

SeaStar Solutions Products

INSTALLATION INSTRUCTIONS OF THE DUAL CABLE STEERING BRACKET PART NUMBER 308949

PLEASE COMPLETELY READ AND UNDERSTAND THESE INSTRUCTIONS PRIOR TO INSTALLATION TO AVOID DAMAGE TO THE OUTBOARD MOTOR, THE BOAT OR THE ACCESSORY.

PARTS LIST		
ITEM	DESCRIPTION	QUANTITY
1	STEERING CABLE MOUNTING BRACKET	1
2	STEERING CABLE SUPPORT TUBE	1
3	ADJUSTMENT NUT	2
4	LOCKING TAB WASHER	2
5	BUSHING	1
6	SEAL	1
7	CABLE CONNECTOR	1
8	3/8 SELF-LOCKING NUT	2
9	3/8 FLAT WASHER	3
10	MOUNTING BOLTS	4

NOTE: BOTH GEAR RACKS OR ROTARY STEERING HEADS MUST BE INSTALLED SO THAT BOTH STEERING CABLES WILL BE ROUTED TOGETHER ON THE SAME SIDE OF THE BOAT AND WILL PUSH-PULL TOGETHER. SEE FIGURE 1.

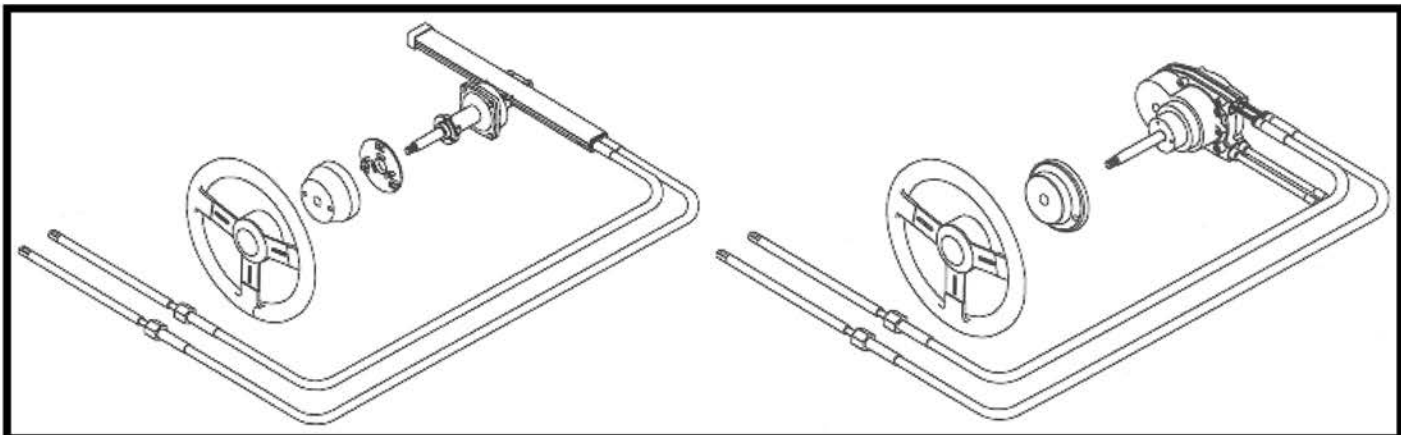


FIGURE 1 GEAR RACK AND ROTARY HEAD CONFIGURATIONS

STEERING ARM INSTALLATION

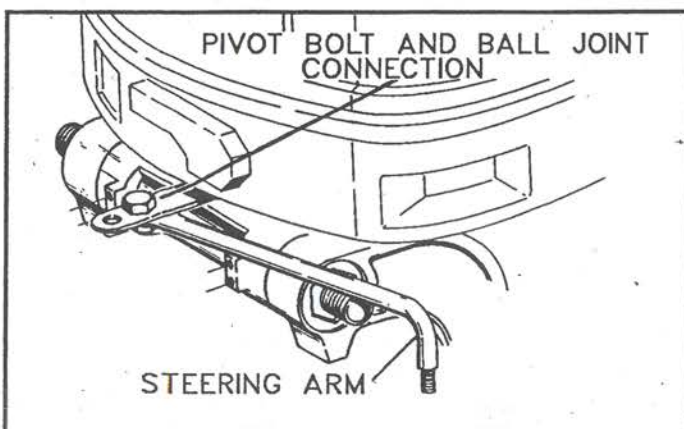


FIGURE 2 STEERING ARM INSTALLATION

A. Install the *Steering Arm* to the motor Tiller Arm using the inner (rearmost) bolt hole, and torque to specification. Be sure to use the *Lock Nut*, as shown in the rigging specifications. See Figure 2.



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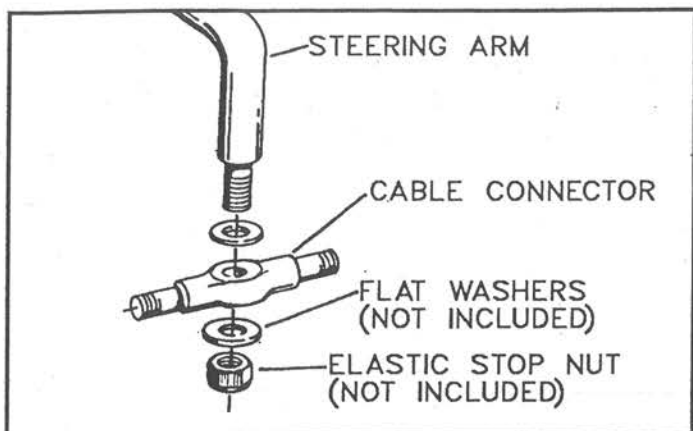


FIGURE 3 CABLE CONNECTOR INSTALLATION

B. Assemble the *Cable Connector* onto the *Steering Arm*, as shown in **Figure 3**.

NOTE

DO NOT TIGHTEN INSTALLATION TOGETHER AT THIS TIME.

**STEERING CABLE INSTALLATION:
CABLES 1 AND 2**

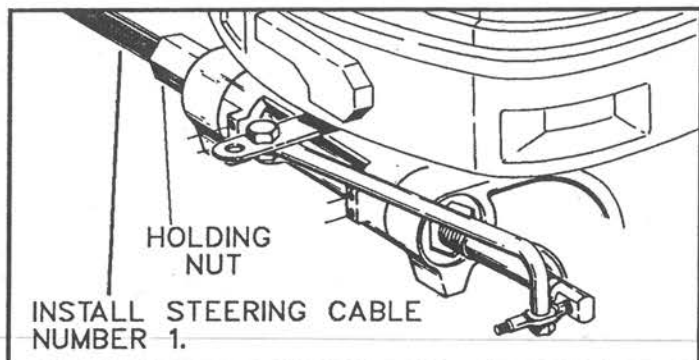


FIGURE 4 CABLE 1 INSTALLATION

A. Lubricate the inside of the engine *Tilt Tube*, the inside of the *Steering Cable Support Tube* and the output end of the *Cable* with a coat of good quality waterproof marine grease. Install *Steering Cable Number 1* into the engine *Tilt Tube* and tighten the *Holding Nut*. See **Figure 4**.

*** CAUTION**

Some engines require metric hardware. Make sure the proper size mounting bolt is used.

B. Install the *Bracket* onto the *Mounting Boss* with the four (4) each *Mounting Bolts* provided, and torque to 100 in.-lbs.

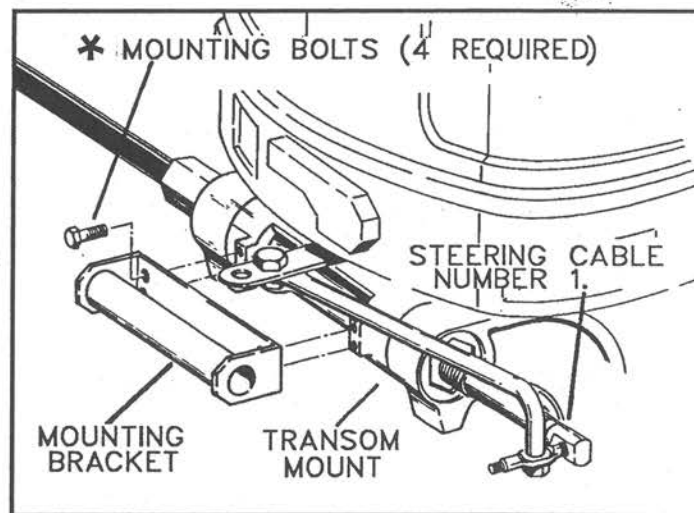


FIGURE 5 MOUNTING BRACKET INSTALLATION

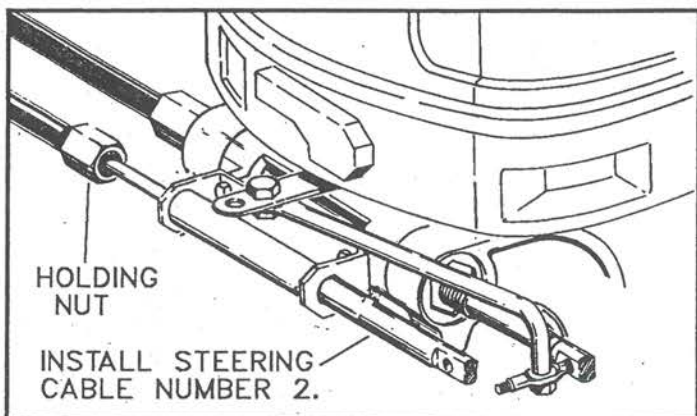


FIGURE 6 CABLE 2 INSTALLATION

C. Slip the large *Support Tube Nut* and *Locking Tab Washer* over *Cable Number 2*. Apply a coat of marine grease to the *Cable End*. Insert the *Cable* thru the *Mounting Bracket* holes **WITHOUT** the *Support Tube* installed. Turn the *Steering Wheel* to extend the *Cables* to their full length, then back off 1/4 turn. See **Figure 6**.

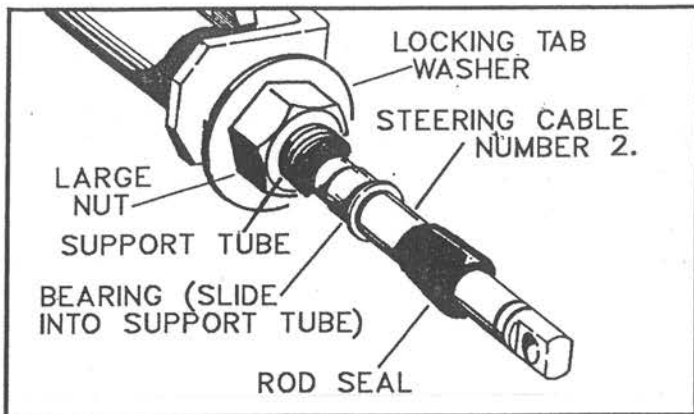


FIGURE 7 SUPPORT TUBE INSTALLATION

D. Install the *Support Tube* onto the extended portion of *Cable Number 2* and thru only **ONE** hole in the *Mounting Bracket*. Slide the second *Large Nut* and *Locking Tab Washer* over the end of the *Cable* and onto the *Support Tube* a few turns. Slide the *Nylon Bearing* and *Rod Seal* onto the *Cable*, but **NOT INTO THE STEERING TUBE AT THIS TIME**.

E. Carefully spread both *Cables* to allow installation of the *Cable Connector*, but **DO NOT TIGHTEN AT THIS TIME**. See **Figure 8**.

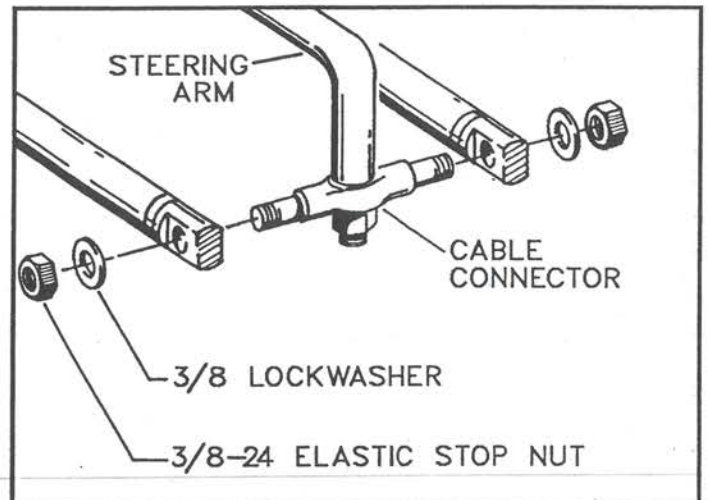


FIGURE 8 CABLE CONNECTOR CONNECTION

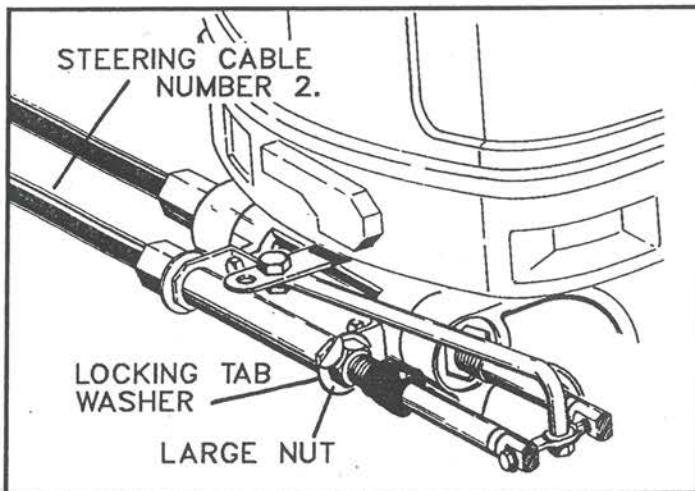


FIGURE 9 COMPLETING INSTALLATION

F. Fully install the *Support Tube* to the *Mounting Bracket* with the second *Large Nut* and *Locking Tab Washer*. Position the starboard end of the *Support Tube* so that it is approximately even to the starboard end of the *Tilt Tube*.

See **Figure 9**.

G. Tighten the *Cable Number 2 Support Tube Nuts* at this time, as well as the *Cable Holding Nut*.

H. Tighten the three (3) *Cable Connector Nuts*, torquing to 120 in.-Ins. Then back Nuts off 1/4 turn.. Refer to **Figure 8**.

I. Insert the *Nylon Sleeve* into the *Steering Tube* and slide the *Rod Seal* onto the end of the *Support Tube*. Refer to **Figure 7**.

CABLE ADJUSTMENT

- A. Center the motor.
- B. Loosen the *Support Tube Holding Nuts* (both ends) approximately 10 turns.
- C. Take up any play in the *Cables* by pushing the motor slightly in the direction of a turn to starboard.
- D. Tighten the port *Support Tube Nut* finger tight, then **ONE** additional turn past that, using a wrench.
- E. Tighten the starboard *Support Tube Nut* to 35 ft. lbs., and bend the locking tabs on the *Locking Tab Washers* over onto the *Mounting Bracket* or *Nut*, as shown in **Figure 9**.



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