

Platform, Safety Cage and Rest Platform for Bucket Elevators

Models:
42" AND 48"

Installation Manual

PNEG-739

Version 2.0

Date: 08-29-19



PNEG-739

NOTE: When laying out the ladder, safety cage and platforms, always make sure to start from the head service platform and work your way down the leg. Keep in mind that a rest platform needs to be located at every 30' of vertical descent (OSHA Standards).



All service accessories are intended for the proper use in which they were designed. Any misuse of the equipment or accessories will void the warranty. Misuse can cause failure, severe injury or death to the user. The manufacturer cannot be responsible for the erection or use of the bucket elevator and its's accessories.

Use of the Equipment Information page will help you identify your equipment in the case that you need to call your dealer or installer. This information should be filled out and kept on record.

Equipment Information

Model Number: _____

Serial Number: _____

Date Purchased: _____

Dealer/Distributor Name and Phone Number:

Material Handling

1004 East Illinois Street
Assumption, Illinois 62510 USA
Phone: (217) 226-4421
FAX: (888) 741-3004
e-mail: gsi@grainsystems.com

All information, illustrations, photos, and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

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NOTES

1 Safety Precautions

Topics Covered in this Chapter

- Safety Guidelines
- Cautionary Symbol Definitions
- Safety Cautions
- Safety Decals
- Safety Sign-off Sheet

Safety Guidelines

Safety guidelines are general-to-specific safety rules that must be followed at all times. This manual is written to help you understand safe operating procedures and problems that can be encountered by the operator and other personnel when using this equipment. Read and save these instructions.

As owner or operator, you are responsible for understanding the requirements, hazards, and precautions that exist and to inform others as required. Unqualified persons must stay out of the work area at all times.

Alterations must not be made to the equipment. Alterations can produce dangerous situations resulting in **SERIOUS INJURY or DEATH**.

This equipment must be installed in accordance with the current installation codes and applicable regulations, which must be carefully followed in all cases. Authorities having jurisdiction must be consulted before installations are made.

When necessary, you must consider the installation location relative to electrical, fuel and water utilities.

Personnel operating or working around equipment must read this manual. This manual must be delivered with equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment.

ST-0001-4

Cautionary Symbol Definitions

Cautionary symbols appear in this manual and on product decals. The symbols alert the user of potential safety hazards, prohibited activities and mandatory actions. To help you recognize this information, we use the symbols that are defined below.

Table 1-1 Description of the different cautionary symbols

Symbol	Description
	This symbol indicates an imminently hazardous situation which, if not avoided, will result in serious injury or death.
	This symbol indicates a potentially hazardous situation which, if not avoided, can result in serious injury or death.
	This symbol indicates a potentially hazardous situation which, if not avoided, can result in minor or moderate injury.
	This symbol is used to address practices not related to personal injury.
	This symbol indicates a general hazard.
	This symbol indicates a prohibited activity.
	This symbol indicates a mandatory action.

ST-0005-2

Safety Cautions

Use Personal Protective Equipment

- Use appropriate personal protective equipment:

Eye Protection



Respiratory Protection



Foot Protection



Hearing Protection



Head Protection



Fall Protection



Hand Protection



- Wear clothing appropriate to the job.
- Remove all jewelry.
- Tie long hair up and back.

ST-0004-1

Follow Safety Instructions

- Carefully read all safety messages in this manual and safety signs on your machine. Keep signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from the manufacturer.
- Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.
- If you do not understand any part of this manual or need assistance, contact your dealer.



ST-0002-1

Chapter 1: Safety Precautions

Maintain Equipment and Work Area

- Understand service procedures before doing work. Keep area clean and dry.
- Never service equipment while it is operating. Keep hands, feet, and clothing away from moving parts.
- Keep your equipment in proper working condition. Replace worn or broken parts immediately.



ST-0003-1

Install and Operate Electrical Equipment Properly

- Electrical controls must be installed by a qualified electrician and must meet the standards set by applicable local codes (National Electrical Code for the US, Canadian Electric Code, or EN60204 along with applicable European Directives for Europe).
- Lock-out power source before making adjustments, cleaning, or maintaining equipment.
- Make sure all equipment is properly grounded.



ST-0027-4

Sharp Edge Hazard

- This product has sharp edges, which can cause serious injury.
- To avoid injury, handle sharp edges with caution and always use proper protective clothing and equipment.



ST-0036-2

Fall Hazard

- Keep access door closed while on a platform to avoid falls.
- Always use proper personal protective equipment and proper clothing when using equipment. Failure to follow safety precautions can result in severe injury or death.



ST-0042-2

Toxic Fume and Dust Hazard

- Do all work outside or in a well-ventilated area. Dispose of paint and solvent properly.
- Remove paint before welding or heating:
 - Avoid potentially toxic fumes and dust. Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.
 - If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
 - If you use solvent or paint-stripper, remove stripper with soap and water before welding.
 - Remove solvent or stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating



ST-0043-2

Platform Load Limit

- The platform load limit is 500 LBS (2.25 kN). Do not exceed this weight.
- Excessive load will damage the platform and cause platform to fall. Severe injury or death will result.



ST-0044-2

Stay Clear of Hoisted Equipment

- Always use proper lifting or hoisting equipment when assembling or disassembling equipment
- Do not walk or stand under hoisted equipment.
- Always use sturdy and stable supports when needed for installation. Not following these safety precautions creates the risk of falling equipment, which can crush personnel and cause serious injury or death.



ST-0047-1

Chapter 1: Safety Precautions

Fall Hazard

- Ladders, stairways and platforms are for use by competent and trained personnel only. Do not allow children or other unauthorized persons to have access to the equipment.
- Access to the equipment must be restricted by the use of security fencing and lockable gates.
- Lower sections of ladders must be fitted with a lockable safety gate to prevent unauthorized access.
- Make sure that hot surfaces have had adequate time to cool before working on or in the equipment.
- Lock out and tag out power supplies and fuel supplies to all equipment.
- Do not attach lifting equipment to ladders or platforms.
- Do not go outside of the safety rails provided on elevated platforms.
- Do not work at heights during high winds, rain, snow, or ice storms.



ST-0056-1

Stay Clear of Moving Parts

- Entanglement in rotating sprocket or moving chain will cause serious injury or death.
- Keep all guards and covers in place at all times.
- Lock-out power source before making adjustments, cleaning, or maintaining equipment.



ST-0076

Safety Decals

The safety decals on your equipment are safety indicators which must be carefully read and understood by all personnel involved in the installation, operation, service and maintenance of the equipment.

Location	Decal No.	Decal	Description
Bottom of platform access door and side of the head assembly.	DC-1568		Decal, Danger Platform Fall Hazard

To replace a damaged or missing decal, contact us to receive a free replacement.

GSI Decals

1004 E. Illinois St.
 Assumption, IL 62510
 Tel: 1-217-226-4421

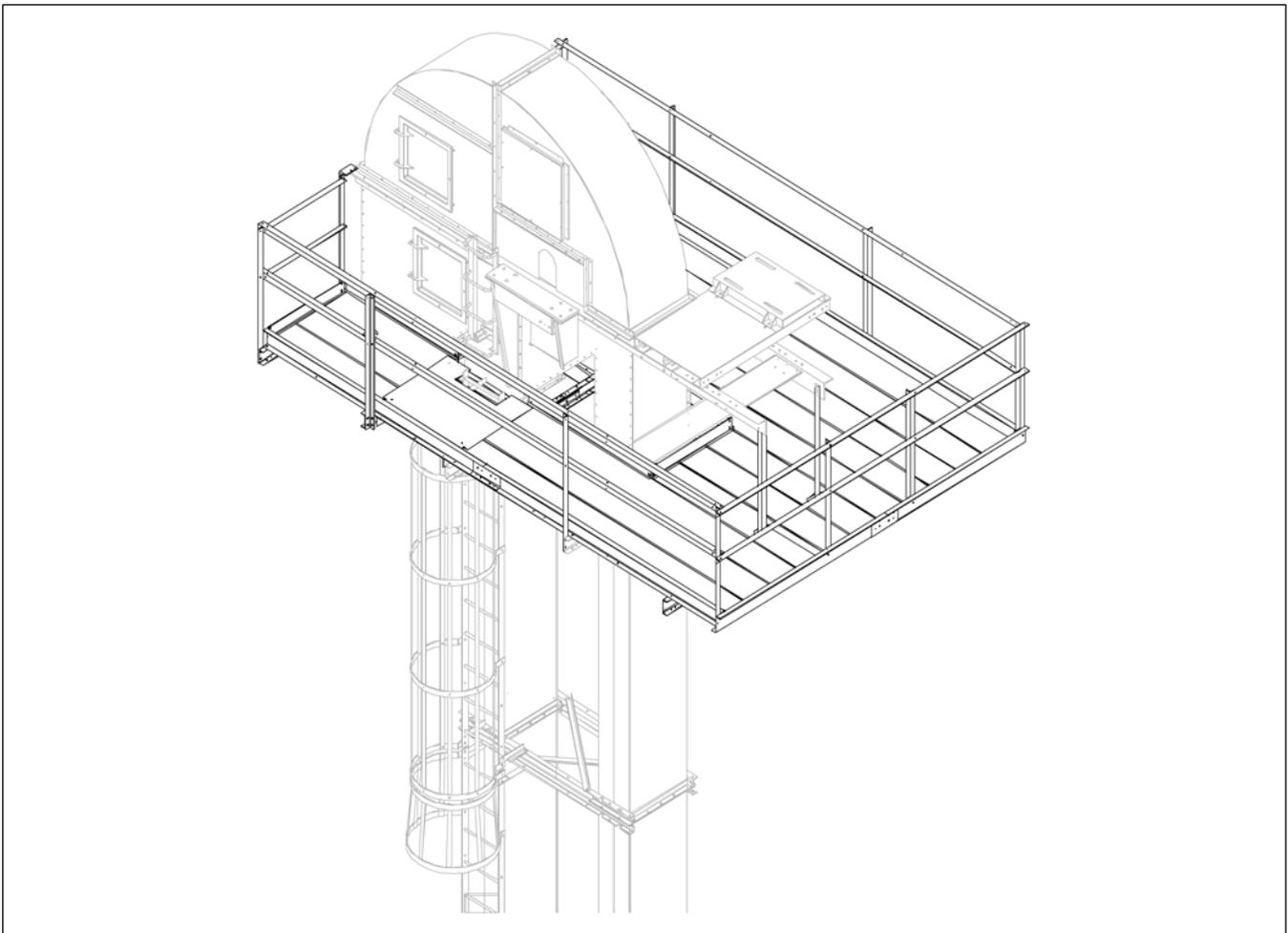
2 42" Head Service Platform

Topics Covered in this Chapter

- General Overview
- Support Channels
- Inside Toeboards
- 42" Platform Decking
- Outside Toeboards
- 41-3/4" and 47-3/4" Handrail Posts
- 47-3/8" Handrail Posts
- Handrail and Vertical Support Angles
- Handrail Retaining Clips
- Hatch Access Door

General Overview

Figure 2-1 42" Head service platform



Support Channels

Before You Begin

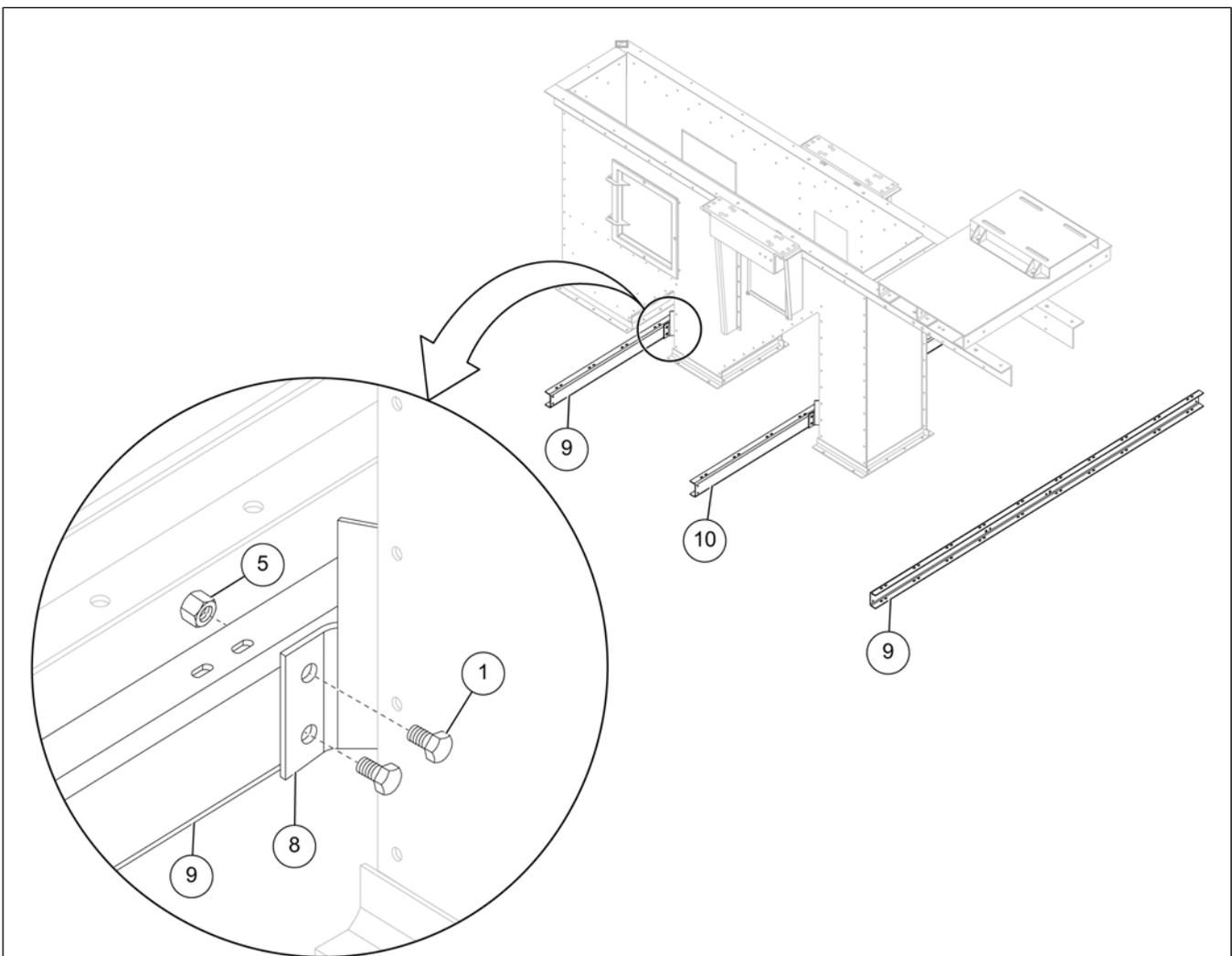
Take time to review all instructions and drawings before attempting to assemble the platform. Layout all parts for easy identification. Determine if the shaft will extend to the left or right hand side of the platform.

Attach two support channels (9 and 10) to the head platform brackets (8) using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).

NOTE:

- a. The long side of the support channels (9 and 10) must extend to the **shaft side** of the head.
- b. For entire platform assembly, use carriage bolts at slot-to-hole connections and hex head cap screws at hole-to-hole connections.

Figure 2-2 Attaching the support channels



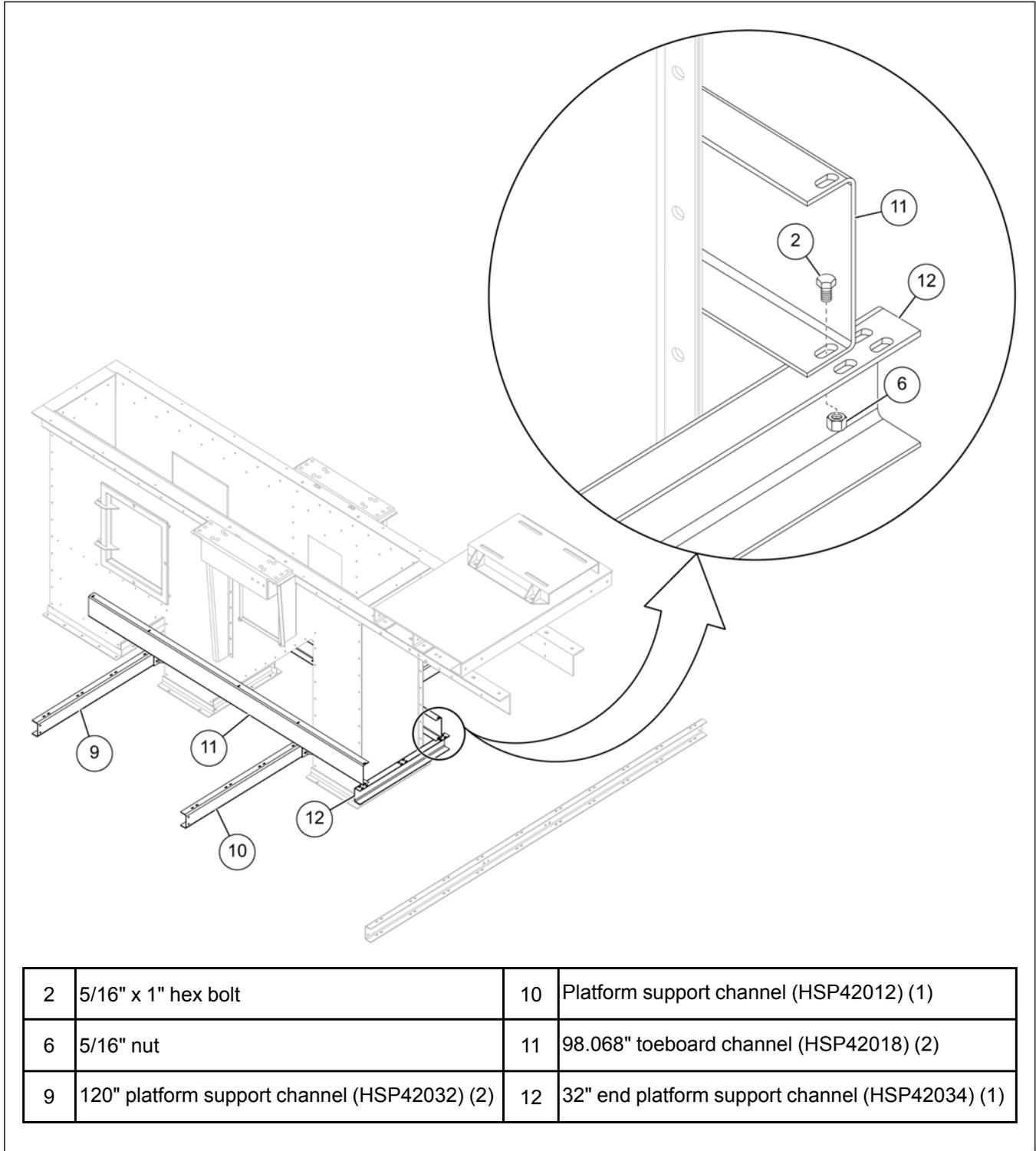
1	1/2" x 1" hex bolt	9	120" platform support channel (HSP42032) (2)
5	1/2" nut	10	Platform support channel (HSP42012) (1)
8	Left hand deck channel support bracket (HSP42010)		

Inside Toeboards

1. Attach the side toeboards (11) on top of the support channels (9 and 10) next to the head assembly using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).
2. Attach the end platform support channel (12) below the two side toeboards (11) using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).

NOTE: After installing the toeboards (11) and support channels (12), tighten all the hardware.

Figure 2-3 Attaching the inside toeboards



42" Platform Decking

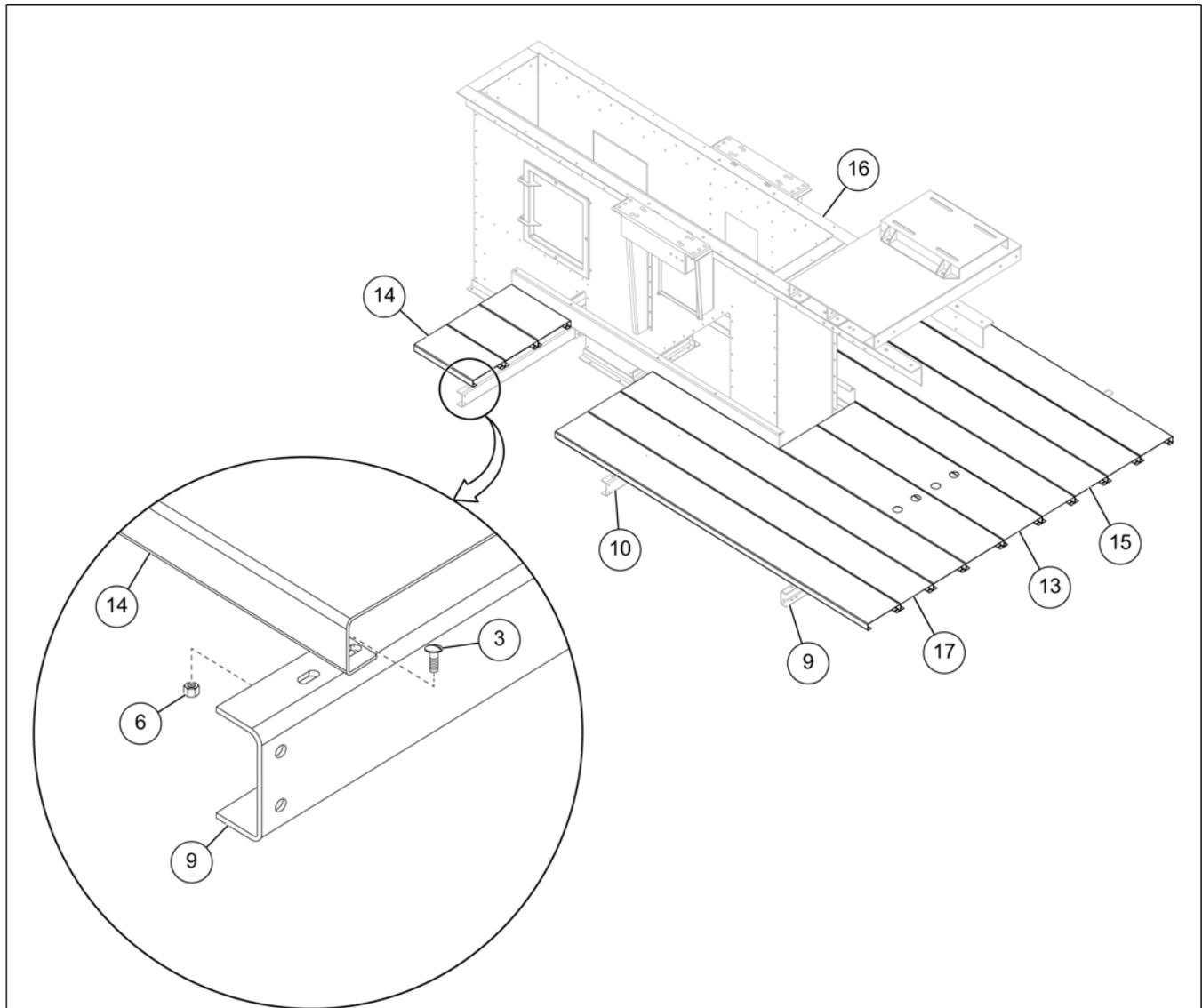
Before You Begin

Layout all floor deck panels according to the position on the platform as shown. Remember to layout for right hand (standard) or left hand shaft.

Attach the floor panels (13, 14, 15, 16 and 17) to the support channels (9 and 10) as shown using 5/16" x 1" carriage bolts (3) and 5/16" nuts (6).

NOTE: *The layout shown below is for a RIGHT hand drive setup.*

Figure 2-4 Attaching the floor panels



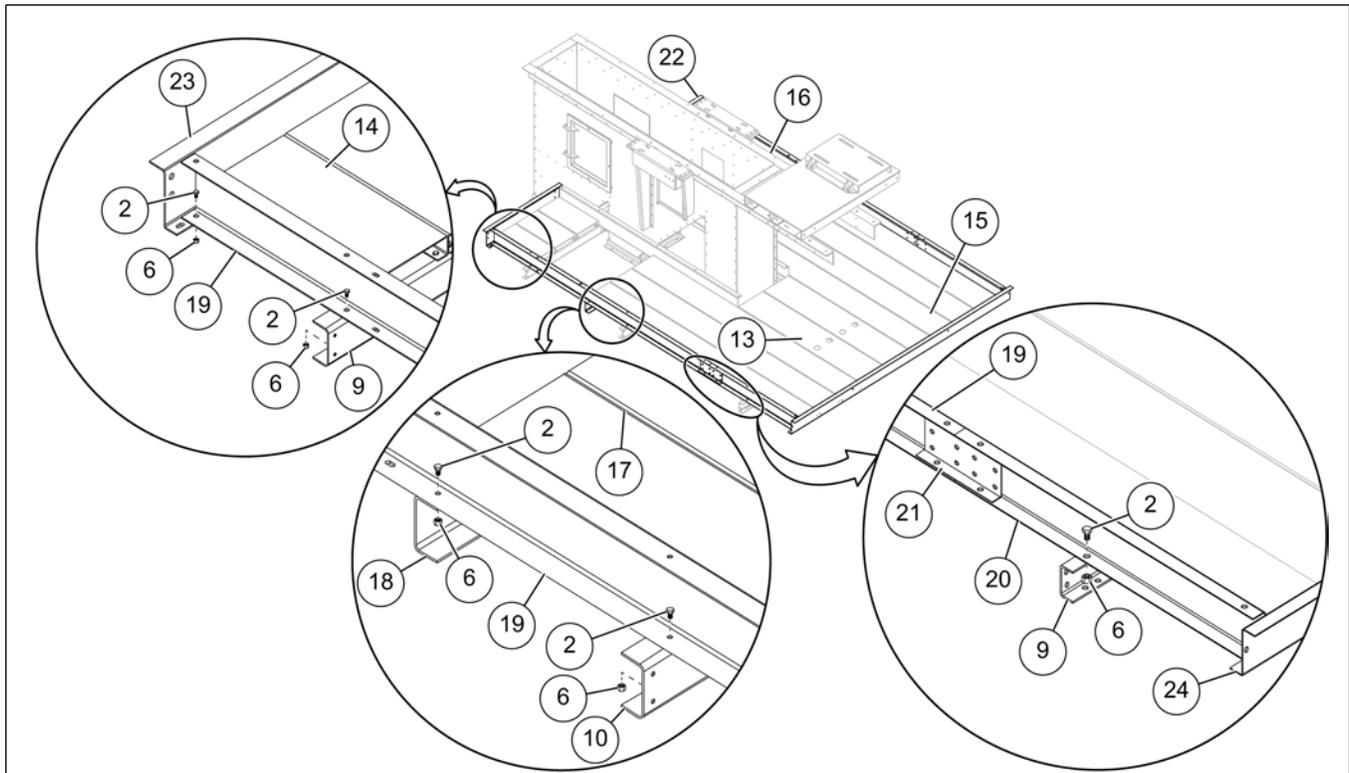
3	5/16" x 1" carriage bolt	14	21.65" platform decking (HSP42043) (3)
6	5/16" nut	15	93" platform decking (HSP42006) (4)
9	120" platform support channel (HSP42032) (2)	16	73.625" platform decking (HSP42007) (4)
10	Platform support channel (HSP42012) (1)	17	114.812" platform decking (HSP42008) (3)
13	68.607" platform decking (HSP42033) (2)		

Outside Toeboards

1. Attach the support channel (18) under the floor panels (17) at the hatch opening using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).
2. Attach the toeboard channels (19 and 20) to the support channels (9, 10 and 18) at the ends of the floor panels (14 and 17) on the hatch side using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).
3. Similarly attach the toeboard channels (19 and 20) to the support channels (9 and 10) at the ends of the floor panels (16 and 15) on the opposite side of the hatch using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).
4. Attach the toeboard splice plates (21) to the toeboard channels (19 and 20) on both sides of the platform using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).
5. Attach the remaining toeboards (22, 23 and 24) to the toeboard channels (19 and 20) at the ends of the platform floor panels (14, 16) and (13, 15) using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).

NOTE: *Small floor panels may be left off until the outside toeboards are attached. After the toeboards are installed, tighten all the hardware.*

Figure 2-5 Attaching the outside toeboards

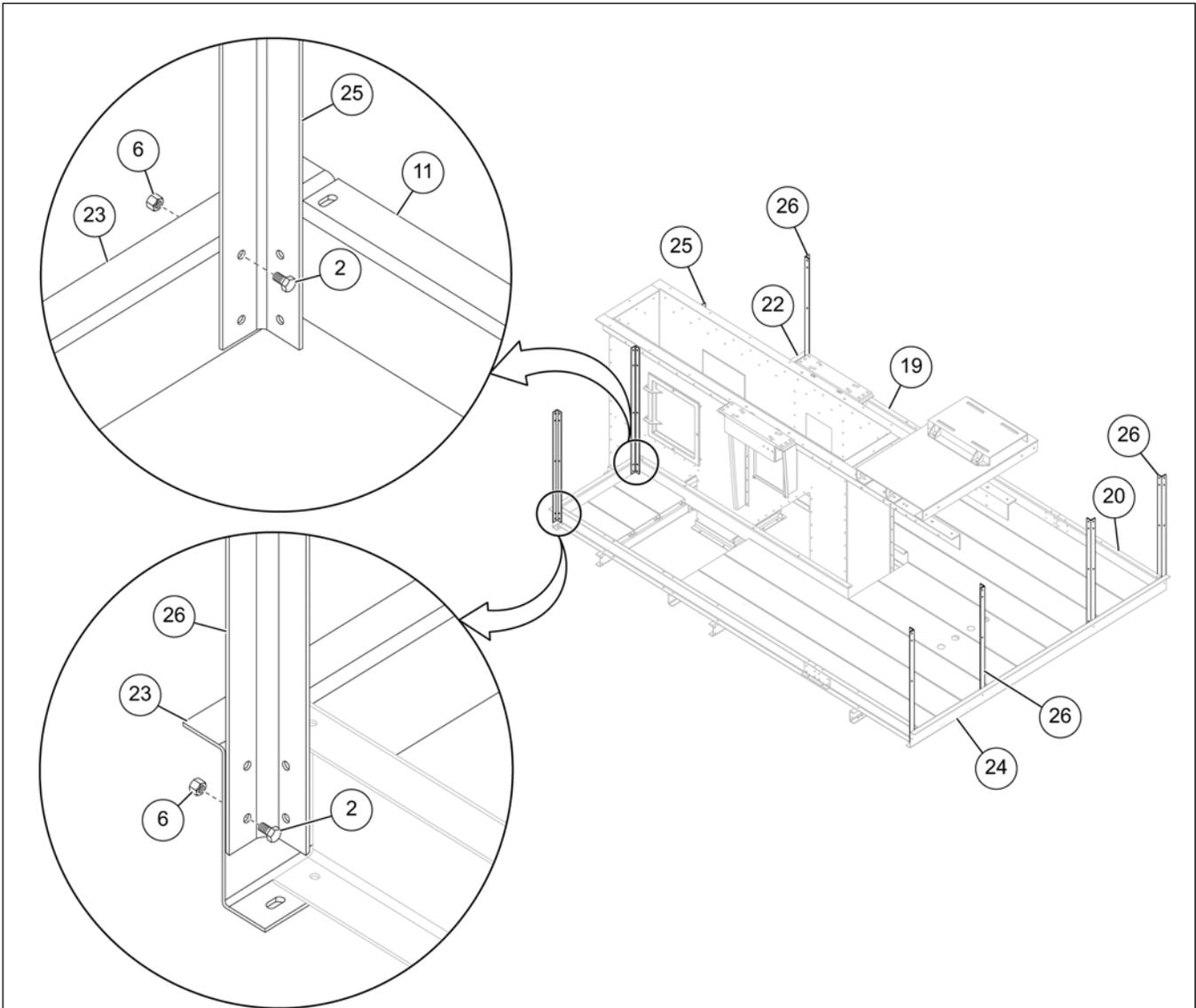


2	5/16" x 1" hex bolt	17	114.812" platform decking (HSP42008) (3)
6	5/16" nut	18	40" platform support channel (HSP42042) (1)
9	120" platform support channel (HSP42032) (2)	19	120" toeboard channel (HSP42015) (2)
10	Platform support channel (HSP42012) (1)	20	46.976" toeboard channel (HSP42016) (2)
13	68.607" platform decking (HSP42033) (2)	21	Toeboard splice plate (HSP42044) (2)
14	21.65" platform decking (HSP42043) (3)	22	42" Z-toeboard (HSP42036) (1)
15	93" platform decking (HSP42006) (4)	23	54" Z-toeboard (HSP42037) (1)
16	73.625" platform decking (HSP42007) (4)	24	120" Z-toeboard (HSP42038) (1)

41-3/4" and 47-3/4" Handrail Posts

1. Attach the two 47-3/4" handrail posts (25) to the toeboard channels (11 and 23) next to the head as shown using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).
2. Attach the four 41-3/4" handrail posts (26) to the toeboard channels (22, 23 and 24) at the four outside corners and two 41-3/4" handrail posts (26) to the inside of the toeboard (24) using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).

Figure 2-6 Attaching the handrail posts

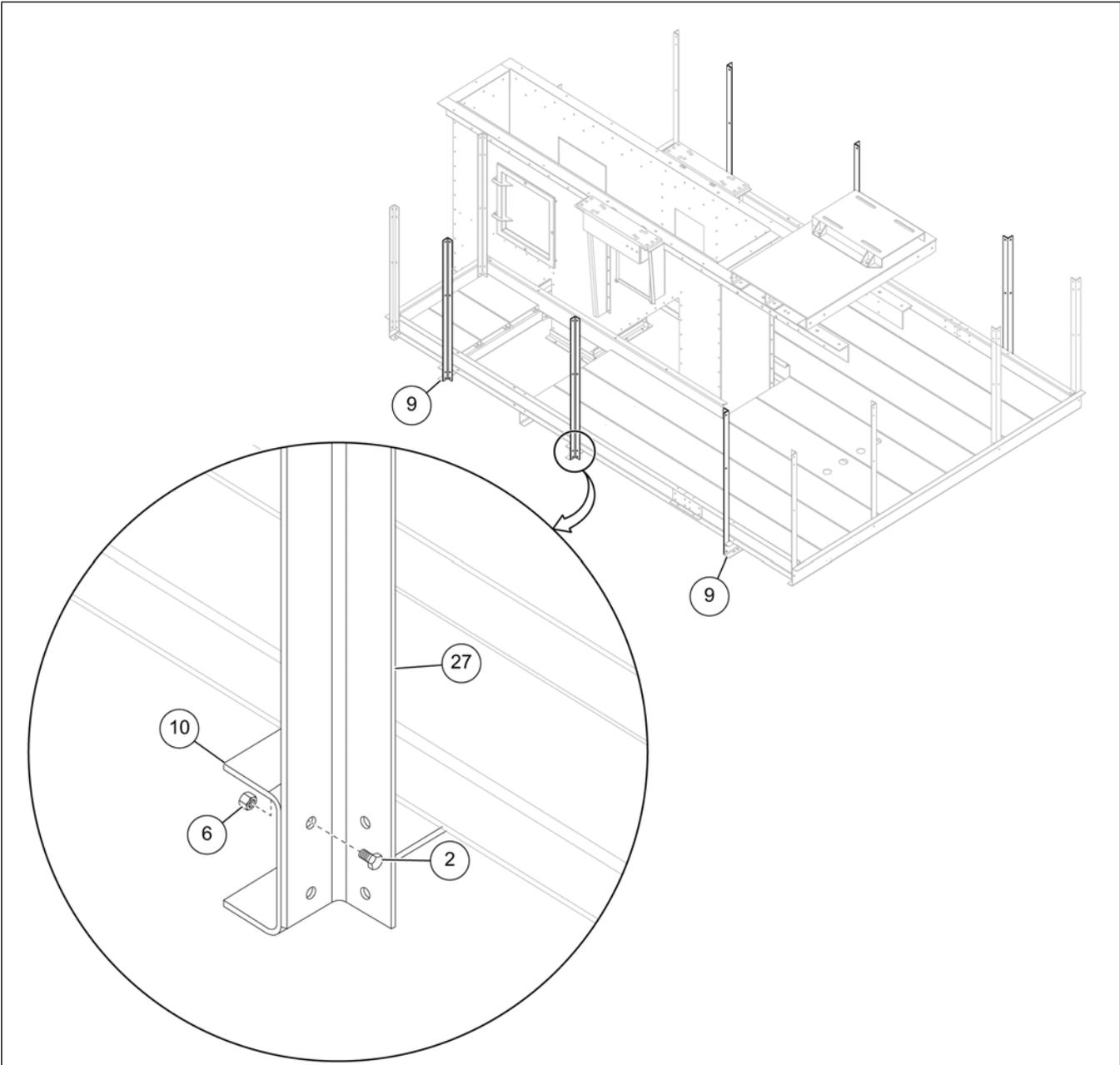


2	5/16" x 1" hex bolt	23	54" Z-toeboard (HSP42037) (1)
6	5/16" nut	24	120" Z-toeboard (HSP42038) (1)
11	98.068" toeboard channel (HSP42018) (2)	25	47-3/4" handrail upright angle (HSP42035) (2)
22	42" Z-toeboard (HSP42036) (1)	26	41-3/4" handrail upright angle (HSP36031) (6)

47-3/8" Handrail Posts

1. Attach three 47-3/8" handrail posts (27) to the ends of the support channels (9 and 10) on the hatch side using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).
2. Attach another three 47-3/8" handrail posts (27) to the ends of the support channels (9 and 10) on the opposite side of hatch using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).

Figure 2-7 Attaching the handrail posts

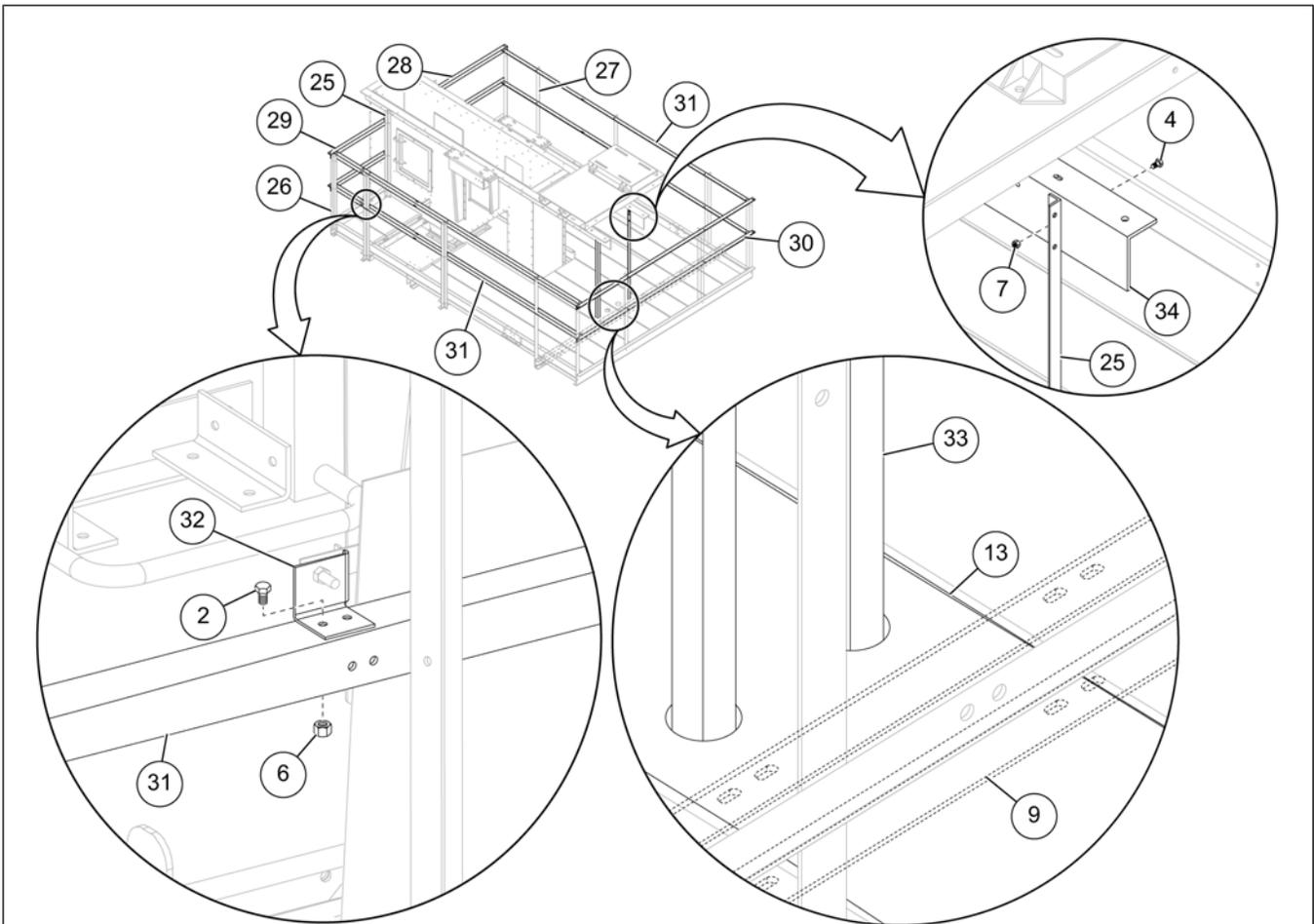


2	5/16" x 1" hex bolt	10	Platform support channel (HSP42012) (1)
6	5/16" nut	27	47-3/8" handrail upright angle (HSP36030) (6)
9	120" platform support channel (HSP42032) (2)		

Handrail and Vertical Support Angles

1. Attach the handrails (28 and 29) to the handrail posts (25 and 26) and the handrails (30 and 31) to the handrail posts (26 and 27) as shown using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).
2. Attach the platform latch assembly (32) to the handrail (31) using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).
3. Attach the two deck channel support angles (33) to the rear of the head bearing angles (34) and to the support channel (9) through the holes provided in the floor panel (13) using 3/8" x 1" hex bolts (4) and 3/8" hex nuts (7).

Figure 2-8 Attaching the handrails and vertical support angles

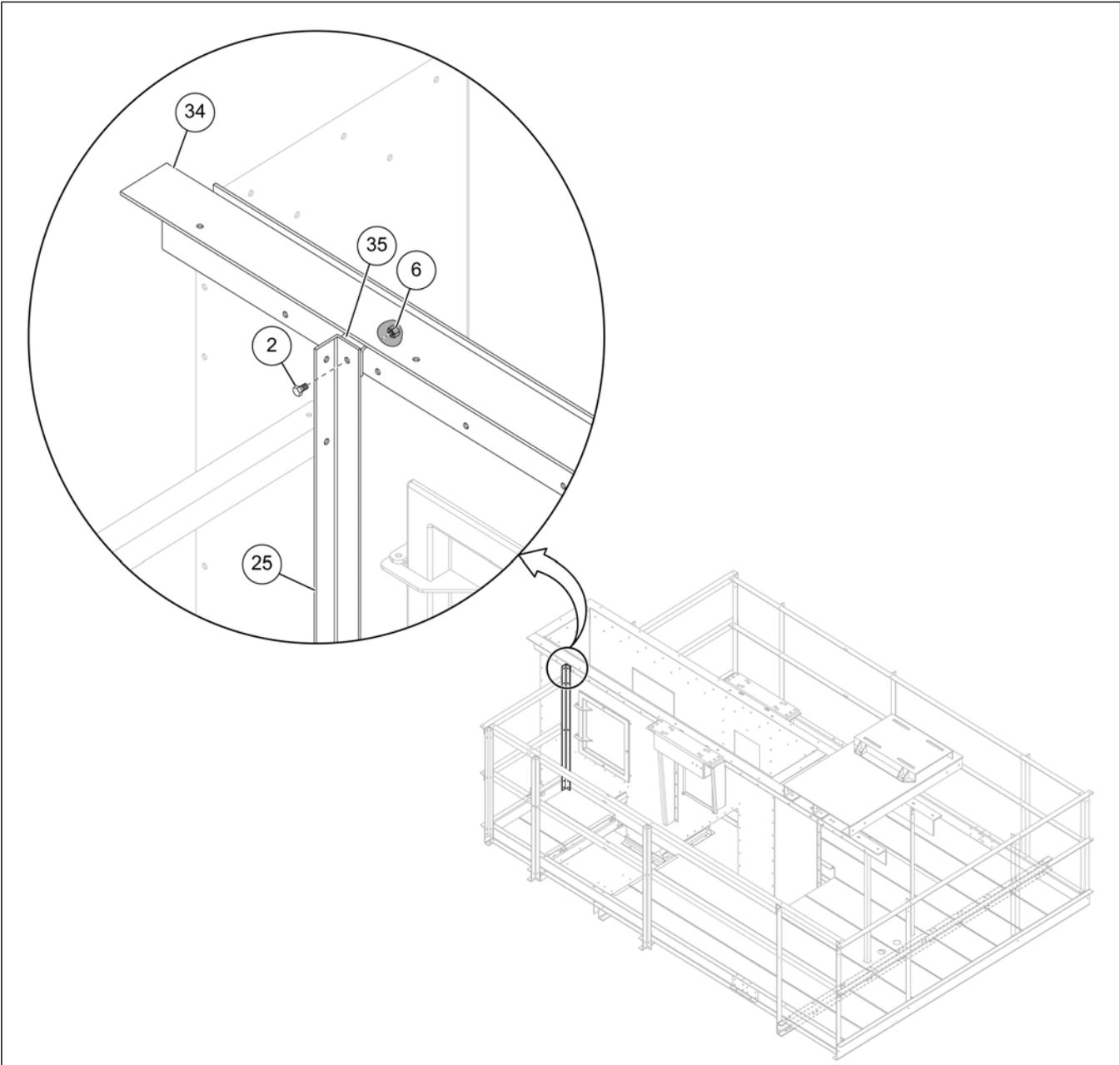


2	5/16" x 1" hex bolt	27	47-3/8" handrail upright angle (HSP36030) (6)
4	3/8" x 1" hex bolt	28	38.63" handrail angle (HSP42045) (2)
6	5/16" nut	29	50.625" handrail angle (HSP36029) (2)
7	3/8" hex nut	30	120" handrail angle (HSP42026) (2)
9	120" platform support channel (HSP42032) (2)	31	167.289" handrail angle (HSP42025) (4)
13	68.607" platform decking (HSP42033) (2)	32	Latch assembly (GSB30120)
25	47-3/4" handrail upright angle (HSP42035) (2)	33	Desk channel support angle (HSP42014) (2)
26	41-3/4" handrail upright angle (HSP36031) (6)	34	Head bearing angle

Handrail Retaining Clips

- 1. Attach the two handrail support clips (35) to the handrail posts (25) next to the head bearing angle (34) on the discharge end of head as shown.
- 2. Field drill the hole in each head bearing angle (34) and attach using the 5/16" x 1" hex bolts (2) and 5/16" nuts (6).

Figure 2-9 Attaching the handrail retaining clips



2	5/16" x 1" hex bolt	34	Head bearing angle
6	5/16" nut	35	Handrail retaining clip (HSP36027) (2)
25	47-3/4" handrail upright angle (HSP42035) (2)		

Hatch Access Door

1. Attach the left and right hand hinges (36 and 37) to bottom side of the outside toeboard (19) using 5/16" x 1" carriage bolts (3) and 5/16" nuts (6).

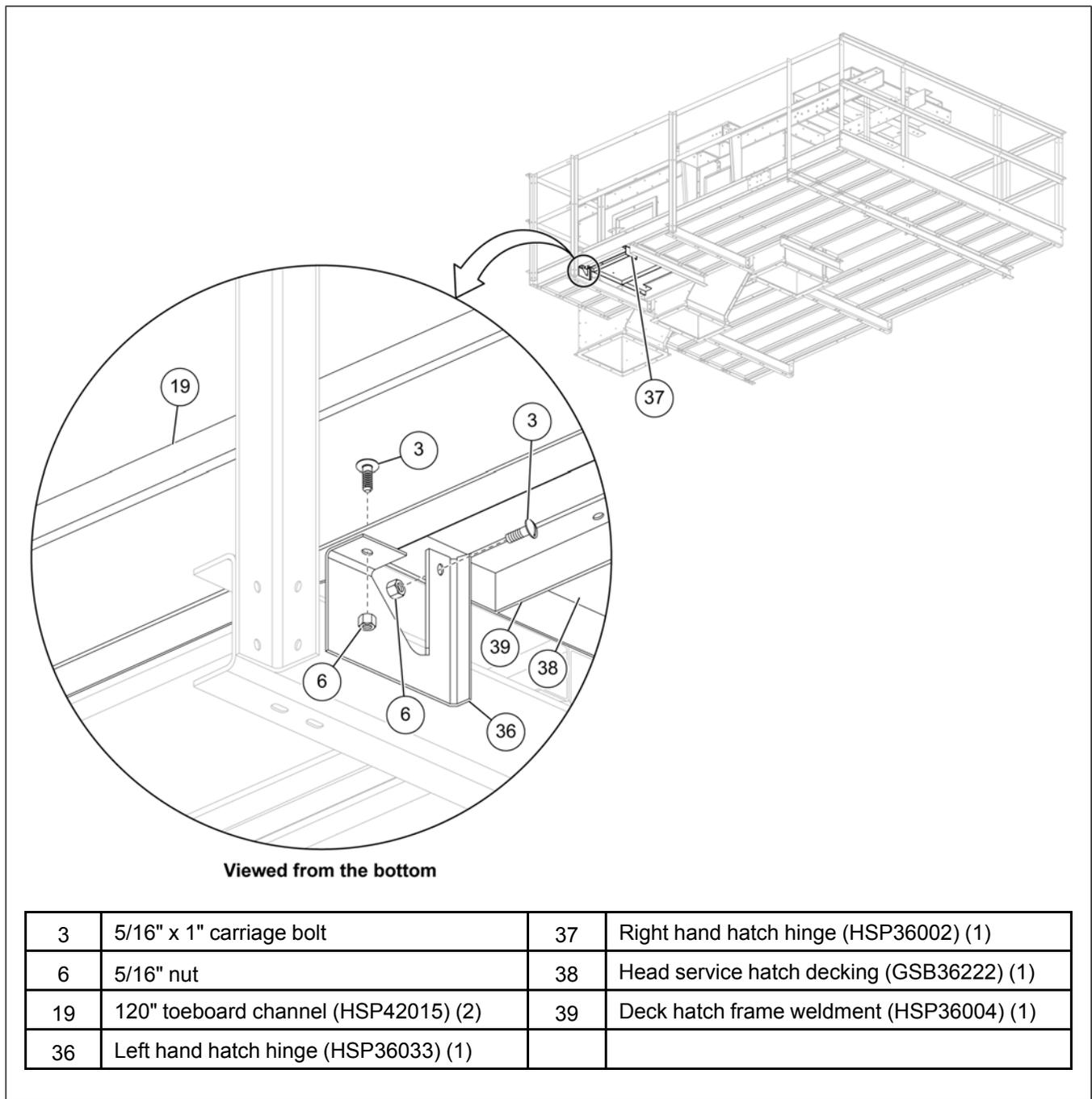
NOTE: Leave the bolts loose until the assembly is complete.

2. Assemble the head service hatch (38) and the deck hatch frame (39) using 5/16" x 1" carriage bolts (3) and 5/16" nuts (6).

3. Install the deck hatch access door assembly to the left and right hinges (36 and 37) using 5/16" x 1" carriage bolts (3) and 5/16" nuts (6).

NOTE: Double nut the hinge bolts (3) and do not overtighten.

Figure 2-10 Installing the hatch access door assembly



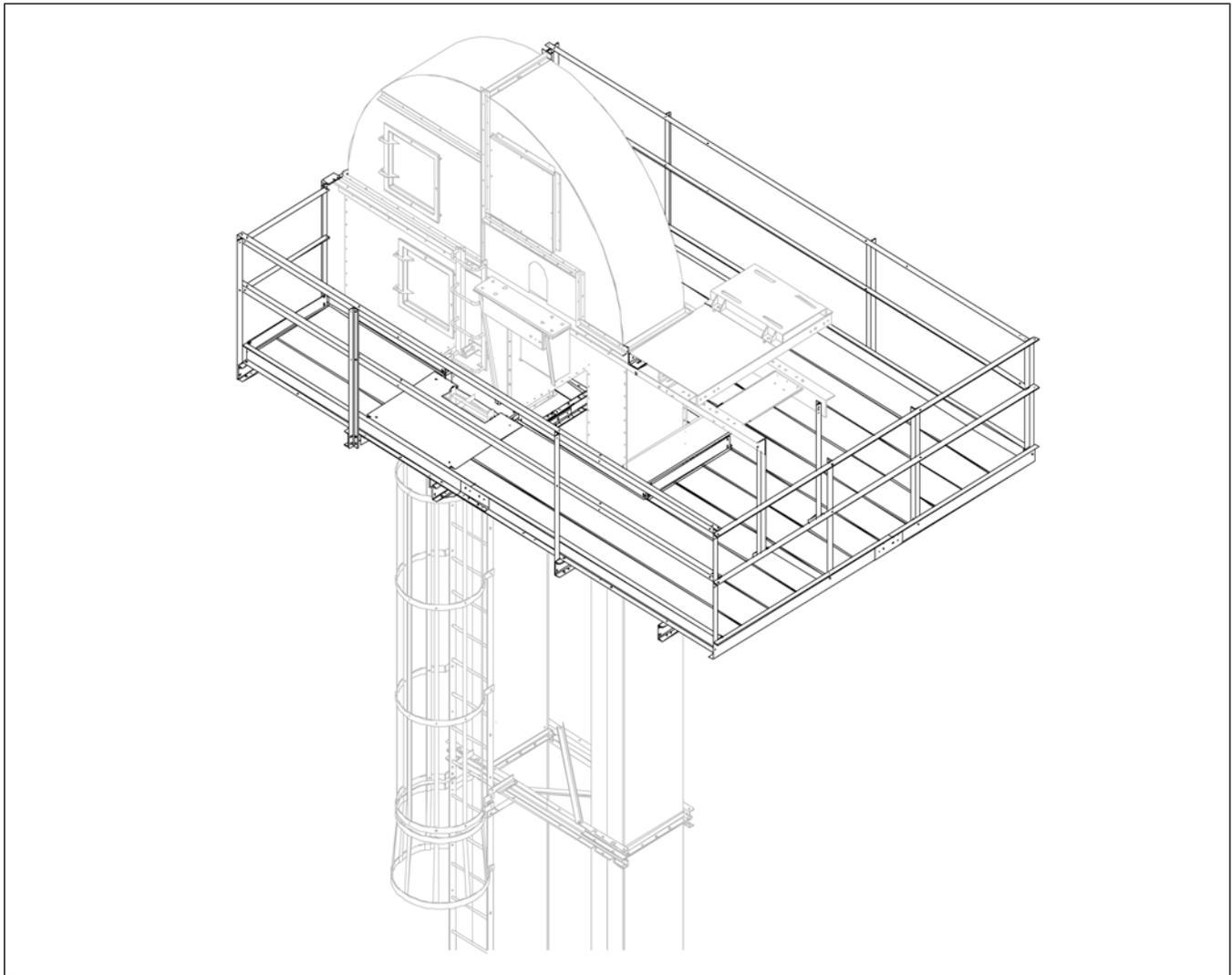
3 48" Head Service Platform

Topics Covered in this Chapter

- General Overview
- Mainframe and Cross Member Assembly
- Toe Plates
- Decking
- Handrail Posts and Handrails
- Handrail Angles and Platform Support Angles
- Hatch Access Door and Two Rung Ladder
- Grab Bar

General Overview

Figure 3-1 48" Head service platform



Mainframe and Cross Member Assembly

Before You Begin

Before attempting any assembly of the platform, read and follow all instructions. Layout all parts associated with the assembly. Look at the head assembly to determine the drive side, which is the wide side of platform.

What You Should Know

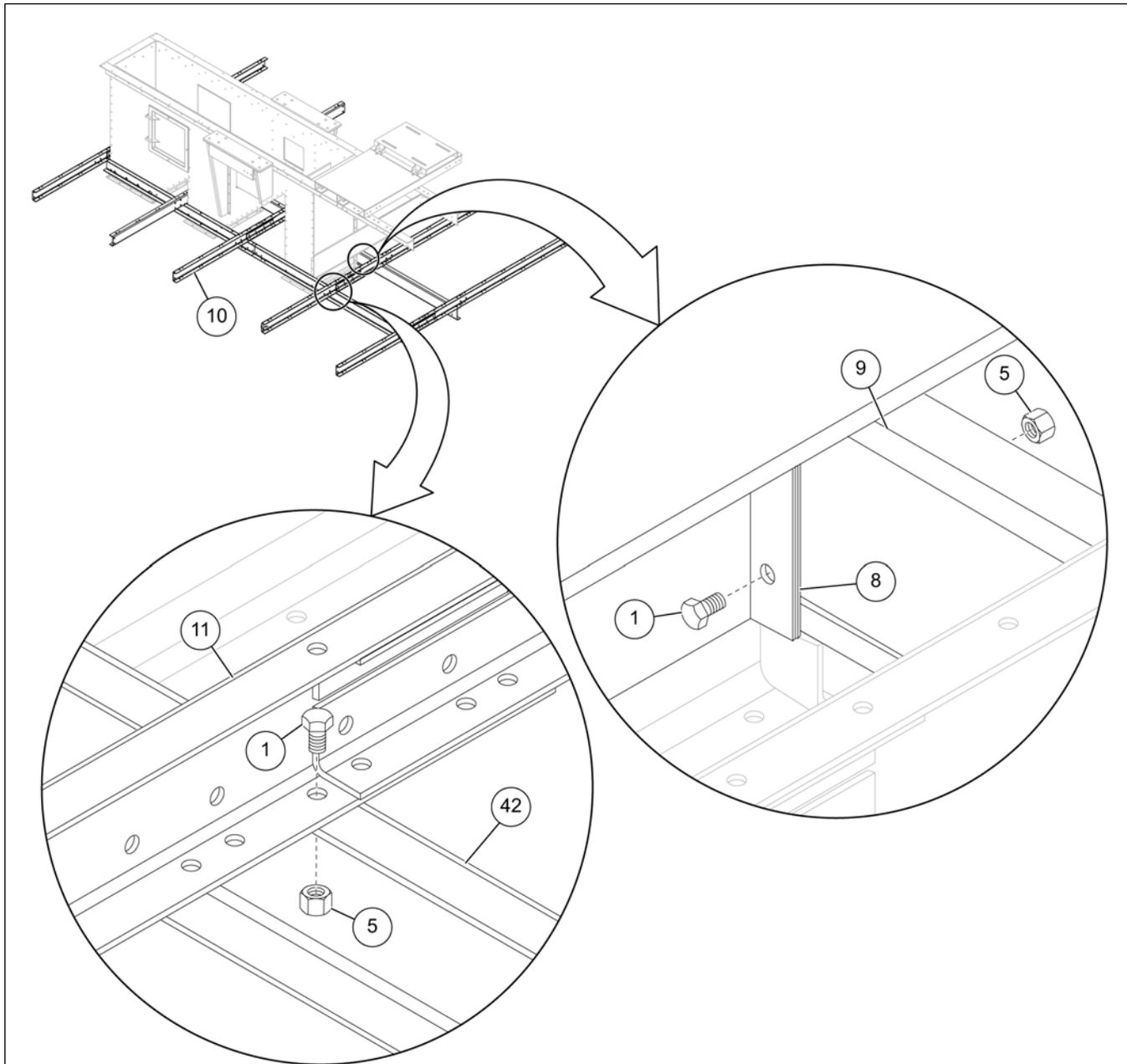
Due to the assembly of the head service platform, the lower head assembly may need to be blocked up under the head and discharge flanges approximately 12" to provide clearance for assembly.

1. Attach the right and left mainframe assemblies (9 and 42) to the head (8) using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).
2. Attach the cross members (10 and 11) to the right and left mainframe assemblies (9 and 42) using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).

NOTE:

- a. Make sure the long end of the cross members (10 and 11) are extending towards the drive side.
- b. The middle cross member HSP48X106 has a double hole pattern. Be sure to orient the cross members as shown in [Figure 3-2, page 25](#). All figures show a right drive platform.
- c. When items with more than one part# are shown, you will only use the one relevant to the service platform.
 - HSP482XXX - single row 48" elevator.
 - HSP484XXX - double row 38"-42" wide 48" elevator.
 - HSP485XXX - double row 50" wide 48" elevator.

Figure 3-2 Attaching the mainframe and cross member assembly



1	1/2" x 1" hex bolt	10	Cross member assembly double hole (see table below)
5	1/2" nut	11	Cross member assembly (see table below)
8	48" lower head section	42	Left mainframe assembly (HSP48402) (1)
9	Right mainframe assembly (HSP48401) (1)		

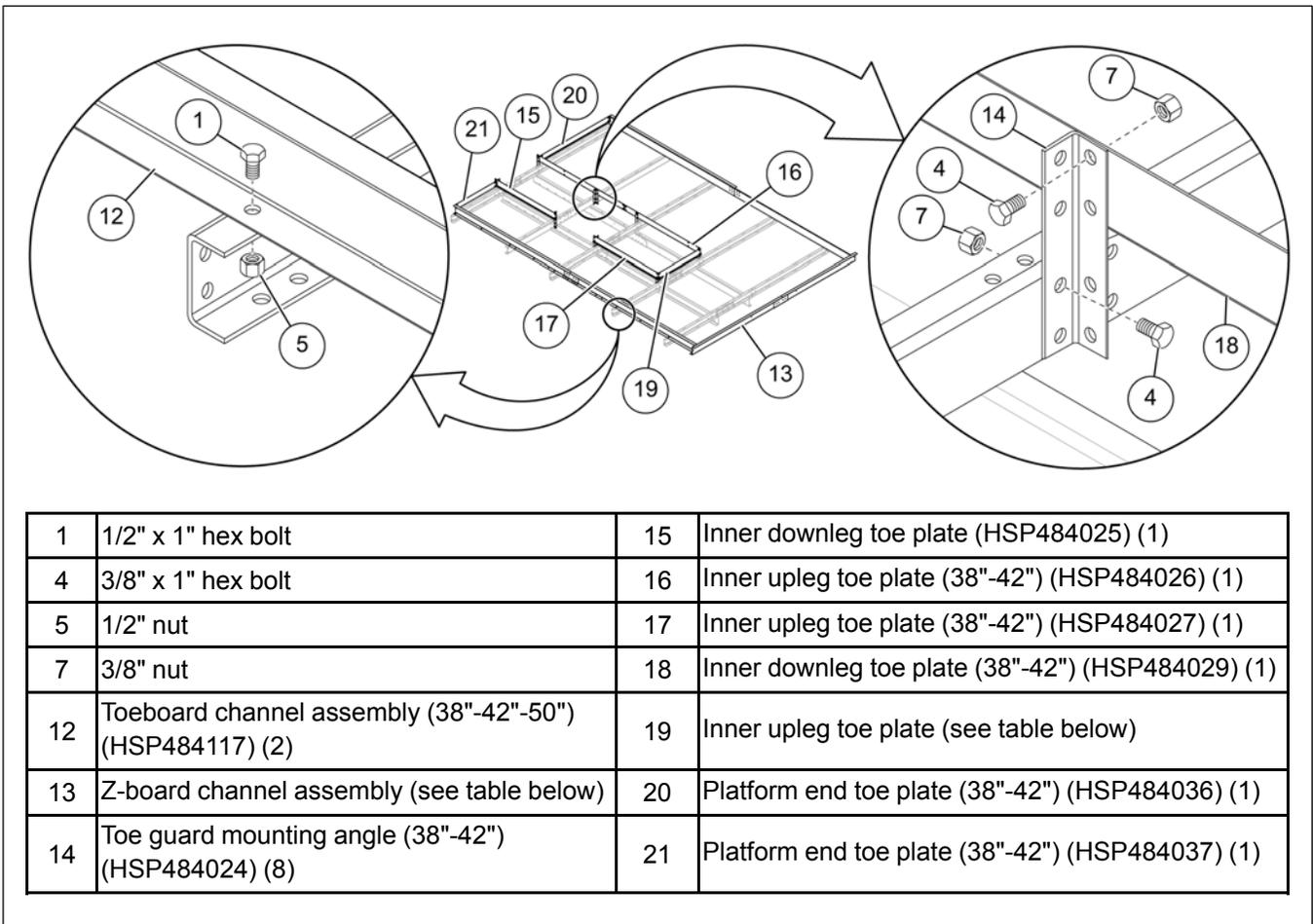
Size	Cross member assembly double hole (10)		Cross member assembly (11)	
	Part number	Quantity	Part number	Quantity
26"	HSP482106	1	HSP482105	1
38"-42"	HSP484106	1	HSP484105	1
50"	HSP485106	1	HSP485105	1

Toe Plates

1. Attach the toeboard channel assembly (12) to the ends of cross members (10 and 11) on both sides of the platform using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).
2. Attach the Z-board channel assembly (13) to the ends of the toeboard channel assembly (12) using 3/8" x 1" hex bolts (4) and 3/8" nuts (7).
3. Attach the eight toe guard mounting angles (14) to the cross member assemblies (10 and 11) using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).
4. Attach the inner upleg toe plates (16, 17 and 19) and inner downleg toe plates (15 and 18) to the toe guard mounting angles (14) as shown using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).
5. Attach the end toe plates (20 and 21) to the toe guard mounting angles (14) and the toeboard channel assembly (12) using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).

NOTE: The lower head assembly has been removed from below figure to help clarify the assembly process.

Figure 3-3 Attaching the toe plates



Size	Z-board channel assembly (13)		Inner upleg toe plate (19)	
	Part number	Quantity	Part number	Quantity
26"	HSP482121	1	HSP482028	1
38"-42"	HSP484121	1	HSP484028	1
50"	HSP485121	1	HSP485028	1

Decking

Before You Begin

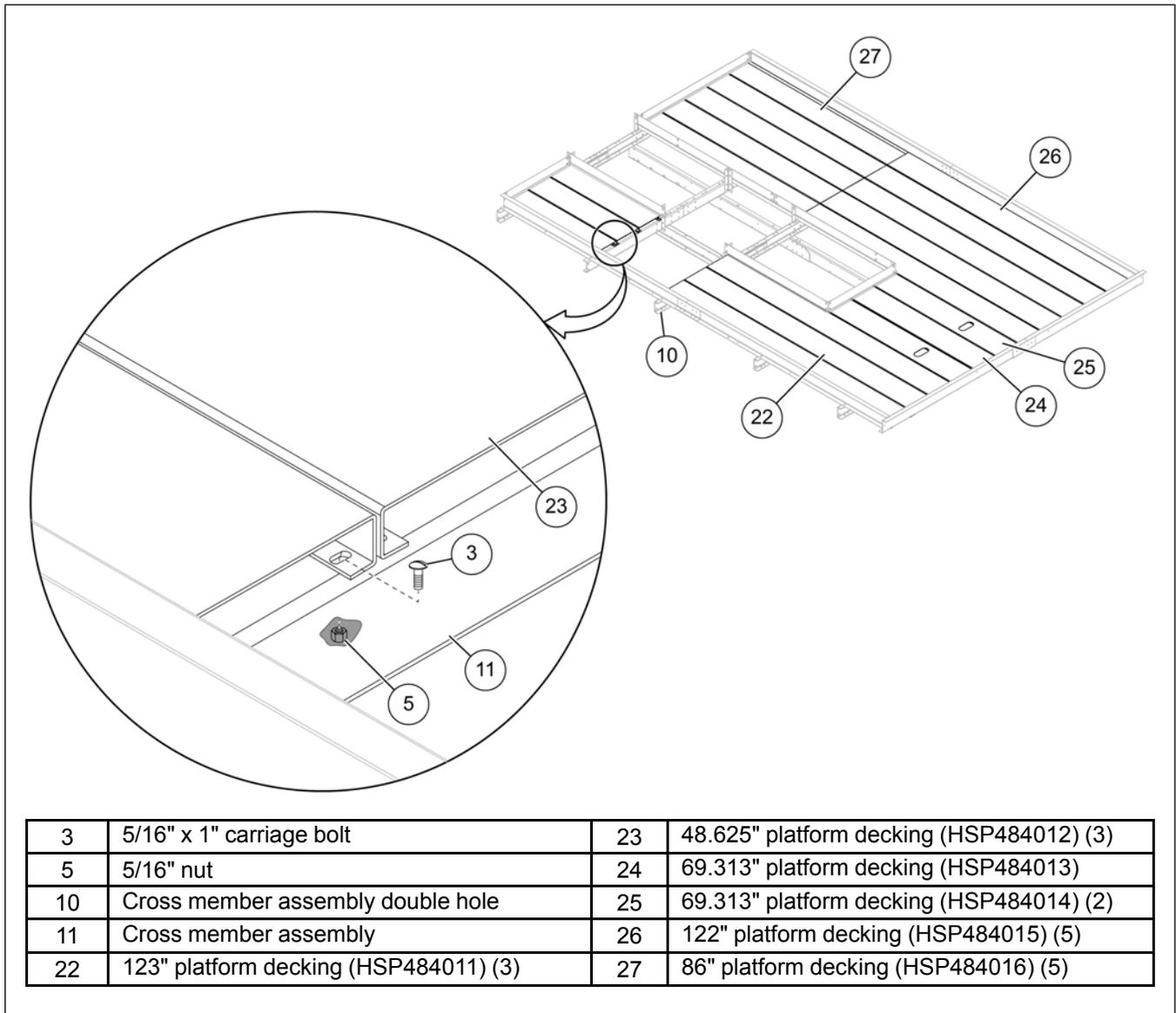
Make sure all the support channels are installed in place and all the hardware are tightened.

Position the floor deck panels (22, 23, 24, 25, 26 and 27) onto the cross member assemblies (10 and 11) as shown and secure using 5/16" x 1" carriage bolts (3) and 5/16" nuts (6).

NOTE:

- a. The lower head assembly has been removed from below figure to help clarify the assembly process.
- b. The floor deck panel (24) can have up to five quantity depending on the width of the platform. The quantity details are as follows.
 - SP-4826 = 1
 - SP-483842 = 2
 - SP-4850 = 3

Figure 3-4 Attaching the floor deck panels



Handrail Posts and Handrails

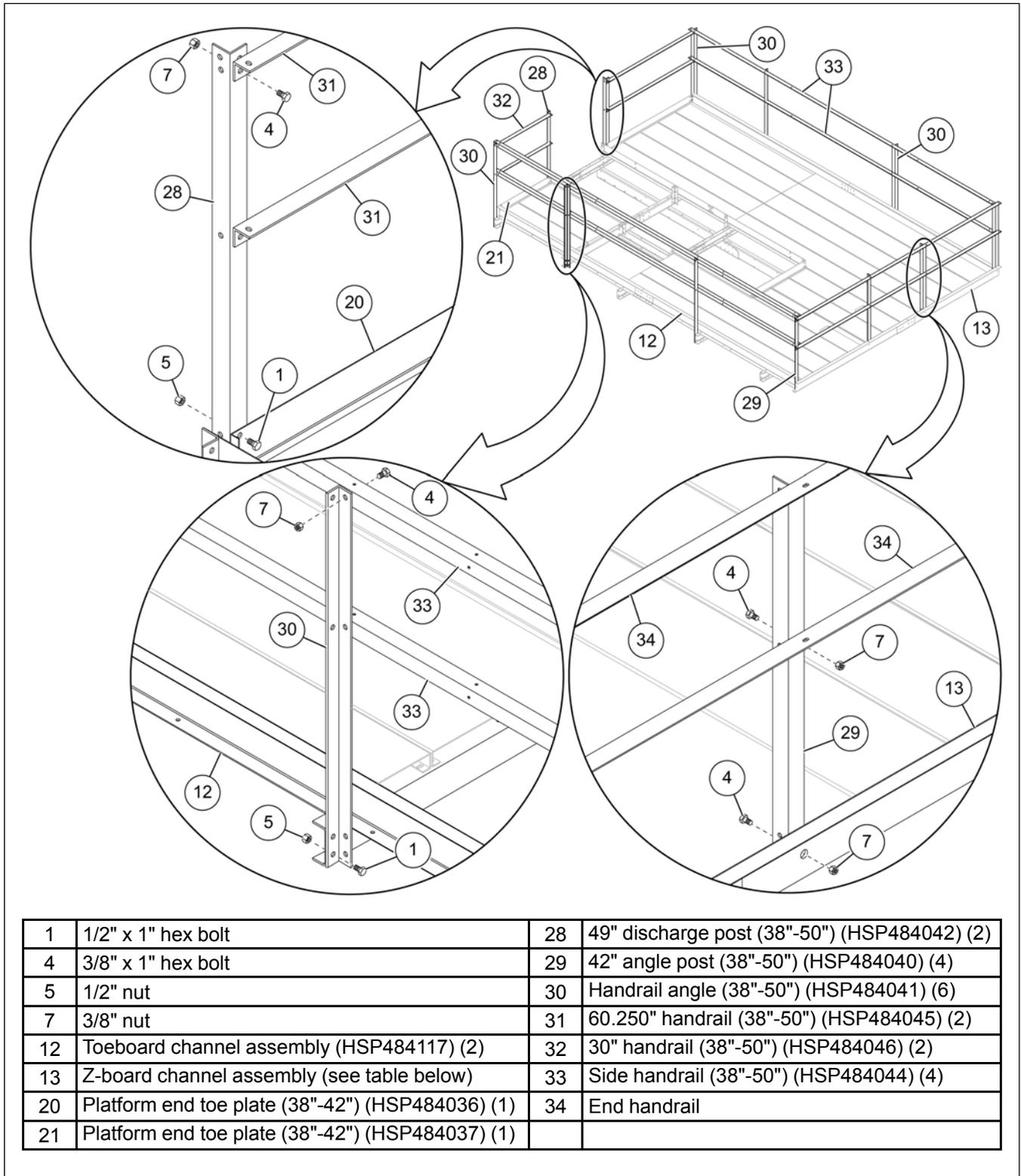
1. Attach the two discharge posts (28) to the end toe plates (20 and 21) next to the head as shown using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).
2. Attach the four angle posts (29) to the Z-board channel (13) using 3/8" x 1" hex bolts (4) and 3/8" nuts (7).
3. Attach the four handrail posts (30) to the sides of the toeboard channel assemblies (12) using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).
4. Attach another two handrails posts (30) to the corners of end toe plates (20 and 21) using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).

NOTE: *Do not tighten the bolts until all the handrails posts and handrails are in place.*

5. Attach the handrails (31 and 32) to the discharge posts (28) and handrail posts (30) using 3/8" x 1" hex bolts (4) and 3/8" nuts (7).
6. Attach the side handrails (33) to the handrail posts (30) using 3/8" x 1" hex bolts (4) and 3/8" nuts (7).
7. Attach the end handrails (34) to the angle posts (29) using 3/8" x 1" hex bolts (4) and 3/8" nuts (7).

NOTE: *After the handrails and handrails posts are in position, tighten all the hardware.*

Figure 3-5 Attaching the handrail posts and handrails

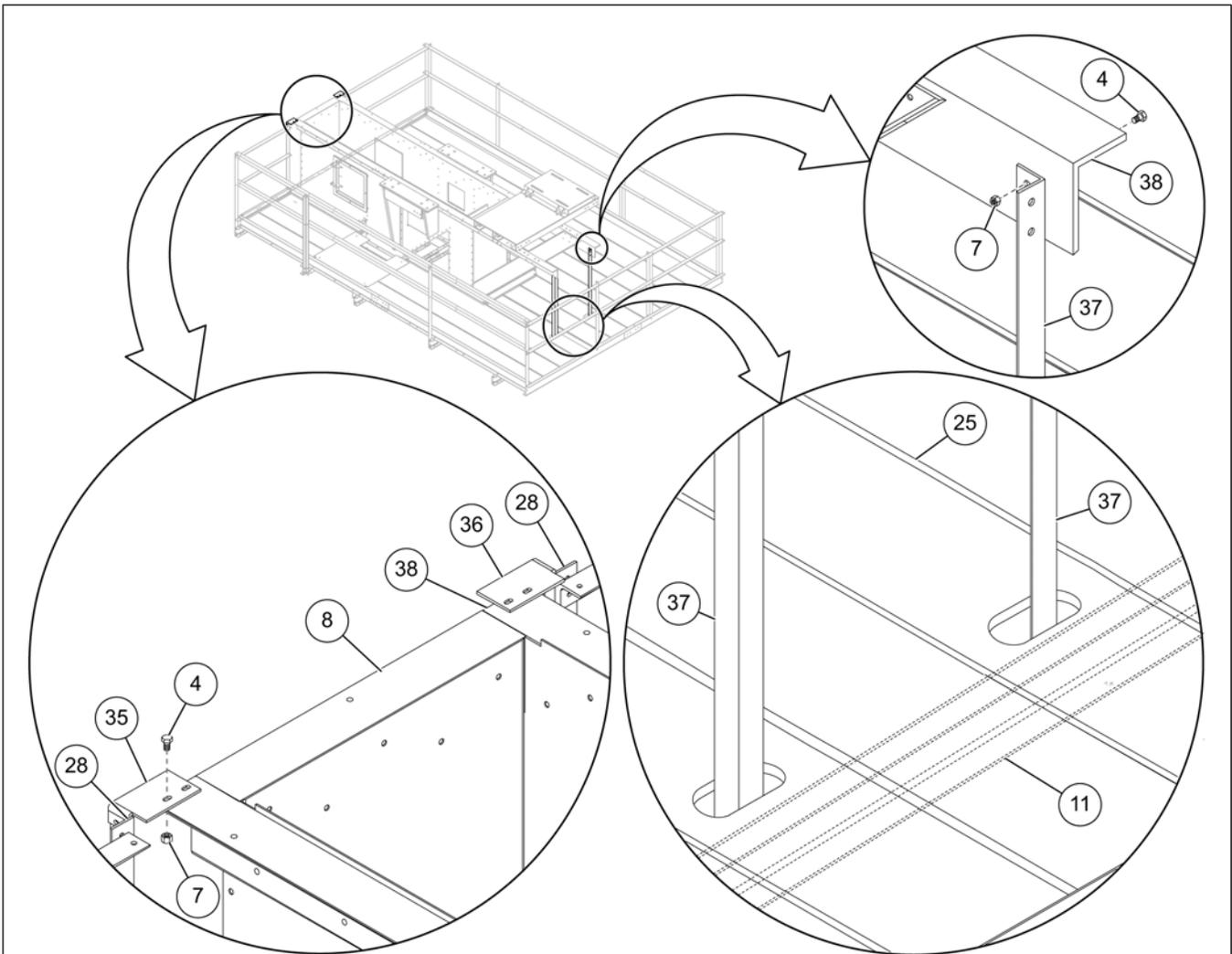


Size	Z-board channel assembly (13)	
	Part number	Quantity
26"	HSP482043	2
38"-42"	HSP484043	2
50"	HSP485043	2

Handrail Angles and Platform Support Angles

1. Attach the left handrail attachment angle (35) and right handrail attachment angle (36) to the discharge posts (28) next to the head bearing angle (38) on the discharge end of the lower head (8). Field drill the hole in each head bearing angle and secure using 3/8" x 1" hex bolts (4) and 3/8" nuts (7).
2. Attach the two service platform support angles (37) to the rear of the head angles (38) and to the cross member assembly (11) through the holes provided in the floor deck panel (25) using 3/8" x 1" hex bolts (4) and 3/8" nuts (7).

Figure 3-6 Attaching the handrail angles and platform support angles



4	3/8" x 1" hex bolt	28	49" discharge post (38"-50") (HSP484042) (2)
7	3/8" nut	35	Left handrail attachment angle (HSP484047)
8	48" lower head section	36	Right handrail attachment angle (HSP484048)
11	Cross member assembly	37	Service platform support angle (HSP484038)
25	69.313" platform decking (HSP484014)	38	Head bearing angle

Hatch Access Door and Two Rung Ladder

The two rung ladder is only applicable for 38"-72" wide bucket elevators.

1. Attach the left and right hand hinges (39 and 40) to bottom side of the toeboard channel assembly (12) using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).

NOTE: Leave the bolts loose until the assembly is complete.

2. Install the platform hatch assembly (41) to the left and right hinges (39 and 40) using 5/16" x 1" hex bolts (2) and 5/16" nuts (6).

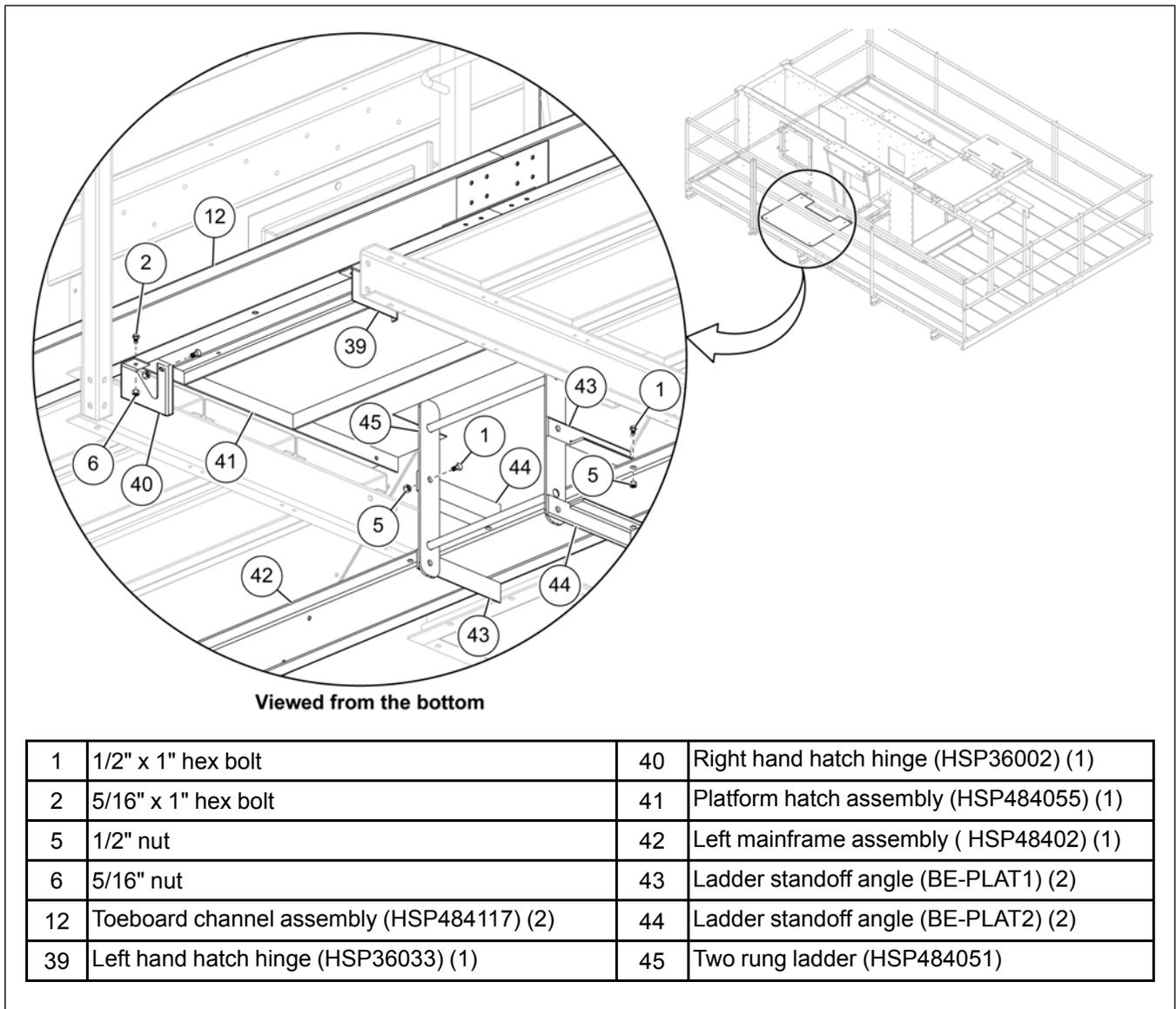
NOTE: Use two nuts (6) per bolt (2). Do not overtighten the bolts.

3. Attach one set of ladder standoff angles (43 and 44) to the top and another set to the bottom of the left mainframe assembly (42) using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).

4. Install the two rung ladder (45) to the ladder standoff angles (43 and 44) using 1/2" x 1" hex bolts (1) and 1/2" nuts (5).

NOTE: The top rung of the ladder should be even with the top of the decking when installed.

Figure 3-7 Installing the hatch access door assembly and two rung ladder



Grab Bar

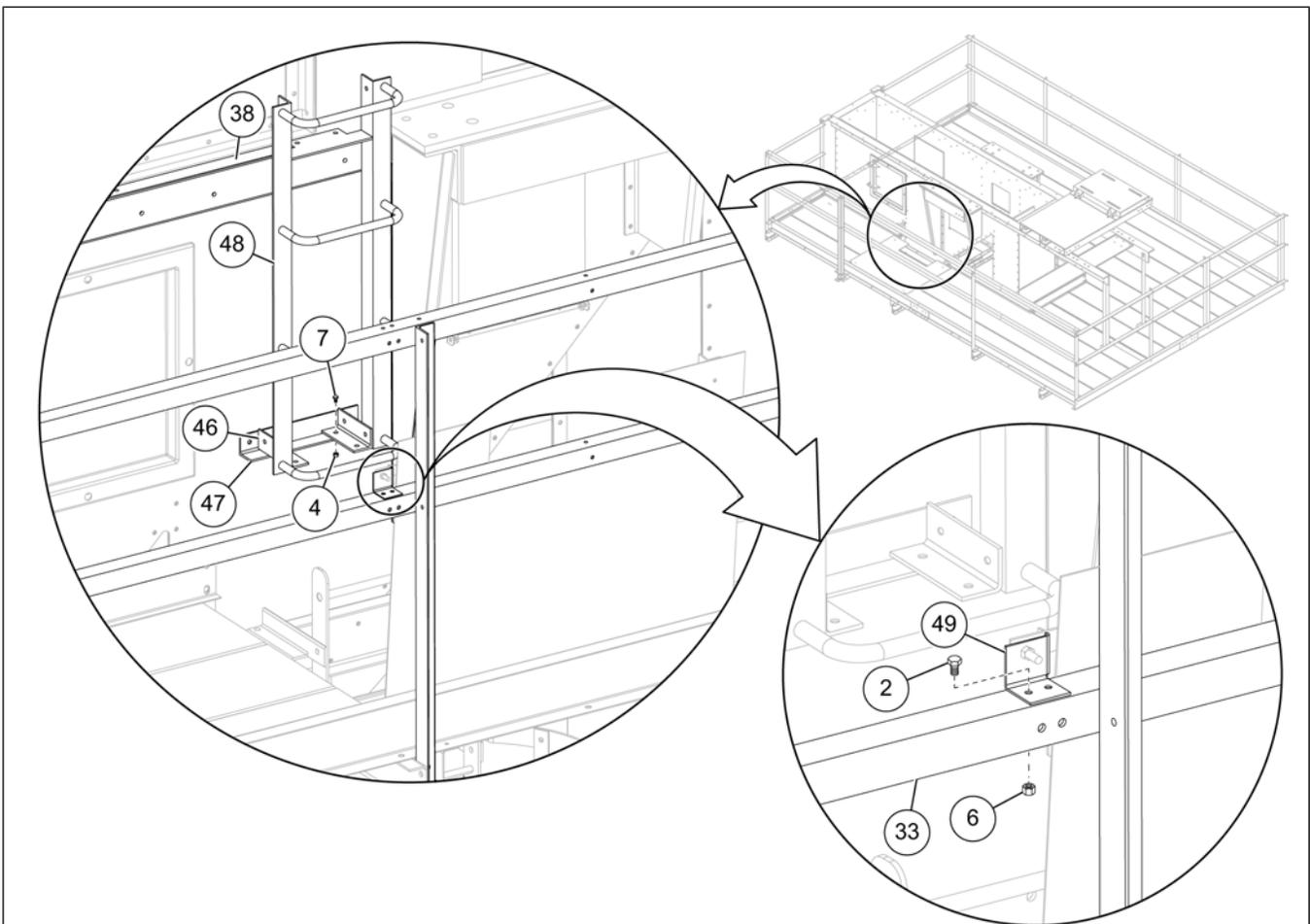
Before You Begin

Make sure the grab bar mounting angle is installed to the head.

NOTE: The grab bar installation is applicable only for 38"-72" wide bucket elevators.

1. Install the grab bar attachment angles (46) to the grab bar mounting angle (47) using 3/8" x 1" hex bolts (4) and 3/8" nuts (7).
2. Install the grab bar weldment (48) to the grab bar attachment angles (46) and head bearing angle (38) using 3/8" x 1" hex bolts (4) and 3/8" nuts (7).
3. Install the latch assembly (49) to the handrail (33) using 5/16" x 1" hex bolt (2) and 5/16" hex nut (6).

Figure 3-8 Installing the grab bar



2	5/16" x 1" hex bolt	38	Head bearing angle
4	3/8" x 1" hex bolts	46	Grab bar attachment angle (HSP484035)
6	5/16" hex nut	47	Grab bar mounting angle (HSP484034)
7	3/8" nuts	48	Grab bar weldment (HSP484033)
33	Side handrail (38"-50") (HSP484044) (4)	49	Latch assembly (GSB30120)

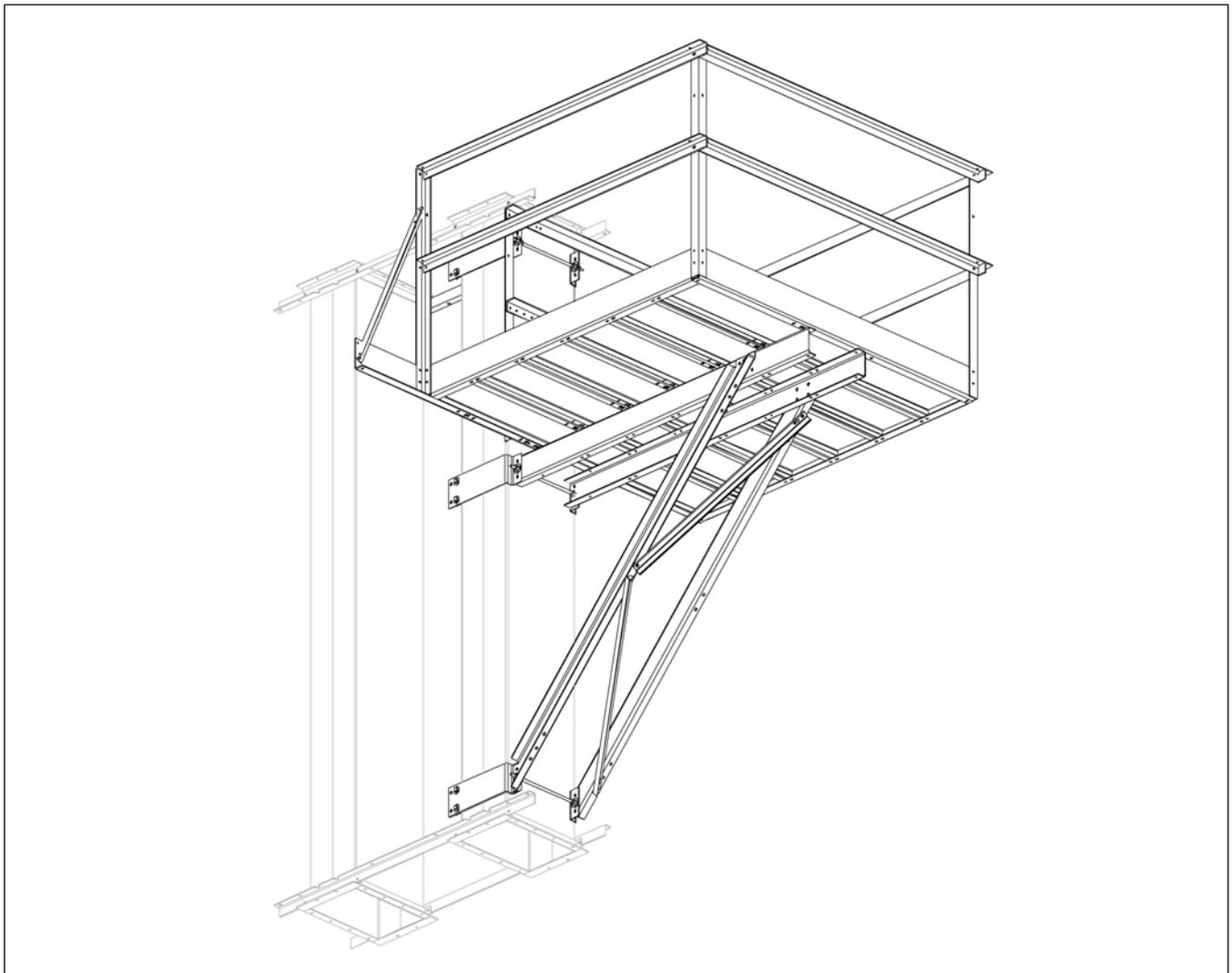
4 Distributor Platform Assembly

Topics Covered in this Chapter

- General Overview
- Clamp Brackets
- Distributor Platform Support and Brace Channels
- Distributor Platform Toeboards
- Distributor Decking and End Toeboards
- Handrail Posts and Handrail Angles
- Cross Knee Braces

General Overview

Figure 4-1 *Distributor platform*



Clamp Brackets

Before You Begin

Determine the elevation of the platform surface and work from there. Locate all the parts required for the assembly by using the information shown in the following figures.

What You Should Know

This assembly is designed to be located at any elevation on the trunking that is needed to provide access to the other equipment.

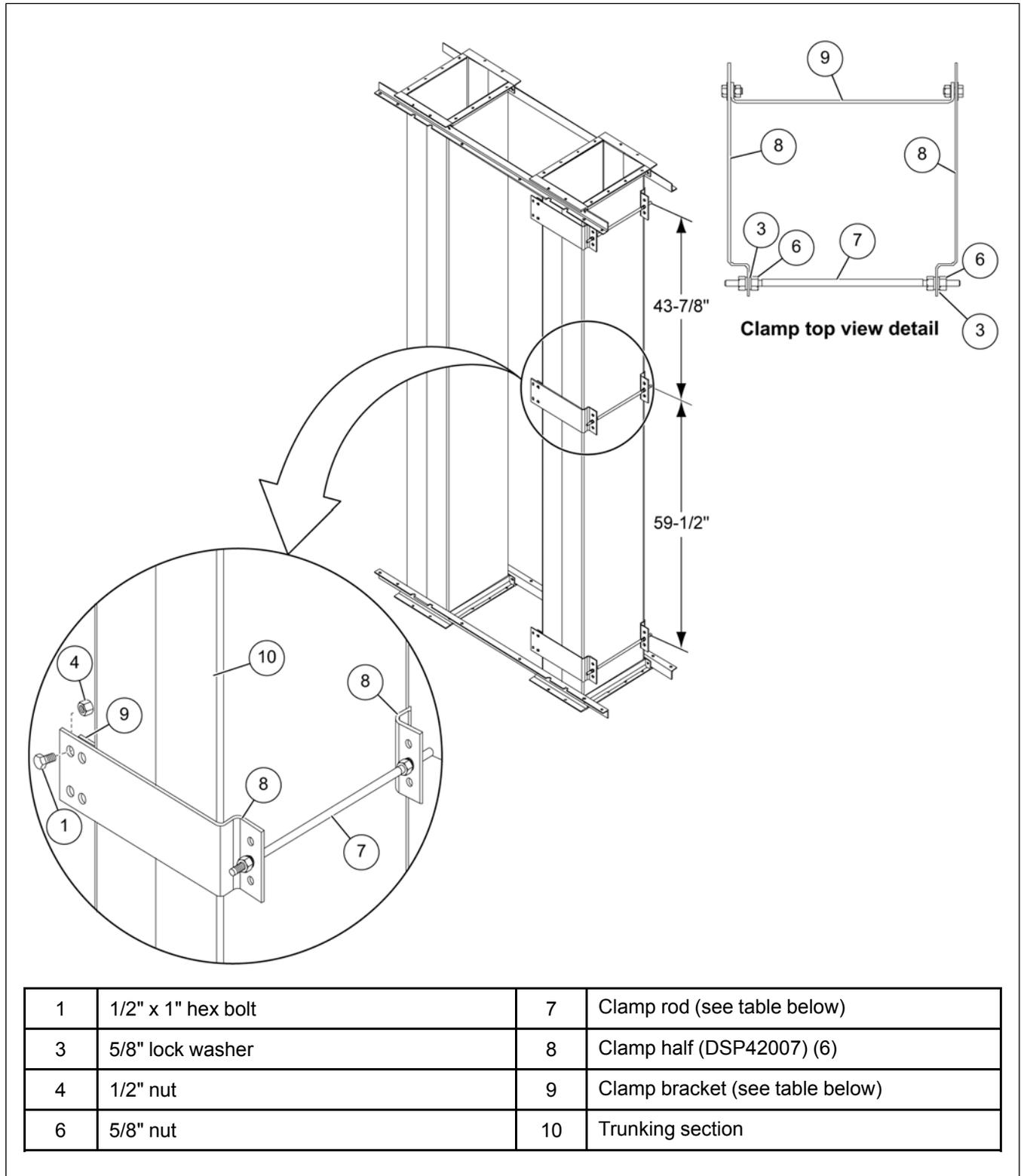
1. Locate all the clamp halves, clamp brackets, threaded rods, and hardware to assemble the clamps onto the trunking.
2. Measure the distance between the clamps to assure the proper location for the support channels and knee brace attachment.
3. Place the 5/8" nuts (6) and 5/8" lock washers (3) on a clamp rod (7) (one from each end).
4. Place a clamp half (8) on each end of the clamp rod (7) and thread another nut (6) and lock washer (3) to hold the clamps in place.
5. Now place that assembly around the trunk (10) and place a clamp bracket (9) onto the opposite end of the clamp assembly and use 1/2" x 1" hex bolts (1) and 1/2" nuts (4) to fasten parts together.

NOTE: *Install bolts (1) with bolt head on the outside of the clamp halves (8).*

6. Adjust the position of the inside nuts (6) of the rod assembly to allow the clamp halves (8) to be tightened onto the trunking (10).

NOTE: *Tighten clamps (8) onto the trunking (10). Do not overtighten and collapse the trunking. Position the inside nuts (6) back to the clamp (8) and tighten.*

Figure 4-2 Attaching the clamp assembly



Size	Clamp rod (7)		Clamp bracket (9)	
	Part number	Quantity	Part number	Quantity
42"	DSP42008	3	DSP42006	3
48"	DSP48008	3	DSP48006	3

Distributor Platform Support and Brace Channels

Before You Begin

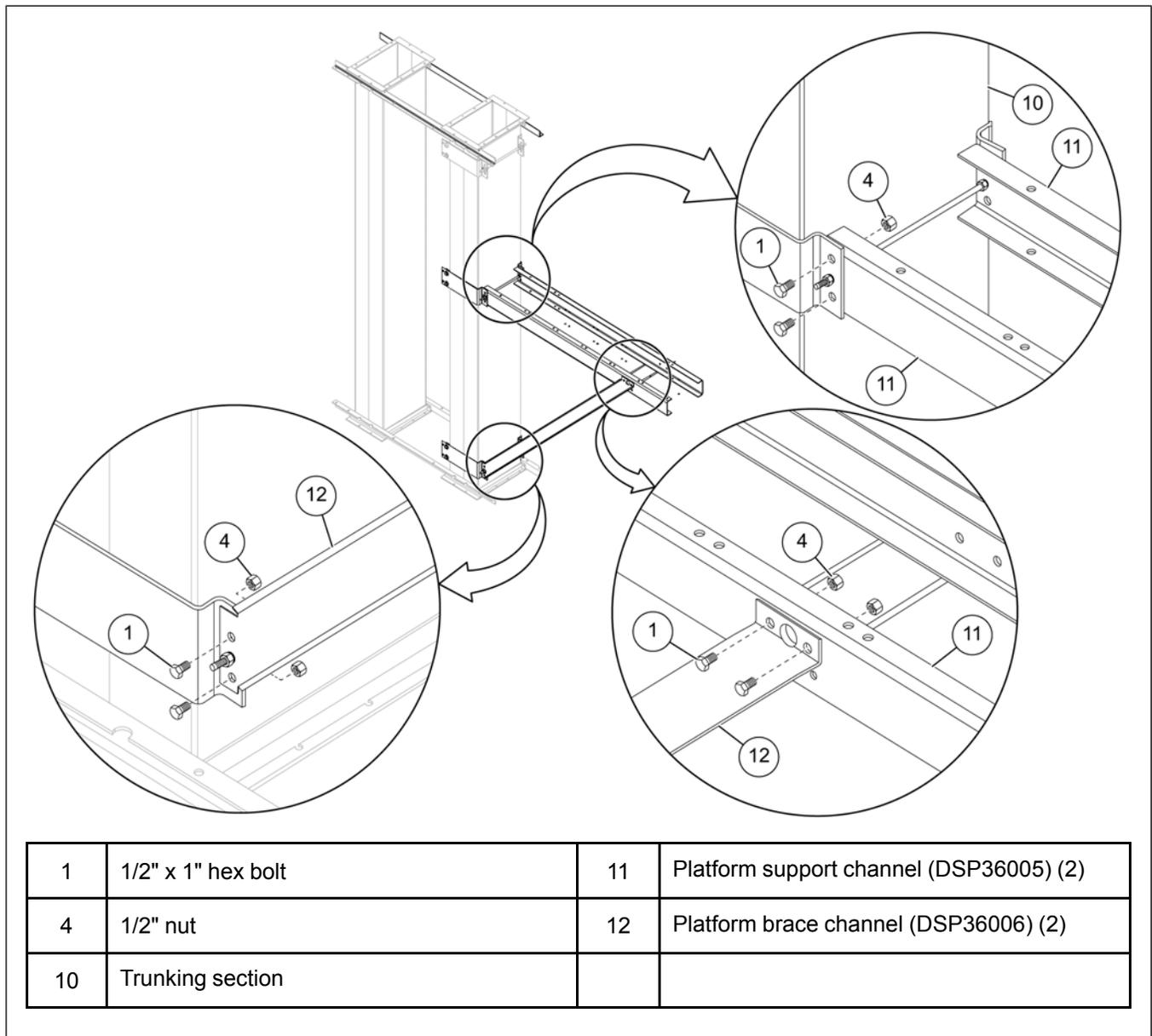
Make sure the clamps are secured to the trunk and the bolts are tightened.

1. Attach the support channels (11) to the middle clamp assembly using 1/2" x 1" hex bolts (1) and 1/2" nuts (4).
2. Attach one end of the brace channels (12) to the upper set of holes on the outside of the support channel (11) and the other end to the lower clamp assembly using 1/2" x 1" hex bolts (1) and 1/2" nuts (4).

NOTE: Make sure the support channels (11) are perpendicular to the trunk (10) before tightening the hardware.

3. After adjusting the support channels (11), tighten all the hardware.

Figure 4-3 Attaching the platform support and brace channels



Distributor Platform Toeboards

Before You Begin

Make sure the support assemblies are attached to the trunk and the bolts are tightened.

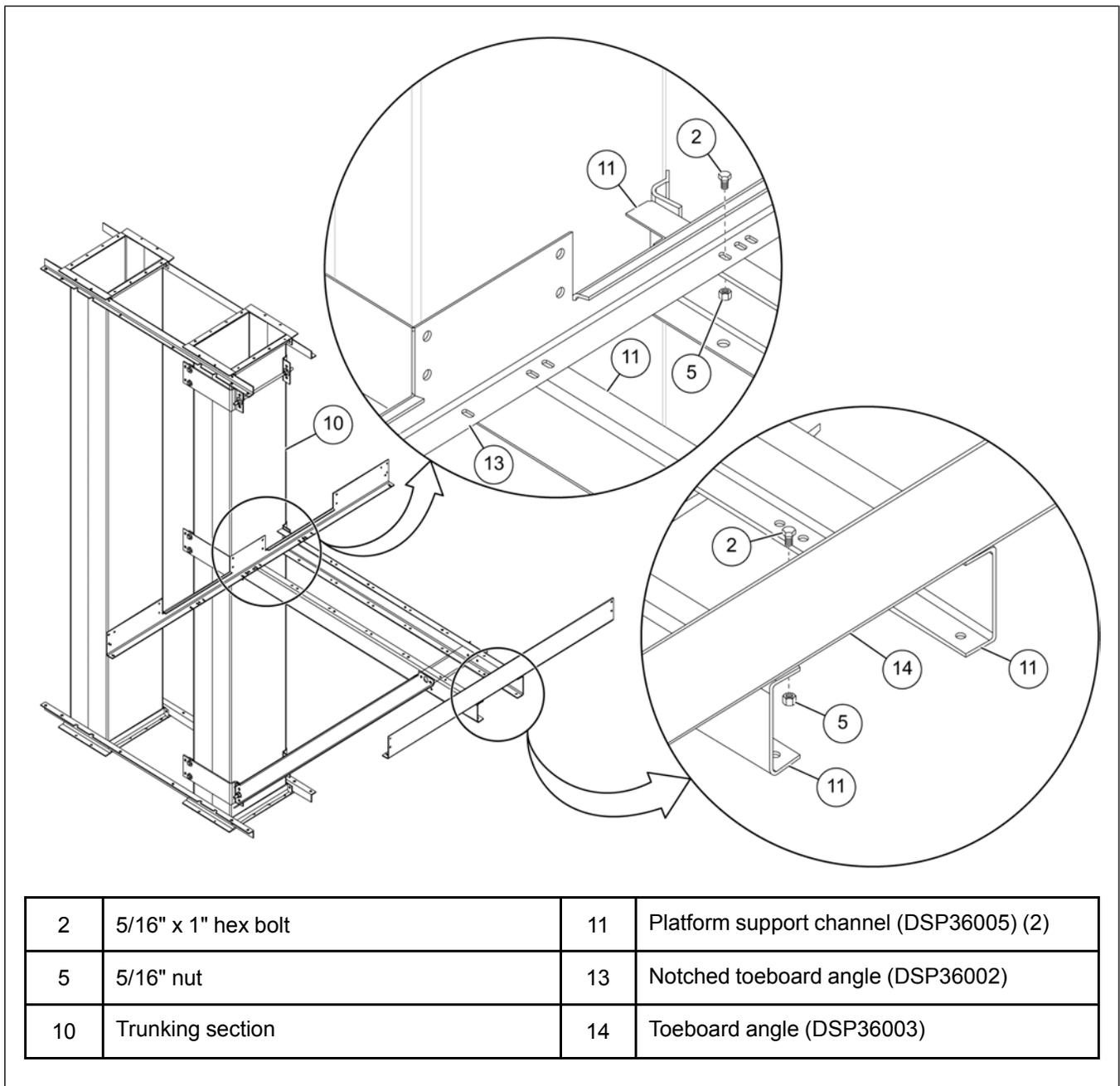
What You Should Know

Toeboards are not to be centered on trunking, but are offset to the ladder side. The platform is designed to work for either side of the trunking access.

1. Attach the notched toeboard (13) close to the trunking (10) onto the top of the support channel (11) using 5/16" x 1" hex bolts (2) and 5/16" nuts (5).
2. Attach the toeboard (14) away from the trunking (10) onto the top of the support channel (11) using 5/16" x 1" hex bolts (2) and 5/16" nuts (5).

NOTE: Do not tighten the hardware.

Figure 4-4 Attaching the platform toeboards

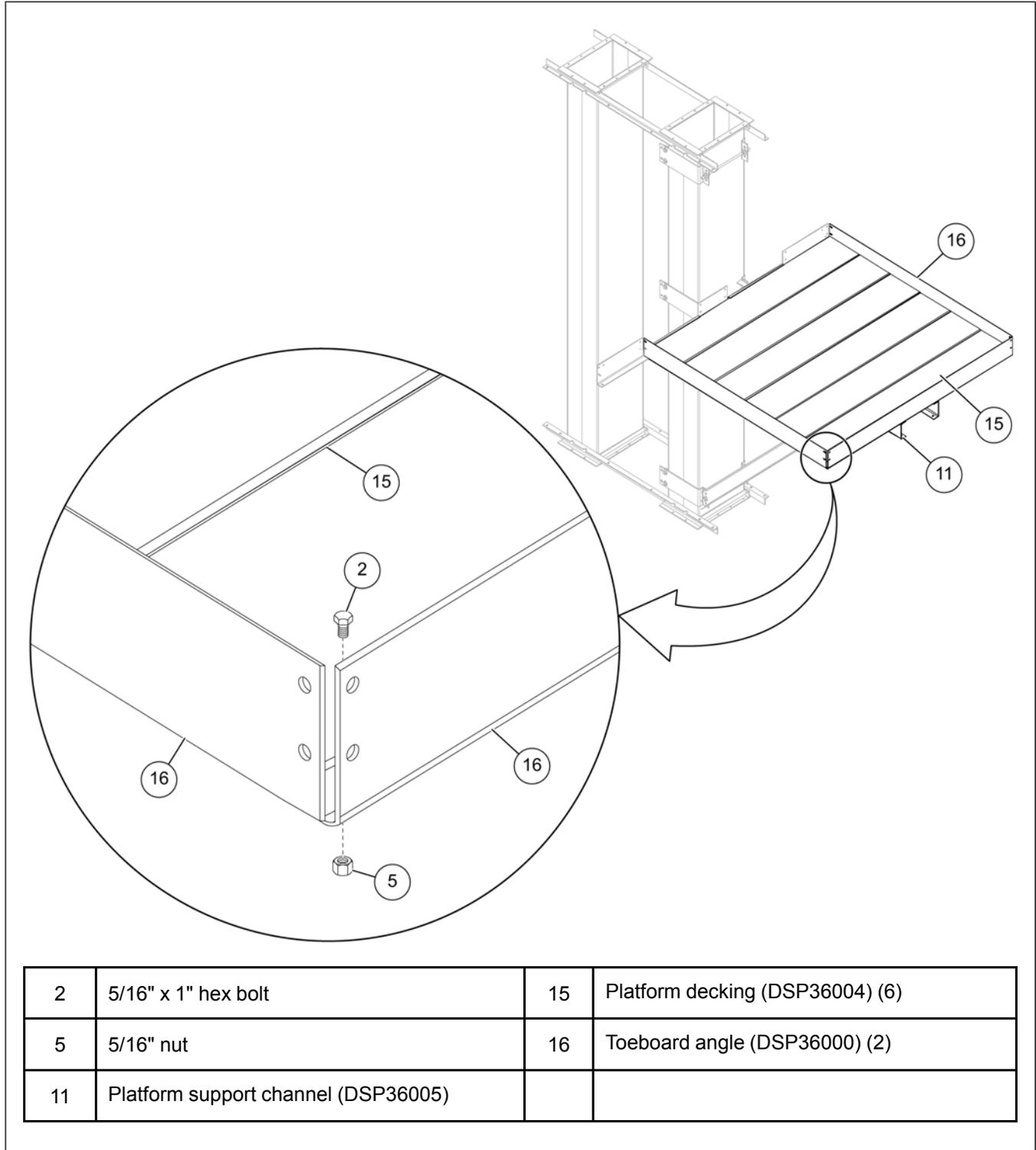


Distributor Decking and End Toeboards

1. Attach the floor deck panels (15) to the support channels (11) using 5/16" x 1" hex bolts (2) and 5/16" nuts (5).
2. Attach the end toeboards (16) to the floor deck panels (15) using 5/16" x 1" hex bolts (2) and 5/16" nuts (5).

NOTE: After attaching all the panels and toeboards, tighten all the hardware.

Figure 4-5 Attaching the platform toeboards



Handrail Posts and Handrail Angles

1. Attach the toeboard cover plate (17) to the unused notch of the notched toeboard (13) using 5/16" x 1" hex bolts (2) and 5/16" nuts (5).

2. Attach four handrail posts (18) to the corners of the platform and another handrail post (18) to the opening end of the notched toeboard (13) using 5/16" x 1" hex bolts (2) and 5/16" nuts (5).

NOTE: Do not tighten the bolts until all the handrails posts and handrails are in place.

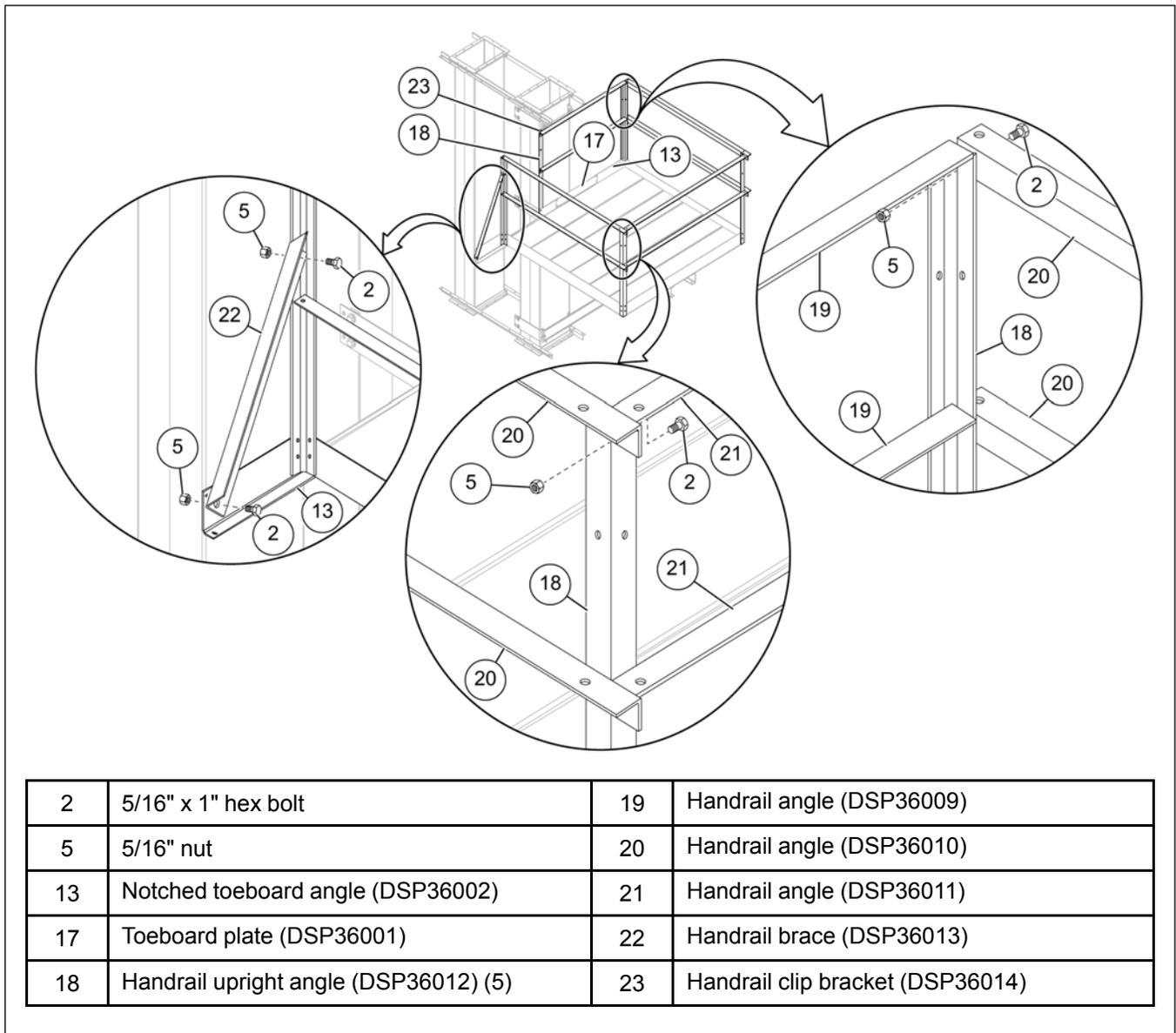
3. Attach the handrails (19, 20 and 21) as shown to the handrails posts (18) using 5/16" x 1" hex bolts (2) and 5/16" nuts (5).

4. Attach the one end of the handrail brace (22) to the corner handrail post (18) and other end to the notched toeboard (13) using 5/16" x 1" hex bolts (2) and 5/16" nuts (5).

5. Attach the handrail clip bracket (23) to the handrail post (18), installed with the notched toeboard (13) using 5/16" x 1" hex bolts (2) and 5/16" nuts (5).

NOTE: After the handrails and handrails posts are in position, tighten all the hardware.

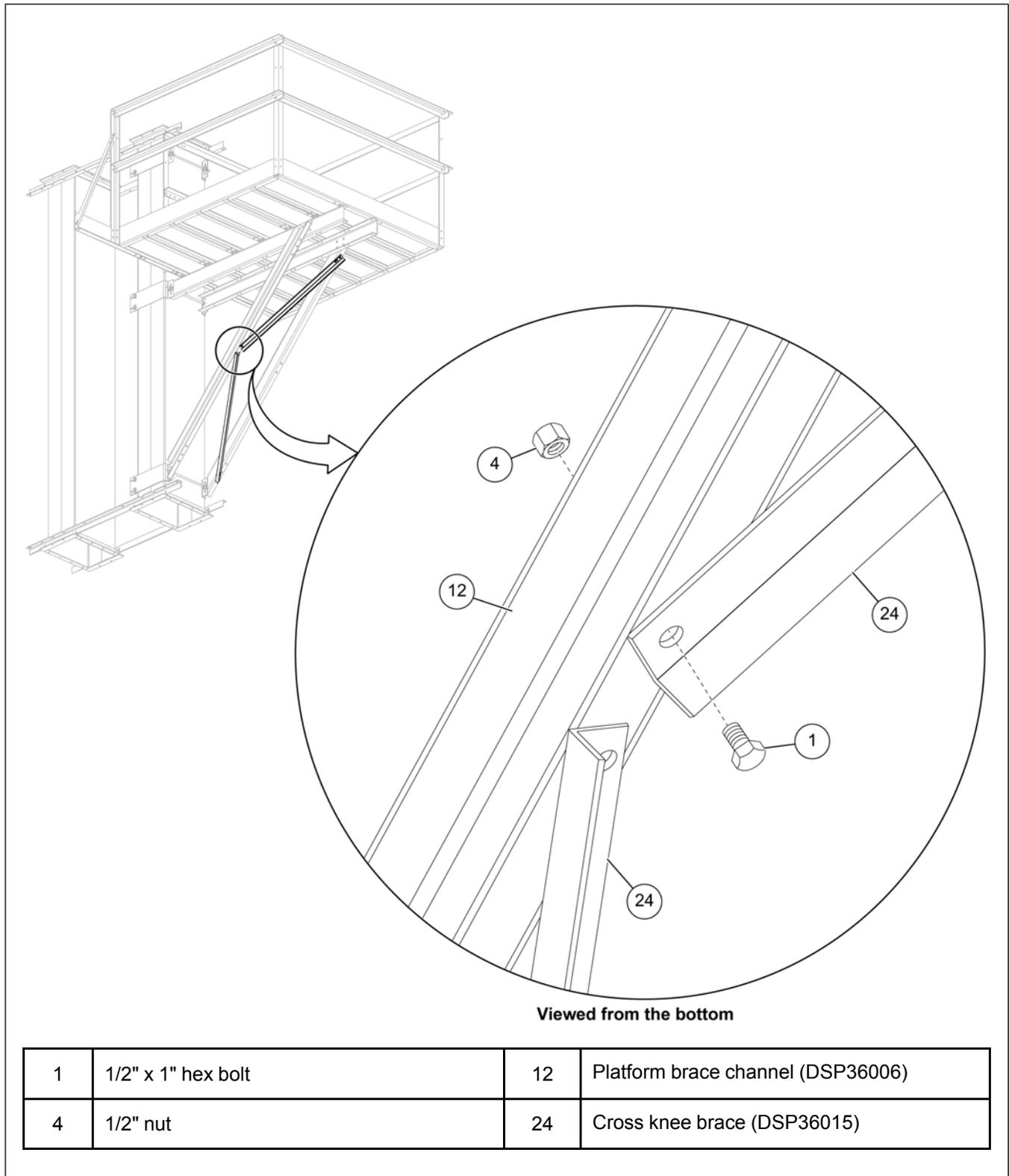
Figure 4-6 Installing the handrails posts and handrail angles



Cross Knee Braces

Attach the cross knee diagonal braces (24) to the bottom side of the platform brace channels (12) using 1/2" x 1" hex bolts (1) and 1/2" nuts (4).

Figure 4-7 Attaching the cross knee braces



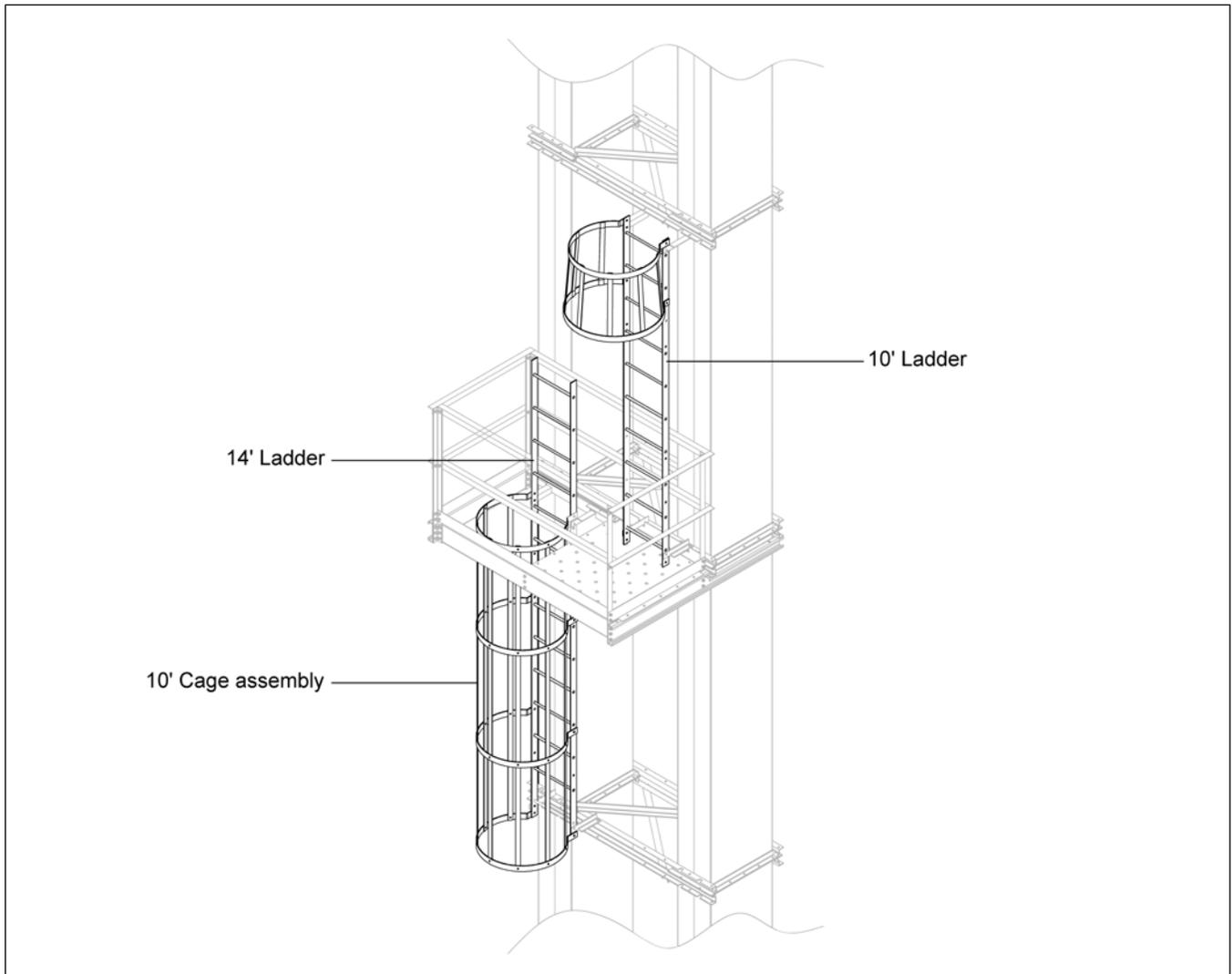
5 Safety Cage Assembly

Topics Covered in this Chapter

- General Overview
- Tie Angle Attachment
- Tie Angle Cross Braces
- Ladder Standoff Attachment
- Ladder Attachment
- Safety Cage Hoop Assembly
- Safety Cage Vertical Bar Attachment
- Safety Cage Flare Attachment

General Overview

Figure 5-1 Distributor platform

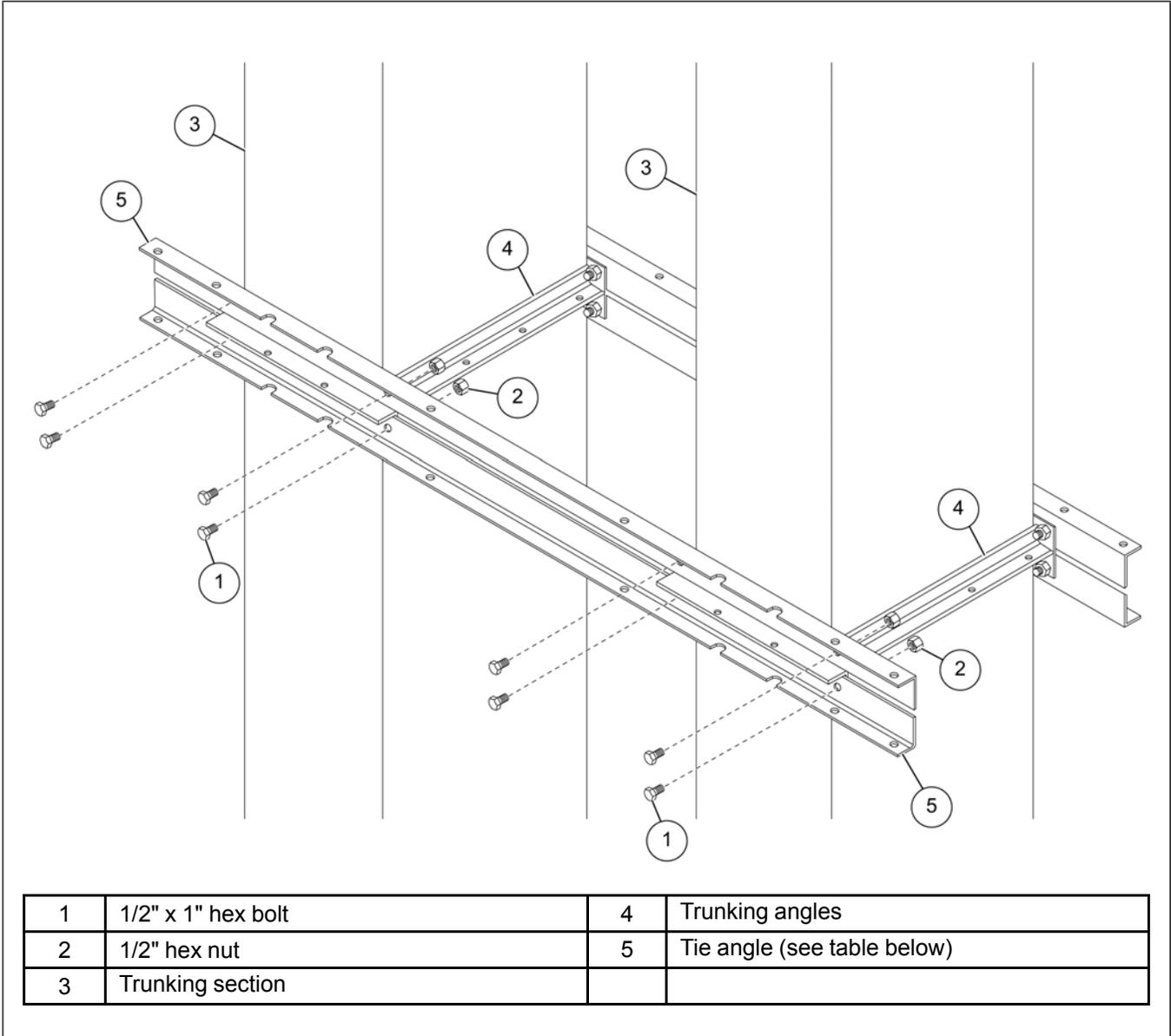


Tie Angle Attachment

The up and down legs of trunking section are attached together with the tie angles.

Position the tie angles (5) around the trunking section joint (3) as shown and install the tie angles (5) to the trunking angles (4) using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (2).

Figure 5-2 Attaching the tie angles



Model	Tie angles (5)	
	42"	48"
	BECT4204	-
26"	-	BECT4804
38", 42" and 50"	-	BECT48504
60"	-	BECT48604
W	-	BECT48W

Tie Angle Cross Braces

Only 42" and 48" bucket elevators have tie angle cross braces.

Attach two tie angle cross braces (6) diagonally to the pair of tie angles (5) using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (2).

NOTE: Attach one cross brace (6) onto the top and another one to the bottom of the tie angles (5) as shown.

Figure 5-3 Attaching the tie angle cross braces

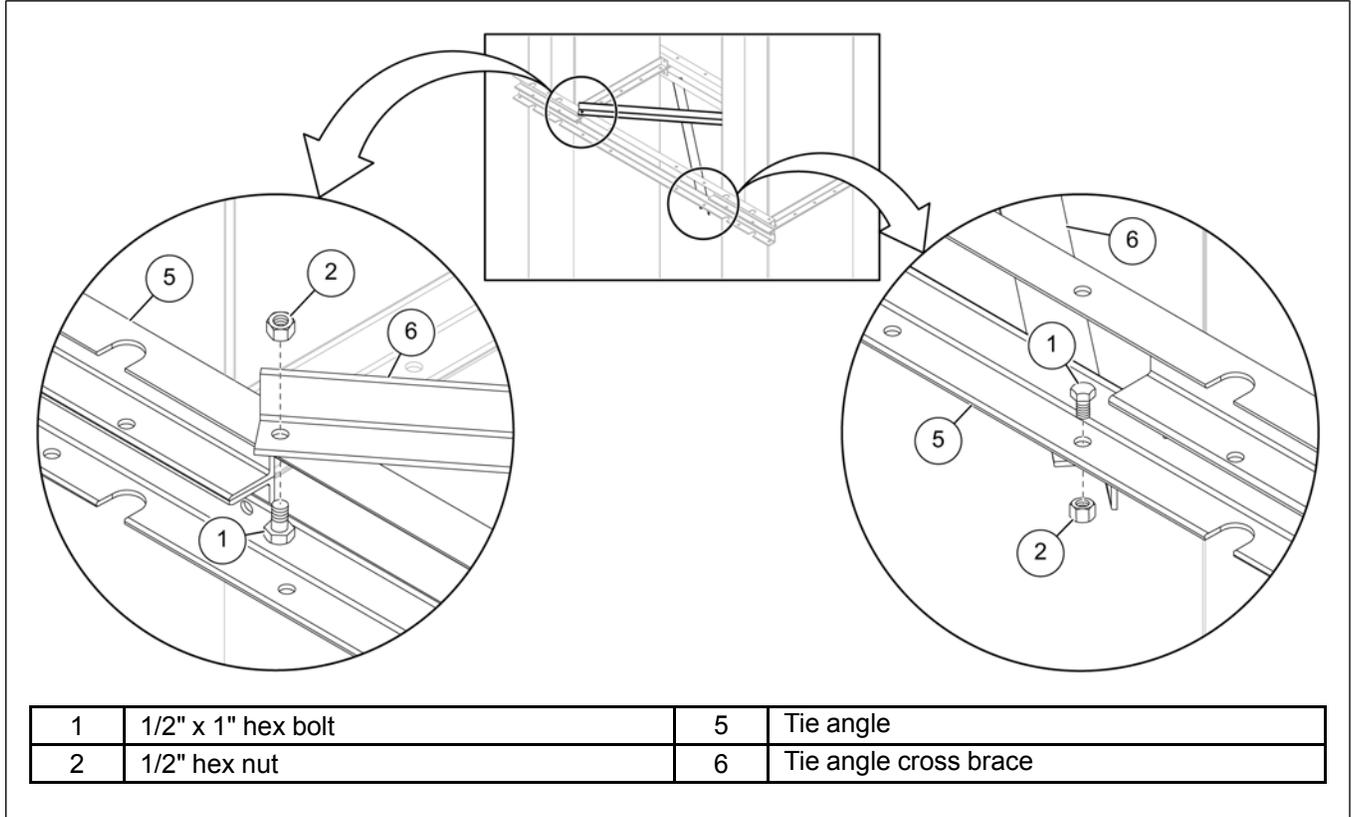
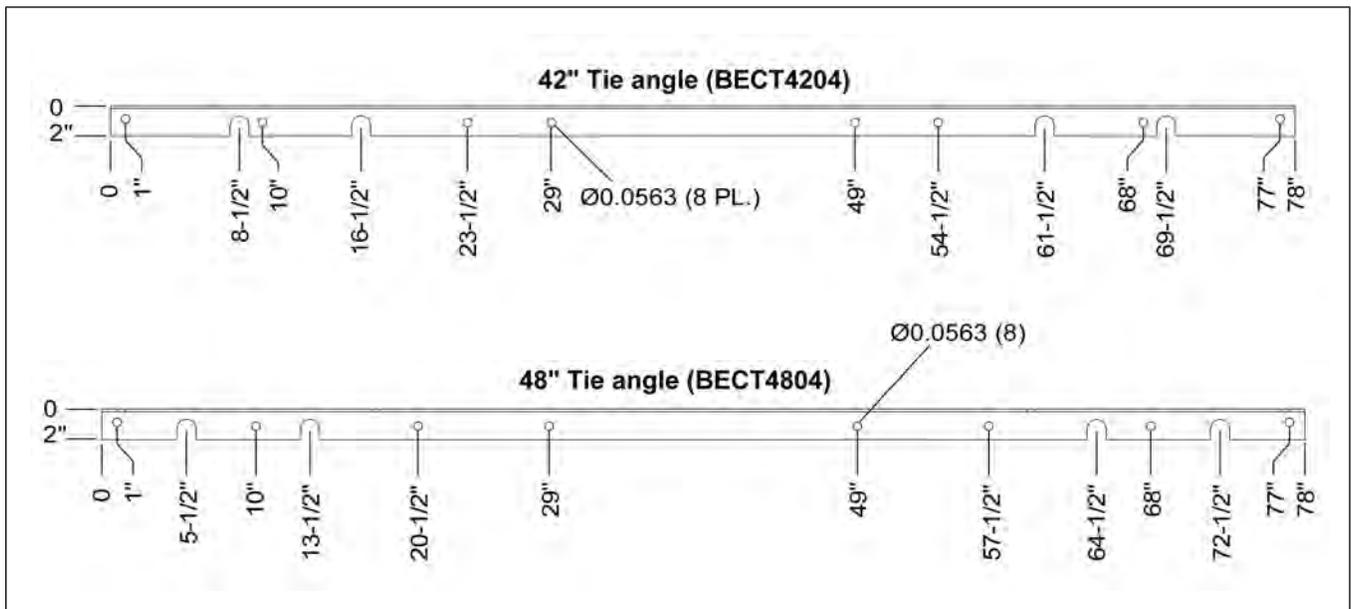


Figure 5-4 42" and 48" tie angle dimensions

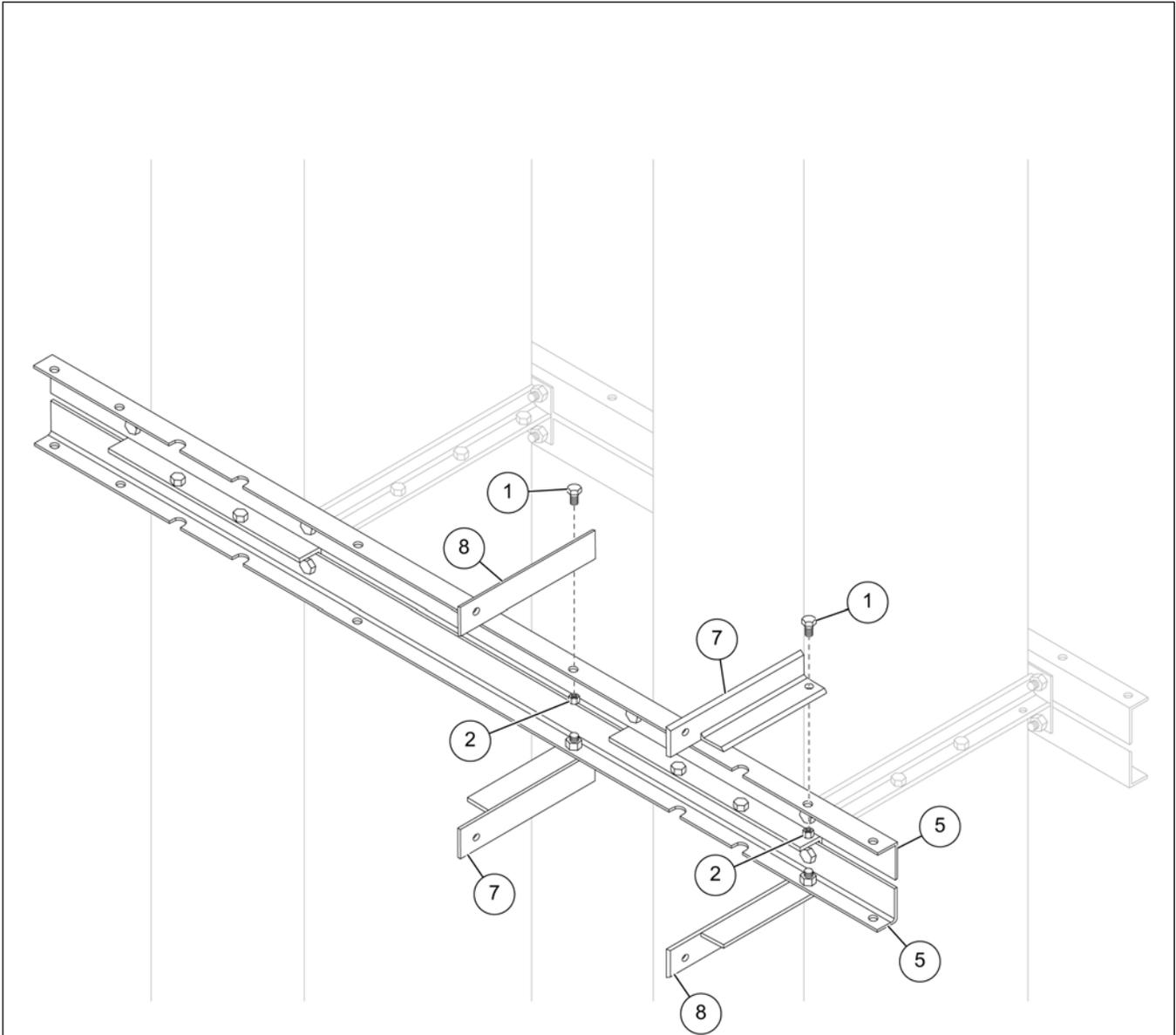


Ladder Standoff Attachment

Attach two left standoff brackets (7) and two right standoff brackets (8) to the tie angles (5) using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (2).

NOTE: Attach one pair of left and right standoff brackets (7 and 8) onto the top and another pair to the bottom of the tie angles (5).

Figure 5-5 Attaching the ladder standoff brackets



1	1/2" x 1" hex bolt	7	Left ladder standoff bracket (BE-PLAT1)
2	1/2" hex nut	8	Right ladder standoff bracket (BE-PLAT2)
5	Tie angle		

Ladder Attachment

- Using the second set of holes down the front end of the ladder, attach the ladder section (9) to the standoff brackets (7 and 8) using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (2).

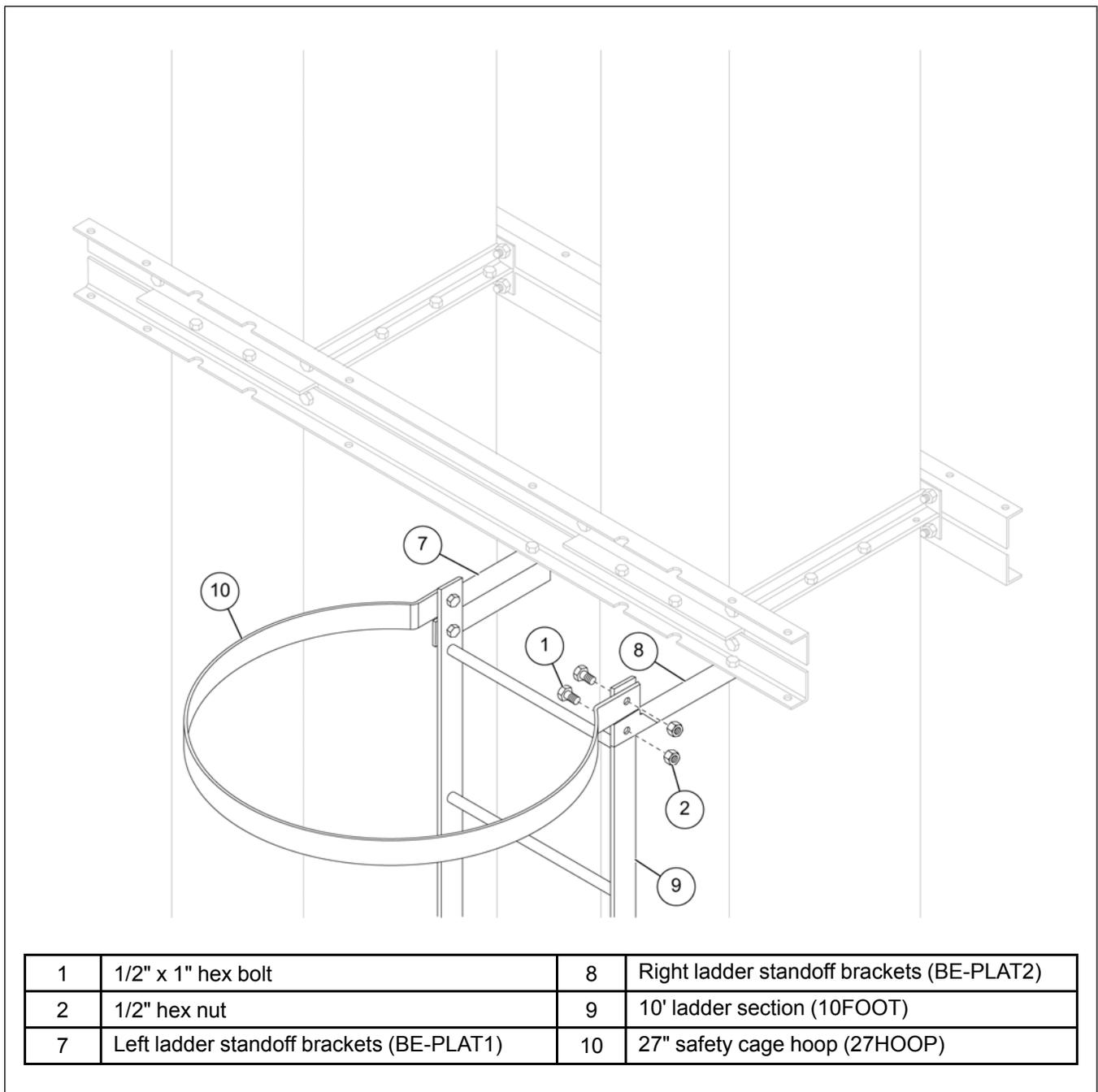
NOTE:

- Always use a 10' ladder section, if the ladder continues on to another section of ladder.
- Always use a 14' ladder section, if the ladder extends through any platform deck.

- Attach the safety cage hoop (10) to the first set of holes in the ladder section (9) using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (2).

NOTE: Install bolts (1) with bolt head to the inside of the ladder (9).

Figure 5-6 Attaching the ladder



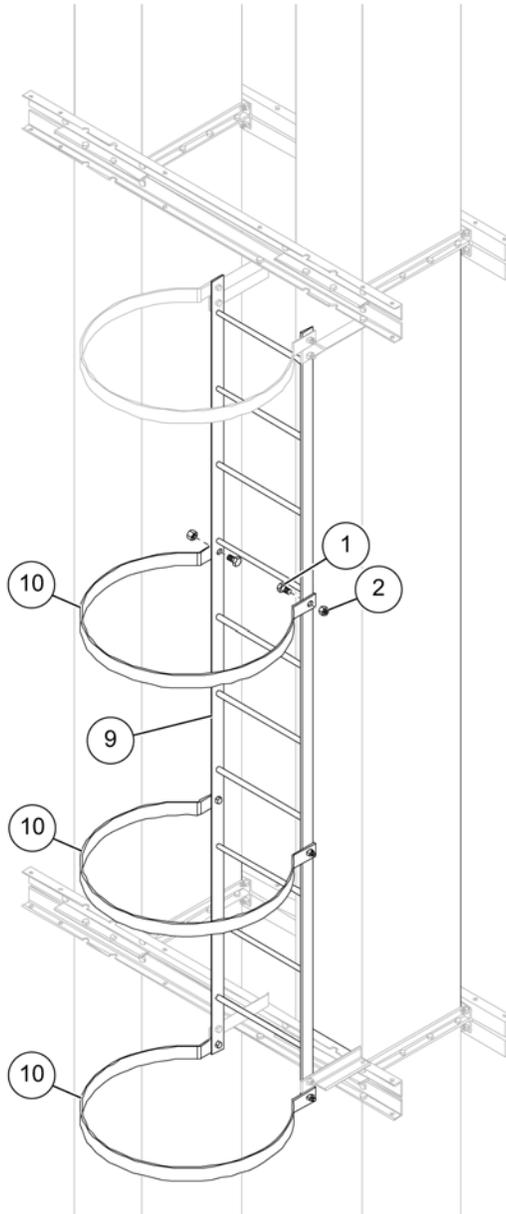
Safety Cage Hoop Assembly

Attach all the safety cage hoops (10) to the ladder section (9) as shown using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (2).

NOTE:

- a. Do not tighten the bolts (1) until all the vertical bars (11) are in place.
- b. Install bolts (1) with bolt head to the inside of the ladder (9).

Figure 5-7 Attaching the safety cage hoop assemblies



1	1/2" x 1" hex bolt	9	10' ladder section (10FOOT)
2	1/2" hex nut	10	27" safety cage hoop (27HOOP)

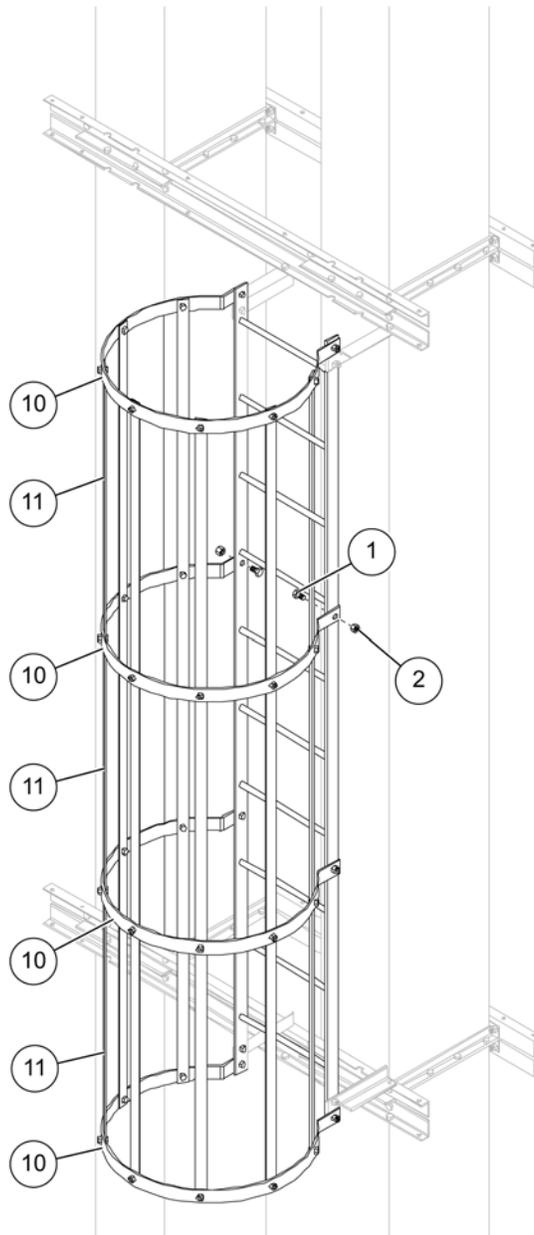
Safety Cage Vertical Bar Attachment

Attach all the safety cage vertical bars (11) to the inside of the safety cage hoops (10) as shown using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (2).

NOTE:

- a. After all the safety cage vertical bars (11) are in place, tighten all the bolts (1).
- b. Install bolts (1) with bolt head to the inside of the safety cage hoops (10).

Figure 5-8 Attaching the safety cage vertical bar



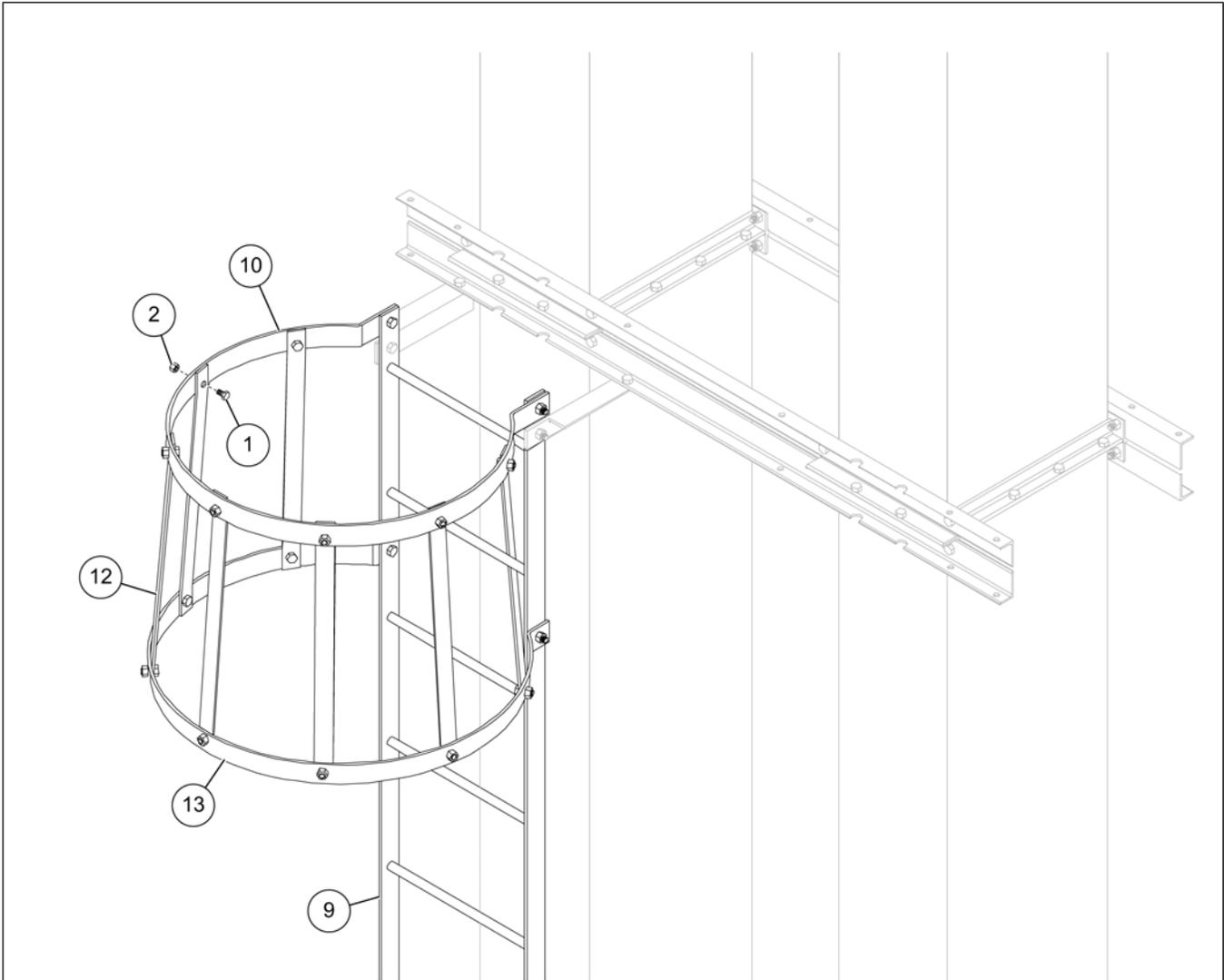
1	1/2" x 1" hex bolt	10	27" safety cage hoop (27HOOP)
2	1/2" hex nut	11	Safety cage vertical bar (10FOOT-V)

Safety Cage Flare Attachment

1. Attach the safety cage taper vertical bars (12) to the inside of the 27" safety cage hoops (10) and 30" safety cage hoops (13) as shown using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (2).
2. Attach the 27" safety cage hoop (10) to the first set of holes in the ladder section (9) using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (2).
3. After attaching the 27" safety cage hoop, attach the 30" safety cage hoop (13) to the ladder section (9) using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (2).

NOTE: Install bolts (1) with bolt head to the inside of the ladder section (9).

Figure 5-9 Attaching the safety cage flares



1	1/2" x 1" hex bolt	10	27" safety cage hoop (27HOOP)
2	1/2" hex nut	12	Safety cage taper vertical bar (TAPER-V)
9	10' ladder section (10FOOT)	13	30" safety cage hoop (30HOOP)

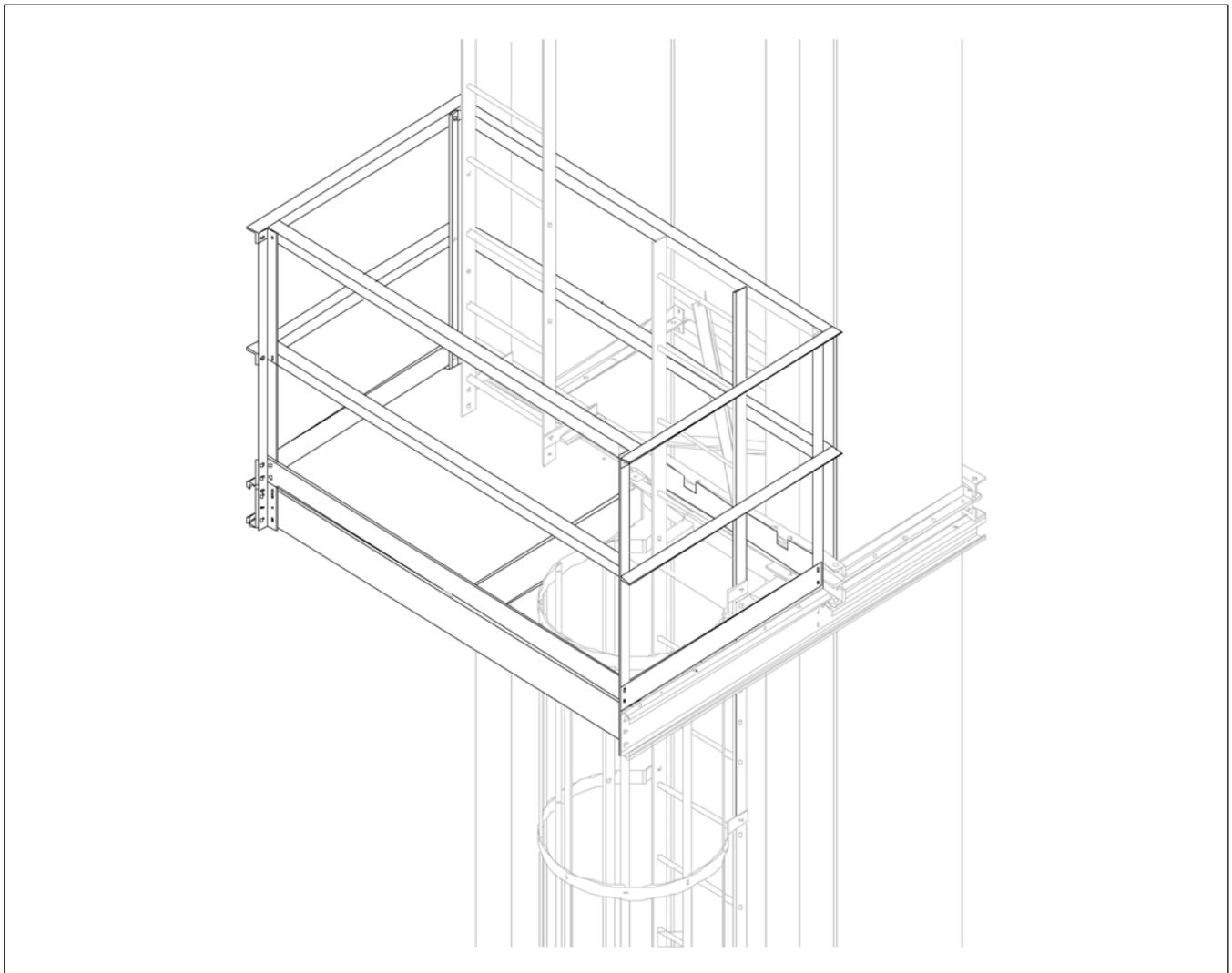
6 Rest Platform Assembly

Topics Covered in this Chapter

- General Overview
- Side Mounting Channels
- Platform Corner Posts
- Front and Rear Mounting Channels
- Center Support Channel
- Rest Platform Deck Plate
- Top and Mid Handrails
- Kickplates

General Overview

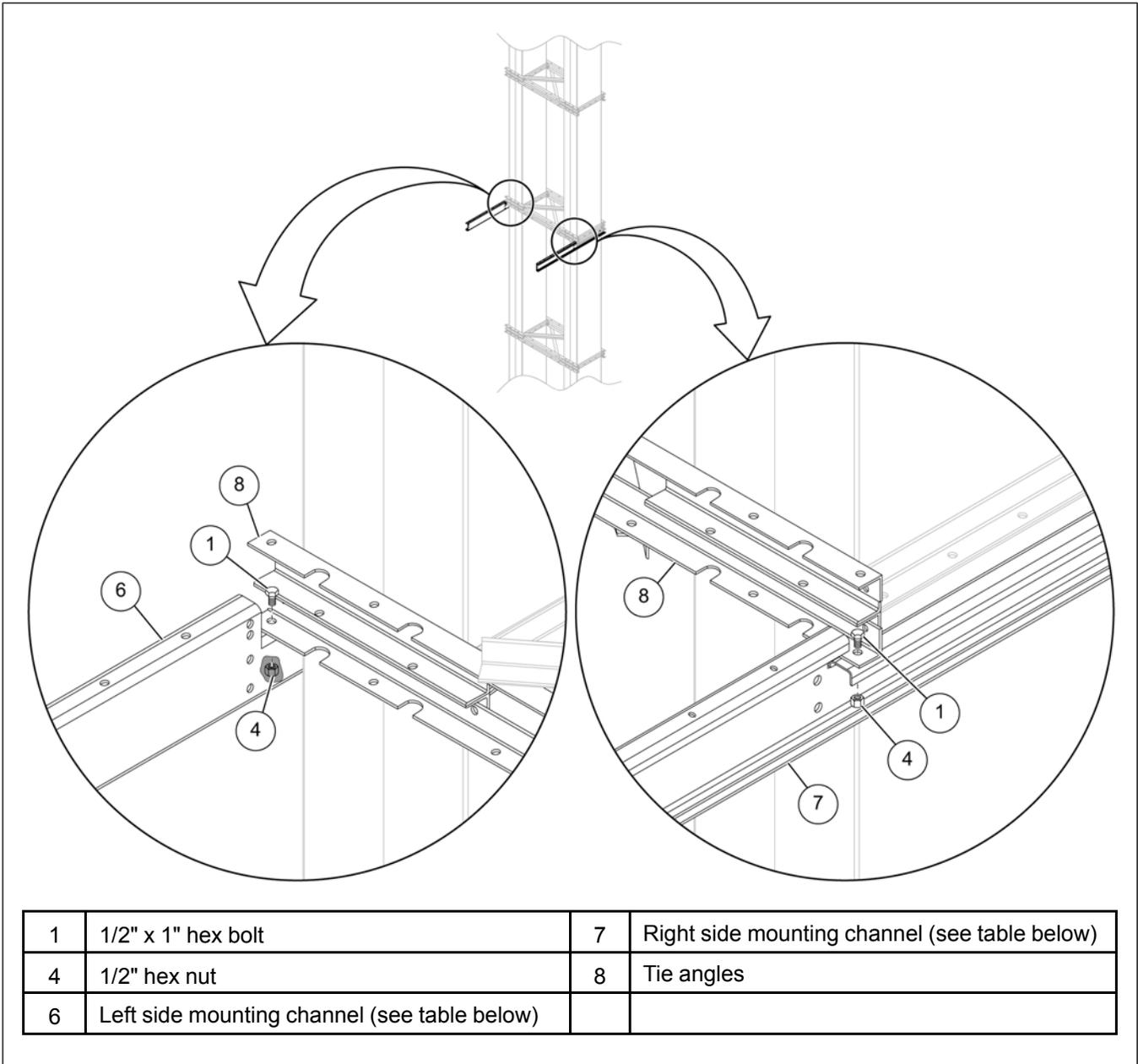
Figure 6-1 *Distributor platform*



Side Mounting Channels

Attach the left side mounting channel (6) and right side mounting channel (7) to the bottom of the tie angles (8) using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (4).

Figure 6-2 Attaching the side mounting channels



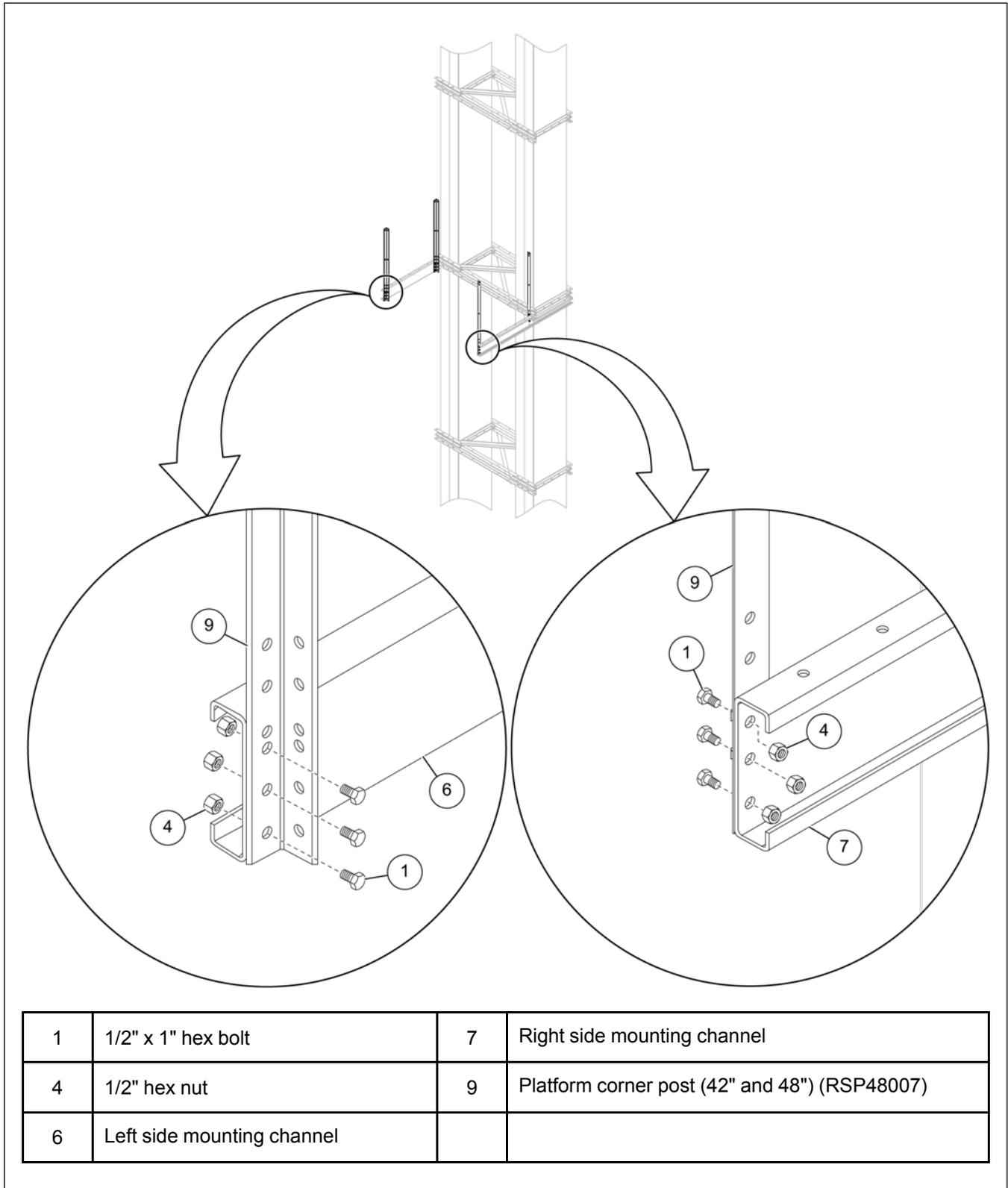
Size	Left side mounting channel (6)	Right side mounting channel (7)
	Part number	Part number
26"	RSP48203	RSP48202
30" and 42"	RSP484003	RSP484002
50"	RSP485003	RSP485002
60"	RSP486003	RSP486002

Platform Corner Posts

Attach the platform corner posts (9) to the inside of the mounting channels (6 and 7) using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (4).

NOTE: Do not tighten the bolts (1).

Figure 6-3 Attaching the platform corner posts

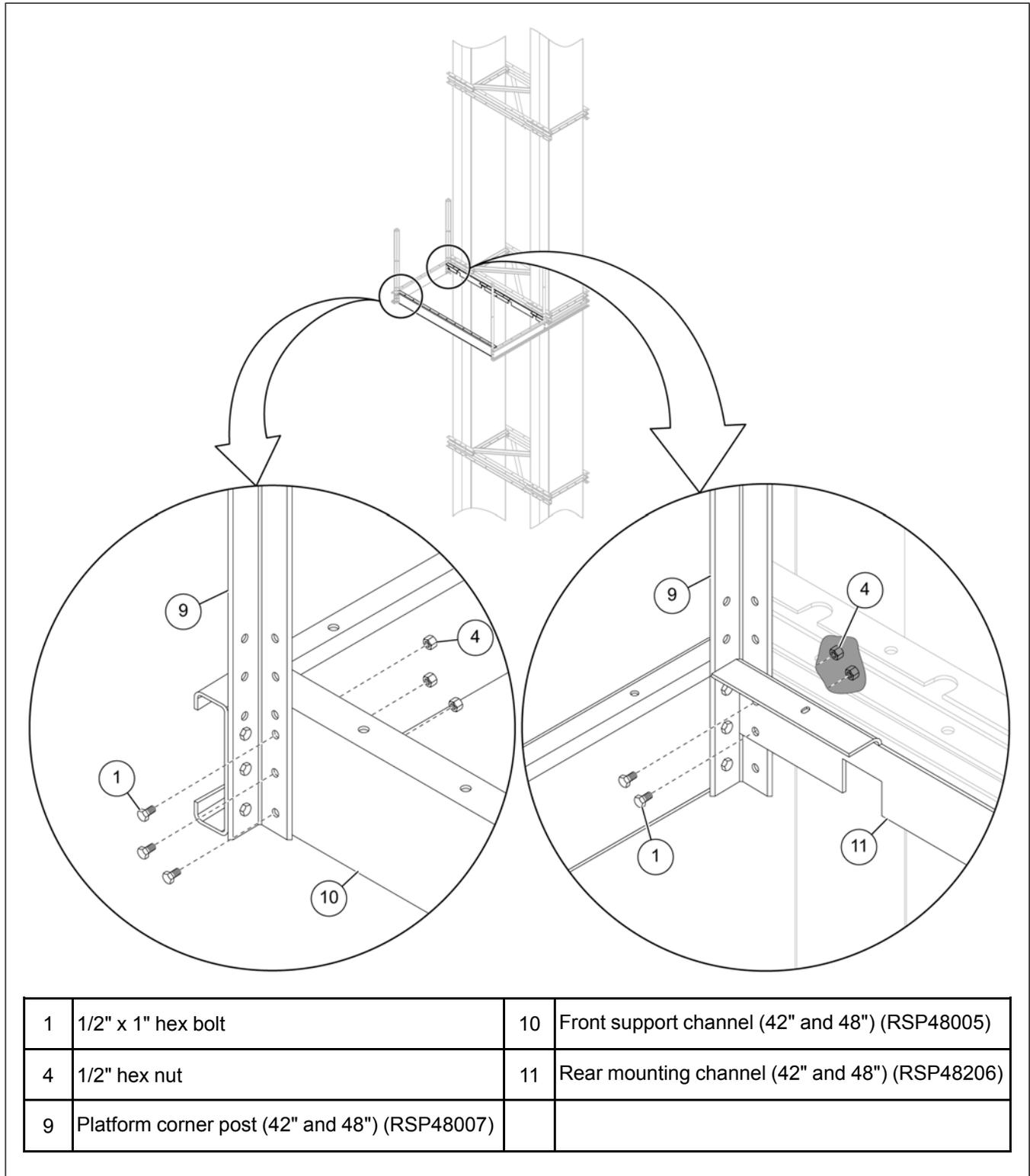


Front and Rear Mounting Channels

Attach the front support channel (10) and rear mounting channel (11) to the inside of the platform corner posts (9) using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (4).

NOTE: Do not tighten the bolts (1).

Figure 6-4 Attaching the front and rear mounting channels

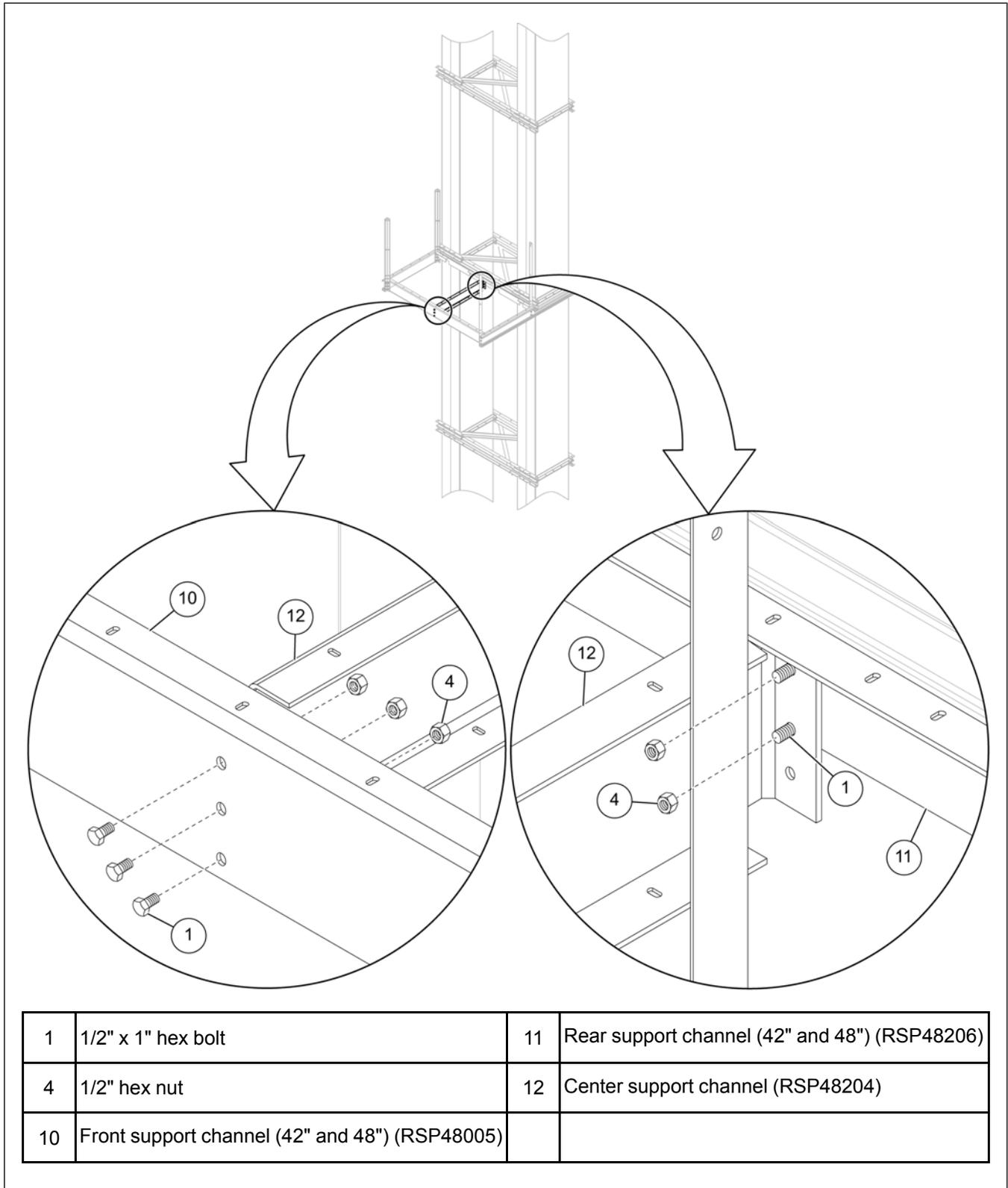


Center Support Channel

Attach the center support channel (12) to the front support channel (10) and rear mounting channel (11) using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (4).

NOTE: Do not tighten the bolts (1).

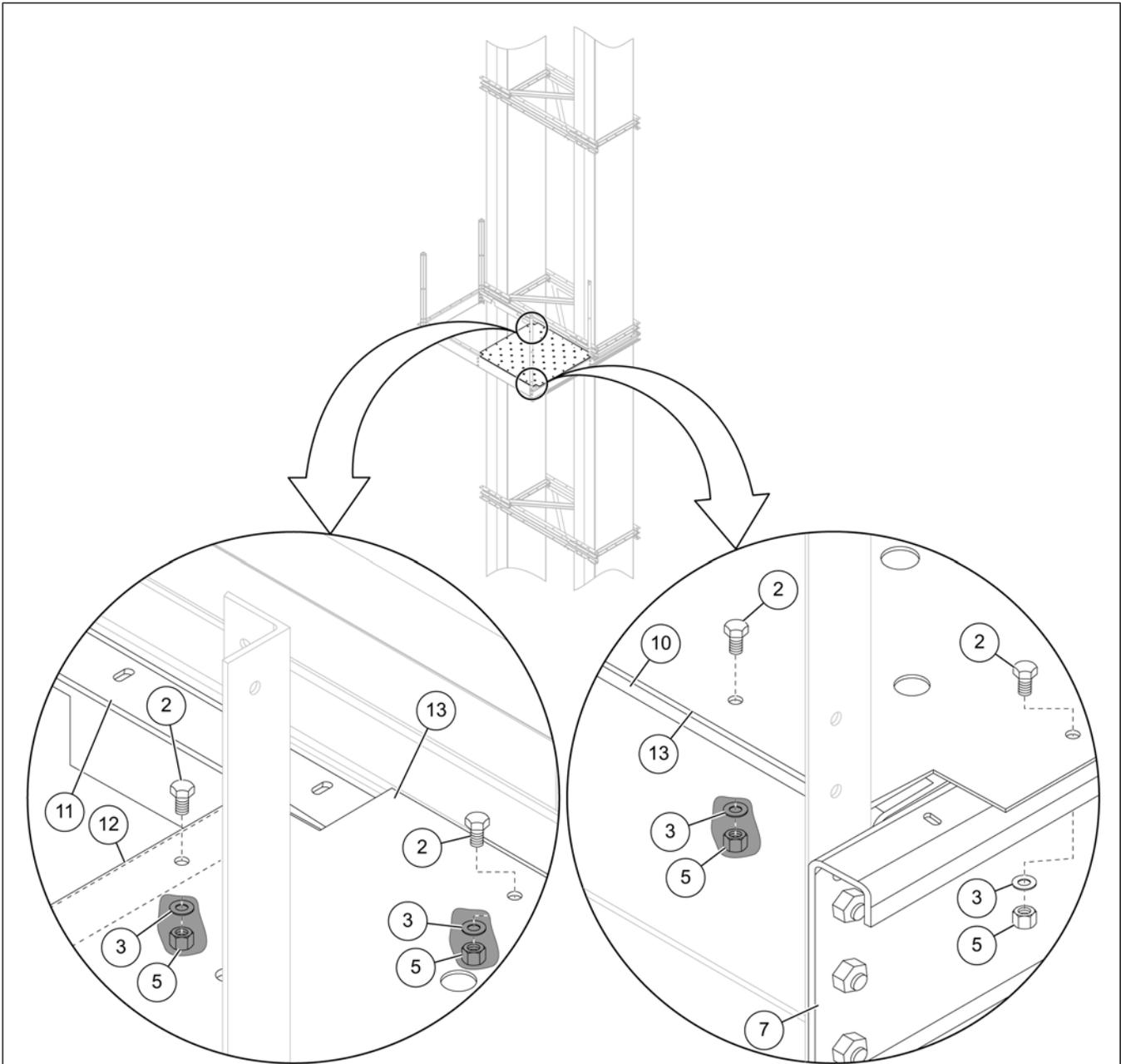
Figure 6-5 Attaching the center support channels



Rest Platform Deck Plate

Attach the rest platform deck tread plate (13) to the support channels (10 and 12) and the mounting channels (7 and 11) using 1/4" x 1" hex bolts (2), 1/4" flat washers (3) and 1/4" hex nuts (5).

Figure 6-6 Attaching the center support channels



2	1/4" x 1" hex bolt	10	Front support channel (42" and 48") (RSP48005)
3	1/4" flat washer	11	Rear mounting channel (42" and 48") (RSP48206)
5	1/4" hex nut	12	Center support channel (42" and 48") (RSP48204)
7	Right side mounting channel	13	Rest platform deck tread plate (42" and 48") (RSP48021)

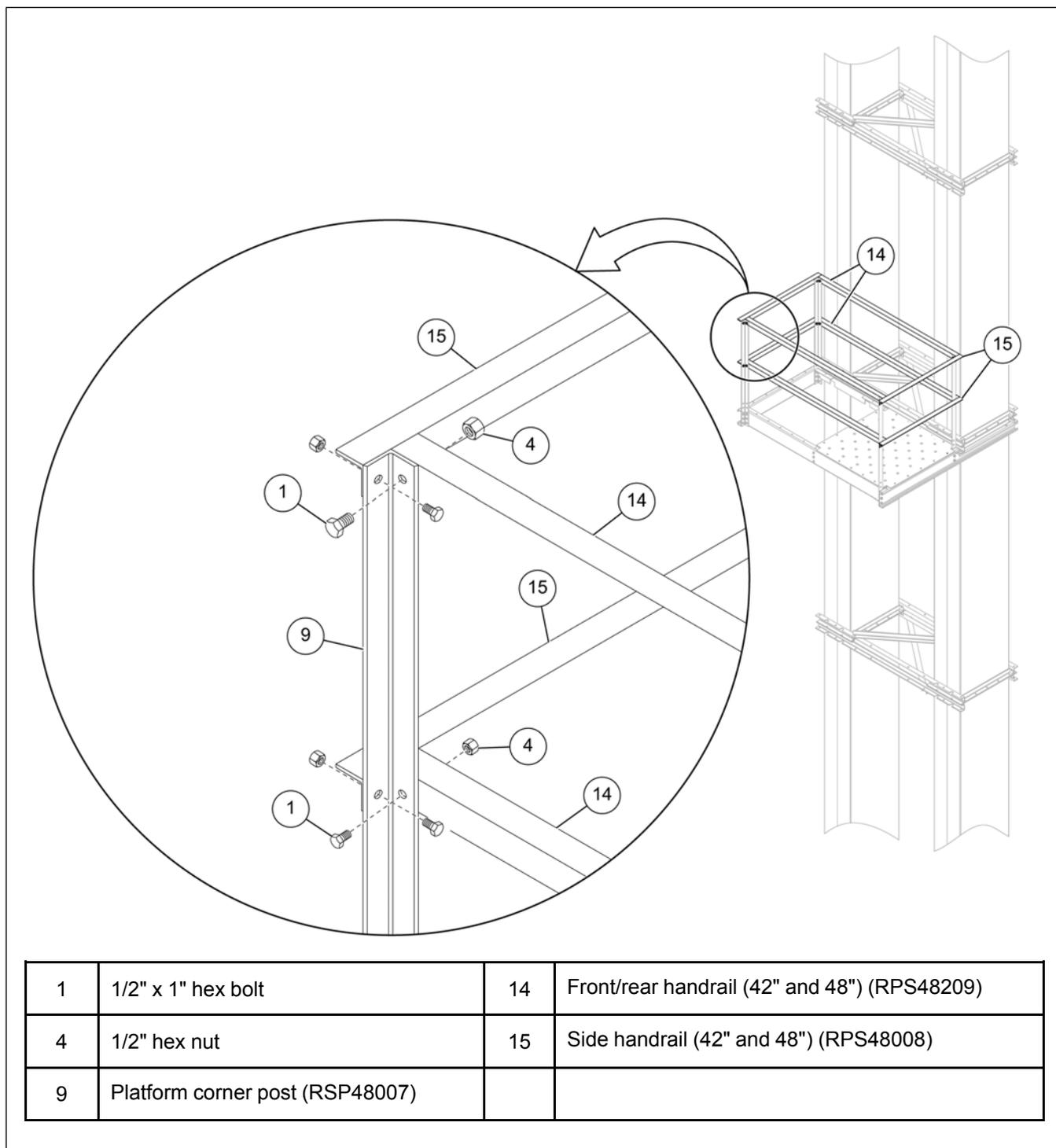
Top and Mid Handrails

Attach the front/rear handrails (14) and side handrails (15) to the platform corner posts (9) as shown using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (4).

NOTE:

- a. Install bolts (1) with bolt head to the inside of the platform.
- b. After the handrails are in place, tighten all the bolts (1).

Figure 6-7 Attaching the handrails

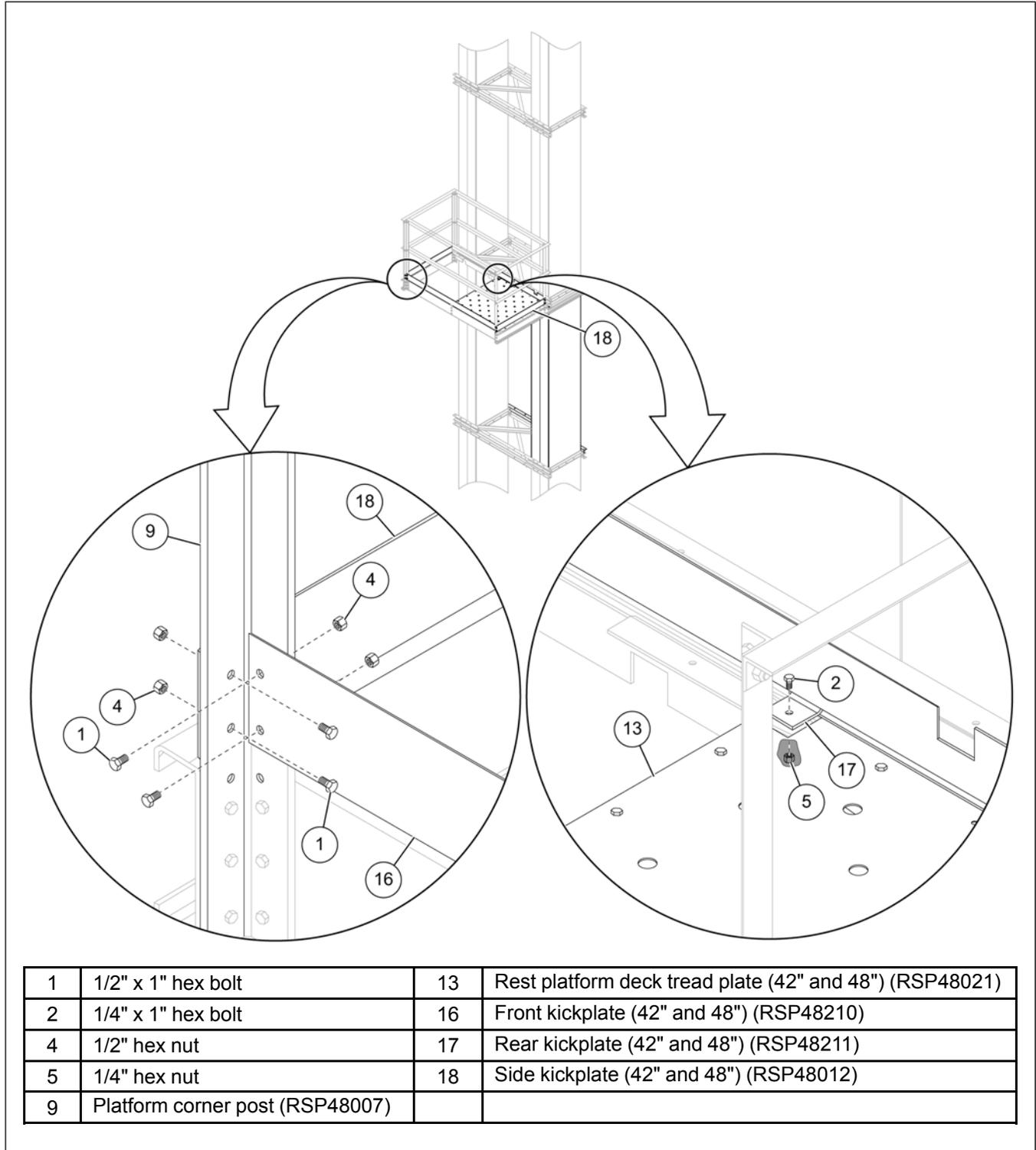


Kickplates

1. Attach the front kickplate (16), rear kickplate (17) and side kickplates (18) to the platform corner posts (9) as shown using 1/2" x 1" hex bolts (1) and 1/2" hex nuts (4).
2. Secure the rear kickplate (17) to the deck tread plate (13) using 1/4" x 1" hex bolts (2) and 1/4" hex nuts (5).

NOTE: After all the parts are installed, tighten all the hardware for the entire platform.

Figure 6-8 Attaching the kickplates



Limited Warranty — N.A. Grain Products

The GSI Group, LLC. (“GSI”) warrants products which it manufactures, to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months from the date of shipment (or, if shipped by vessel, 14 months from the date of arrival at the port of discharge). If, in GSI’s sole judgment, a product is found to have a defect in materials and/or workmanship, GSI will, at its own option and expense, repair or replace the product or refund the purchase price. This Limited Warranty is subject to extension and other terms as set forth below.

Warranty Enhancements: The warranty period for the following products is enhanced as shown below and is in lieu of (and not in addition to) the above stated warranty period. (Warranty Period is from date of shipment.)

	Product	Warranty Period
Storage	Grain Bin Structural Design • Roof, doors, platforms and walk arounds • Flooring (when installed using GSI specified floor support system for that floor) • Hopper tanks	5 Years
Conditioning	Dryer Structural Design – (Tower, Portable and TopDry) • Includes (frame, portable dryer screens, ladders, access doors and platforms)	5 Years
	All other Dryer parts including: • Electrical (controls, sensors, switches & internal wiring)	2 Years
	Bullseye Controllers	2 Years
Material Handling	Bucket Elevators Structural Design	5 Years
	Towers Structural Design	5 Years
	Catwalks Structural Design	5 Years
	Accessories (stairs, ladders and platforms) Structural Design	5 Years

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THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH HEREIN; SPECIFICALLY, GSI DISCLAIMS ANY AND ALL OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (I) ANY PRODUCT MANUFACTURED OR SOLD BY GSI, OR (II) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.

The sole and exclusive remedy for any claimant is set forth in this Limited Warranty and shall not exceed the amount paid for the product purchased. This Warranty only covers the value of the warranted parts and equipment, and does not cover labor charges for removing or installing defective parts, shipping charges with respect to such parts, any applicable sales or other taxes, or any other charges or expenses not specified in this Warranty. GSI shall not be liable for any other direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. Expenses incurred by or on behalf of a claimant without prior written authorization from the GSI warranty department shall not be reimbursed. This warranty is not transferable and applies only to the original end-user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor. Prior to installation, the end-user bears all responsibility to comply with federal, state and local codes which apply to the location and installation of the products.

This Limited Warranty extends solely to products sold by GSI and does not cover any parts, components or materials used in conjunction with the product, that are not sold by GSI. GSI assumes no responsibility for claims resulting from construction defects, unauthorized modifications, corrosion or other cosmetic issues caused by storage, application or environmental conditions. Modifications to products not specifically delineated in the manual accompanying the product at initial sale will void all warranties. This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained.

Notice Procedure:

In order to make a valid warranty claim a written notice of the claim must be submitted, using the RMA form, within 60 days of discovery of a warrantable nonconformance. The RMA form is found on the OneGSI portal.

Service Parts:

GSI warrants, subject to all other conditions described in this Warranty, Service Parts which it manufactures for a period of 12 months from the date of purchase unless specified in Enhancements above.

(Limited Warranty - N.A. Grain Products_ revised 19 October 2018)

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.



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