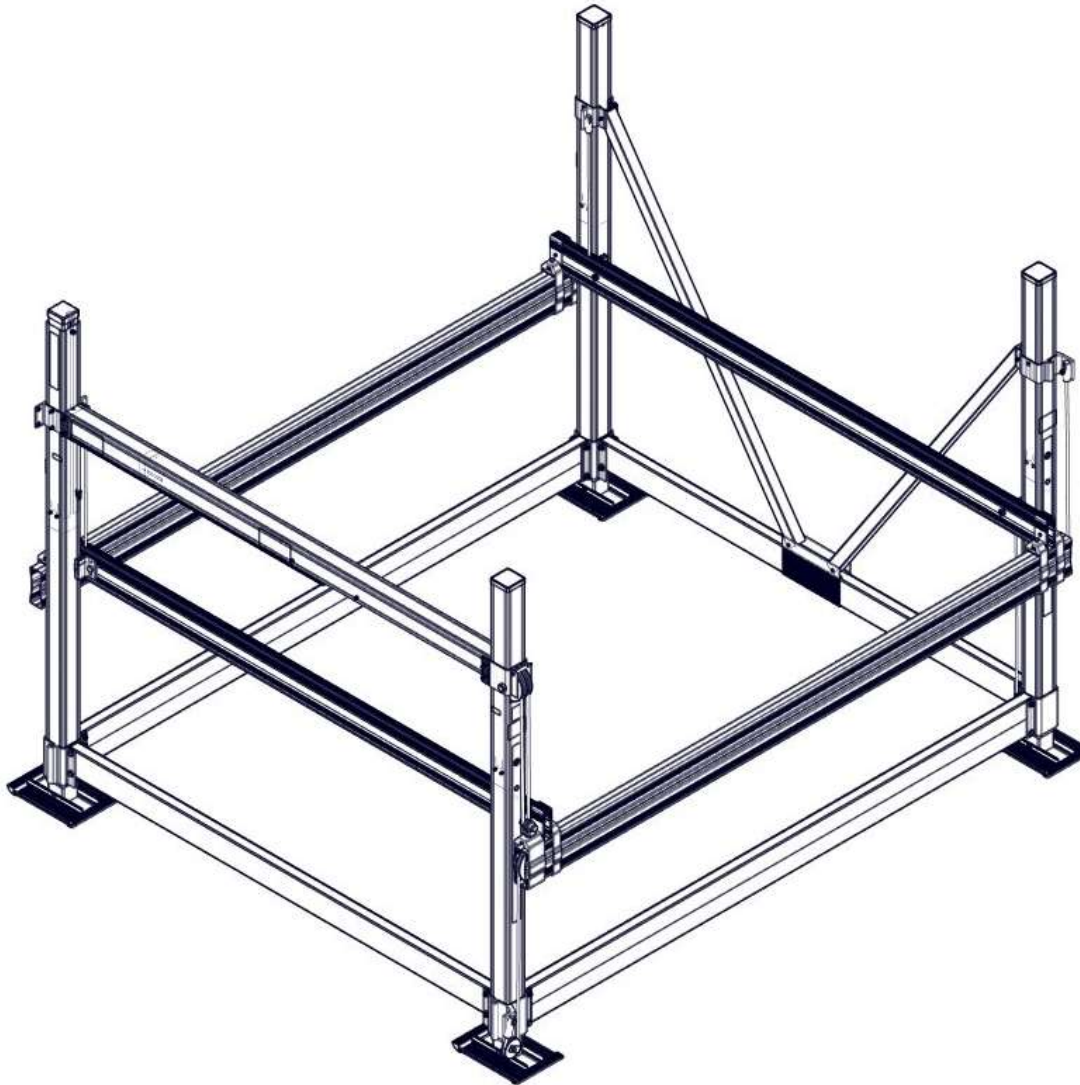


FLOE VSD 6000 PONTOON BOAT LIFT

P/N 511-60075-01 LIFT FRAME

WITH PATENTED EASY LEVEL LEG SYSTEM

ASSEMBLY INSTRUCTIONS



TOOLS REQUIRED

- (2) 9/16" SOCKETS/WRENCHES
- (2) 3/4" SOCKETS/ WRENCHES
- (2) 1-1/8" SOCKETS/WRENCHES
- TORQUE WRENCH
- LOCKING PLIERS
- FRAMING SQUARE
- CLAMP (MIN. 8" OPENING)

Instruction P/N 611-60075-01
Issued 9/10/2019

©Manufactured by:
Floe International Inc.
48473 State Hwy. 65
McGregor, MN 55760
www.floeintl.com

TIPS

- Torque nuts to specification, not bolts.
- Place parts and fasteners in designated locations prior to each step.
- Before tightening fasteners to specified torque, ensure that the lift is square.
- Measure from corner to corner (A to C/B to D) to verify that the lift is square.
- Measure distance between corner posts (A to B, B to C, C to D, A to D) above frame beam and at the top of the corner post to verify that the lift is square.
- Ensure that the lift is level and square before proceeding to install the V-Brace or Ball Screw Tube.
- Assemble cradle clamps with given bolt and nut before installing onto cradle beam.
- Use a marker to denote fasteners which have been tightened to the specified torque.
- Read instructions and understand them before attempting assembly.

WARNINGS

- DO NOT USE IMPACT WRENCH WHEN ADJUSTING THE EASY LEVEL LEGS.

Card Contents (001-60008-00)

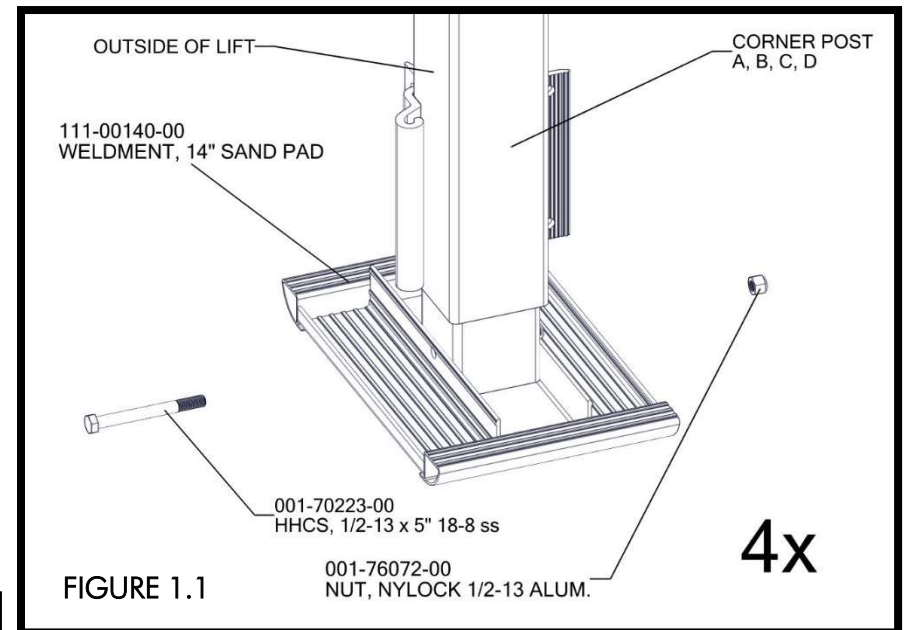
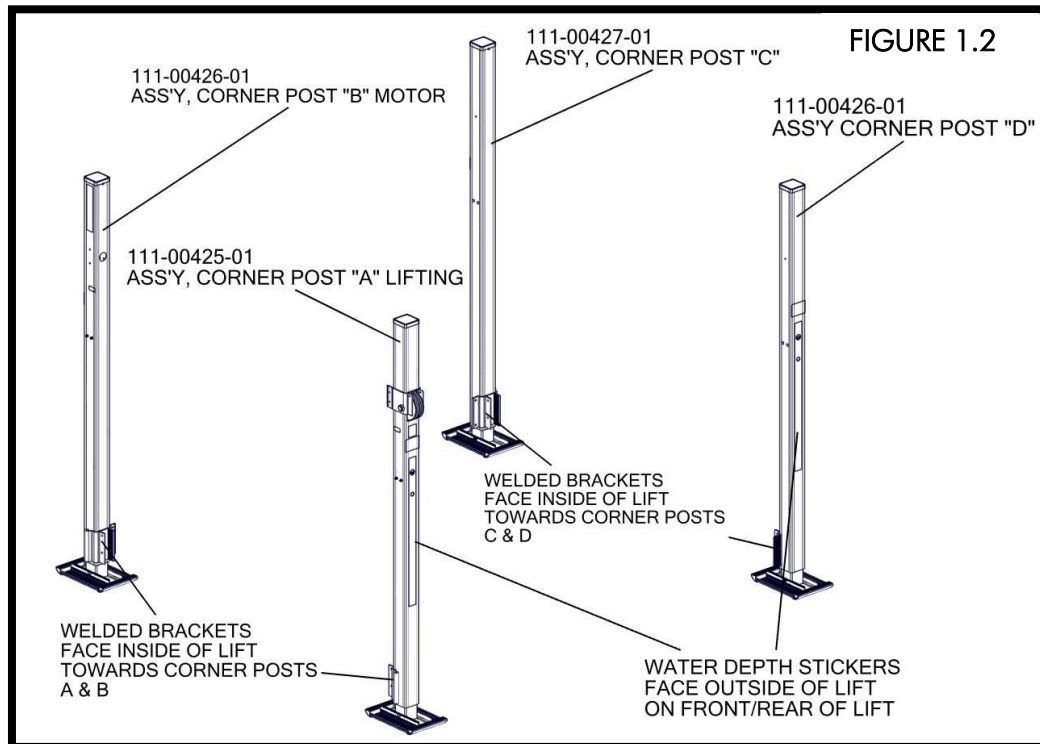
Step	Part Numbers	QTY	Descriptions	Torque
1	001-70223-00	4	HHCS, 1/2-13 x 5" ss 18-8	25 ft. lbs.
	001-76072-00	4	NUT, NYLOCK 1/2-13 ALUM.	
2	001-70219-00	8	HHCS, 1/2-13 x 4" ss 18-8	80 ft. lbs. 35 ft. lbs.
	001-71022-00	16	FLAT WASHER, 1/2" USS ss 18-8	
	001-76072-00	9	NUT, NYLOCK 1/2-13 ALUM.	
	001-70125-00	5	HHCS, 3/8-16 x 6" 18-8 ss	
	001-76071-00	6	NUT, NYLOCK 3/8-16 ALUM.	
	001-70225-00	1	HHCS, 1/2-13 x 6" 18-8 ss	
	001-70121-00	1	HHCS, 3/8-16 x 4 1/2" 18-8 ss	
3	001-70117-00	2	HHCS, 3/8-16 x 3 1/2" ss 18-8	35 ft. lbs.
	001-70118-00	2	HHCS, 3/8-16 x 3 3/4" ss 18-8	
	001-76071-00	6	NUT, NYLOCK 3/8-16 ALUM.	
	001-70125-00	2	HHCS, 3/8-16 x 6" 18-8 ss	
4	001-70219-00	6	HHCS, 1/2-13 x 4" ss 18-8	80 ft. lbs.
	001-71022-00	12	FLAT WASHER, 1/2" USS ss 18-8	
	001-76072-00	6	NUT, NYLOCK 1/2-13 ALUM.	
5	001-70394-00	1	HHCS, 3/4-16 x 2" ss	35 ft. lbs. 80 ft. lbs.
	001-70211-00	8	HHCS, 1/2-13 x 2" 18-8 ss	
	001-70107-00	8	HHCS, 3/8 x 1 1/4" 18-8 ss	
	001-76071-00	8	NUT, NYLOCK 3/8-16 ALUM.	
	001-76072-00	8	NUT, NYLOCK 1/2-13 ALUM.	
	007-05068-00	1	CLEVIS, LIFTING CABLE PULLEY	

continued

Step	Part Numbers	QTY	Descriptions	Torque
6	001-70213-00	2	HHCS, 1/2-13 x 2 1/2" ss 18-8	80 ft. lbs.
	001-70223-00	2	HHCS, 1/2-13 x 5" ss 18-8	
	001-76072-00	7	NUT, NYLOCK 1/2-13 ALUM.	
	001-70212-00	3	HHCS, 1/2-13 x 2 1/4" ss 18-8	
	001-71022-00	4	FLAT WASHER, 1/2" USS ss 18-8	
	002-04241-00	1	HOLDER, CABLE – 4" SHEAVE	
	007-07625-00	1	SHEAVE, 4" CLAMP	
7	001-70365-00	1	HHCS, 3/4-10 x 3" ss	100 ft. lbs.
	001-07626-00	1	SHEAVE, 2" CLEVIS	
	001-70817-00	1	NUT, 3/4 - 10 JAM ss	5 ft. lbs.
	001-70110-00	4	HHCS, 3/8-16 x 1 3/4" ss 18-8	
	001-71017-00	8	FLATWASHER, 3/8" SAE ss 18-8	25 ft.lbs.
	001-76071-00	4	NUT, NYLOCK 3/8-16 ALUM.	
	001-70124-00	4	HHCS, 3/8-16 x 5 1/2" ss 18-8	
	001-76071-00	4	NUT, NYLOCK 3/8-16 ALUM.	

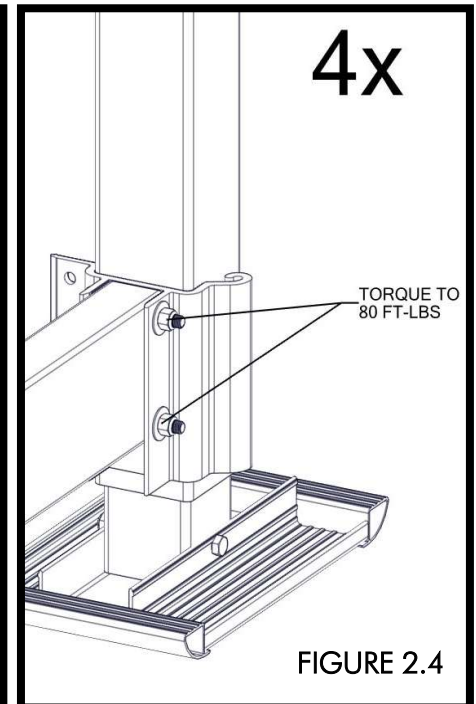
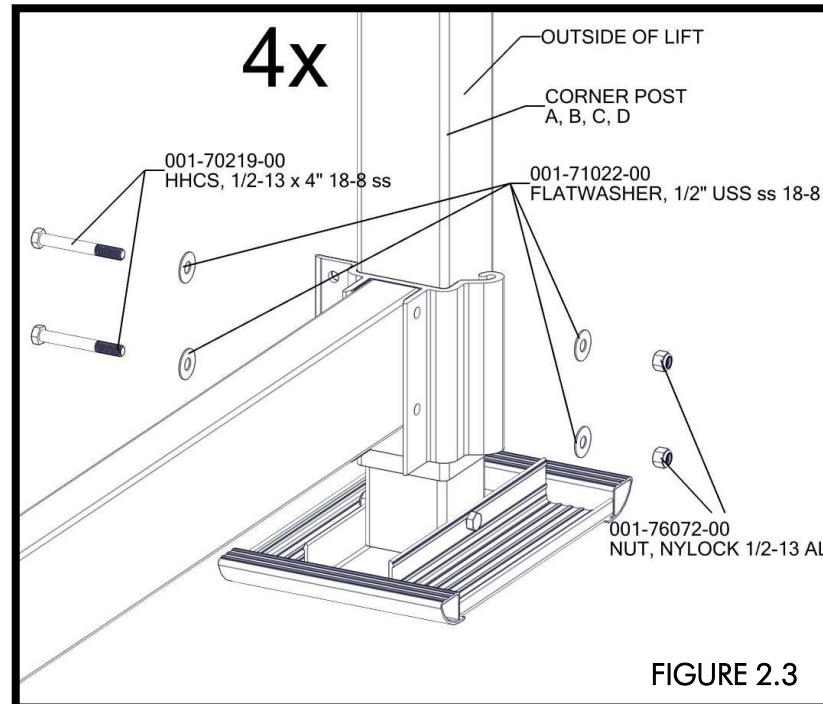
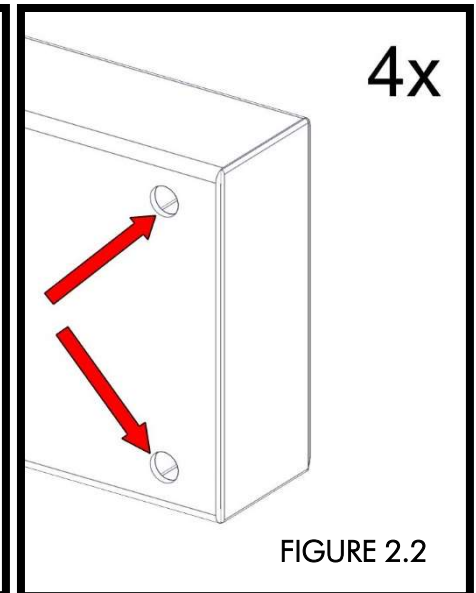
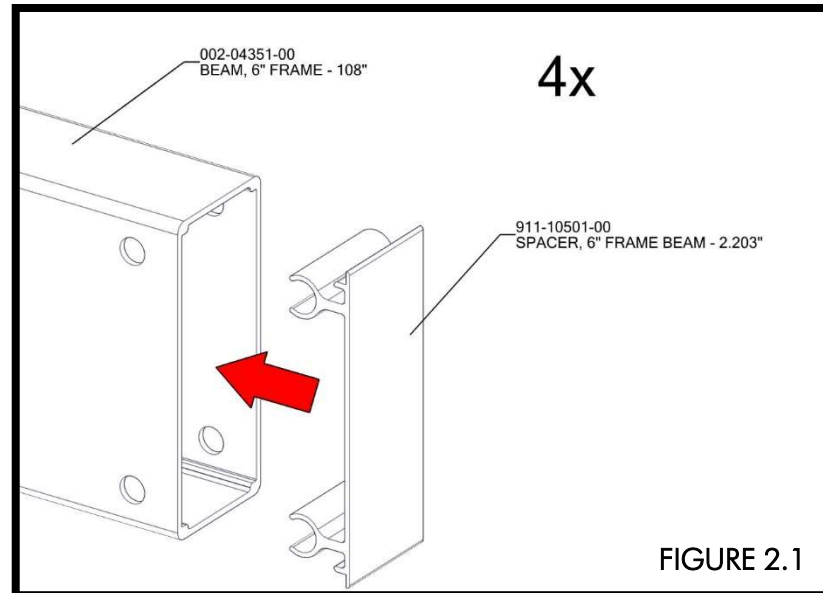
STEP 1

- ATTACH SAND PADS TO ALL FOUR CORNER POST ASSEMBLIES USING CORNER POST ASSEMBLIES USING (4) ½" x 5" BOLTS AND (4) ½" NYLOCK NUTS. TORQUE TO 25 FT-LBS (FIGURE 1.1).
- ARRANGE CORNER POSTS AS SHOWN IN FIGURE 1.2.



STEP 2

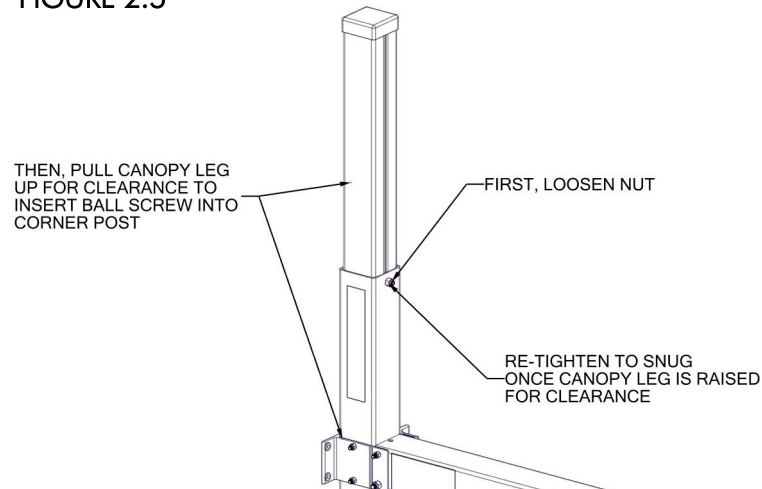
- INSERT FRAME BEAM SPACERS INTO ENDS OF 108" FRAME BEAMS AND ENSURE HOLES IN FRAME BEAM LINE UP WITH CLAMP (FIGURE 2.1 & 2.2).
- ATTACH FRAME BEAMS TO PRE-ATTACHED LOWER CORNER POST CLAMPS USING (2) ½ x 4" BOLTS, (4) ½" WASHERS, AND (2) ½" NYLOCK NUTS (FIGURE 2.3). TORQUE TO 80 FT-LBS (FIGURE 2.4). REPEAT FOR EACH CORNER.



STEP 2

- LOOSEN NUT HOLDING INSERT IN CORNER POST, THEN PULL CANOPY LEG UP FOR CLEARANCE TO INSERT BALL SCREW INTO CORNER POST, AND RE-TIGHTEN NUT TO SNUG ONCE CANOPY LEG IS RAISED FOR CLEARANCE (FIGURE 2.5).
- ATTACH BALL SCREW CLAMP TO CORNER POST USING (2) 3/8 x 6" BOLTS, AND (2) NYLOCK NUTS (FIGURE 2.6). TORQUE TO 35 FT-LBS (FIGURE 2.7).
- ORIENT BALL SCREW TUBE BETWEEN CORNER POSTS "A" & "B" WITH GREASE HOLE AND SUPPORT BOLT VISIBLE ON OUTSIDE OF LIFT (FIGURE 2.8).

FIGURE 2.5



TORQUE TO 35 FT-LBS

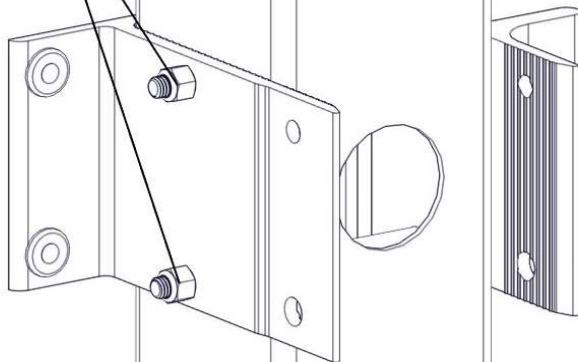


FIGURE 2.7

FIGURE 2.6

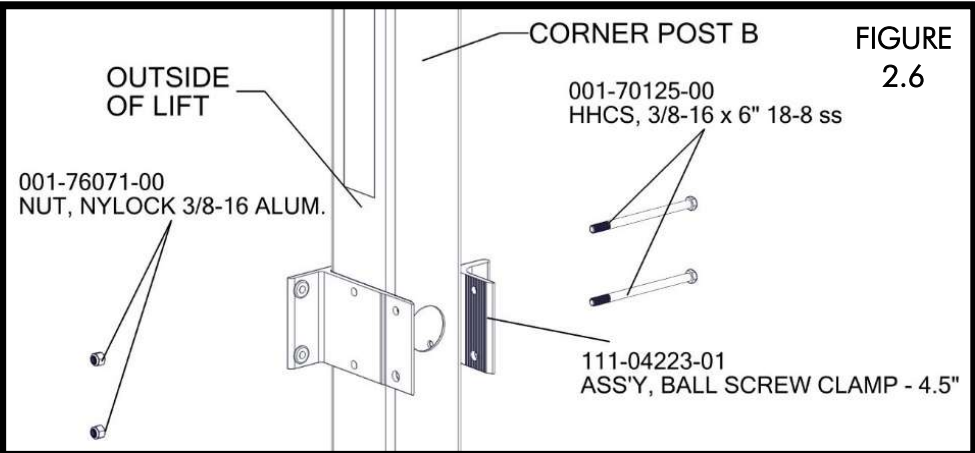
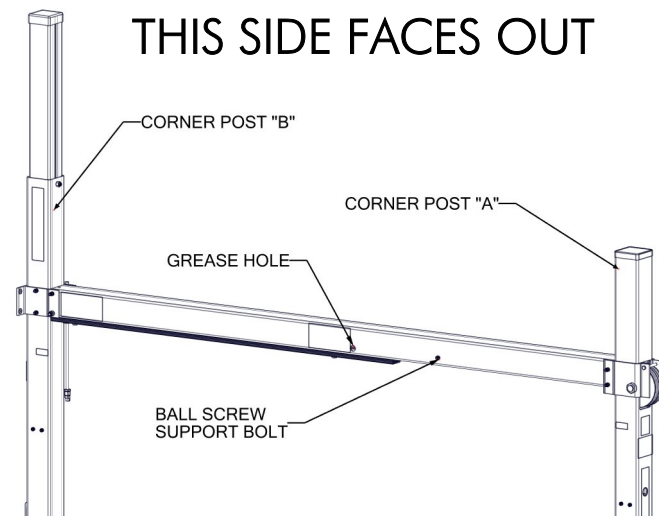


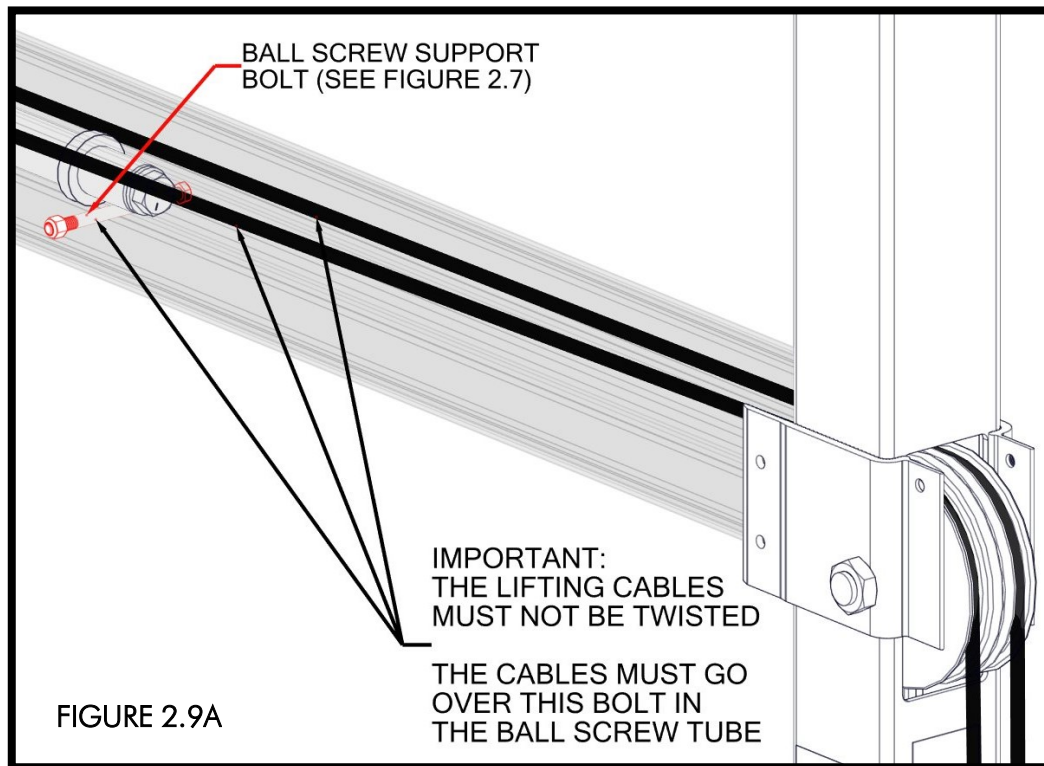
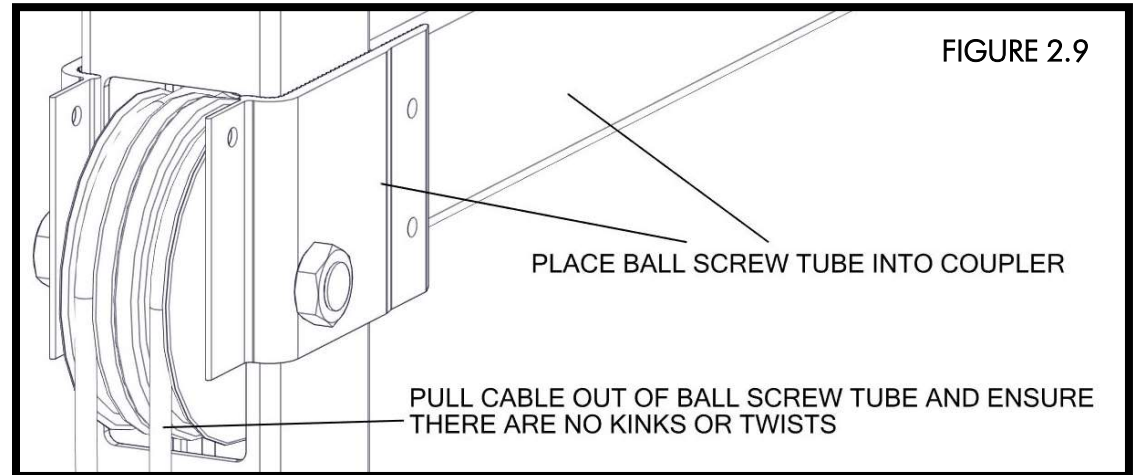
FIGURE 2.8

THIS SIDE FACES OUT



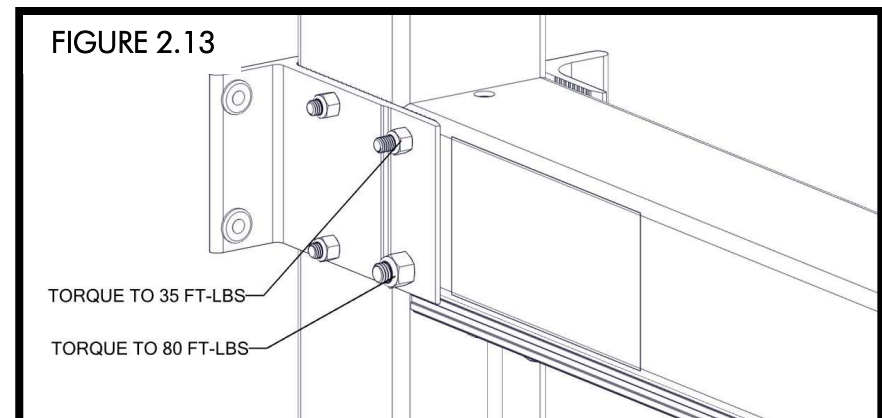
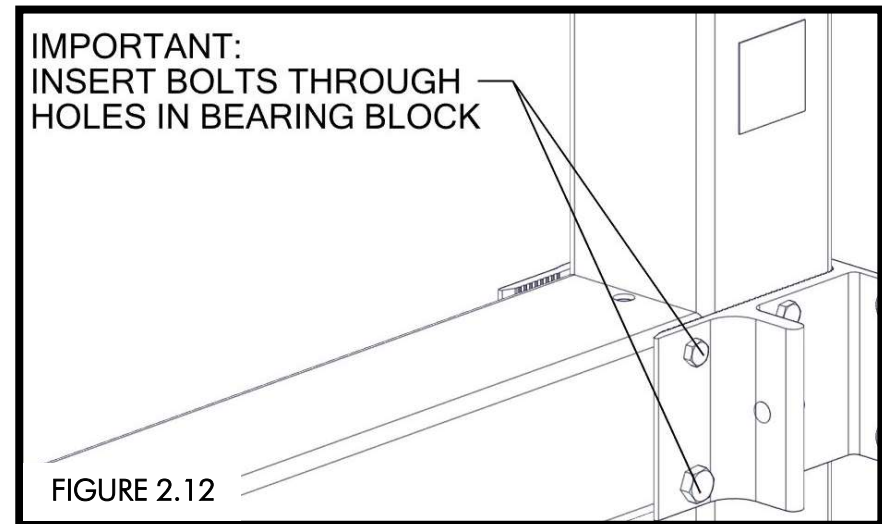
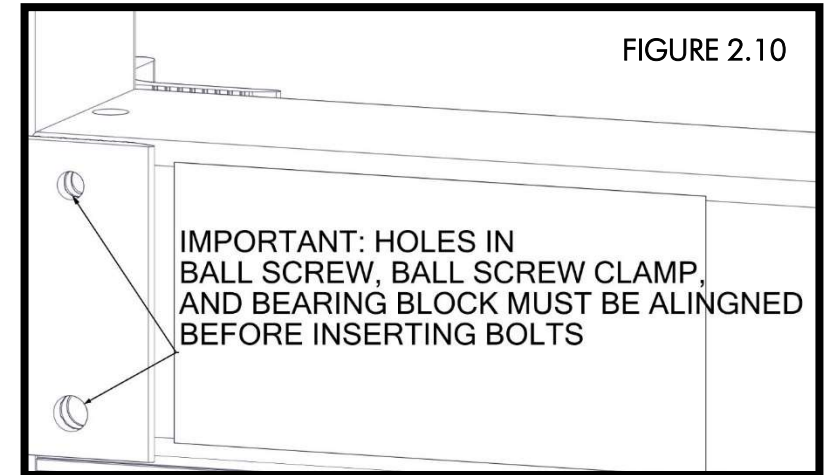
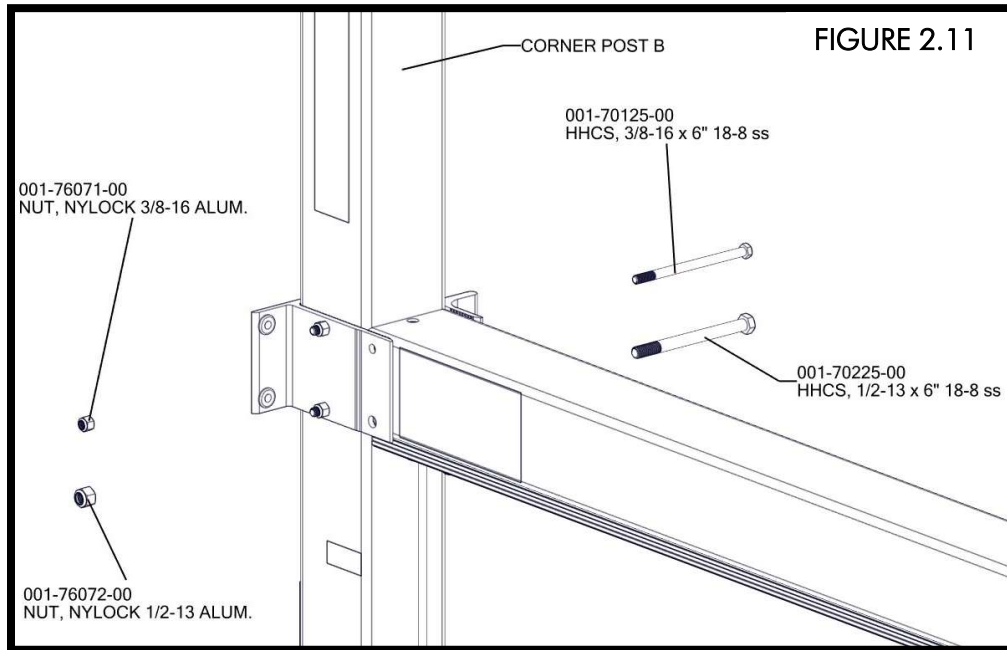
STEP 2

- PULL CABLE OUT OF BALL SCREW, ALIGN ON PULLEY, AND ENSURE THAT THERE ARE NO KINKS OR TWISTS. PLACE BALL SCREW INTO COUPLER. (FIGURES 2.9 & 2.9A).



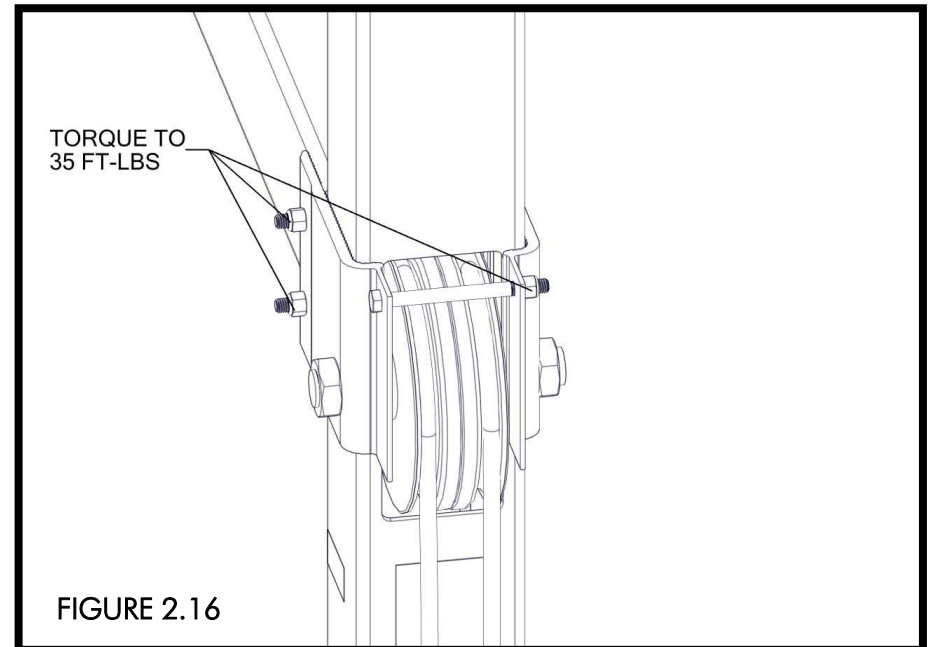
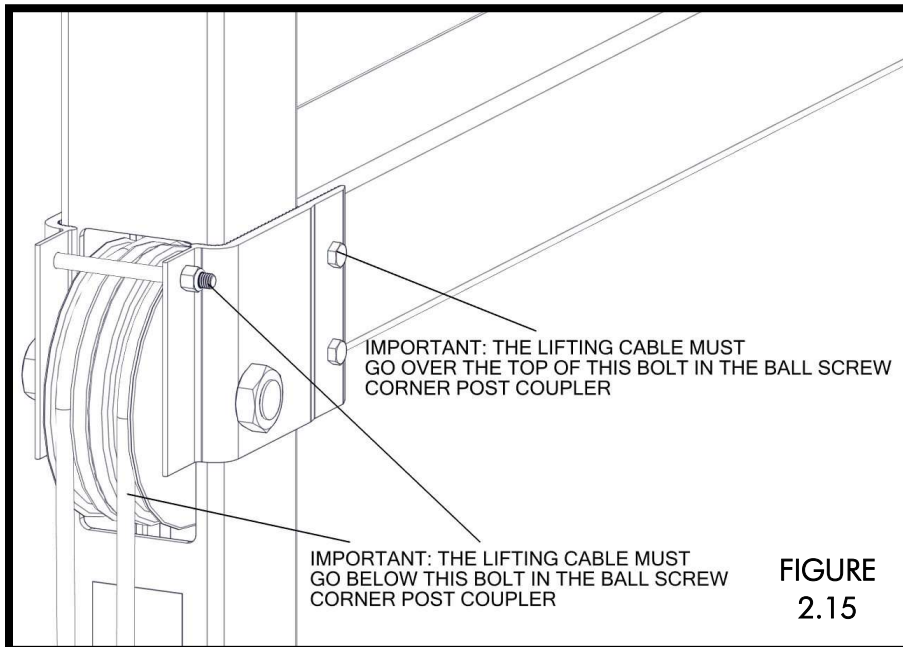
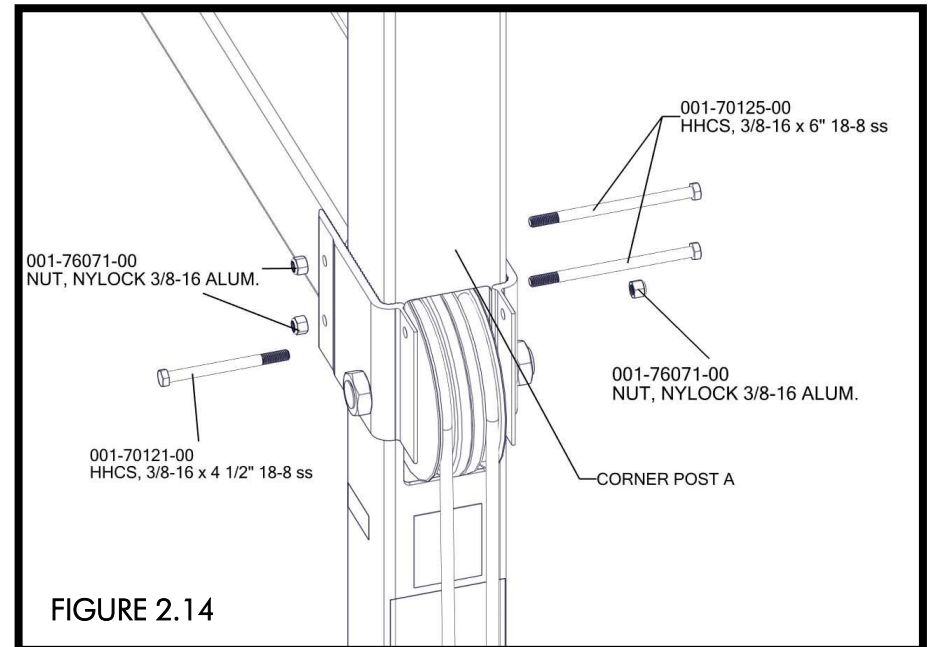
STEP 2

- IMPORTANT NOTE: HOLES IN BALL SCREW, BALL SCREW CLAMP, AND BEARING BLOCK MUST BE ALIGNED BEFORE INSERTING BOLTS. (FIGURE 2.10)
- ATTACH BALL SCREW TO BALL SCREW CLAMP USING (1) $3/8 \times 6$ " BOLT, (1) $1/2 \times 6$ " BOLT, (1) $3/8$ NYLOCK NUT, AND (1) $1/2$ NYLOCK NUT (FIGURE 2.11).
- IMPORTANT NOTE: BOLTS MUST BE INSERTED INTO THE BALL SCREW AND BEARING BLOCK (FIGURE 2.12). TORQUE $3/8$ " NUT TO 35 FT-LBS AND $1/2$ " NUT TO 80 FT-LBS (FIGURE 2.13).



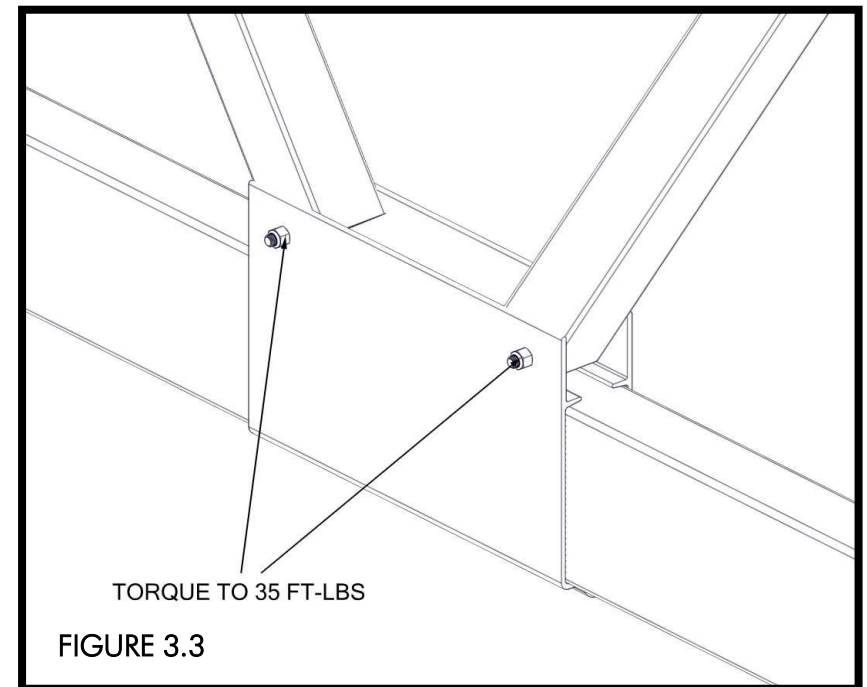
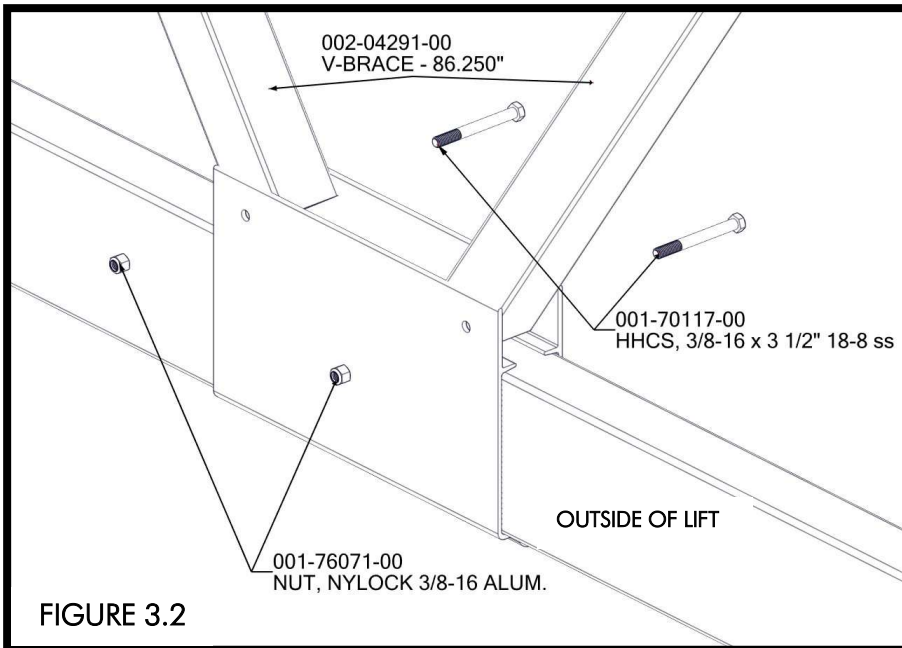
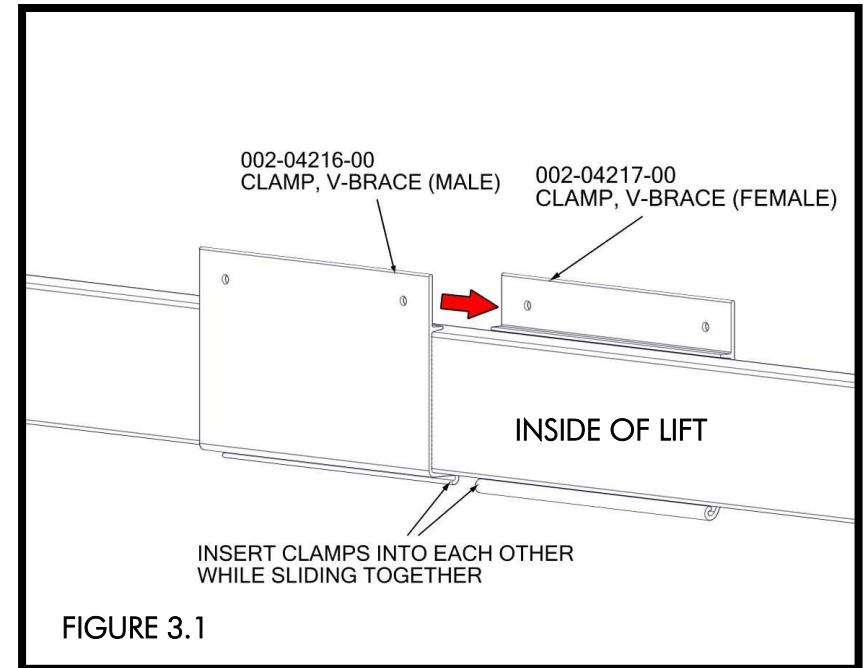
STEP 2

- ATTACH CABLE END OF BALL SCREW TUBE TO COUPLER ON CORNER POST "A" USING (2) 3/8" x 6" BOLTS AND (2) 3/8" NYLOCK NUTS (FIGURE 2.14).
- IMPORTANT: LIFTING CABLE MUST GO OVER UPPER 3/8" x 6" BOLT AND UNDER 3/8" x 4 1/2" BOLT IN BALL SCREW CORNER POST COUPLER (FIGURE 2.15). TORQUE TO 35 FT-LBS (FIGURE 2.16).



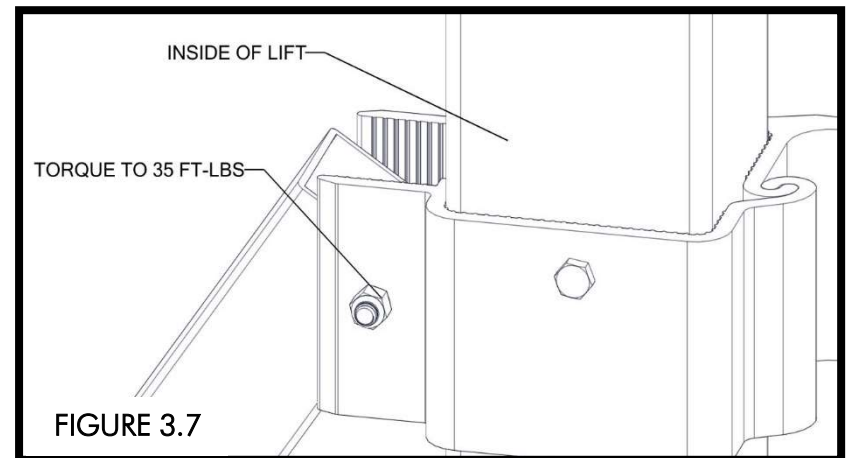
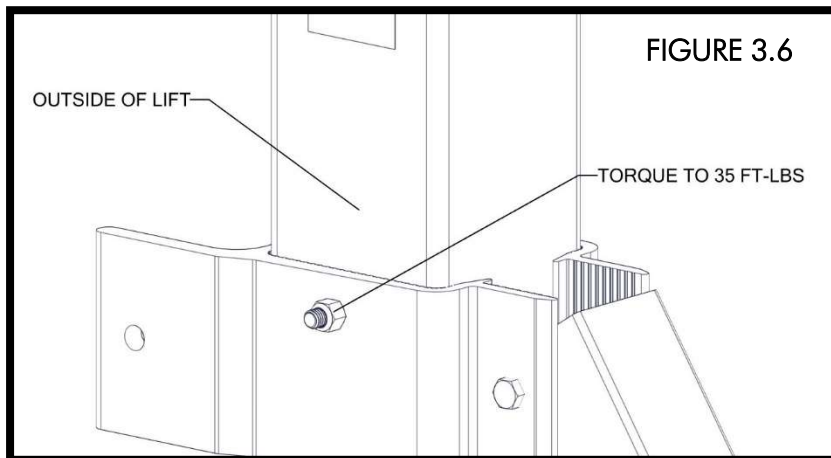
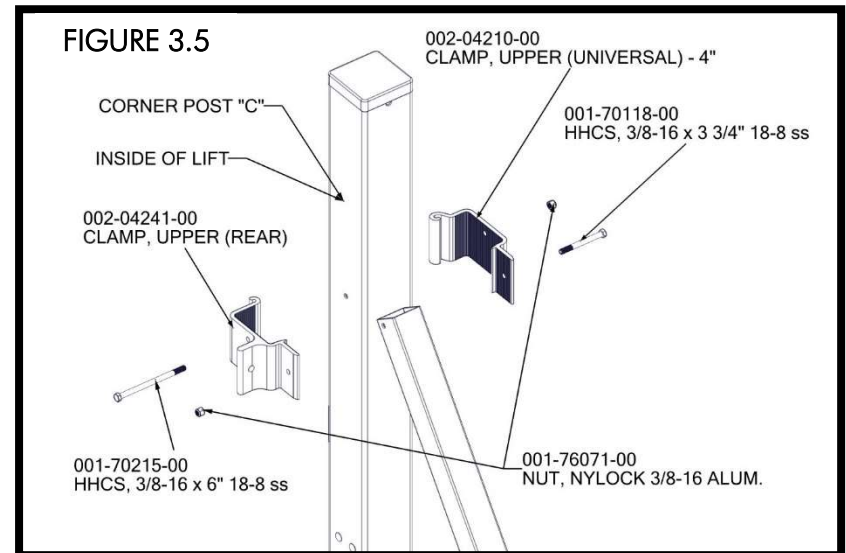
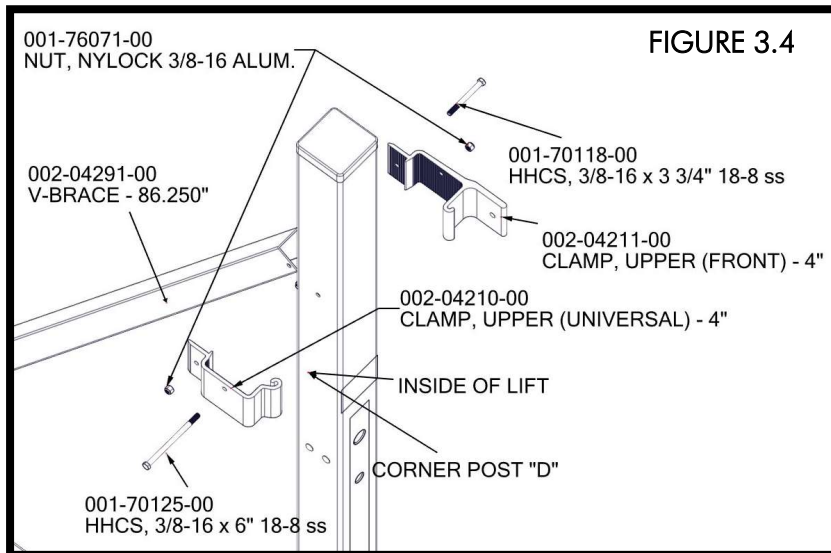
STEP 3

- SLIDE LOWER V-BRACE CLAMPS TOGETHER ON FRAME BEAM BETWEEN CORNER POSTS "C" & "D" (FIGURE 3.1)
- FASTEN CLAMPS TO V-BRACES USING (2) 3/8" x 3 1/2" BOLTS AND (2) 3/8" NYLOCK NUTS (FIGURE 3.2). TORQUE TO 35 FT-LBS (FIGURE 3.3).
- ATTACH UPPER V-BRACE CLAMPS TO CORNER POSTS "C" & "D" USING (2) 3/8" x 6" BOLTS AND (2) 3/8" NYLOCK NUTS (FIGURE 3.4) TORQUE TO 35 FT-LBS (FIGURE 3.5).
- ATTACH V-BRACES TO UPPER V-BRACE CLAMPS USING (2) 3/8" x 3 3/4" BOLTS AND (2) 3/8" NYLOCK NUTS (FIGURE 3.4). TORQUE TO 35 FT-LBS (FIGURE 3.6).



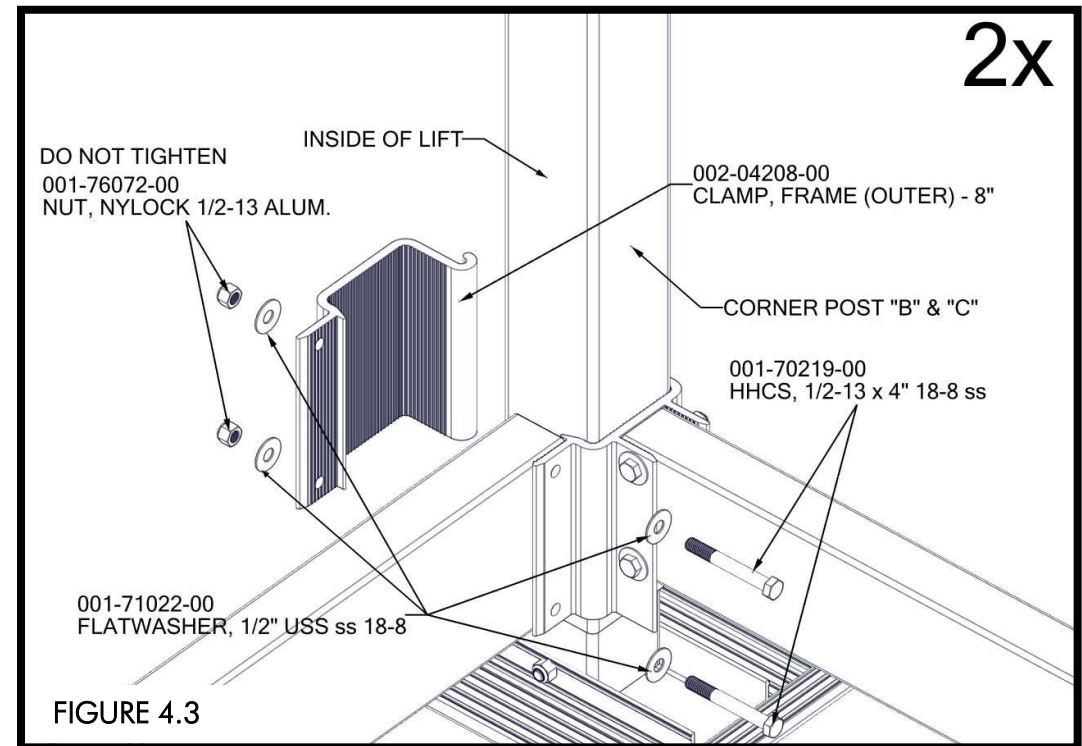
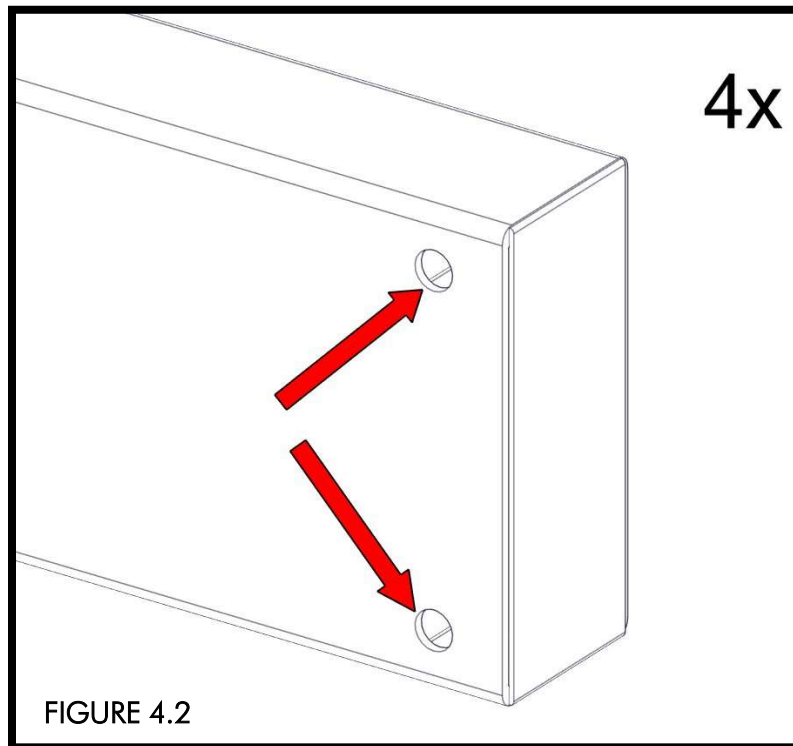
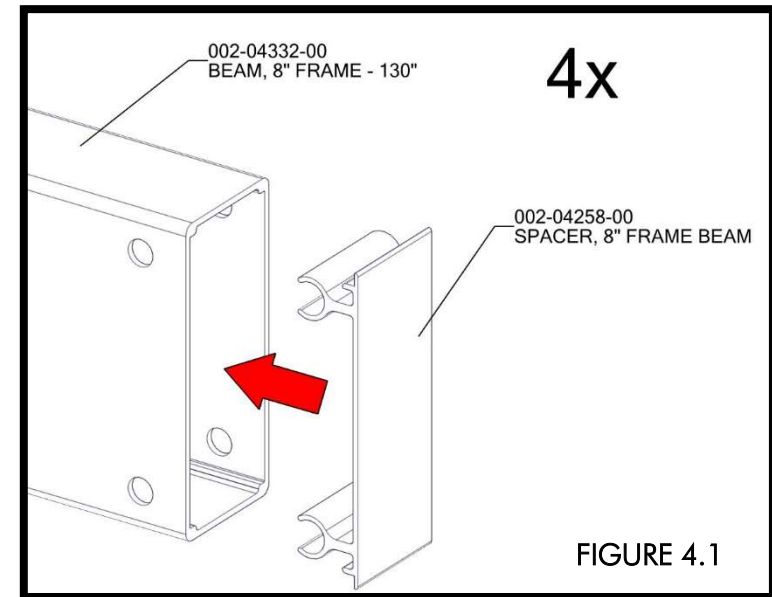
STEP 3

- ATTACH UPPER V-BRACE CLAMPS TO CORNER POSTS "C" & "D" USING (2) 3/8" x 6" BOLTS AND (2) 3/8" NYLOCK NUTS (FIGURE 3.4 & 3.5). TORQUE TO 35 FT-LBS (FIGURE 3.6).
- ATTACH V-BRACES TO UPPER V-BRACE CLAMPS USING (2) 3/8" x 3 3/4" BOLTS AND (2) 3/8" NYLOCK NUTS (FIGURE 3.4 & 3.5). TORQUE TO 35 FT-LBS (FIGURE 3.7).



STEP 4

- INSERT FRAME BEAM SPACERS INTO ENDS OF 130" FRAME BEAMS AND ENSURE HOLES IN FRAME BEAM LINE UP WITH CLAMP.
(FIGURE 4.1 & 4.2).
- ATTACH A FRAME BEAM BETWEEN CORNER POSTS "B" AND "C" USING OUTER FRAME CLAMPS USING (2) 1/2" x 4" BOLTS, (4) 1/2" FLAT WASHERS, AND (2) 1/2" NYLOCK NUTS (FIGURE 4.3).
DO NOT TIGHTEN.

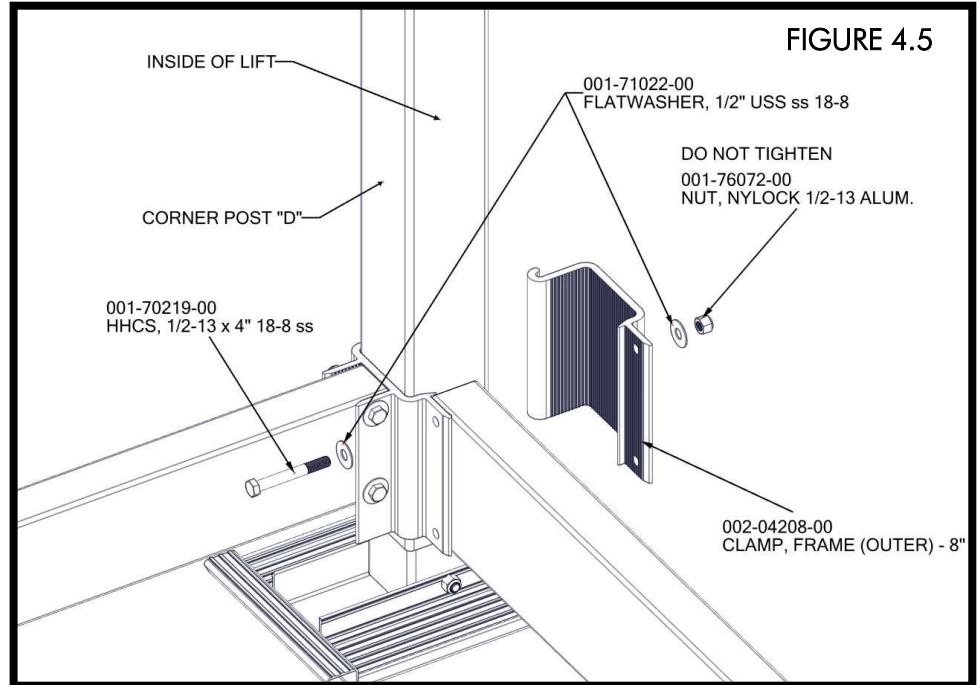
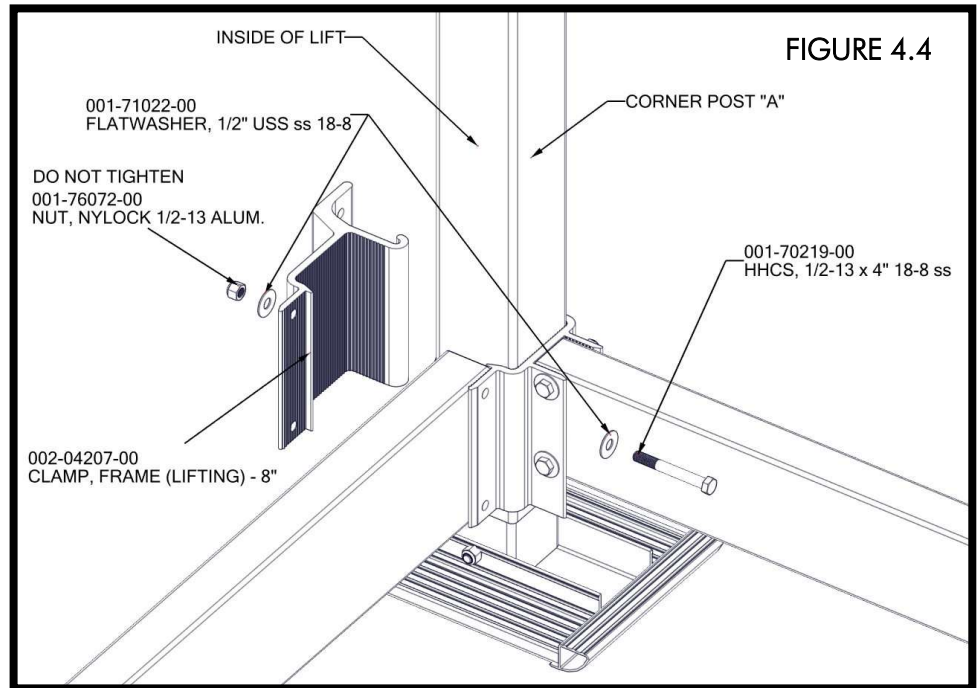
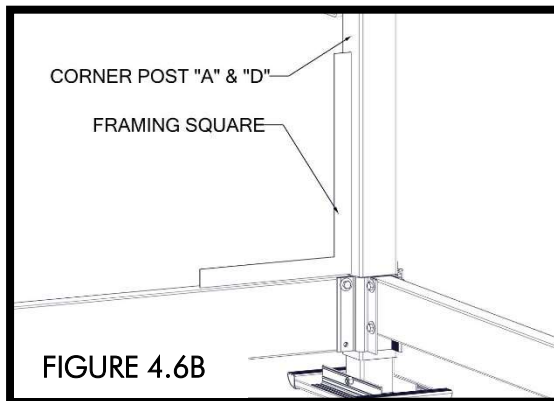
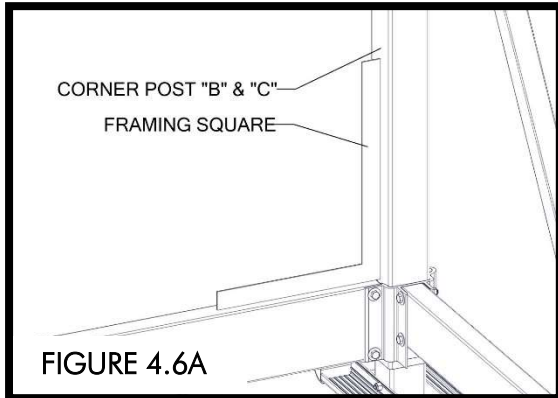


STEP 4

- ATTACH A FRAME BEAM BETWEEN CORNER POSTS "A" AND "D" USING (FIGURE 4.4 & 4.5).
DO NOT TIGHTEN.

NOTE THAT BOLTS WILL BE INSTALLED IN UPPER HOLES ONLY AT CORNERS "A" & "D".

- USE A FRAMING SQUARE TO ENSURE THAT THE LIFT FRAME IS SQUARE BEFORE PROCEEDING TO THE NEXT STEP (FIGURE 4.6A & 4.6B).



STEP 4

- ONCE LIFT IS SQUARE, TORQUE ALL NUTS TO 80 FT-LBS. (FIGURE 4.7, 4.8, & 4.9)

FIGURE 4.7

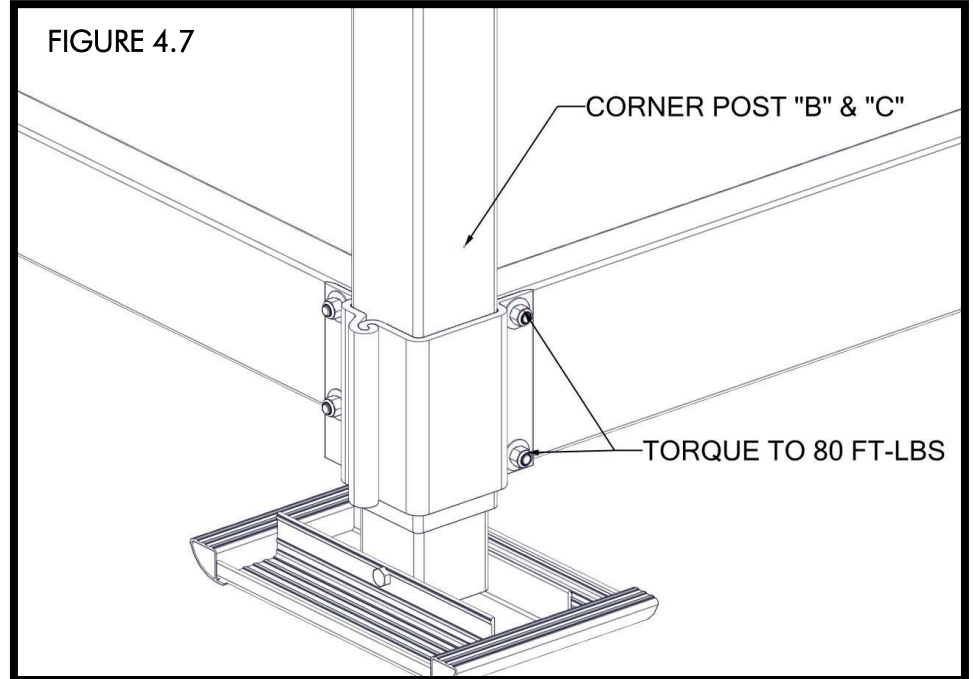


FIGURE 4.8

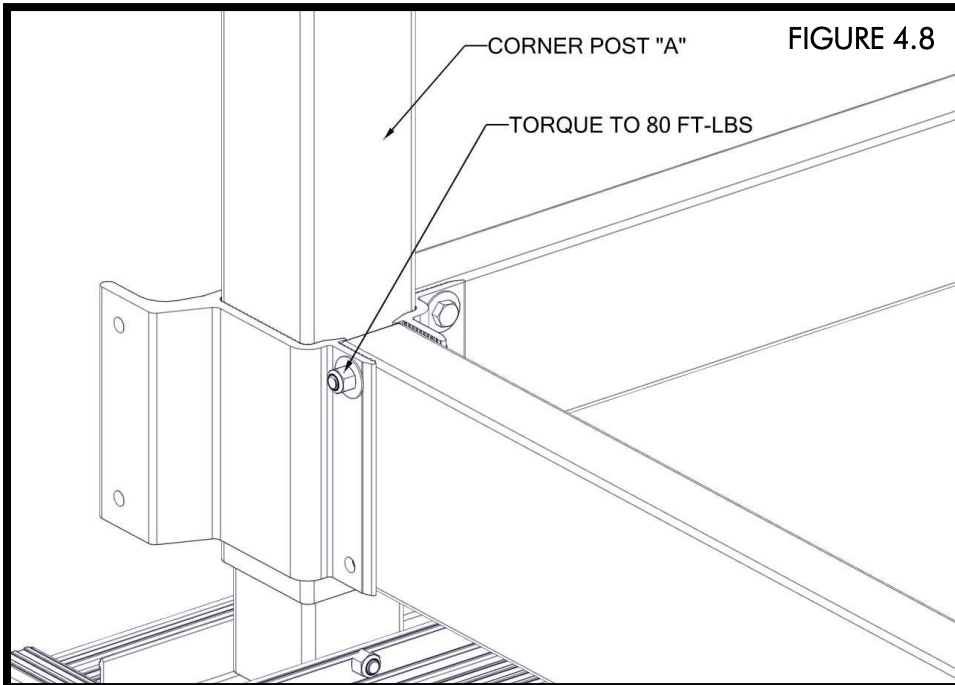
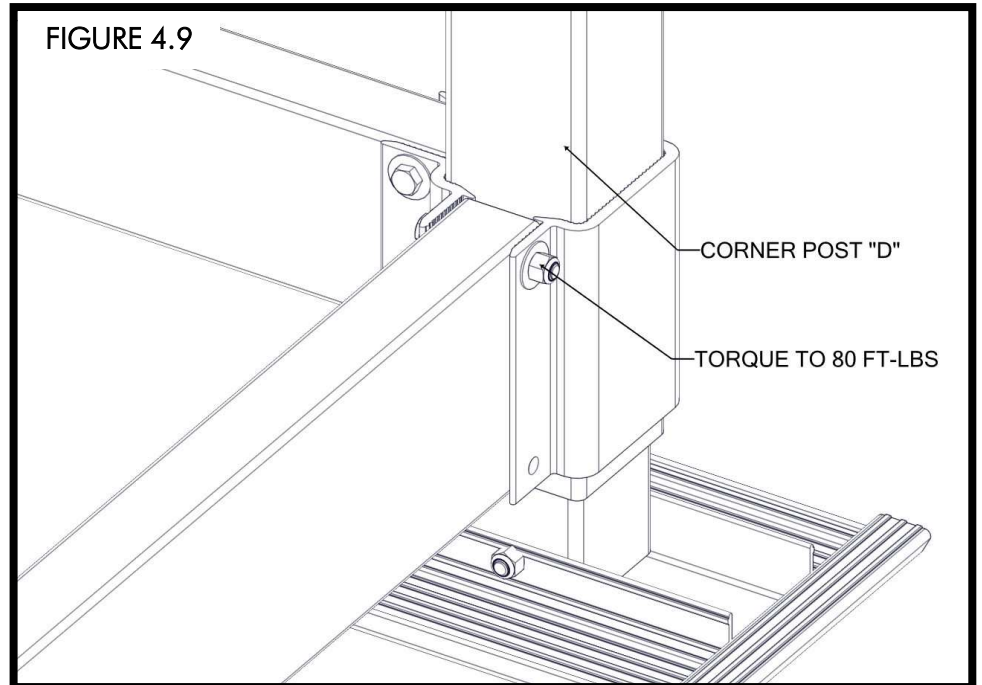


FIGURE 4.9

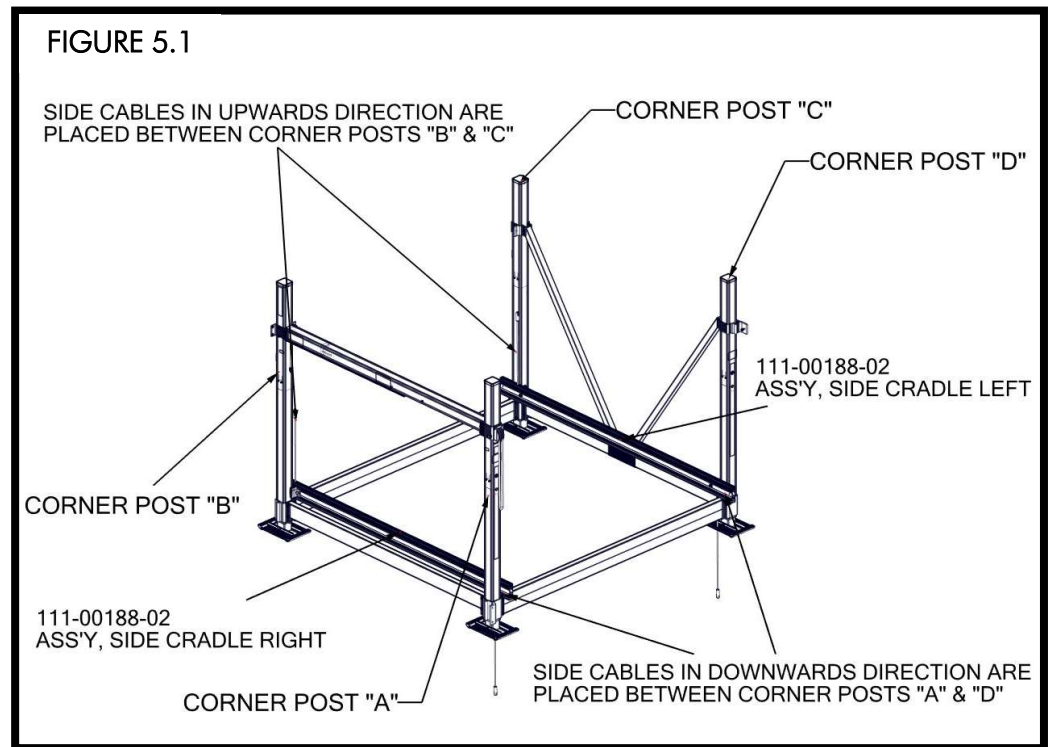
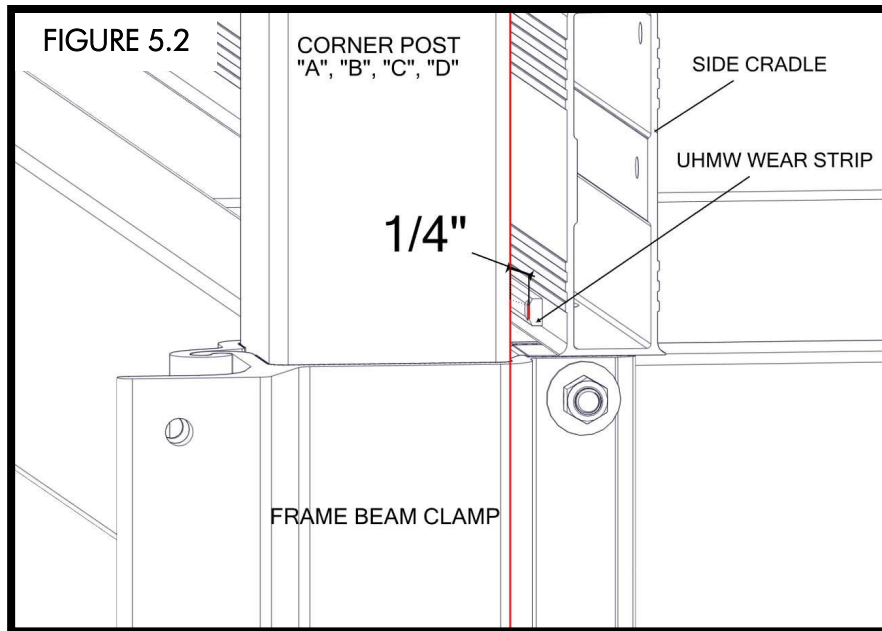


STEP 5

- PLACE THE LEFT & RIGHT SIDE CRADLE BEAMS ON TOP OF THE FRAME BEAMS. THE END WITH THE CABLE COMING THROUGH THE TOP OF THE SIDE CRADLE BEAM IS PLACED BY CORNER POSTS "B" AND "C"

THE END WITH THE CABLE COMING THROUGH THE BOTTOM OF THE SIDE CRADLE BEAM IS PLACES BY CORNER POSTS "A" AND "D" (FIGURE 5.1).

- NOTE: A 1/4" GAP MUST BE MAINTAINED BETWEEN UHMW WEAR STRIP AND CORNER POST (FIGURE 5.2).



STEP 5

- ATTACH LIFTING CABLE CLEVIS TO THE CRADLE LIFT CLAMP USING A 3/4"-16 x 2" BOLT (FINE THREAD). MAKE SURE THE BOLT IS SEATED IN THE SLOT OF THE CLAMP WHEN TIGHTENING THE CABLE CLEVIS. DO NOT TIGHTEN THE CLEVIS COMPLETELY AT THIS POINT. (FIGURE 5.3).
- INSTALL A 1/2" x 2" BOLT THROUGH THE OTHER HOLE IN LIFTING CLAMP WITH A 1/2" NYLOCK IN THE SLOT ON THE INSIDE OF THE CLAMP. DO NOT TIGHTEN (FIGURE 5.4).
- INSTALL A 1/2" x 2" BOLT THROUGH THE HOLE IN EACH CRADLE CLAMP WITH A 1/2" NYLOCK NUTS IN THE SLOT ON THE INSIDE OF THE CLAMP. DO NOT TIGHTEN (FIGURE 5.5).

FIGURE 5.3

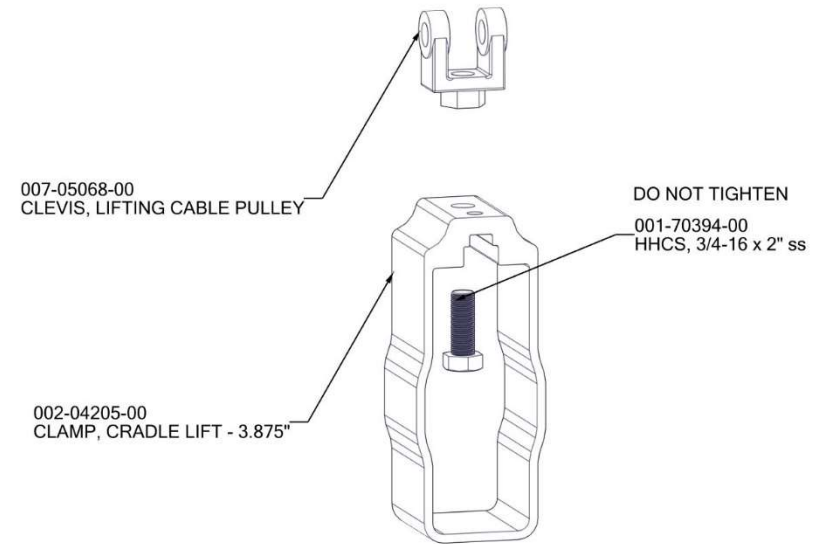


FIGURE 5.4

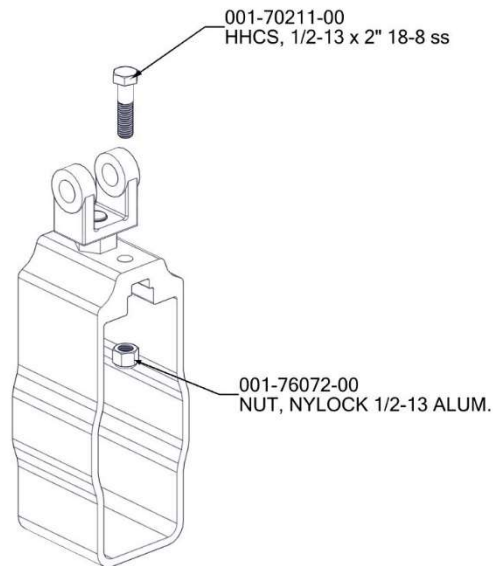
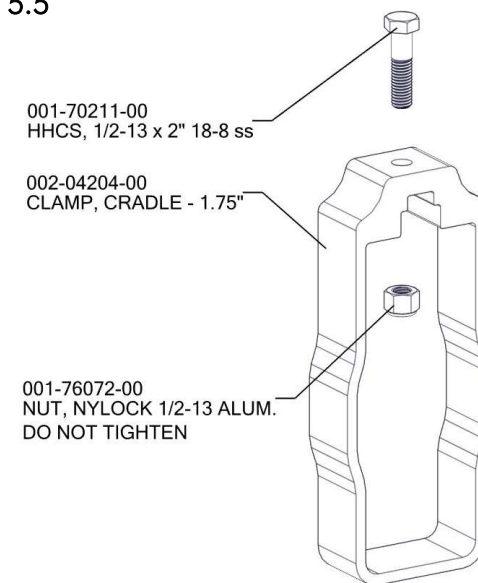


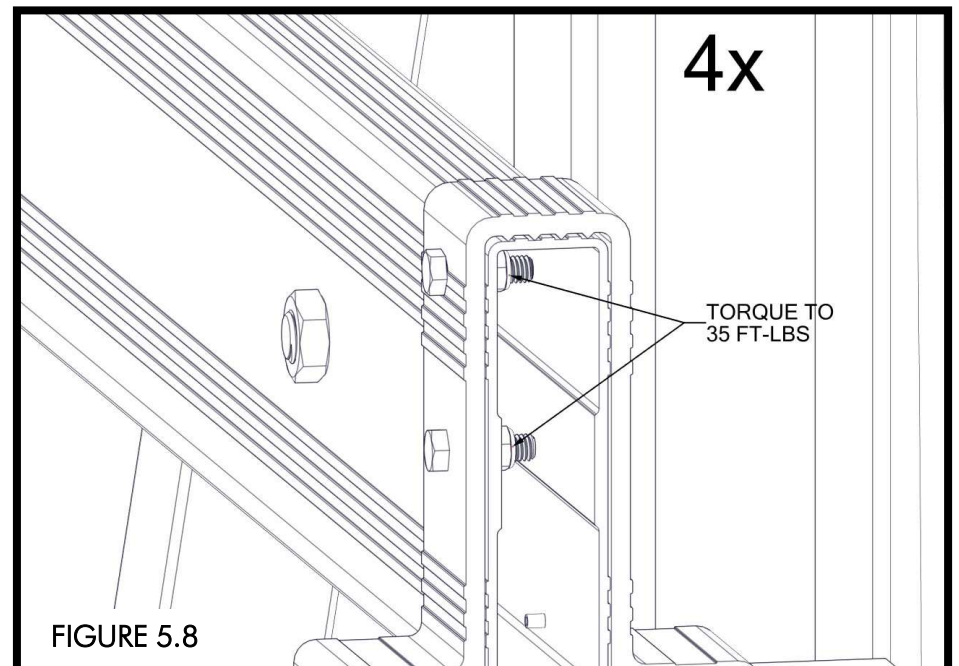
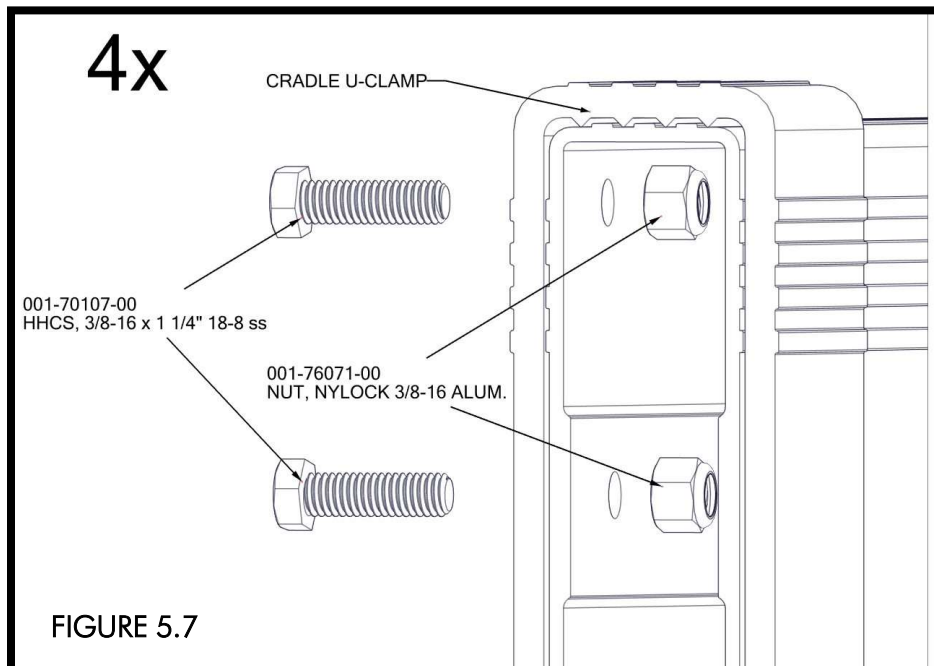
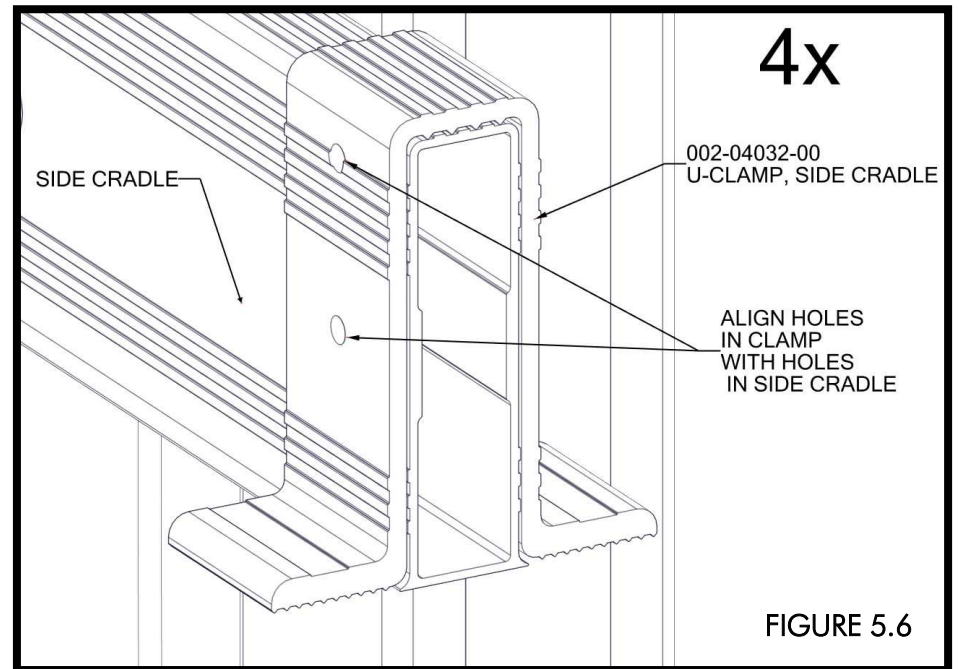
FIGURE 5.5



7x

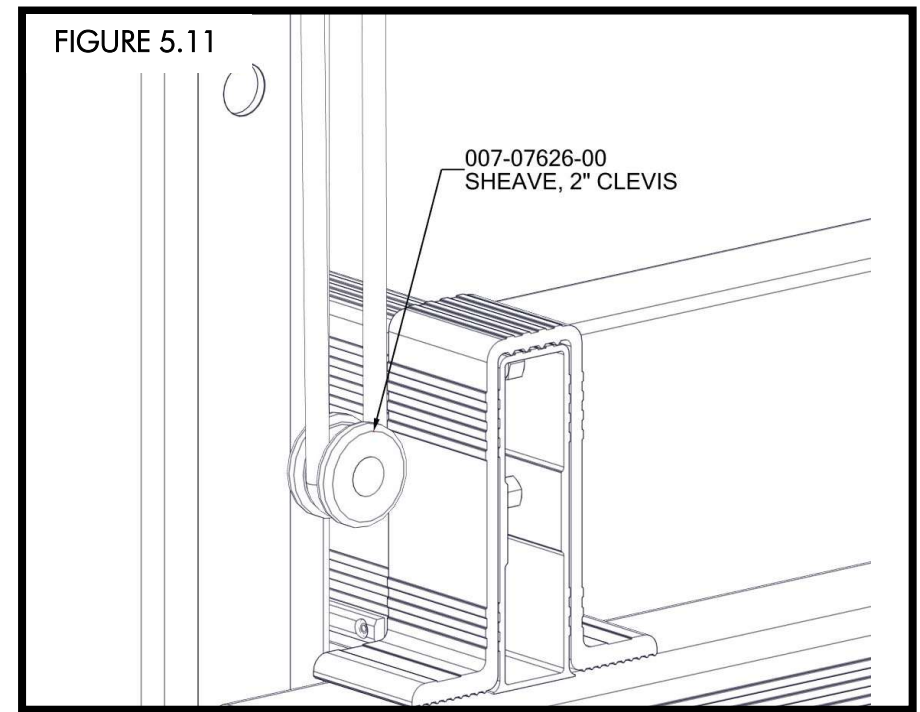
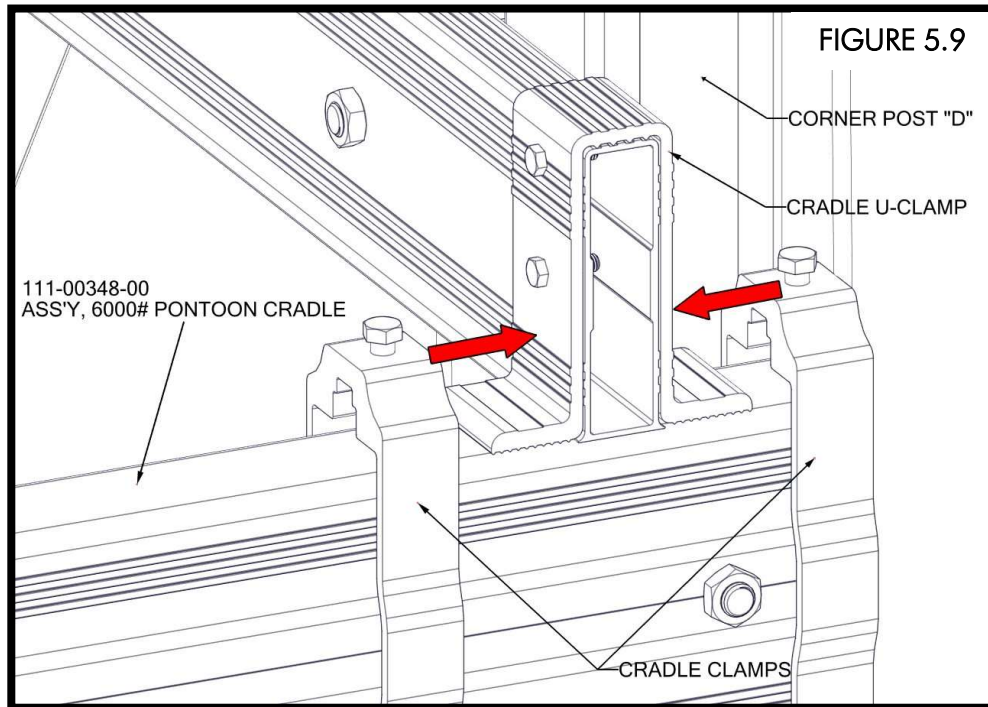
STEP 5

- PLACE A CRADLE U-CLAMP ON BOTH CORNERS OF EACH SIDE CRADLE BEAM AND ALIGN THE HOLES ON THE INSIDE OF THE SIDE CRADLE BEAMS (FIGURE 5.6).
- ATTACH CRADLE U-CLAMPS USING (2) 3/8" x 1 1/4" BOLTS AND (2) NYLOCK NUTS (FIGURE 5.7).
- TORQUE TO 35 FT-LBS (FIGURE 5.8).



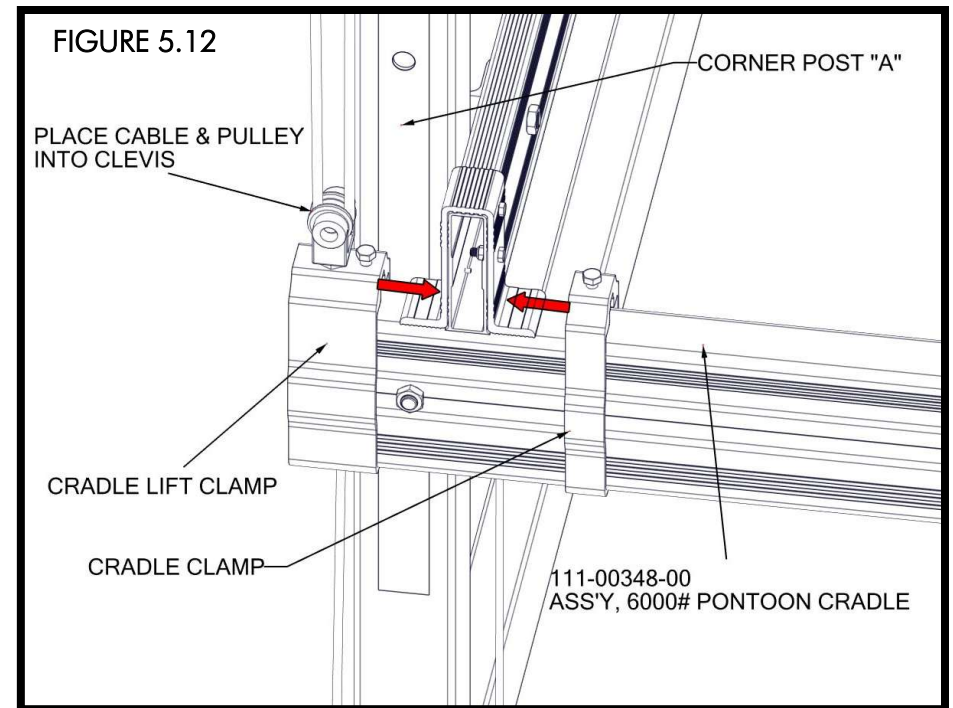
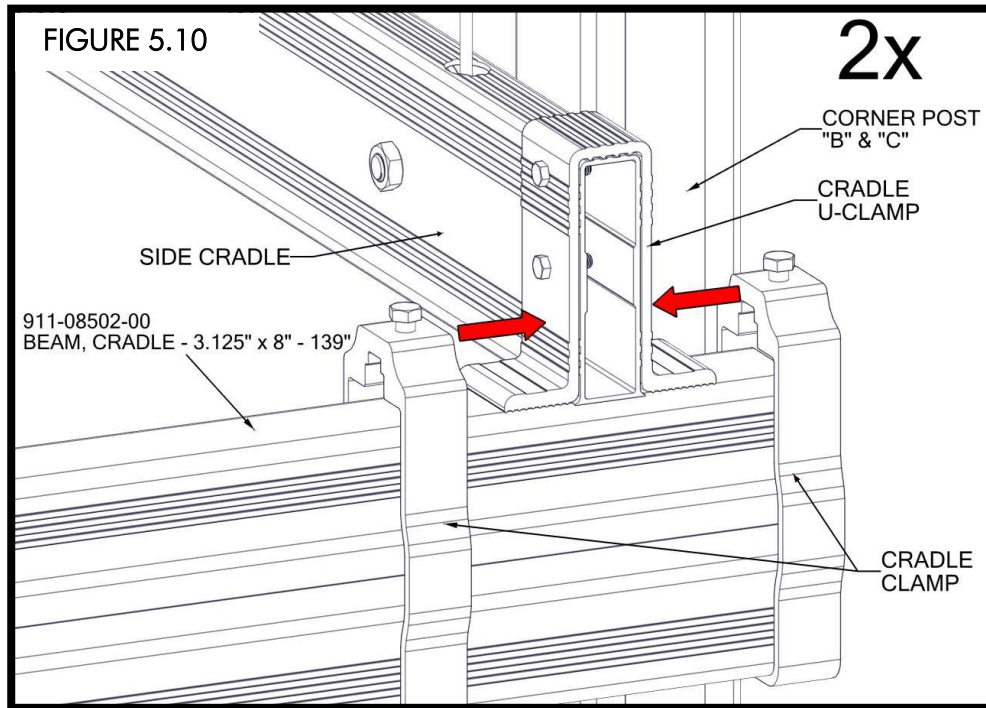
STEP 5

- ATTACH FRONT AND REAR CRADLE BEAMS TO SIDE CRADLE BEAMS USING PRE-ASSEMBLED CRADLE CLAMPS (FIGURE 5.9, 5.10, & 5.12).
- PLACE THE LIFTING CABLE INTO THE 2" SHEAVE. NOTE THAT SHEAVE IS IN "STEP SEVEN" OF HARDWARE CARD. (FIGURE 5.11).



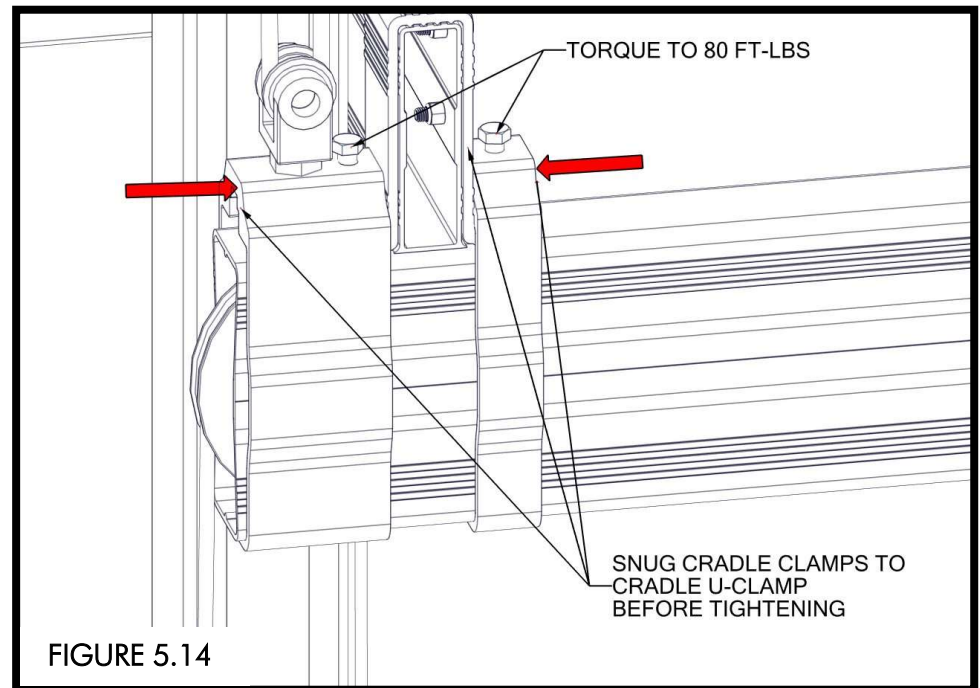
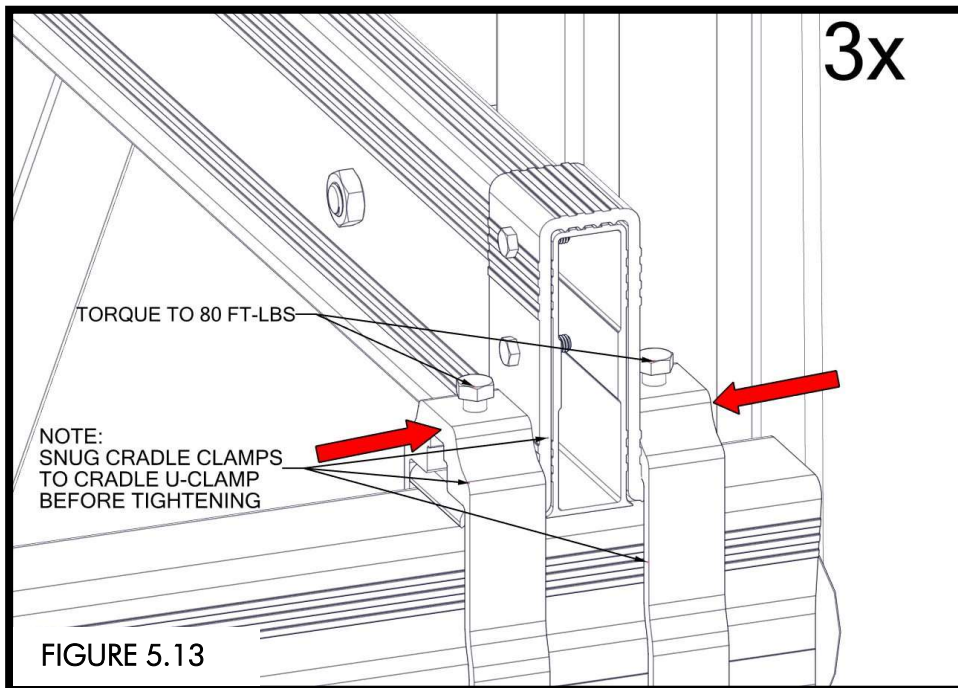
STEP 5

- ATTACH FRONT AND REAR CRADLE BEAMS TO SIDE CRADLE BEAMS USING PRE-ASSEMBLED CRADLE CLAMPS (FIGURE 5.9, 5.10, & 5.12).



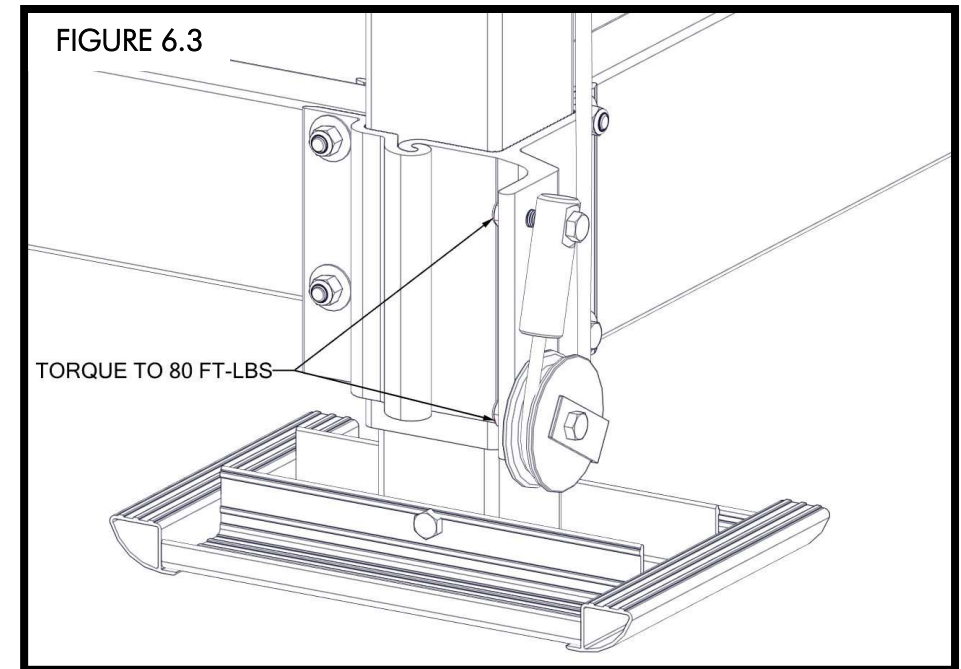
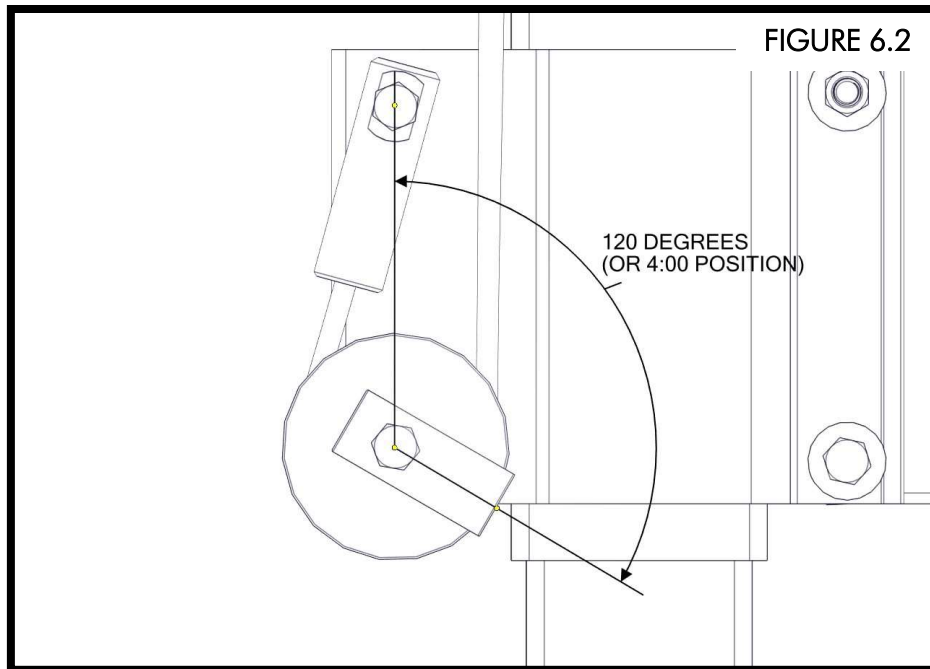
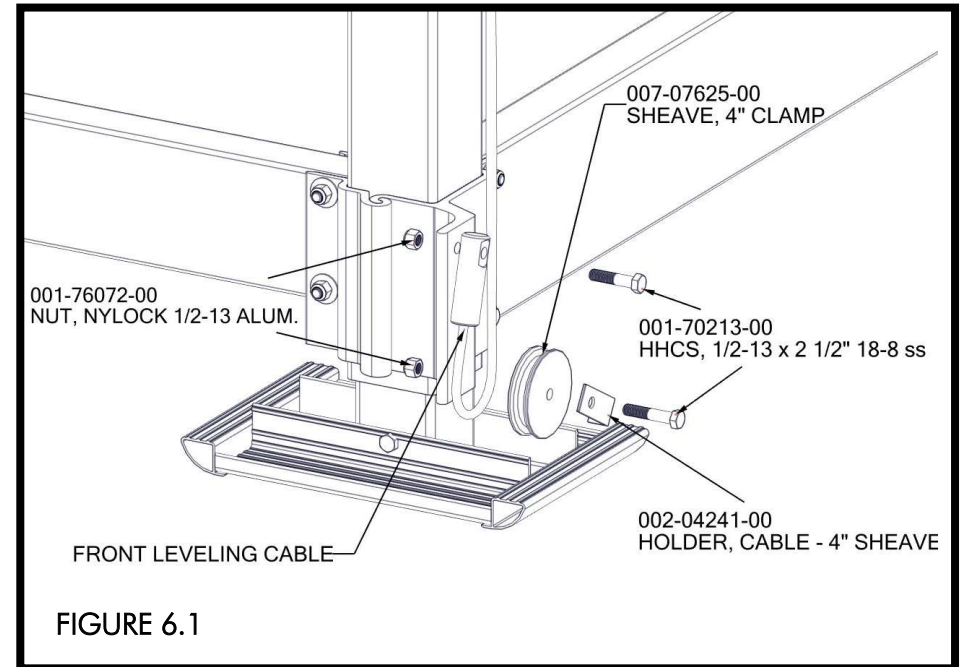
STEP 5

- USING A PAIR OF C-CLAMP PLIERS (MIN. 8" OPENING), SNUG CRADLE CLAMPS TO CRADLE U-CLAMPS BEFORE TIGHTENING $\frac{1}{2}$ " x 2" BOLTS.
CONFIRM $\frac{1}{4}$ " GAP BETWEEN SIDE CRADLE BEAMS AND CORNER POST (FIGURE 5.2)
- TORQUE TO 80 FT-LBS (FIGURE 5.13 & 5.14).



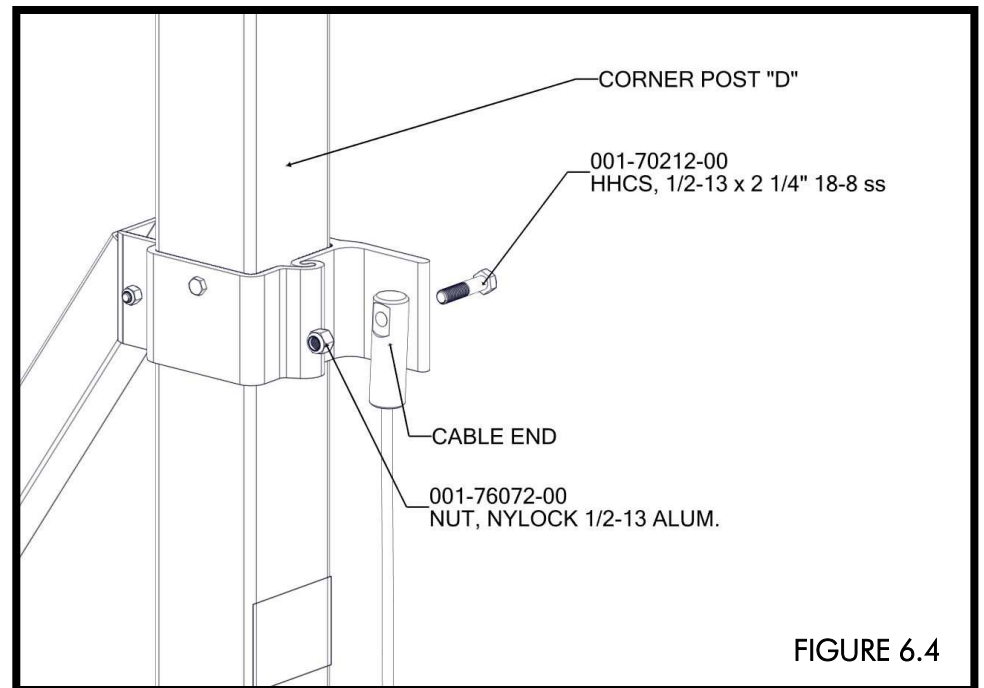
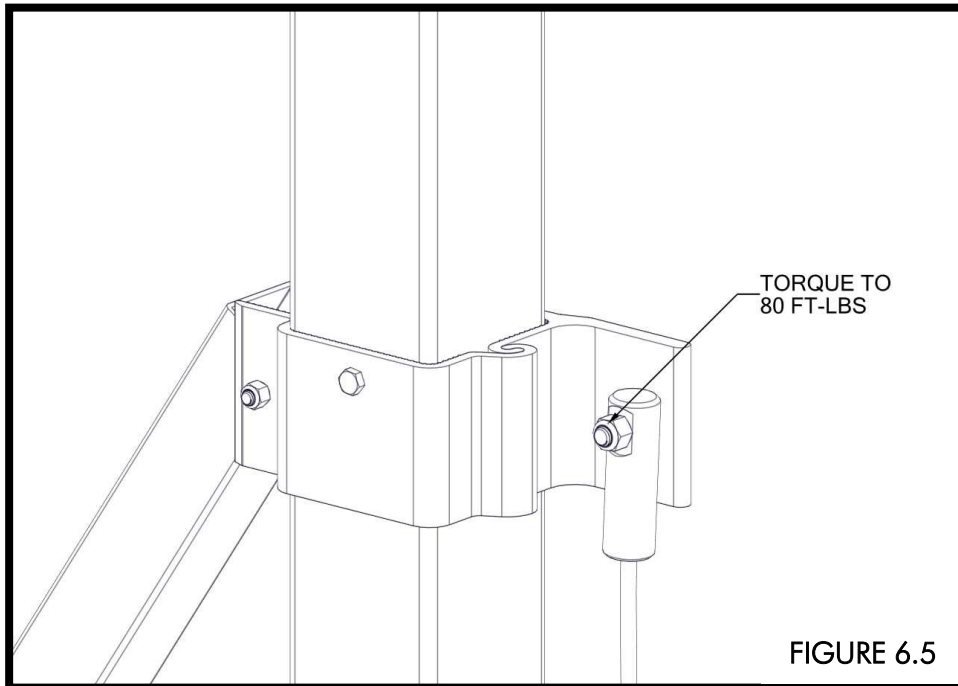
STEP 6

- WRAP FRONT LIFTING CABLE AROUND SHEAVE AND ATTACH TO LIFTING CLAMP ON CORNER POST "A" WITH A $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " BOLT AND $\frac{1}{2}$ " NYLOCK NUT. ATTACH CABLE END TO LOWER CLAMP WITH $\frac{1}{2}$ " x 2 $\frac{1}{2}$ " BOLT AND $\frac{1}{2}$ " NYLOCK NUT (FIGURE 6.1).
- CABLE HOLER IS PLACED AT APPROXIMATELY 120 DEGREES FROM VERTICAL CLOCKWISE (OR AT A 4:00 POSITION) (FIGURE 6.2).
- TORQUE TO 80 FT-LBS (FIGURE 6.3).



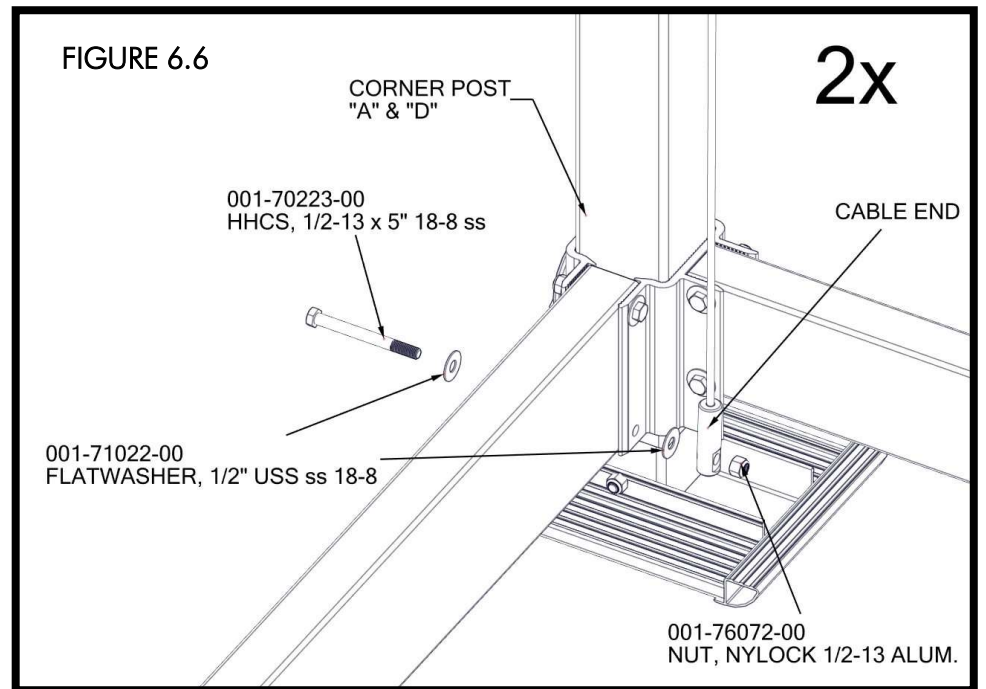
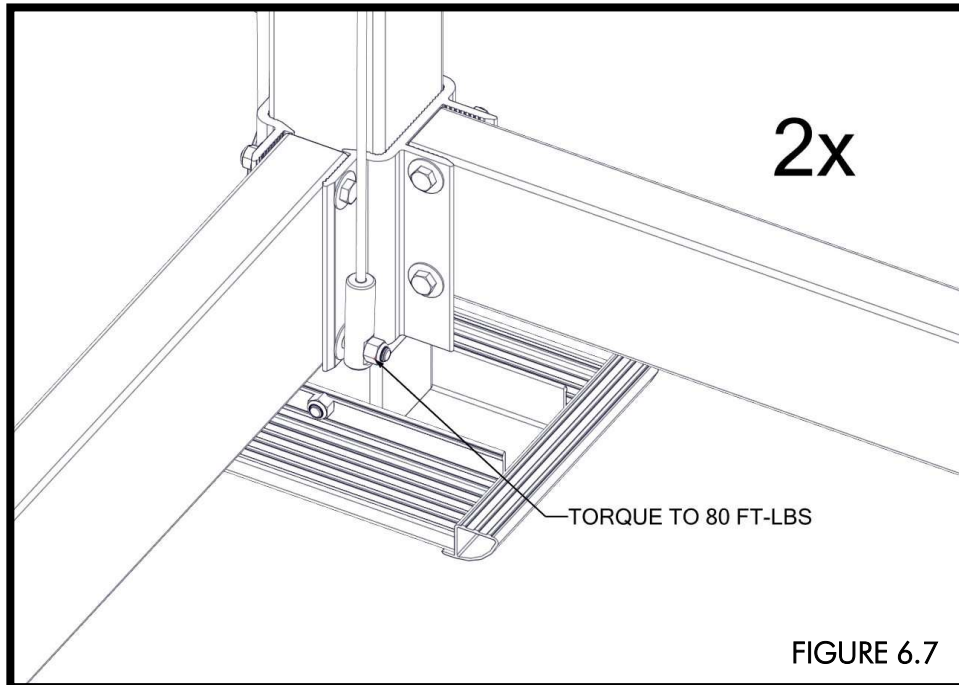
STEP 6

- WHILE LIFTING OPPOSITE END OF FRONT CRADLE BEAM, ATTACH OTHER END OF CABLE TO UPPER V-BRACE CLAMP ON CORNER POST "D" WITH A 1/2" x 2 1/4" BOLT AND 1/2" NYLOCK NUT (FIGURE 6.4).
- TORQUE TO 80 FT-LBS (FIGURE 6.5).



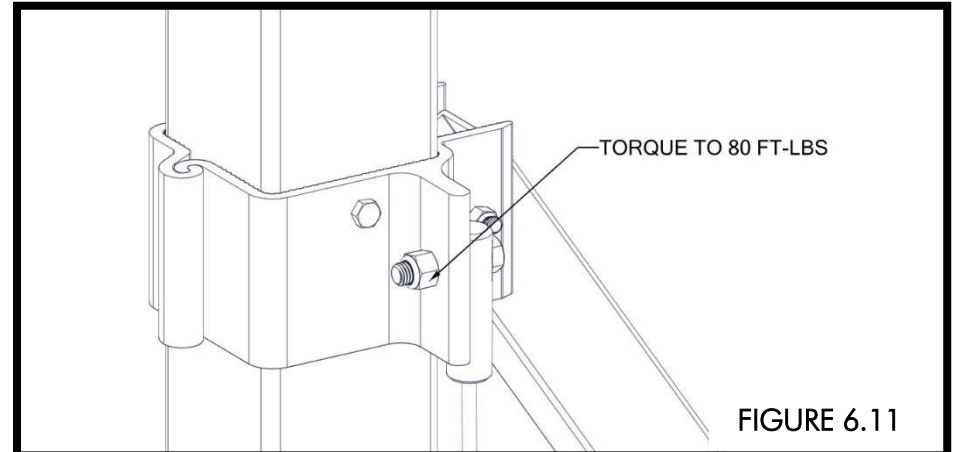
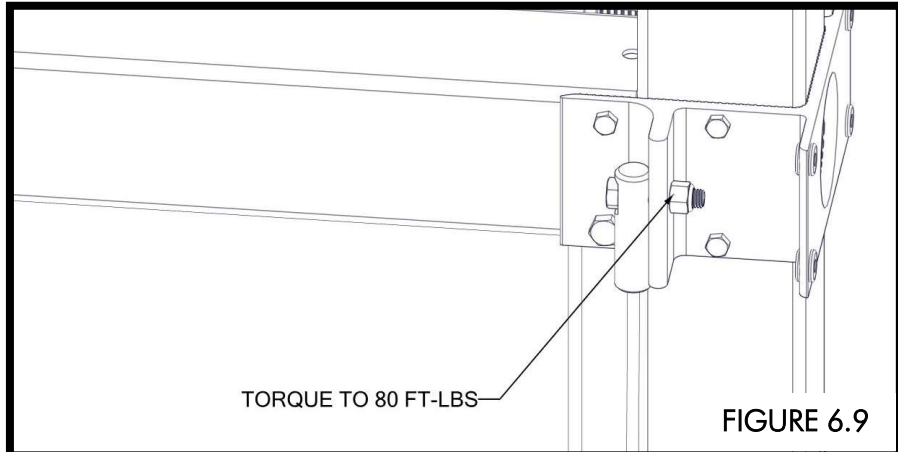
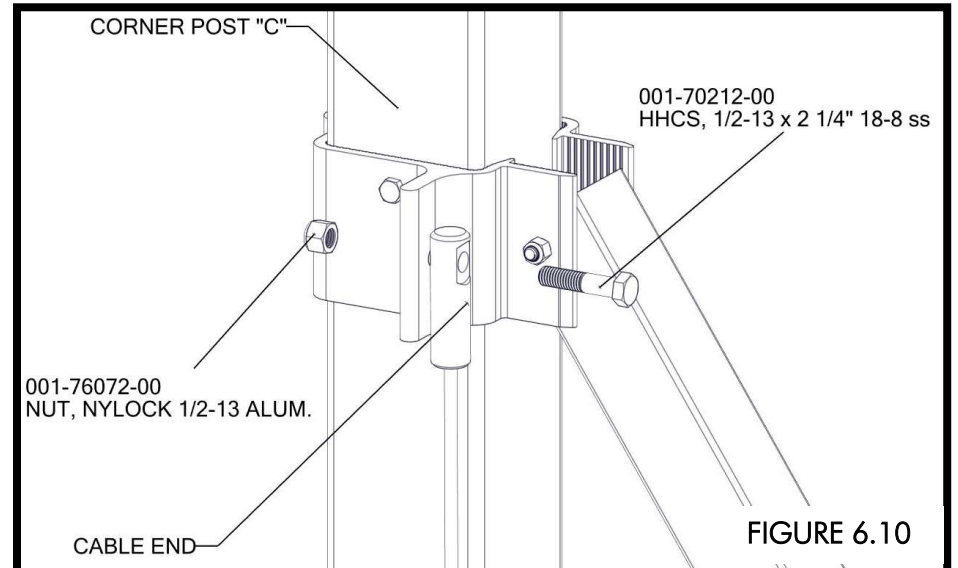
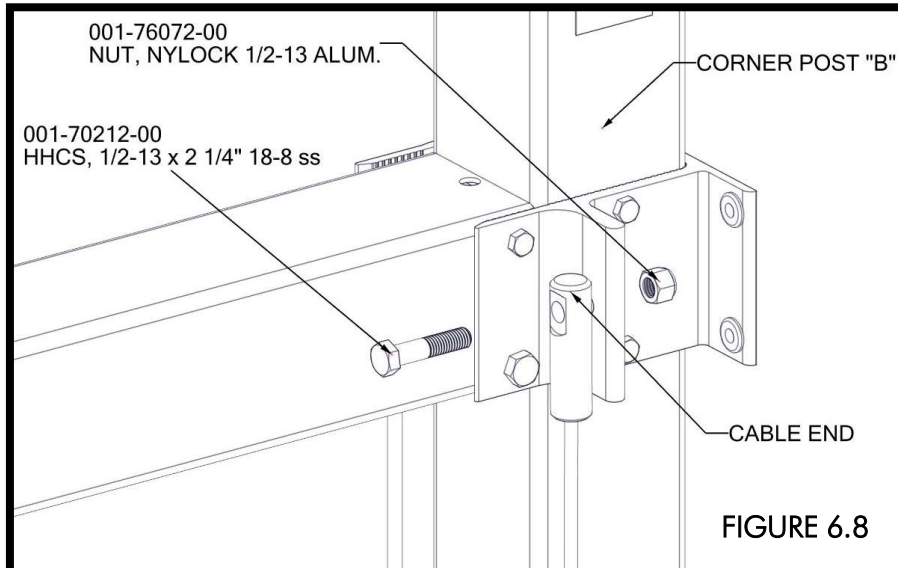
STEP 6

- ATTACH SIDE LEVELING CABLES TO LOWER FRAME CLAMPS ON CORNERS "A" & "D" BY USING A 1/2" x 5" BOLT, (2) FLAT WASHERS, AND A 1/2" NYLOCK NUT (FIGURE 6.6).
- TORQUE TO 80 FT-LBS (FIGURE 6.7).



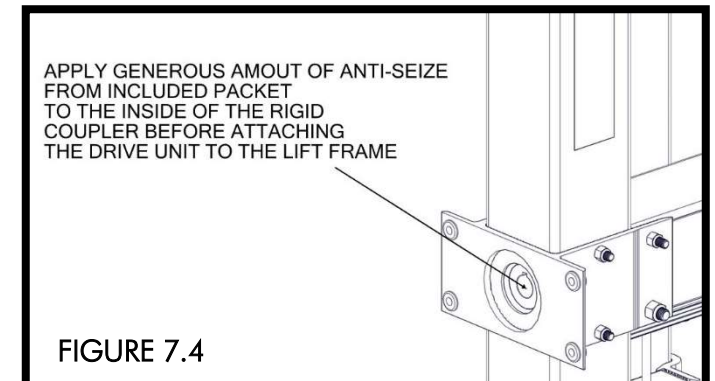
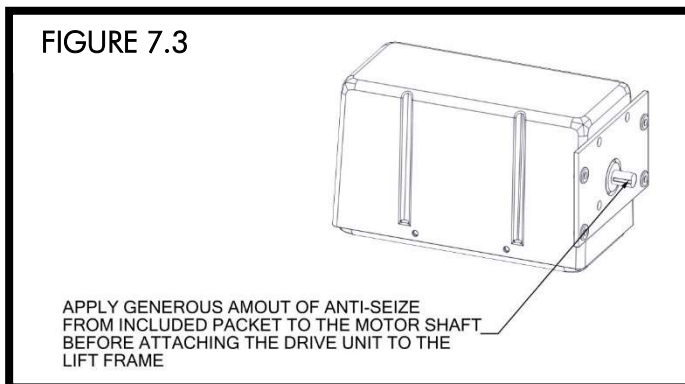
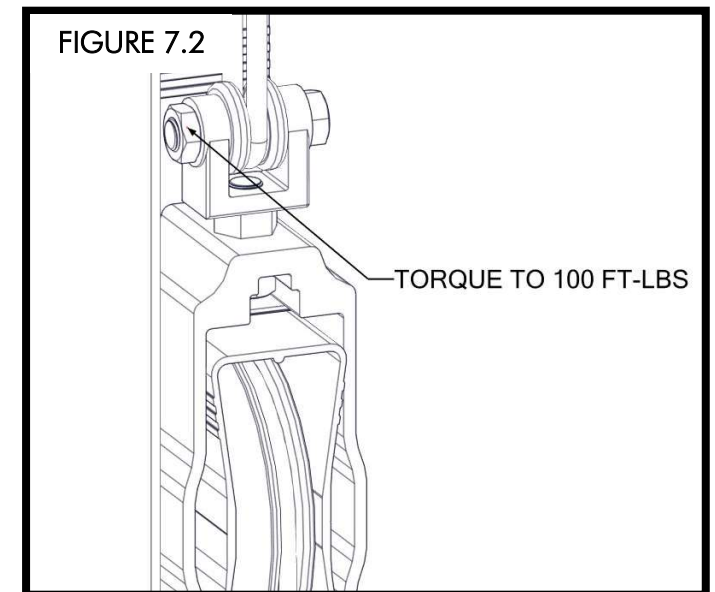
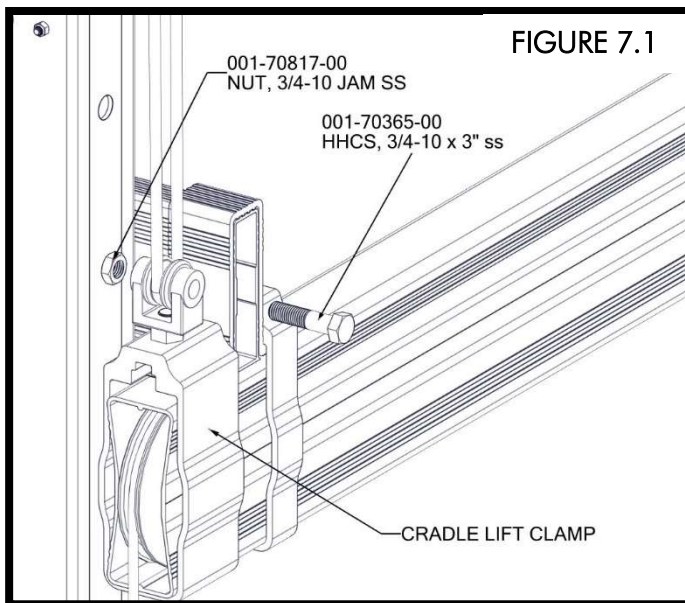
STEP 6

- THE SIDE LEVELING CABLE END PLACED AT CORNER POSTS "B" & "C" ARE ATTACHED WITH A 1/2" x 2 1/4" BOLT AND 1/2" NUT (FIGURE 6.8 & 6.10).
- TORQUE TO 80 FT-LBS (FIGURE 6.9 & 6.11)



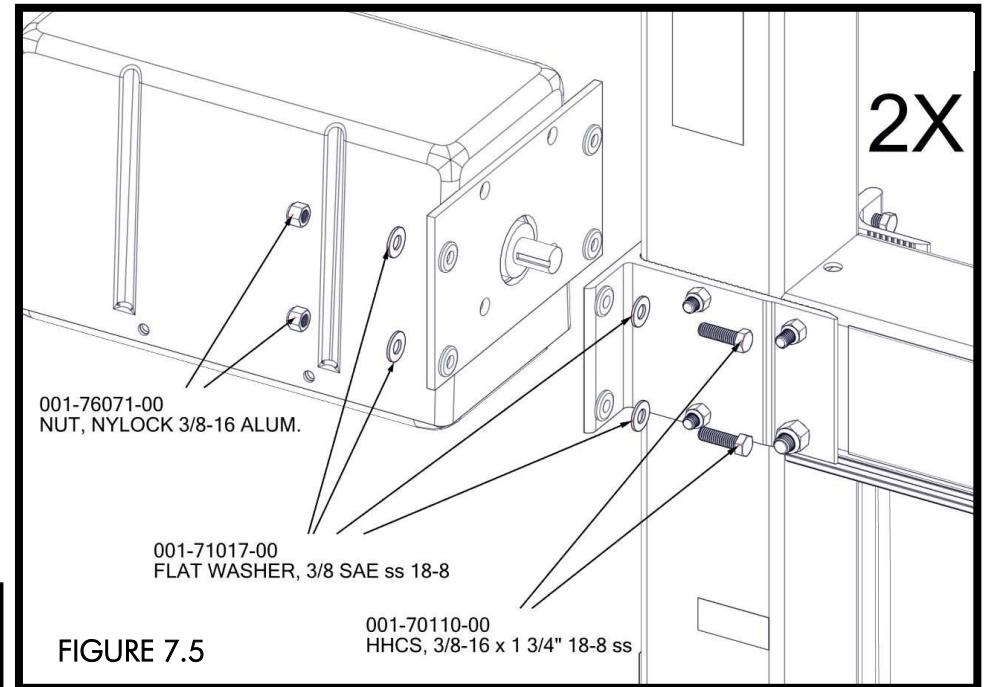
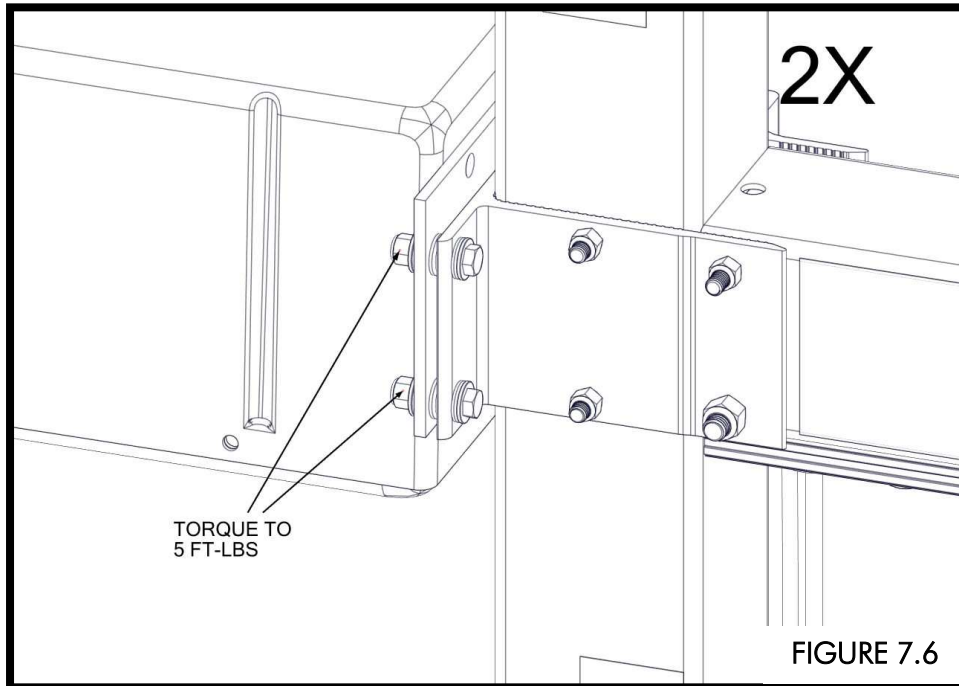
STEP 7

- FINISH TIGHTENING LIFT CLEVIS. THE SIDE OF THE CLEVIS SHOWN BELOW IN FIGURE 7.1 MUST BE PARALLEL TO THE FRONT CRADLE BEAM. IF NOT, REMOVE CLEVIS AND ROTATE BOLT IN SLOT UNTIL CLEVIS IS PARALLEL WHEN TIGHT. MAKE SURE THERE ARE NO TWISTS IN THE LIFTING CABLE AND ATTACH THE 4" SHEAVE AND CABLE LOOP TO THE CABLE CLEVIS USING A $\frac{3}{4}$ " x 3" BOLT AND $\frac{3}{4}$ " JAM NUT. THE BOLT HEAD WILL BE PARALLEL TO THE CRADLE BEAM (FIGURE 7.1).
- TORQUE TO 100 FT-LBS (FIGURE 7.2)
- APPLY A GENEROUS AMOUNT OF ANTI-SEIZE FROM INCLUDED PACKET TO THE INSIDE OF THE OF THE RIGID COUPLER AND TO THE MOTOR SHAFT BEFORE ATTACHING THE DRIVE UNIT TO THE LIFT FRAME (FIGURE 7.3 & 7.4).



STEP 7

- THE DRIVE TRAIN (SOLD SEPERATELY) CAN NOW BE ATTACHED TO THE BALL SCREW CLAMP. NOTE THAT THE RIGID COUPLER ON THE BALL SCREW AND THE DRIVE TRAIN MATE TOGETHER. WHILE HOLDING THE DRIVE TRAIN IN PLACE, ATTACH TO BALL SCREW CLAMP USING (4) 3/8" x 1 3/4" BOLTS, (4) 3/8" NYLOCK NUTS, AND (8) 1/2" FLAT WASHERS (FIGURE 7.5).
- TORQUE TO 5 FT-LBS (FIGURE 7.6).



STEP 7

- DC ONLY: SLIDE BATTERY TRAYS OVER THE BALL SCREW TUBE WITH THE WIDE OVERHANG SIDE OF THE TRAY TO THE OUTSIDE OF THE LIFT TO PROVIDE MORE CLEARANCE. PLACE FIRST BATTERY TRAY 8 INCHES FROM CORNER POST AND SECOND BATTERY TRAY 3 INCHES FROM FIRST TRAY (SEE VSD DRIVE INSTRUCTIONS). FASTEN WITH (4) 3/8" x 5 1/2" BOLTS WITH (4) 3/8" NYLOCK NUTS (FIGURE 7.7). TORQUE COMPLETELY ONCE WIRING IS DONE AFTER WIRING IS COMPLETE.

PLACE BATTERIES AND BATTERY BOXES INTO TRAYS (FIGURE 7.8)

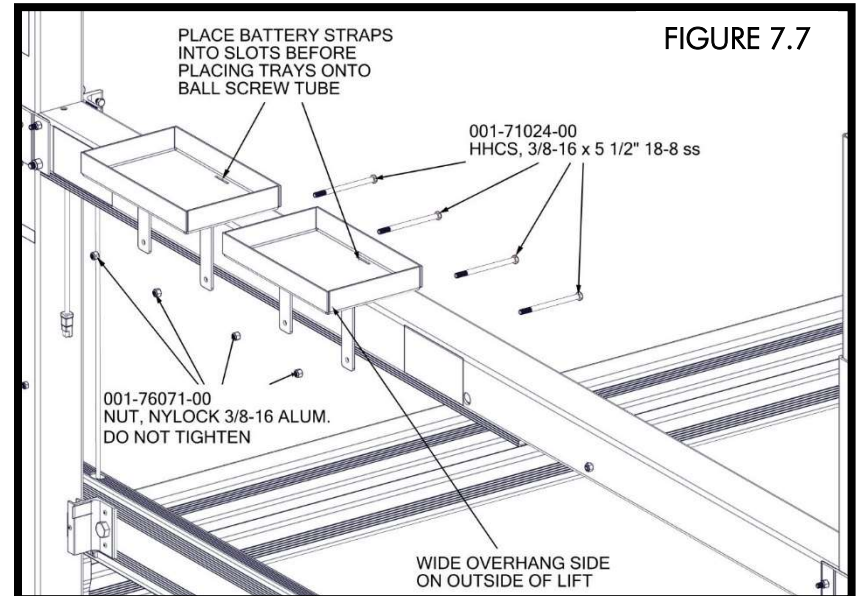


FIGURE 7.7

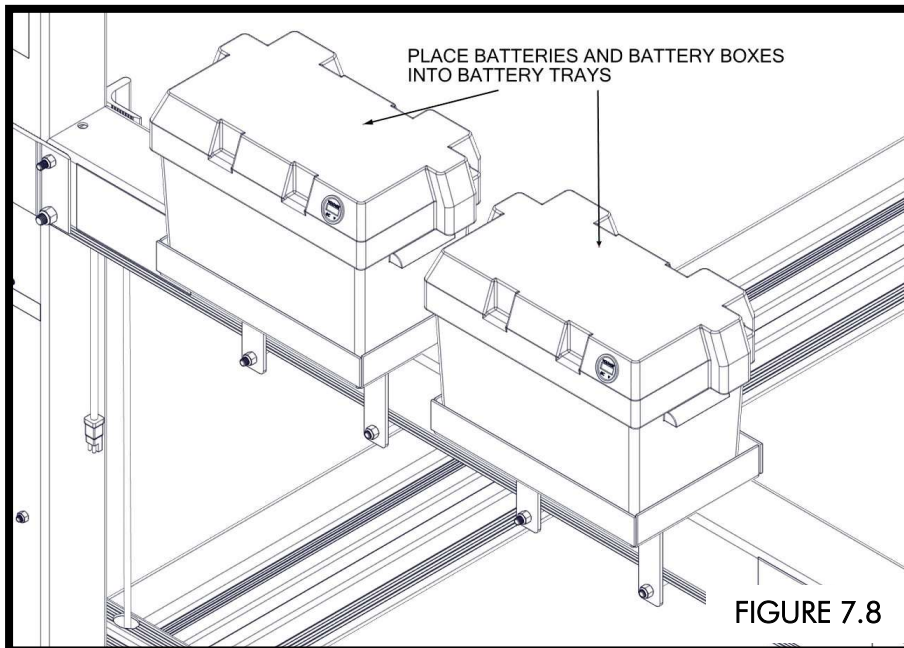


FIGURE 7.8

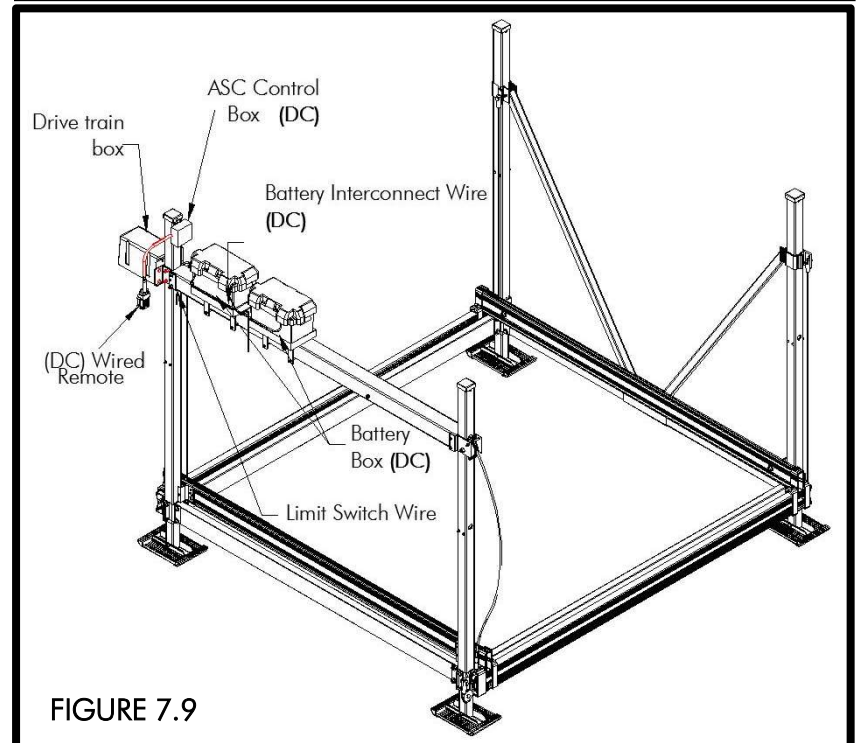


FIGURE 7.9

STEP 7 (IF USING CANOPY)

- REMOVE THE NUT, BOLT, AND WASHER FROM THE ASC AS THEY WILL NOT BE NEEDED (FIGURE 7.10).

REMOVE NUT FROM $\frac{1}{2}$ " x $1 \frac{1}{4}$ " BOLT HOLDING CANOPY INSERT (FIGURE 7.11).

ATTACH ASC BOX TO BOLT WITH NUT FROM CORNER POST, AND TORQUE TO 60 FT-LBS (FIGURE 7.12).

REMOVE NUT, BOLT, AND WASHER FROM ASC

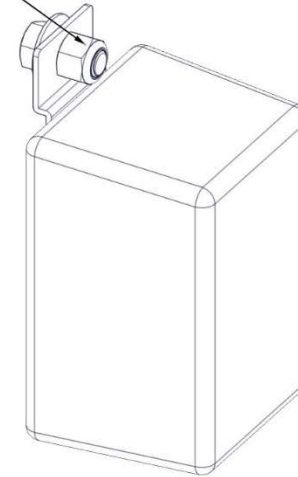


FIGURE 7.10

REMOVE NUT ATTACHING CANOPY INSERT TO CORNER POST.
REUSE FOR ATTACHMENT OF ASC.



FIGURE 7.11

ATTACH ASC TO BOLT WITH NYLOCK NUT
AND TORQUE TO 60 FT-LBS

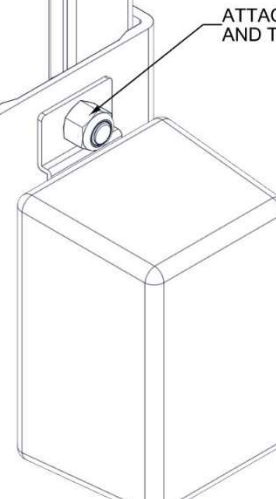
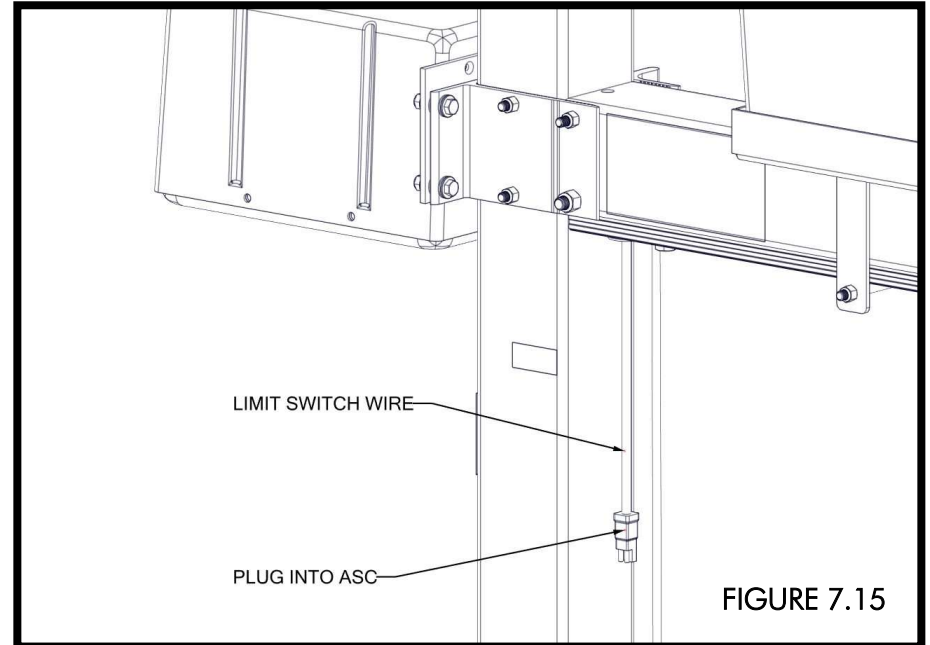
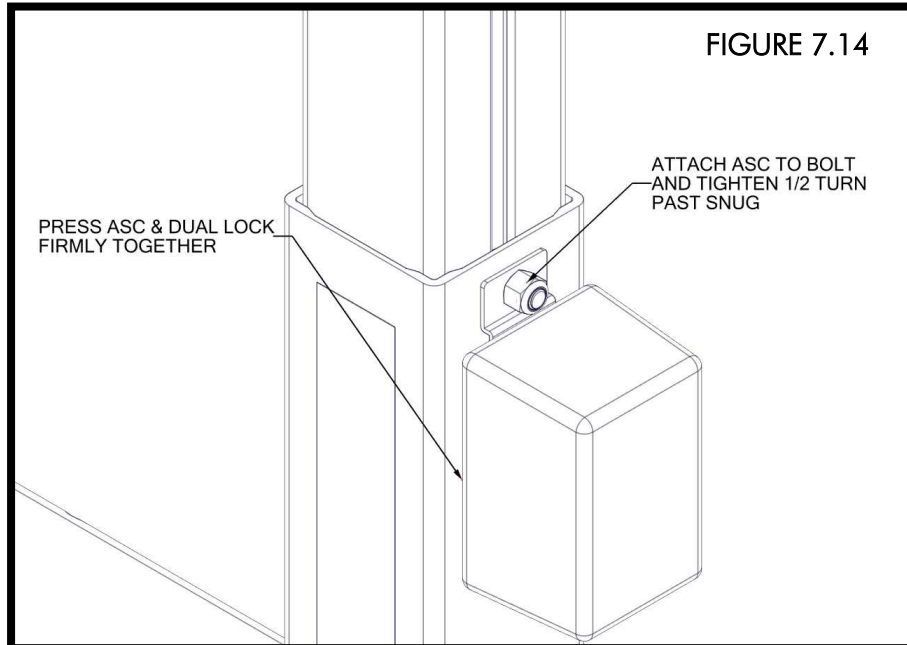
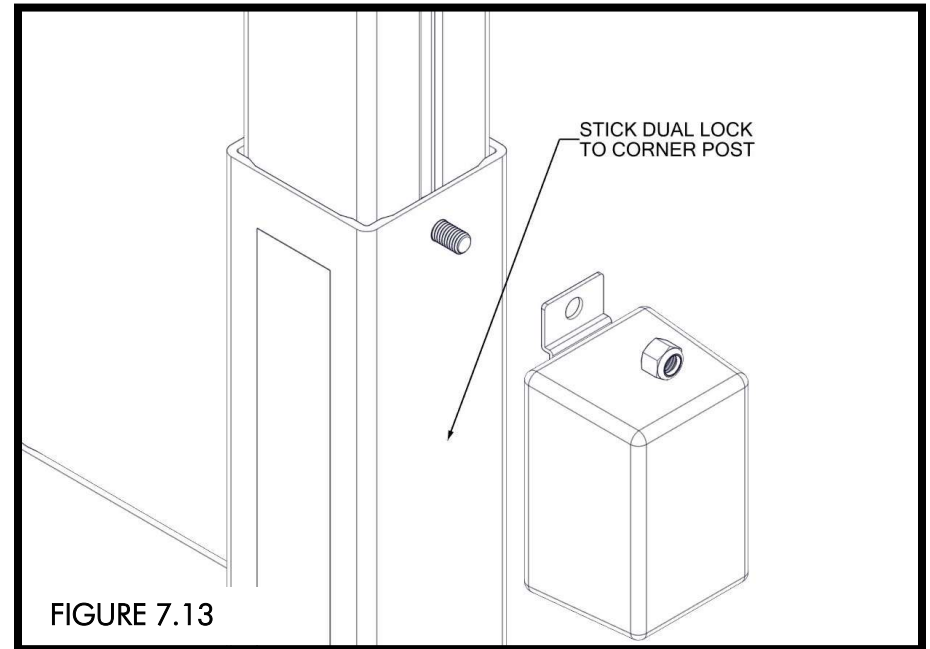


FIGURE 7.12

STEP 7 (NO CANOPY)

- STICK DUAL LOCK ON CORNER POST BELOW LOCATION OF ASC. ATTACH THE UNIT TO THE UPPER HOLE IN CORNER POST AND TIGHTEN $\frac{1}{2}$ TURN PAST SNUG. PRESS ASC AND DUAL LOCK FIRMLY TOGETHER (FIGURE 7.13 & 7.14)
- PLUG LIMIT SWITCH WIRE FROM THE LIFT FRAME INTO THE LIMIT SWITCH PLUG FROM THE WCS. THE LIMIT SWITCH WIRE FROM THE LIFT FRAME IS LOCATED ON THE CHANNEL ON THE BOTTOM SIDE OF THE BALL SCREW TUBE. (FIGURE 7.15).



STEP 8

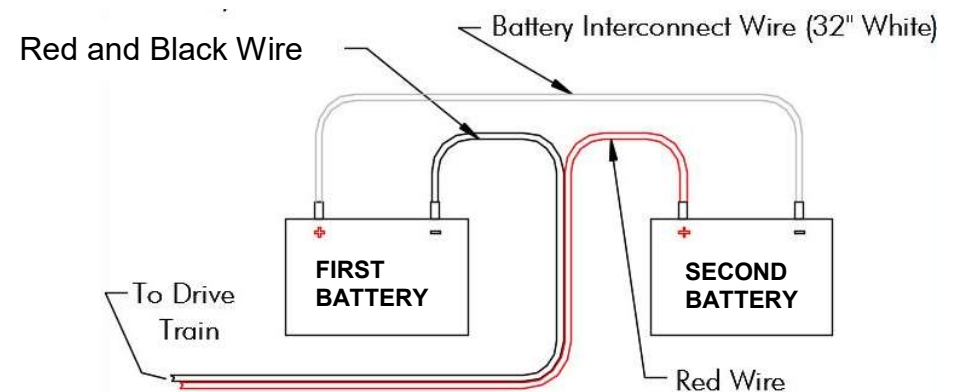
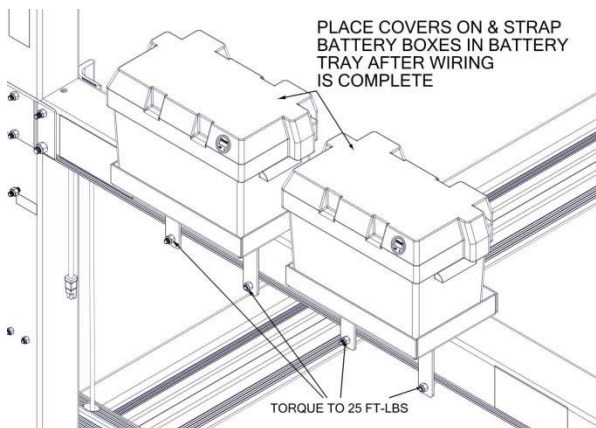
1. AC ONLY - THE DRIVE TRAIN CAN NOW BE CONNECTED TO THE POWER SOURCE. IT IS VERY IMPORTANT THAT THIS CONNECTION BE MADE IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

SEE WARNING:



2. DC ONLY - 24 VOLT BATTERY SETUP (SEE VSD DRIVE INSTRUCTIONS FOR ADDITIONAL DETAILS)

- CONNECT REMAINING RED AND RED & BLACK WIRES FROM THE ASC WITH RING TERMINALS TO THE BATTERIES. THE RED WIRE IS CONNECTED TO THE POSITIVE POST ON THE SECOND BATTERY AND THE RED & BLACK WIRE IS CONNECTED TO THE NEGATIVE POST ON THE FIRST BATTERY.
- CONNECT THE WHITE BATTERY INTERCONNECT CABLE TO THE POSITIVE POST OF THE FIRST BATTERY AND THE NEGATIVE POST OF THE SECOND BATTERY.
- AT THIS TIME, ATTACH THE BATTERY VOLT METER (INCLUDED WITH BATTERY BOX, SEE INCLUDED INSTRUCTIONS (RED-POSITIVE, BLACK-NEGATIVE)). TORQUE 3/8" NUTS FOR BATTERY TRAYS TO 25 FT-LBS.



STEP 8

VSD PRE-INSTALLATION CHECKLIST

PRIOR TO INSTALLING YOUR LIFT, PLEASE FOLLOW THIS CHECKLIST TO CONFIRM PROPER OPERATION.

1. RAISE THE LIFT UP TO CONFIRM OPERATION OF UPPER LIMIT SWITCH. APPROACH THE UPPER LIMIT SWITCH CAUTIOUSLY BY PRESSING THE UP BUTTON IN SHORT BURSTS AS YOU NEAR THE TOP OF THE LIFT TRAVEL. A PROPERLY WORKING LIMIT SWITCH WILL STOP THE LIFT BEFORE THE BALL SCREW REACHES ITS LIMIT OF TRAVEL. IF THE LIMIT SWITCH DOES NOT STOP THE LIFT AND THE BALL NUT REACHES THE END OF THE BALL SCREW, YOU WILL BE ABLE TO SEE THE DRIVE UNIT TWISTING SLIGHTLY, INDICATING THAT THE MOTOR IS TRYING TO RUN. ALSO, YOU PROBABLY WOULD HAVE HEARD THE BALL NUT HITTING THE METAL STOP AT THE END OF THE SCREW. THE BRAKE WILL STILL CLICK WHEN STOPPED AT THE LIMITS.
2. LOWER THE LIFT DOWN TO CONFIRM OPERATION OF LOWER LIMIT SWITCH. AGAIN, AS YOU APPROACH THE BOTTOM OF THE LIFT TRAVEL, PRESS THE DOWN BUTTON IN SHORT BURSTS. THE LIFT SHOULD STOP WITH A SMALL AMOUNT OF SLACK IN THE LIFTING CABLE AFTER THE CABLE CONTACTS THE LIFT FRAME. IF THE LIMIT SWITCH DOES NOT STOP THE LIFT AND THE BALL NUT REACHES THE END OF THE BALL SCREW, YOU WILL BE ABLE TO SEE THE DRIVE UNIT TWISTING SLIGHTLY, INDICATING THAT THE MOTOR IS TRYING TO RUN. ALSO, YOU PROBABLY WOULD HAVE HEARD THE BALL NUT HITTING THE METAL STOP AT THE END OF THE SCREW.

PRIOR TO INSTALLING YOUR LIFT, PLEASE FOLLOW THIS CHECKLIST TO CONFIRM PROPER OPERATION.

3. LISTEN FOR UNUSUAL NOISES DURING LIFT OPERATION. SQUEAKING MAY INDICATE THAT THE LIFT MAY NOT HAVE BEEN GREASED. BOTH THE THRUST BEARING AND THE BALL NUT MUST BE GREASED BEFORE USING THE LIFT. PLEASE SEE OWNER'S MANUAL FOR DETAILS.
4. IF YOU HAVE A WIRELESS REMOTE, IT WOULD BE A GOOD IDEA TO TEST IT AT THIS TIME. THERE IS NO NEED TO GO ALL THE WAY TO THE LIMIT SWITCHES, SINCE THOSE WERE TESTED IN THE PREVIOUS STEPS. ALSO, CHECK THE INSIDE (AMBER) LIGHT AND THE MAST LIGHT IF YOU HAVE ONE. THE LIGHTS COME ON WHEN THEIR BUTTONS ARE PRESSED AND GO OFF WITH A SECOND PRESS OR AFTER ABOUT 7 MINUTES OF NO LIGHT BUTTON ACTIVITY.

VSD 6000 PONTOON FRAME BILL OF MATERIALS

LIFT P/N 511-60075-01

NO.	PART NUMBER	DESCRIPTION	QTY
1	001-16369-00	HHCS, 3/4-16 x 4" Grade 5 Plain	1
2	001-23877-00	SHCS, 1/2-20 x 1 1/2" (Black)	2
3	001-26911-00	Pin, Dowel 3/16" x 7/8"	4
4	001-26969-00	Pin, Groove 5/32"x 1.125" Zinc	4
c	001-29156-00	Nut, Jam Nylock 1/4-20 18-8 ss	1
6	001-33092-00	Flat Washer, SAE 3/4" Zinc	1
7	001-70040-00	HHCS, 1/2-20 x 2" 18-8 ss	1
8	001-70107-00	HHCS, 3/8-16 x 1 1/4" 18-8 ss	9
9	001-70110-00	HHCS, 3/8-16 X 1 3/4" 18-8 ss (NOT SHOWN IN EXP VIEWS)	4
10	001-70117-00	HHCS, 3/8-16 x 3 1/2" 18-8 ss	2
11	001-70118-00	HHCS, 3/8-16 x 3 3/4" 18-8 ss	2
12	001-70121-00	HHCS, 3/8-16 x 4 1/2" 18-8 ss	1
13	001-70123-00	HHCS, 3/8-16 x 5" 18-8 ss	1
14	001-70124-00	HHCS, 3/8-16 x 5 1/2" 18-8 ss (NOT SHOWN IN EXP VIEWS)	4
15	001-70125-00	HHCS, 3/8-16 x 6" 18-8 ss	7
16	001-70203-00	HHCS, 1/2-13 x 3/4" 18-8 ss	2
17	001-70211-00	HHCS, 1/2-13 x 2" 18-8 ss	8
18	001-70212-00	HHCS, 1/2-13 x 2 1/4" 18-8 ss	3
19	001-70213-00	HHCS, 1/2-13 x 2 1/2" 18-8 ss	2
20	001-70215-00	HHCS, 1/2-13 x 3" 18-8 ss	2
21	001-70219-00	HHCS, 1/2-13 x 4" 18-8 ss	14
22	001-70223-00	HHCS, 1/2-13 x 5" 18-8 ss	6
23	001-70225-00	HHCS, 1/2-13 x 6" 18-8 ss	1
24	001-70363-00	HHCS, 3/4-10 x 2 1/2" ss	4
25	001-70365-00	HHCS, 3/4-10 x 3" ss	3
26	001-70394-00	HHCS, 3/4-16 x 2" ss	1
27	001-70817-00	Nut, 3/4-10 Jam ss	7
28	001-70819-00	Nut, 1"-8 Jam ss	2
29	001-70861-00	Nut, Nylock 5/16-18 - Alum.	8
30	001-71017-00	Flat Washer, 3/8" SAE ss 18-8 (NOT SHOWN IN EXP VIEWS)	8
31	001-71021-00	Flat Washer, 1/2" 18-8 SS	3
32	001-71022-00	Flat Washer, 1/2" USS ss 18-8	32
33	001-71024-00	Flat Washer, 5/8"x1.25"x.060 SS	16
34	001-71027-00	Flat Washer, 1/2" USS ss 18-8	4
35	001-74404-00	CB, 5/16-18 x 5" ss 18-8	8
36	001-76069-00	Flat Washer, 5/8 (Lift) Nylon	8
37	001-76071-00	Nut, Nylock 3/8-16 Alum.	29
38	001-76072-00	Nut, Nylock 1/2-13 Alum.	37
39	002-00076-01	Post, Corner Lifting "A"	1
40	002-00077-01	Post, Corner Motor "B"	1
41	002-00078-01	Post, Corner "C & D"	2
42	002-04032-00	U-Clamp, Side Cradle	4
43	002-04204-00	Clamp, Cradle - 1.75"	7
44	002-04205-00	Clamp, Cradle Lift - 3.875"	1
45	002-04207-00	Clamp, Frame (Lifting) - 8"	1
46	002-04208-00	Clamp, Frame (Outer) - 8"	3
47	002-04209-00	Clamp, Frame (RF LR) (Welded to Corner Post)	2
48	002-04210-00	Clamp, Upper (Universal) - 4"	2
49	002-04211-00	Clamp, Upper (Front) - 4"	1
50	002-04212-00	Clamp, Upper (Rear)	1
51	002-04216-00	Clamp, V-Brace (Male)	1
52	002-04217-00	Clamp, V-Brace (Female)	1
53	002-04223-01	Clamp, 4.5" Ball Screw 6-8000 VSD	1
54	002-04224-00	Clamp, Pulley (Inner)	1
55	002-04226-00	Guide, Cradle	2
56	002-04227-00	Clamp, Frame (LF RR) (Welded to Corner Post)	2
57	002-04230-00	Clamp, Pulley (Outer)	1
58	002-04241-00	Holder, Cable - 4" Sheave	1

NO.	PART NUMBER	DESCRIPTION	QTY
59	002-04245-00	Bracket, Level Leg - 4"	4
60	002-04258-00	Spacer, 8" Frame Beam	4
61	002-04291-00	V-Brace - 86.250"	2
62	002-04332-00	Beam, 8" Frame - 130"	2
63	002-04334-00	Beam, Front Cradle - 139"	1
64	002-04351-00	Beam, 6" Frame - 108"	2
65	002-04356-00	Beam, Side Cradle (A) 6-8000#	1
66	002-04357-00	Beam, Side Cradle (B) 6-8000#	1
67	003-40001-00	Grommet, Motor, VSD	4
68	006-10021-00	Sleeve, UHMW Ball Screw Support	1
69	006-10202-00	Pad, Wear - 1/2 x 7/8" x 2"	2
70	006-10207-00	Spacer, Side Cradle Sheave	8
71	006-10208-00	Spacer, Front Cradle Sheave	4
72	006-11002-00	UHMW, 1/2" x 6.5" x .25"	4
73	006-15016-00	Cap, Vinyl - Lg. Winch Post	1
74	006-15500-00	Cap, Vinyl 4.500" Sq. x 1.5"	3
75	006-22202-00	Sleeve, Steel 1" x 2.25" Lg.	1
76	007-05013-00	Plate, End Stop (Ball Screw)	1
77	007-05023-00	Bevel Gear, Top 1:1	4
78	007-05068-00	Clevis, Lifting Cable Pulley	1
79	007-05079-01	Screw, Bevel Gear Adjustment	4
80	007-05126-00	Fitting, Grease M8 X 1 (Flush)	2
81	007-05222-00	Key, 1/4" SQ x 3" Long	1
82	007-05224-00	Coupler, Rigid 1" x 2" x 3"	1
83	007-05500-00	Pin, Sheave - 1" x 6.688"	1
84	007-07625-00	Sheave, 4" Clamp	1
85	007-07626-00	Sheave, 2" Clevis	1
86	007-07704-00	Spacer, 1.297 Side Cradle	4
87	007-07705-00	Spacer, 1.938" Front Cradle	2
88	007-07708-00	Spacer, Pulley 6000-8000#	2
89	007-09105-00	Cable, Side Leveling - 190.5"	2
90	007-09154-00	Cable, Front Leveling 233.625"	1
91	007-09161-00	Cable, Lifting - 237.0" 6-8000#	1
92	007-15024-00	Bevel Gear, Bottom (Fab)	4
93	007-93534-00	Nut, Round M30 x 1.5 (Zinc Plated)	1
94	011-15015-00	Ball Screw, 40-10 mm 1930.4 mm	1
95	111-00140-00	Weldment, 14" Sand Pad	4
96	111-00188-02	Ass'y, Side Cradle Right	1
97	111-00189-02	Ass'y, Side Cradle Left	1
98	111-00198-00	Ass'y, 7" Lifting Sheave	2
99	111-00199-00	Ass'y, 6" Side Level Sheave	4
100	111-00200-00	Ass'y, 7 1/4" Sheave	2
101	111-00249-00	Ass'y, Ball Nut Block 6-8000#	1
102	111-00251-00	Ass'y, Cradle Guide	4
103	111-00311-00	Ass'y, Bearing Block w/ Bearing	1
104	111-00348-00	Ass'y, 6000# Pontoon Cradle	1
105	111-00423-01	Weldment, Inner Leg 6-8000#	4
106	111-00424-01	Ass'y, Inner Leg 6-8000	4
107	111-00425-01	Ass'y, Corner Post "A" Lifting	1
108	111-00426-01	Ass'y, Corner Post "B" Motor	1
109	111-00427-01	Ass'y, Corner Post "C"	1
110	111-00428-01	Ass'y, Corner Post "D"	1
111	111-00429-01	Weld't, Ball Screw Tube 6-8000#	1
112	111-00430-01	Ass'y, Ball Screw Tube 6-8000#	1
113	111-60750-00	Ass'y, Limit Switch 6000-8000	1
114	911-08502-00	Beam, Cradle 3.125 x 8 - 139"	1
115	911-10501-00	Spacer, 6" Frame Beam - 2.203"	4
116	911-21302-00	Canopy Insert, Lrg. Lift - 44"	1

VSD 6000 PONTON FRAME BILL OF MATERIALS – SUB-ASSEMBLIES

LIFT P/N 511-60075-01

NO.	PART NUMBER	DESCRIPTION	QTY
96	111-00188-02	Ass'y, Side Cradle Right	1
24	001-70363-00	HHCS, 3/4-10 x 2 1/2" ss	2
27	001-70817-00	Nut, 3/4-10 Jam ss	2
66	002-04357-00	Beam, Side Cradle (B) 6-8000#	1
70	006-10207-00	Spacer, Side Cradle Sheave	4
72	006-11002-00	UHMW, 1/2" x 6.5" x .25"	2
86	007-07704-00	Spacer, 1.297 Side Cradle	2
89	007-09105-00	Cable, Side Leveling - 190.5"	1
99	111-00199-00	Ass'y, 6" Side Level Sheave	2
102	111-00251-00	Ass'y, Cradle Guide	2

NO.	PART NUMBER	DESCRIPTION	QTY
97	111-00189-02	Ass'y, Side Cradle Left	1
24	001-70363-00	HHCS, 3/4-10 x 2 1/2" ss	2
27	001-70817-00	Nut, 3/4-10 Jam ss	2
65	002-04356-00	Beam, Side Cradle (A) 6-8000#	1
70	006-10207-00	Spacer, Side Cradle Sheave	4
72	006-11002-00	UHMW, 1/2" x 6.5" x .25"	2
86	007-07704-00	Spacer, 1.297 Side Cradle	2
89	007-09105-00	Cable, Side Leveling - 190.5"	1
99	111-00199-00	Ass'y, 6" Side Level Sheave	2
102	111-00251-00	Ass'y, Cradle Guide	2

NO.	PART NUMBER	DESCRIPTION	QTY
104	111-00348-00	Ass'y, 6000# Pontoon Cradle	1
25	001-70365-00	HHCS, 3/4-10 x 3" ss	2
27	001-70817-00	Nut, 3/4-10 Jam ss	2
63	002-04334-00	Beam, Front Cradle - 139"	1
71	006-10208-00	Spacer, Front Cradle Sheave	4
84	007-07705-00	Spacer, 1.938" Front Cradle	2
90	007-09154-00	Cable, Front Leveling 233.625"	1
100	111-00200-00	Ass'y, 7 1/4" Sheave	2

NO.	PART NUMBER	DESCRIPTION	QTY
106	111-00424-01	Ass'y, Inner Leg 6-8000	1
3	001-26911-00	Pin, Dowel 3/16" x 7/8"	1
4	001-26969-00	Pin, Groove 5/32" x 1.125" Zinc	1
31	001-71024-00	Flat Washer, 5/8"x1.25"x.060 SS	4
34	001-71027-00	Flat Washer, 1/2" USS ss 18-8	4
35	001-76069-00	Flat Washer, 5/8 (Lift) Nylon	2
59	002-04245-00	Bracket, Level Leg - 4"	1
77	007-05023-00	Bevel Gear, Top 1:1	1
79	007-05079-01	Screw, Bevel Gear Adjustment	1
92	007-15024-00	Bevel Gear, Bottom (Fab)	1
105	111-00423-01	Weldment, Inner Leg 6-8000#	1

NO.	PART NUMBER	DESCRIPTION	QTY
107	111-00425-01	Ass'y, Corner Post "A" Lifting	1
28	001-70819-00	Nut, 1"-8 Jam ss	2
29	001-70861-00	Nut, Nylock 5/16-18 - Alum.	2
35	001-74404-00	CB, 5/16-18 x 5" ss 18-8	2
39	002-00076-01	Post, Corner Lifting "A"	1
47	002-04209-00	Clamp, Frame (RF LR)	1
54	002-04224-00	Clamp, Pulley (Inner)	1
57	002-04230-00	Clamp, Pulley (Outer)	1
74	006-15500-00	Cap, Vinyl 4.500" Sq. x 1.5"	1
83	007-05500-00	Pin, Sheave - 1" x 6.688"	1
88	007-07708-00	Spacer, Pulley 6000-8000#	2
98	111-00198-00	Ass'y, 7" Lifting Sheave	2
106	111-00424-01	Ass'y, Inner Leg 6-8000	1

NO.	PART NUMBER	DESCRIPTION	QTY
108	111-00426-01	Ass'y, Corner Post "B" Motor	1
8	001-70107-00	HHCS, 3/8-16 x 1 1/4" 18-8 ss	1
29	001-70861-00	Nut, Nylock 5/16-18 - Alum.	2
31	001-71021-00	Flat Washer, 1/2" 18-8 SS	1
35	001-74404-00	CB, 5/16-18 x 5" ss 18-8	2
38	001-76072-00	Nut, Nylock 1/2-13 Alum.	1
40	002-00077-01	Post, Corner Motor "B"	1
56	002-04227-00	Clamp, Frame (LF RR)	1
73	006-15016-00	Cap, Vinyl - Lg. Winch Post	1
106	111-00424-01	Ass'y, Inner Leg 6-8000	1
116	911-21302-00	Canopy Insert, Lrg. Lift - 44"	1

NO.	PART NUMBER	DESCRIPTION	QTY
109	111-00427-01	Ass'y, Corner Post "C"	1
29	001-70861-00	Nut, Nylock 5/16-18 - Alum.	2
35	001-74404-00	CB, 5/16-18 x 5" ss 18-8	2
41	002-00078-01	Post, Corner "C & D"	1
47	002-04209-00	Clamp, Frame (RF LR)	1
74	006-15500-00	Cap, Vinyl 4.500" Sq. x 1.5"	1
106	111-00424-01	Ass'y, Inner Leg 6-8000	1

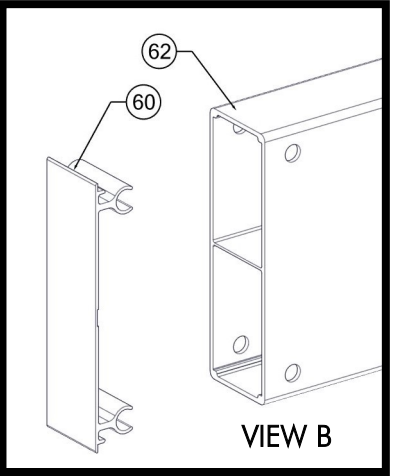
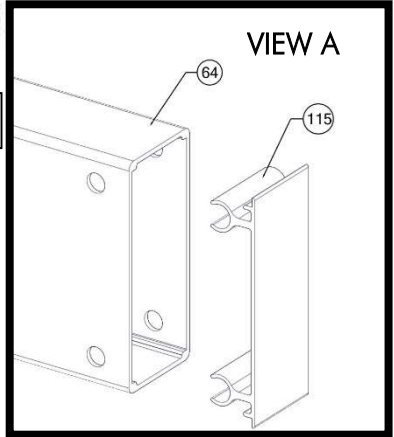
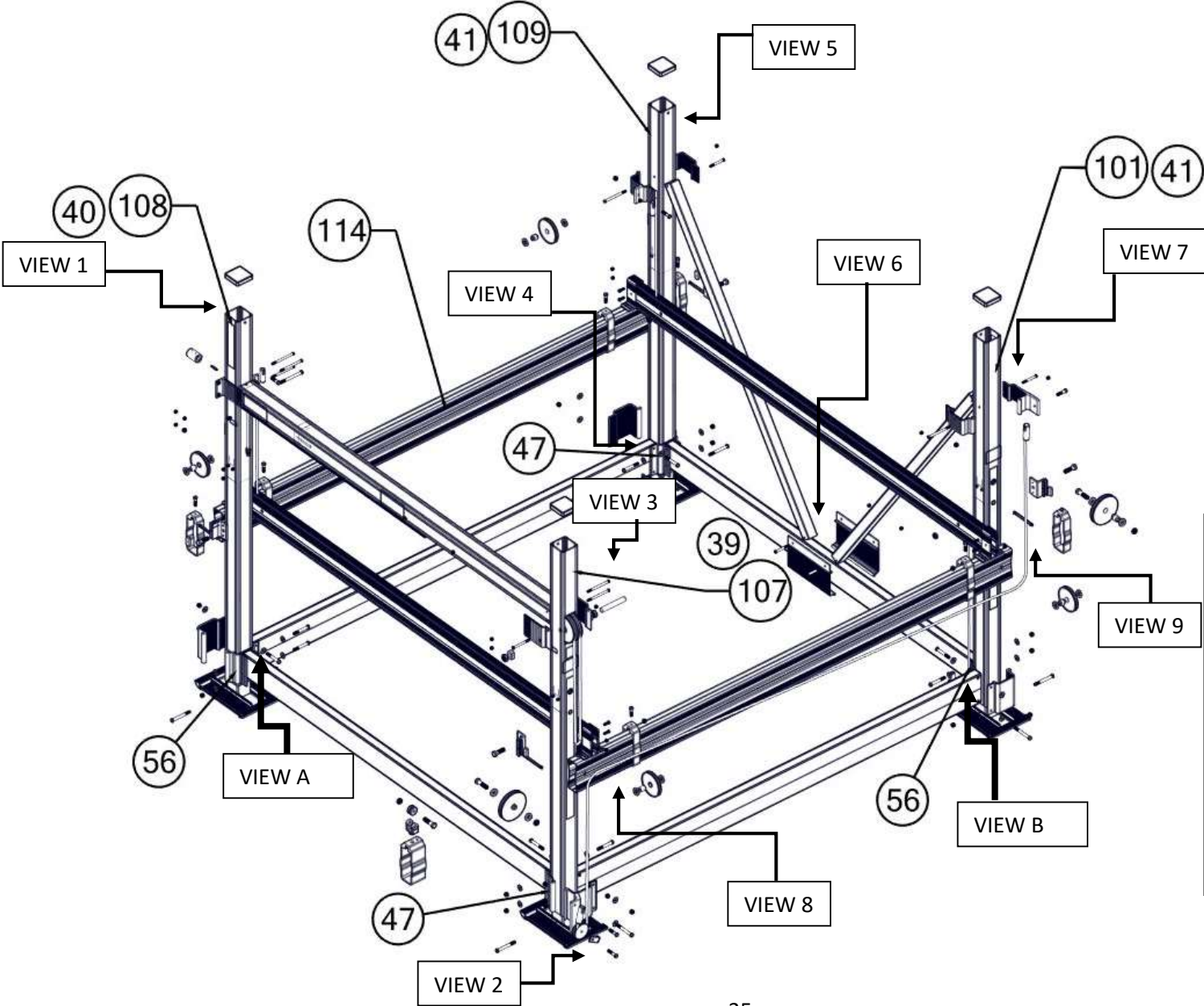
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110	111-00428-01	Ass'y, Corner Post "D"	1
29	001-70861-00	Nut, Nylock 5/16-18 - Alum.	2
35	001-74404-00	CB, 5/16-18 x 5" ss 18-8	2
41	002-00078-01	Post, Corner "C & D"	1
56	002-04227-00	Clamp, Frame (LF RR)	1
74	006-15500-00	Cap, Vinyl 4.500" Sq. x 1.5"	1
106	111-00424-01	Ass'y, Inner Leg 6-8000	1

NO.	PART NUMBER	DESCRIPTION	QTY
112	111-00430-01	Ass'y, Ball Screw Tube 6-8000#	1
1	001-16369-00	HHCS, 3/4-16 x 4" Grade 5 Plain	1
2	001-23877-00	SHCS, 1/2-20 x 1 1/2" (Black)	2
5	001-29156-00	Nut, Jam Nylock 1/2-20 18-8 ss	1
6	001-33092-00	Flat Washer, SAE 3/4" Zinc	1
7	001-70040-00	HHCS, 1/2-20 x 2" 18-8 ss	1
13	001-70123-00	HHCS, 3/8-16 x 5" 18-8 ss	1
15	001-70203-00	HHCS, 1/2-13 x 3/4" 18-8 ss	2
20	001-70215-00	HHCS, 1/2-13 x 3" 18-8 ss	2
31	001-71021-00	Flat Washer, 1/2" 18-8 SS	2
37	001-76071-00	Nut, Nylock 3/8-16 Alum.	1
38	001-76072-00	Nut, Nylock 1/2-13 Alum.	2
68	006-10021-00	Sleeve, UHMW Ball Screw Support	1
75	006-22202-00	Sleeve, Steel 1" x 2.25" Lg.	1
76	007-05013-00	Plate, End Stop (Ball Screw)	1
80	007-05126-00	Fitting, Grease M8 X 1 (Flush)	2
81	007-05222-00	Key, 1/4" SQ x 3" Long	1
82	007-05224-00	Coupler, Rigid 1" x 2" x 3"	1
91	007-09161-00	Cable, Lifting - 237.0' 6-8000#	1
93	007-93534-00	Nut, Round M30 x 1.5 (Zinc Plated)	1
94	011-15015-00	Ball Screw, 40-10 mm 1930.4 mm	1
101	111-00249-00	Ass'y, Ball Nut Block 6-8000#	1
103	111-00311-00	Ass'y, Bearing Block w/ Bearing	1
111	111-00429-01	Weld't, Ball Screw Tube 6-8000#	1
113	111-60750-00	Ass'y, Limit Switch 6000-8000	1

VSD 6000 PONTOON FRAME EXPLODED VIEW MAIN

LIFT P/N 511-60075-01

NOTE:
ADDITIONAL VIEWS ON
PAGES 36-40



LIFT P/N 511-60075-01



NOTE
(VIEW 4):

CORNER
"B" IS
SHOWN.
BOTTOM
BOLT
(MARKED)
IS
REPLACED
WITH ITEM
22 AT
CORNER
"D". FOR
CORNER
"C", SAME
ITEMS ARE
USED AS
SHOWN IN
VIEW 4.

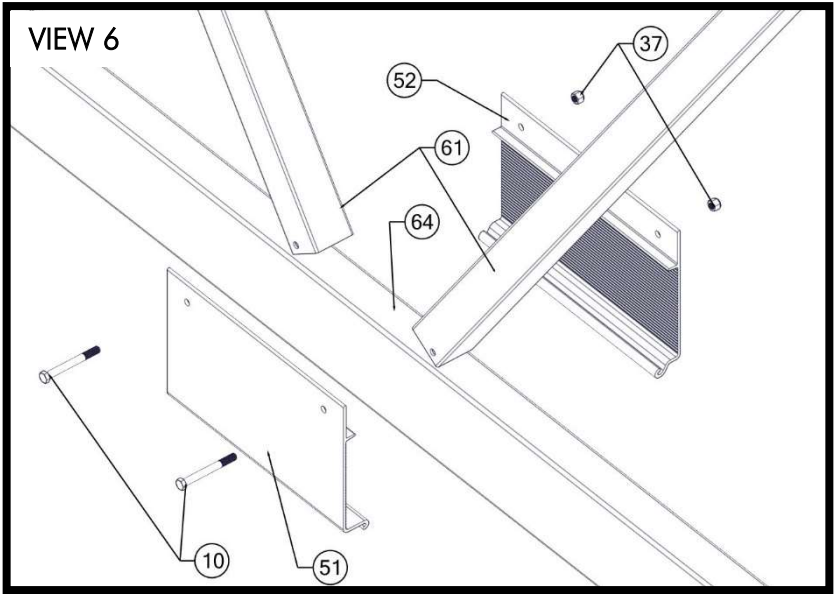
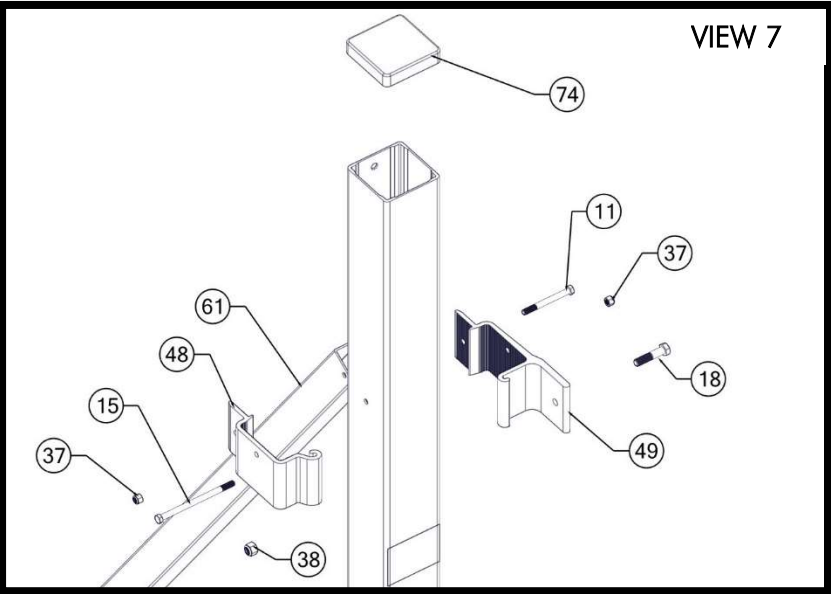
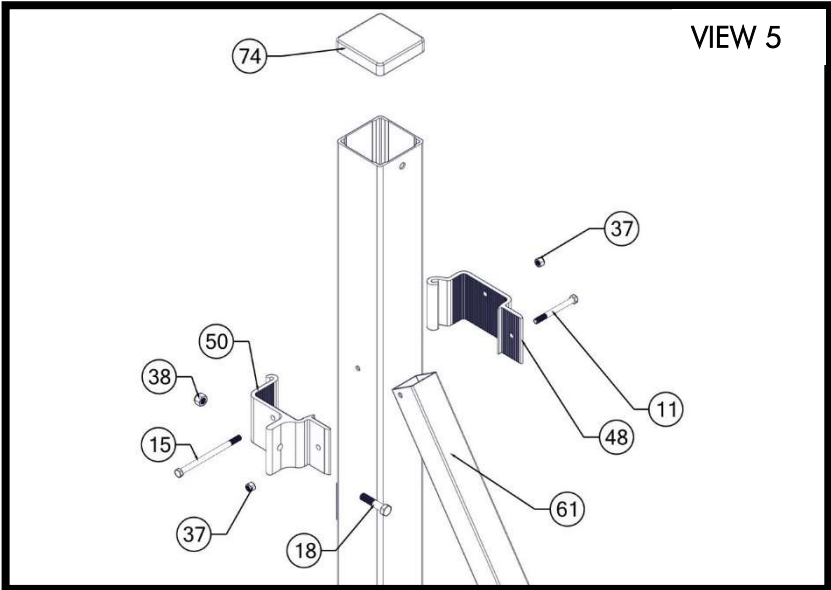


3x

VIEW 4

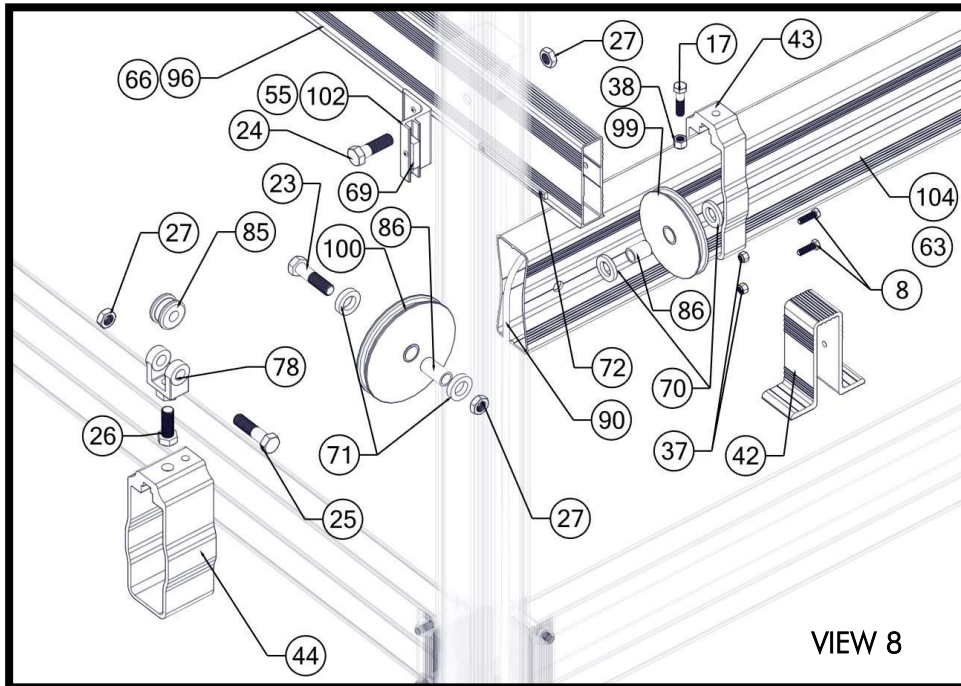
VSD 6000 PONTOON FRAME EXPLODED VIEWS 5-7

LIFT P/N 511-60075-01



VSD 6000 PONTON FRAME EXPLODED VIEWS 8 & 9

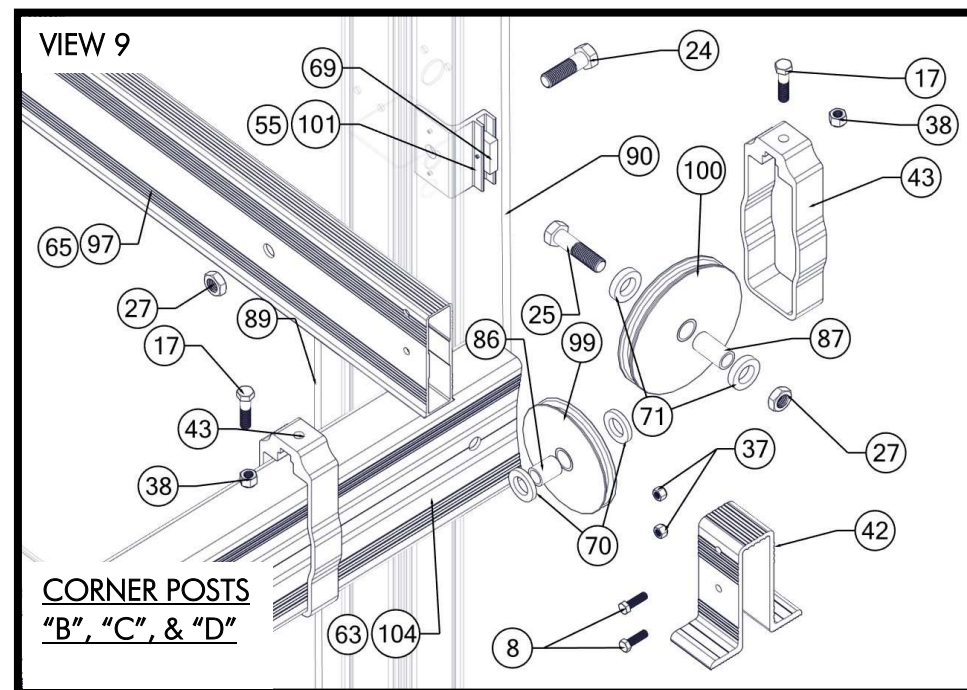
LIFT P/N 511-60075-01



VIEW 8

NOTE (VIEW 9):

CORNER "D" IS SHOWN IN THIS VIEW. FOR CORNERS "B" & "C", ITEMS 25, 27, 71, 87, AND 100. ARE EXEMPT. ITEMS 63 & 104 ARE REPLACED WITH ITEM 114.

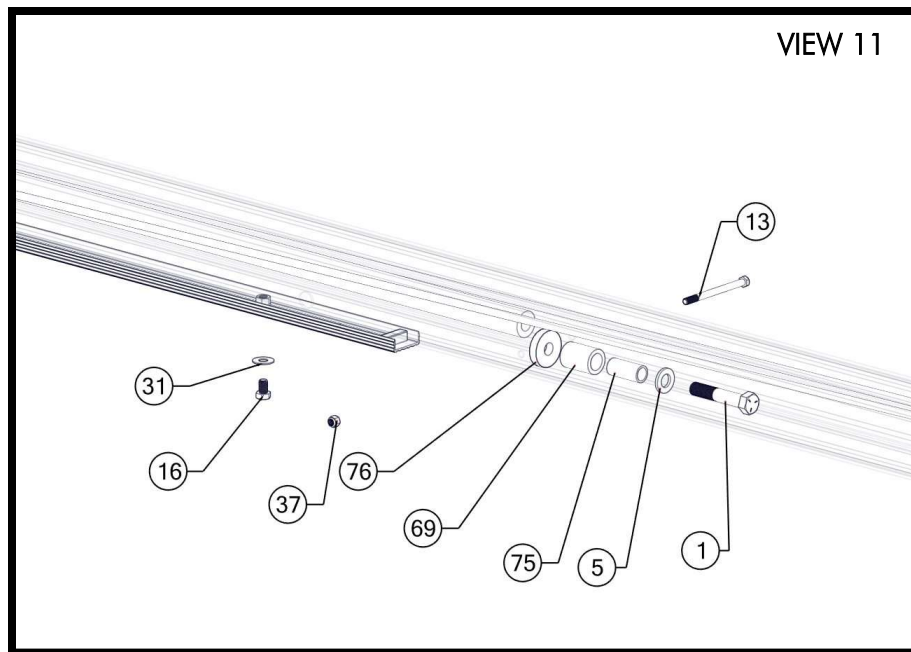
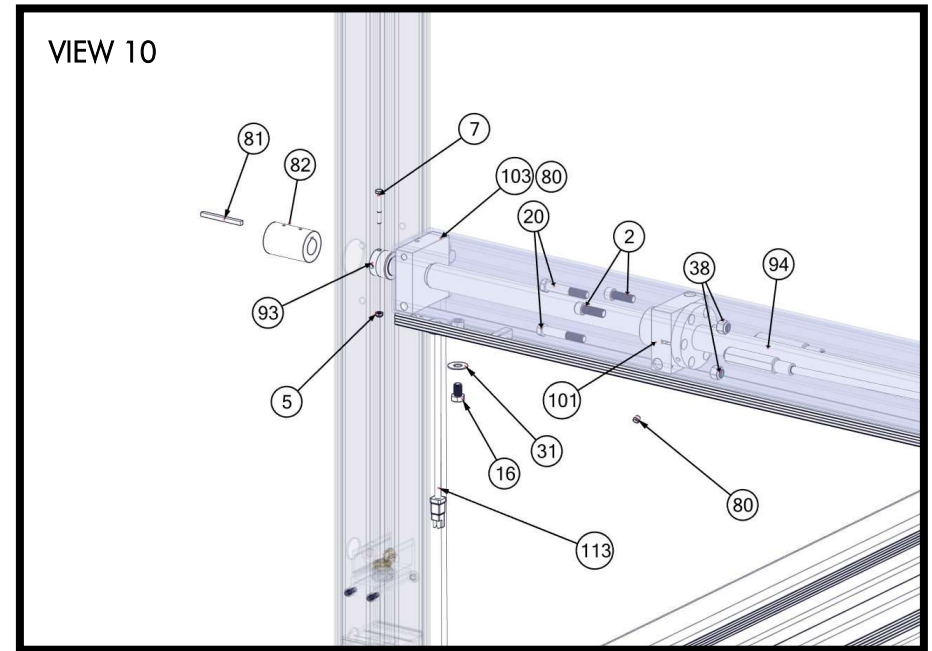
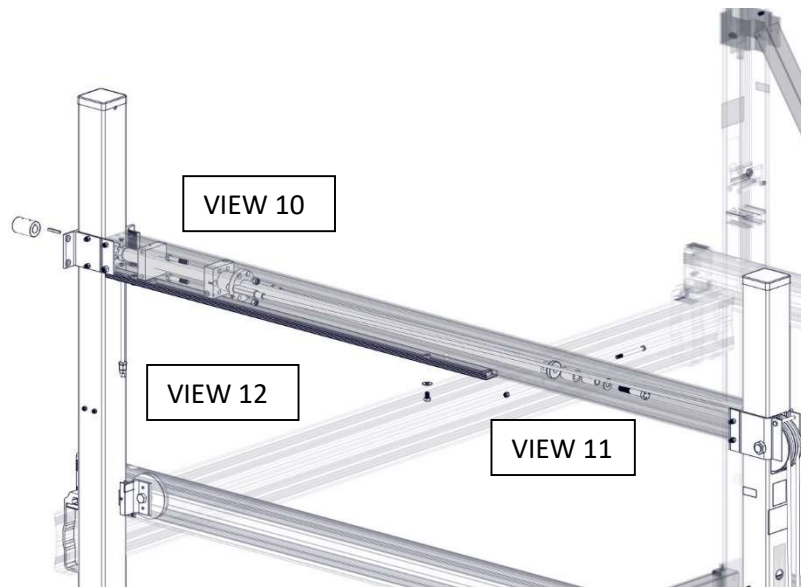


VIEW 9

CORNER POSTS
"B", "C", & "D"

VSD 6000 PONTON FRAME EXPLODED VIEWS 10 & 11

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VSD 6000 PONTON FRAME EXPLODED VIEW 12

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