



## The *build-your-own* boat ramp

### ASSEMBLY AND OPERATING INSTRUCTIONS FOR MODELS SD1200 AND SD2000

**WARNING:** The watercraft ramp you have purchased has certain hazards associated with it's use. Never stand behind a watercraft while it is on the ramp.

Never allow anyone in or on the watercraft while it is on the ramp.

Never allow anyone to operate the ramp unless they are familiar with all of the instructions and warnings contained herein.

Never try to stop a free wheeling winch handle. (Always keep a firm grip on the handle while the ratchet pawl is not fully engaged.)

Never allow watercraft to roll free down the ramp. Injury may occur or damage to watercraft or ramp may occur.

Before beginning, read the entire Assembly and Operating instructions to determine the suitability of this kit for your application.



Congratulations on the purchase of your ShoreDocker® watercraft ramp. The following instructions provide guidelines for the construction of your model. Remember that with a little planning you may customize this kit to work perfectly for you situation. The Model SD1200 is designed for boats up to 1200 lbs. and personal watercraft (PWCs, Jet Skis etc). The Model SD2000 is designed for boats up to 2000 Lbs. The capacity includes the weight of the watercraft, motor, fuel and any gear onboard.

#### PARTS LIST FOR MODEL SD1200

Qty	Description	Qty	Description
8	Side brace	1	Galv carriage bolt - 1/2" x 8"+ nut & washer
24	Mod 1200 roller bracket (2 /roller)	45	Galv 3/8" nuts
1	Winch post brace - right side	2	Galv 3/8" flat washers
1	Winch post brace - left side	45	Galv 3/8" split washers
1	1100 lb winch	30	Box hot-dipped galv. 3" deck screws
1	cable keeper kit		
1	33 ft (10 m)' galvanized cable with hook		
12	Rollers - polyurethane		
12	Roller spanner bushing		
	<b>Fasteners</b>		
12	Stainless steel nylock nut - 3/8"		
12	S.S. hex bolt - 3/8" x 2 1/2"	2	Pressure treated 2" x 6" x 16' *
30	Galvanized 3" deck screws	6	Pressure treated 2" x 4" x 20-36" *
18	Galv carriage bolts - 3/8" x 2 1/2"	1	Pressure treated 4" x 4" x 8' *
24	Galv hex bolts - 3/8" x 2 1/2"		
3	Galv hex bolts - 3/8" x 4 1/2"	*	Customize as necessary

#### Suggested Customer Supplied Lumber

#### PARTS LIST FOR MODEL SD2000

QTY	Description	QTY	Description
12	Side brace	32	Galv. 10d x 1 1/2" nails
8	Mod 2000 axle bracket	26	Galv carriage bolts - 3/8" x 2 1/2"
8	Mod 2000 axle	3	Galv hex bolts - 3/8" x 4 1/2"
1	Winch post brace - right side	1	Galv carriage bolt - 1/2" x 8"+ nut & washer
1	Winch post brace - left side	29	Galv 3/8" nuts
0	Beam end connector bracket **	2	Galv 3/8" flat washers
1	1600 lb winch	29	Galv 3/8" split washers
1	cable keeper kit		
1	33 ft (10 m)' galvanized cable with hook		
16	4 inch Wobble Rollers - polyurethane		
	<b>Fasteners</b>		
8	Stainless steel nylock nut - 5/16"		
8	S.S. hex bolt - 5/16" x 1 1/2"	2	Pressure treated 2" x 8" x 16' *
32	Galv. flat washer - 3/4"	8	Pressure treated 2" x 6" x 24-42" *
16	Stainless steel 1/8" x1" cotter pin	1	Pressure treated 4" x 4" x 8' *
38	Galvanized 3" deck screws	*	Customize as necessary

#### Suggested Customer Supplied Lumber

First you will build the basic framework.

**STEP 1: DETERMINE THE LENGTH AND LUMBER DIMENSIONS NEEDED.** You will likely want to store your watercraft all the way out of the water and away from any wave action. Also remember that a few feet of the ramp will extend into the water so that the rollers first engage the hull *below* the bow. For the side rails or main supporting beams of the Model 1200 it is recommended that you use 2 x 6s with 2 x 4s for the cross members. For the Model 2000 use 2 x 8s with either 2 x 4s or 2 x 6s for the cross members. Use pressure treated lumber for longer life. If possible use single length boards for the side rails. If you must join lengths end-to-end, instructions for doing so are included at the end of the assembly instructions.

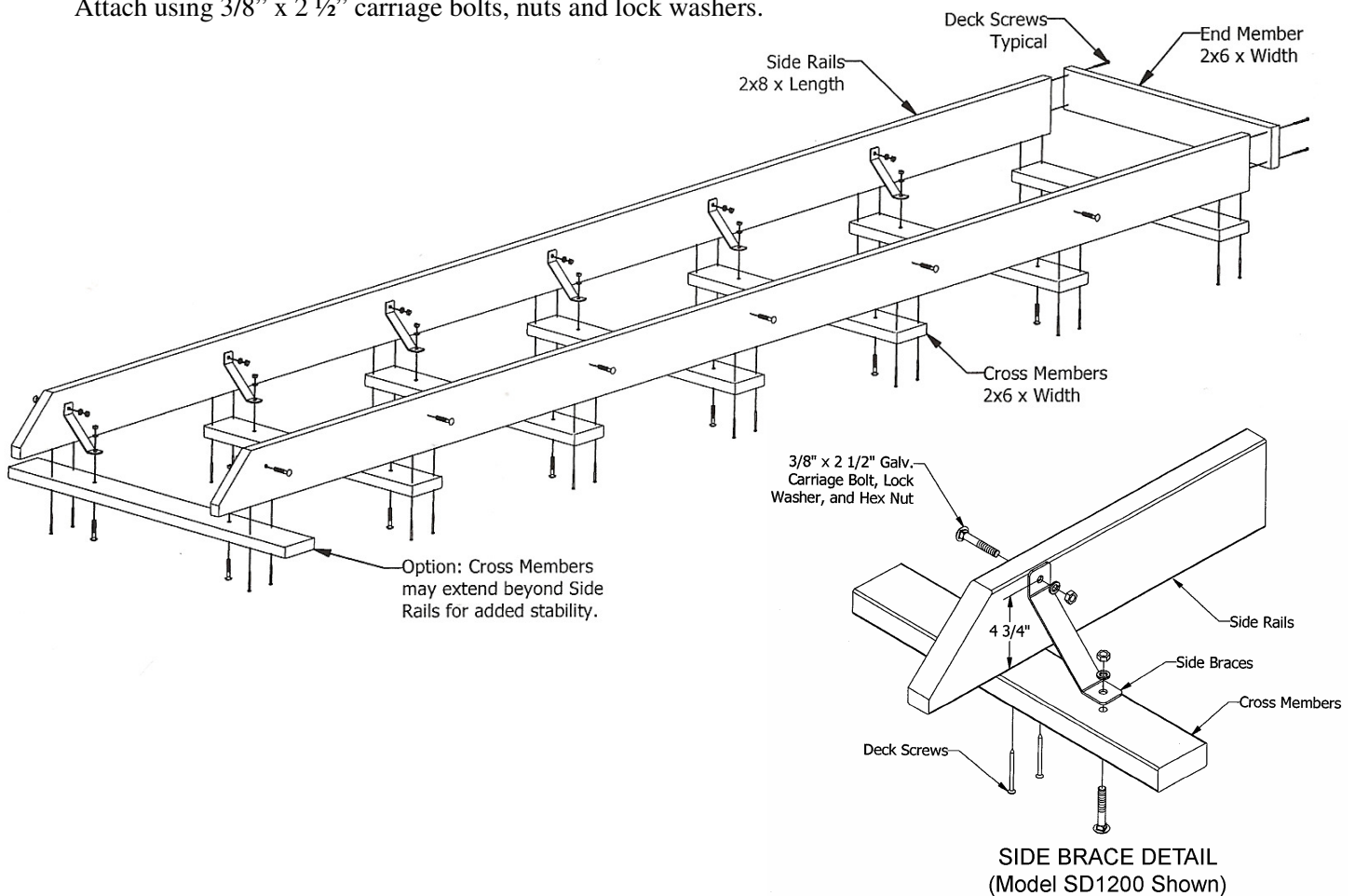
**IMPORTANT: The side rails must be strong enough so as not to deflect much from the weight of the boat. This is especially important when lowering the boat into the water with longer ramps. If the side rails deflect, the boat transom may hang up on the rollers directly behind it. NEVER TRY TO FREE A HUNG UP BOAT FROM BEHIND. ALWAYS TAKE OUT SLACK FROM THE WINCH HANDLE AND HAVE THE WINCH MANNED WHEN FREEING BOAT! The best way to eliminate deflection of the ramp is by using supporting blocks or installing supporting legs as outlined below.**

**STEP 2: DETERMINE THE WIDTH of the ramp you need.** By looking at the shape of your hull at the transom, decide where you want the rollers to align. Consider having the rollers fall in line with a flatter area of the hull. Support need **not** be as wide as on a boat trailer as there are not the same side forces as encountered on the open road. **IMPORTANT: Consider that a narrower spacing of the rails will help when loading your boat onto the ramp. The bow will be less likely to bottom out on the ground or cross members as the boat starts to angle up to the ramp.**

**IMPORTANT: Consider leaving the cross members longer than needed for a couple of reasons. You may want the wider support especially if on uneven ground and/or blocking is necessary and secondly, you may change your mind and change the side rail spacing. (In that case you would need to re-cut another winch post base).**

**STEP 3:** Cut the boards and assemble the crossmembers to the rail as shown. You may want to cut an angle out of the water end of the side beams as shown below, but it isn't necessary. If you do, attach the end crossmember a few inches from the end so that the top of the side brace makes full contact with the side rail. Attach all of the end crossmembers first and then equally space the remaining crossmembers. Use the 3 inch screws provided.

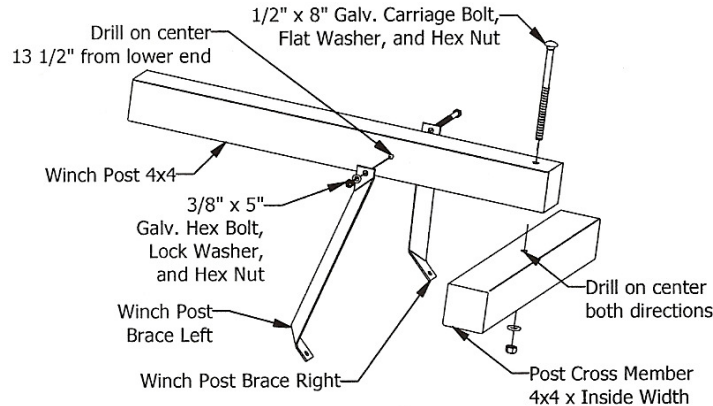
Install the side braces. Hold or clamp them in place to drill 3/8" holes through the side rails and crossmembers. Attach using 3/8" x 2 1/2" carriage bolts, nuts and lock washers.



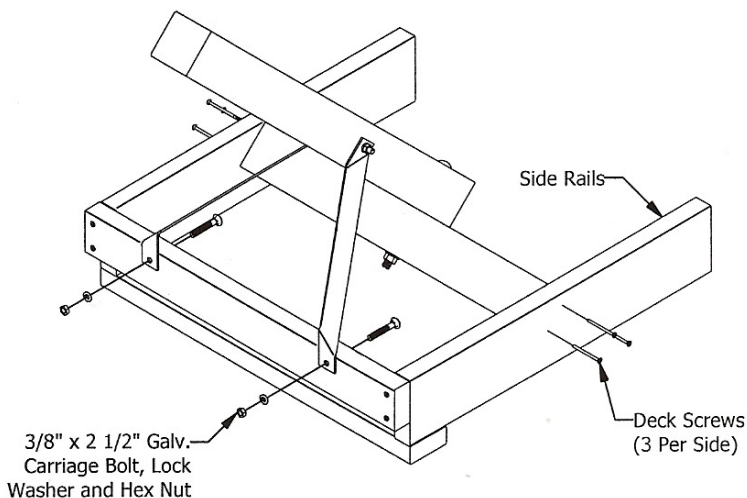
**STEP 4: INSTALL THE WINCH SYSTEM.** Referring to the Figures below, from 4" x 4" lumber, cut the winch post base and the winch post. It is recommended to leave the post extra long for now and cut the top off later. 48 inches should be plenty for now. The winch post base should be cut to fit snugly between the side rails.

Next drill the 1/2 inch holes for joining the bottom of the winch post to the center of the winch post base. Also drill the 3/8 inch hole in the winch post for attaching the top ends of the angle braces. The hole should be 13 1/2" from the lower end of the post and pass squarely through the side at its centerpoint..

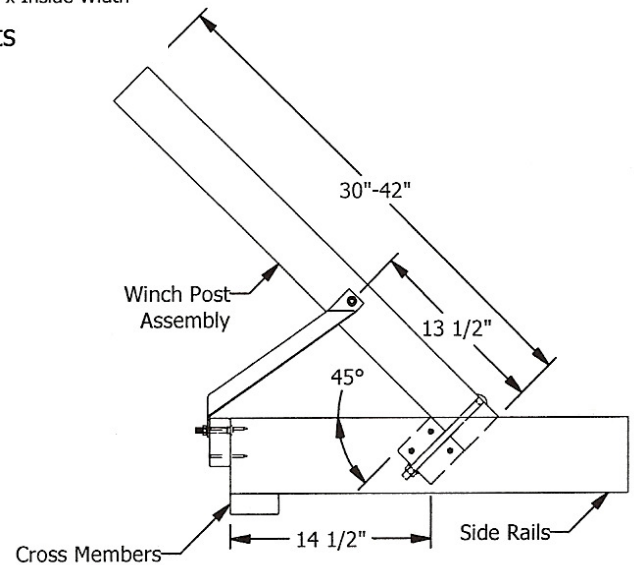
**IMPORTANT: Make a good effort to drill these holes square with the lumber. If possible use a drill press if possible, or, many hand drills come with a fixture for drilling holes at a right angle. If you don't have these tools, don't fret... a small square and a good eye should be good enough.**



Winch Post Assembly Parts



Winch Post Assembly



Winch Post Assembly Side View

Now install the winch post base between the side rails at the location as shown. The top edge of the winch post base should be 14 1/2" from the end of the side rail and be flush with the top of the side rail. The face of the 4 x 4 should be at a 45° angle to the top edge of the side rail.

**IMPORTANT: For now just use a single 3 inch screw in each end of the 4 x 4. You will want the option of rotating the 4 x 4 to allow a perfect fit of the angle braces with the end crossmember. Install the two screws in the same relative position for each end of the winch post base, i.e. the "upper center."**

Next attach the upper ends of the angle braces (the smaller end tab) to the winch post using a 3/8" x 4 1/2" hex bolt, lock washer and nut. Attach the winch post to the winch post base with the 1/2" x 8" carriage bolt, flat washer and nut.

Clamp the lower ends of the angle braces in place on the front cross member. Before drilling the 3/8" holes in the front crossmember check that:

The winch post is at a right angle to the winch post brace.

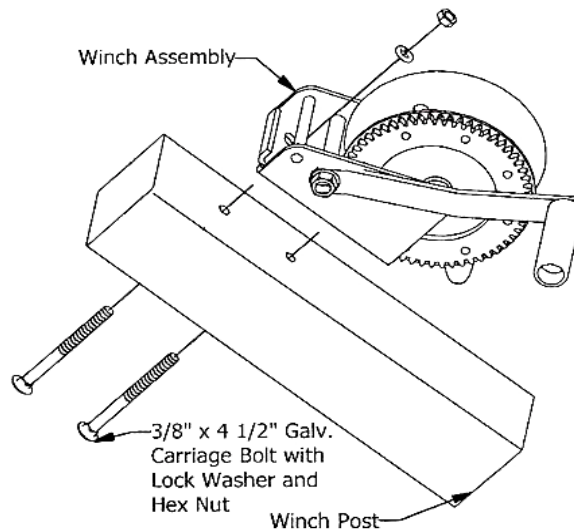
The lower tabs are essentially flat with the crossmember.

The lower tabs are approximately the same distance from the respective side rails.

If things don't line up, check the position of the winch post base and re-locate as necessary. Drill the holes and attach the bottom of side braces with 3/8" x 2 1/2" carriage bolts, lock washers and nuts.

**STEP 5:** INSTALL THE WINCH AND CABLE AS SHOWN IN THE FIGURE BELOW. The eventual height of the winch will be determined after you crank the boat up for the first time. For now, use your best judgment and maybe you'll be lucky! If you have no idea, try making the top of the winch 32 – 36 inches from the bottom of the post. Additional information and warnings are included with winch literature.

**IMPORTANT:** The objective in selecting winch post height is to have a pull on the boat such that the cable is parallel to the side rails. This is particularly important when the bow is near the winch. It is preferable to not having the winch either pulling up or down on the bow eyelet.



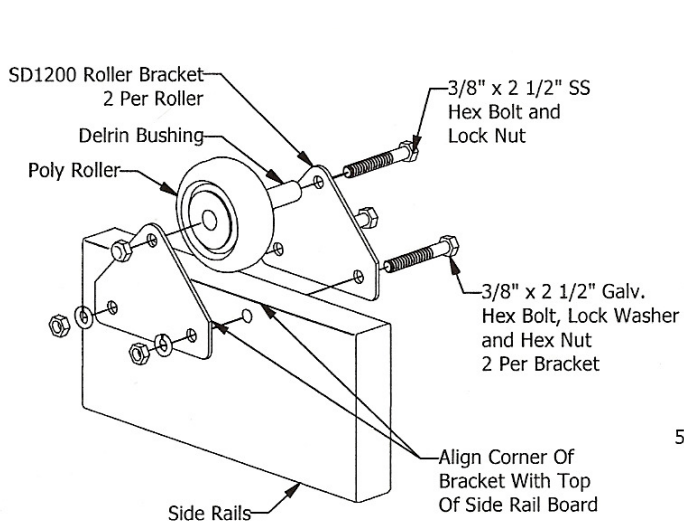
\* 4 1/2" Carriage bolts may be substituted with hex bolts and flat washers.

Winch Mount Detail

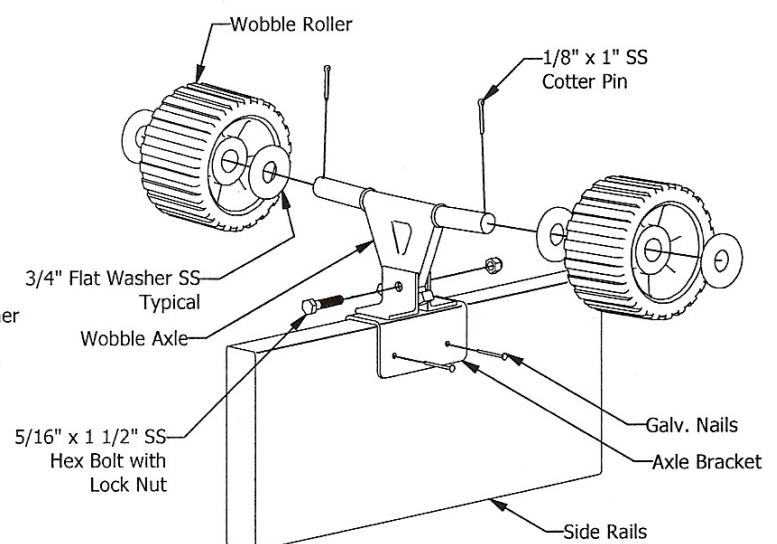
**STEP 6:** After the ramp framework and winch mounting are complete, install roller assemblies as shown. Assemble as shown in the figures below. Consider the following criteria when selecting the location of the roller assemblies:

- a. Assemblies should obviously be in pairs, i.e. identical location on *both* the right and left rail.
- b. The first pair (from the water end of the ramp) should be close to the water end of the rail.
- c. Roller assembly pairs should be spaced more closely together where watercraft weight is greater. Pay particular attention those areas below the motor. If you have constructed a ramp with extended length be aware that a heavy stern may pass over several feet of the ramp. Additional roller assemblies are available for purchase.
- d. Generally speaking, your watercraft will be totally supported over the aft 2/3s to 3/4s of the hull. This is because the bow starts sloping upward and also the weight of the motor results in a center of gravity more toward the stern.
- e. If you have a trailer you may use the location of the bunks as a general guide.
- f. If you have a Model 1200, be sure to line up apex of the bracket angle to the top of the board as shown. Try to drill at a perpendicular angle to the face of the board. Many drills come with a square angle guide.

**HINT:** If you have a Model 2000, do not set the axle bracket nails fully until you have made a final determination for the location of the roller assemblies. The Model 1200 assemblies are more easily relocated.



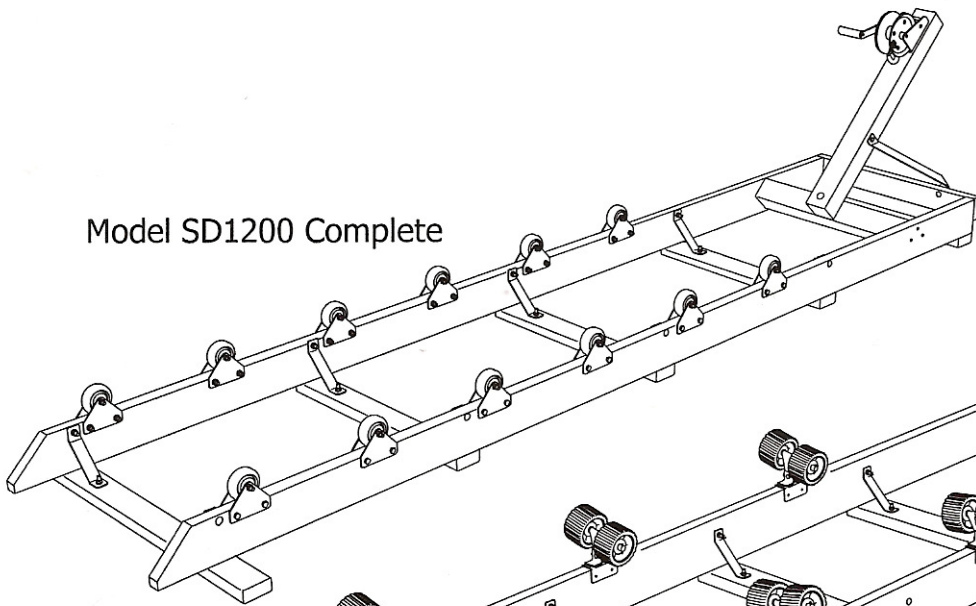
Model SD1200 Roller Assembly



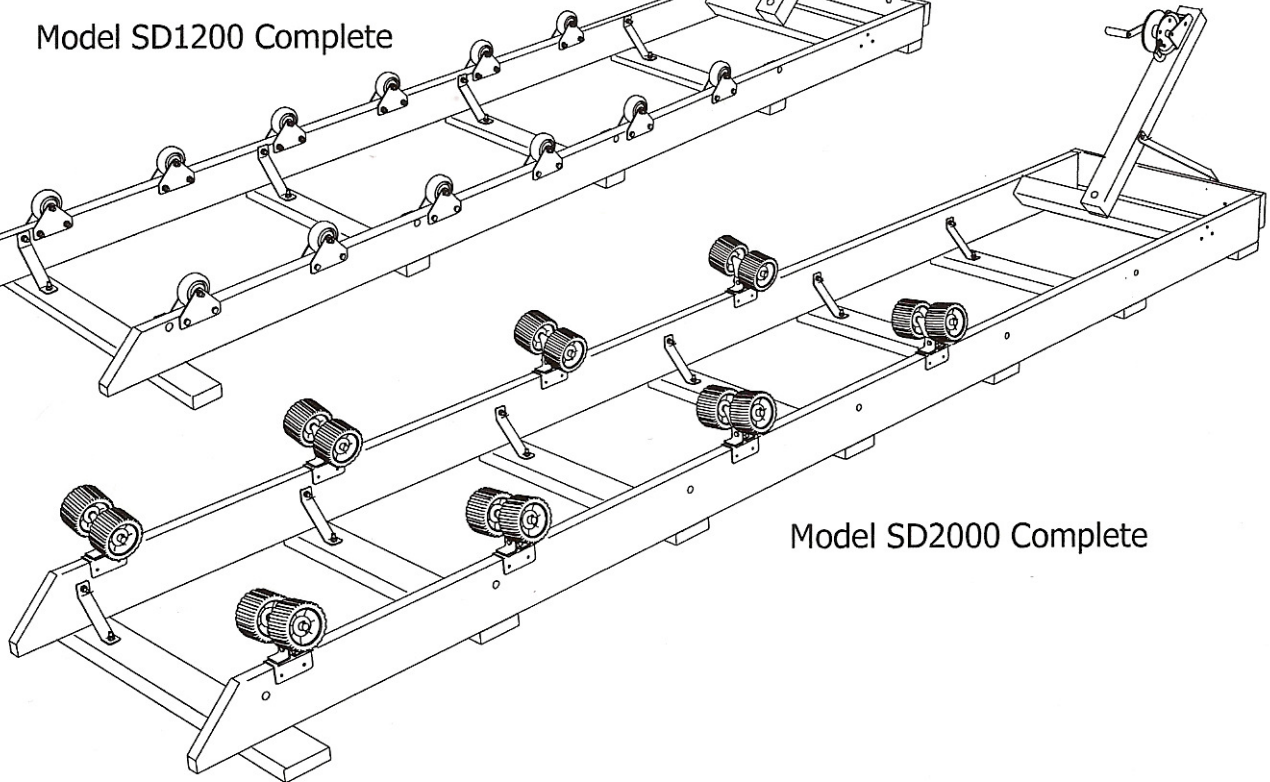
Model SD2000 Wobble Roller Assembly



Model SD1200 Complete



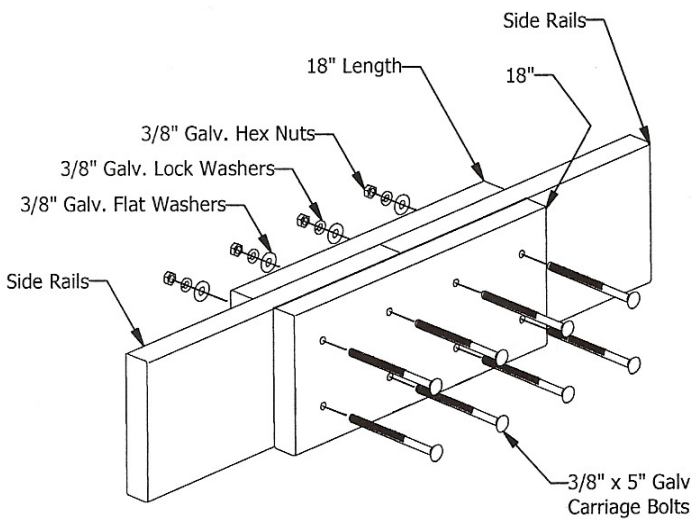
Model SD2000 Complete



**JOINING SIDE RAILS END-TO-END**

**IMPORTANT:** When joining side rails end-to-end, they should be kept in line with each other. If you form an angle that makes a “valley” the boat transom will not pass over the rollers behind it. If the angle forms a “crest”, the weight of the entire boat will fall upon a single pair or row of rollers as the center of gravity pivots over the crest.

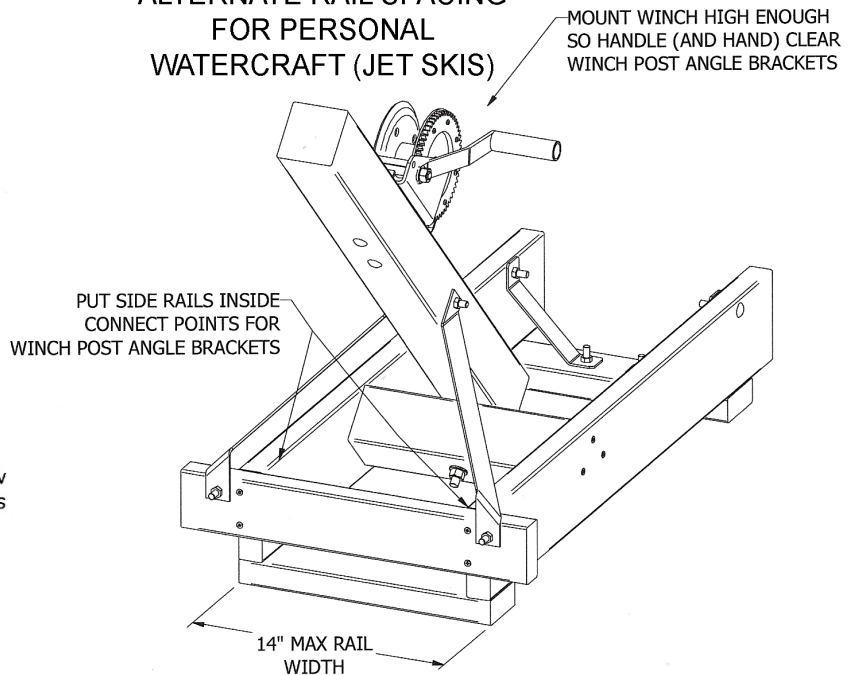
Join ends of rails as shown below.  
(Hardware not included.)



**Extending Side Rails**

Note:  
This optional hardware  
not included in kit.

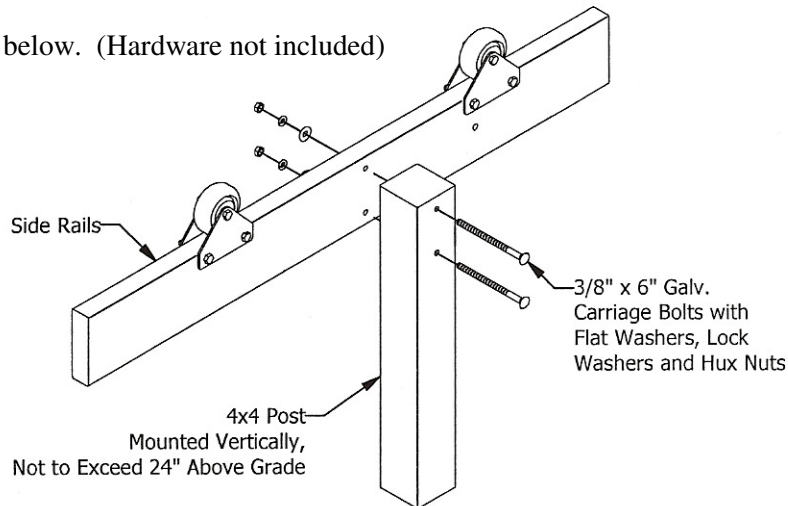
**ALTERNATE RAIL SPACING  
FOR PERSONAL  
WATERCRAFT (JET SKIS)**



## ATTACHING SUPPORTING LEGS

- Concrete Blocks work best for supporting or “leveling” your ramp.
- Extra long cross members can help make the ramp more stable.
- Keep leg height to a minimum. Shore Docker is not responsible for customized designs. Be safe!
- Keep legs VERTICAL TO THE HORIZON regardless of the ramp angle.

Install legs as shown below. (Hardware not included)



### **Adding Support Legs**

Note: This optional hardware not included in kit.

## SETTING UP AND OPERATION OF SHORE DOCKER BOAT RAMP

**Because Shore Docker is a kit, you are responsible for the safe construction, setup and operation of your ramp. Shore Docker only supplies parts and general guidelines. There are many types of boats and shorelines. You must make the decision of the suitability of this kit for your situation.**

Locate the ramp with the water end deep enough to easily engage your hull. Hook the end of the winch cable to the eye on your bow. Read the literature supplied with the winch before operating.

- Read all warnings on page one.
- Never drive the boat onto ramp. The boat must be cranked up.
- Never release handle or let winch free-wheel when lowering boat. Always crank boat down.

### **SPECIAL SET UP FOR MODEL SD2000**

Before loading boat onto ramp slightly tighten the pivot bolts for the roller axles. They should be tight enough to hold position, yet be movable. After the boat has run up and down once, tighten the pivot bolts so the angle is more firmly held.

### **FOR BOTH MODELS – Re-mount the winch if necessary.**

The winch height should be such that the cable comes off the drum at about the same height as the bow eye. This will minimize the unnecessary forces on the winch, post, ramp and your boat.

### **WARRANTY**

The manufacturer warrants for a period of one year from the date of purchase, the workmanship of all parts. The warranty is limited to the repair and/or replacement of parts Shore Docker parts only. The manufacturer does not warrant the suitability of this product for any specific or general application. All warranty claims must be submitted to the manufacturer, not the reseller. Claims must include the damaged parts and a copy of the original sales receipt, postage prepaid.

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