

BLA4A15 & BLA4A15 TIP & ROLL

MINIMUM TOOLS REQUIRED FOR ASSYEMBLY

1. 2 ea. 9/16" box end wrenches
2. 1 ea. 3/4" box end wrench
3. 1 ea. 1/2" box end wrench
4. 1 ea. Tape measure

NOTE: LEAVE ALL NUTS AND BOLTS FINGER TIGHT UNTIL NOTED OTHERWISE.

- 1.) Match all braces together by length (74 7/8", 78" lengths).
- 2.) Now place 2 matching braces flat together, line up the holes in the middle and put 1ea 1/2" x 1 1/2" hex bolt through the holes. A lock washer and nut will secure the bolt onto the brace. You will end up with 2 sets 78" and 1 set 74 7/8" braces. **NOTE FOR TIP & ROLL:** Place a 2" x 4" mud sill on the bottom of each frame with the overhang at the rear of the bleacher as shown in **figure 2**. Be sure the countersunk side of the hole is facing away from the frame. Use 3/8"x 2 1/4" carriage bolt, flat washer, lock washer, and nut. The bolt should come up from the bottom of the sill. **THESE CAN BE TIGHTENED NOW!**
- 3.) Stand 2 of the frames approximately 6' apart and place a set of the 78" braces on one end between the frames at the 4th upright on the frame as shown in **figure 1**. Place (2) 1/2" x 1 1/4" hex bolts, lock washers and nuts through the end frame and brace holes where they meet. Place (2) 1/2 x 1 3/4" hex bolts, lock washers, and nuts through the middle frame and brace holes where they meet. **NOTE FOR TIP & ROLL:** Use 1 caster with a brake and 1 caster without a brake, lock washers and nuts on the frame adaptor angles and brace holes instead of the 1 1/4" hex bolts. See **figure 2**.
- 4.) Place a set of the 74 7/8" braces between the 3rd uprights of the frames just installed. Use (4ea) 1/2 x 1 1/4" hex bolts, lock washers, & nuts to attach the braces to the frames see **figure 1**.
- 5.) Place another frame on the right side of the set already in place (as you face the back of the bleacher). Place a set of the 78" braces on the 4th row upright. (You will need to remove the 2 nuts & lock washers from the two braces already in place where they meet on the frame). Use (2) 1/2" x 1 1/4" hex bolts, lock washers, & nuts to attach the braces to the new end frame. **NOTE FOR TIP & ROLL:** Use 1 caster with a brake and 1 caster without a brake, lock washers and nuts on the end frame adaptor angles and brace holes instead of the 1 1/4" hex bolts. See **figure 2**.
- 6.) Place a tube brace between the 2nd uprights of the frames just installed. (These are made of tubing with a flat welded at each end.) Use (4ea) 1/2 x 1 1/4" hex bolts, lock washers, & nuts to attach the brace to the frames.
- 7.) Place a tube brace between the first row uprights. Use (4ea) 1/2 x 1 1/4" hex bolts, lock washers, & nuts to attach the brace to the **frames**. See **figure 1**.
TIGHTEN ALL BOLTS ON THE ASSEMBLY AT THIS POINT.
- 8.) Beginning with the 4th row foot plank start placing the aluminum plank on the frames using 5/16"x 1 1/4" carriage bolts and flange nuts as shown in **figure 4 & 5**. The overhang on each side of the frame should be approximately equal. Note the foot plank & the seat plank have been identified by marking the underside of each plank. The seat plank has a duller finish than the foot plank as well.
TIGHTEN ALL OF THE PLANK BOLTS NOW. Install the end caps as shown in **figure 5**.

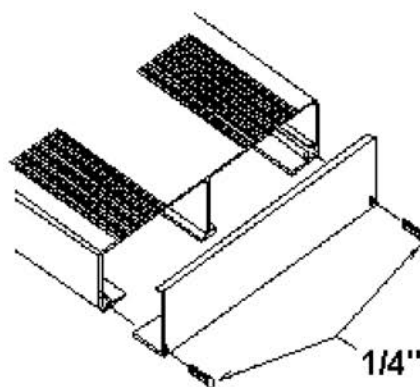
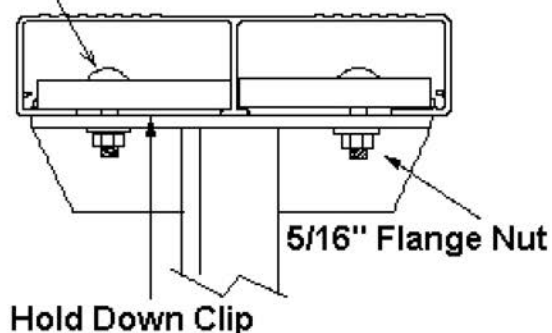
MAINTENANCE: Before each season check all bolted connections for tightness and inspect all welded connections for cracks or any signs of stress. Repair as needed.

ASSEMBLY DRAWING

MODEL #:BLA4A15

2" x 10" Aluminum Plank(Nominal)

5/16" x 1 1/4" carriage bolts.

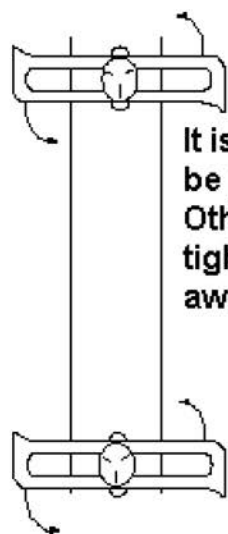


1/4" x 3/4" drive screws
tap into screw chases
with small hammer.

FIGURE 5

Use rivets to attach end caps to 2 x 12 plank.

Seat & Footboard planks attach with the hardware shown above.



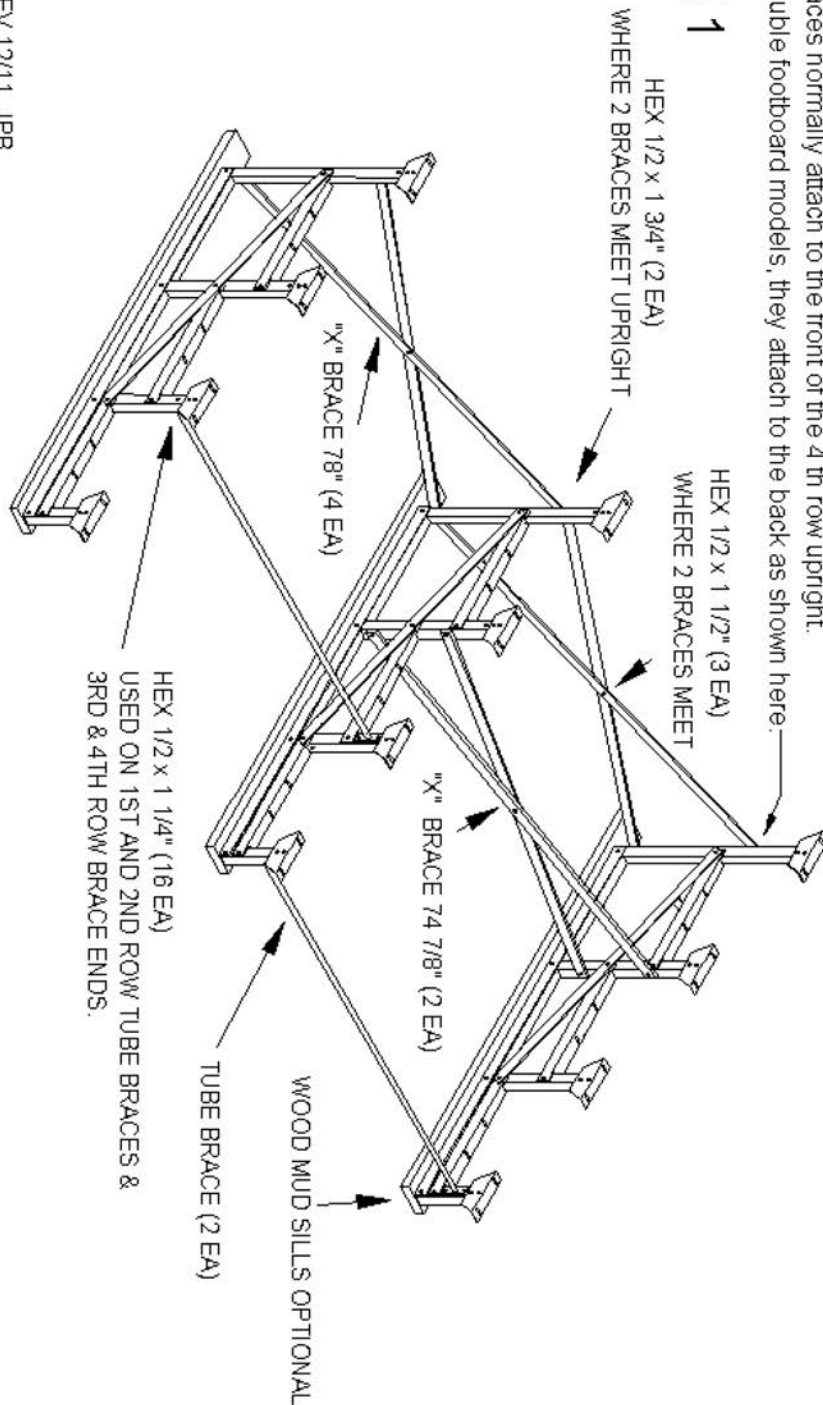
It is essential that the clips
be placed in this manner.
Otherwise when the nut is
tightened, the clip will turn
away from the plank.

FIGURE 4

ASSEMBLY DRAWING
MODEL #:BLA4A15

NOTE: 4th row braces normally attach to the front of the 4th row upright.
 On tip & roll and double footboard models, they attach to the back as shown here:

FIGURE 1

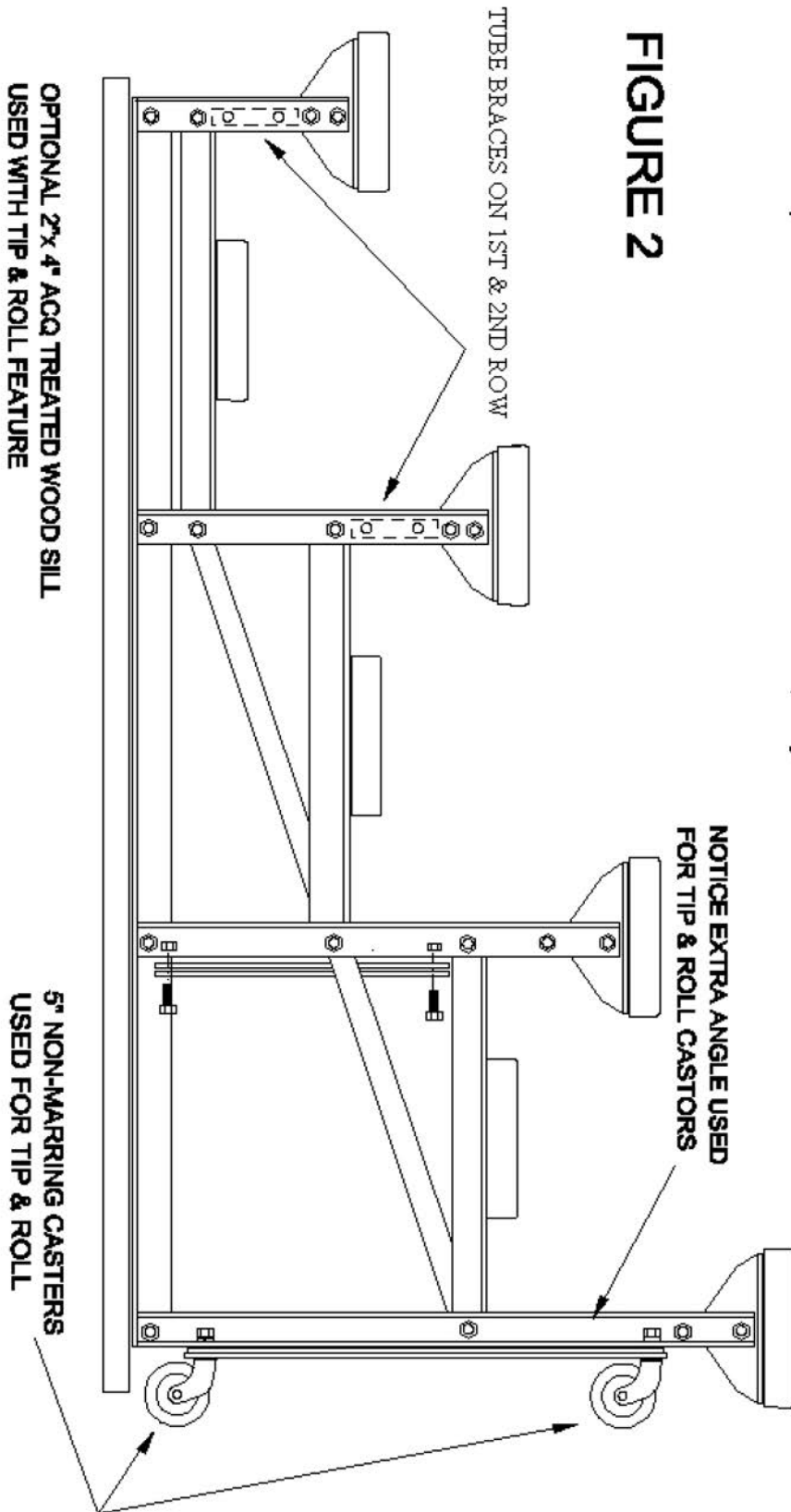


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ASSEMBLY DRAWING
MODEL #:BLA4A15

NOTE: 3rd & 4th row braces normally attach to the front of the uprights.
On tip & roll and double footboard models, they attach to the back as shown here.

FIGURE 2



FILE: CADDRWGSUM SR. UPDATESIBLA4IBLA4TR FIGURE 2 UPDATE 12-10 JPB