

LARGE SCALE WORKING TOWING WINCH CONSTRUCTION

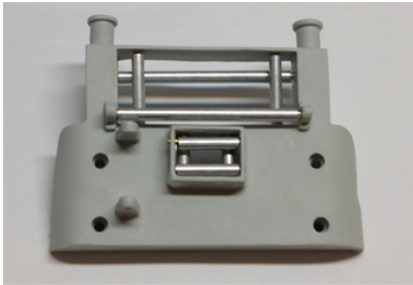
(HAR250)

To assemble you will need an Allen Wrench Set and CA Glue.

The winch is controlled by a proportional channel on your radio transmitter. You will connect a 10 amp marine speed control (stock# MTM10E) to the winch motor power leads. This will allow you to control the spooling, in and out, at variable speed.

*Note: All the predetermined holes may have polymer clogged in them from the casting process, use a small drill bit to clear the path for the brass pins or screws.

Step 1: Assemble the cable guiding system. This comes complete with eight aluminum tubes and eight brass pins. Trim the brass pins if desired to fit the run perfectly, use a dab of CA at each hole to hold pins in place.

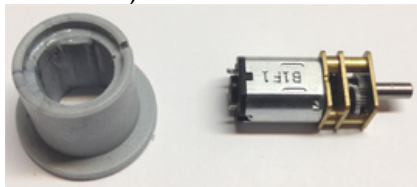


Step 2: Insert the large bearing into the surround, use a small bead of CA to hold in place.

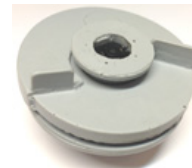


Step 3: Insert motor into the circular motor mount as shown in the following images:

(Note: Attach the supplied power wires to the terminals of the motor at this point as future steps will not allow for much working room on the motor terminals. Solder works best.)



Step 4: Insert the motor and motor mount through the reel support and through the large bearing into the center of the spool. Use a bead CA to adhere the motor mount to the spool.



Step 5: Insert the small bearing into the opposite side of the spool, use a small bead of CA to hold the bearing in place.



Step 6: Insert small tube/axle into the reel support.



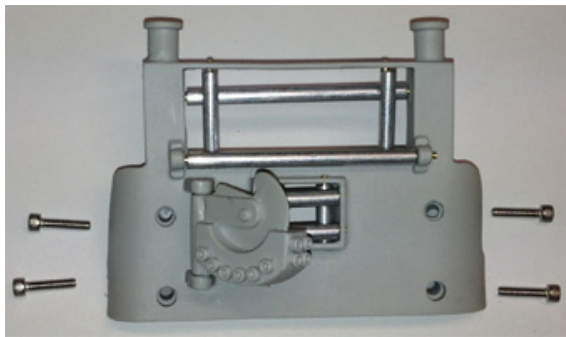
Step 7: Complete the spool and reel support by connecting the two sides together sliding the motor shaft into the spool and tightening the grub screw (1/16") onto the shaft. Try and keep space between the spool and reel supports to allow room for the spool to spin.



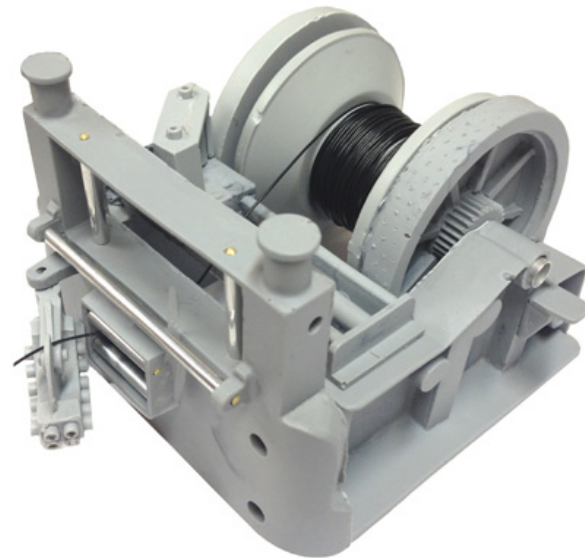
Step 8: Install the spool assembly into the winch side supports.



Step 9: Attach the cable guide arm with the ninth brass pin to the front (this may require a little boring of the holes as they can sometimes clog during the casting process, try using a small diameter nail or sewing needle to clear the hole). Now attach the entire front piece to the side pieces using CA Glue and the four provided screws.



Step 10: Complete construction by adding the small armature and accessories. The belt cover and steering wheel can be attached on either side for desired effect.



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