

# Old Town Canoe Co

CASTINE RUDDER KIT INSTRUCTIONS – FOR KAYAKS PRODUCED BEFORE NOVEMBER 2000

## **REPLACING KEEPER FOOTBRACES**

**Kit Contents:**

(1) Rudder assembly: Includes rudder, pivot bolt, split ring & cord	
(2) Cable assemblies: Consisting of cable and cable tube	
(1) 11" raising cord bungee with cord lock	(1) M Block
(2) Footbrace tracks and pedals w/ straps	(2) 1/4-20 lock nuts–
(2) Barrel Nuts	(4) Swages –
(2) 1/4-20 x 3/4" bolts	
(5) Cable clamps	
(2) 1/4-20 x 1" bolts (large)	(4) Lg. Washers
(2) Stamped washers	(1) Jam cleat
(1) Tube Aqua Seal	(2) 10-24lock nuts
(3) Sm. Washers	(9) Rivets
(2) 10-24 x 1" bolts (small)	

**THIS IS A GOOD TIME TO SORT OUT ALL THE PARTS AND SEPARATE THEM FOR EASY ACCESS DURING ASSEMBLY. PLEASE READ INSTRUCTIONS THOROUGHLY BEFORE BEGINNING THE RUDDER ASSEMBLY.**

<b>Required tools:</b> 3/16" Drill bit	3/8" wrench
1/4" Drill bit	7/16" wrench
Rubber Mallet	Vice grips
Pop rivet tool	Black Marker
Phillips head driver	Tape Measure

### **Procedure**

1. Install the rudder assembly by sliding the pivot bolt through the rudder mount at the stern of the kayak. Secure the rudder by placing the split ring through the small hole in the end of the pivot bolt. (Illustration #1)
2. On each side measure forward approximately 16" along the parting line of the kayak from the stern end. Make a mark 1" above the parting line. Drill 1/4" holes at these marks with the holes angling down toward the front of the boat. (Illustration #2 and #3)
3. Push the straight end of the rudder cable and the black carrier tube through the hole you just drilled. Keep feeding the black carrier tube through until only 2 1/4" of the black carrier tube remains outside the hull. Place a small amount of aqua seal around the black carrier tube, then slowly slide the black carrier tube into the hole until 1 1/4" of the black carrier tube is left. Place a cable clamp around the black carrier tube 1" from the end and make a mark through the hole in the cable clamp, move the cable clamp slightly and drill a 3/16" hole. Anchor the cable clamp to the deck with a rivet and backup washer, then dab a small amount of aqua seal onto the head of the rivet. Repeat for the other rudder cable and black carrier tube assembly. (Illustration #3 and #5)
4. Measure 6 1/2" (?) from the stern end of the kayak and center the rear edge of the M block so that the rudder can rest between the V notch of the M block when it is in the raised position. Mark the location of the four holes on the deck; drill 3/16" holes and rivet the M block into place. (NOTE: M Block cannot be used as a tie down point on kayak during transportation.) (Illustration #2)
5. Drill two 1/4" holes through the foam bulkhead approximately 2" in from the parting line on the kayak (the line made when the two halves of the mold come together). Push the rudder cable and black carrier tube through the holes and seal with a small amount of aqua seal. NOTE: Standard Egrets have no bulkheads. (Illustration #4)
6. Remove the nuts from the front bolts of the seat using the 3/8" wrench and the Phillips head screwdriver. Put a cable clamp on each carrier tube, and then install the cable clamp on the

bottom end the seat bolt. The cables should run to the outside of the kayak. Reinstall the washer and lock nuts that hold the seat in place. (Illustration #6)

7. At this point, you should decide which side you want to have the raising cord for the rudder (usually on the opposite side of the paddle holder.) Drill a 3/16" hole 3" forward from the front seat bolt and 1" up from the parting line. A cable clamp needs to be placed on the deck for the raising cord bungee. This is accomplished by putting a cable clamp on the rivet before it is placed in the drilled hole then place a small flat washer on the underside of the hull. Set the rivet using a pop rivet tool. (Illustrations #7)
8. Remove the Keeper footbraces that came with your kayak, you will not need them again. Replace the old footbraces with the footbrace track, included in your kit. Use the existing holes of the old footbraces. Make sure to put the foot pedal on at this point. Put the three consecutive drilled holes (in the footbrace track) towards the bow end of the kayak and secure with the 1" long bolts (large) and 1/4-20 lock nuts using the Phillips head screwdrivers and 7/16" wrench. Use the 3/4" (1/2") long bolts and the barrel nuts (threaded part of the barrel nut goes into the foot track hole) to secure the footbrace track to the hull (the hole closest to the seat.) Tighten the 3/4"(1/2") bolt into the barrel nut (a barrel nut is used here because the foot pedal needs to travel freely over the area.)
9. With your black marker - mark the rudder cable 6" back from the bow end of the rudder cable. Put two swages onto the rudder cable and slide the two swages to this mark – slip the loop (on the footbrace pedal adjustment strap) onto the rudder cable. Loop the rudder cable back around and slip the rudder cable back into the swages. Clamp the swages tight around the cable with vice grips or pliers. (NOTE: Make sure the rudder cable does not stick out beyond the end of the last swage.) (Illustration #8)
10. Attach the stern ends of the cables to the outer holes on the rudder. Place a stamped washer on each 10-24 x 1" bolt (small) and drop them down through the holes on the rudder. Place a large flat washer then the cable loop then another large flat washer onto the bolt and secure with a 10-24 locknut. (NOTE: Tighten the nut, being careful to leave enough room for the cable to move freely.) (Illustration #9)
11. Tying the raising cords on the rudder: Fisherman's Knot: A. Lay your two ropes side by side, the ends pointing in different direction. You will need about 15" of free end on each rope. B. Moving towards the second line's free end, wrap the free end of the first line twice around the standing part of the second so that the coils wrap around both ropes. Push the free end through the center of the coils, leaving a 2-4 inch tail. C. Repeat by wrapping the second line around the first in the opposite direction and on the other side, and then push the free ends through the coils. Tighten the knot by pulling the standing ends of both ropes. You can adjust the length of your raising cord by sliding the knots apart. (Illustration #10)
12. Stretch the rudder raising cord forward along the topside of the deck you mounted the cable clamp to in step 7. Clip the hook end of the raising cord bungee to the raising cord, between the two knots you just tied. Remove the cord lock from the end of the raising cord bungee and slide the end of the raising cord bungee through the cable clamp on the topside of the deck. After the raising cord bungee is through the cable clamp, replace the cord lock to keep tension on the raising cord. (Illustration #7)
13. Rivet the jam cleat in line with the raising cord on the side deck. Position the jam cleat approximately 12" back from the rear seat bolt alongside the raising cord (if the 12" mark falls too close to any obstacles – move the jam cleat back or forward a few inches.) Use small flat washers on the underside of the rivets when mounting the jam cleat, secure with a pop rivet tool. The sloped side of the jam cleat should be facing the stern of the kayak so that when the cord is in the cleat, it can be pulled out in the forward direction but will not slip out when there is tension from the stern. (Illustration #11)

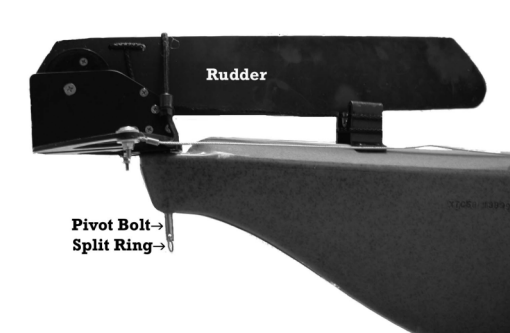


Illustration #1

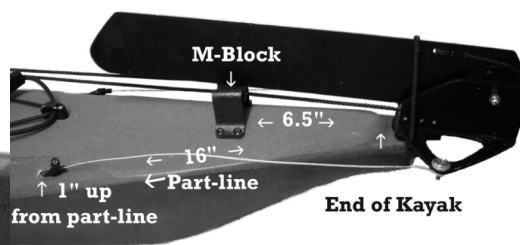


Illustration #2



Illustration #3

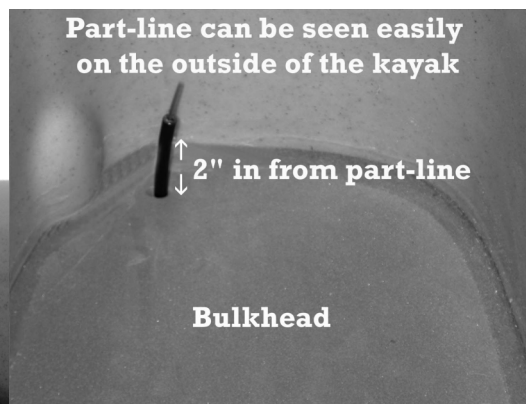


Illustration #4

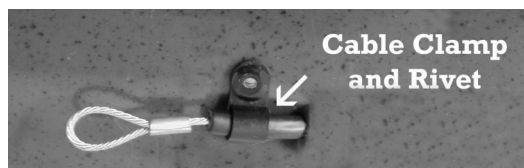


Illustration #5

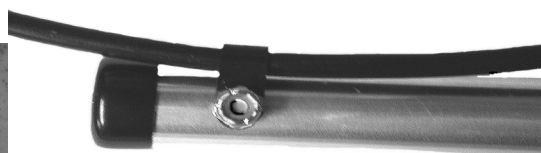


Illustration #6

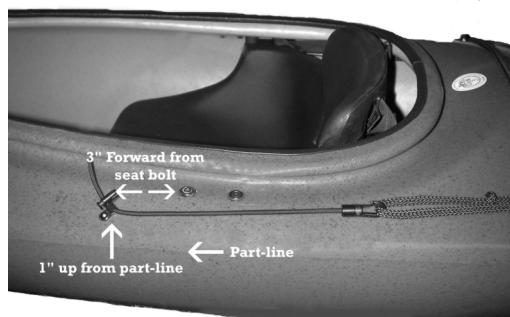


Illustration #7



Illustration #8

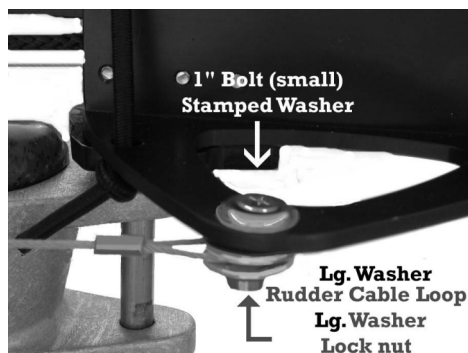


Illustration #9



Illustration #10

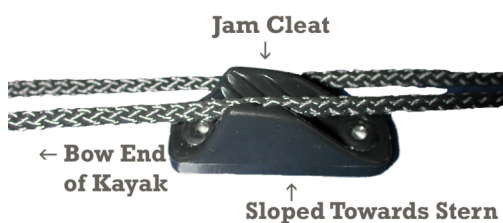
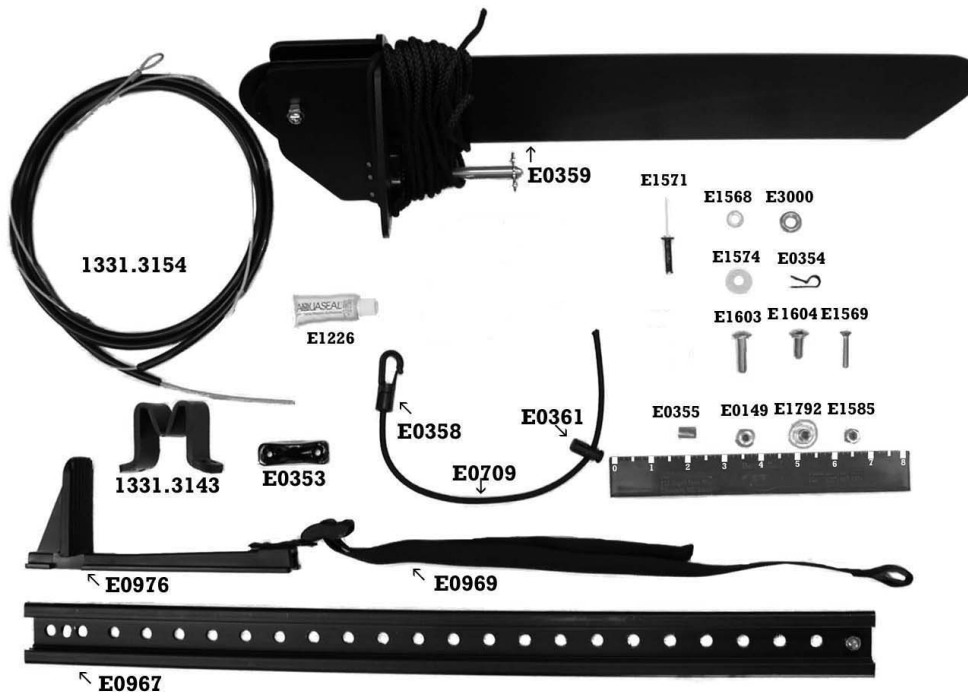


Illustration #11



Have any comments or suggestions about these instructions, please send them to:  
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