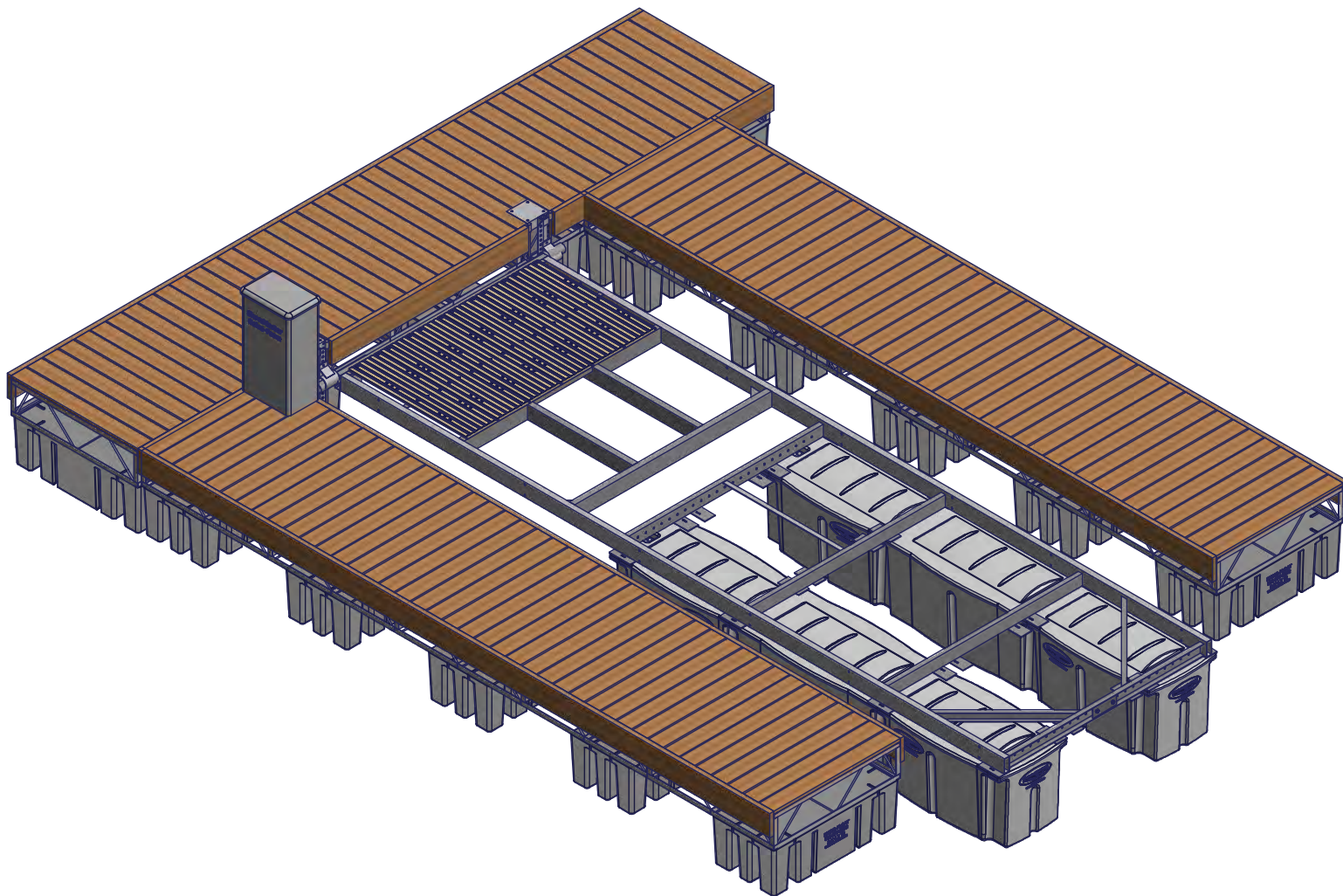


Front Mount Lift Instruction Manual



Models

<u>Part Number</u>	<u>Model Number</u>	<u>Length</u>	<u>Capacity</u>	<u>Tank</u>	<u>FirstMate</u>
1023916	RH2040-21FM	21ft	2000lb-4000lb	Black	Manual
1023917	RH2040-21FM	21ft	2000lb-4000lb	Black	Remote
1023918	RH4068-21FM	21ft	4000lb-6800lb	Black	Manual
1023919	RH4068-21FM	21ft	4000lb-6800lb	Black	Remote
1023920	RH4068-24FM	24ft	4000lb-6800lb	Black	Manual
1023921	RH4068-24FM	24ft	4000lb-6800lb	Black	Remote



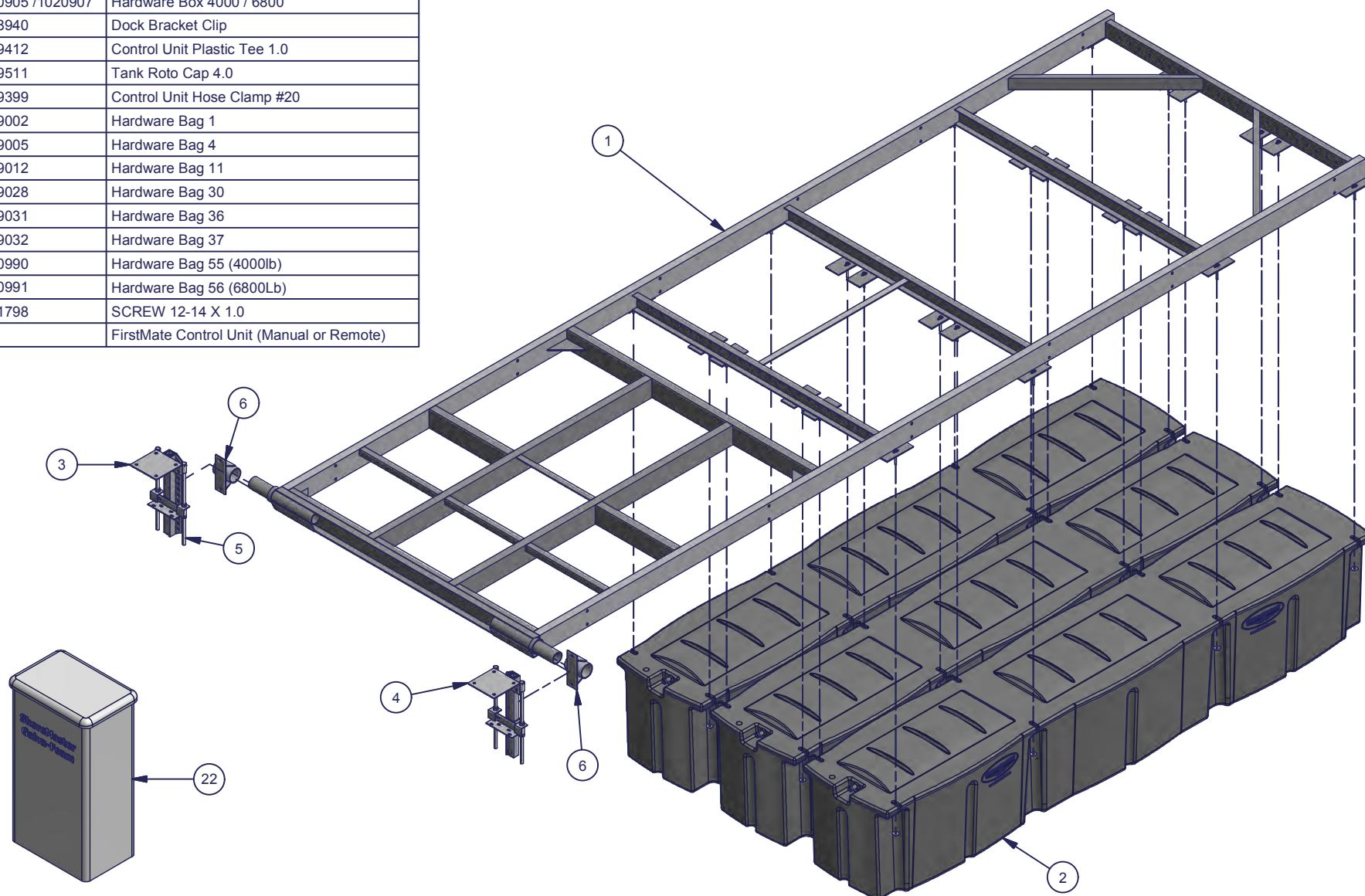
www.rhinohoist.com

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Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1019592/1019593	Frame Roto Front Mount 21ft / 24ft
2	3	1020855	Air Tank 12.5' Black (2-for 4000, 3-for 6800)
3	1	1008941	Dock Bracket Front Mount 21.0 Right
4	1	1008943	Dock Bracket Front Mount 21.0 Left
5	4	1008937	Dock Bracket Bolt 21 x 5/8
6	2	1009191	Collar Front Mount Dock Bracket Attachment
7	1	1009402	Hose - Control Unit Hose 1.0ID
8	2	1009091	L-Arm Chain 8FT x 5/16" HD Galvanized
--	1	1020905 /1020907	Hardware Box 4000 / 6800
9	4	1008940	Dock Bracket Clip
10	1	1009412	Control Unit Plastic Tee 1.0
11	2/3	1009511	Tank Roto Cap 4.0
12	6/10	1009399	Control Unit Hose Clamp #20
13	2	1009002	Hardware Bag 1
14	1	1009005	Hardware Bag 4
15	1	1009012	Hardware Bag 11
16	1	1009028	Hardware Bag 30
17	1	1009031	Hardware Bag 36
18	1	1009032	Hardware Bag 37
19	1	1020990	Hardware Bag 55 (4000lb)
20	1	1020991	Hardware Bag 56 (6800Lb)
21	4	1011798	SCREW 12-14 X 1.0
22	1	--	FirstMate Control Unit (Manual or Remote)

RhinoHoist Front Mount Lift Parts List



Preparation

Assembly Site: For assembly find a flat, level surface. A flat-bed trailer works the best or another trailer with planks to make a flat surface. A trailer works the best since this allows you to haul the lift to your site or a boat landing for launching. You can also assemble the lift on the ground but you will need a fork lift or crane to set the lift on a trailer.

Tools:

- * 1/2" Drive Ratchet
- * Electric or Cordless Drill
- * Saw - for cutting whaler board
- * Set of Drill Bits (inch)
- * Deep Well Socket Set (inch)
- * Open Ended or Combination Wrench Set (inch)
- * Set of Screw Drivers
- * Hammer
- * Utility Knife
- * Measuring Tape
- * Pen or Pencil

Verify:

- * Make sure that you have all needed parts, check parts against parts list and get familiar with all the parts.
- * Make sure boat weight (including gas and all equipment) is within the weight capacity of lift.
- * Make sure boat length is not too long for lift. Boats up to 24' can be used on a 21' long lift and boats up to 28' can be used on 24' long lifts.

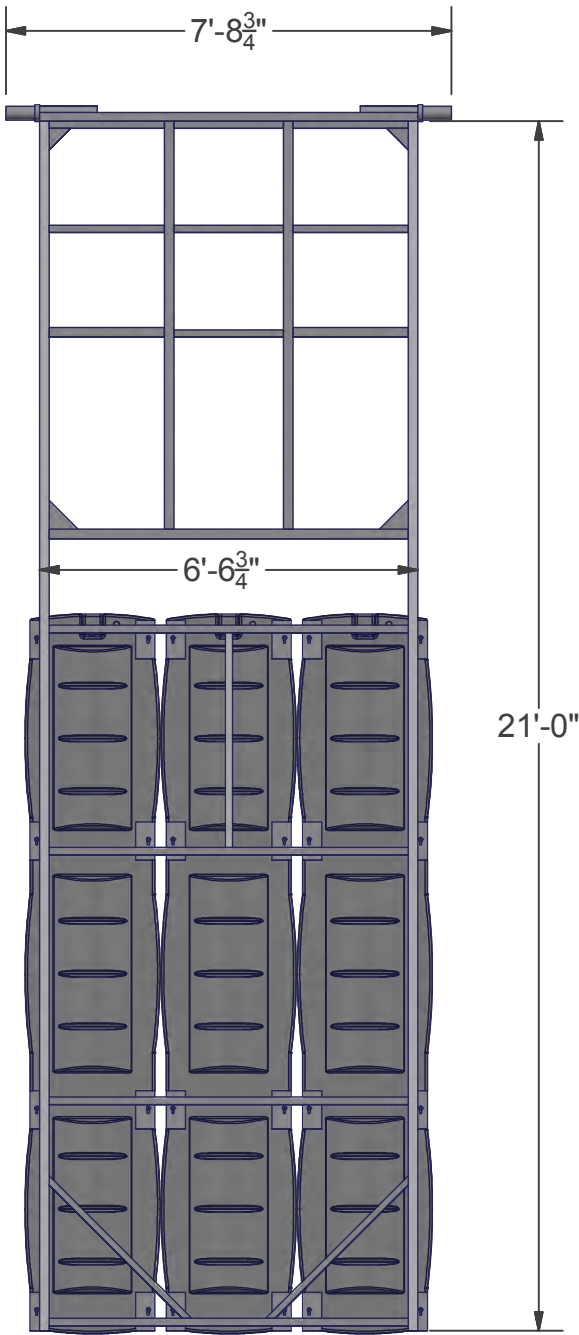
Dock Inspection:

- * Inspect dock frame to make sure frame will be strong enough to support the lift. Consult with local dealer if not sure.
- * Make sure dock slip is at least 8' wide to allow room for the lift.
- * Make sure water depth is at least 5' deep for 21' long lifts and 6' deep for 24' long lifts, more water depth may be needed depending on bunk set-up.
- * Make sure there are no obstructions underwater or above the lift which the lift or boat could interfere.
- * Make sure you have 20 AMP electrical supply to power the lift.

Front Mount Lift Frames

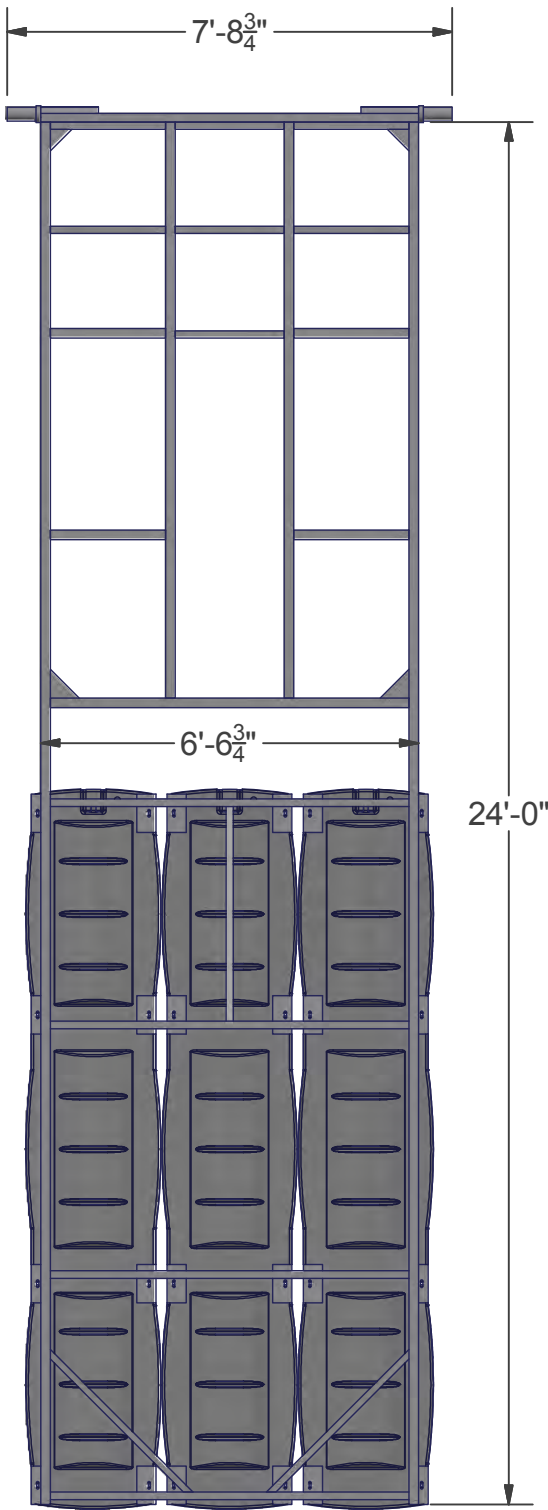
21' Frame

P/N: 1019592



24' Frame

P/N: 1019593

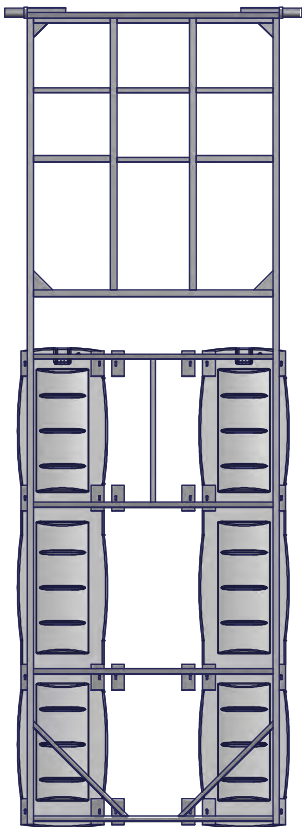


Assembly Instructions:

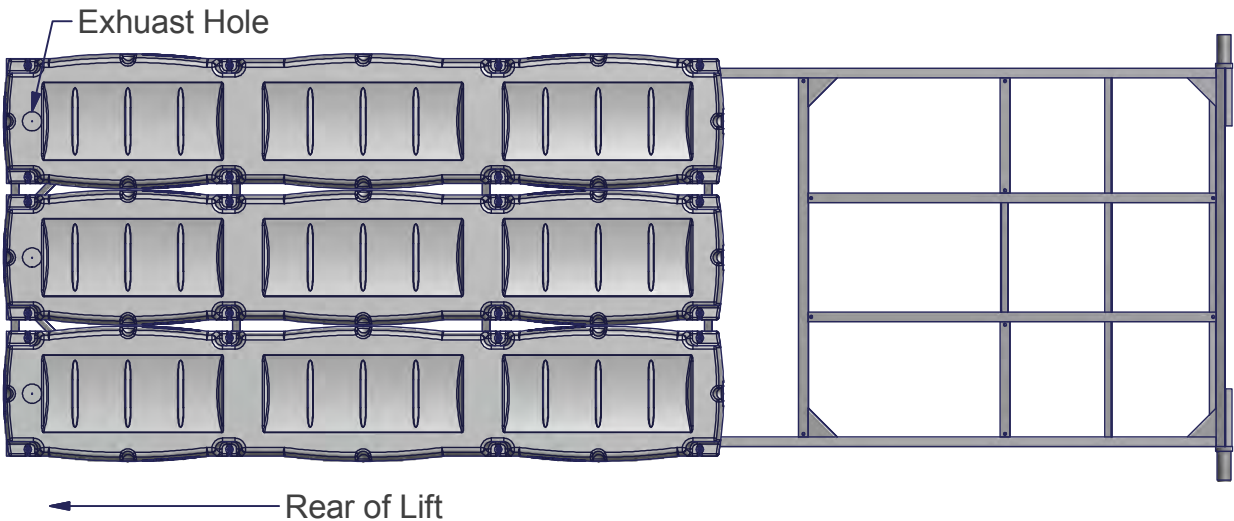
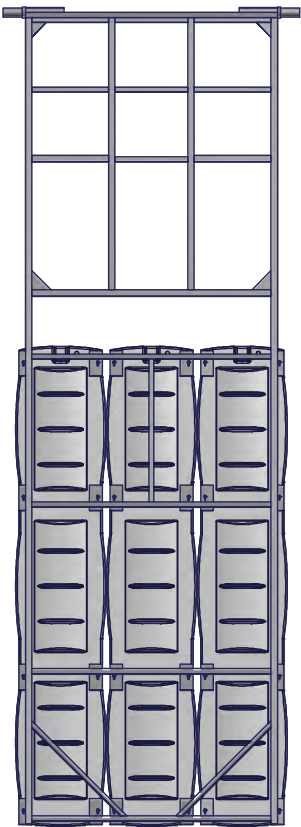
Step 1: Layout air tanks according to lift size as shown.

Make sure exhaust holes are facing to the rear of the lift as shown (as shown).

4000 lb Lift
2-tanks



6800 lb Lift
3-tanks

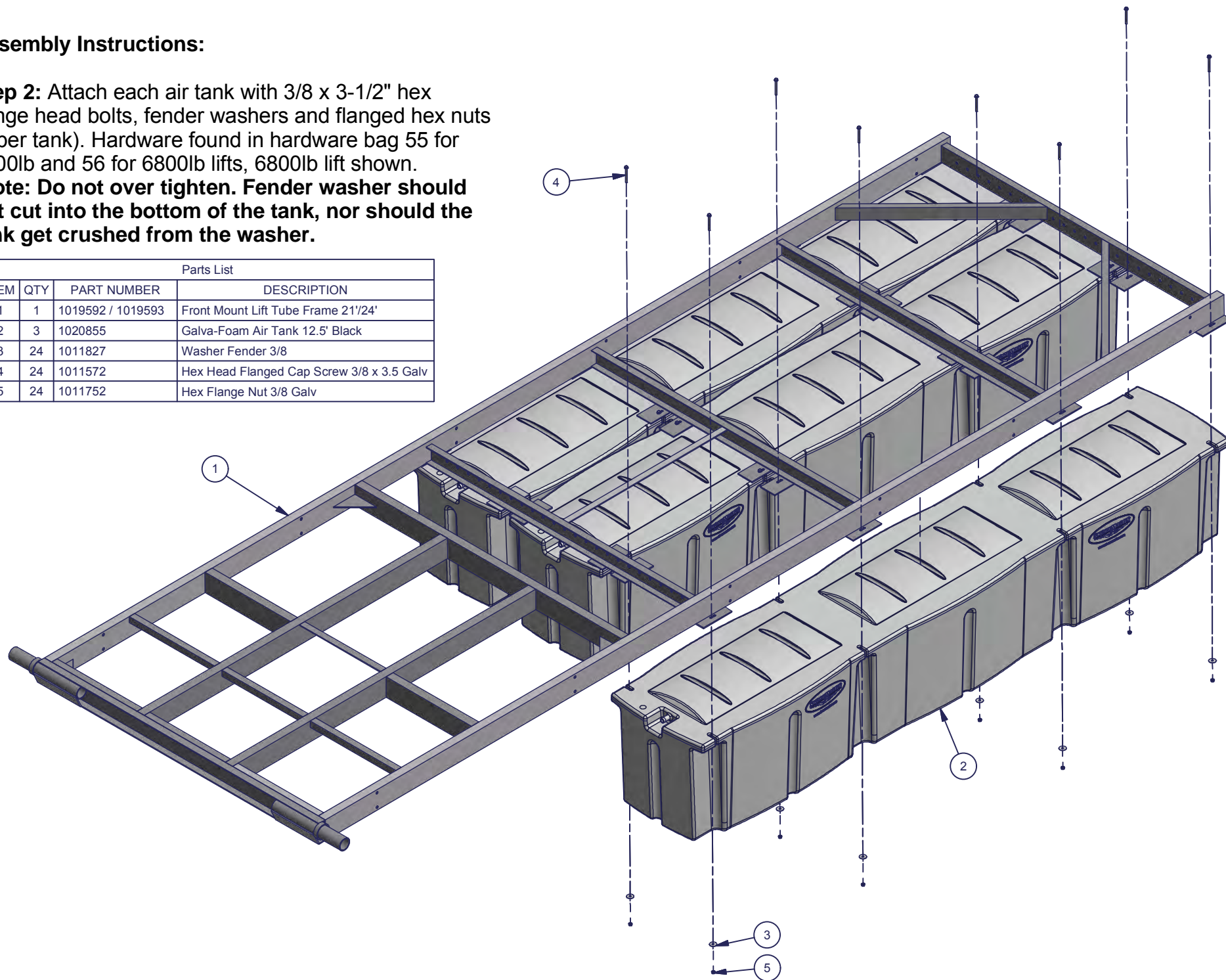


Assembly Instructions:

Step 2: Attach each air tank with 3/8 x 3-1/2" hex flange head bolts, fender washers and flanged hex nuts (8 per tank). Hardware found in hardware bag 55 for 4000lb and 56 for 6800lb lifts, 6800lb lift shown.

Note: Do not over tighten. Fender washer should not cut into the bottom of the tank, nor should the tank get crushed from the washer.

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1019592 / 1019593	Front Mount Lift Tube Frame 21' / 24'
2	3	1020855	Galva-Foam Air Tank 12.5' Black
3	24	1011827	Washer Fender 3/8
4	24	1011572	Hex Head Flanged Cap Screw 3/8 x 3.5 Galv
5	24	1011752	Hex Flange Nut 3/8 Galv



Assembly Instructions:

Step 3: Attach bunks to lift according to bunk installation instructions.

Step 4: Cut hose so you can connect tanks together according to hose schematic on following page for your set-up. Attach hoses to tanks according to hose schematic. Slide hose onto hose hook-up on tank and secure hoses to tanks with #20 hose clamps (P/N:1009399), torque clamps to 10 ft/lbs. Use pipe Tee (P/N:1009412) to connect hoses together use #20 hose clamps to secure.

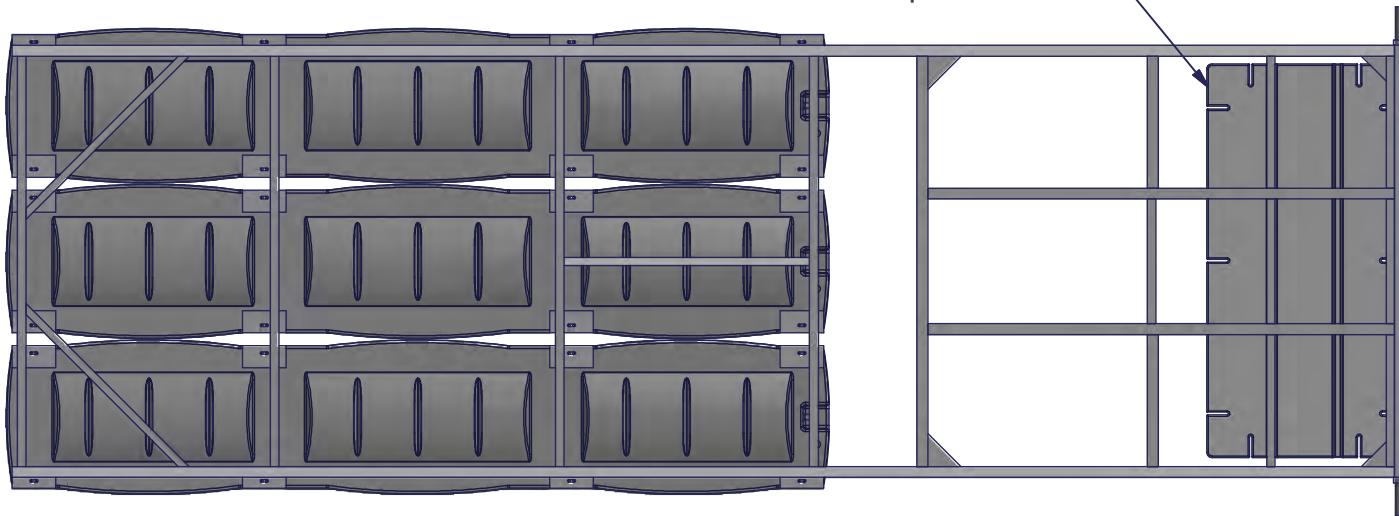
Note: Do not cut the long hoses, keep the hoses looped together so the tanks will remain air sealed for transportation. Hoses will be cut on final installation after lift has been attached to dock.

Step 5: Attach a float or piece of foam to the front of the lift using rope or straps (as shown below). This will aid in the transporting of the lift to the dock for installation. You might also want to plug the exhaust holes in the air tanks if you have to transport a long distance, use tank roto cap 4.0 (1009511). Press cap into exhaust hole in bottom of each tank.

Hose hook up with
20 hose clamp

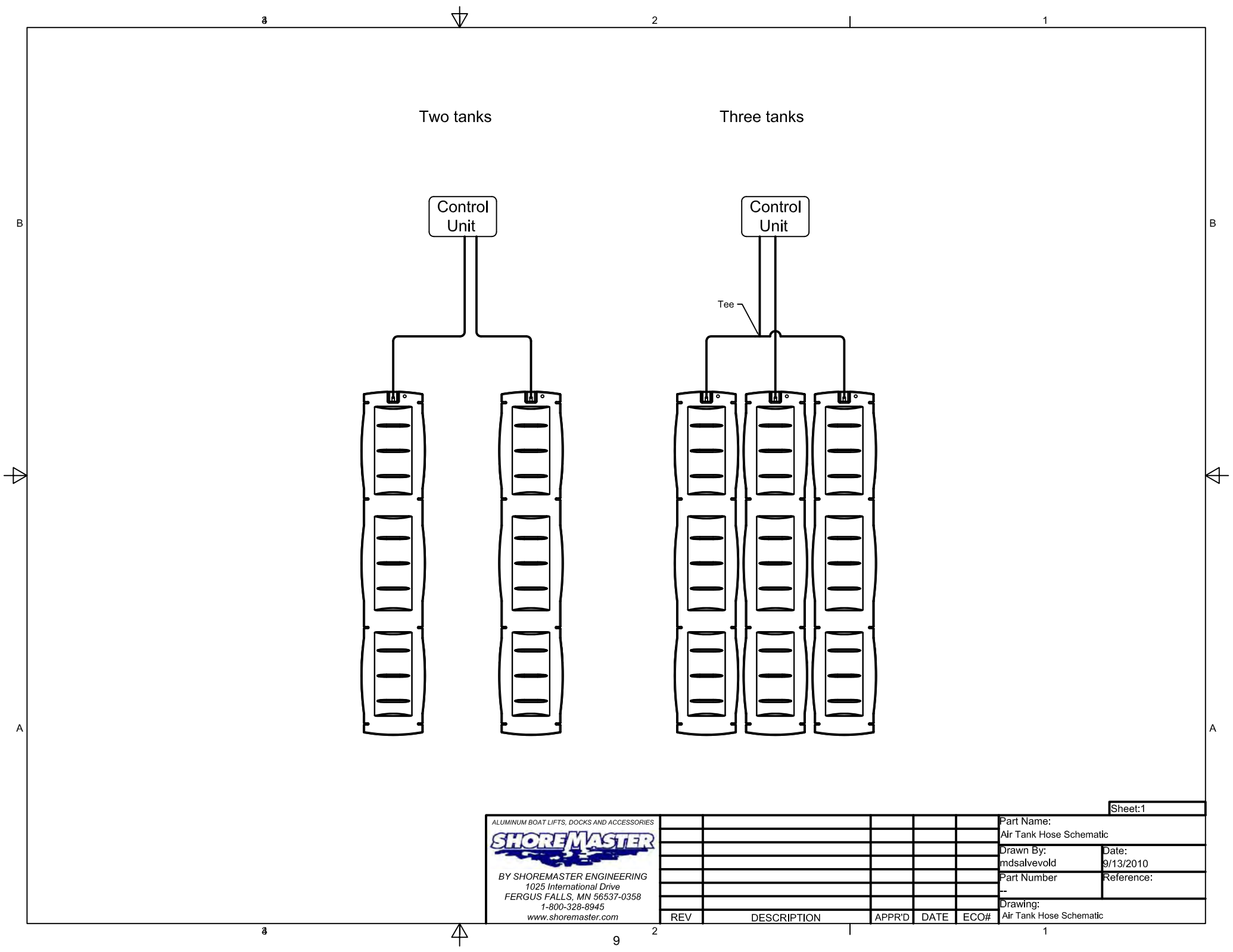


Float or piece of foam



Tank Roto Cap 4.0





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REV	DESCRIPTION	APPR'D	DATE	ECO#	

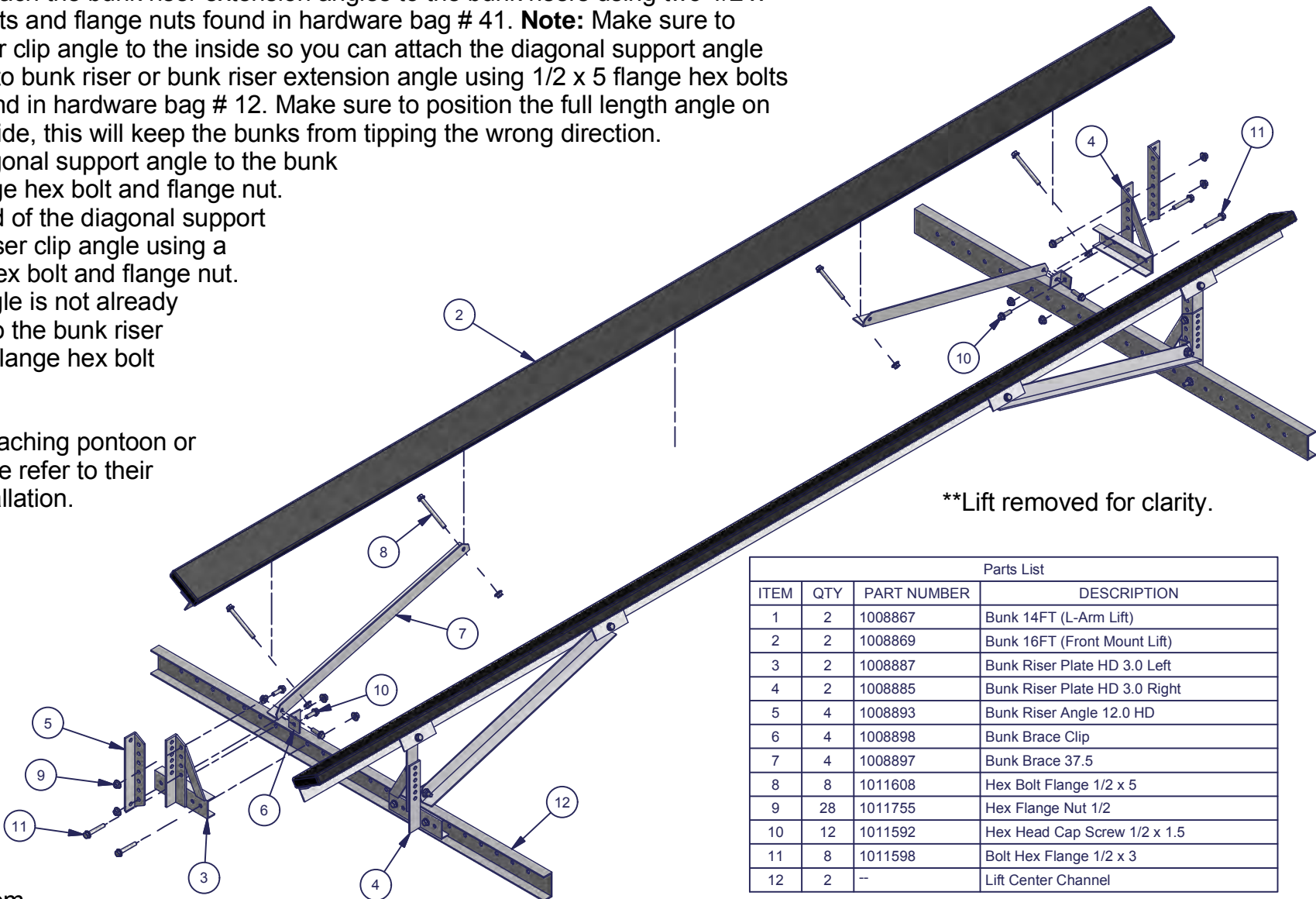
Part Name:	
Air Tank Hose Schematic	
Drawn By:	Date:
mdsalvevold	9/13/2010
Part Number	Reference:
--	
Drawing:	
Air Tank Hose Schematic	

1020930 - 14' V-Hull Bunk Kit (L-Arm Lift)
1020933 - 16' V-Hull Bunk Kit (Front Mount Lift)

Assembly Instructions: 14' and 16' V-Hull Bunk Kits

Attach bunks to lift center channels. Before attaching bunks determine where the bunk risers need to be positioned by measuring your boat hull or boat trailer bunks. Attach bunk risers to the center channels on the lift using two 1/2 x 3 flange hex bolts and flange nuts found in hardware bag # 19. Make sure to position bunk risers so bunks will be in your desired position. Attach the bunk riser extension angles to the bunk risers using two 1/2 x 1-1/2 flange hex bolts and flange nuts found in hardware bag # 41. **Note:** Make sure to attach the bunk riser clip angle to the inside so you can attach the diagonal support angle later. Attach bunks to bunk riser or bunk riser extension angle using 1/2 x 5 flange hex bolts and flange nuts found in hardware bag # 12. Make sure to position the full length angle on the bunks to the inside, this will keep the bunks from tipping the wrong direction. Next attach the diagonal support angle to the bunk using a 1/2 x 5 flange hex bolt and flange nut. Attach the other end of the diagonal support angle to the bunk riser clip angle using a 1/2 x 1-1/2 flange hex bolt and flange nut. If bunk riser clip angle is not already attached, attach it to the bunk riser using a 1/2 x 1-1/2 flange hex bolt and flange nut.

Note: If you are attaching pontoon or tri-toon bunks please refer to their instructions for installation.



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	1008867	Bunk 14FT (L-Arm Lift)
2	2	1008869	Bunk 16FT (Front Mount Lift)
3	2	1008887	Bunk Riser Plate HD 3.0 Left
4	2	1008885	Bunk Riser Plate HD 3.0 Right
5	4	1008893	Bunk Riser Angle 12.0 HD
6	4	1008898	Bunk Brace Clip
7	4	1008897	Bunk Brace 37.5
8	8	1011608	Hex Bolt Flange 1/2 x 5
9	28	1011755	Hex Flange Nut 1/2
10	12	1011592	Hex Head Cap Screw 1/2 x 1.5
11	8	1011598	Bolt Hex Flange 1/2 x 3
12	2	--	Lift Center Channel

Part Number: 1020934-1020935

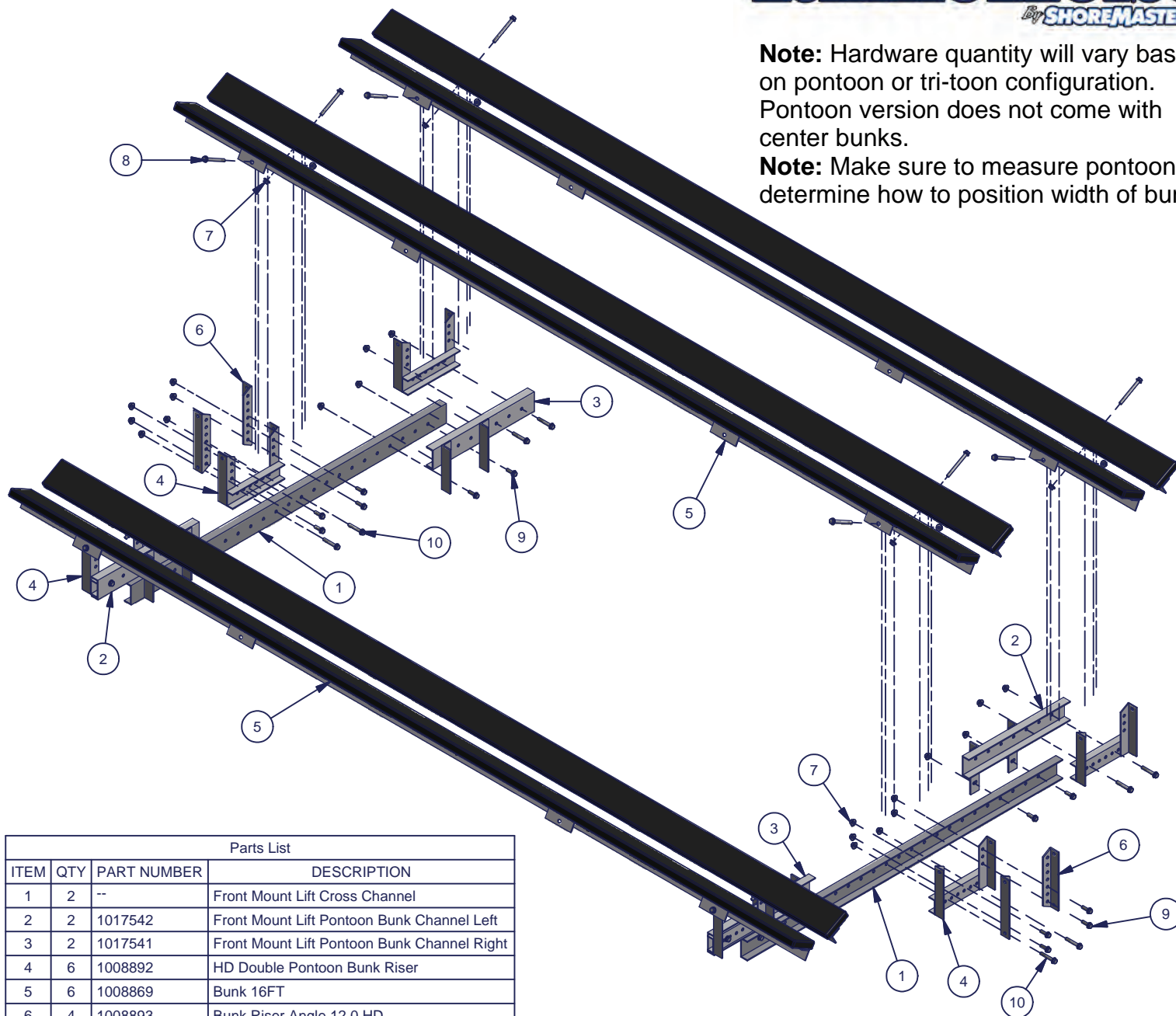
Bunks 16ft Pontoon / TriToon

Instructions



Note: Hardware quantity will vary based on pontoon or tri-toon configuration. Pontoon version does not come with center bunks.

Note: Make sure to measure pontoon to determine how to position width of bunks.



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	--	Front Mount Lift Cross Channel
2	2	1017542	Front Mount Lift Pontoon Bunk Channel Left
3	2	1017541	Front Mount Lift Pontoon Bunk Channel Right
4	6	1008892	HD Double Pontoon Bunk Riser
5	6	1008869	Bunk 16FT
6	4	1008893	Bunk Riser Angle 12.0 HD
7	40	1011755	Hex Flange Nut 1/2
8	12	1011608	Hex Bolt Flange 1/2 x 5
9	16	1011592	Hex Bolt Flange 1/2 x 1-1/2
10	12	1011598	Hex Bolt Flange 1/2 x 3

Step 1: Assemble Front Mount Lift according to Front Mount Lift installation instructions.

Step 2: Position front mount pontoon bunks cross channels left and right on front mount lift as shown.

Step 3: Attach the front mount pontoon bunks cross channels to the front mount lift cross channel using 1/2 x 1-1/2 hex flange bolts and flange nuts (as shown).

Step 4: Attach bunks to the pontoon bunks channels using HD pontoon riser attach with 1/2 x 3 hex flange bolts and nuts, attach bunks to HD pontoon riser with 1/2 x 5 flange hex bolts and flange nuts.

Step 5: If using tri-toon bunks attach HD pontoon riser to center of cross channels on front mount lift with 1/2 x 3 hex flange bolts and flange nuts. Attach adjustable riser angle to HD pontoon riser with 1/2 x 1-1/2 hex flange bolts and nuts to desired height and attach bunks.

Part # 1021383

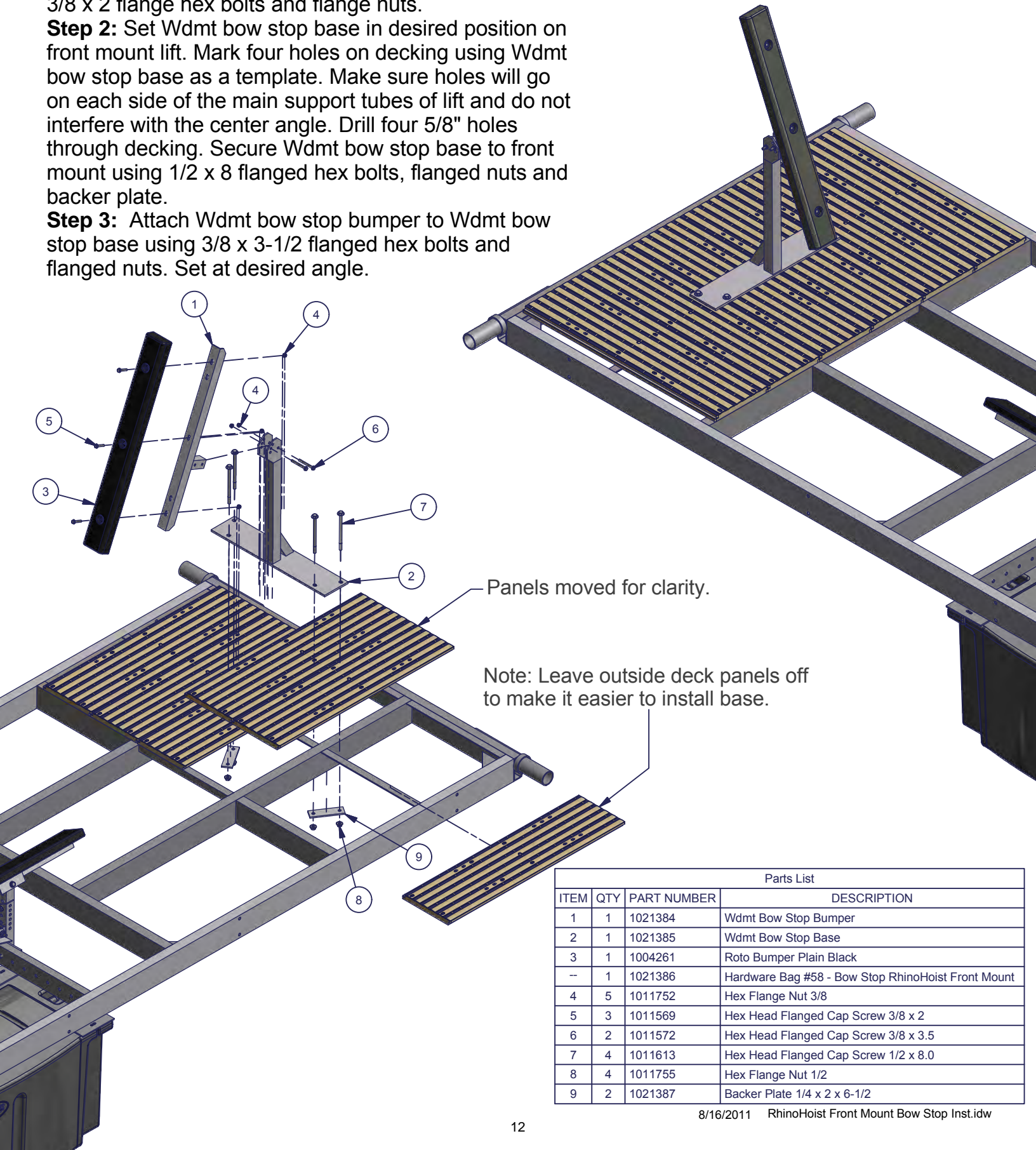
Bow Stop - RhinoHoist Front Mount Lift Instructions



Step1: Attach bumper to Wdmt bow stop bumper using 3/8 x 2 flange hex bolts and flange nuts.

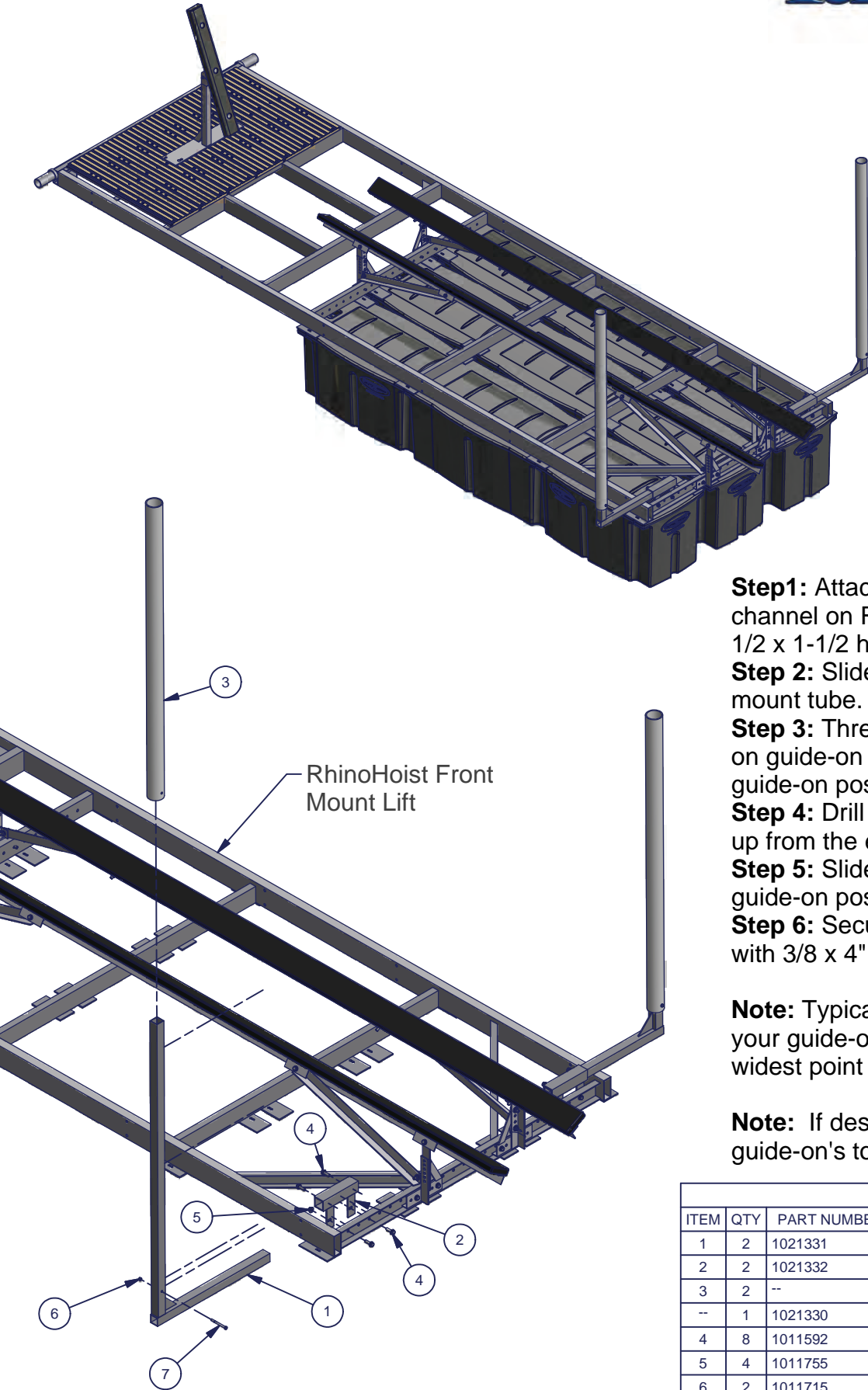
Step 2: Set Wdmt bow stop base in desired position on front mount lift. Mark four holes on decking using Wdmt bow stop base as a template. Make sure holes will go on each side of the main support tubes of lift and do not interfere with the center angle. Drill four 5/8" holes through decking. Secure Wdmt bow stop base to front mount using 1/2 x 8 flanged hex bolts, flanged nuts and backer plate.

Step 3: Attach Wdmt bow stop bumper to Wdmt bow stop base using 3/8 x 3-1/2 flanged hex bolts and flanged nuts. Set at desired angle.



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1021384	Wdmt Bow Stop Bumper
2	1	1021385	Wdmt Bow Stop Base
3	1	1004261	Roto Bumper Plain Black
--	1	1021386	Hardware Bag #58 - Bow Stop RhinoHoist Front Mount
4	5	1011752	Hex Flange Nut 3/8
5	3	1011569	Hex Head Flanged Cap Screw 3/8 x 2
6	2	1011572	Hex Head Flanged Cap Screw 3/8 x 3.5
7	4	1011613	Hex Head Flanged Cap Screw 1/2 x 8.0
8	4	1011755	Hex Flange Nut 1/2
9	2	1021387	Backer Plate 1/4 x 2 x 6-1/2

Part # 1021329
RhinoHoist Front Mount Lift
Guide-On Instructions

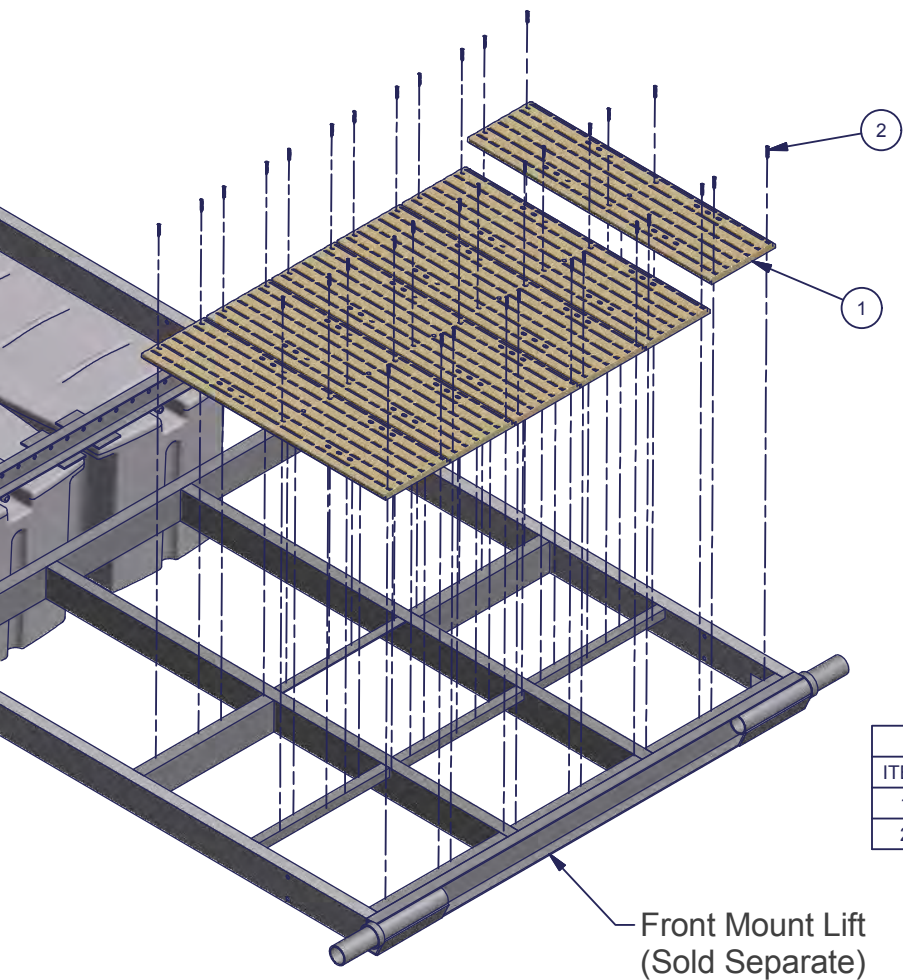
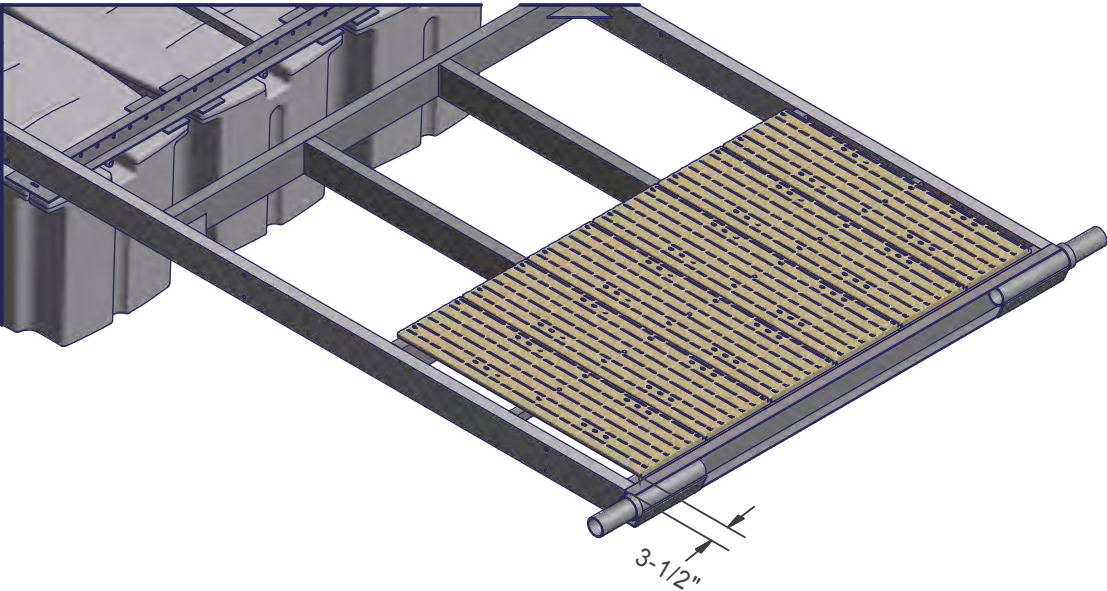


- Step1:** Attach guide-on mount to cross channel on RhinoHoist front mount lift using 1/2 x 1-1/2 hex bolts and nuts.
- Step 2:** Slide guide-on post arm into guide-on mount tube.
- Step 3:** Thread 1/2 x 1-1/2 hex bolts into nuts on guide-on mounts and tighten to secure guide-on post arm in desired position.
- Step 4:** Drill a 7/16" hole in your PVC tube 1" up from the end.
- Step 5:** Slide PVC tube onto round tube on guide-on post. **(PVC Pipe sold separately)**
- Step 6:** Secure PVC tube to guide-on post with 3/8 x 4" hex bolt and nut.

- Note:** Typically you should set the width of your guide-ons to be 1"-2" wider than the widest point of your boat.
- Note:** If desired you can also attach the guide-on's to any of the lifts cross channels.

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	1021331	Guide-On Post - RhinoHoist Front Mount Lift
2	2	1021332	Guide-On Mount - RhinoHoist Front Mount Lift
3	2	--	3" SCH 40 PVC Pipe-10' (sold separate)
--	1	1021330	Hardware Bag #57 - Guide-On Front Mount Lift
4	8	1011592	Hex Head Cap Screw 1/2 x 1.5
5	4	1011755	Hex Flange Nut 1/2
6	2	1011715	Nyloc Nut Hex 3/8-16
7	2	1011573	Bolt Hex 3/8-16 x 4.0

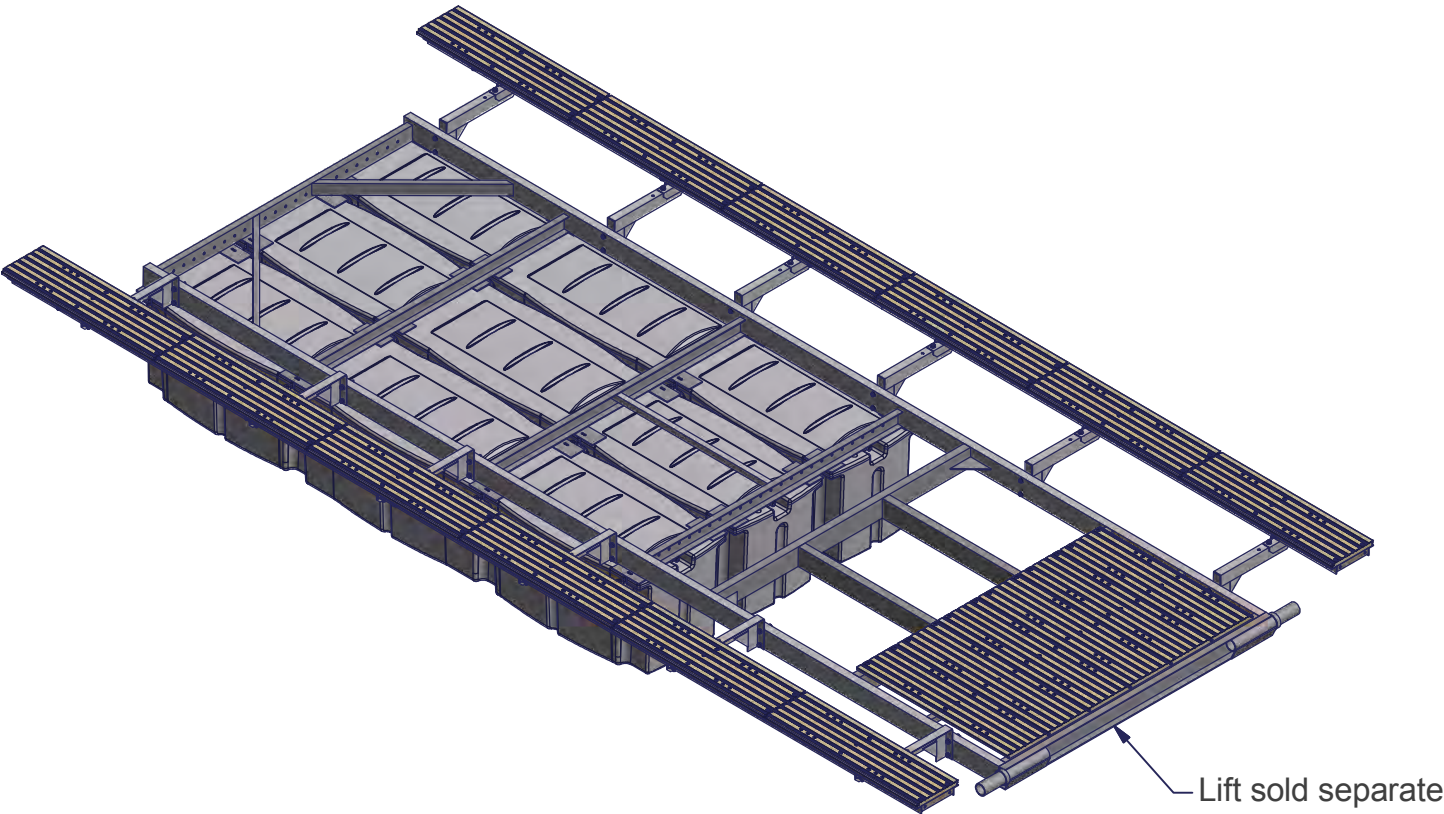
Part # 1020562
Walkway Kit Front Mount - Front
Deck



- Step 1: Set Shoremaster titan deck panels on front mount lift frame 3.5" from outside of side rail (as shown).
- Step 2: Using a 5/16" drill bit pre-drill 6 holes in Shoremaster titan deck panels in the countersunk slots in shown locations. Make sure holes will line up with metal framing under panel.
- Step 3: Using a 9/32" drill bit drill a pilot hole in the front mount lift frame, use the previously drilled holes as a guide.
- Step 4: Secure panels to front mount lift frame using screw torx deck 5/16 x 2.5 (6 per panel).

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	6	1021586	Panel ShoreMaster Titan Deck - 12.0x45.0
2	36	1011789	Screw Torx Deck /16 x 2.5 (Bag 45)

Part # 1020544 Walkway Kit Front Mount 22.5'



Step 1: Check to make sure you have all components listed in parts list.

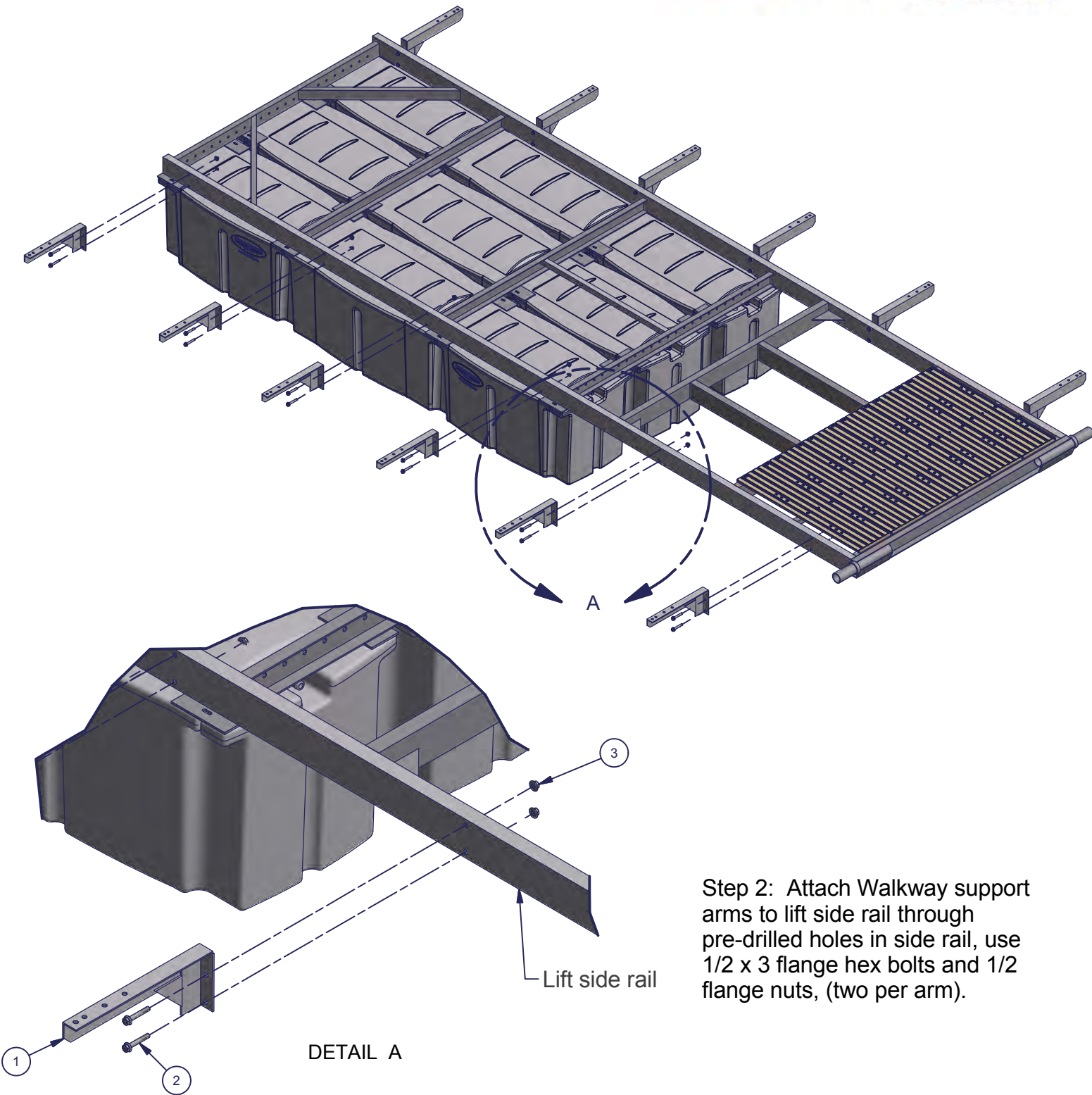
Note: Each kit includes parts for attaching a walkway to 1 side of the lift. If you want walkways on both sides buy two kits.

The walkway for each side of the lift will reduce your lift capacity by 200lbs and each walkway has a capacity of 250 lbs per side.

Slip Widths: If using the side walkways you will need to have a 10'-6" slip for the narrowest set-up, 11' and 11'-6" for the others. If using just one walkway subtract 28", 26" or 23".

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	1020543	Walkway Frame 135" Front Mount
2	6	1020542	Walkway Support Arm Front Mount
3	12	1008898	Bunk Brace Clip
4	6	1020541	Walkway Angle Front Mount 12.32"
5	6	1021586	Panel ShoreMaster Titan Deck - 12.0x45.0
6	12	1011598	Bolt Hex Flange 1/2 x 3 (Bags 4&19)
7	44	1011755	Hex Flange Nut 1/2
8	32	1011592	Bolt Hex Flange 1/2 x 1-1/2 (Bag 1)
9	36	1011789	Screw Torx Deck 5/16 x 2.5 (Bag 45)

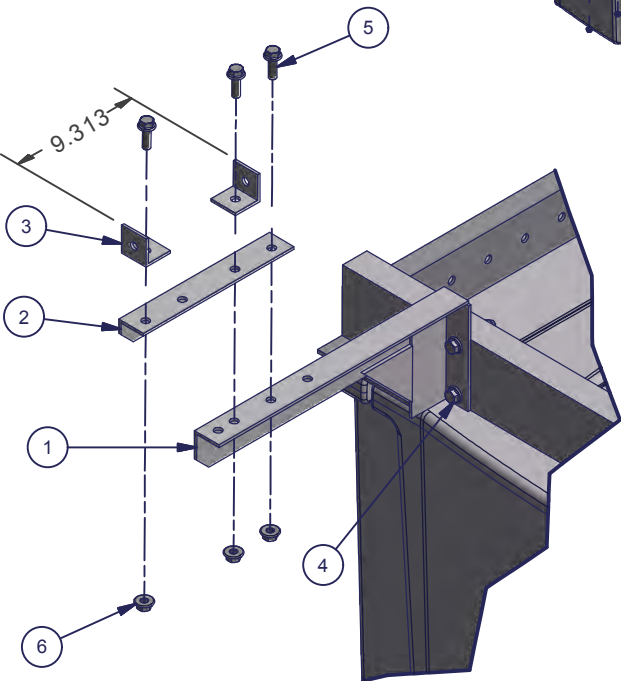
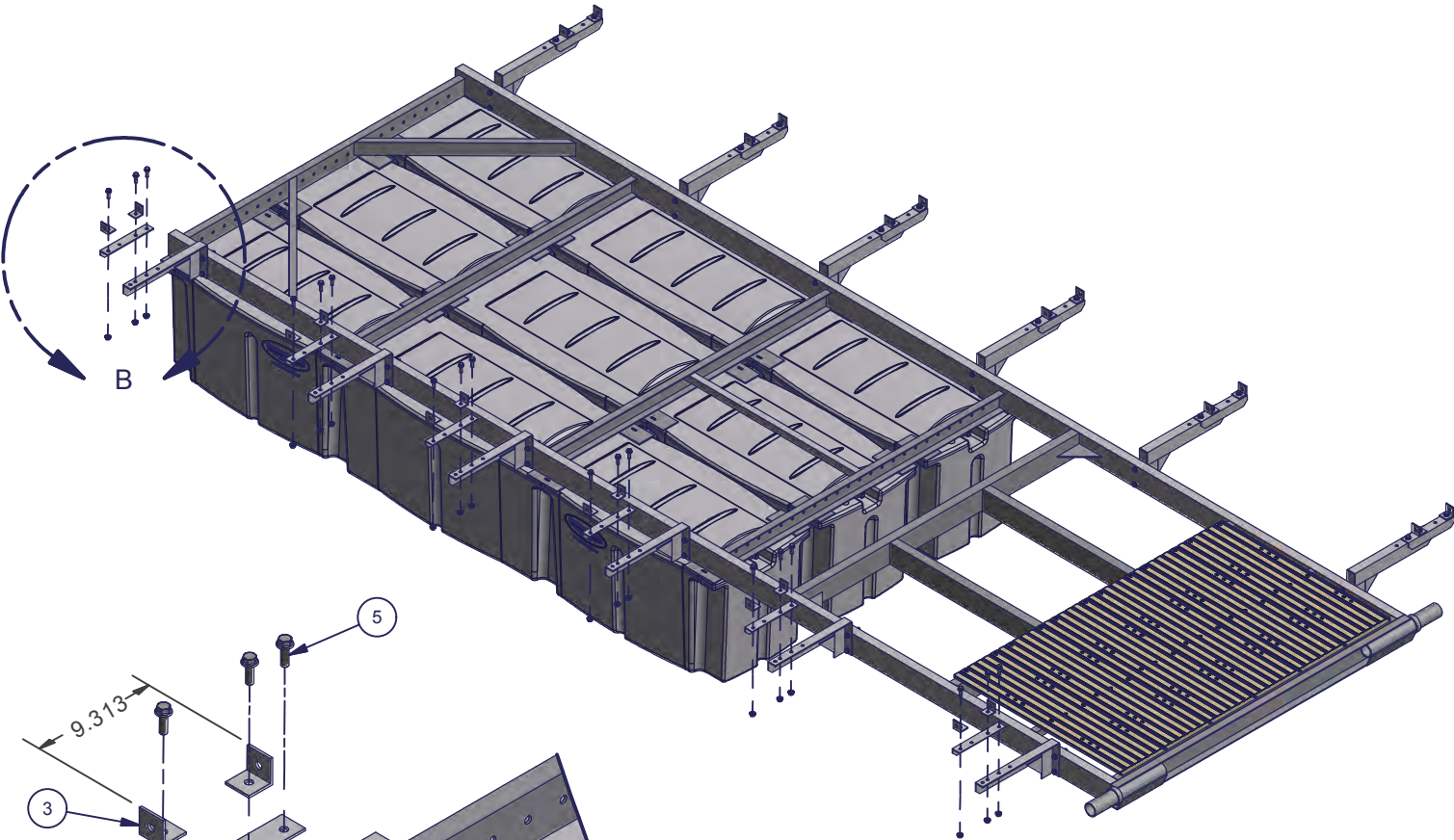
Part # 1020544
Walkway Kit Front Mount 22.5'



Step 2: Attach Walkway support arms to lift side rail through pre-drilled holes in side rail, use 1/2 x 3 flange hex bolts and 1/2 flange nuts, (two per arm).

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	6	1020542	Walkway Support Arm Front Mount
2	12	1011598	Bolt Hex Flange 1/2 x 3 (Bags 4&19)
3	12	1011755	Hex Flange Nut 1/2 (Bags 4&19)

Part # 1020544
Walkway Kit Front Mount 22.5ft

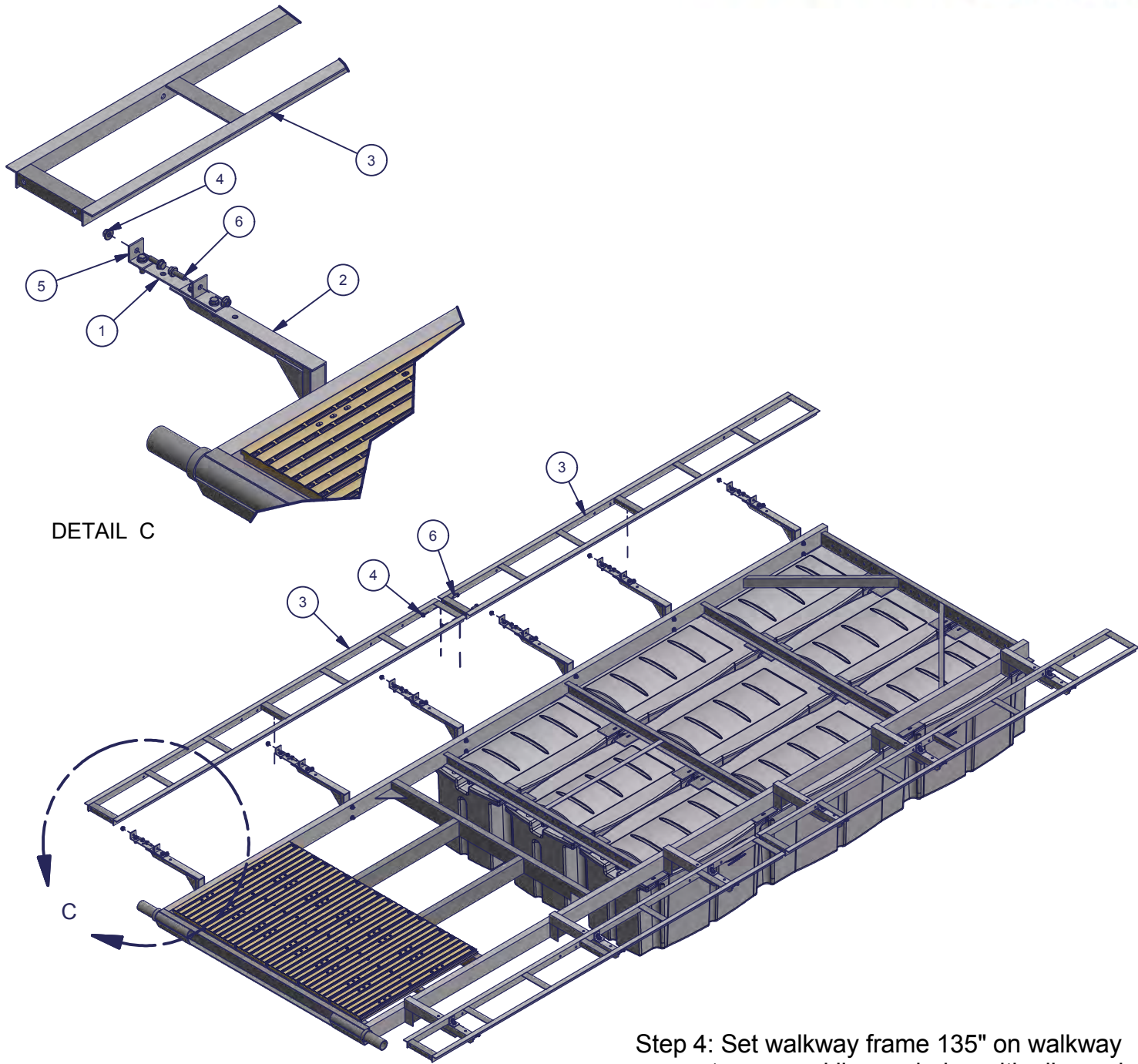


DETAIL B

Step 3: Determine the width you would like your walkways to be set too, they can be set to 3 different widths based on how you position the walkway angle front mount 12.32". If you do not use the walkway angle front mount 12.32" and mount directly to the walkway support arms your inside of walkway to inside of walkway distance will be 98" If you use the walkway angle front mount 12.32" and position them to the first position you will have an inside to inside distance of 104" and if you set them to the widest position you will have an inside to inside distance of 110". Once you have decided how you want to position your walkways attach the walkway angle front mount 12.32" to the walkway support arm using 1/2 x 1-1/2 hex flange bolts and 1/2 hex flange nuts, make sure to also bolt on the bunk brace clip with the same bolt (as shown). If you are not using the walkway angle front mount 12.32" bolt the bunk brace clips directly to the walkway support arm. Note the bunk brace clips should be 9-5/16" apart (as shown).

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	6	1020542	Walkway Support Arm Front Mount
2	6	1020541	Walkway Angle Front Mount 12.32"
3	12	1008898	Bunk Brace Clip
4	12	1011598	Bolt Hex Flange 1/2 x 3 (Bags 4&19)
5	18	1011592	Hex Head Cap Screw 1/2 x 1.5 (Bag 1)
6	30	1011755	Hex Flange Nut 1/2

Part # 1020544 Walkway Kit Front Mount 22.5ft

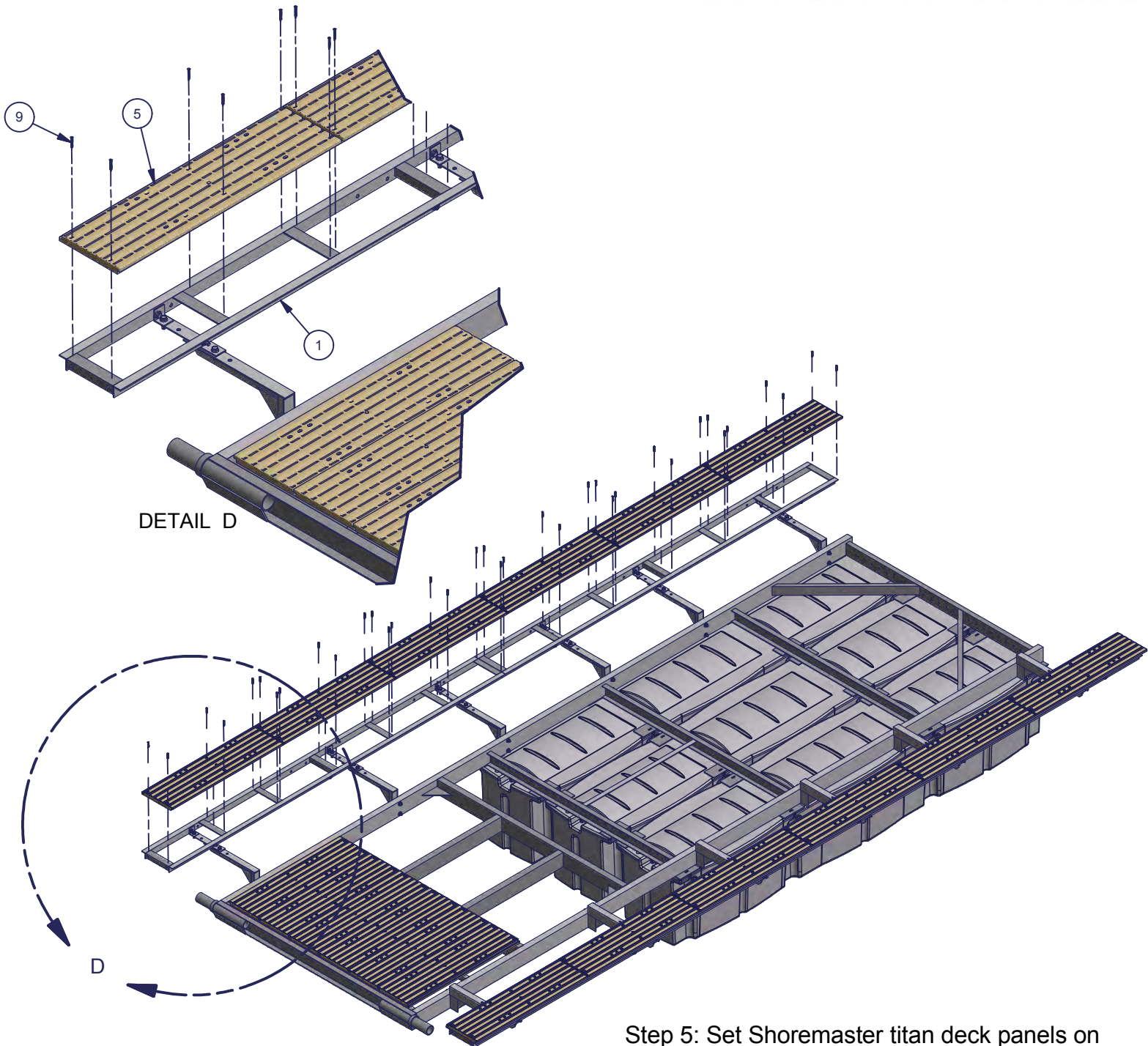


Step 4: Set walkway frame 135" on walkway support arms and line up holes with clip angles (as shown). Secure to bunk brace clips using 1/2 x 1.5 hex flange bolts and nuts. Next attach walkway frames 135" together using 1/2 x 1.5 hex flange bolts and nuts (as shown).

Note: Bunk brace clips should be positioned to the inside of the walkway frame 135".

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	6	1020541	Walkway Angle Front Mount 12.32"
2	12	1020542	Walkway Support Arm Front Mount
3	2	1020543	Walkway Frame 135" Front Mount
4	14	1011755	Hex Flange Nut 1/2 (Bag 1)
5	12	1008898	Bunk Brace Clip
6	14	1011592	Hex Head Cap Screw 1/2 x 1.5 (Bag 1)

Part # 1020544 Walkway Kit Front Mount 22.5'

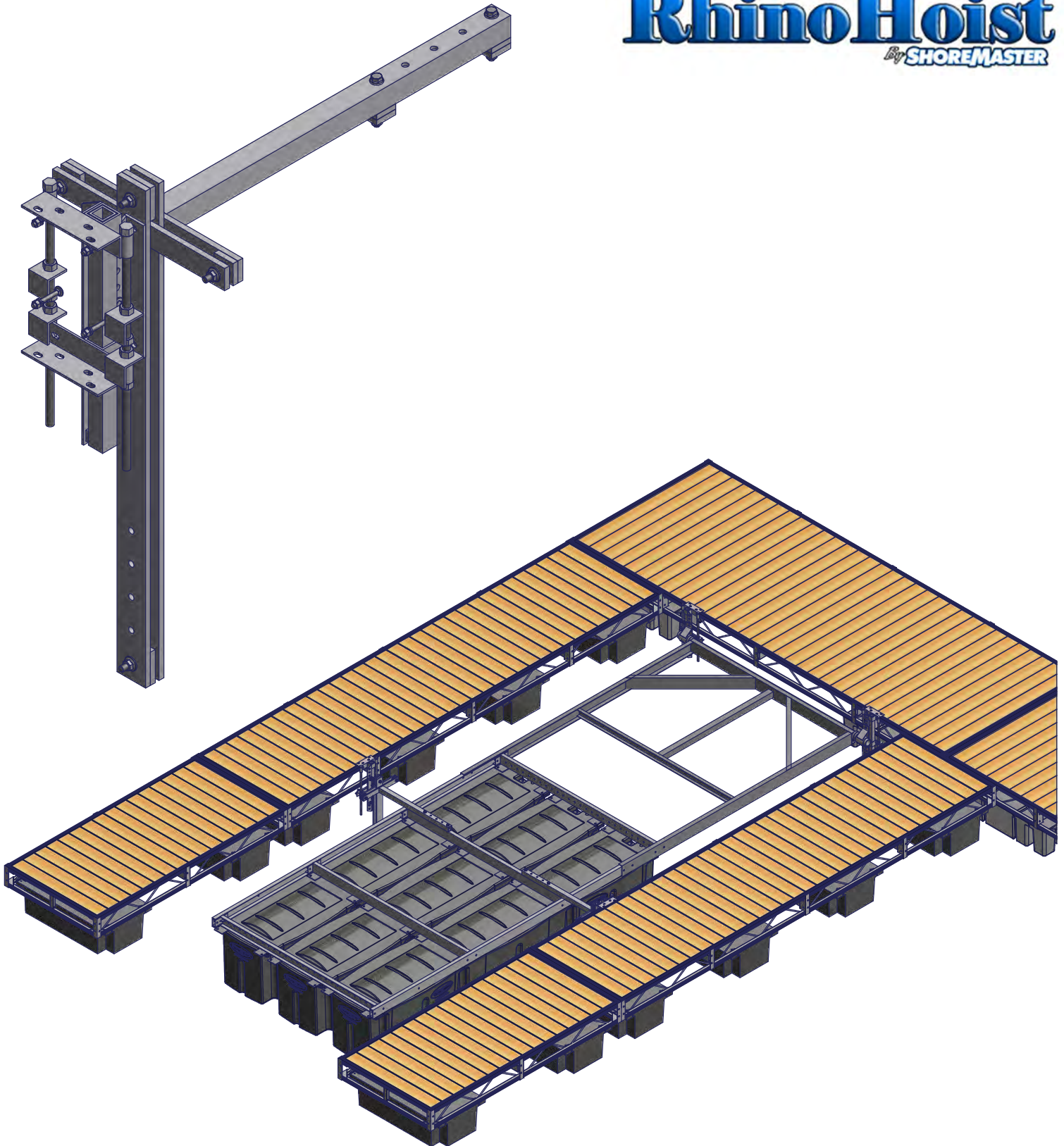


Step 5: Set Shoremaster titan deck panels on walkway frame 135". Leave about a 1/8" gap between panels. Using a 5/16" drill bit pre-drill 6 holes in each panel in the countersunk slots make sure holes will line up with walkway frame 135". Next use a 9/32" drill bit and drill pilot holes through the walkway frame 135", use the previously drilled holes in the deck panels as a guide. Secure panels using Screw Torx Deck 5/16 x 2.5. Make sure screws are flush with top of deck panels.

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
5	6	1021586	Panel Titan Deck w/Clips - 12.0x45.0
1	2	1020543	Walkway Frame 135" Front Mount
9	36	1011789	Screw Torx Deck 5/16 x 2.5 (Bag 45)

Part # 1017457

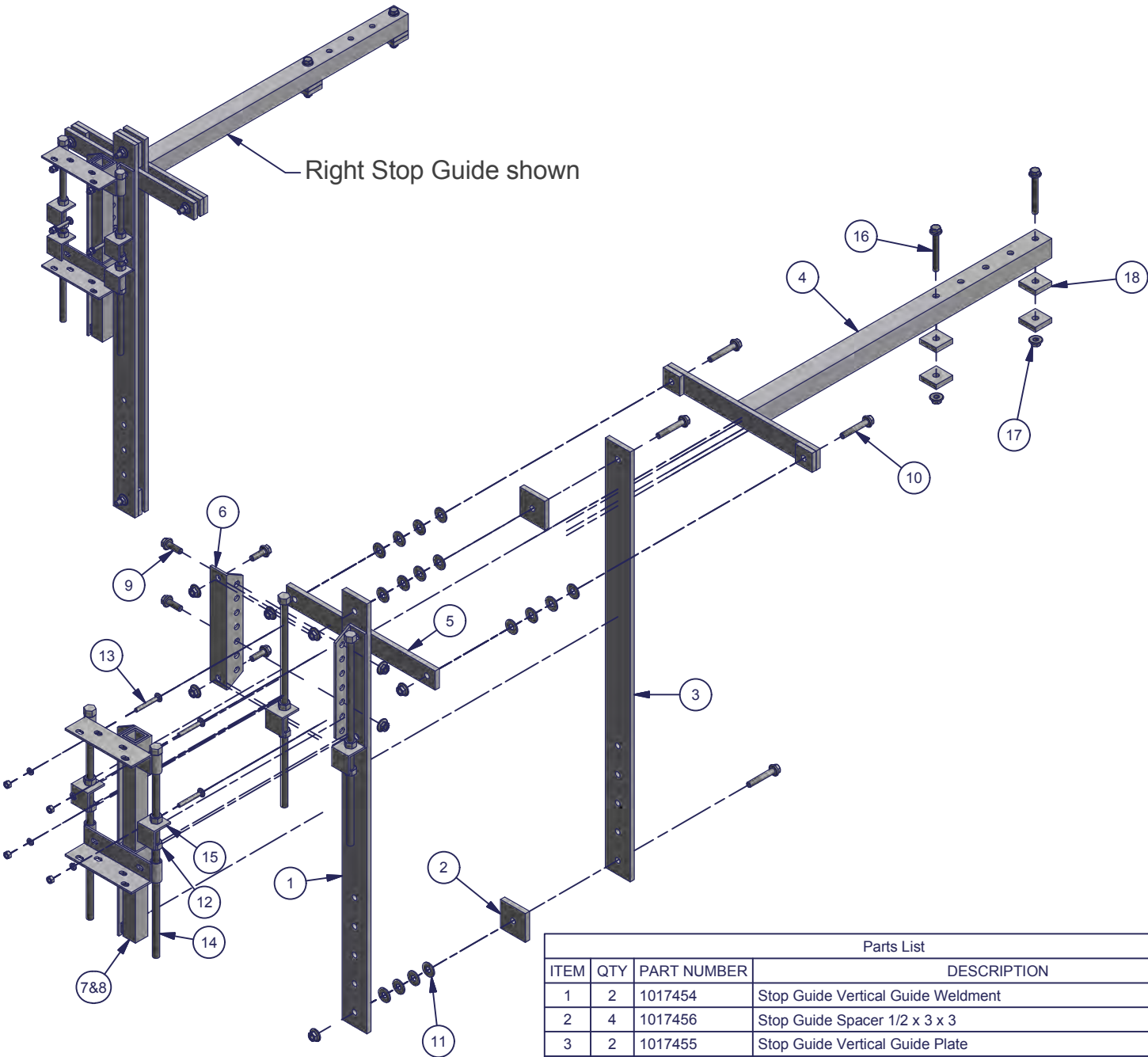
Stop Guides Installation Instructions



Step1: Install Front Mount Lift according to Front Mount Lift Installation Instructions.
Leave chains off, the stop guides will be used instead of the chains.

Part # 1017457

Stop Guide Assembly (Pair)



Step 2: Verify that you have all the parts. Stop guides are sold in pairs, the right stop guide is shown. The only difference is that there are lefts and rights of the dock brackets (items 7&8).

Parts List				
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	2	1017454	Stop Guide Vertical Guide Weldment	
2	4	1017456	Stop Guide Spacer 1/2 x 3 x 3	
3	2	1017455	Stop Guide Vertical Guide Plate	
4	2	1017449	Stop Guide T-Bar	
5	2	1017452	Stop Guide T-Bar Plate	
6	2	1008893	12" Bunk Riser	
7	1	1008933	Dock Bracket Standard Left	
8	1	1008931	Dock Bracket Standard Right	
--	1	1017458	Hardware Kit Front Mount Lift Stop Guide	
9	2	1009002	Hex Flange Bolt 1/2 x 1-1/2 with lock washer and nut 4 per bag (Bag #1)	
10	1	1009020	Hex Flange Bolt 1/2 x 3 with nut 8 per bag (Bag #19)	
11	32	1011832	Fender Washer 1/2 x 1-3/8	
12	1	1009032	5/8 oversized nut 8 per bag (Bag #37)	
13	2	1009031	3/8 x 2-1/2 Carriage bolt with lock washer and nut 4 per bag (Bag #36)	
14	4	1008937	Dock Bracket Bolt 5/8 x 21.0	
15	4	1008940	Dock Bracket Clip	
16	4	1011604	Hex Bolt Flange 1/2-13 UNC x 4.0	
17	4	1011755	Hex Nut Flange 1/2	
18	4	1017453	Stop Guide Spacer 1/2 x 2 x 2	

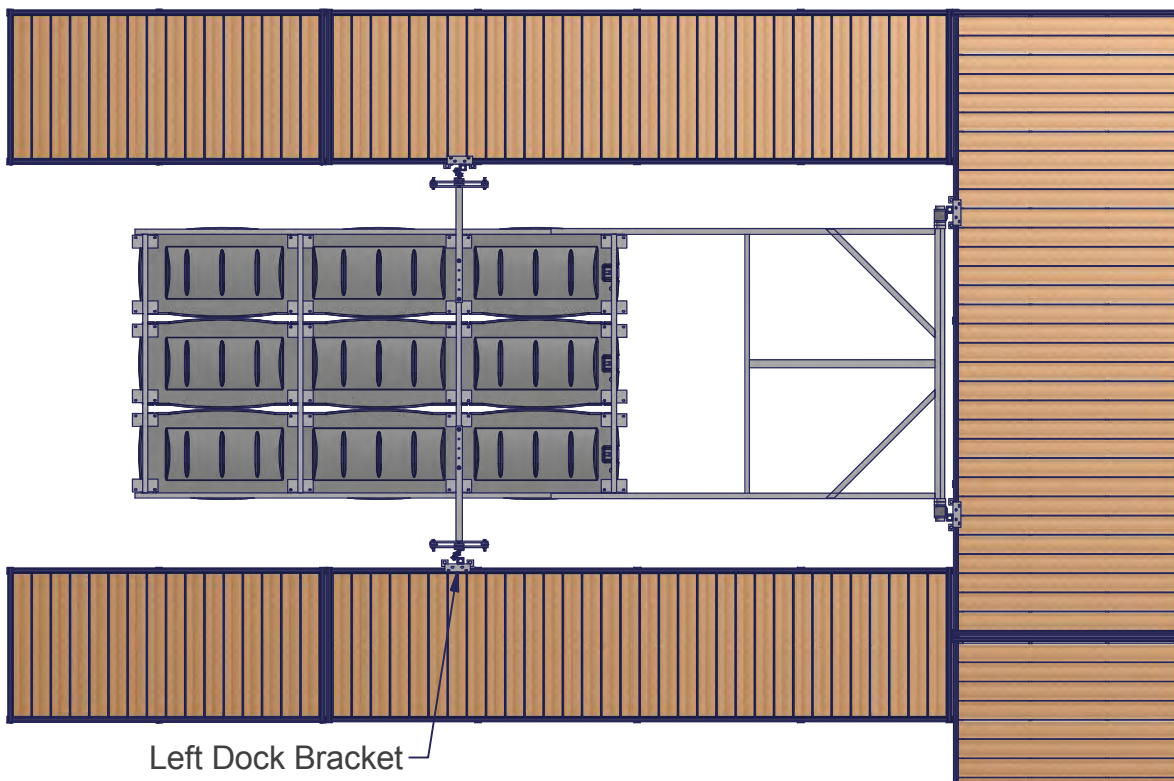
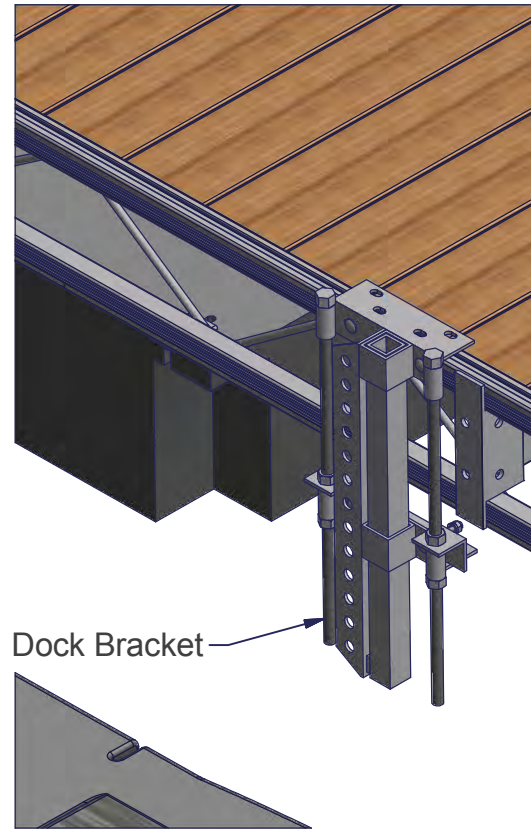
Part # 1017457

Stop Guides Installation Instructions

Step 3:

Attach Dock Brackets to dock. Position left and right dock brackets so they are centered with the second cross channel of the front mount lift. Attach brackets to dock by clamping bracket to dock by tightening the 5/8 nuts on the 5/8 x 21 bolts and using the 3/8 x 2-1/2 carriage bolts, lock washers and nuts (in bag #36) (carriage bolts should go through metal structure of dock frame). You will have to drill holes for the carriage bolts through the dock frame, use a 7/16" drill bit. If you have a dock that has a frame made of angle you can use the dock clips to secure the bottom of the dock bracket to the dock frame by sliding the dock clip over the bottom angle of the dock frame and securing by tightening the 5/8 nut on the dock bracket. If you do use the dock clips you should still use carriage bolts to secure the top of the dock bracket. Use four carriage bolts or two carriage bolts and dock clips.

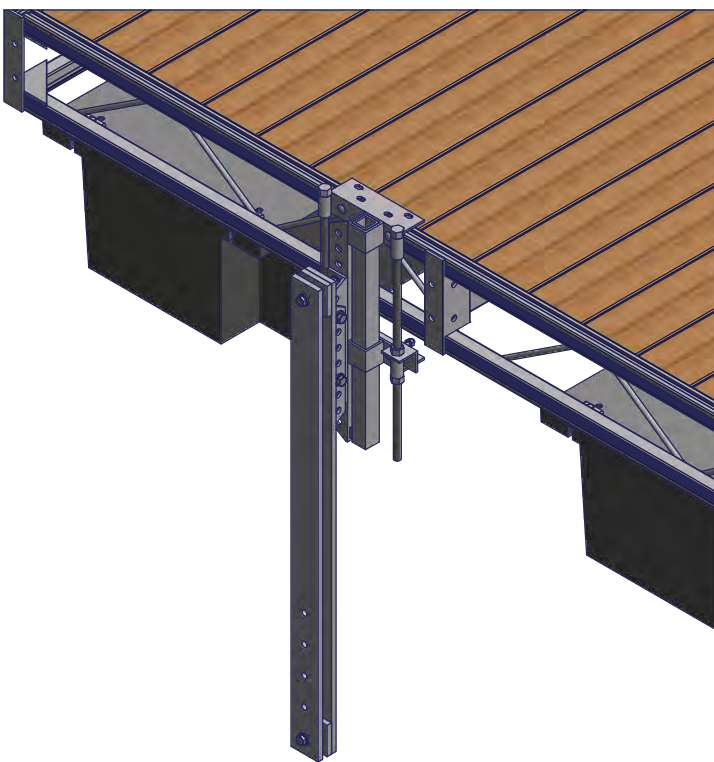
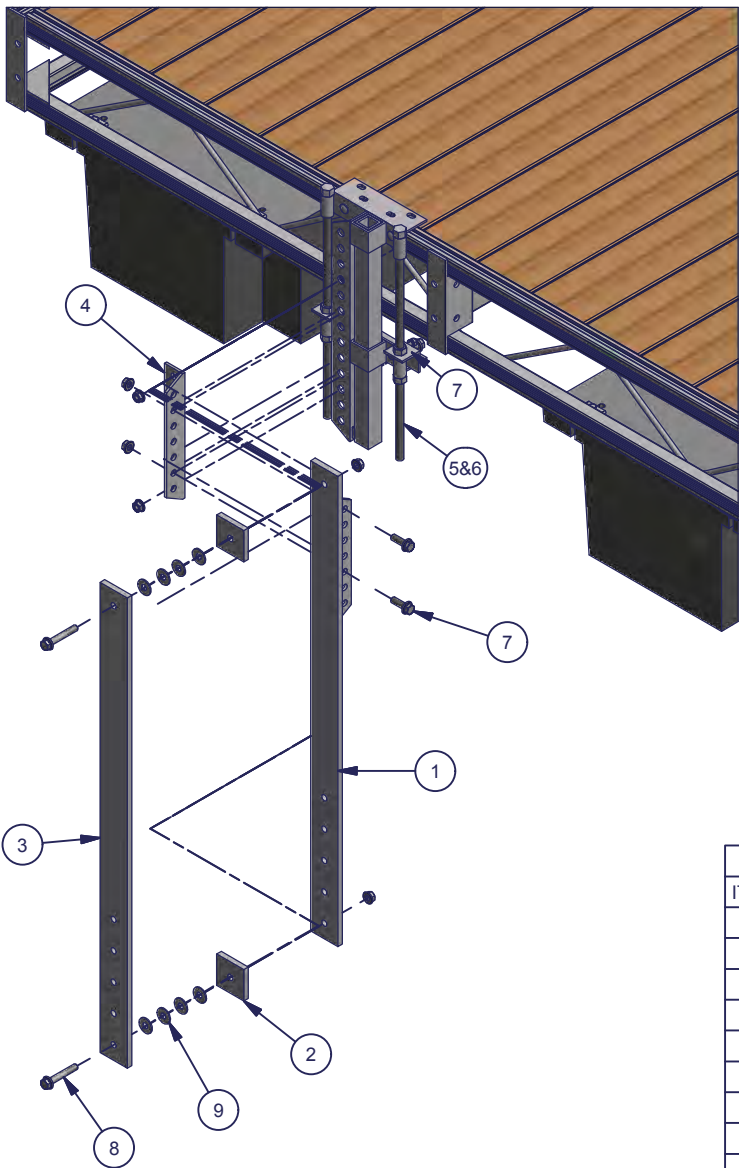
Note: Use a level to make sure dock brackets are plumb. If dock brackets are not plumb shim dock brackets to make them plumb.



Part # 1017457

Stop Guides Installation Instructions

Step: 4
Determine height at which to position Stop Guide Vertical Guide Weldment by measuring from the water to the top of the front mount lift side channels (with lift floating level). Take that measurement and add 3" to it and that is the measurement that should be used to position the Stop Guide Vertical Guide Weldment.
Attach 12" bunk riser to Stop Guide Vertical Guide Weldment using 1/2 x 1-1/2 hex bolts and nuts (in bag #1).
Attach Stop Guide Vertical Guide Plate to Stop Guide Vertical Guide Weldment using 1/2 x 3 hex bolts (in bag #19), stop guide spacers 1/2 x 3 x 3, 1/2 fender washers (4 washers per location) and hex nuts.
Attach previous assembly to Dock Bracket using 1/2 x 1-1/2 hex bolts and nuts. Position assembly so the bottom of the top stop guide spacer 1/2 x 3 x 3 is positioned to the previous determined measurement from the water. Make sure both the left and right Stop Guide Vertical Guide Weldments are at the same heights.

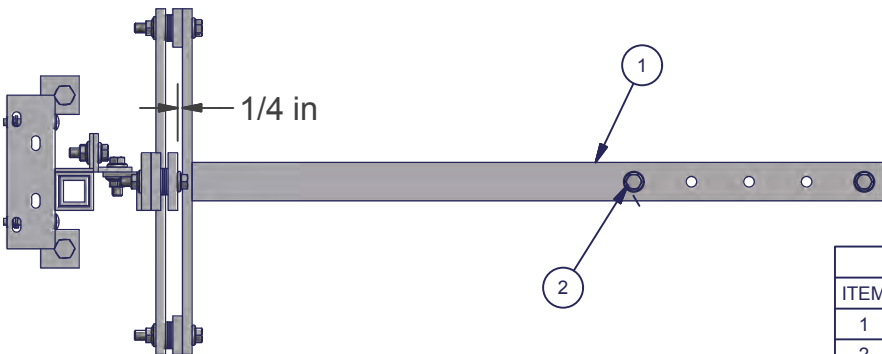
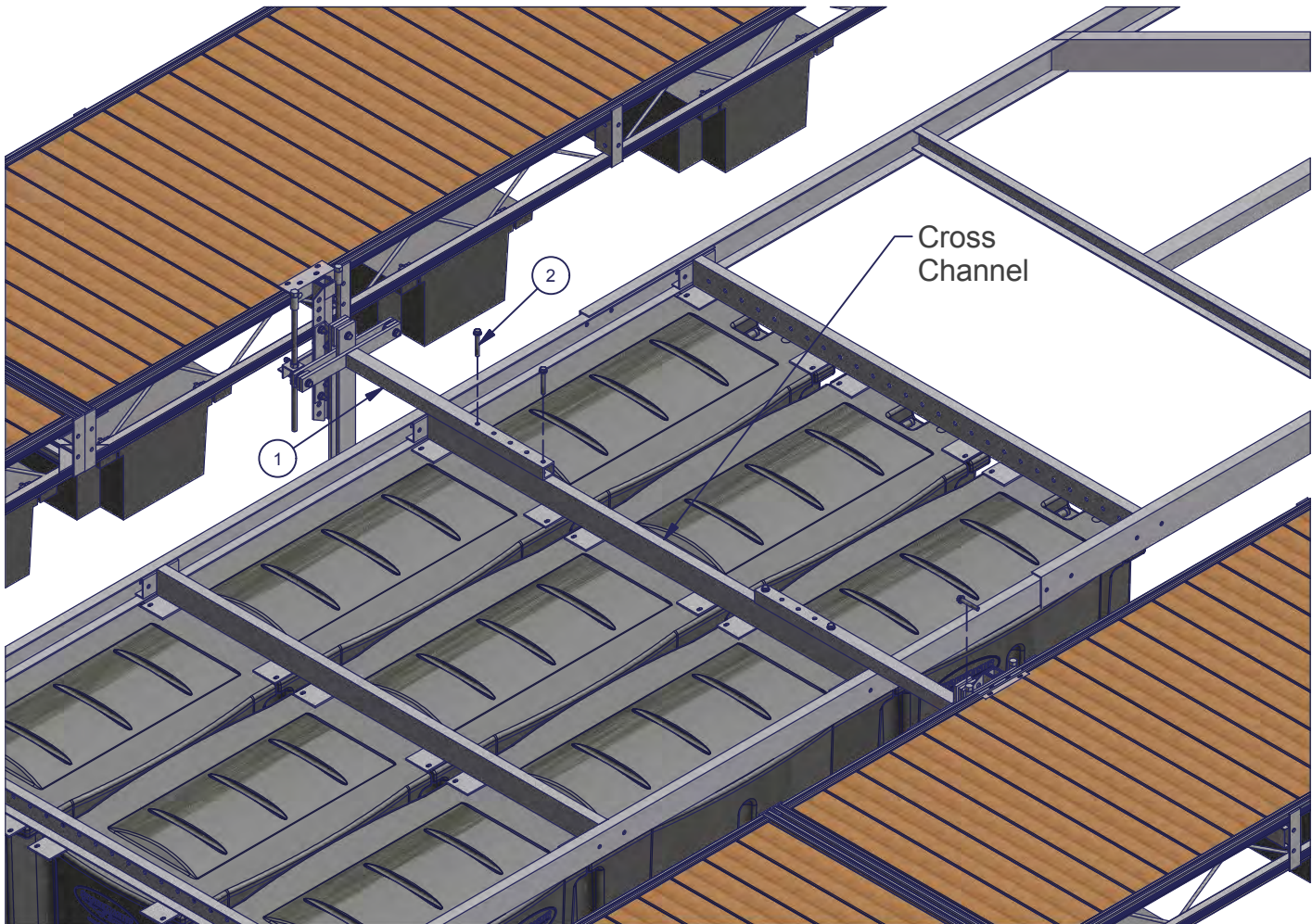


Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	1017454	Stop Guide Vertical Guide Weldment
2	4	1017456	Stop Guide Spacer 1/2 x 3 x 3
3	2	1017455	Stop Guide Vertical Guide Plate
4	2	1008893	12" Bunk Riser
5	1	1008933	Dock Bracket Standard Left
6	1	1008931	Dock Bracket Standard Right
7	2	1009002	Hex Flange Bolt 1/2 x 1-1/2 with nut 4 per bag (Bag #1)
8	1	1009020	Hex Flange Bolt 1/2 x 3 with nut 8 per bag (Bag #19)
9	32	1011832	Fender Washer 1/2 x 1-3/8

Part # 1017457

Stop Guides Installation Instructions

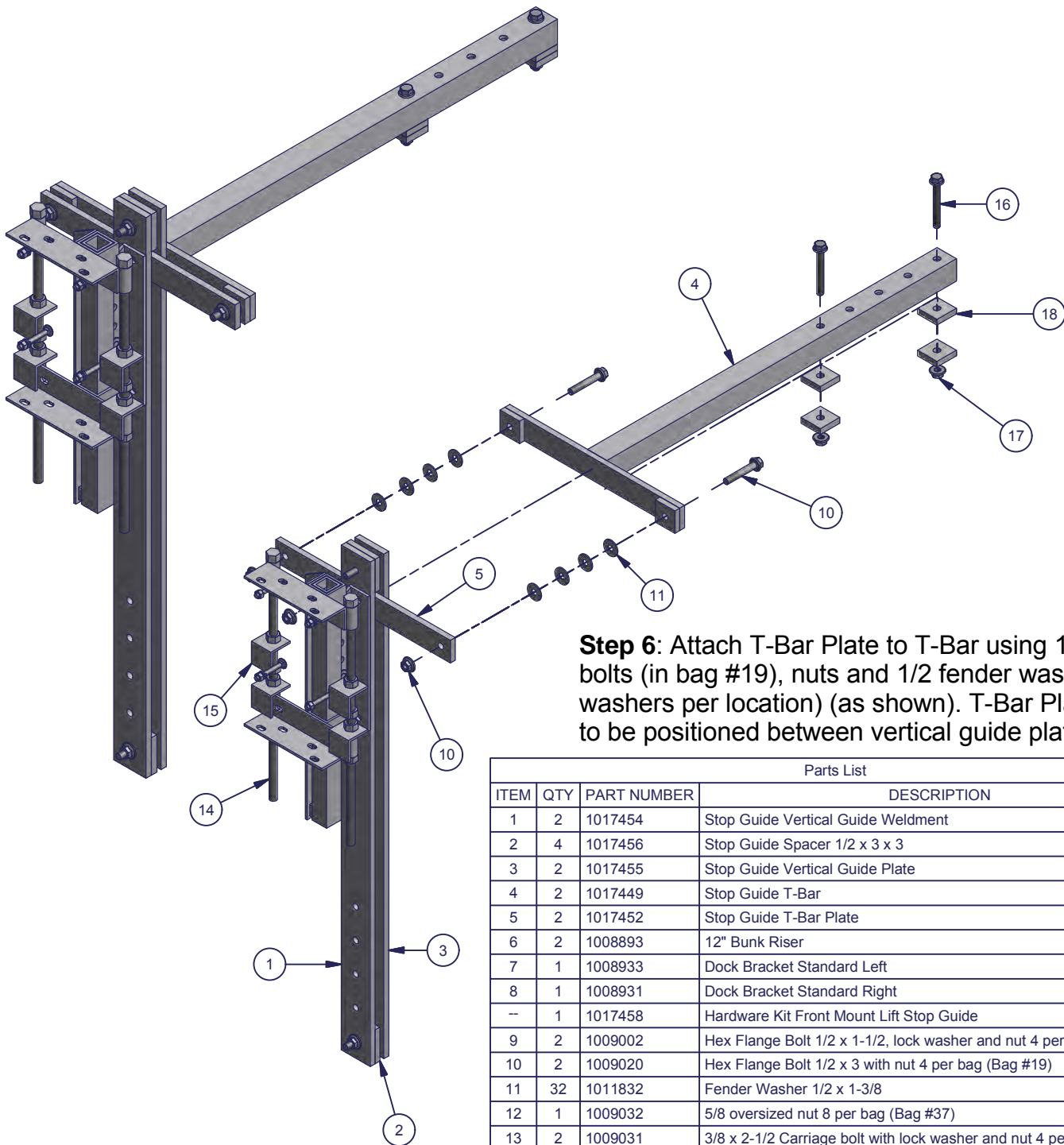
Step 5:
Attach T-Bars to front mount lift cross channel (as shown). Position T-Bar so it is 1/4" away from vertical guide plate and mark two holes to drill through cross channel. Drill holes in cross channel using a 9/16" drill bit. Attach T-Bar to cross channel with 1/2 x 4 hex bolts and nuts, If you have the new fully welded frame with the tube for the side rail you will have to use the 1/2 x 2 spacers to space the T-Bar up so it will sit flush with the side rail tube and then bolt through the cross channel.



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1017449	Stop Guide T-Bar
2	4	1011604	Hex Bolt Flange 1/2 x 4.0
3	4	1011755	Hex Nut Flange 1/2
4	8	1017453	Spacer 1/2 x 2 x 2

Part # 1017457

Stop Guide Assembly (Pair)



Step 6: Attach T-Bar Plate to T-Bar using 1/2 x 3 hex bolts (in bag #19), nuts and 1/2 fender washers (4 washers per location) (as shown). T-Bar Plate needs to be positioned between vertical guide plates.

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	1017454	Stop Guide Vertical Guide Weldment
2	4	1017456	Stop Guide Spacer 1/2 x 3 x 3
3	2	1017455	Stop Guide Vertical Guide Plate
4	2	1017449	Stop Guide T-Bar
5	2	1017452	Stop Guide T-Bar Plate
6	2	1008893	12" Bunk Riser
7	1	1008933	Dock Bracket Standard Left
8	1	1008931	Dock Bracket Standard Right
--	1	1017458	Hardware Kit Front Mount Lift Stop Guide
9	2	1009002	Hex Flange Bolt 1/2 x 1-1/2, lock washer and nut 4 per bag (Bag #1)
10	2	1009020	Hex Flange Bolt 1/2 x 3 with nut 4 per bag (Bag #19)
11	32	1011832	Fender Washer 1/2 x 1-3/8
12	1	1009032	5/8 oversized nut 8 per bag (Bag #37)
13	2	1009031	3/8 x 2-1/2 Carriage bolt with lock washer and nut 4 per bag (Bag #36)
14	4	1008937	Dock Bracket Bolt 5/8 x 21.0
15	4	1008940	Dock Bracket Clip
16	2	1011604	Hex Bolt Flange 1/2-13 UNC x 4.0
17	4	1011755	Hex Nut Flange 1/2
18	4	1017453	Stop Guide Spacer 1/2 x 2 x 2

Step 7:

Test lift operation. Watch for binding, if you do see excessive binding adjust stop guide by moving vertical guide weldment up or down or with shims behind dock brackets. If lift goes down to far the bottom spacer on the vertical guide weldment can be moved up in 3" increments to desired height. If there is too much tolerance between the T-Bar and the Vertical Stop Guide the fender washers can be removed until you achieve the desired tolerance.

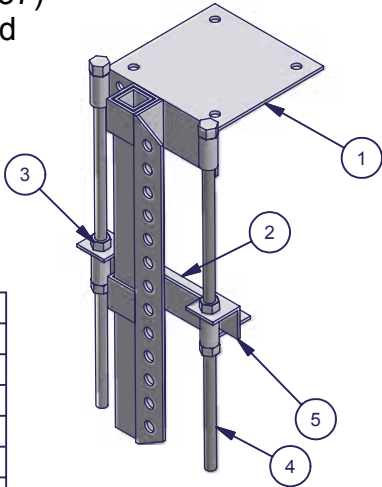
Installation:

Step 6: If lift is not already on a trailer load lift onto a flat bed trailer for transporting to launch site. Once at launch site tie a rope or tow strap to the rear of the lift cross channel. Make sure air tanks are air tite, hoses should be looped back to tanks or capped, tanks should have either a hose or cap on every hose hook-up. Back trailer slowly into the water or up to the water so you can pull the lift off of the trailer. Slowly tow the lift to installation site for installation.

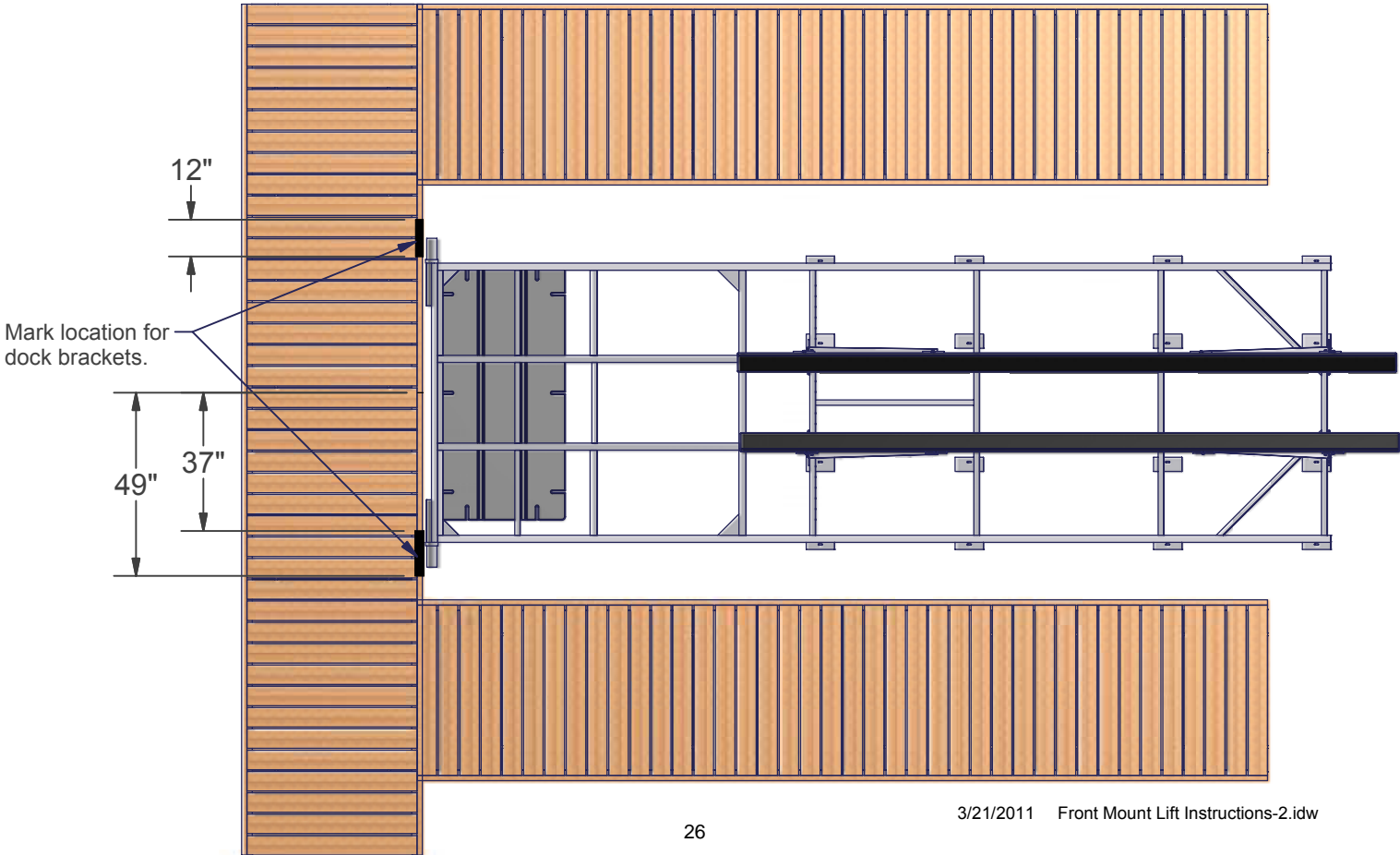
Step 7: Float lift into dock slip. If your slip does not have enough room to remove the supplemental float with the lift in the slip you will have to remove it, be carefull so lift does not tip forward and sink. You will have to hold the front up either with another float or rope. Find the center of the slip where the lift will be attached. Measure out from center mark 49" and make another mark. From this mark measure in 12" and make another mark (as per below drawing). This is where the dock bracket will be attached. If there is a wood whaler board it will need to be cut so dock bracket can be attached directly to dock frame. Use torx screws to re-attach wood whaler to dock frame.

Step 8: Assemble dock brackets as shown. Insert 5/8 x 21 bolt (P/N:1008937) through top of bracket, thread a 5/8 nut (P/N: 1011761 found in hardware bag # 37) onto bolt, slide dock clip angle onto bolt, insert bolt through bottom of bracket and thread another 5/8 nut onto bolt.

Step 9: Attach dock brackets to dock with 77" between top deck plates. Loosely tighten the 5/8 x 21 bolt on dock brackets so bracket gets clamped onto dock frame. If you have a truss dock and the bottom portion of the frame has an angle slide the dock clip angle over the bottom angle and loosely tighten hex nut.



Parts List				
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	1		Dock Bracket Top	
2	1		Dock Bracket Bottom	
3	4	1002614	Nut Hex 5/8-11 SS	
4	2	1008937	Dock Bracket Bolt 5/8 x 21.0	
5	2	1008940	Dock Bracket Clip	

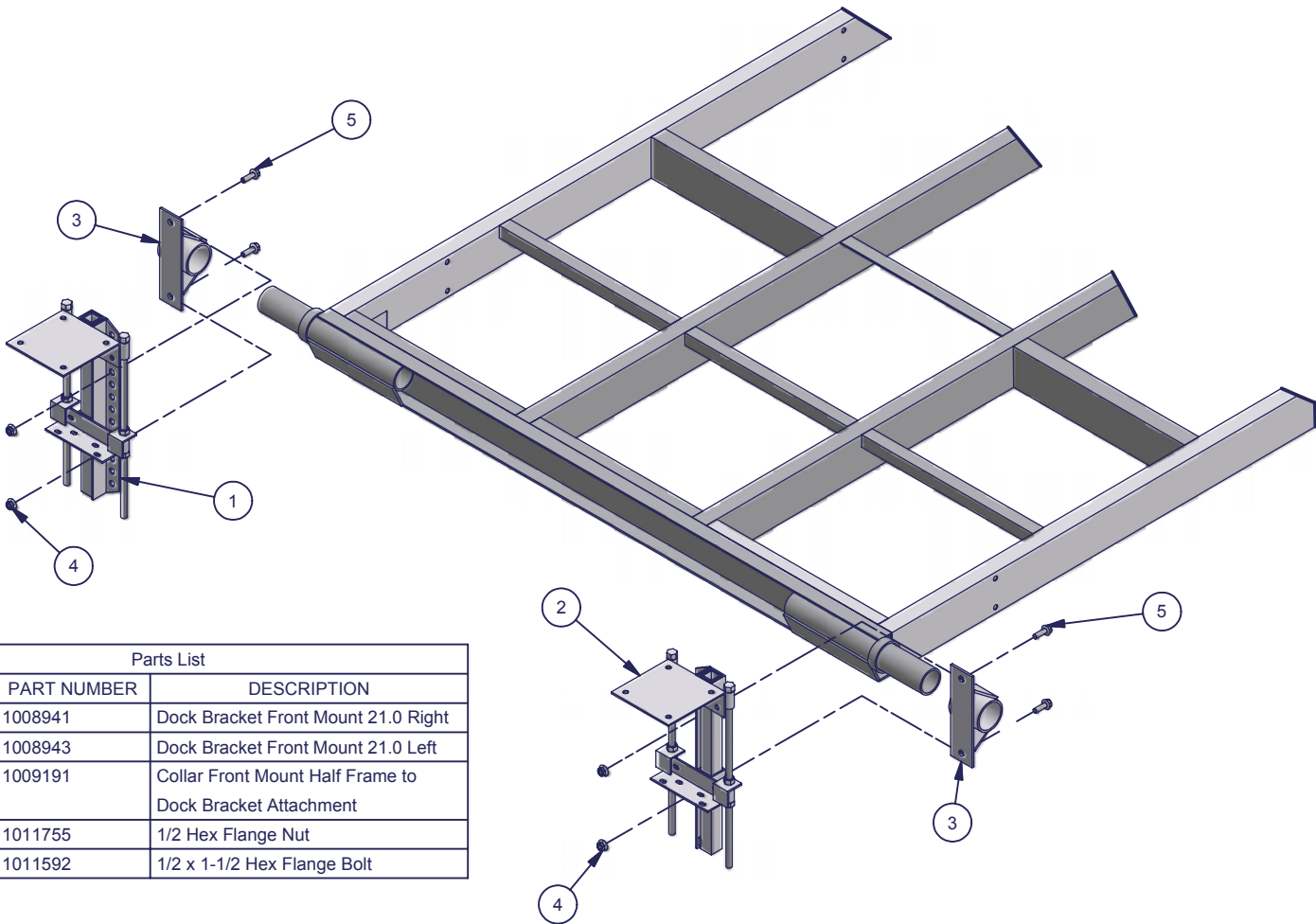
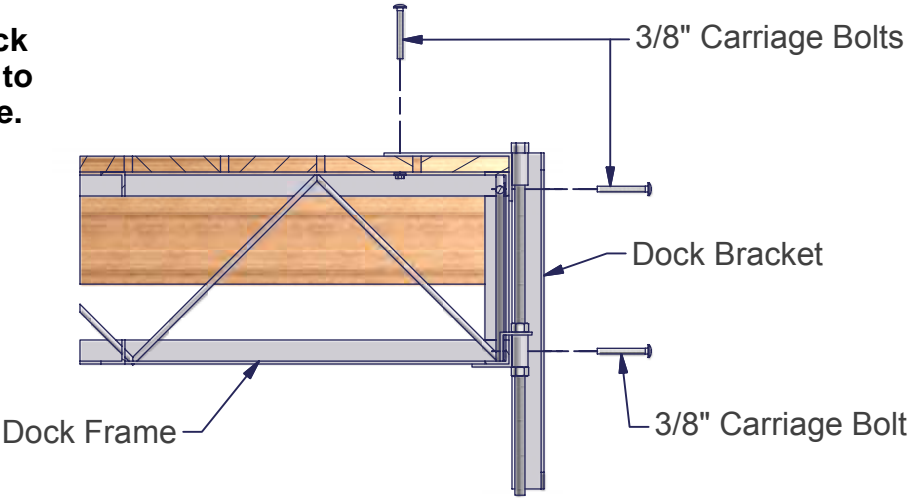


Installation:

Step 10: Slide front mount lift pivot onto front mount lift pivot pipe, each side. Attach front mount lift pivot to dock brackets using 1/2 x 1-1/2 flange hex bolts and nuts, hardware found in hardware bag 1. Center of front mount lift pivot tube should be about 10" above the water. Dock brackets may need to be adjusted for proper alignment.

Step 11: Tighten all hardware, tighten 5/8 x 21 bolts on dock brackets to 35 ft/lbs. Dock brackets **must** also be attached with 3/8" carriage bolts and nuts through the top face and top deck plate. If the bottom was not attached with the dock clip angles then you must also secure the bottom of the dock brackets with 3/8" carriage bolts and nuts, hardware found in hardware bags 30 or 36.

Note: The top and bottom of the dock brackets must be securely fastened to the metal structure of the dock frame.



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1008941	Dock Bracket Front Mount 21.0 Right
2	1	1008943	Dock Bracket Front Mount 21.0 Left
3	2	1009191	Collar Front Mount Half Frame to Dock Bracket Attachment
4	4	1011755	1/2 Hex Flange Nut
5	4	1011592	1/2 x 1-1/2 Hex Flange Bolt

Installation:

Step 12: Attach stop chain or side guide to lift. If using side guide refer to side guide installation instructions for installation. If using chain attach one end of the chain to the rear portion of the lift to the pre-drilled hole or through the rear cross channel using a 1/2 x 3 flange hex bolt and flange nut (found in hardware bag 4). Make sure chain will not interfere with pontoon bunks or side walkway if equipped. Attach the other end of the chain to the dock structure, leave about 5' - 6' of chain from the lift to the dock. You may have to drill a 9/16" hole in the dock frame to attach the chain. Attach chain to dock frame using a 1/2 x 3 hex flange bolt and hex flange nut (attach to each side of lift if possible). You could also wrap the chain around part of the frame and bolt the chain together using a 1/2" bolt and nut.

Note: If your lift is in an area with wavy conditions it is recommended to use the side guides to reduce the stress applied to your dock and lift from the wave action.

Step 13: Remove control unit cover to attach base of control unit to dock. Attach control unit to dock in desired position (make sure you are close to an electrical outlet) using 3/8 lag screws or #12 x 1 roof screws. Make sure hoses will reach with plenty of slack for lift operation.

Step 14: Attach hoses to control unit using #20 hose clamps.

Step 15: Attach exhaust hoses to control unit. Cut 1'-2' of hose and attach to control unit with #20 hose clamps.

Step 16: Place control unit cover back onto control unit and secure with lag screws.

Step 17: Connect power cord of control unit to electrical supply. **Note:** Must have a 20 AMP outlet and you must use the GFCI. If unsure about your electrical supply contact a certified electrician.

Step 18: **Verify that all hardware and dock brackets have been tightened.**

Step 19: Remove tank plugs if used. Remove supplemental float from front of lift.

Step 20: Test lift operation. Turn on blower to make sure it is working, you may need to reset the GFCI. After you have confirmed the blower works, lower the lift by opening the valves by turning the handles in the control unit according to their instructions. Lift will go down slowly with no weight on it, if it seems like the lift is not going down you may need to turn the blower on for a few seconds to clear out any water that may have been trapped in the hoses. With the lift in it's lowered position check the stop chain or stop guides to make sure they are working properly. In the down position the bunks on the lift should be right at water level or just below the water, adjust the stop chain or side guides accordingly.

Step 21: Raise lift by turning on blower and closing valves according to control unit instructions. Make sure to watch for any binding and make adjustments if needed.

Step 22: Lower lift. Position boat on lift, make sure boat is centered left to right and that the center of gravity of the boat is centered front to back centered front to back on the bunks of the lift. Make sure to be careful loading the boat onto the lift, watch to make sure the bunks are positioned properly so you do not hit the steel structure of the lift with your boat. If the bunks are not set up properly re-position them before proceeding. Also watch to make sure you have plenty of clearance between the boat and the front of the lift, you may need to adjust your stop chains or side guides so lift will sink further to give you more clearance. Once boat is properly positioned raise the lift make sure the boat stays in position left to right and does not tip one way or the other. Watch to make sure bunks are positioned properly so the bunks are contacting the boat in the desired locations. If not STOP lifting and lower the lift and re-position. In the up position the lift should be level, the rear portion of the frame should be out of the water, if it is not the boat may need to be re-positioned because there is too much weight to the rear of the lift otherwise the boat may be too heavy for the lift and you should use a larger lift.

Step 23: Loosely attach a rope from the bow of the boat to the dock. Unplug the GFCI while lift is not in use and lock the cover on the control unit with a paddle lock (lock not supplied).

Note: Raise lift when not in use. If lift is left in down position you could damage your lift or dock.



Firstmate® User's Guide

Standard Remote System

December, 2012



Firstmate, Inc. – 130 Century Commerce Loop, Labadie MO 63055
Phone: 636-239-9707 Fax: 636-239-9708
www.aqualogicmarine.com

Form: B0703

Warning

No user serviceable parts are located inside your **Firstmate®** unit. Installation and service should be performed by a qualified installer only.

To avoid the risk of electric shock, always disconnect power to your dock before installing the Firstmate® or any of its components.

Use only cordless tools for installation. Failure to follow these instructions may result in injury or death.

Always securely tie off your vessel to your dock, Firstmate, Inc. assumes no liability for damages resulting from the user's failure to securely restrain their vessel.

Never use your remote control without being present at the lift. If your lift is not raising or lowering in a level position, stop the lift and correct the problem.

Stay clear of the lift while it is in operation.

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User's Guide

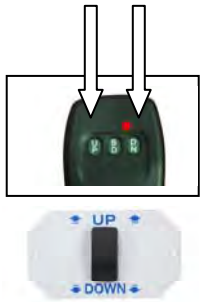
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User's Guide

1.0 Before you begin:

- 1.1 Read all warnings prior to using your **Firstmate®** lift controller.
- 1.2 Read this entire manual before using your unit.
- 1.3 Verify that the boat is on the lift and in the raised position.

2.0 Using the Keyfob or local on the box:



- 2.1 To prevent the accidental activation of a button on the keyfob, you must press and hold down the buttons for approximately one second for the **Firstmate®** to accept the command.
- 2.2 The keyfob buttons correspond to the following functions:
"UP" = **UP** switch
"DN" = **DOWN** switch
Note: The "BD" button on the keyfob is inactive with the **Firstmate®**.
- 2.3 **To raise the lift**, press the "UP" button on the keyfob or the UP position of the local switch. The valve will turn to the up position, the strobe and blower will turn on.
- 2.4 **To stop raising the lift**, press the "UP" or "DN" button on the keyfob or press the UP or Down button on the local switch. The valve will return to the hold position, the strobe and blower will turn off.
- 2.5 **To lower the lift**, press the "DN" button on the keyfob or the DOWN position of the local switch. The valve will turn to the down position and the strobe will turn on.
- 2.6 **To stop lowering the lift**, press the "UP" or "DN" button on keyfob or press the UP or DOWN position of the local switch. The valve will return to the hold position and the strobe will turn off.

3.0 Using your **Firstmate®**.

- 3.1 Read all warnings prior to operating your **FIRSTMATE®**.
- 3.2 Always secure your boat to your dock when not in use, Firstmate, Inc. assumes no liability for resulting damage.
- 3.3 Any time the lift is in operation; the strobe light will turn on.
- 3.4 Pressing any switch while the lift is in operation, either on the keyfob or the control box, will stop the lift.

4.0 Using the Manual Override:



- 4.1 The manual override handle(s) may be used to raise or lower the lift. Turn to the desired function (handle will be difficult turn ~ this is normal). When the lift has reached the desired level, turn the handle to the HOLD position. **** Never unplug the Firstmate® without the handle pointing to HOLD.** When the valve(s) are left open in the UP or DOWN position, they will leak off & drop the lift.

Warranty Statement:

Thank you for purchasing your **Firstmate®** system.

Your system is covered by a two-year Parts and Labor warranty ** as follows:

The warranty period starts on the date of the sale. In the case of equipment installed by an authorized commercial contractor, the warranty begins on the date of site acceptance.

This warranty is provided for the sole benefit of the original consumer and is not transferable.

This warranty is applicable for product purchased and used in the fifty states of the USA and the District of Columbia only. It is not applicable in the possessions or territories of the USA or in any other country.

This is the only express warranty, which Firstmate, Inc. makes in connection with the **Firstmate®** system, and its accessories. Any implied warranty applicable to this product including the warranty of merchantability is limited to the duration of the express warranty.

Firstmate, Inc. excludes and shall not be liable in any event for incidental or consequential damages. Some states do not allow limitations on how long an implied warranty may last. Therefore, these limitations and exclusions may not apply to you.

This warranty gives you specific legal rights. You may also have other rights, which vary, from state to state. In the event any of the provisions of this warranty are bound by statute or by applicable administrative or judicial entities to be unenforceable, all remaining provisions shall remain in full force.

Owner's Responsibilities:

1. Please read the Owner's Manual completely. The information provided in the manual covers installation, operation, safety precaution and, where applicable, routine maintenance.
2. Should warranty service be required you will need to be able to produce reasonable proof of purchase. Please save your sales receipt or other similar document. In the case of contractor installed equipment, a photocopy of the site acceptance document would be considered acceptable.
3. Notify Firstmate, Inc. of any alleged defect promptly upon discovery.
4. Return the product to an authorized dealer, service center or to Firstmate, Inc.. All shipments must be PREPAID. No Collect shipments will be accepted. Products repaired under warranty by Firstmate, Inc. or designated service center will be returned to the sender PREPAID.
5. Product returned for service (in or out of warranty) MUST have a Return Authorization that may be obtained from Firstmate, Inc..
6. At Firstmate, Inc.'s sole discretion, warranted materials may be repaired or replaced.

Exclusions:

1. Product sold by retailers or contractors NOT authorized by Firstmate, Inc. and product whose trademark, name or identification numbers have been altered or removed are not covered by this warranty.
2. Product not specifically marketed for installation in areas exposed to the elements (sun, wind, rain, etc.) is not covered for defects that are attributable to this type of installation.
3. Product failures that are the result of abnormal strain, negligence, misuse, improper installation or operation, or failure to follow instructions contained in the owner's manual. Abuse, modification, or accidental damage is not covered by this warranty, nor is damage resulting from floods, lighting, earthquakes, hail, etc.
4. RFI/EMI (interference/noise) caused by improper grounding or the improper use of either certified or uncertified equipment is not covered by this warranty.
5. Product that has been, or has attempted to have been, repaired by anyone other than Aqualogic Marine or a party authorized by Firstmate, Inc.

** The General Ground Fault Interrupter (GFCI) comes standard on our product for liability purposes. It is not an integral part of the Firstmate® system. Therefore, **the GFCI only carries a 60-day warranty.**



Registration and Warranty Statement

August, 2009

Manual L-Port System

Firstmate, Inc. – 130 Century Commerce Loop - Labadie - Missouri - 63055
Phone: 636-239-9707 Fax: 636-239-9708
www.aqualogicmarine.com

Warranty Statement:

Thank you for purchasing your **Firstmate™** system. Your system is covered by a two-year Parts and Labor warranty** as follows:

The warranty period starts on the date of the sale. In the case of equipment installed by an authorized commercial contractor, the warranty begins on the date of site acceptance.

This warranty is provided for the sole benefit of the original consumer and is not transferable.

This warranty is applicable for product purchased and used in the fifty states of the USA and the District of Columbia only. It is not applicable in the possessions or territories of the USA or in any other country.

This is the only express warranty, which Aqualogic Marine makes in connection with the **Firstmate™** system, and its accessories. Any implied warranty applicable to this product including the warranty of merchantability is limited to the duration of the express warranty.

Firstmate, Inc. excludes and shall not be liable in any event for incidental or consequential damages. Some states do not allow limitations on how long an implied warranty may last. Therefore, these limitations and exclusions may not apply to you.

This warranty gives you specific legal rights. You may also have other rights, which vary, from state to state. In the event any of the provisions of this warranty are bound by statute or by applicable administrative or judicial entities to be unenforceable, all remaining provisions shall remain in full force.

Owner's Responsibilities:

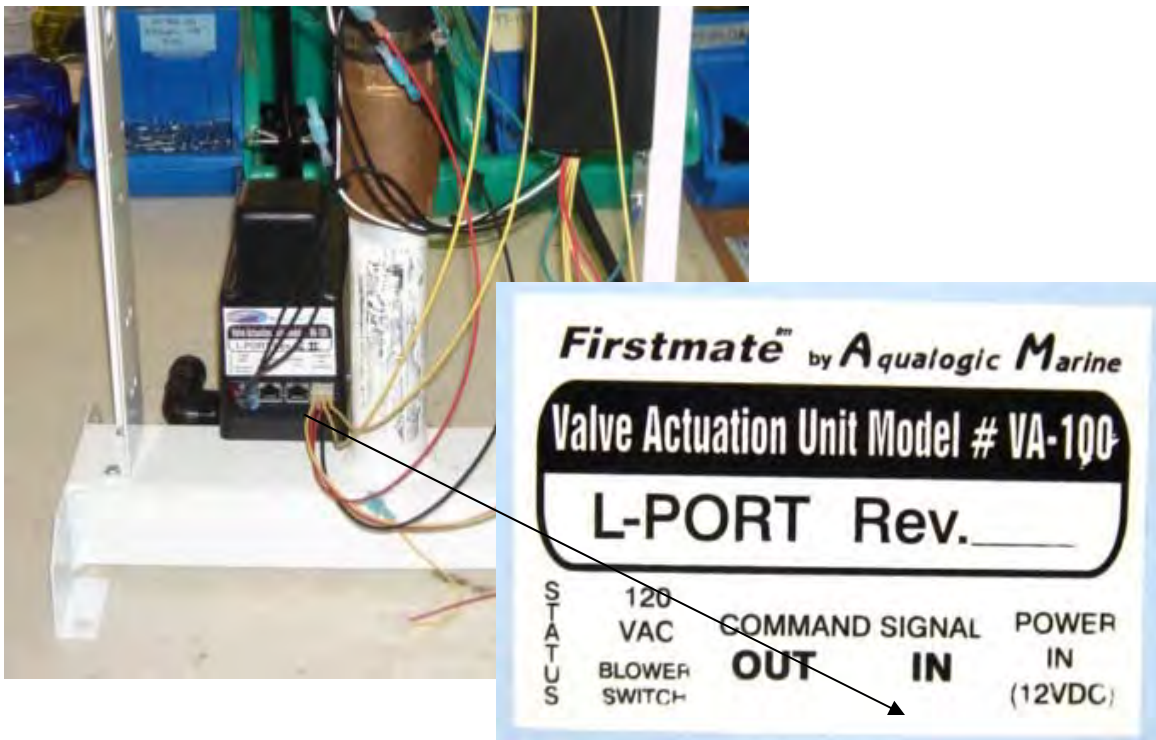
1. Should warranty service be required you will need to be able to produce reasonable proof of purchase. Please save your sales receipt or other similar document. In the case of contractor installed equipment, a photocopy of the site acceptance document would be considered acceptable.
2. Notify Firstmate, Inc. of any alleged defect promptly upon discovery.
3. Return the product to an authorized dealer, service center or to Firstmate, Inc. All shipments must be PREPAID. No Collect shipments will be accepted. Products repaired under warranty by Firstmate, Inc. or designated service center will be returned to the sender PREPAID.
4. Product returned for service (in or out of warranty) MUST have a Return Authorization that may be obtained from Firstmate, Inc..
5. At Firstmate Inc.'s sole discretion, warranted materials may be repaired or replaced.

Exclusions:

1. Product sold by retailers or contractors NOT authorized by Firstmate, Inc. and product whose trademark, name or identification numbers have been altered or removed are not covered by this warranty.
2. Product not specifically marketed for installation in areas exposed to the elements (sun, wind, rain, etc.) is not covered for defects that are attributable to this type of installation.
3. Product failures that are the result of abnormal strain, negligence, misuse, improper installation or operation, or failure to follow instructions contained in the owner's manual. Abuse, modification, or accidental damage is not covered by this warranty, nor is damage resulting from floods, lighting, earthquakes, hail, etc.
4. RFI/EMI (interference/noise) caused by improper grounding or the improper use of either certified or uncertified equipment is not covered by this warranty.
5. Product that has been, or has attempted to have been, repaired by anyone other than Firstmate, Inc. or a party authorized by Firstmate.

** The General Ground Fault Interrupter (GFCI) comes standard on our product for liability purposes. It is not an integral part of the Firstmate system. Therefore, **the GFCI only carries a 60-day warranty.**

Firstmate Standard Remote Installation



Plug one end of 14' cable into the “IN” Command Signal on the valve driver assembly



Plug other end of 14' cable into the “Control Output” on the Remote Receiver. If mounting Receiver on a dock post, be sure to mount with Antenna pointing down. Receiver should be mounted out of direct weather either under roof on dock; or attached inside on Firstmate frame.

Trouble Shooting:

Issue: Contol unit does not work.

Cause: GFCI circuit tripped.
Blower motor malfunctioning.
No power.

Resolution: Reset GFCI.
Fix or replace blower motor.
Make sure power is on.

Issue: Lift will not fully lift boat out of the water.

Cause: Boat positioned too far to the rear of the lift.
Boat to large for lift.

Resolution: Move boat forward on lift.
Get a larger lift.

Issue: Lift slowly lowers over time.

Cause: Valve not completly closed.
Leak in hose.
Leak in tank.
Leak in control unit.

Resolution: Make sure valves are completely closed.

Use a soap and water mixture to apply to connections to find leak, replace hose or tighten clamps depending on cause.

Use a soap and water mixture to find leak on tank, repair tank by heating a putty knife or screw driver with a torch and try to seal hole. If hole is too large to repair you can get a repair kit with more polyethylene to use to patch hole. If you can't patch hole replace tank.

Use a soap and water mixture to apply to connections to find leak, tighten fittings or repair leak.

If you have other questions about your lift please contact your closest dealer.



RHINOHOIST LIMITED WARRANTY

Product	Warranty Period
RhinoHoist Floating Boat Lifts	Parts Only Lifetime warranty - Rotationally molded polyethylene tank (RESIDENTIAL USE*) 8-year warranty - Rotationally molded polyethylene tank (COMMERCIAL USE**) 5-year warranty - Galvanized steel structural components 1-year warranty – Bushings, hardware ,carpet, wood, and chain
Items not listed	1 –year warranty
	Labor for repair or replacement of Warranty Parts 5-year warranty - Rotationally molded polyethylene tank (RESIDENTIAL OR COMMERCIAL USE) 5-year warranty - Galvanized steel structural components 1-year warranty – Bushings, hardware, , carpet, wood, and chain
Items not listed	1-year labor
Items not listed	
Firstmate Lift Controller Ground Fault Interrupter (GFCI)	Firstmate manufacturers Warranty Wherein that warranty will apply See Firstmate warranty for complete details 2-year warranty - Control units 2-year labor -Send in 60-days warranty Firstmate, Inc 506 –D Terry Lane Washington, Missouri 63090 Phone 636-229-9707 Fax 636-239-9708 www.aqualogicmarine.com
Saltwater Use	Warranty Period
Tanks Lift Structure Control Units & Valves	8 Years 3 Years on galvanized steel structural components 1 Year Bushings hardware, remote, GFI, carpet, wood, and chain 1 Year control unit electronics 1 Year- Valve Saltwater Use Labor for repair or replacement of Warranty Parts 1 Year labor on all
<p>* “Residential Use” means use exclusively by an individual private consumer and only for the consumer’s personal, family or household purposes.</p> <p>** “Commercial Use” means use of the product for any non-residential purposes, including, but not limited to, use for commercial gain. In the event that the product is used for a mixed Residential Use and Commercial Use, the limited warranty for Commercial Use shall apply.</p> <p>*** In the event that any product is used in brackish or saltwater, the limited warranty for Saltwater Use, shall take priority over the limited warranty for Residential Use or Commercial Use. Also, if the product is used in brackish or saltwater, the product must have sacrificial anodes or “zincs” attached to it. The sacrificial anodes or “zincs” require maintenance and regular inspection in order to prevent electrolysis from damaging the lift metals. Failure to attach and maintain the sacrificial anodes or “zincs” constitutes “abuse” as used herein.</p>	

ShoreMaster, LLC. ("ShoreMaster") warrants to the **original Purchaser** that its products and parts are free from defects in materials and workmanship as stated in this Limited Warranty during the Parts Warranty Period as identified herein. The Parts Warranty Period begins on the date of purchase as shown on its receipt or invoice. This Limited Warranty is not transferrable or assignable.

If you discover within the Parts Warranty Period a defect in material or workmanship, you must promptly notify your local ShoreMaster dealer or distributor of any claim under this Limited Warranty. Any claim must be in writing with proof of purchase and provided to your local ShoreMaster dealer or distributor within fifteen (15) days of the discovery of the defect.

This Limited Warranty is for repair or replacement of parts or products only. Except for the period of time identified in the product's or part's corresponding Labor Provided Period, which begins when the Parts Warranty Period commences, this Limited Warranty does not include labor or costs associated with installation or on-site work. ShoreMaster will provide freight from ShoreMaster's facility to the local ShoreMaster dealer or distributor on the next truck or container that is sent to the local ShoreMaster dealer or distributor during the normal course of business. You are responsible for freight or shipping costs and expenses from the local ShoreMaster dealer or distributor to the product's location. If you request expedited freight or shipping, you are solely responsible for all related costs. **AFTER RECEIVING NOTIFICATION OF THE DEFECT, SHOREMASTER WILL, AT ITS DISCRETION, REPAIR, REPLACE OR, IF SHOREMASTER DETERMINES IN ITS SOLE DISCRETION THAT REPAIR OR REPLACEMENT IS NOT FEASIBLE, REFUND THE PURCHASE PRICE ON THE PRODUCT OR PART FOUND ON EXAMINATION BY SHOREMASTER TO BE DEFECTIVE UNDER NORMAL USE AND SERVICE.**

THIS LIMITED WARRANTY IS YOUR EXCLUSIVE WARRANTY AND REPLACES ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states, provinces or jurisdictions do not allow the exclusion of express or implied warranties, so the above exclusion may not apply to you. In that event, such warranties apply only to the extent required by law and are limited in duration to five (5) years. No warranties apply after that period. Some states, provinces or jurisdictions do not allow limitations on how long an implied warranty lasts, so the above duration may not apply to you.

IN ORDER TO ALLOW SHOREMASTER AN OPPORTUNITY TO ASSESS THE CONDITION OF THE PART OR PRODUCT FOR WHICH A WARRANTY CLAIM IS MADE, YOU SHALL PROVIDE REASONABLE ACCESS TO THE PART OR PRODUCT TO SHOREMASTER AND/OR ITS AGENTS, WHICH INCLUDES SHOREMASTER DEALERS OR DISTRIBUTORS. TO FACILITATE THE PROMPT ASSESSMENT OF YOUR WARRANTY CLAIM, SHOREMASTER MAY, FROM TIME TO TIME, REQUIRE THAT YOU PROVIDE ADDITIONAL DOCUMENTATION, PHOTOGRAPHS AND OTHER INFORMATION. FAILURE TO PROVIDE THE FOREGOING WITHIN A REASONABLE TIME FROM THE DATE OF REQUEST BY SHOREMASTER WILL INVALIDATE YOUR LIMITED WARRANTY.

Routine maintenance and checking for loose connections or damaged parts must be performed on a monthly basis. ShoreMaster shall not warranty and cover damage caused by circumstances outside the reasonable control of ShoreMaster, including but not limited to, improper use, misuse, abuse, improper installation, overloading, accident, neglect or harmful alteration or repairs made by others, damage by snow or ice, electrolysis, corrosion, natural expansion or contraction of parts or products caused by weather conditions, severe weather conditions, terrorism or acts of God. **IF YOU ATTEMPT TO REPAIR OR REPLACE PARTS OR PRODUCTS WITHOUT THE AUTHORIZED WRITTEN CONSENT OF SHOREMASTER OR USE ANY UNAUTHORIZED METHODOLOGY OF REPAIR OR IF YOU ALTER, MODIFY OR CHANGE THE PARTS OR PRODUCTS YOU WILL VOID THIS LIMITED WARRANTY.**

When the Limited Warranty service involves the replacement of a product or part, the replaced product or part becomes ShoreMaster's property and the replacement product or part becomes your property. The replacement product or part may not be new but will be in good working order and at least functionally equivalent to the original product or part. At ShoreMaster's request you are responsible for returning the replaced product or part to the local ShoreMaster dealer or distributor. The replacement product or part shall be warranted for the balance of the Parts Warranty Period remaining on the original product or part.

IN NO EVENT SHALL SHOREMASTER, ITS SUBSIDIARIES, PARENT, SUPPLIERS, DEALERS, DISTRIBUTORS, RESELLERS OR SERVICE PROVIDERS BE LIABLE FOR: (i) THIRD PARTY CLAIMS AGAINST YOU FOR DAMAGES; OR (ii) SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES, INCLUDING LOST PROFITS, BUSINESS REVENUE, GOODWILL OR ANTICIPATED SAVINGS. THESE EXCLUSIONS APPLY EVEN IF SHOREMASTER HAS BEEN ADVISED OF THE POSSIBILITY OF THESE DAMAGES AND EVEN IF ANY REMEDY FAILS OF ITS ESSENTIAL PURPOSE. AS SOME STATES, PROVINCES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU. SUBJECT TO THIS PARAGRAPH, ANY CLAIM FOR DAMAGES FOR BREACH OF WARRANTY SHALL BE LIMITED TO THE PURCHASE PRICE OF THE PRODUCT.

NOTHING IN THIS LIMITED WARRANTY AFFECTS STATUTORY RIGHTS THAT CANNOT BE WAIVED OR LIMITED BY THIS LIMITED WARRANTY.