



# Instructions For **Rudder Craft** Products

Thank you for choosing Rudder Craft!

Rudder Craft steering products are built from the highest quality materials, using strict standards of craftsmanship. We at Rudder Craft stand behind our products with the best warranties in the industry, but we can only control factors within our area of influence. Sailing is an inherently hazardous activity where sound judgment and safety awareness is required. We strongly suggest regular inspection of steering components as part of prudent seamanship. We hope you enjoy your Rudder Craft product, as thousands of sailors have already, and we would love to hear feedback regarding fit, finish and performance under sail.

# Safety

## Transporting Your Rudder

**CAUTION!** When carrying the rudder assembly be sure the rudder blade is either in the fully up or fully down position. Leaving the rudder blade in-between positions is inherently unsafe, as the rudder will tend to force itself fully up or down, and may pinch or cut hands.

## Trailing bungee

When trailering the boat make use of the included bungee loop to help keep the rudder in the up position. In some circumstances bumps in the road may cause the rudder blade to extend downward, and the bungee loop prevents this from occurring.

## Outboard

Use care when using your outboard or other auxiliary motor. With the auxiliary outboard motor in the down position the rudder can be damaged if turned far enough to contact the propeller blades. Outboard propeller blade damage is not covered under warranty.

## Launching / Retrieving

Before launching your boat:

Mount rudder on transom.

### **IMPORTANT!**

After mounting rudder and before use, insert retaining pin, or ring, in either pintle. This will keep rudder from lifting off in certain conditions, and prevent the loss of rudder/tiller assembly.

Be sure rudder blade is secured in raised position.

Launch boat.

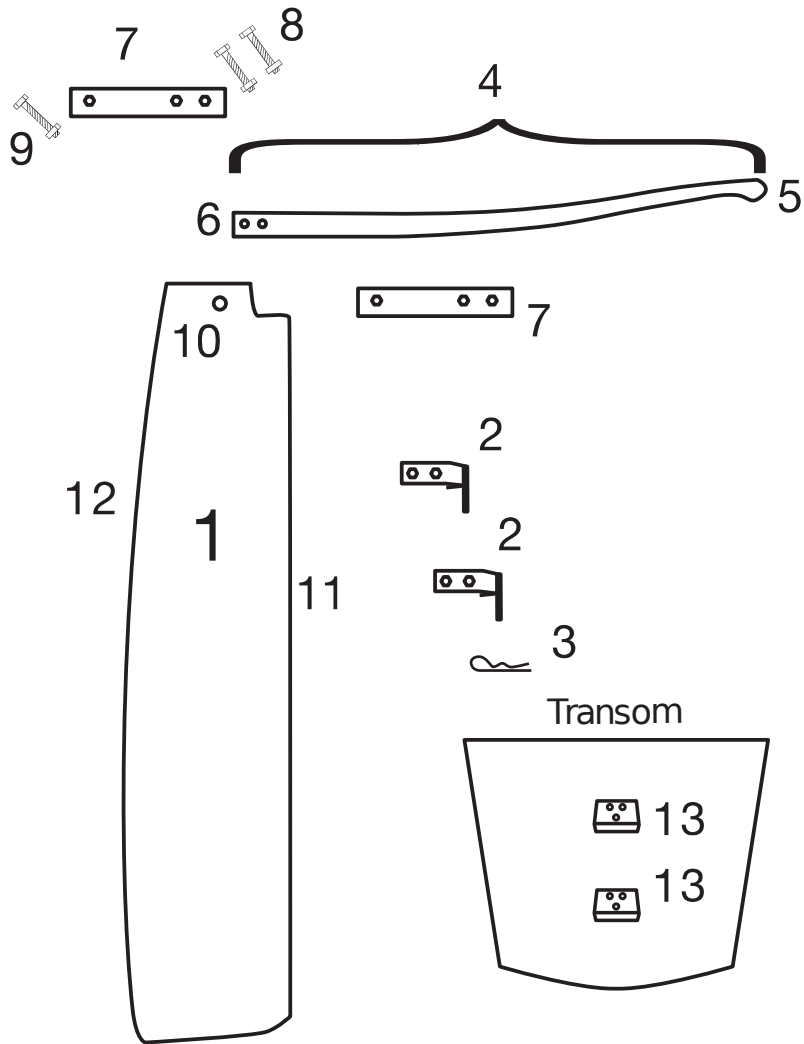
With your boat in the water, pull rudder to down position, following lowering instructions.

**CAUTION!** Do Not lower blade with boat out of the water. The gas piston has enough force to cause injury if someone is below the rudder when you pull it to the down position. Even with the boat in the water make sure the area below the rudder remains clear while lowering to the down position.

## Encountering underwater objects

The gas strut on the Unifoil kick-up rudder is designed to keep the rudder in the down position while underway. In case of encountering underwater obstructions, the rudder will kick up from the force of the obstruction before causing damage to the transom or gudgeons, and then will return to the down position. IdaSailor cannot warranty the rudder against damage caused by underwater obstructions, launch ramps, groundings or other impacts to the rudder system.

# Unifoil Fixed Rudder Parts Guide



- 1 Rudder Blade
- 2 Pintle
- 3 Retaining pin or Ring
- 4 Tiller
- 5 Tiller Handle
- 6 Tiller Butt End
- 7 Tiller Bracket
- 8 Tiller Attaching Bolts (2)
- 9 Tiller Pivot Bolt
- 10 Tiller Pivot hole
- 11 Leading Edge
- 12 Trailing Edge
- 13 gudgeon

# Tiller and Rudder Installation

1) Remove rudder, tiller, tiller brackets and hardware from box.

2) Using the 1/4" bolts and nylock nuts (included in packaging) mount tiller brackets to butt of tiller and tighten until snug.

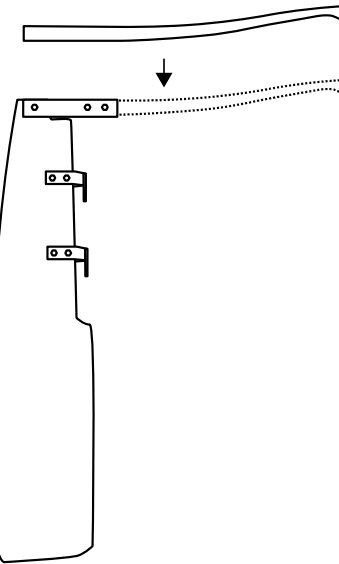
3) Place tiller assembly over rudder head and secure with the 3/8" pivot bolt, washers and nylock nut included in packaging and tighten.

4) Place rudder on transom, inserting pintles into gudgeons. Place the longer pintle on first, as this will aid in inserting the second pintle.

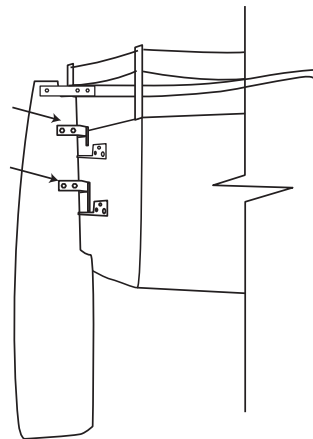
4.5) If transom has lifelines/stern pulpit, be sure tiller is under/through lifelines/pulpit in its normal position.

5) Before use, insert retaining pin in either pintle after inserting into gudgeon. This will keep rudder from lifting off in certain conditions, and prevent loss of rudder/tiller assembly.

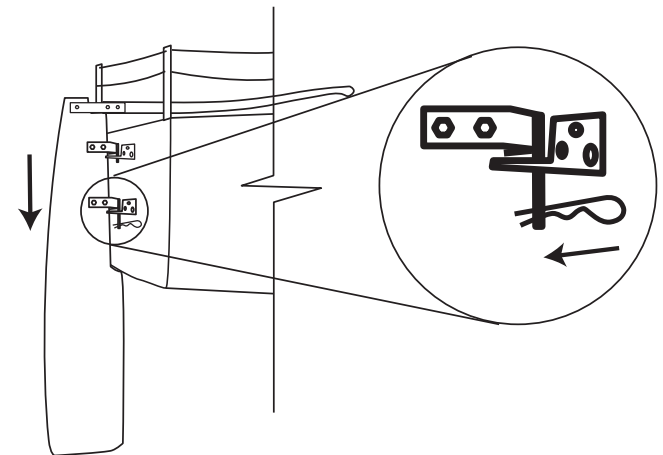
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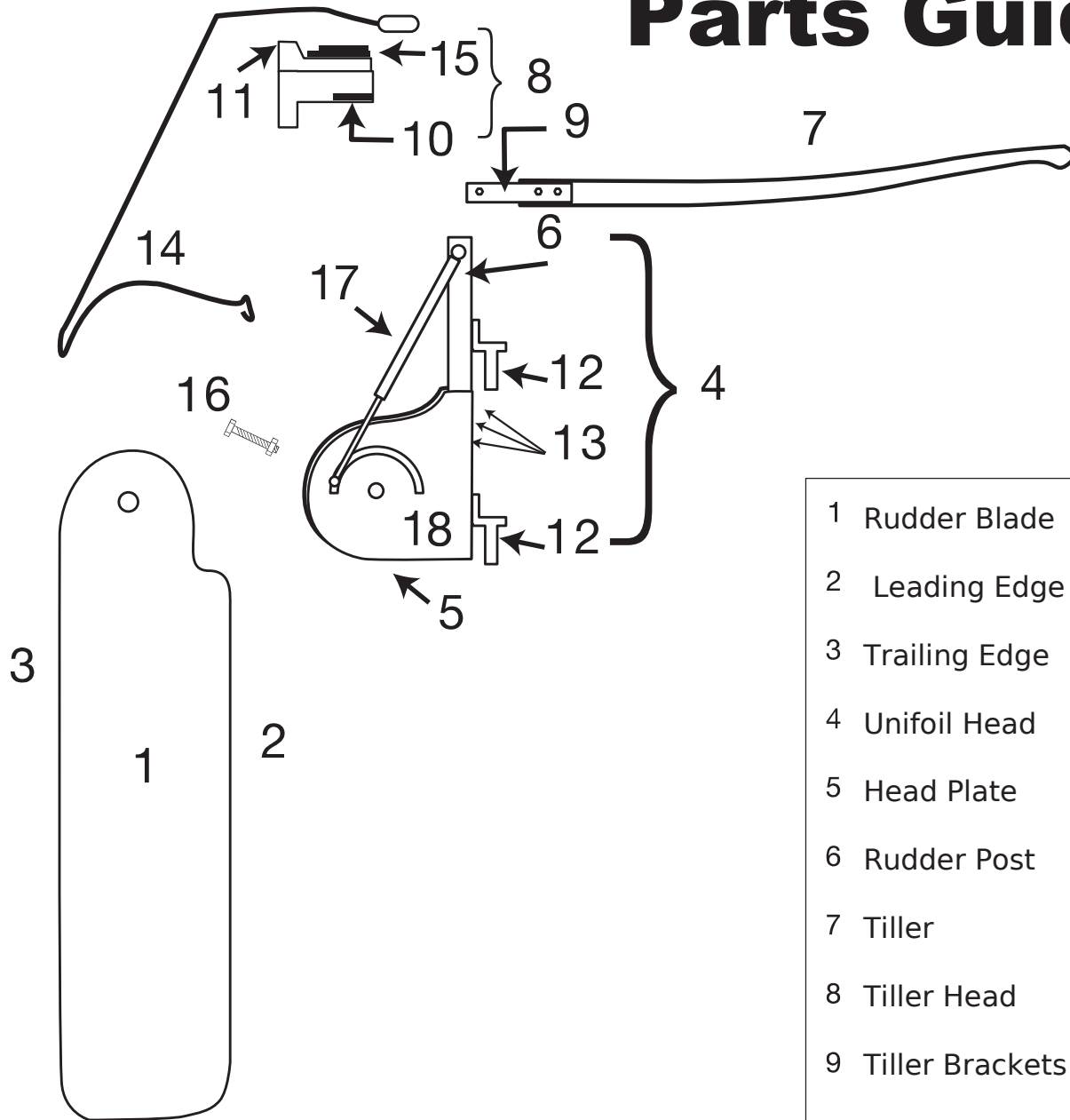
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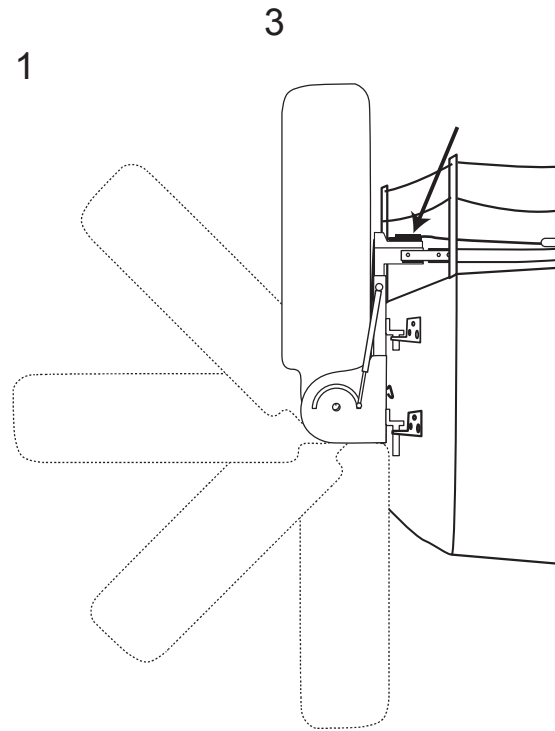
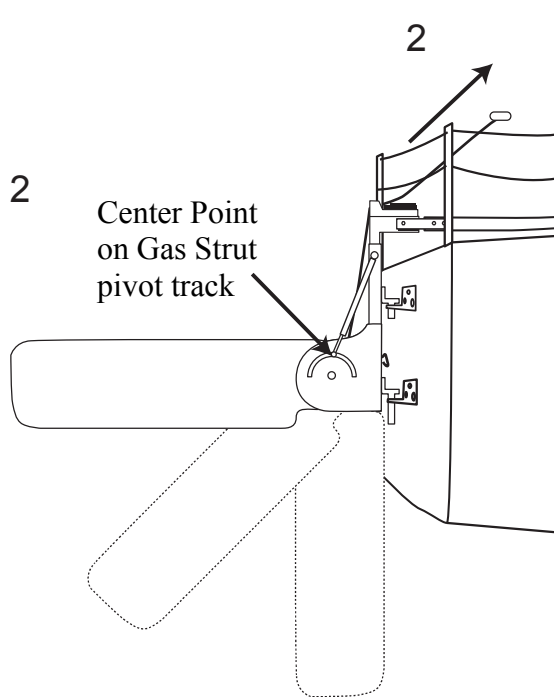
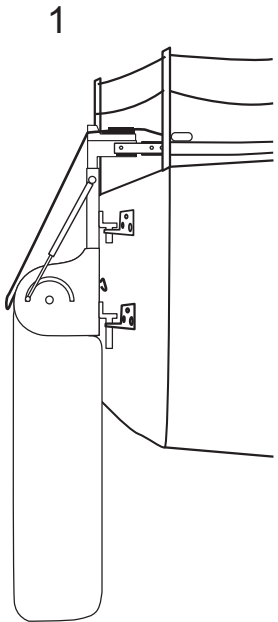
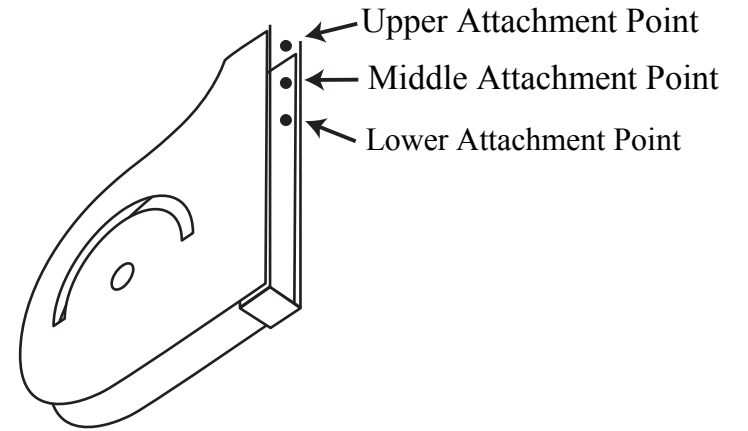
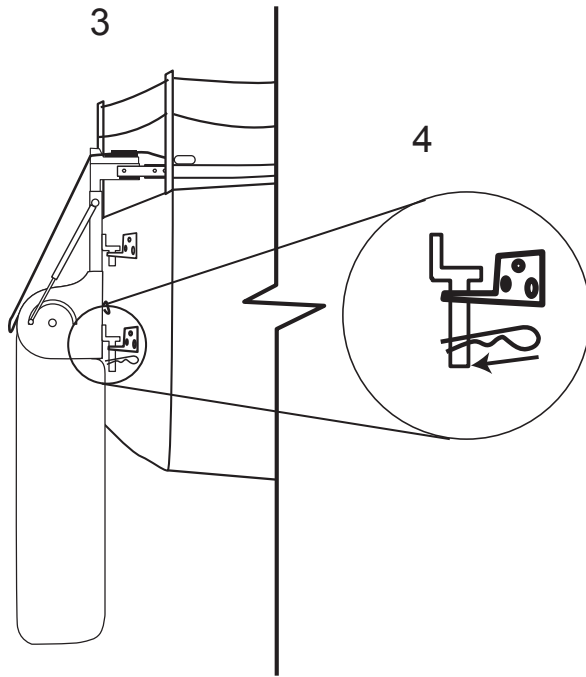
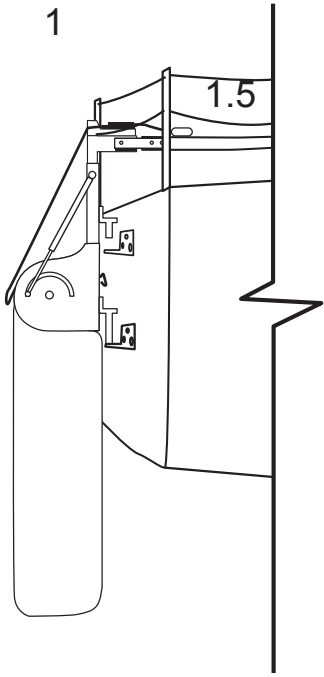
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# Unifoil Kick-Up Rudder Assembly

## Parts Guide



1 Rudder Blade	10 Tiller Rest
2 Leading Edge	11 Cleat base w/ fairlead
3 Trailing Edge	12 Pintle (gudgeon in some cases)
4 Unifoil Head	13 Up/Down haul line attachment hole
5 Head Plate	14 Up/Downhaul line
6 Rudder Post	15 Clam cleat
7 Tiller	16 Pivot bolt
8 Tiller Head	17 Gas Strut
9 Tiller Brackets	18 Gas Strut pivot track



# Additional Instructions for Kick-Up Rudder

## Raising and Lowering

*The rudder blade is raised and lowered with a single line.*

The raising and lowering of the rudder blade is performed using the same motion. The only difference is the starting point of the rudder.

### To Raise or Lower the Rudder Blade:

- 1) Have the rudder securely installed to the transom of the boat
- 2) With a single quick tug of the up/down haul line, attempt to bring the rudder past the center point of the gas strut pivot track.
- 3) Once past the center point, allow the line to return to the rudder, and the gas strut will carry the rudder the rest of the way. Remember to pull quickly and allow the line some slack, as the rudder's inertia carries it into the up position.

CAUTION - Keep all lines, fingers, swimmers, etc. away from the moving parts of the rudder during up/down cycles.

- 4) With the rudder in its new position, pull any slack out of the up/down haul line and secure the line with the clam cleat on top of rudder, as required.

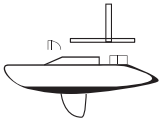
## Adjustable Attachment Point for Uphaul / Downhaul Line

There are three holes on the forward edge of the rudder head, which are used to adjust the ease of raising or lowering.

### Upper Attachment Point

This attachment point hole aids in lowering the rudder blade. With the uphaul/downhaul line attached to the upper hole you are able to more easily bring the rudder from the up position to the down position. If you have a significantly TIPPED-IN transom it may be a better option.

Tipped-In  
Transom



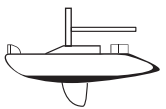
### Middle Attachment Point

This is the default attachment where the line is installed when your rudder is shipped. It is generally easy to raise or lower your rudder blade.

### Lower attachment point

The lower attachment point aids in raising the rudder blade. With the up/down haul line attached to the lowest hole you are able to more easily bring the rudder from the down position to the up position. If you have a significantly TIPPED-OUT transom it may be a better option.

Tipped-Out  
Transom



# How to install your loose pintle (Upper)

1) Measure the distance from the top of the lower gudgeon to the top of the upper gudgeon

2) On the rudder measure distance from the bottom of the lower pintle upwards the same distance as measured in step 1

3) Draw a line with a non-permanent marker, starting from measurement made in step 2, outwards and square with the leading edge of the rudder

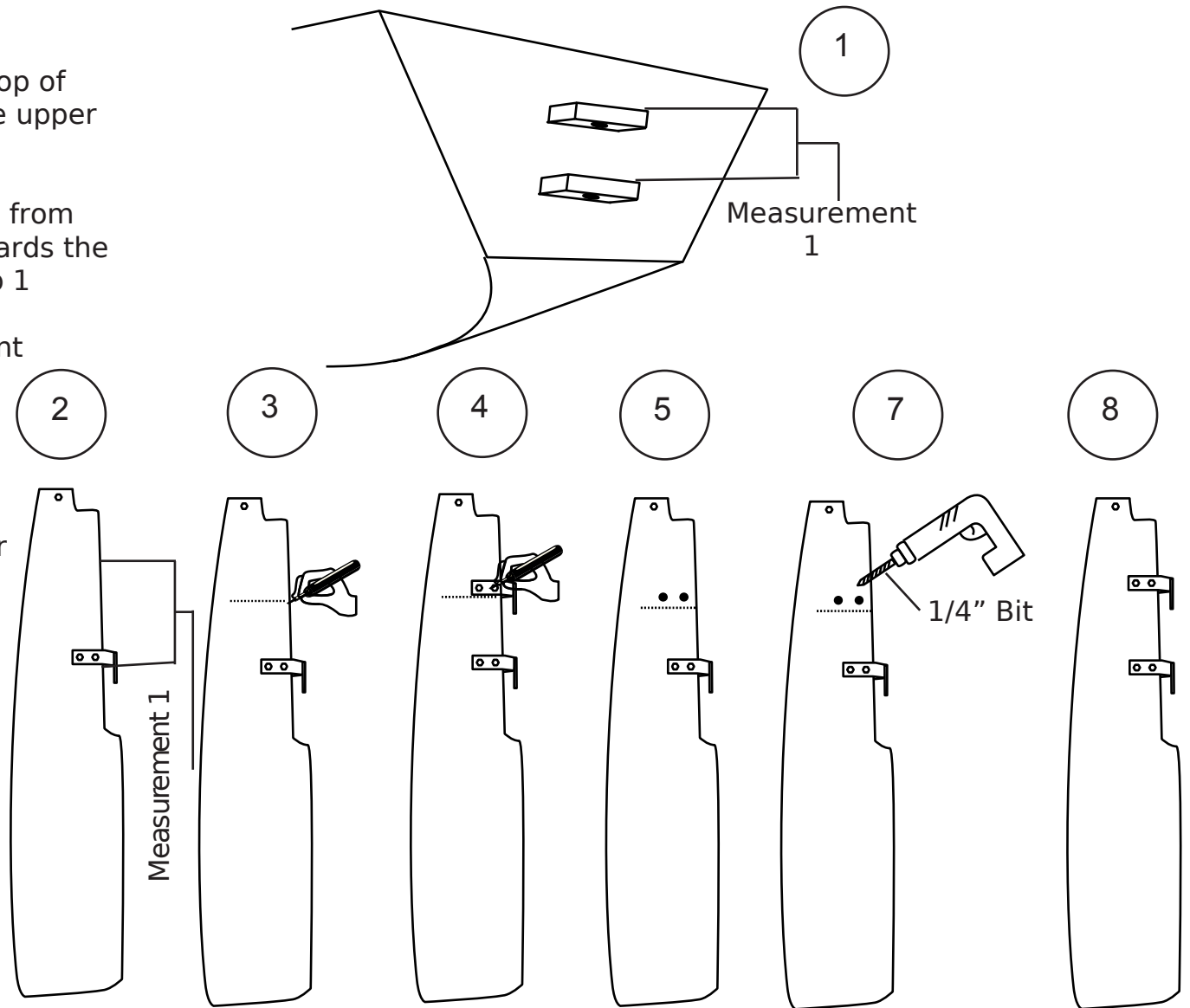
4) Place pintle on rudder with lower edge across line from step 3

5) Mark on rudder, through holes in pintles, area to be drilled

6) Remove pintle

7) Drill holes directly straight into rudder with 1/4" drill bit

8) Install pintle with included hardware





# How to install your loose pintle (Lower)

1) Measure the distance on your boat from the bottom of your transom to the top edge of the lower gudgeon

2) Use measurement from step 1 to place lower pintle

Note: Check gudgeon, top to top measurement. This will be the same as the pintle, bottom to bottom measurement.

3) Measure from kick-out of rudder, upward the same distance as step 1 (this measurement will be the lower edge of the bottom gudgeon)

5) Draw a line with a non-permanent marker, starting from measurement made in step 3, outward and square to the leading edge of the rudder

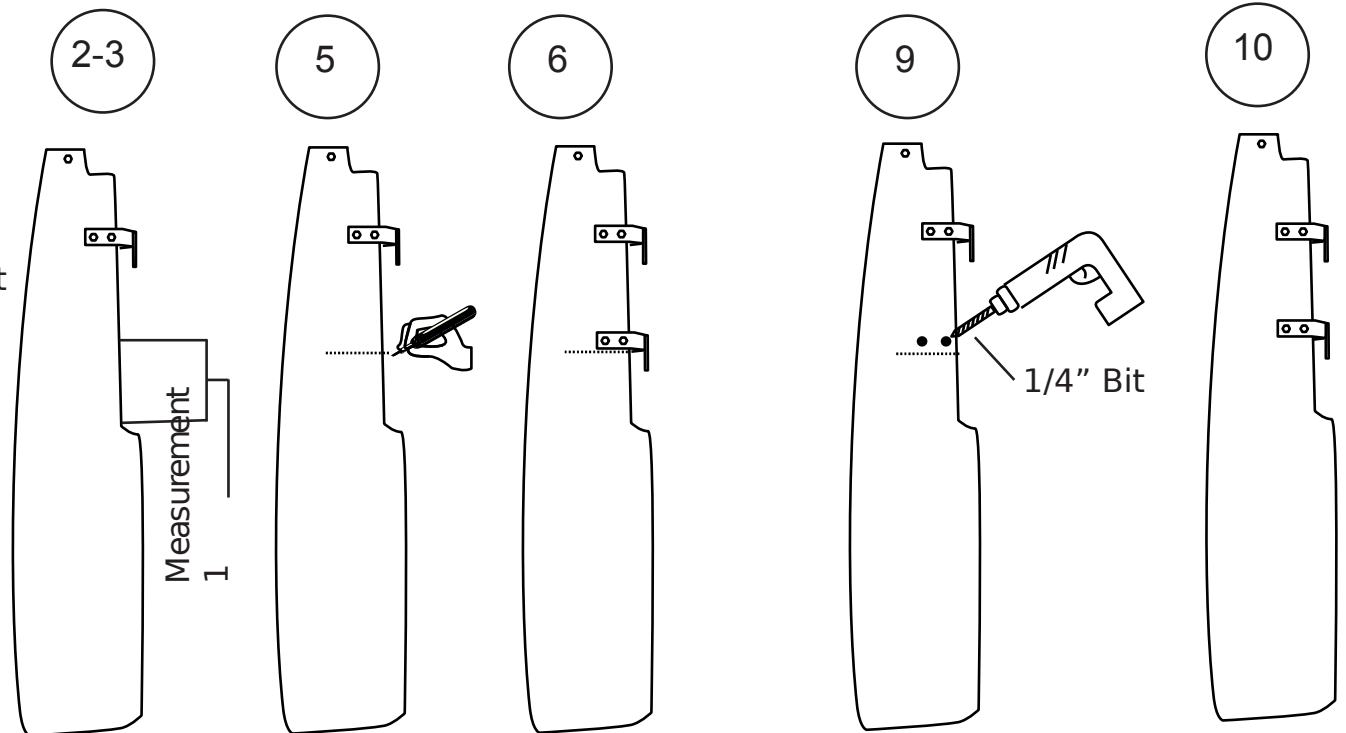
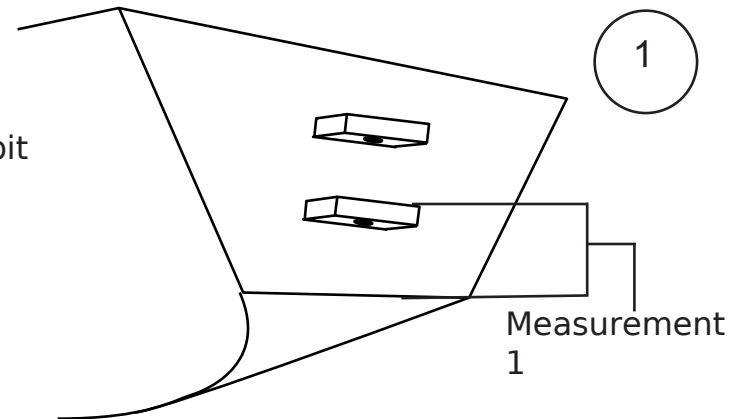
6) Place pintle on rudder with lower edge across line from step 5

7) Mark on rudder, through holes in pintles, area to be drilled

8) Remove pintle

9) Drill holes with 1/4" drill bit

10) Replace pintle and install included hardware



# Maintenance and Care

## HDPE

High Density Polyethylene (HDPE) is the white plastic material used for many of Rudder Craft's products, including rudder blades and foils. The HDPE that we use is virgin plastic made especially for us, and is designed for the marine environment with ultraviolet inhibitors. It is naturally resistant to fouling and other marine growth, however given enough time, fouling can occur on anything.

For basic maintenance, clean occasionally with fresh water and a sturdy brush or scrub sponge.

Keep HDPE out of direct sunlight in an un-natural position. (example: leaning against the side of a truck bed). Being a plastic based material it can bend and warp given enough heat. If warping does occur simply place on a flat surface in direct sunlight, bowed side up, and it should return to its natural shape.

HDPE is a very tough, solid material but contact with propellers, boat ramps, underwater obstructions and groundings may cause some damage. Minor scuffmarks and dings can be sanded out using regular sandpaper to working condition.

NOTE: Certain types of severe impacts may cause internal damage, which would not be initially visible, but may cause subsequent failure. Damage caused by operator carelessness can void your Rudder Craft warranty. Any questions about damage to your rudder should be referred to Rudder Craft immediately at 1-866-400-2204.

## Lubrication

If your kick-up rudder becomes hard to raise and lower you can apply any silicone-based lubricant (Sailkote, silicone spray, etc.) to pivoting areas. Kick-up rudder assemblies can cause injury if used improperly. Use caution when applying lubricant to moving parts.

## Painting

High Density Polyethylene is naturally non-adhesive to most products. In order to apply anti-fouling paint you should:

- 1) Clean the surface (brand new rudders are shipped clean)
- 2) Prepare by surface sanding the area to be painted with 220-grit sandpaper

3) Apply anti-fouling paint. IdaSailor Marine recommends VC-17 or Micron-17, applied according to manufacturer's instructions.

## Tillers

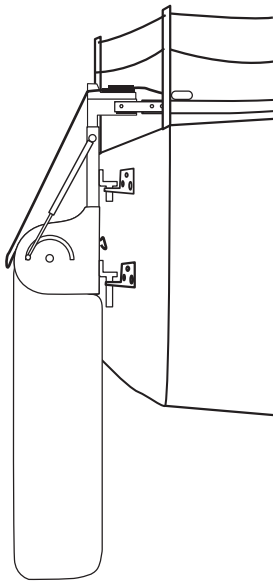
After you receive your Rudder Craft tiller you should:  
(steps 1 and 2 are for tillers needing to be varnished for the first time)

- 1) Lightly sand with 320-grit sandpaper
- 2) Apply marine quality spar (or similar quality) varnish according to the manufacturer's instructions. We recommend several coats of varnish, to seal the surface and provide an attractive finish.
- 3) A tiller cover will extend the life of varnish and reduce tiller maintenance.

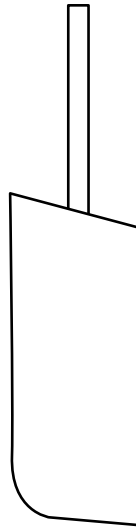
NOTE: To maintain the quality and durability of your tiller we recommend you repeat steps 1 and 2 once a year.

# Basic Terms and Parts

Kick-Up  
Rudder



Spade  
Rudder



Fixed  
Rudder

