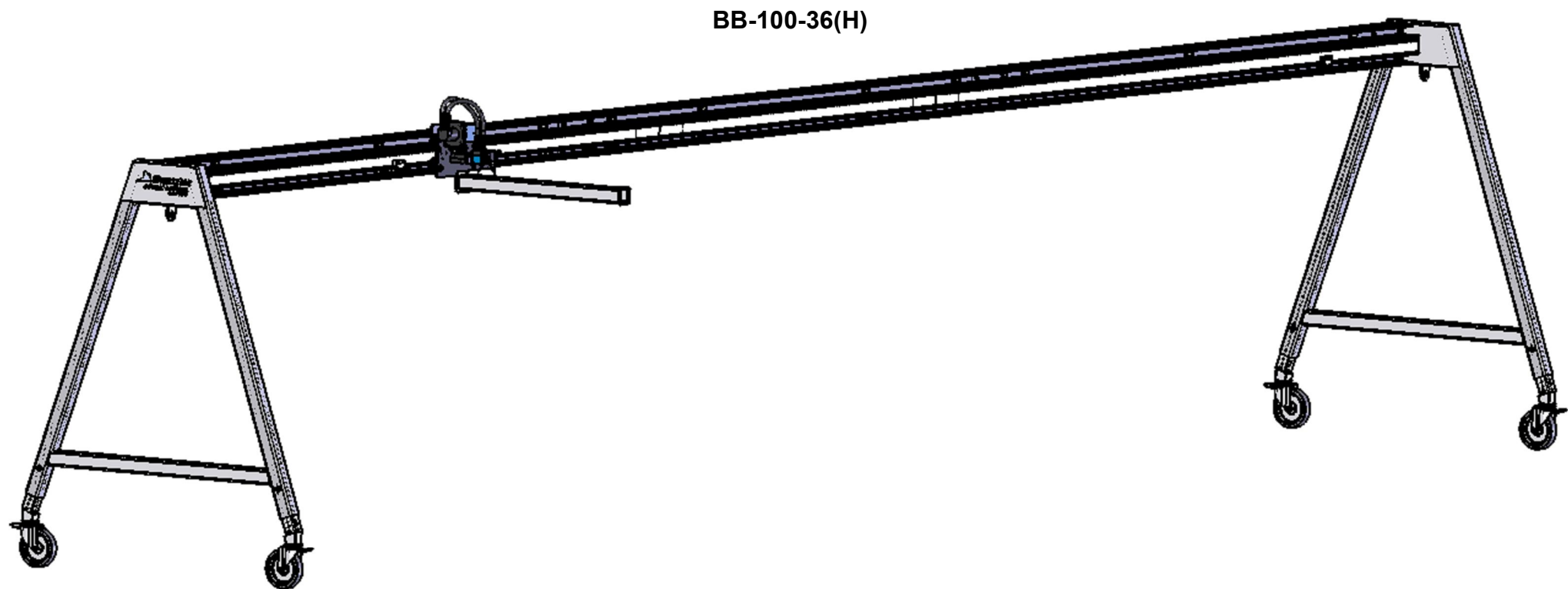


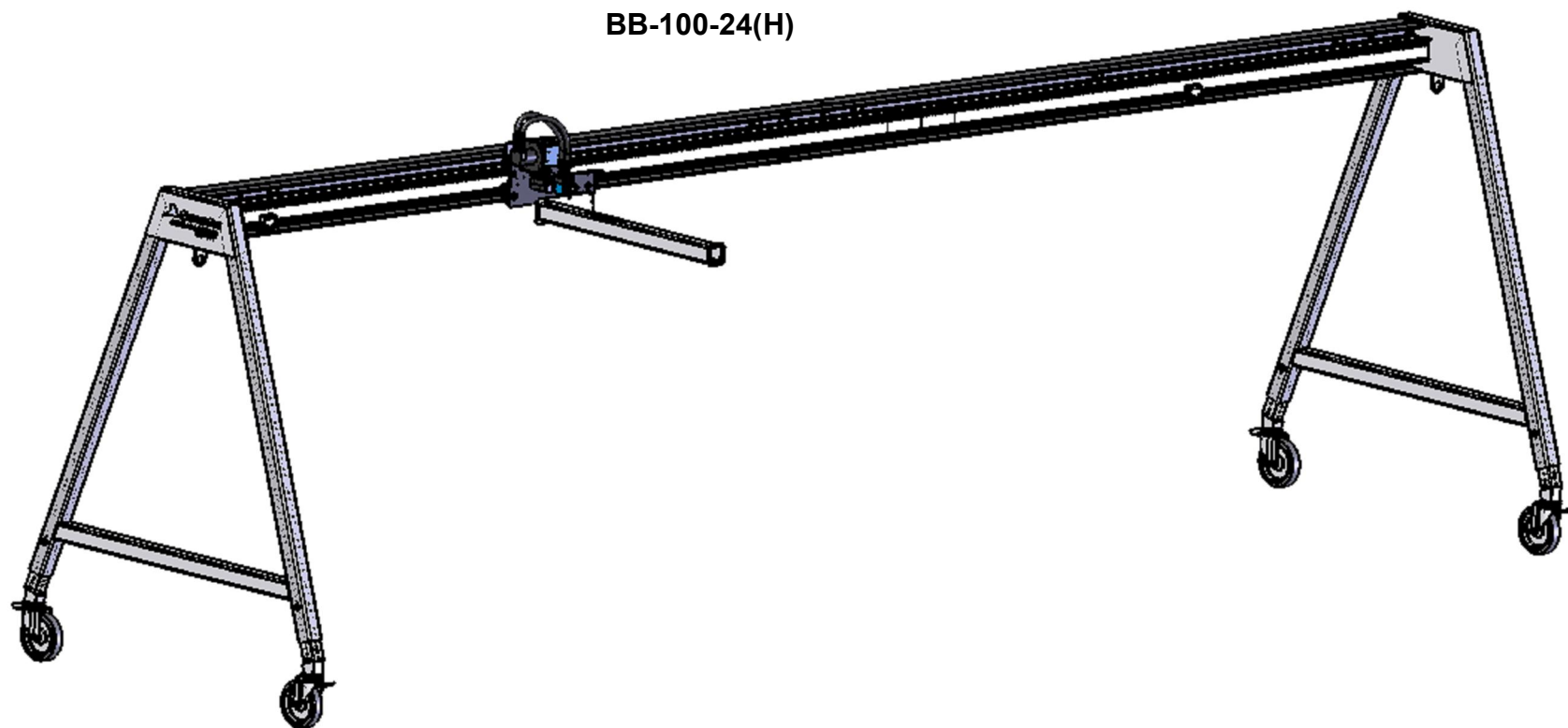
Bundle Blaster Frame Assembly Manual



BB-100-36(H)



BB-100-24(H)

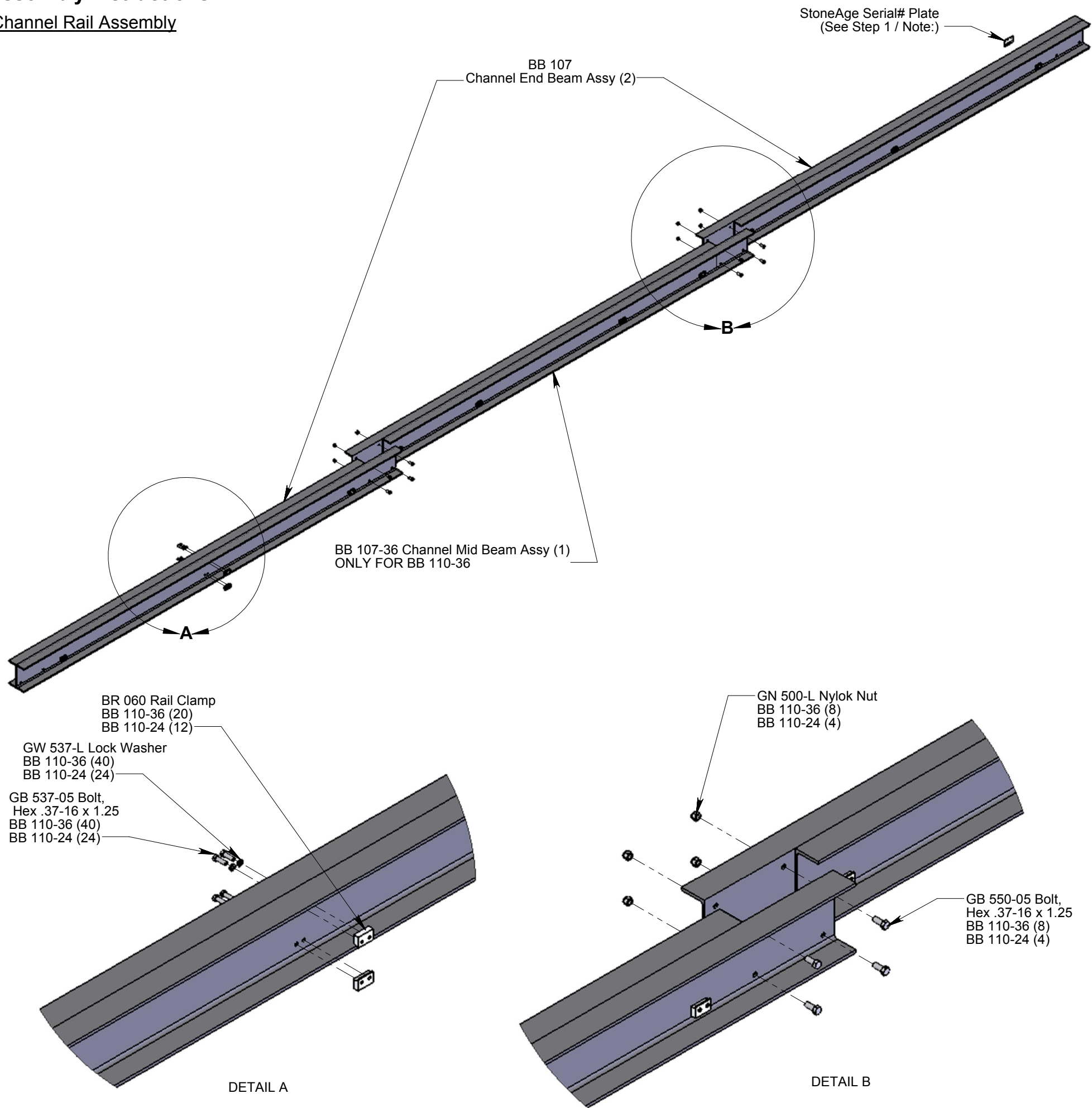


Bundle Blaster Frame Assembly

The Bundle Blaster Frame does require some assembly. Read carefully through the following detailed instructions for proper assembly steps and techniques. A minimum of three people is recommended for this assembly process as well as the use of a fork lift (or another mechanical lifting device).

Assembly Instructions:

Channel Rail Assembly



Step 1: Channel Beam Assembly.
Assemble components using supplied hardware shown on a flat surface and tighten bolts once beam sections are properly aligned. Torque bolts to 50 ft*lbs (68 N*m). (The Beam sections are meant to fit flush together)
NOTE: Serial plate is only on one of the BB 107 Channels. Orientate Plate to the right and back, as shown.

24' Bundle Blaster: BB-100-24(H)
Attach two BB 107 Channel End Beam Assemblies directly together for a BB 110-24 Assembly.

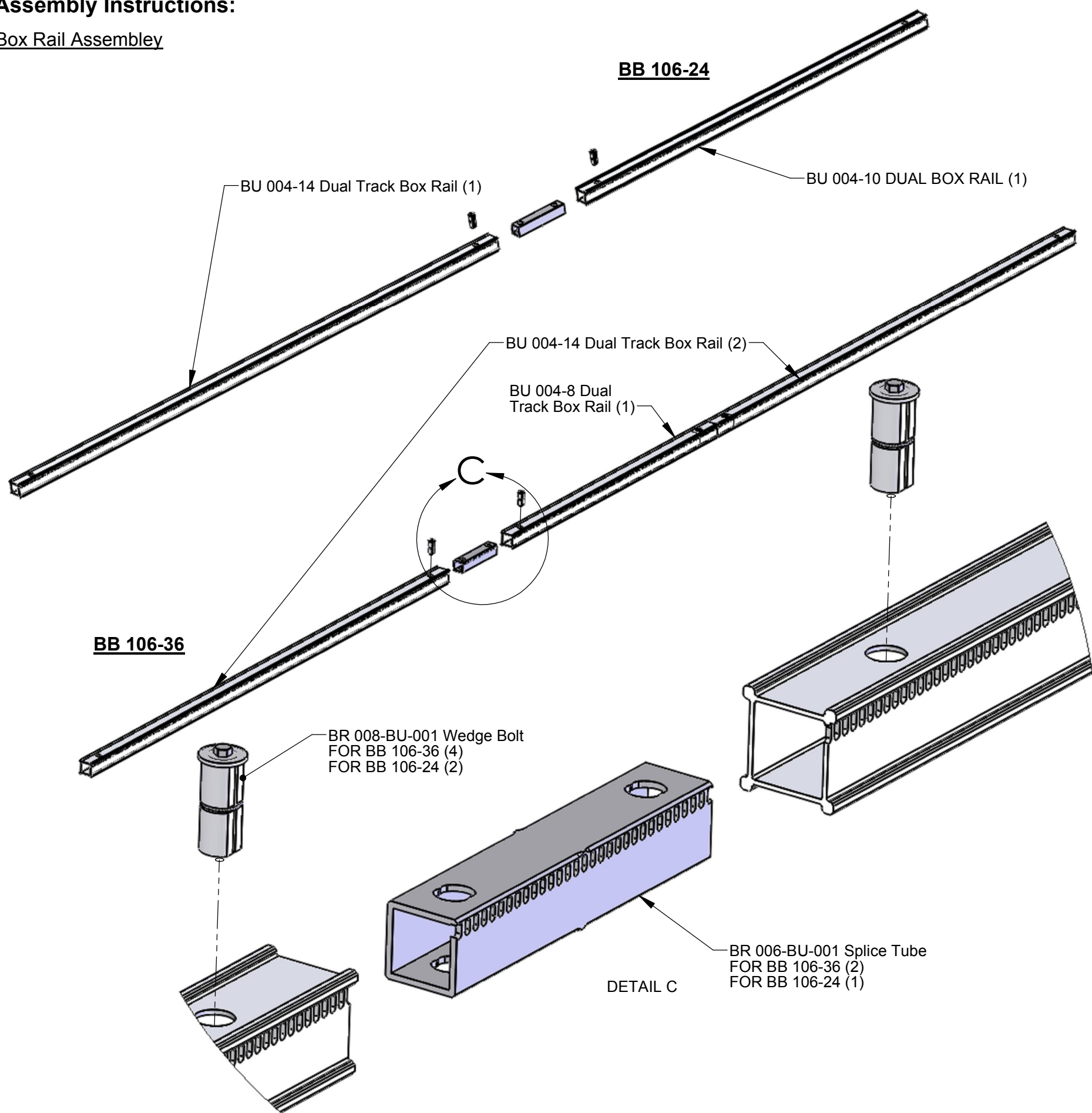
36' Bundle Blaster: BB-100-36(H)
Attach two BB 107 Channel End Beam Assemblies with BB 107-36 Channel Mid Beam Assembly for a BB 110-36 Assembly.

Step 2: Rail clamps will come pre-installed on each beam section. Loosen the bottom rail clamps and completely remove the upper rail clamps to prepare for the installation of the box rail assembly.

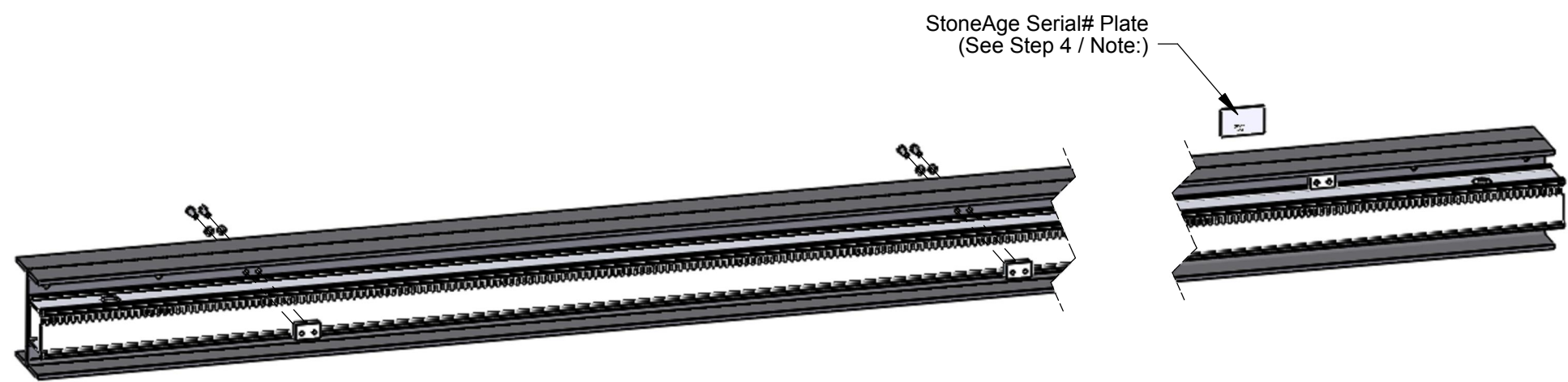
Bundle Blaster Frame Assembly

Assembly Instructions:

Box Rail Assembly



Step 3: Using the orientation shown in Detail C (align Rail slots and Splice Tube slots), slide box rails over the splice tube from each side. Then use two wedge bolts as shown to pull and tighten these sections of box rail together. Tighten both wedge bolts simultaneously and make sure the slotted grooves in the splice tube match those in the box rails in order to supply clearance for the tractor drive gear. Repeat this process for second spliced section for BB 106-36 only.



Step 4: With the upper rail clamps removed, set the box rail assembly onto the lower rail clamps with the ends flush to channel beam assembly as shown above. Once box rail assembly is in place, install upper rail clamps and tighten both the top and bottom clamps to secure it into place.

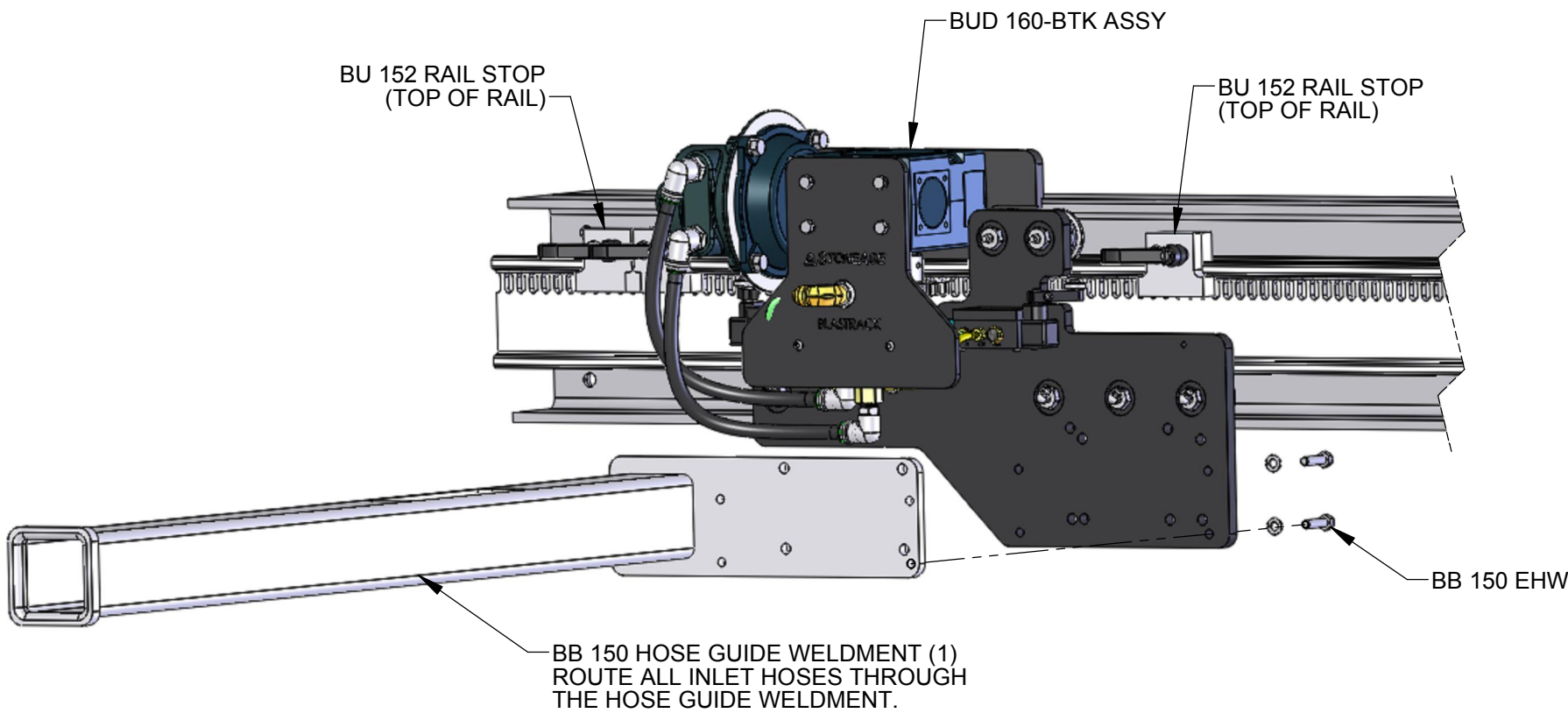
NOTE: Orientate the Channel with the Serial Plate to the right and back, as shown.

Bundle Blaster Frame Assembly

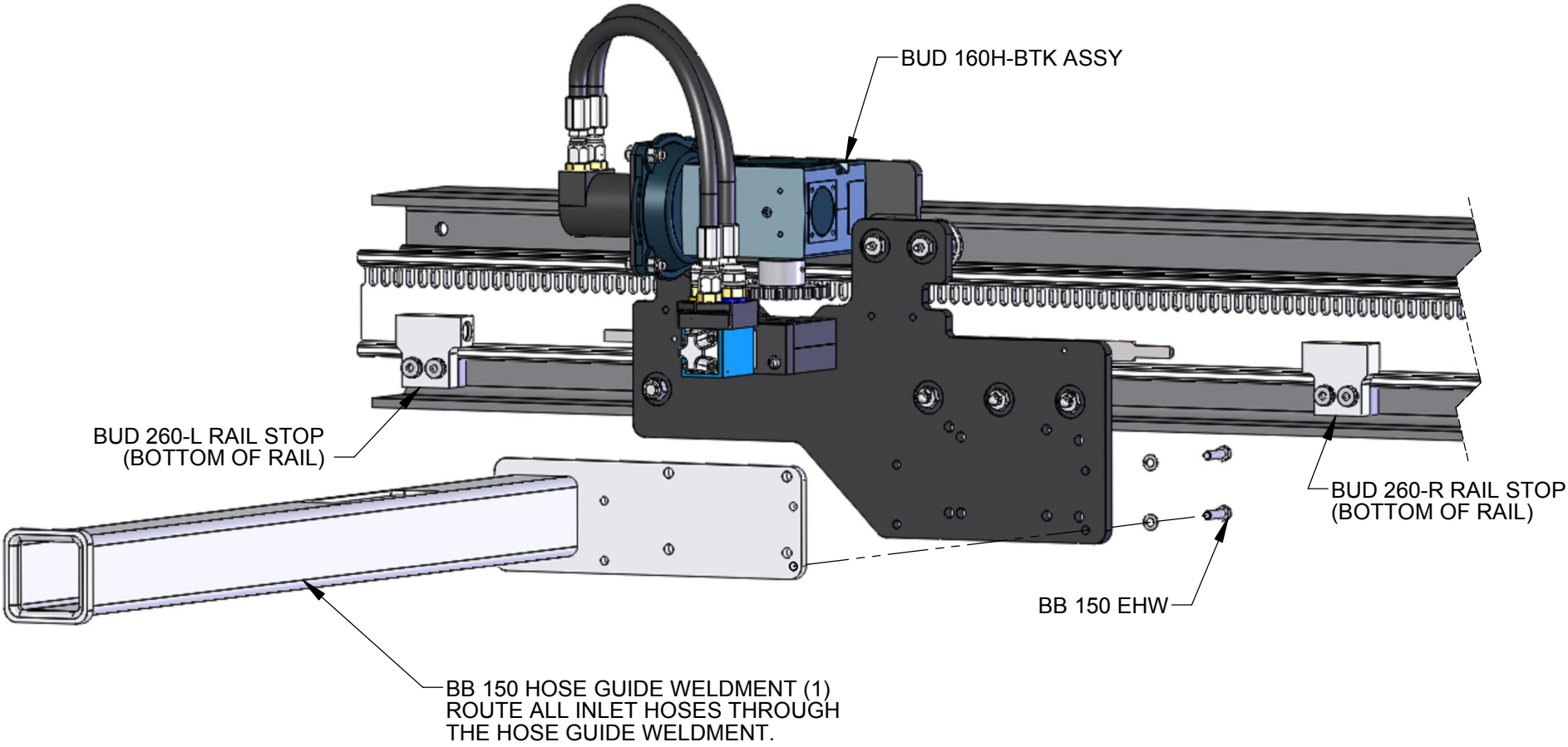
Assembly Instructions:

Drive Tractor Assembly

PNEUMATIC DRIVE TRACTOR ASSEMBLY (FOR BB-100-36 AND BB-100-24)



HYDRAULIC DRIVE TRACTOR ASSEMBLY (FOR BB-100-36H AND BB-100-24H)



Step 5: Installation of the Tractor Assembly

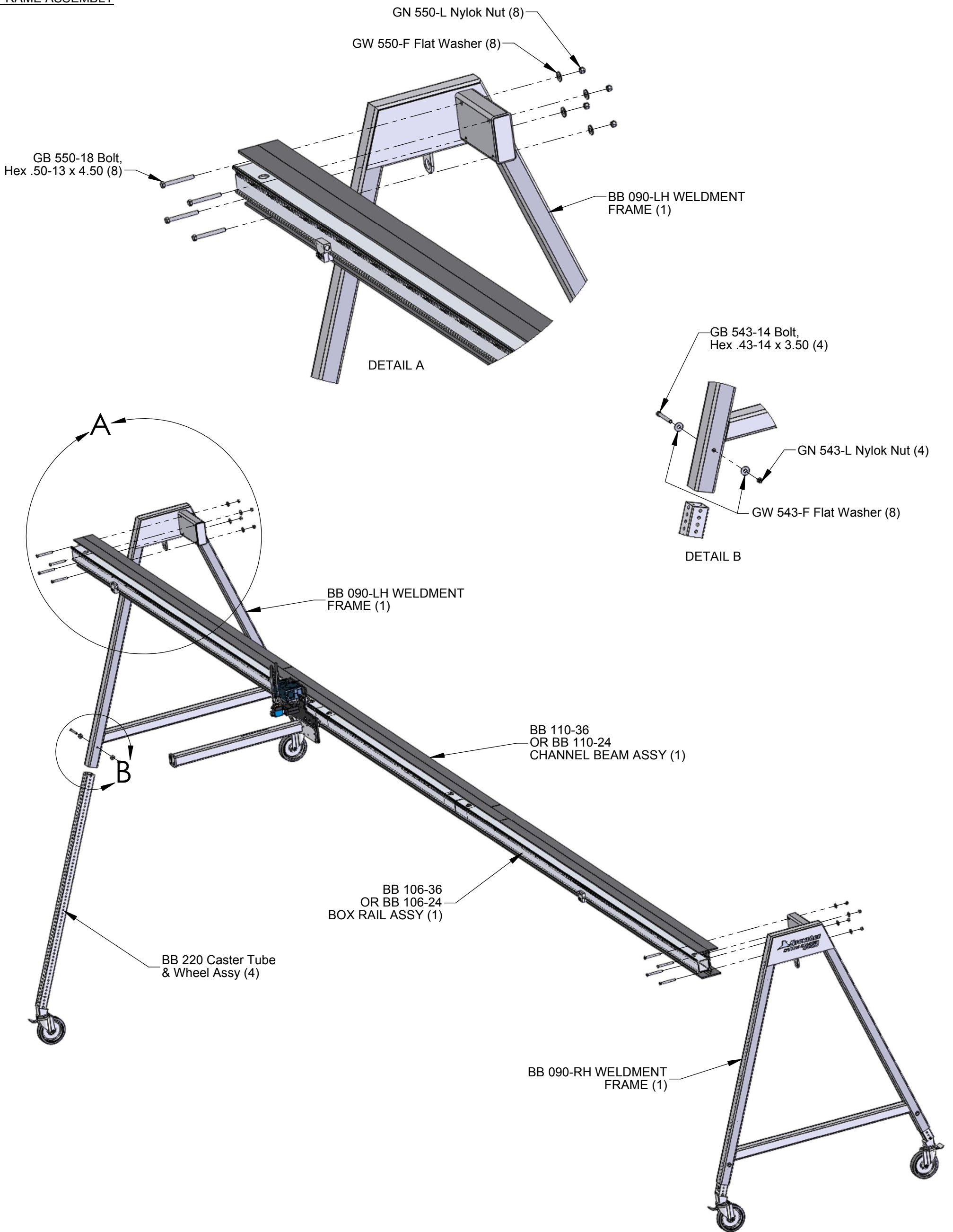
- Method 1: Connect tractor assembly to external hydraulic or air supply and drive the tractor onto the box rail towards the center of the track. Tractor must be driven on because the drive gear doesn't rotate freely. External hydraulic or air lines should be disconnected for the remainder of the assembly.
- Method 2: Remove the bottom four rollers from the tractor assembly plate. Then hang the tractor assembly on the top rail of the box rail track and reinstall the rollers on the plate to secure the assembly onto the box rail.

Step 6: Install Rail Stop Assy (BUD 260-R/BUD 260-L mounts on bottom of rail) or (BU 152 mounts on top of the rail). Position the rail clamps securely on each side of the tractor assembly and tighten. This will keep the tractor assembly secure throughout the rest of the assembly process.

Bundle Blaster Frame Assembly

Assembly Instructions:

FRAME ASSEMBLY



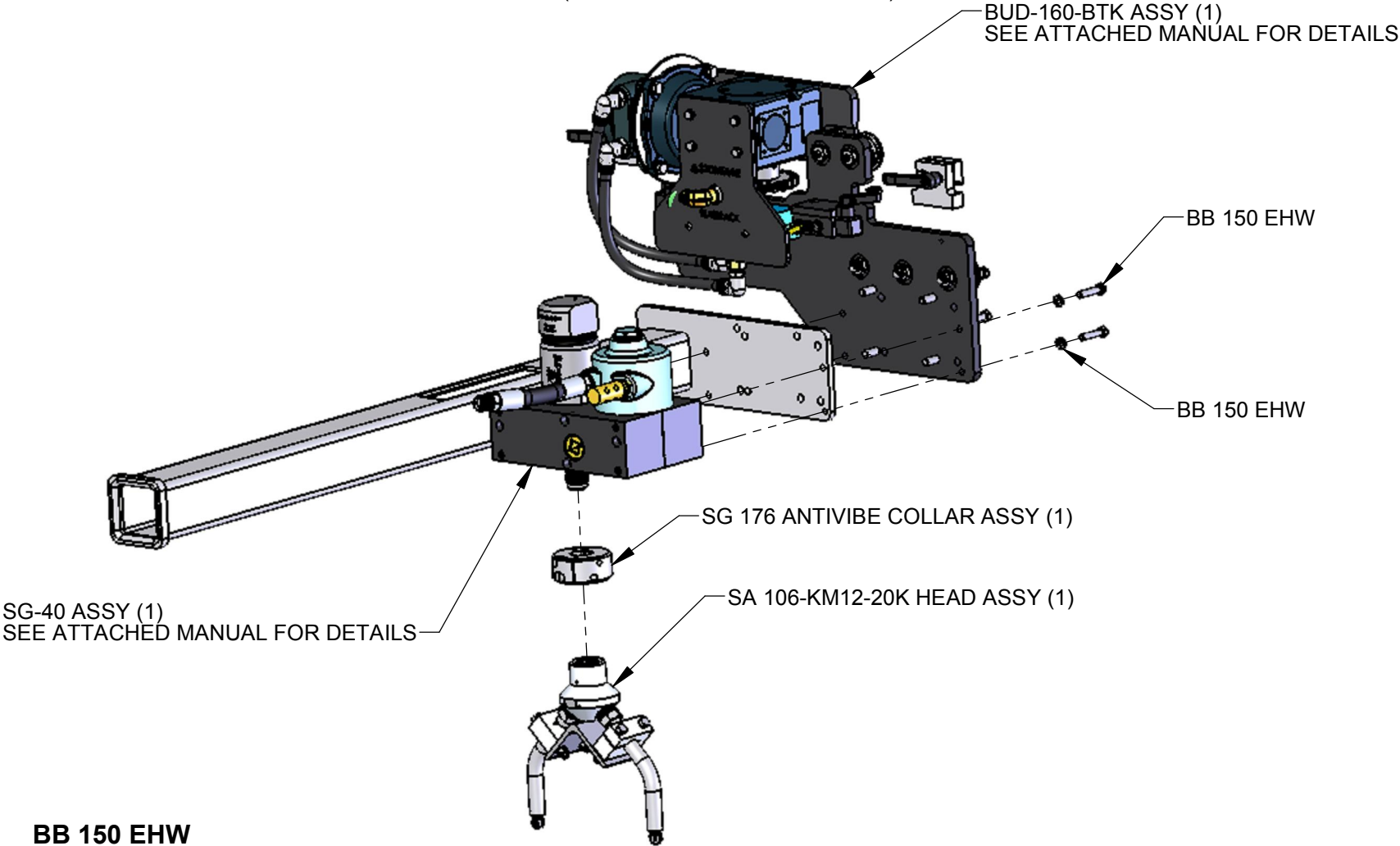
- Step 7: The beam assembly can now be bolted to the upright support frames as shown in the above drawing. Torque bolts to 50 ft*lb (68 N*m). A fork lift is recommended for raising the beam assembly to the desired height for the completion of this step.
- Step 8: The caster tube and wheel assemblies can then be adjusted to the desired height using the bolts shown in the drawing above. The effective clearance of the frame, with room for the Drive Tractor to operate, ranges from 4.5 to 9 feet.

Bundle Blaster Options

Drive Tractor Options:

PNEUMATIC DRIVE TRACTOR ASSEMBLY

(FOR BB-100-36 AND BB-100-24)

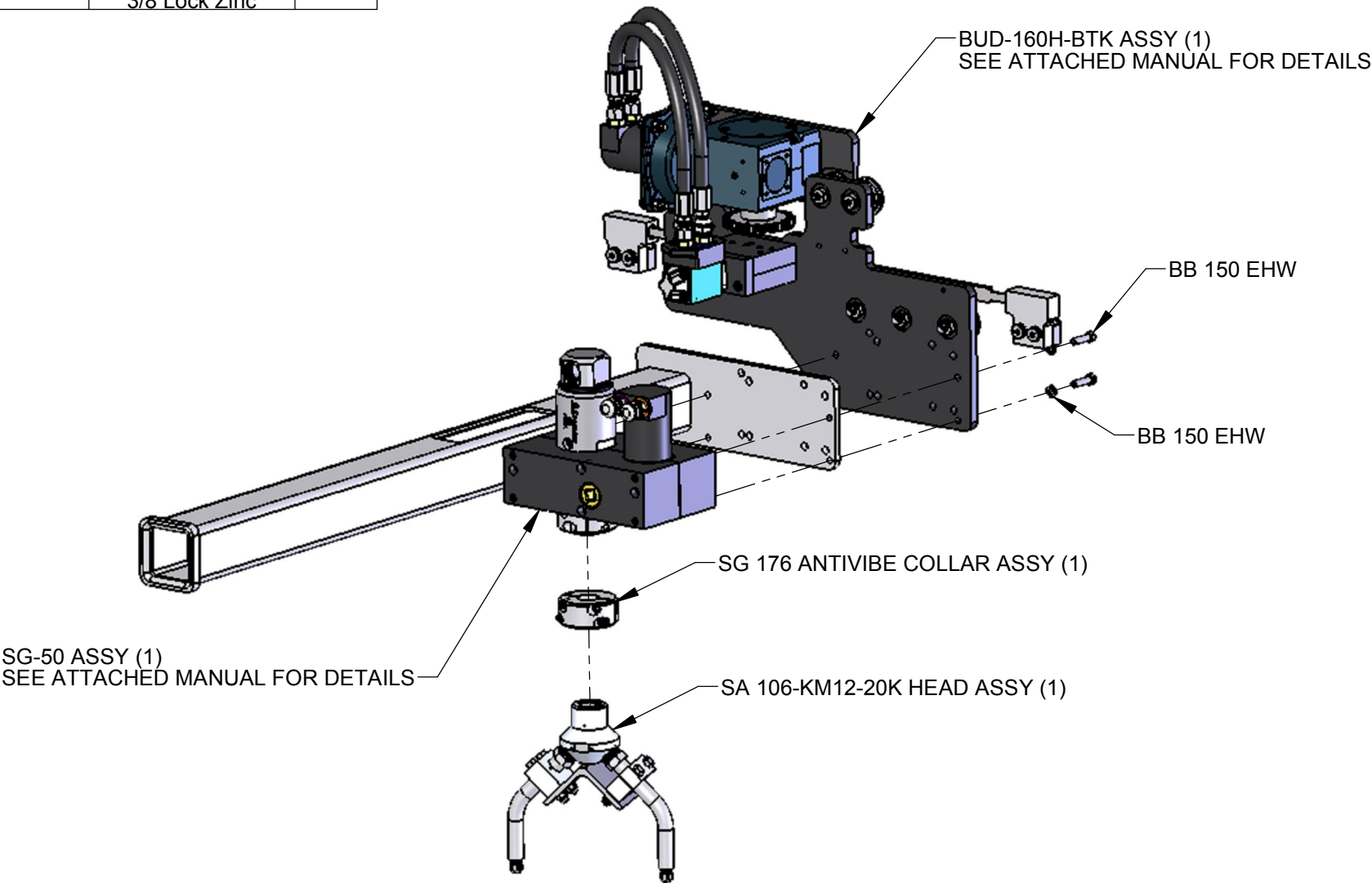


BB 150 EHW

Gearbox	Material	QTY
SG-40/SG-50	GB 531-06 Bolt 5/16-18 X 1-1/2 Zinc	4
SG-40/SG-50	GW 531-L Washer 5/16 Lock Zinc	4
SG-E60/SG-E70	GB 537-06 Bolt 3/8-16 X 1-1/2 Zinc	4
SG-E60/SG-E70	GW 537-L Washer 3/8 Lock Zinc	4

HYDRAULIC DRIVE TRACTOR ASSEMBLY

(FOR BB-100-36H AND BB-100-24H)



Note: Drive tractor units should arrive completely assembled per customer order. Please note the different mounting positions of the rail stops between the hydraulic and pneumatic assemblies.

Bundle Blaster Options & Overview

Recommended set up configurations for use:

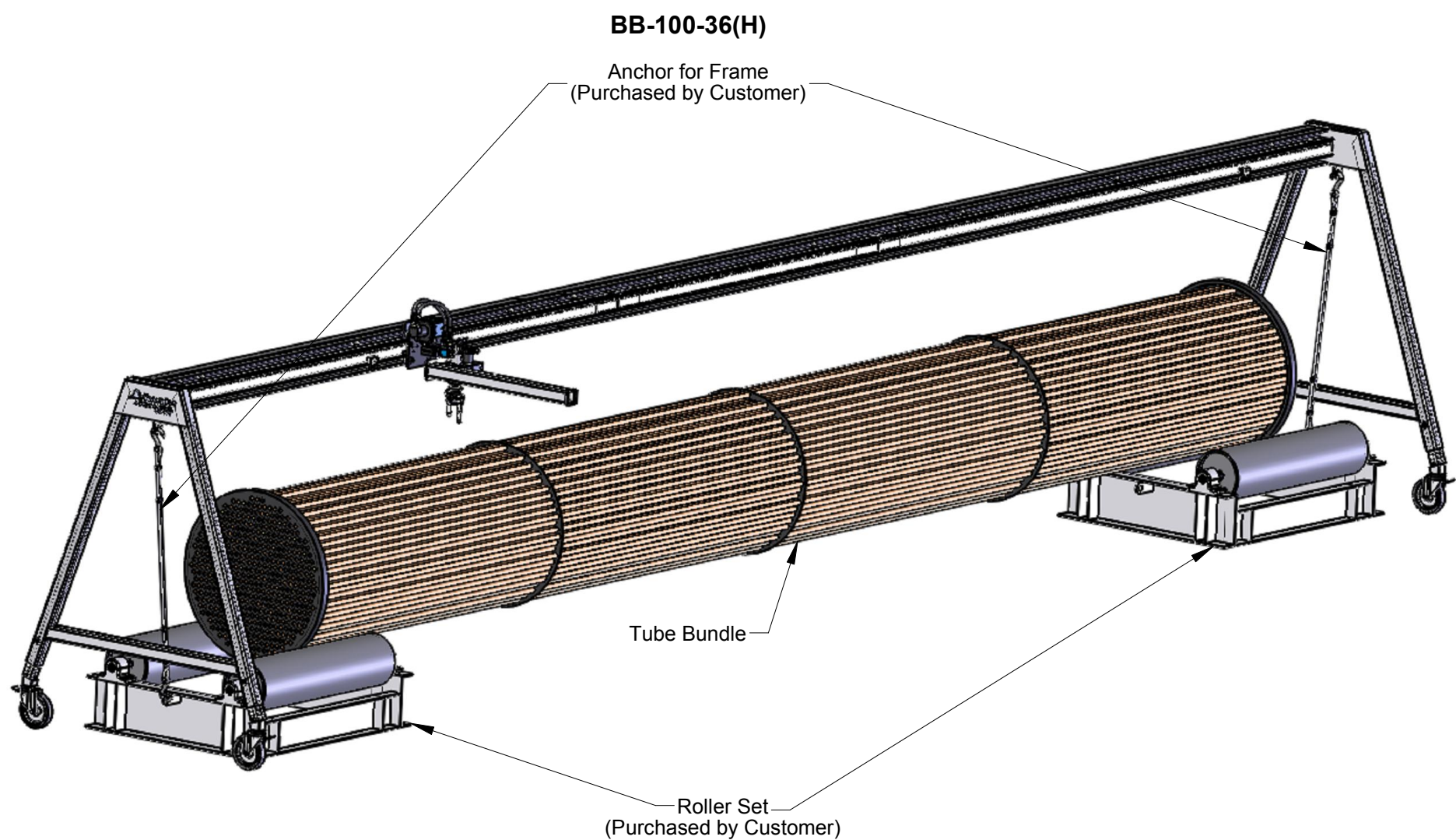


Figure 1: BB-100-36(H) Bundle Blaster Frame shown with a 40 inch X 30 ft tube bundle. For longer tube bundles (up to 34 ft) anchor the frame assembly directly to the rollers as shown. Optional Rollers are available through StoneAge Tools. Consult your StoneAge Account Representative for more information.

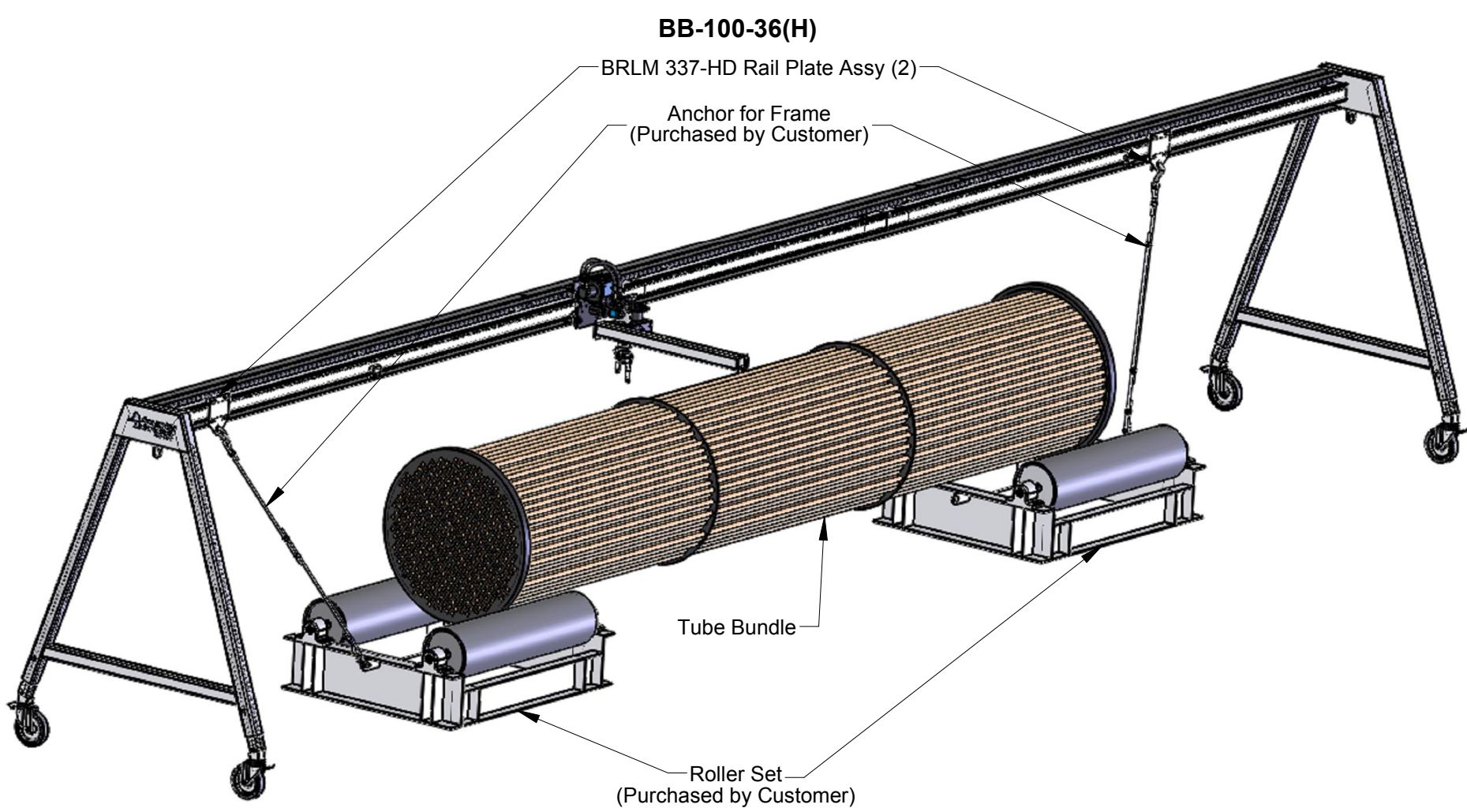


Figure 2: BB-100-36(H) Bundle Blaster Frame Assembly shown with a 40 inch X 18 ft tube bundle. For short tube bundles, anchor the frame assembly to the rollers using the optional rail plates as shown above.

Bundle Blaster Options & Overview

Recommended set up configurations for use (continued):

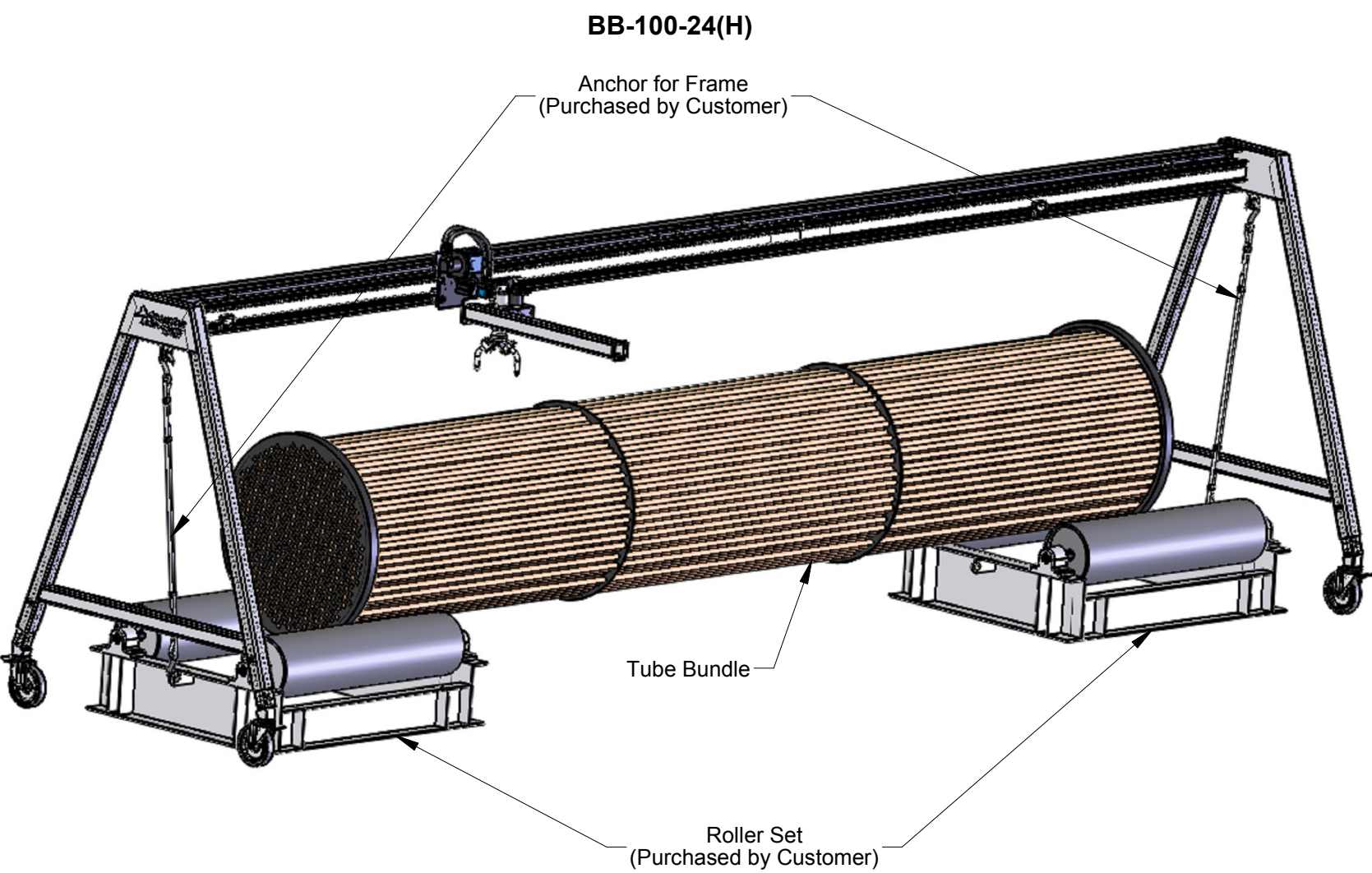


Figure 3: The BB-100-24(H) Assembly spans 24 feet and can be used for cleaning shorter tube bundles up to 22 feet in length (the BB-100-36(H) Frame Assembly can also be set up in a short configuration by removing the BB 107-36 Channel Rail Mid Beam Assembly and purchasing an additional section of box rail (the BUD 008-10 Dual Track Box Rail)). This configuration can be used in situations where only short tube bundles are being cleaned. The Frame assembly can either be anchored directly to the rollers as shown above, or for even shorter bundles, the rail clamps can be used for an optional anchor point. The above short configuration is shown with a 40 inch x 18ft tube bundle.

NOTE: StoneAge strongly recommends the use of hydraulic power because hydraulic rollers generate consistent rotation of the exchanger bundle for each waterblast cleaning pass. Air supply works well with smaller exchangers but is not effective in positioning heavier exchangers and may result in less consistent cleaning.