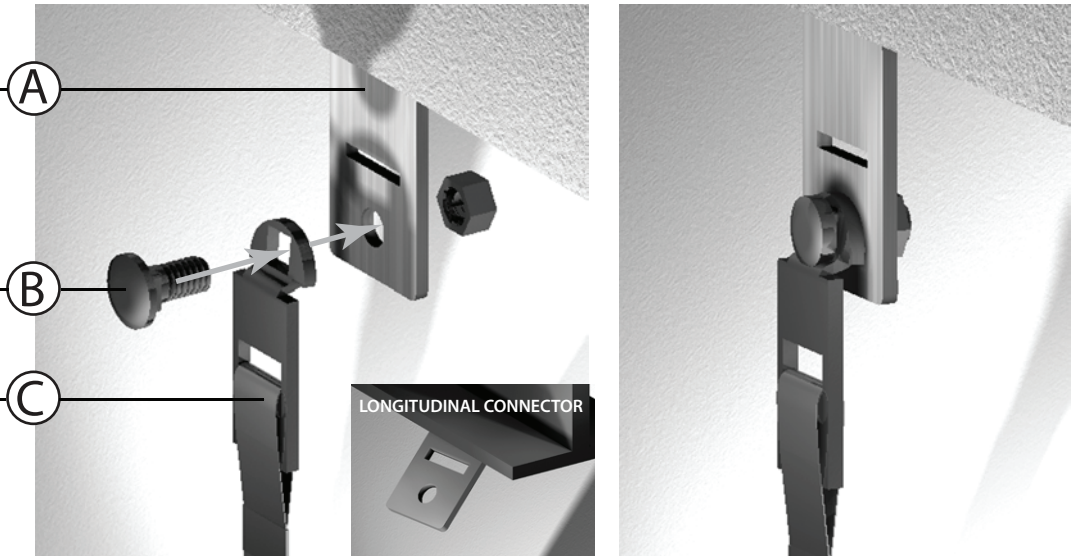


SIDEWALL AND LONGITUDINAL FRAME CONNECTORS MODEL# OTQC or OT 2002

Typical sidewall or longitudinal bracket installed by home manufacturer.

Bolt and Nut

Quick Connector with factory installed strap.

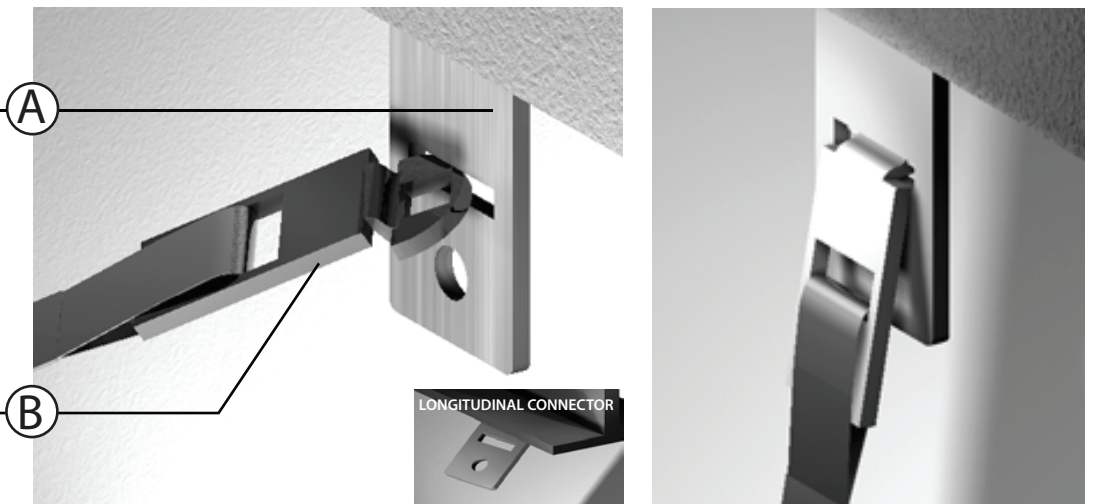


STEP 1: Locate the sidewall or longitudinal bracket installed by home manufacturer, insert bolt through hole in Quick Connector then through hole in bracket.

STEP 2: Place nut on bolt and tighten. STEP 3: Refer to strapping page for proper installation of strap.

Typical sidewall or longitudinal bracket installed by home manufacturer.

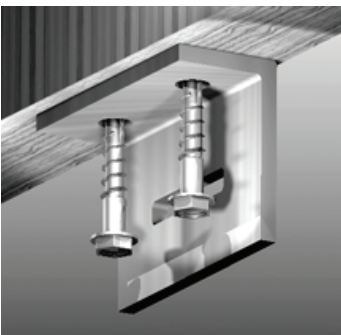
Quick Connector with factory installed strap.



STEP 1: Locate the sidewall or longitudinal bracket installed by home manufacturer, insert Quick Connector into bracket slot at 45 degree angle.

STEP 2: Turn Quick Connector until locked into position. STEP 3: Refer to strapping page for proper installation of strap.

Model # OTSWB



STEP 1: Locate the outside rim joist underneath the home.

STEP 2: Position the Sidewall Bracket so that the two (2) holes are centered on the joist and the strap slot is facing towards the outside of the home.

STEP 3: Mark the center of both holes and pre-drill two (2) pilot holes using a 15/64" drill bit.

STEP 4: Using a 9/16" socket install two (2) 3/8" - 7 x 3" Lag screws into the two (2) pre-drilled holes to secure the Sidewall Bracket.

STEP 5: Refer to anchor and strapping installation instructions for proper installation to anchor and strap.

NOTE: The maximum allowable working load capacity of the OTSWB is 3150 lbs and shall withstand 50% overload (4125 lbs).

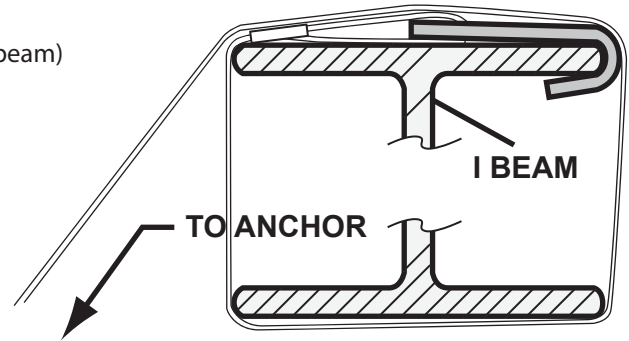
I-BEAM FRAME CONNECTORS

FRAME TIE (OTFT-1)

- STEP 1 : Attach frame clamp (hook) inside top flange of home frame.
 STEP 2: Place strap between the frame and home as shown. (wrapping I-beam)
 STEP 3: Pull strap tight and attach to the anchor tension head. (Refer to strapping page for proper installation of strap.)
- NOTE: The frame tie has an allowable working load of 3150 lbs., with no more than 2% elongation and shall withstand a 50% overload (4725 lbs. total)

OTFT-1 with factory installed strap

Enlarged End View of I-Beam Floor

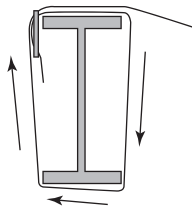


DOUBLE SLOTTED BUCKLE (OTST-1)

INSTALLATION INSTRUCTIONS



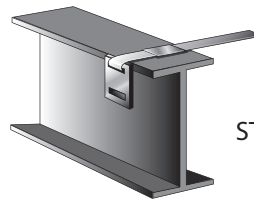
- STEP 1 : Thread frame tie strap through buckle as shown.
 STEP 2: Thread long end of strap between the frame and floor of home.
 STEP 3: Ensure proper strap tension. (Refer to strapping page for proper installation of strap.)



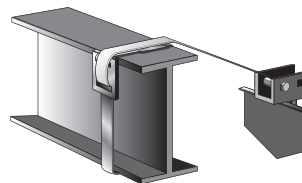
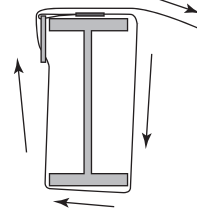
NOTE: The maximum allowable working load capacity of the strap woven through the slots in the buckle is 3150 lbs., with no more than 2% elongation and shall withstand a 50% overload (4725 lbs. total)

FACTORY CRIMPED DOUBLE SLOTTED BUCKLE (OTST-1)

INSTALLATION INSTRUCTIONS

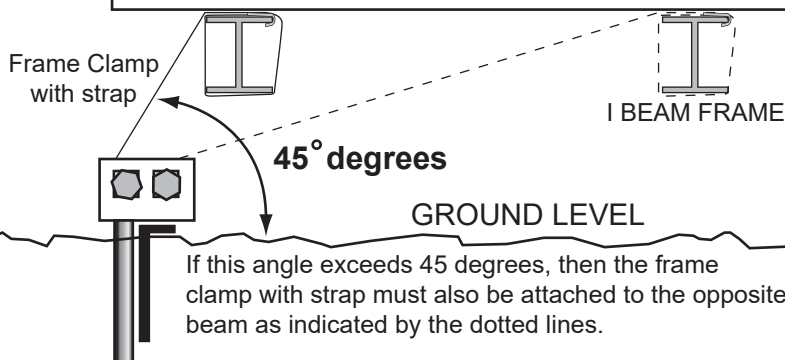


- STEP 1 : Install strap by pushing the end of the strap between the inside of the frame I-beam and the floor.
 STEP 2: Position the buckle at the upper end of the I-beam frame. Wrap the end of the strap through the slot in the buckle as shown. Push the end of the strap in between the I-beam and floor.



NOTE: The maximum allowable working load capacity of the strap woven through the slots in the buckle is 3150 lbs., with no more than 2% elongation and shall withstand a 50% overload (4725 lbs. total)

MANUFACTURED HOME

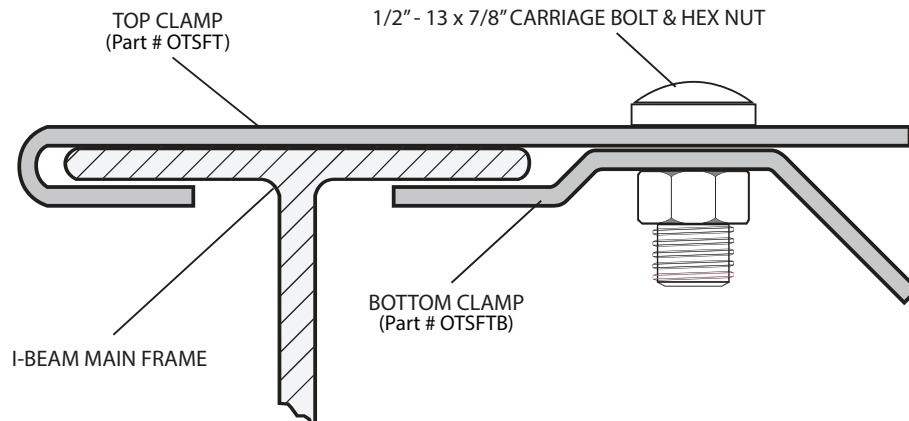


- 1) The tensioning bolt can be inserted in the head from either side.
- 2) In areas of severe cold weather where possible damage could occur from frost heave, the homeowner should be prepared to adjust tension on the straps to take up slack.

SWIVEL FRAME TIE

Model # OTSFT

PATENT # 6,928,783,B2



STEP 1: Place top clamp over the top of the I-Beam.

STEP 2: Place the carriage bolt in the first exposed hole closest to the I-Beam. (Top clamp works on I-Beam sizes 2 3/4" through 4") (Part # EXTOTSFT extended top clamp works on I-Beam sizes 7" - 9")

STEP 3: Attach the bottom clamp (with pre fabricated strap) by tightening the carriage bolt and hex nut.

STEP 4: The Swivel Frame Tie and attached strap should be installed perpendicular to the I-Beam when possible, however there is an allowance of 7.5 degrees in either direction from perpendicular.

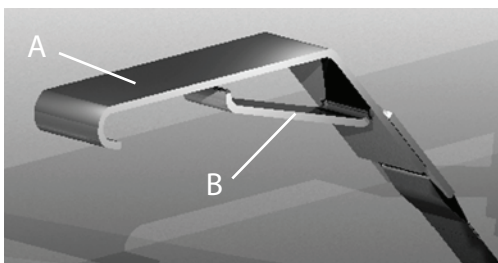
NOTE: DO NOT WRAP STRAP AROUND FRAME. The maximum allowable working load capacity of the OTSFT is 3150 lbs., with no more than 2% elongation and shall withstand 50% overload (4725 lbs).

OTI anchors and components will perform at this design load regardless of the wind pressures and distance from the coastline, provided that the number, location and spacing of the components is such that the design load of 3150 is not exceeded.

Fastener required to assemble both parts 1/2" - 13 x 7/8" carriage bolt and hex nut (abstract of SAE J429 1985) coating ASTM standard B633-85 (re-approved 1994).

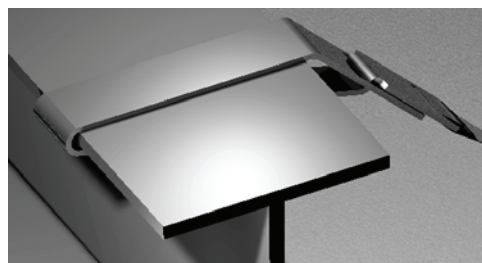
SWIVEL FRAME TIE

Model # 2001



A = Top jaw (OT2001UJ)
Extended Top Jaw (OT2001LUJ)

B = Bottom jaw (OT2001L) of Swivel Clamp
with factory installed strap



STEP 1: Slide top jaw over top flange on the I-Beam then pull to secure.

STEP 2: Insert bottom jaw into slot of top jaw at a 45 degree angle.



STEP 3: Rotate bottom jaw into lock position with top jaw.

STEP 4: Refer to strapping page for proper installation of strap.

NOTE: This frame clamp (Part # OT2001UJ) was designed to be used on 2 3/4" (2.75") minimum flange width and 4" maximum flange width. The bottom jaw of the clamp can swivel up to 10 degrees maximum. Frame Clamp (Part # OT2001LUJ) for a double beam (2) - 4" flange welded beams application.

INSTALLATION INSTRUCTIONS GALVANIZED STRAPPING and SPLIT BOLTS

STRAP SPLICE

To lengthen strap in the field, a double crimp seal is required. Overlap strap and use two crimp seals evenly spaced, with 2 crimps per seal.



2 Seals - 2 Crimps per seal

Seals specifications: Type 1, Finish B, Grade 1, Semi-open crimp seals

Certified Galvanized Strapping

HUD requires that certified strapping must meet ASTM specification. OTI strapping is marked every 12 inches.

Oliver Technologies, Inc.
Certified TO
ANSI A225.1 ASTM D3953-91



Material: Type 1, Finish B, Grade 1
Dimension of strapping: 1 1/4" width,
.035 thickness + or - .005



SPLIT BOLT

Galvanized split bolt:
5/8"x3"x5/8" sq. shoulder
with hexagon head, Standard
national thread, shaft saw cut.

1. ENSURE PROPER STRAP TENSION:

- A) Insert split bolt into anchor head, attach loosely. Pull strap past bolt and cut strap leaving approximately 12" of strap to wrap onto bolt.
- B) Insert the strap end into the slot in bolt until flush with opposite side of bolt.
- C) Using 15/16" wrench or socket; turn the bolt, winding the strap so that a minimum of four to five complete turns are made and the strap is adequately tensioned so that the anchor is firmly against the stabilizing device in direction of pull. All slack must be removed.
- D) Hold the bolt under tension while tightening the nut, drawing the head of the bolt into the recess, continue to tighten the nut until securely fastened.

NOTE: The tensioning bolt can be inserted in the head from either side.

NOTICE: In areas of severe cold weather where possible damage could occur from frost heave, the homeowner should be prepared to adjust tension on the straps to take up slack.

