

# CATWALK #4 SYSTEM



## INSTALLATION MANUAL P/N 9621142



*Trusted. Tested. True.*

# Chief Industries, Inc. – Agri/Industrial Division

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## Manual Revisions

- 1-1-2016
  - General formatting update

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[www.agri.Chiefind.com](http://www.agri.Chiefind.com)

## STANDARD LIMITED WARRANTY

### Catwalk and Tower Products

1. **Definitions.** The following terms, when they appear in the body of this Standard Limited Warranty for Catwalk and Tower Products in initial capital letters shall have the meaning set forth below:
  - A. Accepted Purchase Order shall mean the Purchase Order identified below.
  - B. Chief shall mean Chief Agri/Industrial, a division of Chief Industries, Inc.
  - C. Original Owner shall mean the original owner identified below.
  - D. Product shall mean the Agri/Industrial Equipment as described in the Accepted Purchase Order.
  - E. Reseller shall mean the authorized Chief Agri/Industrial Equipment dealer identified below.
2. **Limited Product Warranty.** Upon and subject to the terms and conditions set forth below, Chief hereby warrants to the Reseller, and, if different, the Original Owner as follows:
  - A. All new Products delivered to the Reseller or the Original Owner by Chief pursuant to the Accepted Purchase Order will, when delivered, conform to the specifications set forth in the Accepted Purchase Order;
  - B. All new Products delivered pursuant to the Accepted Purchase Order will, in normal use and service, be free from defects in materials or workmanship; and
  - C. Upon delivery, Chief will convey good and marketable title to the Products, free and clear of any liens or encumbrances except for, where applicable, a purchase money security interest in favor of Chief.
3. **Duration of Warranty and Notice Requirements.** Subject to the **Exceptions, Exclusions and Limitations** set forth below, the warranties set forth in Section 2 above shall apply to all covered non-conforming conditions that are discovered within the first twenty-four (24) months following delivery of the Product to the carrier designated by the Reseller and/or the Original Owner at Chief's manufacturing facility in Kearney, Nebraska (the "Warranty Period") and are reported to the Chief as provided in Section 4 below within thirty (30) days following discovery (a "Notice Period").
4. **Notice Procedure.** In order to make a valid warranty claim, the Reseller and/or the Original Owner must provide Chief with a written notice of any nonconforming condition discovered during the Warranty Period within the applicable Notice Period specified in Section 3 above. Said notice must be in writing; be addressed to Chief Industries, Inc., Agri/Industrial Division, Customer Service Department, P.O. Box 848, Kearney, NE 68848; and contain the following information: (a) the Customer's name and address; (b) the Reseller's name and address; (c) the make and model of the Product in question; (d) the current location of the Product; (e) a brief description of the problem with respect to which warranty coverage is claimed; and (f) the date on which the Product was purchased.

5. **Exceptions and Exclusions.** Anything herein to the contrary notwithstanding, the warranties set forth in Section 2 above do **not** cover any of the following, each of which are hereby expressly excluded:
- A. Defects that are not discovered during the applicable Warranty Period;
  - B. Defects that are not reported to the Chief Agri/Industrial Division Customer Service Department in conformity with the notice procedure set forth in Section 4 above within the applicable Notice Period specified in Section 3;
  - C. Any used or pre-owned Products;
  - D. Any Chief manufactured parts that are not furnished as a part of the Accepted Purchase Order;
  - E. Any fixtures, equipment, materials, supplies, accessories, parts or components that have been furnished by Chief but are manufactured by a third party;
  - F. Any Products which have been removed from the location at which they were originally installed;
  - G. Any defect, loss, damage, cost or expense incurred by the Reseller or the Original Owner to the extent the same arise out of, relate to or result, in whole or in part, from any one or more of the following:
    - (i) Usual and customary deterioration, wear or tear resulting from normal use, service and exposure;
    - (ii) Theft, vandalism, accident, war, insurrection, fire or other casualty;
    - (iii) Any damage, shortages or missing parts which result during shipping or are otherwise caused by the Reseller, the Original Owner and/or any third party;
    - (iv) Exposure to marine environments, including frequent or sustained salt or fresh water spray;
    - (v) Exposure to corrosive, chemical, ash, smoke, fumes, or the like generated or released either within or outside of the structure on which the Product is installed, regardless of whether or not such facilities are owned or operated by the Reseller, the Original Owner or an unrelated third party;
    - (vi) Exposure to or contact with animals, animal waste and/or decomposition;
    - (vii) The effect or influence the Product may have on surrounding structures, including, without limitation, any loss, damage or expense caused by drifting snow;
    - (viii) Any Product or portion thereof that has been altered, modified or repaired by the Reseller, the Original Owner or any third party without Chief's prior written consent;
    - (ix) Any Product or portion thereof that has been attached to any adjacent structure without Chief's prior written approval;
    - (x) Any Product to which any fixtures, equipment, accessories, materials, parts or components which were not provided as a part of the original Accepted Purchase Order have been attached without Chief's prior written approval;

- (xi) The failure on the part of the Reseller, the Original Owner or its or their third party contractors to satisfy the requirements of all applicable statutes, laws, ordinances rules, regulations and codes, (including zoning laws and/or building codes);
- (xii) The use of the Product for any purpose other than the purpose for which it was designed; and/or
- (xiii) The failure of the Reseller, the Original Owner and/or any third party to:
  - (a) properly handle, transport and/or store the Product or any component part thereof;
  - (b) properly select and prepare a site that is adequate for the installation and/or operation of the Product or any component part thereof;
  - (c) properly design and construct a foundation that is adequate for the installation and/or operation of the Product or any component part thereof;
  - (d) properly set up, erect, construct or install the Product and/or any component part thereof; and/or
  - (e) properly operate, use, service and/or maintain the Product and each component part thereof.

6. **Resolution of Warranty Claims.** In the event any nonconforming condition is discovered within the Warranty Period and Chief is notified of a warranty claim as required by Section 4 prior to the end of the applicable Notice Period set forth in Section 3 above, Chief shall, with the full cooperation of the Reseller and the Original Owner, immediately undertake an investigation of such claim. To the extent Chief shall determine, in its reasonable discretion, that the warranty claim is covered by the foregoing Limited Product Warranty, the following shall apply:

- A. **Warranty Claims With Respect to Covered Non-Conforming Conditions Discovered Within the First Three Hundred Sixty Five (365) Days and Reported to Chief Within Thirty (30) Days of Discovery.** In the case of a warranty claim which relates to a covered non-conforming condition that is discovered during the first three hundred sixty five (365) days of the Warranty Period and is reported to Chief as required by Section 4 within thirty (30) days of discovery as required by Section 3, Chief will, as Chief's sole and exclusive obligation to the Reseller and the Original Owner, and as their sole and exclusive remedy, work in cooperation with the Reseller and the Original Owner to correct such non-conforming condition, and in connection therewith, Chief will ship any required replacement parts to the "ship to address" set forth in the Accepted Purchase Order FOB Chief's facilities in Kearney, Nebraska, and will either provide the labor or reimburse the Reseller or the Original Owner, as may be appropriate in the circumstances, for any out of pocket expense the Original Owner may reasonably and necessarily incur for the labor that is required to correct such non-conforming condition, provided that if work is to be performed by the Reseller or a third party contractor, Chief may require at least two competitive bids to perform the labor required to repair or correct the defect and reserves the right to reject all bids and obtain additional bids. Upon acceptance of a bid by Chief, Chief will authorize the necessary repairs.
- B. **All Other Warranty Claims.** Except as is otherwise provided in subsection 6A above, in the case of all other warranty claims which relate to covered non-

conforming conditions that are discovered during the Warranty Period and are reported to Chief as required by Section 4 within thirty (30) days following discovery, Chief will, as Chief's sole and exclusive obligation to the Reseller and the Original Owner, and as the Reseller's and the Original Owner's sole and exclusive remedy, ship any required replacement parts to the Original Owner at the "ship to address" specified in the Accepted Purchase Order FOB Chief's facilities in Kearney, Nebraska; and in such event, Chief shall have no responsibility or liability to either the Reseller or the Original Owner for the cost of any labor required to repair or correct the defect.

7. **Warranty Not Transferable.** This Warranty applies only to the Reseller and the Original Owner and is **not transferable**. As such, this Warranty does not cover any Product that is sold or otherwise transferred to any third party following its delivery to the Original Owner.
8. **Limitation on Warranties, Liabilities and Damages.** The Reseller and the Original Owner expressly agree that the allocation of the risk, liability, loss, damage, cost and expense arising from any Product that does not conform to the limited warranty given in Section 2 above are fair and reasonable and acknowledge that such allocation was expressly negotiated by the parties and was reflected in the Purchase Price of the Product. Accordingly the Reseller and the Original Owner expressly agree as follows:
  - A. **Disclaimer of Implied Warranties.** EXCEPT AS IS OTHERWISE EXPRESSLY SET FORTH HEREIN, CHIEF MAKES NO OTHER REPRESENTATIONS OR WARRANTIES OF ANY KIND WHATSOEVER, WHETHER EXPRESS OR IMPLIED, BY OPERATION OF LAW, COURSE OF DEALING OR OTHERWISE WITH RESPECT TO THE PRODUCT, ANY COMPONENT PART THEREOF OR ANY OTHER GOODS OR SERVICES THAT CHIEF MANUFACTURES, FABRICATES, PRODUCES, SELLS OR PROVIDES TO THE DEALER OR THE ORIGINAL OWNER PURSUANT TO THE TERMS OF ANY ACCEPTED PURCHASE ORDER, INCLUDING WITHOUT LIMITATION ANY REPRESENTATION OR WARRANTY WITH RESPECT TO DESIGN, CONDITION, MERCHANTABILITY OR FITNESS OF THE PRODUCT OR ANY OTHER GOODS OR SERVICES FOR ANY PARTICULAR PURPOSE OR USE.
  - B. **Limitation on Liability.** EXCEPT AS IS OTHERWISE EXPRESSLY SET FORTH IN SECTION 6 ABOVE, CHIEF'S LIABILITY TO THE DEALER AND/OR THE ORIGINAL OWNER WITH RESPECT TO ANY DEFECTS IN ANY PRODUCTS OR FOR ANY OTHER GOODS OR SERVICES WHICH DO NOT CONFORM TO THE WARRANTIES SET FORTH ABOVE SHALL NOT, IN ANY EVENT, EXCEED THE ACTUAL COST OF SUCH NON-CONFORMING PRODUCT, GOODS OR SERVICES AS DETERMINED PURSUANT TO THE ACCEPTED PURCHASE ORDER; AND
  - C. **Limitation on the Nature of Damages.** EXCEPT AS EXPRESSLY PROVIDED IN SECTION 6 ABOVE, CHIEF SHALL NOT, UNDER ANY CIRCUMSTANCES, BE LIABLE TO THE DEALER, THE ORIGINAL OWNER OR ANY THIRD PARTY FOR ATTORNEY FEES COURT COSTS OR ANY OTHER SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, LIQUIDATED OR PUNITIVE DAMAGES OF ANY NAME, NATURE OR DESCRIPTION AS A RESULT OF THE FAILURE OF ANY PRODUCT OR ANY OTHER GOODS OR SERVICES PURCHASED BY THE DEALER OR THE ORIGINAL OWNER FROM CHIEF PURSUANT TO THE ACCEPTED PURCHASE ORDER TO CONFORM TO THE LIMITED WARRANTIES SET FORTH IN SECTION 2 ABOVE.

8. **Applicable Law.** This Limited Product Warranty has been issued, accepted and entered into by the Reseller, the Original Owner and Chief in the State of Nebraska and shall be governed by, and construed in accordance with, the internal laws of the State of Nebraska. Any legal action or proceeding with respect to any goods or services furnished to the Original Owner by Chief in connection herewith, or any document related hereto shall be brought only in the district courts of Nebraska, or the United States District Court for the District of Nebraska, and, by execution and delivery of this Limited Product Warranty, the undersigned Original Owner hereby accept for themselves and with respect to their property, generally and unconditionally, the jurisdiction of the aforesaid courts. Further, the undersigned Original Owner hereby irrevocably waives any objection, including, without limitation, any forum non conveniens, which it may now or hereafter have to the bringing of such action or proceeding in such respective jurisdictions.

### ACKNOWLEDGMENT OF RECEIPT

By its signature hereto, the undersigned Reseller represents and warrants to Chief that the Reseller has provided a true, correct and complete copy of this Standard Limited Warranty to the Original Owner at the time the product was purchased.

Reseller Name and Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Original Owner Name and Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Accepted Purchase Order No. \_\_\_\_\_

Original Jobsite Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

### RESELLER:

By: \_\_\_\_\_  
 Date

Print name and title

4842-7507-8689, v. 1



## Warning

### Water Sensitive Materials - Read this notice carefully

Bundles must be inspected and carrier advised immediately if damage is noted. White rust is a corrosion attack of the zinc coating resulting from the presence of water. Anywhere rust is found will result in a reduction of the life of the galvanized steel.

If water has entered a bundle or if condensation has formed between items, the bundle must be opened, the items separated and all surfaces dried.

#### **If items are to be installed within 10 days:**

Store bundled items off the ground high enough to allow air circulation beneath bundle and to prevent water from entering. Store 1 end at least 8" (20.32cm) higher than the opposite end. Support long bundles in the center. Prevent rain from entering the bundle by covering with a tarpaulin, making provision for air circulation between the draped edges and the ground.

Do not wrap in plastic.

#### **If items are not to be installed within 10 days:**

Provide inside dry storage. Storage beyond 6 months is not recommended. If white rust is apparent upon receipt of shipment, notify Chief immediately. Damage to items, resulting from improper storage, is the responsibility of the receiver.



## Before You Begin

Before starting the installation of the equipment, take time to thoroughly study the construction methods in this manual, this will save you time and money.

Chief makes no warranty concerning components, accessories or equipment not manufactured by Chief.

When using a cutting torch or welding galvanized material, the possibility of developing toxic fumes will exist. Provide adequate ventilation and respiratory protection when using this type of equipment during installation.

### Introduction

Thank you for purchasing Chief equipment. Proper installation and operation will ensure you the best overall experience with your equipment and guarantee smooth operation.

This proprietary information is loaned with the expressed agreement that the drawings and information therein contained are the property of Chief Industries, Inc. and will not be reproduced, copied, or otherwise disposed of, directly or indirectly, and will not be used in whole or in part to assist in making or to furnish any information for the making of drawings, prints or other reproduction hereof, or for the making of additional products or equipment except upon written permission of Chief Industries, Inc. first obtained and specific as to each case. The acceptance of this material will be construed as an acceptance of the foregoing agreement.

The technical data contained herein is the most recent available at the time of publication and is subject to modification without notice. Chief Industries, Inc. reserves the right to modify the construction and method of operation of their products at any time without any obligation on their part to modify any equipment previously sold and delivered.

**Model Number Description**

The model nomenclature distinguishes the application of the catwalk. The information includes a designation of the applicable mounting width, overall length, and design criteria utilized. The definition of the model number nomenclature is as follows:

Example:    CW    #4    -    60    -    140    -    DWSC  
                  (a)    (b)    -    (c)    -    (d)    -    (e)

(a)    CW = Chief catwalk

(b)    #4 = Catwalk Style

Where: #2 = #2 Style

Where: #4 = #4 Style

(c)    60 = Mounting Width

Where: 60 = 60 inches in width

(d)    140 = Overall length in feet

Where: 140 = 140" overall length

(e)    DWSC= Mounting Style

Where: DWSC = Dual Walkway Single Conveyor

CWDC = Single Center Walkway Dual Conveyor

SWSC = Single Walkway Single Conveyor

## General Design Information

All Chief catwalks are designed for structural support of material handling conveyors and personnel.

All steel materials are purchased in accordance with the applicable ASTM Standard.

All bolted connections are designed using high strength bolts which meet the specifications of the applicable ASTM or SAE standard.

All Chief catwalk structures are designed to withstand normally anticipated environmental and service conditions per the specified ASCE7-10 design code.

**Important Note:** Loading in excess of the specified rating can cause structural damage and will void all warranties. If your application will exceed the listed values, contact Chief Industries Inc. for recommendations.

### Catwalk Assembled Weight

The weights of the assembled Type 4 catwalk sections only are as follows:

30" Mounting	45" Mounting	60" Mounting
131 lbs/ft (195 kg/m)	137 lbs/ft (204 kg/m)	143 lbs/ft (213 kg/m)

## Accessory Equipment

All accessory equipment should be installed and maintained in accordance with each individual supplier's installation and operation instructions. However, if any modifications to the Chief standard design are required, contact Chief for special recommendations.

**Important Note:** Do not modify equipment without Chief approval. It is the responsibility of the general contractor to verify that all equipment is properly installed and that the equipment is compatible with the intended use. A qualified electrician should be contracted to complete all electrical wiring and servicing.

## General Contractor Responsibilities

It is the responsibility of the general contractor to verify that the complete support system and other accessory equipment is constructed with quality workmanship and that all equipment is installed per the respective manufacturer's instructions.

In addition, the general contractor is responsible for the fitness of use of any system which he constructs. All accessory equipment incorporated into the system should be approved for the intended use by each respective equipment manufacturer.

## Field Modifications and Installation Defects

Chief assumes no responsibility for field modifications or installation defects which result in structural damage. If any field modifications are necessary which are not specifically covered by the contents of the installation manual, contact Chief for approval. Any unauthorized modification or installation defect which affects the structural integrity of the support system will void the warranty.

## Checking Shipment

For your convenience steel components will be color coded, individual items labeled with an appropriate part number and packages labeled. Hardware, including bolts, nuts, screws and other small clips or brackets may be divided into smaller packages for ease of use and identification.

Check your shipment at the time of delivery against the packing list provided with the shipment. If any items are missing or any damaged material is evident, note such shortage or damage on the freight bill before you sign the shipment paperwork.

Claims of shortages will not be honored after 30 days from receipt of shipment. Parts that are missing or damaged are the responsibility of the delivering carrier, not the manufacturer or dealer.

It is advisable to reorder damaged or missing parts immediately so that there will be no delay in the bin installation. After receiving the invoice for the reordered material, file a claim with the delivering carrier immediately.

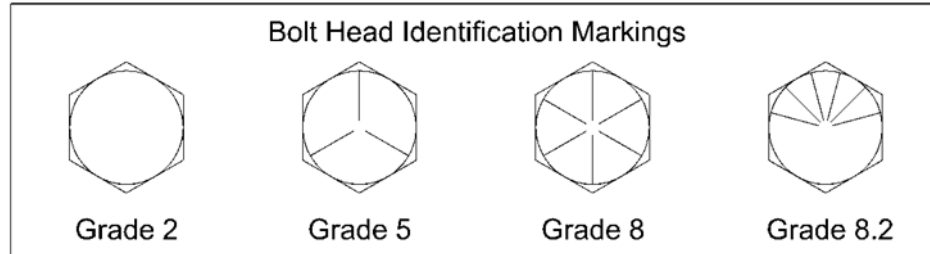
## Suggested Equipment

Chief recommends the following equipment and tools needed for installation of the grain storage bin. Individual installations may vary.

- Impact wrenches and sockets
- End wrenches
- Crescent wrenches
- Vise grip pliers
- Alignment punches
- Rubber mallets
- Level

## Hardware Torque

All components are assembled using SAE grade hex head bolts with corresponding washers and nuts. Bolts are marked with radial lines on the bolt head as shown in the following illustration.



**Do not substitute any other bolt type or grade. Use only the bolts supplied by Chief. The substitution of bolts from other sources is not permitted and will void the warranty.**

When installing hardware the minimum and maximum torque values shown below must be followed. All hardware must seat tight against the corresponding bin component.

Bolt Diameter	Grade 2	Grade 5	Grade 8	Grade 8.2
1/4" (.63cm)	6 ft.-lbs.	10 ft.-lbs.	14 ft.-lbs.	14 ft.-lbs.
5/16" (.79cm)	12 ft.-lbs.	19 ft.-lbs.	29 ft.-lbs.	29 ft.-lbs.
3/8" (.95cm)	20 ft.-lbs.	25 ft.-lbs.	47 ft.-lbs.	47 ft.-lbs.
3/4" (1.90cm)	155 ft.-lbs.	240 ft.-lbs.	380 ft.-lbs.	380 ft.-lbs.
1" (2.54cm)	-	-	910 ft.-lbs.	-

Please note the following wrench / socket size to be used on the corresponding hardware:

Bolt Size	Head Size	Nut Size
1/4" (.63cm)	7/16" wrench	7/16" wrench
5/16" (.79cm)	1/2" wrench	1/2" wrench
3/8" (.95cm)	9/16" wrench	9/16" wrench
3/4" (1.90cm)	1-1/8" wrench	1-1/8" wrench
1" (2.54cm)	1-1/2" wrench	1-1/2" wrench

## Installation

### Part Identification

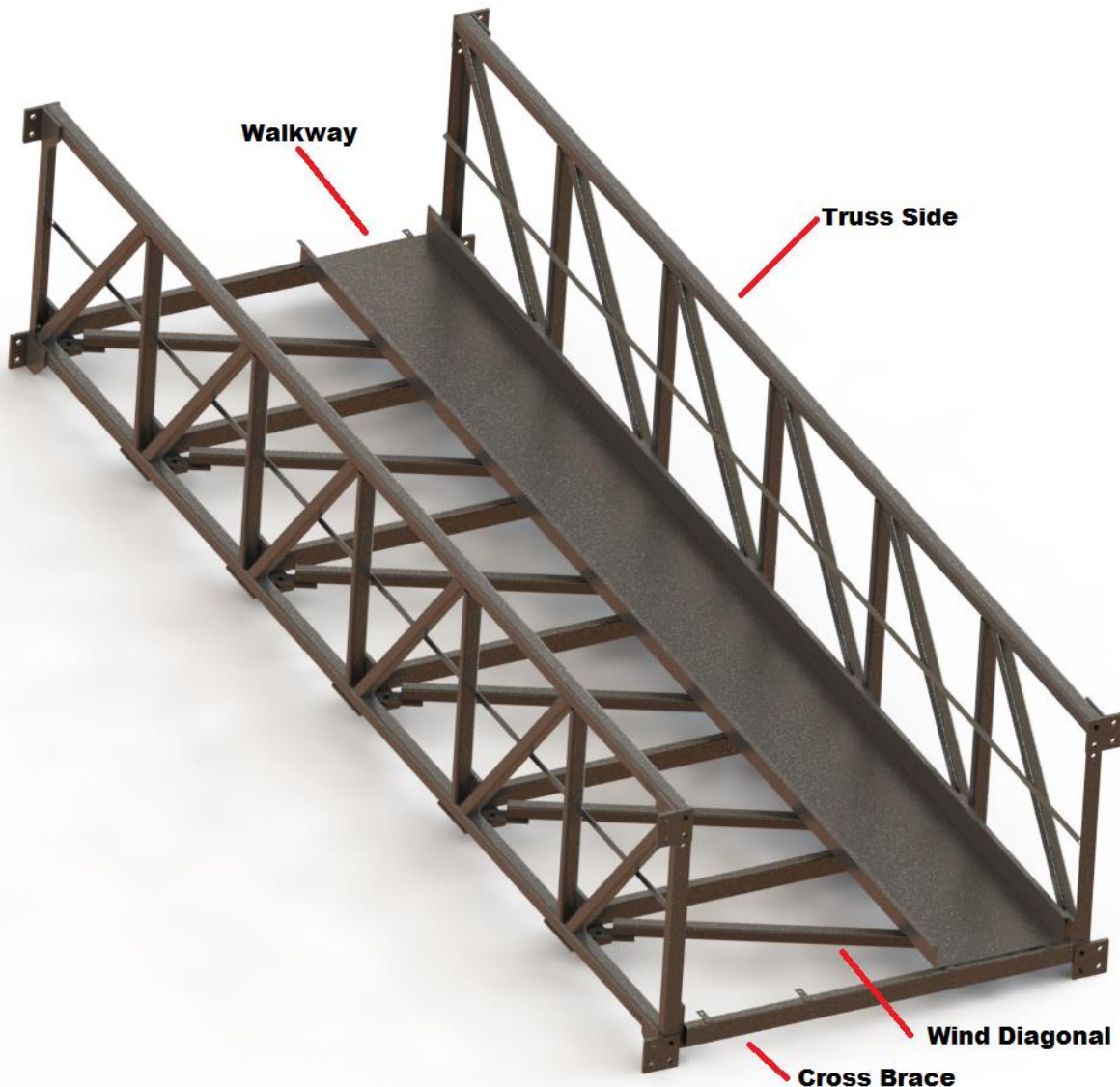
The following is a general outline provided for reference only. The entire catwalk sections are installed upside down for ease of assembly.

**Important Note:** Prior to starting the installation it is very important to plan ahead and by verifying the order and location of all components.

Verify the correct catwalk type / style by looking at the weld dots located near the end of the catwalk posts.

**Important Note:** Bolt heads are to be installed on the inside of the catwalk walkway.

**Important Note:** Leave all hardware loose until all components have been added. This will allow for proper alignment of components and ensure that tolerances do not accumulate.





## Terminating end brace

The terminating end brace is located at the end of the catwalk and is used in combination with an end enclosure.

30" Mounting	45" Mounting	60" Mounting
9621738	9621709	9621739



## Cross brace

The cross brace is located under the catwalk truss sections.

30" Mounting	45" Mounting	60" Mounting
9621734	9621678	9621736



## Cross brace (Dual Walkway)

The cross brace is located under the catwalk truss sections.

30" Mounting	45" Mounting	60" Mounting
9622027	-	9622372



## Cross brace (Center Walkway)

The cross brace is located under the catwalk truss sections.

30" Mounting	45" Mounting	60" Mounting
9622027	-	9622372



## Wind diagonal

The wind diagonal is located under the cross brace.

30" Mounting	45" Mounting	60" Mounting
9621740	9621677	9621742



## Side truss section

The side truss sections are located on the sides of the catwalk and form an integrated handrail.

3'-4" (1.91m) Length	6'-8" (2.02m) Length	10' (3.04m) Length	20' (6.09m) Length
9621705	9621701	9621697	9621676



## End enclosure

The end enclosure is located on the end of the catwalk and provides a safety closure for the last section of assembled catwalk.

<b>30" Mounting</b>	<b>45" Mounting</b>	<b>60" Mounting</b>
9621728	9621724	9621731



## Walkway

The walkway provides safe access to equipment and is located the full length of catwalk.

<b>3'-4" (1.91m) Length</b>	<b>6'-8" (2.02m) Length</b>	<b>10' (3.04m) Length</b>
9621037	9621036	9621035

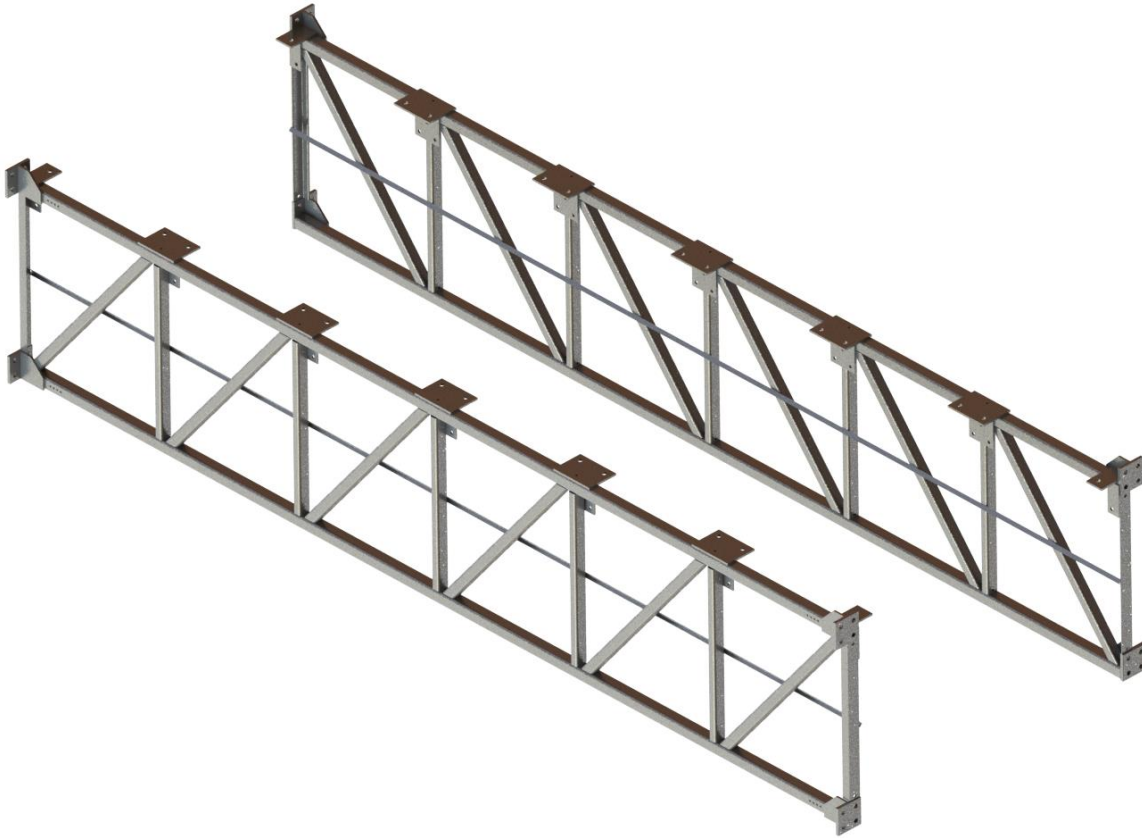


**Hardware packages**

• 3'-4" (1.91m) Catwalk #4	9621708
• 3'-4" (1.91m) Catwalk #4 dual walkway	9622035
• 6'-8" (2.02m) Catwalk #4	9621703
• 6'-8" (2.02m) Catwalk #4 dual walkway	9622034
• 10' (3.04m) Catwalk #4	9621699
• 10' (3.04m) Catwalk #4 dual walkway	9622033
• 20' (6.09m) Catwalk #4	9621679
• 20' (6.09m) Catwalk #4 dual walkway	9622032

## Catwalk Bay Installation

Place truss sides upside down with the mid rails facing inward. With the mid rails facing inward the side truss diagonal bracing will be in opposite directions. Verify the correct catwalk type / style by looking at the weld dots located near the end of the catwalk.



Verify the model type of the catwalk by locating the weld dots near the end of the truss sections. 4 weld dots will indicate a model type 4 catwalk.

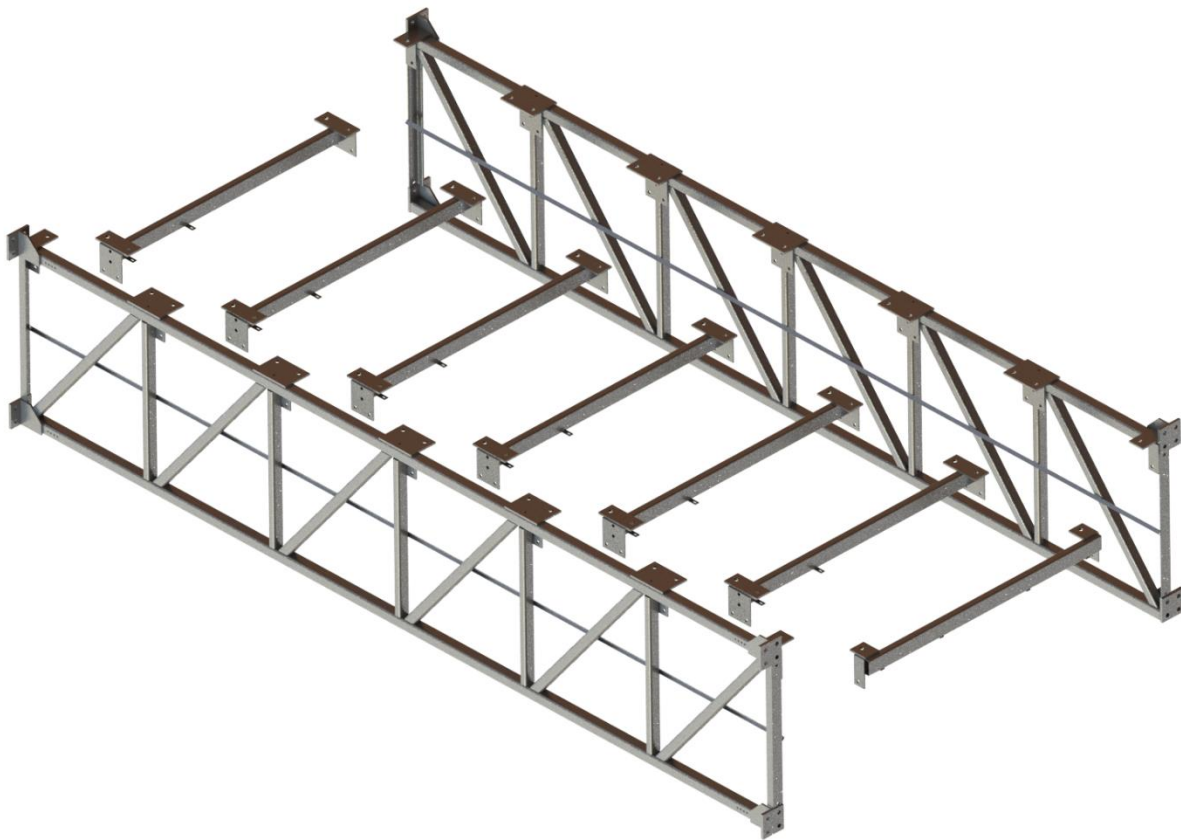


Place cross braces on truss sections. Attachment plates on the cross braces will match up with attachment plates on the truss sides. Verify that walkway tabs are located on the desired walkway side. These connections will require (4) 3/4" x 2" (1.90cm x 5.08cm) Grade 5 bolts with lock washer and nut on the cross brace end plates and (2) 1" x 2-3/4" (2.54cm x 6.98cm) Grade 8 bolts with lock washer and nut on the cross brace bottom plates.

**Important Note:** Standard sections of catwalk will not have a cross brace bolted to the last attachment plate on each catwalk section.

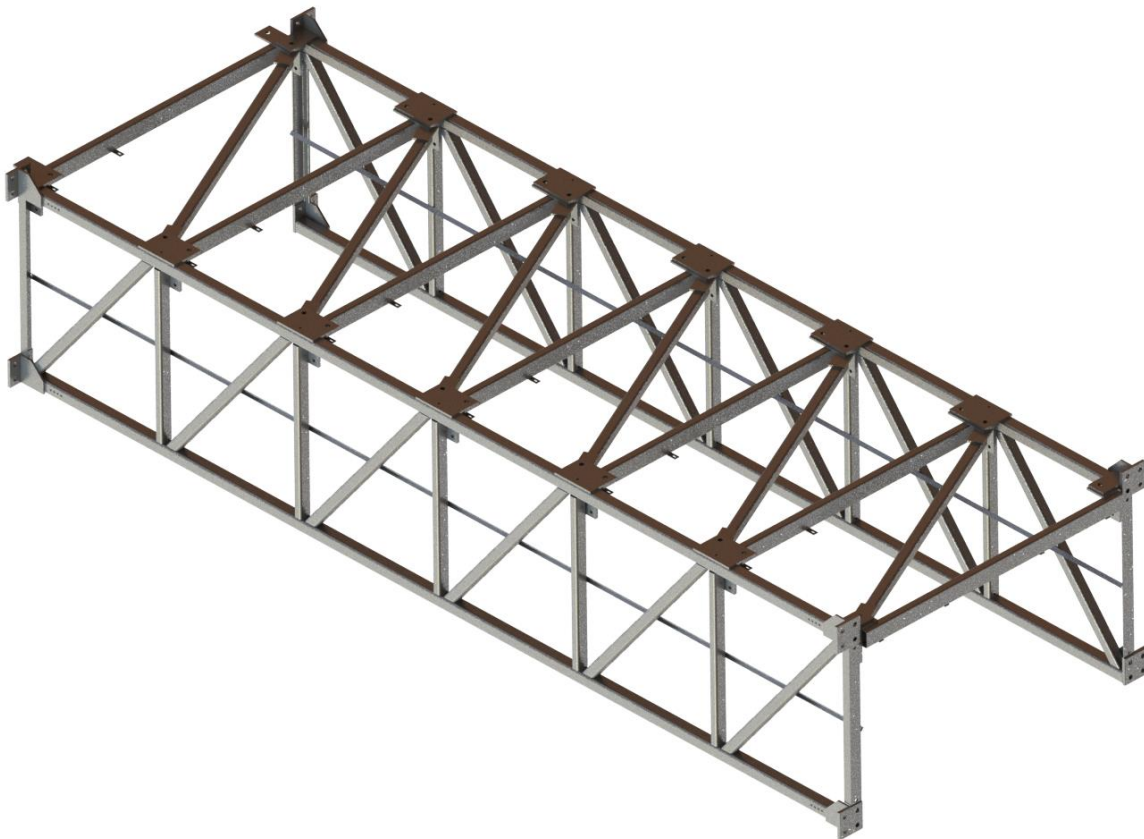
If installing a start or end section of an entire catwalk system, note that the terminating end members are used only at the start or end of the catwalk run (total length). The start or end sections of catwalk will have a terminating end member bolted to the last attachment plate on the truss sections.

Use the same hardware for the terminating end member as used for the cross braces.



Install wind diagonals on the cross / end braces. The attachment plate on the wind diagonal will match up with the top side of the attachment plate on the cross / end braces. Wind diagonals are to be positioned parallel to one another as shown below. If the position of the wind diagonal interferes with the conveyor, refer to the [enlarged drop through opening](#) section in this manual.

These connections will require (2) 1" x 2-3/4" (2.54cm x 6.98cm) Grade 8 bolts with lock washer and nut.





#### # 4 C A T W A L K

Install End enclosure (required on last section of the catwalk run only). These connections will require (4) 3/4" x 2" (1.90cm x 5.08cm) Grade 5 bolts with lock washer and nut.



#### # 4 C A T W A L K

Flip the catwalk over so the cross bracing and wind diagonals are on the bottom side. Install the walkway on the slotted tabs located on the cross braces.

For every section of walkway these connections will require (8) 5/16" x 1-1/2" (.79cm x 3.81cm) Grade 5 carriage bolts with diamond washers and whiz flange nuts per 10' (3.04m) section.



**Important Note:** If field modifications are required, contact Chief Industries, Inc. before proceeding. If there are fabrication errors, or shortages occur, do not substitute similar components. Chief will not be responsible for unauthorized modifications or for damages incurred during shipping, staging or installation.

## Connect Catwalk Sections

To complete the total length of catwalk required you must next bolt the completed individual sections together.



Bolt a cross brace to the truss sides on the end of one section only. Bolt this cross brace at the designated holes as described previously. These connections will require (4) 3/4" x 2" (1.90cm x 5.08cm) Grade 5 bolts with lock washer and nut and (2) 1" x 2-3/4" (2.54cm x 6.98cm) Grade 8 bolts with lock washer and nut.

Install one wind diagonal to a cross brace on the end of each section as described previously. This connection will require (2) 1" x 2-3/4" (2.54cm x 6.98cm) Grade 8 bolts with lock washer and nut.

Bolt the truss sides from each section together. These connections will require (6) 1" x 3" (2.54cm x 7.62cm) Grade 8 bolts with lock washer and nut.

Repeat these steps to install additional sections as required until the entire catwalk run is complete.

**Important Note:** Leave all hardware (bolts, nuts, washers) loose until all sections have been added. This will allow you to square the final catwalk assembly and ensure that tolerances do not accumulate. At this point assembled conveyor sections may be installed on the catwalk.

Hoist the catwalk into place using an appropriate capacity crane. The catwalk must be supported at points equal to half the catwalk length (free span length).

**Important Note:** The number of catwalk sections that can be connected together is dependent upon the capabilities of the crane lifting the unit into place. When lifting the combined weight of the catwalk, any conveyor sections attached and any other loads such as rigging must be considered into the total weight.

## Conveyor Mounting Tower

The conveyor may be mounted on the ground, before lifting into place or after the catwalk has been installed.

Prior to mounting the conveyor on the catwalk, determine the mounting locations. Then span angle iron or other material (not supplied) across the cross bracing and weld at all contact points. Lift and position the conveyor into place.

Weld or bolt the conveyor to the mounting angle. Mounting locations on the conveyor must rest on the angle iron.

**Important Note:** Do not drill into or cut the cross members when mounting the conveyor. If your catwalk structure interferes with the conveyor discharge see the enlarged drop thru opening in this manual. Do not cut any part of the catwalk to fit the conveyor or conveyor drive unit.

After the support tower structure has been assembled and secured in place the catwalk can be installed. The support tower structure must be designed to support a top load such as a conveyor or catwalk and this load must be supported by a top load beam bolted or welded to the top of the support tower structure.

The catwalk support beams and tower top load beams can be field fabricated by millwright or purchased separately from Chief. Recommended catwalk support beam recommended size is W6x20 if field fabricated.



1. Lift the assembled catwalk into place using rigging with appropriate support for the catwalk as specified previously.
2. Locate the catwalk as desired over the catwalk support system.
3. Install catwalk support beams to catwalk cross braces.
  - a. Verify the catwalk support beams span two cross braces.
  - b. Verify the catwalk support beams are contacting the cross braces only and are **not** supported by or welded to the wind diagonal bracing.
  - c. Catwalk support beams must be fully welded at all contact points with 1/4" (.63cm) fillet weld.
4. Install the catwalk top load beams across the catwalk posts as shown.
  - a. Verify the catwalk top load beams span 2 catwalk posts.
5. Install the catwalk support beams to the catwalk top load beams.
  - a. Verify the catwalk support beams are **not** welded directly to the catwalk horizontal bracing or are supported by any part of the catwalk. Catwalk support beams must contact the catwalk top load beams only.
  - b. Support beams must be fully welded at all contact points with 1/4" (.63cm) fillet weld.
6. Repeat the above steps till all catwalk sections are installed to the appropriate catwalks.

## Catwalk Mounting Bin Peak

All catwalk and walk around systems must be adequately supported before installation on a bin peak. After the bin peak structure has been assembled and secured in place the catwalk can be installed.

Position base support beams on the bin peak, perpendicular to the overall length of the catwalk. Load beams must extend past the bin peak flange. Fully weld at all contact points with 1/4" (.63cm) fillet weld.



Position intermediate support beams perpendicular to the base support beams. The length of this intermediate beam shall extend at a minimum, to span 2 catwalk posts/cross members at a minimum in length. Intermediate support beam must be located directly beneath the catwalk truss sides. Fully weld at all contact points with 1/4" (.63cm) fillet weld.



Locate the catwalk over the tower support system.

**Important Note:** Failure to support the catwalks as shown above may result in structural failure.



- Catwalk support beams must span two cross braces minimum
- Support beams must contact the cross braces or truss sides only and cannot be supported by or be welded to the wind diagonal bracing
- Support beams must be fully welded at all contact points with 1/4" (.63cm) fillet weld



## Enlarged drop thru opening

If additional clearance is required for your conveyor drop through, the following process is recommended.

**Important Note:** Only one (1) enlarged drop through opening can be used in any given section and must not be applied at a section connection location.



At the desired location remove two wind diagonals. Cut cross member in this location, removing the center section of the tube between the attachment plates.

**Important Note:** Do not remove the cross member attachment plates. Reinstall cross braces on each side of the opening.

Reverse one wind diagonal (as shown) to form a V shaped opening. Re-torque bolts as required. Reinforce both side truss sections over the opening (un-braced length) with a continuous beam welded to the lower stringer tube.

- The length of this tube shall extend to the next cross brace beyond the opening at each end of the opening.
- This splice beam shall be constructed of a minimum of a 2" x 2" x 1/4" (5.08cm x 5.08cm x .63cm) steel angle for a center drop through opening and a minimum of a W 4 x 13 for an end drop through opening.
- Support beams must be fully welded at all contact points with 1/4" (.63cm) fillet weld.

If an end drop through opening is desired the splice beam described above can also be used as the catwalk support / spreader beam.

**Important Note:** A splice angle may not be used as a catwalk support / spreader beam.



## Maintenance Instructions

An annual inspection of the structure should be made to verify bolts are tight and torque recommendation maintained. Re-tighten hardware as required.



Should you have any questions concerning assembly instructions, parts or drawings, please feel free to contact us at any of the following.

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