

# Systems™ Scaffold Lifting Rig & Underhung Trolleys Guide

## Note:

All scaffolds shall be erected, modified and dismantled only under the supervision of a Competent Person. Erection, use, maintenance and disassembly must conform to current manufacturer's instructions as well as all federal, state, provincial and local regulations.

## Load Ratings - Lifting Rig Section

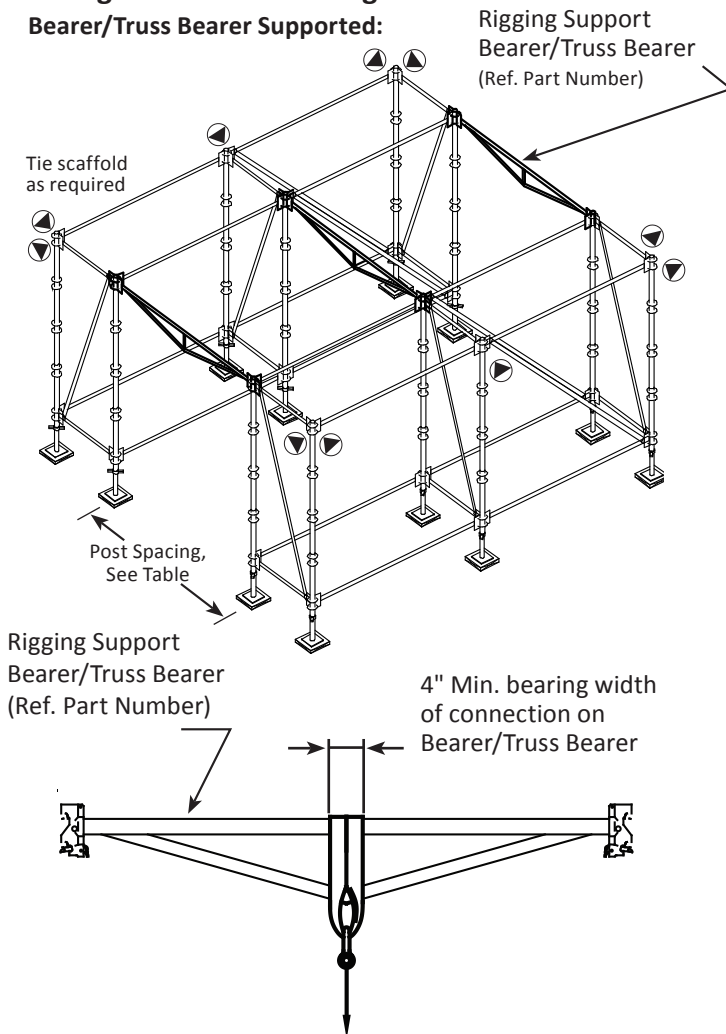
Load ratings are based on the capacity of the Safway Systems Bearer/ Runner (SBR), Truss Bearer (STB) or Safway provided I-Beam. All loads shown in the lifting rig section include a safety factor of 4. The user must determine the load capacity of the sling, hoist, existing building structure, etc.. Sills, guys, ties, braces, loads and similar design considerations may depend upon the supporting scaffold size, weight, shape and load conditions. Consult the Safway Systems Scaffold Technical Manual or Safway's Engineering Department for additional information.

Consider the total loads imposed on the scaffold assembly. All loads on individual members shown are transmitted to other members in the scaffold assembly. Compensate for all cumulative vertical and horizontal loads.

All drawings in this document are for illustrative purposes only. Due to the many variables which affect the performance of Safway equipment, some information in the document may not apply.

## Configuration and Loading:

### Bearer/Truss Bearer Supported:



## Bearer/Truss Bearer Loading Information

Part No.	Post Spacing	Allowable Center Load (lbs.)*
SBR2	2'-0"	1,350
SBR33	2'-9"	800
SBR3	3'-0"	725
SBR42	3'-6"	725
SBR45	3'-9"	550
SBR4	4'-0"	640
SBR54	4'-6"	570
SBR5	5'-0"	500
STB6	6'-0"	1,875
STB7	7'-0"	1,650
STB8	8'-0"	2,200
STB9	9'-0"	2,200
STB10	10'-0"	2,200
STB12	12'-0"	2,200
STB14	14'-0"	1,800
STB16	16'-0"	1,800
STB18	18'-0"	1,800

Design connection to Truss Bearer to prevent twisting.

\*For off-center loading on Truss Bearer reduce load to 25% of center loads shown (75% reduction).

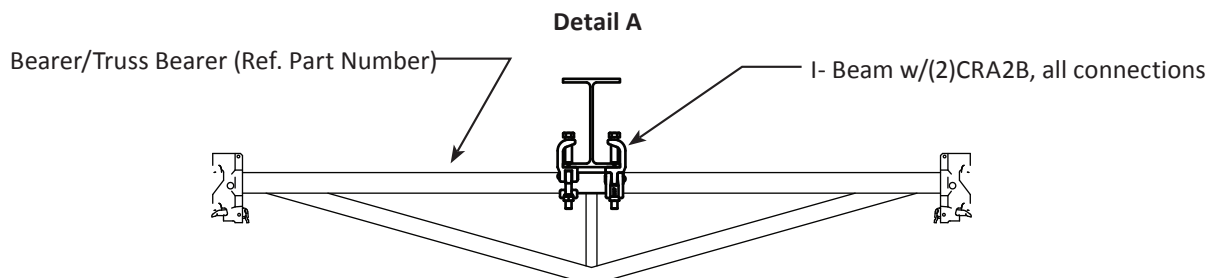
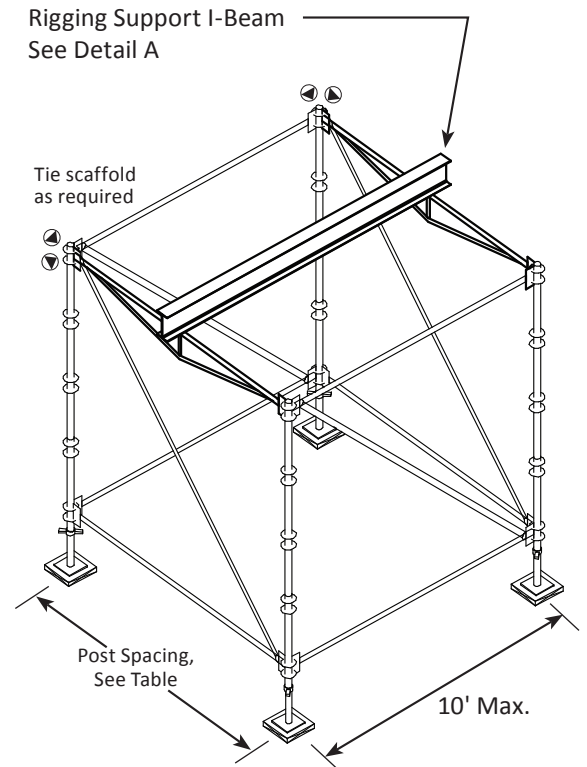
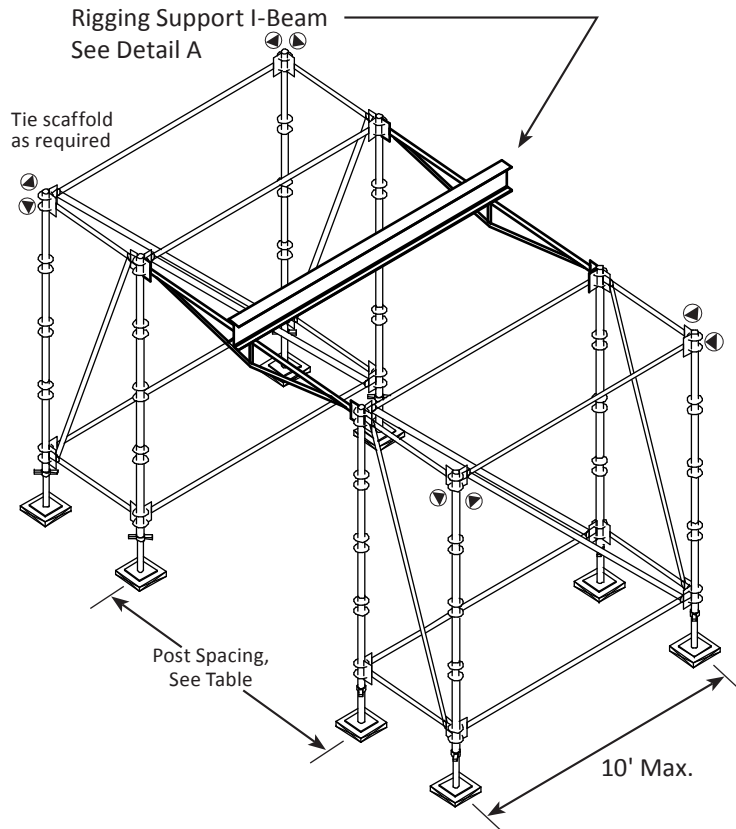
## 2 Lifting Rig Guide

### I-Beam Loading Information

Part No.	Post Spacing	Allowable Center Load on Beam* (lbs.)	Allowable Off-Center Load on Beam* (lbs.)
SBR2	2'-0"	2,700	1,350
SBR33	2'-9"	1,600	800
SBR3	3'-0"	1,450	725
SBR42	3'-6"	1,450	725
SBR45	3'-9"	1,100	550
SBR4	4'-0"	1,280	640
SBR54	4'-6"	1,140	570
SBR5	5'-0"	1,000	500
STB6**	6'-0"	3,750	1,875
STB7**	7'-0"	3,300	1,650

\* Loads shown apply for W8x18 up to 10'-0" span. Use all I-Beams with their web in the vertical position.

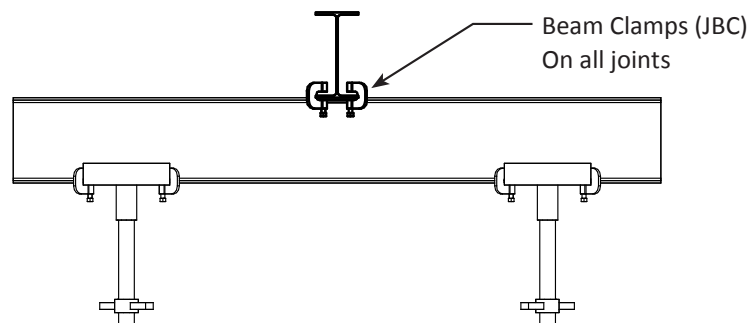
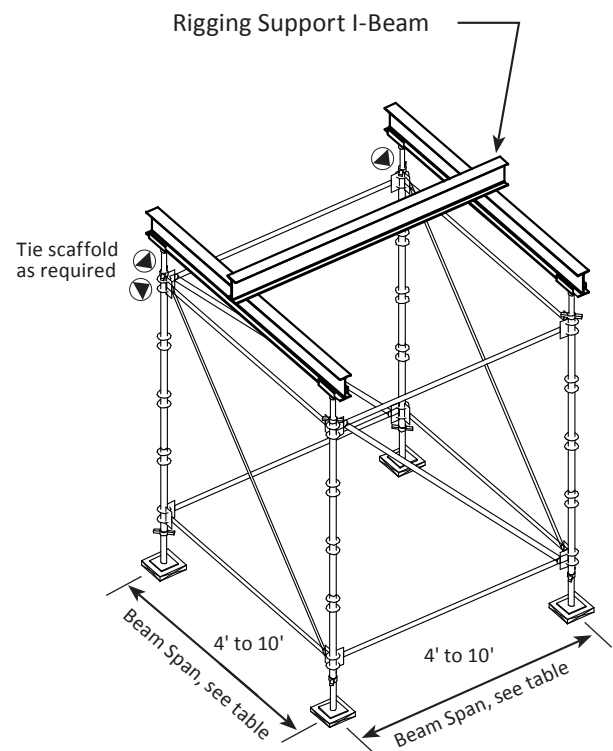
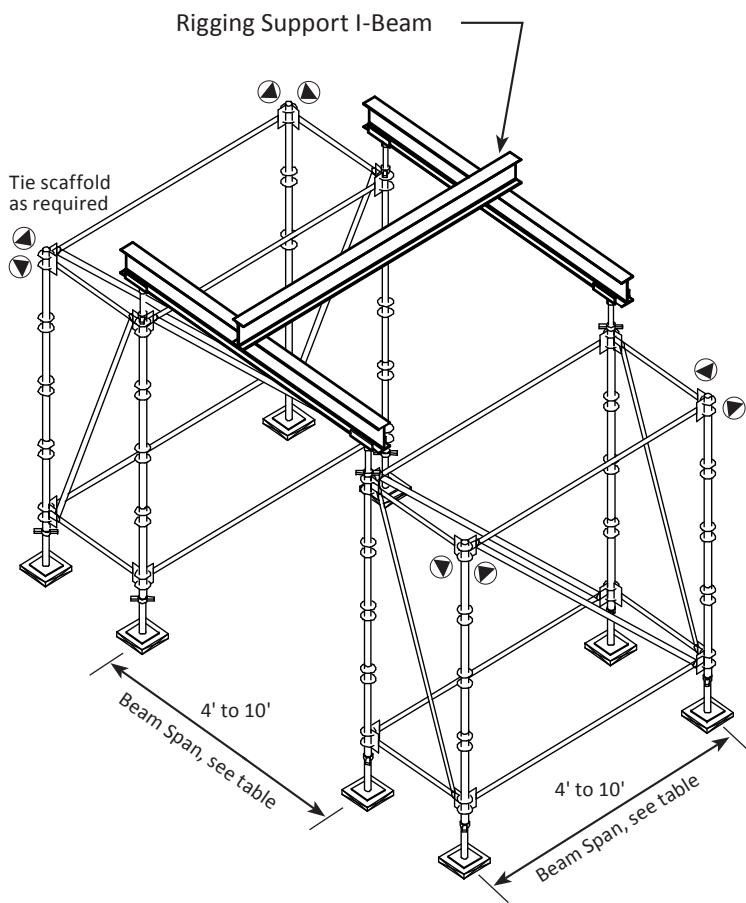
\*\* For beam not centered on truss, reduce load in table to 25% (75% reduction).



## Allowable Concentrated Center Loads (lbs.)\*

Beam	I-Beam Span						
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"
W8x10	6,509	4,532	3,529	2,774	2,174	1,678	1,255
W8x13	8,349	6,352	5,020	4,069	3,356	2,801	2,357
W8x15	10,000	7,689	6,118	4,995	4,153	3,499	2,975
W8x18	10,000	10,000	7,601	6,515	5,700	5,067	4,492
W8x21	10,000	10,000	9,992	8,329	7,082	6,111	5,335
W8x24	10,000	10,000	10,000	8,958	7,838	6,967	6,271

\* Loads based on beam capacity only, assembly to be checked separately. Use all I-Beams with their webs in the vertical position.



## 4 Lifting Rig Guide 2.0 Underhung Trolleys

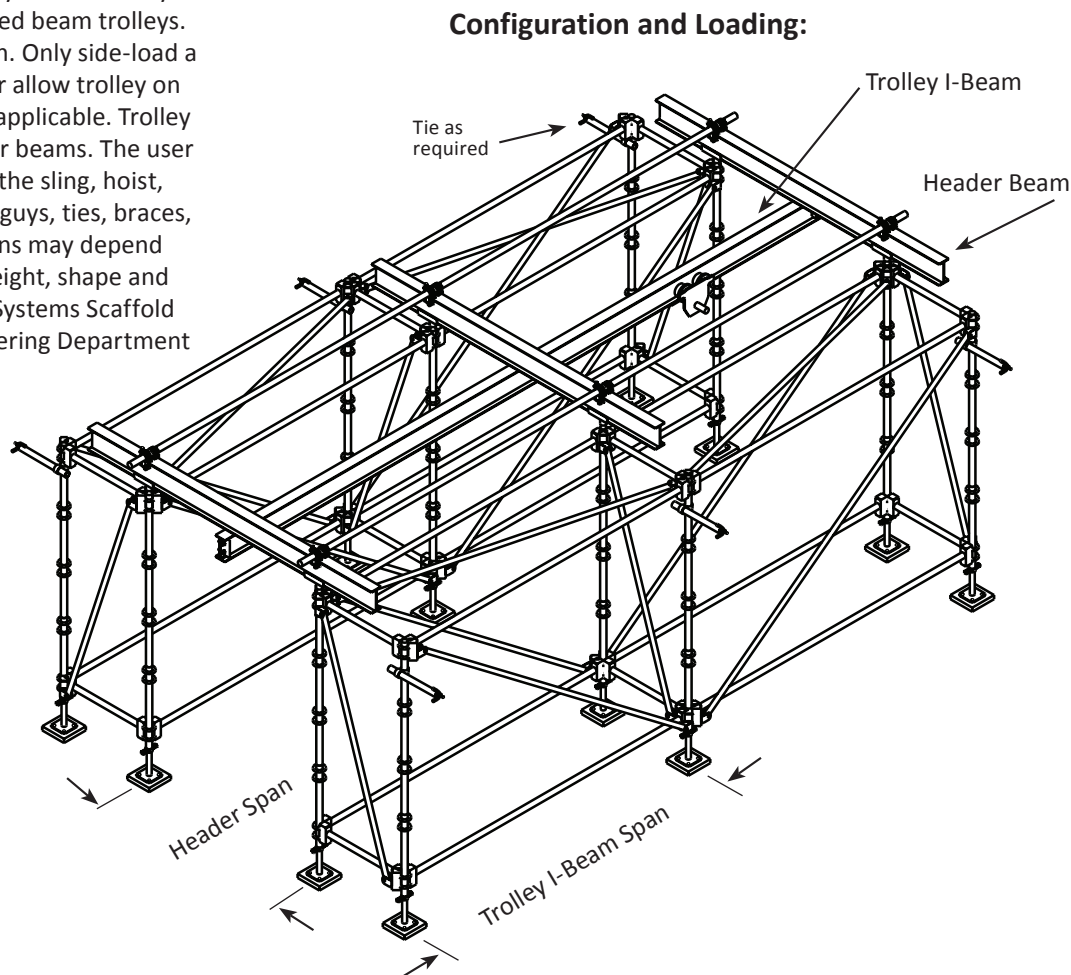
### Note:

All scaffolds shall be erected, modified and dismantled only under the supervision of a Competent Person. Erection, use, maintenance and disassembly must conform to current manufacturer's instructions as well as all federal, state, provincial and local regulations.

### Load Ratings - Underhung Trolley Section

Load ratings are based on the capacity of the Safway provided I-Beams with Safway supplied beam trolleys. **Do not exceed** allowable loads shown. Only side-load a side-load rated trolley. Do not load or allow trolley on cantilevered ends of trolley beam, if applicable. Trolley to remain between outermost header beams. The user must determine the load capacity of the sling, hoist, existing building structure, etc.. Sills, guys, ties, braces, loads and similar design considerations may depend upon the supporting scaffold size, weight, shape and load conditions. Consult the Safway Systems Scaffold Technical Manual or Safway's Engineering Department for additional information.

Consider the total loads imposed on the scaffold assembly. All loads on individual members shown are transmitted to other members in the scaffold assembly. Compensate for all cumulative vertical and horizontal loads. All drawings in this document are for illustrative purposes only. Due to the many variables which affect the performance of Safway equipment, some information in the document may not apply.



**Configuration 1: Tied w/Header Beams**

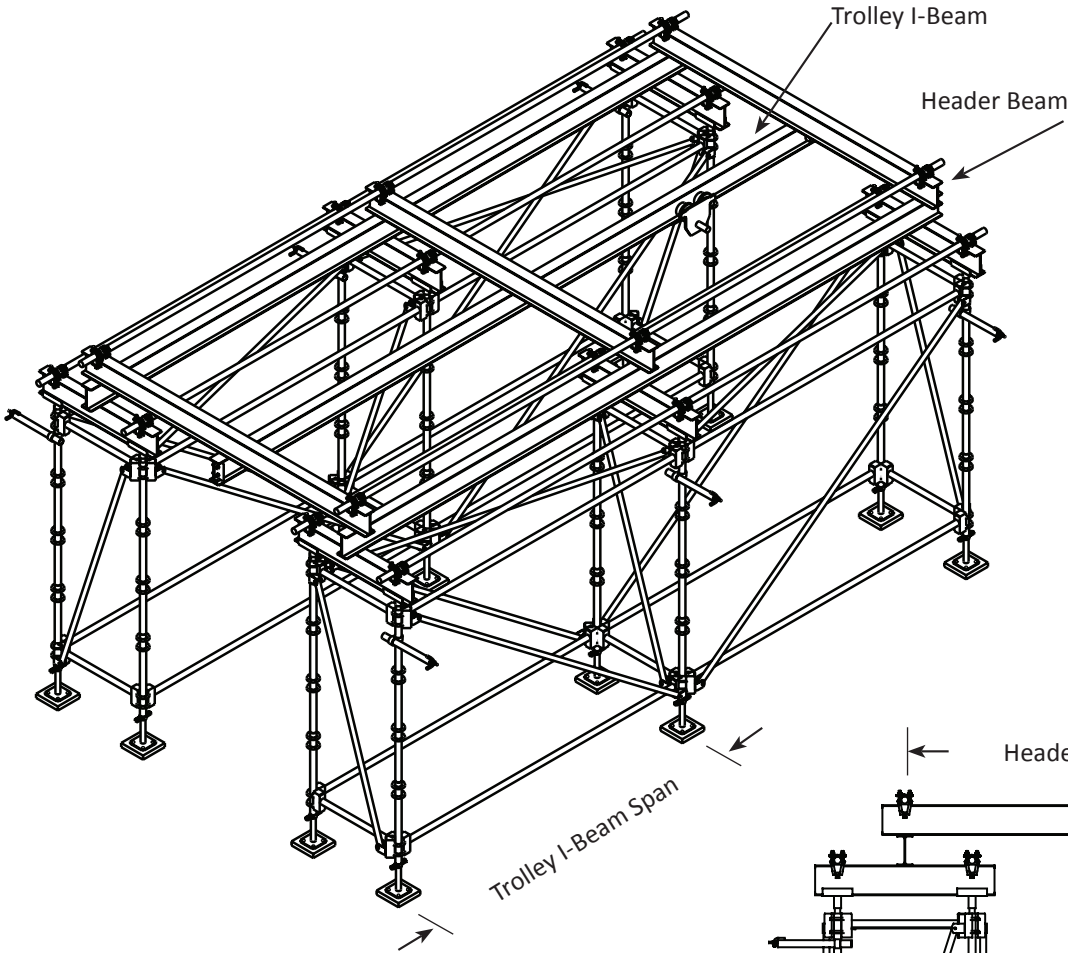
### Trolley Beam Options:

#### Total Vertical Allowable Load on Trolley I-Beam (lbs.)\*

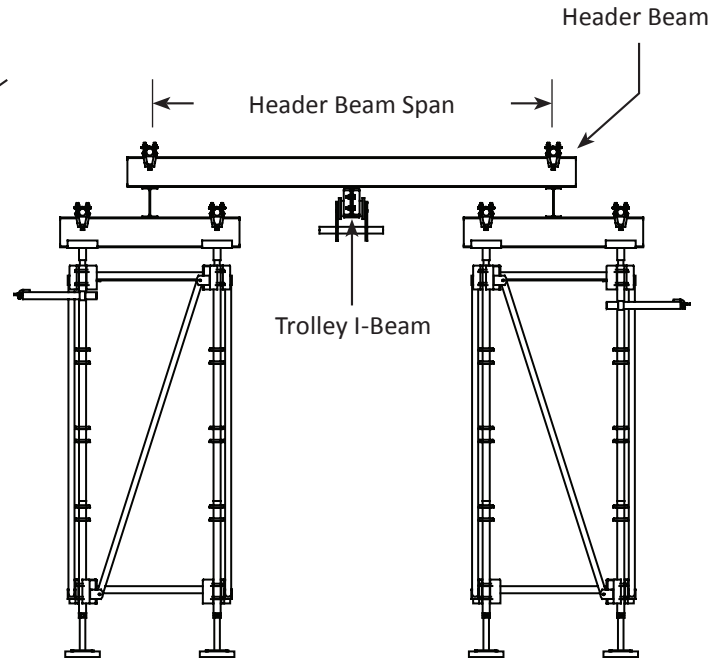
Trolley Beam Span	Beam					
	W8x18	W8x21	W8x24	W8x28	W8x35	W8x58
5'-0"	1950	2600	3050	3850	5050	10000
6'-0"	1750	2300	2750	3500	4600	9650
7'-0"	1600	2100	2550	3150	4200	8700
8'-0"	1450	1900	2350	2900	3900	7900
9'-0"	1350	1750	2150	2650	3600	7250
10'-0"	1250	1600	2000	2450	3350	6700

\* Loads based on beam capacity only with approximate trolley dimensions of a Tractel Corso 5T model (see manufacturer's documentation). Assembly to be checked separately. Use all I-Beams with their webs in the vertical position. Not intended for lifting of personnel. Trolley beams are designed with a 25% vertical impact, 20% lateral and 10% longitudinal load allowance. Use of side-load rated beam clamps such as universal superclamp suggested for non-vertical loading.

# Lifting Rig Guide - Underhung Trolleys



Configuration 2: Tied w/Multiple Header Beams



Header Beam Options:

**Total Vertical Allowable Point Load on Header Beam (lbs.)\***

Header Beam Span	Header Beam					
	W8x18	W8x21	W8x24	W8x28	W8x35	W8x48
5'-0"	2700	3800	3850	5000	5700	10000
6'-0"	2600	3600	3700	4800	5450	9550
7'-0"	2500	3450	3550	4550	5250	9100
8'-0"	2400	3300	3400	4350	5050	8650
9'-0"	2300	3150	3250	4200	4850	8250
10'-0"	2200	3000	3150	4000	4700	7900

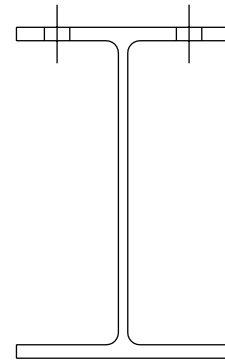
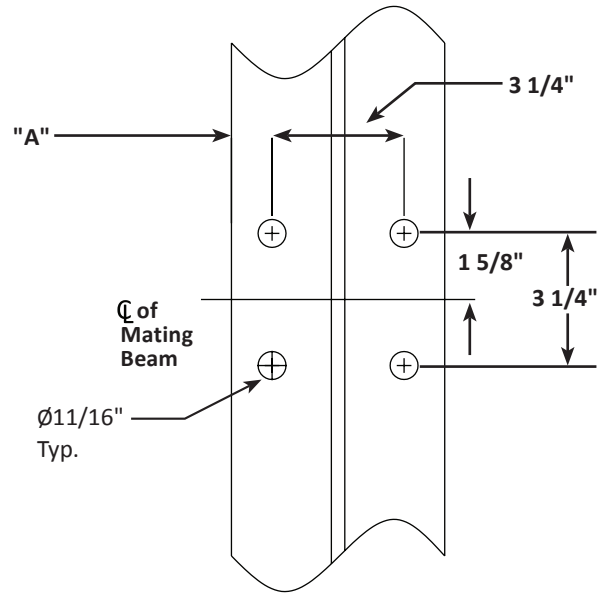
\* Loads based on beam capacity only. Assembly to be checked separately. Use all I-Beams with their webs in the vertical position. Not intended for lifting of personnel. Header Beams are designed with a 25% vertical impact, 10% lateral and 20% longitudinal load allowance.

# 6 Lifting Rig Guide 2.0 Underhung Trolleys

## Trolley Beam to Header Beam Bolt Hole Spacing:

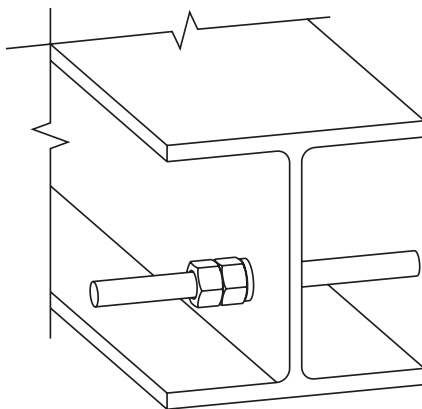
### Beam Hole Pattern:

Beam	"A" (in.)
W8x18	1
W8x21	1
W8x24	1 5/8
W8x28	1 5/8
W8x35	2 3/8
W8x48	2 7/16
W8x58	2 1/2

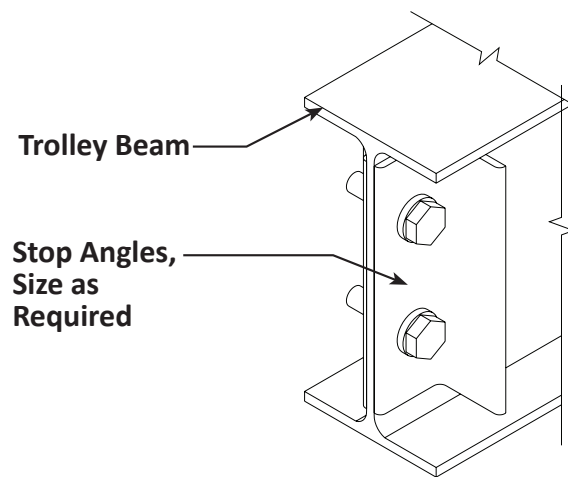


Make bolted connections with matching plate washers, nuts and jamb nuts. All bolts and matching hardware to be SAE J429 Grade 8, 5/8" diameter. See beam hole pattern table for recommended dimensions.

### Misc. Details:



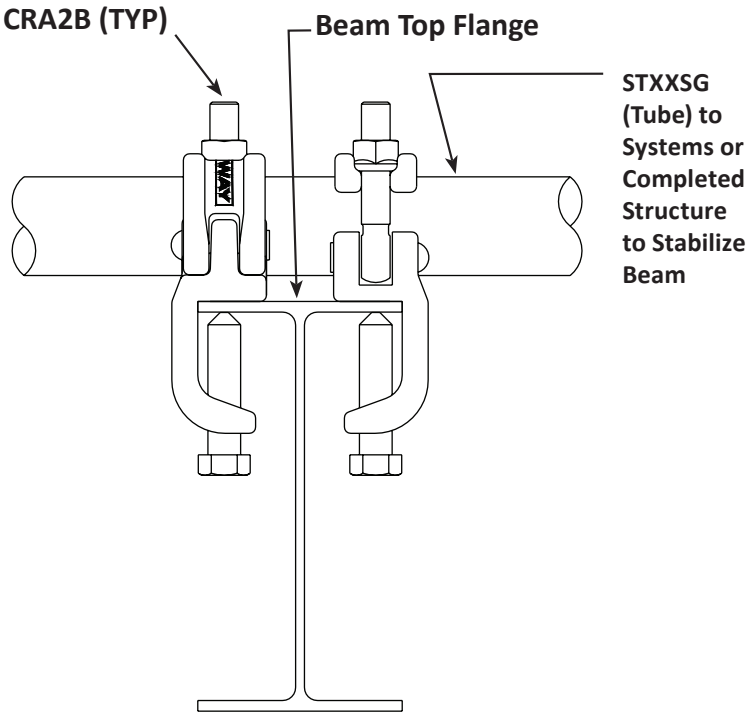
**Trolley Stop Bolt or Similar at end of Trolley Beam**



**Trolley Stop Angles at end of Trolley Beam**

### Travel Stop Options at Trolley Beam End

Misc. Details:



Beam Restraints



### **About Safway Group**

With more than 115 locations in the U.S. and Canada and a growing system of distributors worldwide, Safway Group companies deliver efficient, high-performance multiservice solutions – *The Smart Way*® – by collaborating, communicating and sharing resources. Offering experience and expertise in access, scaffold, insulation, fireproofing, surface preparation and coatings, Safway Group companies include **All-American Scaffold, CL Coatings; Industrial Coatings & Fireproofing; Mobley Industrial Services; New England Scaffolding; Redi Solutions; Safway Atlantic; Safway Services; Safway Services Canada; S&E Bridge & Scaffold; and Swing Staging.** With the largest engineering staff, an exclusive project management system, award-winning safety excellence and a full line of products and services, Safway Group companies design and implement innovative, quality solutions at the lowest installed cost for projects of any size and scope. Safway has been an industry leader since 1936. Safway Group companies serve the petrochemical, oil and gas, power, refining, marine, manufacturing, transportation and commercial construction industries worldwide. For more information about Safway Group, visit: [www.safwaygroup.com](http://www.safwaygroup.com).

**Safway Group Holding LLC**  
N19 W24200 Riverwood Drive  
Waukesha, WI 53188  
Toll free: (800) 558-4772  
Telephone: (262) 523-6500

For a list of branch locations in the United States and Canada, visit our website at [www.safwaygroup.com](http://www.safwaygroup.com)

©2016 Safway Group Holding LLC. All rights reserved.

ORN 208 Rev B 3/16