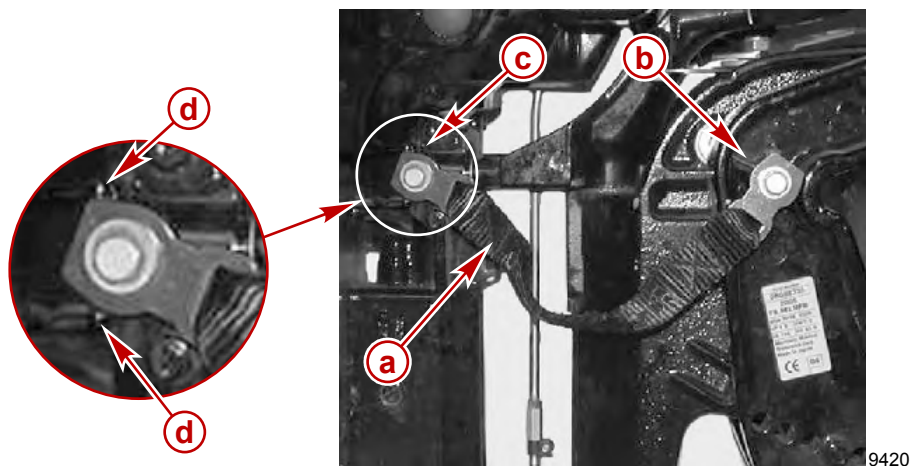
Kicker strap - Down position



Kicker strap - Tilted up

1. Remove the mounting hardware securing the starboard kicker strap to the clamp bracket.
2. Remove the mounting hardware securing the starboard kicker strap to the upper motor mount damper.

3. Repeat for the port kicker strap.



- a** - Kicker strap
- b** - Clamp bracket
- c** - Upper motor mount damper
- d** - Retaining tabs on upper motor mount damper