

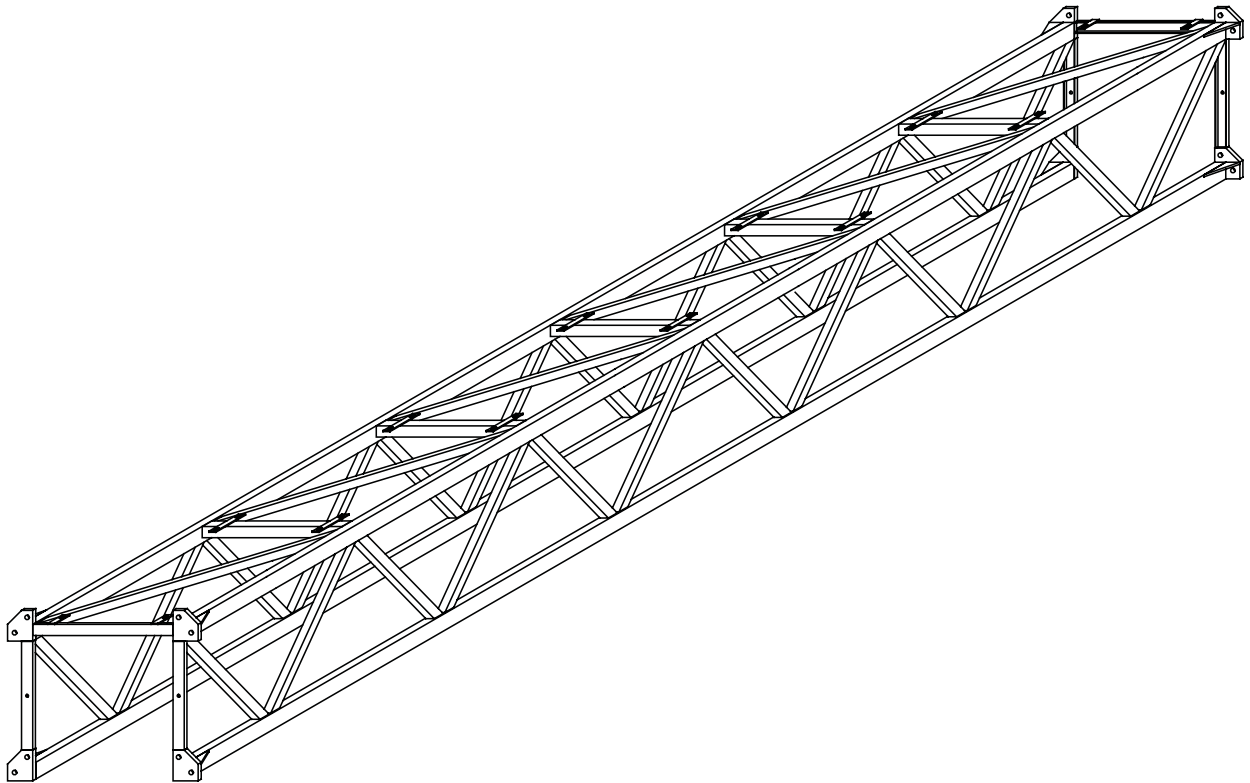


Brownie **SYSTEMS**

A Unit of **GLOBAL** Industries, Inc.

PS42 Pipe Bridge

CONSTRUCTION AND OWNER'S MANUAL



The Symbol shown below is used to call your attention to instructions concerning your personal safety. Watch for this warning symbol shown below - it points out important safety precautions. It means “**ATTENTION**” - Become Alert! Your Personal Safety Is Involved! Read the message that follows and be alert to the possibility of personal injury or death.



Be Alert!

Your Personal Safety Is Involved

A copy of this manual should be available at all times to the owner/operator. Additional copies may be requested from the company at the address shown on the back cover. Please reference part number #4000035 when requesting additional copies.

Please Contact BROWNIE SYSTEMS or Your Dealer
If You Have Any Questions Concerning This Manual

Keep This Manual In A Safe Place Available For Future Reference

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Literature Drawing Reference # k4700025

www.go-brownie.com

Brownie Systems

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4000035 9-05



Warranty

Global Industries Inc. (the **Company**) makes the following warranty to the initial retail purchaser of its products (the **Customer**).

MATERIALS and WORKMANSHIP:

The Company warrants products manufactured by it to be free from defects in materials and workmanship in normal use and service for a period of one (1) year after date of delivery to the Customer.

COMPANY'S OBLIGATION and CUSTOMER'S EXCLUSIVE REMEDY:

The Company's sole obligation and the Customer's exclusive remedy under this warranty is as follows:

If within one (1) year after delivery to the customer the product fails to function properly due to a defect in either materials or workmanship, the Company will at its option, either repair the defective part or replace the defective part with a new or reconditioned part. Labor charges for removing defective parts and installing replacement parts, shipping charges with respect to such parts, and applicable sales and other taxes, if any, shall not be covered by this warranty.

CONDITIONS, LIMITATIONS, AND EXCLUSIONS:

There are no warranties or merchantability or fitness for a particular purpose with respect to any product manufactured or sold by the Company. Motors provided by the Company are in most instances warranted by the manufacturer thereof and are not warranted by the Company. The Company shall not be responsible under this warranty or otherwise for personal injury or for **Incidental or Consequential Damages**, including, without limitation, loss of use and lost profits. This warranty does not apply to defects or damages caused by misuse, improper maintenance, or improper installation of the Company's product or any equipment attached to or used in connection with the Company's product. The Company reserves the right to make changes or improvements to its products without incurring any obligation with respect to previously manufactured products. Field modification of this product without the expressed written permission of the Company constitutes a misuse of the product. The Company shall have no liability under this warranty until payment in full for the product in question has been made by the customer. The foregoing is the sole warranty made by the Company. No one is authorized to make other warranties on behalf of the Company.

Important Safety Information

This Brownie Systems Construction and Owners Manual is written to assist and instruct those who are responsible for Pipe Bridge assembly, and for anyone using the Pipe Bridge once assembled. Global Industries Inc. assumes no liability with respect to proper assembly, installation, and inspection, or use of its products established under applicable laws, all of which is the sole responsibility of the purchaser and those doing the assembly work.

Appurtenances and the accessories manufactured by us for use with our products conform only to applicable Federal or Safety Standards in effect at such time.

GENERAL SAFETY STATEMENT

Occupational safety is of prime concern to us at Brownie Systems. This manual was written with the safety of the operator or others who come in contact with the equipment as our prime concern. We wrote this manual to help you to better understand how to safely build and use the Pipe Bridge.

It is your responsibility as an owner or operator or supervisor, to know what specific requirements, precautions, and work hazards exist and to make these known to all other personnel working with the equipment or in the area, so that they too may take any necessary safety precautions that may be required.

Failure to read this Manual and its Safety Instructions by all personnel is a misuse of the equipment. We want you as our partner in safety.



Watch For This Symbol! It Points Out Important Safety Precautions.
It Means “ATTENTION” - Become Alert! Your Safety Is Involved!

WORK AREA SAFETY STATEMENT

Under no circumstances should persons not involved in the operation be allowed to **trespass** into or be present in the work area.

It shall be the duty of all operators to see that children and/or other persons stay out of the work area! Trespass into the work area by anyone not involved in the actual operations, or trespass into a hazard area by anyone, shall result in an immediate shut down by the operator.

It shall be the responsibility of all operators to see that the work area has secure footing and is clean and free of all debris and tools which might cause accidental tripping and/or falling. It shall also be their responsibility to keep the work area clean and orderly during the operation. It shall also be the responsibility of the operator to have damaged equipment repaired and to be made free of sharp edges.



Important Safety Information, cont'd

OSHA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

Certain purchasers of our products may be subject to the requirements and standards of the William-Steiger Occupational Safety and Health Act of 1970, which prescribes standards for use of appurtenances of our manufacture, such as handrails, platforms, stairways, fixed ladders, ladder cages, and guard rails. (Occupational Safety and Health Standards Section 1910.21 through 1910.32). Before installing these devices, familiarize yourself with the above Federal Standards.

At the time of manufacture, these **optional** items conform to applicable standards. Global Industries Inc. assumes no liability with respect to proper construction, inspection, assembly, or use of its products under applicable laws, all of which is the sole responsibility of the purchaser and those doing the assembly work.

A. When climbing or walking on towers, ladders, spanning structures, catwalks, or trusses, take care not to fall from these structures. Common sense dictates that such appurtenances should not be used when conditions such as rain or wind preclude their safe use. Brownie Systems strongly recommends that optional climbing equipment be purchased to meet the current specifications set forth by OSHA or ANSI whether the individual operator is required by law to do so or not. A properly secured safety belt should be used at all times when performing operations work or maintenance on Brownie Pipe Bridge.

B. Field modification of Brownie Pipe Bridges or any auxiliary components or equipment without the authorization of the manufacturer may present unknown dangers to the operator and must be avoided.



IMPORTANT: Make sure that all persons on the Pipe Bridge during construction are properly fastened to safety cables to prevent injury or death due to falling!



WARNING: Installation of accessories or equipment in or on a Pipe Bridge that would over stress the structure in any manner will void the Warranty. If you do not have specific recommendations from Brownie Systems, where additional loading is involved, please contact the Brownie Systems before installing any such appurtenances or equipment.



IMPORTANT: Make sure that all persons within the work area on ladders, lifts, crane lifts, scaffolds, or the like are secure and not in danger of falling! Also make sure that the work surfaces are clean and free of clutter.

INTRODUCTION

The PS42 Pipe Bridge is available in 3ft, 6ft, 9ft and 18ft lengths. The following instructions provide step by step assembly and installation guidelines, based on 18ft section lengths; 3ft, 6ft and 9ft sections follow the same general guidelines. **Any alterations to the product or deviation from instructed assembly and installation procedures, without the authorization of *Brownie Manufacturing Co.*, is prohibited.**

Tools required for assembly and installation are: 1/2" open-end wrench and socket
 9/16" open-end wrench and socket
 1-1/8" open-end wrench and socket
 Torque wrench

Table 1 lists torque values, for hardware assembly.

Table 1.



Bolt Size	Torque (ft-lbs)		Bolt Head Identification
	Grade 2	Grade 5	
3/8" - 16	20	---	Grade 2 
3/4" - 10	---	307	Grade 5 

Table 2 lists PS42 Pipe Bridge weight.

Table 2.

PS42 Pipe Bridge	Weight
Standard PS42	47lbs/ft

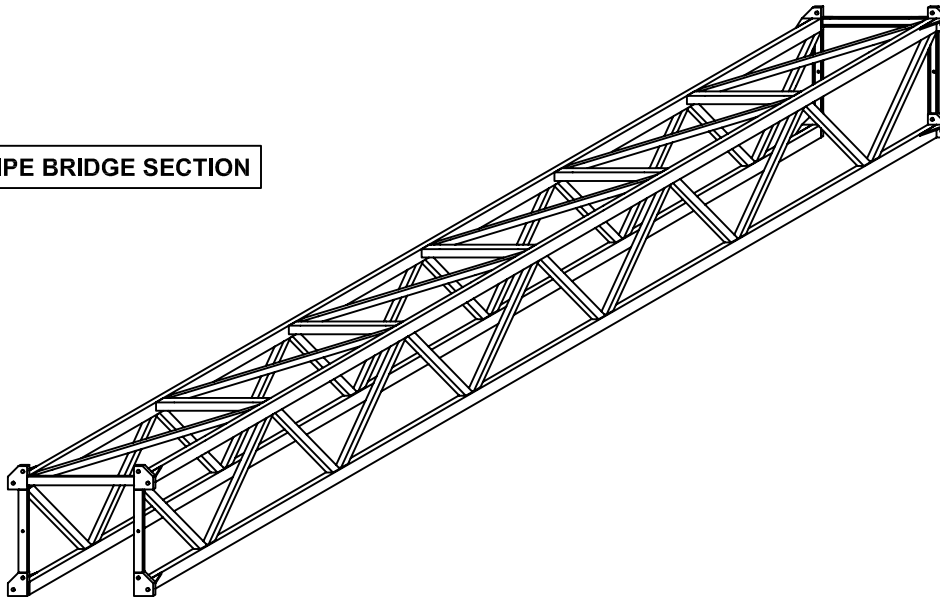
If you have any problems with installation, contact the factory.

Phone: 1-800-228-4285

Fax: 1-402-786-2719

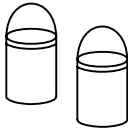
PARTS LISTING

PIPE BRIDGE SECTION



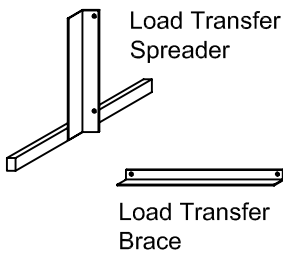
Base Section

Hardware Package

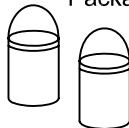


- 9 - 3/4" NC x 3" Grade 5
hex bolt, lock washer & nut
- 9 - 3/8" NC x 2-1/2"
hex bolt, lock washer & nut
- 9 - 3/8" NC x 1-1/4"
hex bolt, lock washer & nut
- 17 - 5/16" NC x 1-1/2"
carriage bolt, flat washer, lock
washer & nut
- (17 - Diamond Anchor - Not used in
all applications.)

WIND LOAD TRANSFER



Hardware Package



- 5 - 3/4" NC x 2" Grade 5
hex bolt, lock washer & nut

PIPE BRIDGE SECTION

	Part Number	Description	Qty.
18FT SECTION	4299990	Base Section	1
	4300013	Hardware Pkg.	1
9FT SECTION	4299991	Base Section	1
	4300013	Hardware Pkg.	1
6FT SECTION	4299992	Base Section	1
	4300013	Hardware Pkg.	1
3FT SECTION	4299993	Base Section	1
	4300013	Hardware Pkg.	1

WIND LOAD TRANSFER

* Quantity required is dependant on
number of support structures.

Part Number	Description	Qty.
4300009	Load Transfer Spreader	2 / transfer
4299995	Load Transfer Brace	2 / transfer
4300014	Hardware Pkg.	1 / transfer

PS42 INSTALLATION

REQUIREMENTS / JOINING SECTIONS

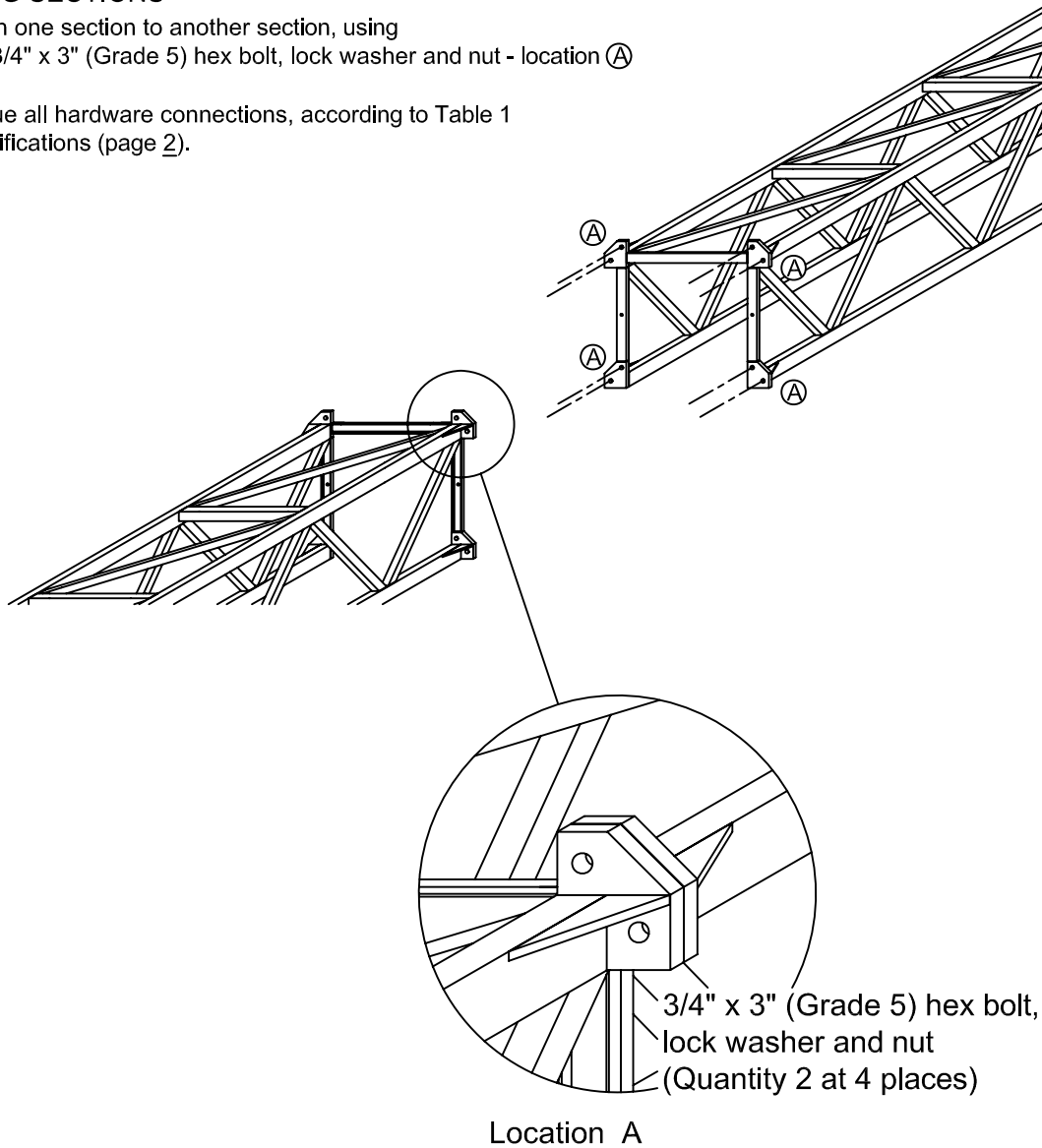
REQUIREMENTS

The integrity of the PS42 Pipe Bridge is dependent on the following installation requirements:

- 1) Load transfer assemblies are required at every support structure. See *Load Transfer Assembly*, page 10.
- 2) The length of Pipe Bridge elevated at one time is discretionary; however, crane rigging is required every 37ft, maximum. Table 2 (page 2) provides Pipe Bridge weight.

JOINING SECTIONS

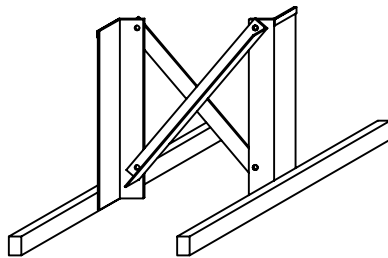
- 1) Attach one section to another section, using
(8) 3/4" x 3" (Grade 5) hex bolt, lock washer and nut - location (A)
- 2) Torque all hardware connections, according to Table 1 specifications (page 2).



PS42 INSTALLATION

LOAD TRANSFER ASSEMBLY

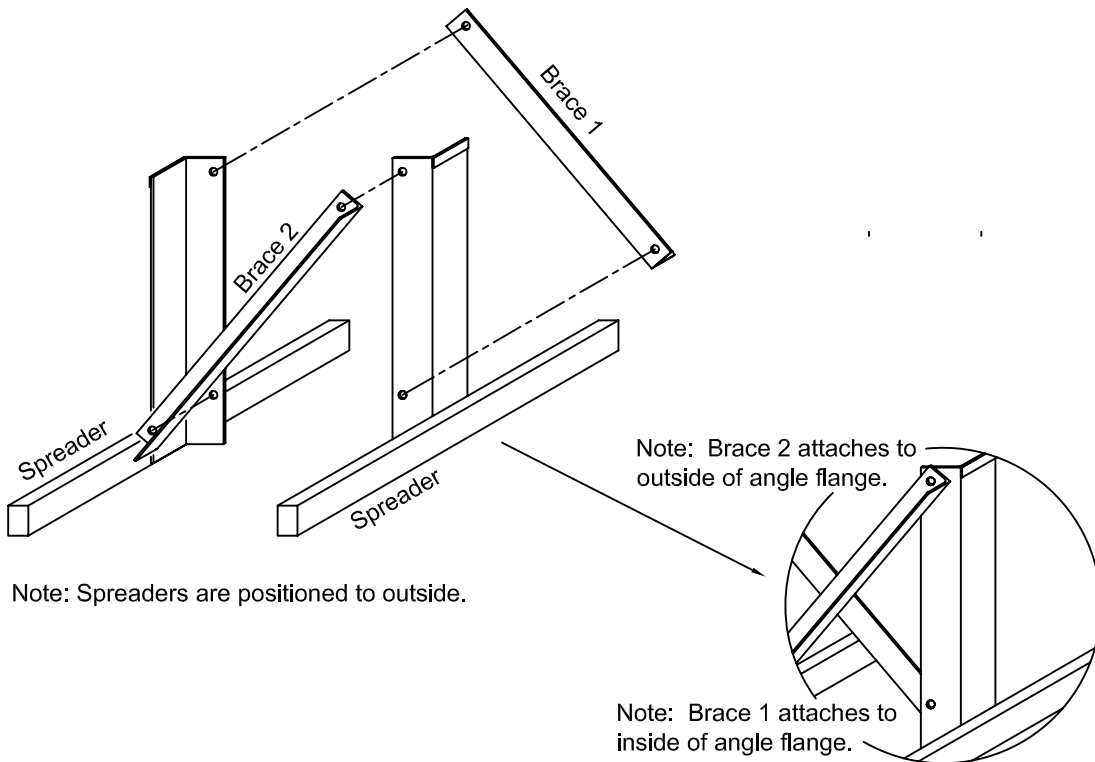
Load transfer assemblies are required at every support structure. The assemblies transfer Pipe Bridge weight, via spreaders, as well as Pipe Bridge wind load, via bracing.



Load Transfer Assembly

- 1) Assemble each load transfer, using
(4) 3/4" x 2" (Grade 5) hex bolt, lock washer & nut

Note: Do not tighten connections at this time.

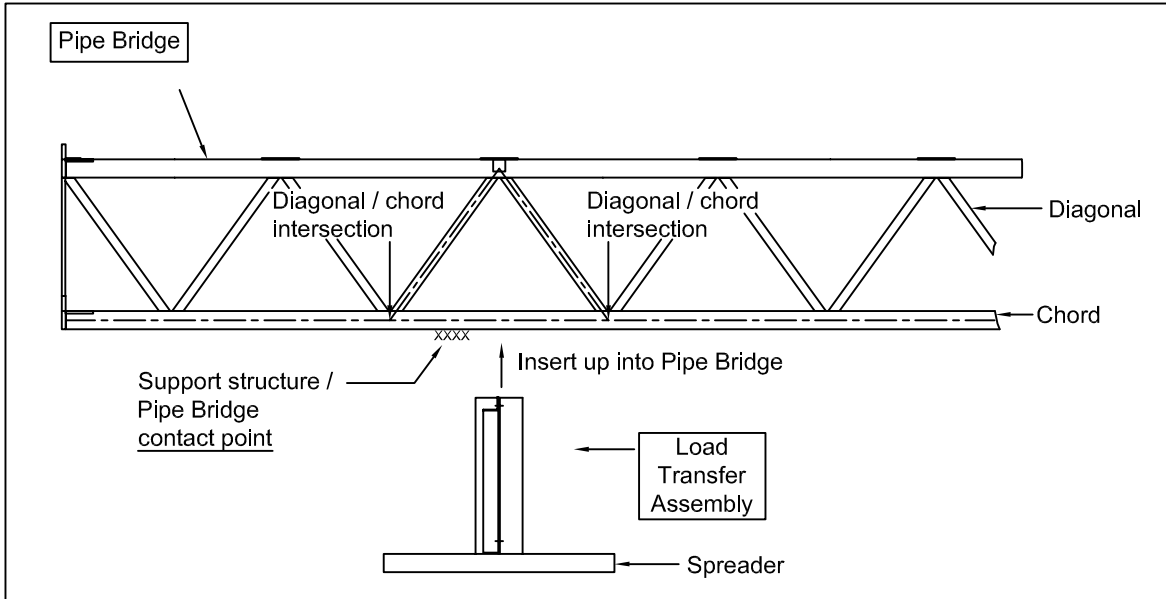


PS42 INSTALLATION

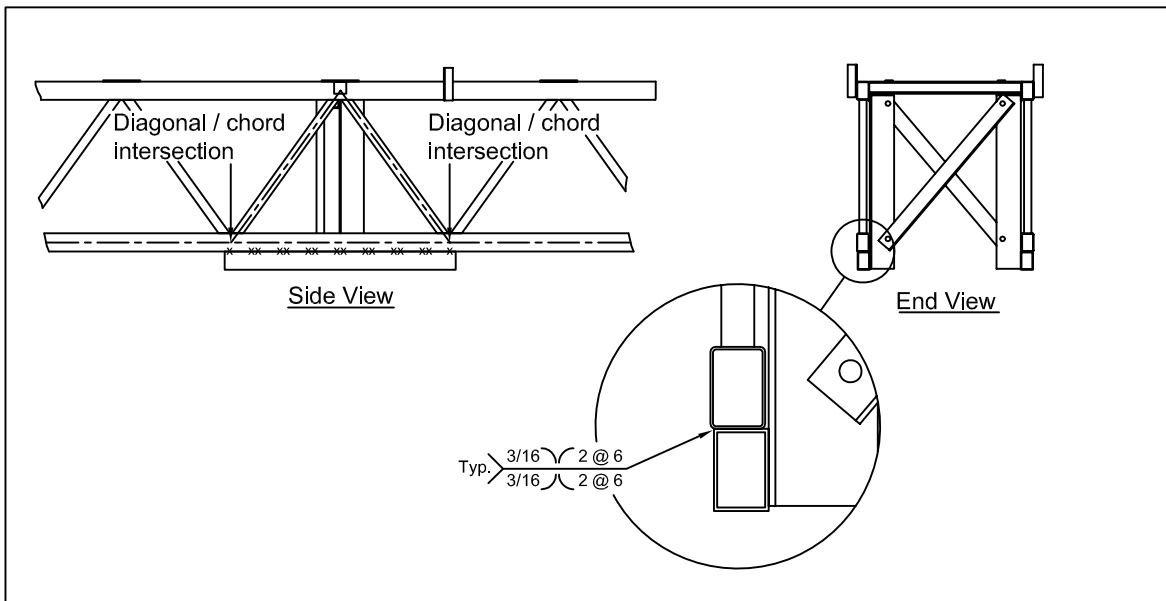
LOAD TRANSFER ASSEMBLY

For ease of installation, it is recommended that load transfer assemblies be installed to Pipe Bridge, prior to lifting.

- 2) Determine location, at which support structure contacts the Pipe Bridge
- 3) Insert load transfer assembly at contact point. **It is mandatory that the assembly is positioned with spreaders extending to diagonal/chord intersection at each end.**



- 4) Torque hardware connections, according to Table 1 specifications (page 7)
- 5) Field weld spreader to manwalk chord. Weld 3/16" groove, 2" long, every 6" (both sides).



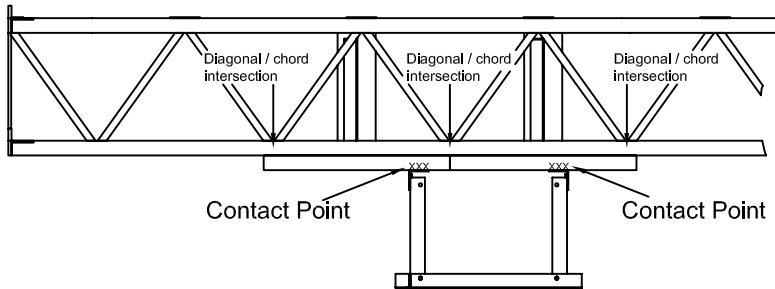
See pages 12-13 for specific installations.

PS42 INSTALLATION

LOAD TRANSFER ASSEMBLY

The following cases provide installation information for support structures, provided by *Brownie Systems*.

Case 1: Bin Cap Box / Sidewall bracket

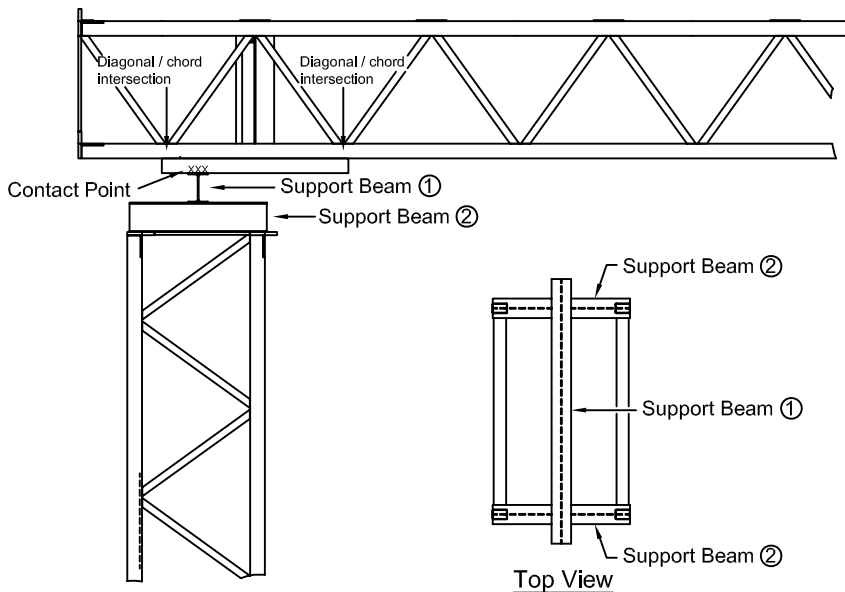


Note: For a bin cap box, (2) load transfer assemblies are required due to (2) contact points, located between different diagonal/chord intersections.

Note: For a sidewall bracket, (1) contact point requires (1) load transfer assembly.

(Bin cap box illustrated.)

Case 2: RS2844 and 2x towers



Note: Pipe Bridge loads must be equally distributed into towers. Using support beam configuration, shown in illustrations, results in (1) contact point, which requires only (1) load transfer assembly.

Note: Support beam ① must be centered, relative to support beams ②, for equal load distribution.

Note: Recommendations are provided for support beams ① and ② for RS2844 and 2x towers, in chart below. These recommendations are based upon the assumption that the PS42 Pipe Bridge is centered over the support structure.

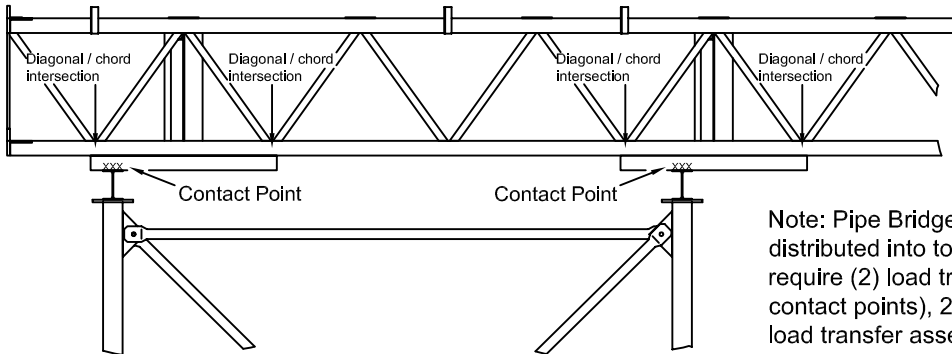
Note: If alternative methods are used to transfer Pipe Bridge loads into tower, other than support beam configuration shown, contact *Brownie Systems*. The number of load transfer assemblies may change, as well as support beam size requirements!

Tower	Support Beam 1	Support Beam 2
RS2844 Tower	W6 x 9	W6 x 9
<u>2x Tower</u>		
2 x 4	W6 x 9	W6 x 9
2 x 6	W6 x 12	W6 x 9
2 x 8	W6 x 15	W6 x 9
2 x 10	W10 x 15	W6 x 9
2 x 12	W10 x 19	W6 x 9

PS42 INSTALLATION

LOAD TRANSFER ASSEMBLY

Case 3: 2 column and 4 column towers



Note: Pipe Bridge loads must be equally distributed into towers. 4 column towers require (2) load transfer assemblies (2 contact points), 2 column towers require (1) load transfer assembly (1 contact point).

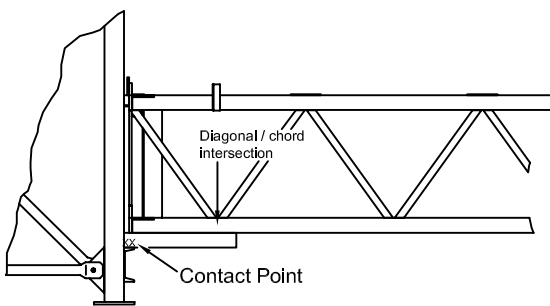
(4 Column Tower illustrated.)

Note: If alternative methods are used to transfer the Pipe Bridge loads into tower, other than support beam configuration shown, contact *Brownie Systems*. The number of load transfer assemblies may change, as well as support beam size requirements!

Note: Support beam recommendations are provided, for 2 column and 4 column towers, in chart below. These recommendations are based upon the assumption that the PS42 Pipe Bridge is centered over the support structure.

2 Column Tower		4 Column Tower	
Tower	Support Beam	Tower	Support Beam
4ft wide	W6 x 9	4 x 4	W6 x 9
6ft wide	W6 x 12	6 x 6	W6 x 9
8ft wide	W6 x 15	8 x 8	W6 x 9
10ft wide	W10 x 15	10 x 10	W6 x 12
12ft wide	W10 x 19	12 x 12	W10 x 12

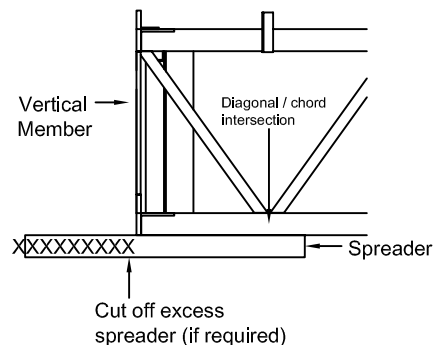
Case 4: Support at end of Pipe Bridge run (within 18in)



Note: When a support/Pipe Bridge contact point is within 18in of the end of a run, the load transfer assembly is required to extend to one diagonal/chord intersection, only. Position load transfer, so vertical member is flush with end of the Pipe Bridge. For a Pipe Bridge terminating flush into a structure (shown at left), cut off excess spreader.

Tower	Support Beam
4ft wide	C4 x 5.4
6ft wide	C6 x 8.2
8ft wide	C7 x 9.8
10ft wide	C9 x 13.4
12ft wide	C9 x 13.4

Note: Channel support beam recommendations are provided, for a Pipe Bridge terminating flush into a structure, in chart to left. These recommendations are based upon the assumption that the PS42 Pipe Bridge is centered, relative to the support structure.





GLOBAL INDUSTRIES, INC.

Notes:



GLOBAL INDUSTRIES, INC.

for information on other Global Industries products see: www.globalindinc.com

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BROWNIE SYSTEMS

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