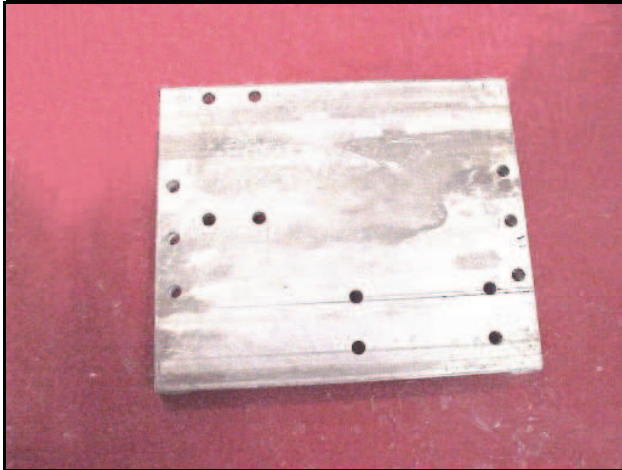


# 420 SOP STEERING INSTALLATION

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## BELOW DECK KIT PARTS



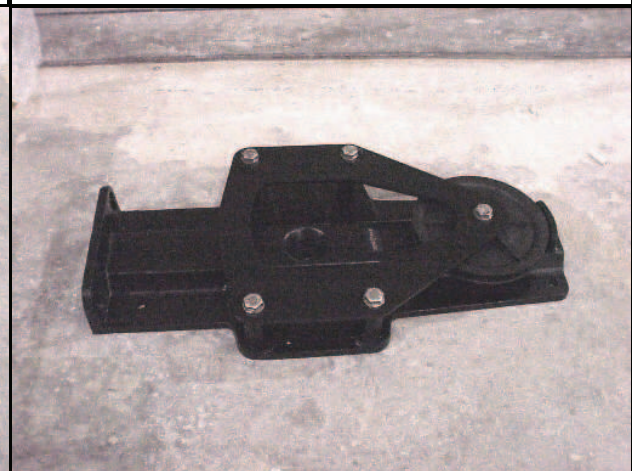
The lower sheave mounting plate does not come in the kit from the stock room, it is fabricated in the welding shop. The lower sheave is attached to the mounting plate then the assembly is attached to the stringer on the port side of the engine. On the back side (not shown) two aluminum strips have been welded to the outside edge, this is so the plate will be offset from the stringer and there is room for the heads of the bolts that mount the lower sheave to the plate.



The 6" side mount sheave or lower sheave will have four conduit clamps attached to it then be mounted to a mounting plate that is fabricated at the welding shop. The whole assembly will be mounted to the stringer on the port side of the engine.



The quadrant (with the quadrant pin inserted in this picture) will be attached to the rudder shaft at the aft end of the boat. The steering cables will be attached to the quadrant via the eye-bolts and u-bolt style cable clips.



The 6" upright sheave or roller plate will have two conduit clamps attached to it then it will be attached to the quadrant at the aft end of the boat so the pulley is on the starboard side. One of the steering cables (the forward one) will run thru the conduit clamp then directly to the quadrant. The other cable will run thru the conduit clamp, around the pulley and then to the quadrant.

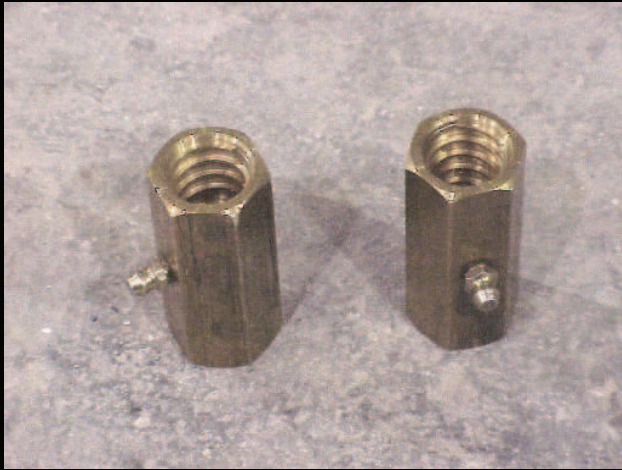
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BELOW DECK KIT PARTS CONT.



The eight conduit clamps will be attached in the following manner. Two on the steering bracket, four on the lower sheave, and two on the roller plate. The heads of the screws will need to be orientated so they will be accessible when the conduit is attached so the screws are tightened.



The two conduit greasers will be located at the aft end of the longest conduit pieces and the forward end of the shortest conduit pieces. The ends of the greasers are threaded to screw onto the conduit. One end will have a standard right handed thread and the other end will have a left handed thread. Both pieces of conduit are to be put up to the greaser then turn the greaser and it will screw onto both pieces of conduit at the same time.



There are six pieces of conduit, two pieces of each length. The longest length is 11'6" and will run from the lower sheave to the aft end of the boat. The middle length is 6' and will run from the steering bracket down to the lower sheave. The shortest length is 3'3" and will run from the aft end of the longest piece to the roller plate. A conduit greaser will be installed between (and connect) the longest piece and the shortest piece of conduit.



The steering bracket will have two conduit clamps attached to it and will be located at the forward end of the conduit and cables (in the generator compartment located on top of the engine compartment). The steering bracket will be attached to the bottom of the steering pedestal after the boat has been decked.

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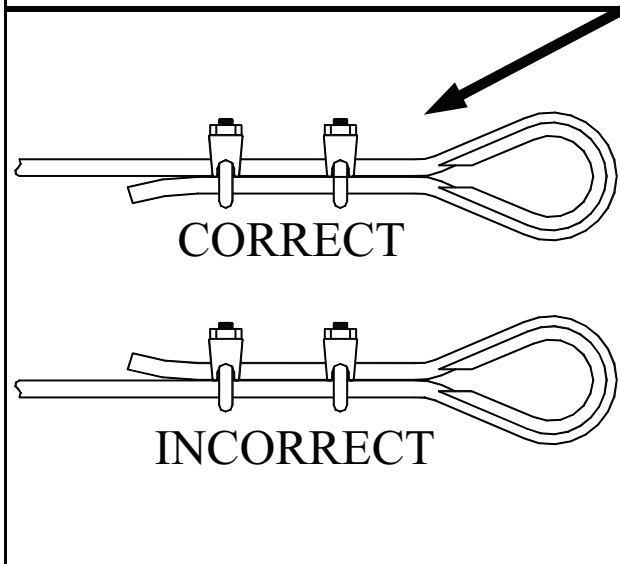
BELOW DECK KIT PARTS CONT.



The eye-bolts and thimbles are part of the terminal assembly for the stainless steel cable. The threaded part of the eye-bolt will go through the quadrant then the nut and lock nut will be attached. Leave as much of the bolt as possible out of the quadrant so when the cable stretches over time there is plenty of bolt left to adjust the play out of the cable. The cable will run around the thimble then be attached to itself with cable clips.



The u-bolt style cable clips are the other part of the terminal assembly and are used to attach the cable to itself after it has been looped through the thimbles on the eye-bolts. There is a correct way and an incorrect way to attach the clips to the cable. The correct way is to have the u-bolt (the part with the threads) of the clip holding the loose end (short end) of the cable. If these are put on backwards they have a greater chance of letting the cable slip.



There are two pieces of stainless steel cable, each 30' long. The looped end of the cable will be at the forward end of the conduit (on top of the steering bracket). The other end of the cable will be attached to the quadrant.

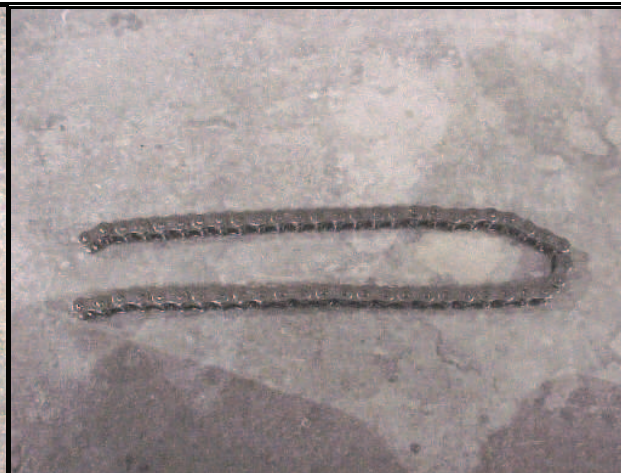
# 420 SOP STEERING INSTALLATION

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BELOW DECK KIT PARTS CONT.



The bag of bolts, spacers, nuts and washers will be used to mount the steering bracket to the bottom of the steering pedestal. The spacers will go in between the pedestal and the brackets then the bolts will go thru the bracket and spacers and screw into the bottom of the pedestal. These will be put on after the boat has been decked.



The chain will be looped over the gear on the steering pedestal and the two ends will be attached to the forward ends of the stainless steel cable by removing the master links on the end of the cable then placing them thru the loops in the cable and replacing the links to the chain. The chain will be put on after the boat has been decked.



The rudder pin and pin clips will be installed thru the quadrant and the rudder shaft after the rudder has been installed. The pin will ensure the rudder will not fall off or slip if for some reason the quadrant clamp loosens., and the pin clips ensure that the pin will not come out of the quadrant and rudder.