Flexco Slider/Impact Bed

Installation, Operation and Maintenance Manual

Flexco Slider Bed
(EZSB-C shown)

Flexco Impact Bed
(EZIB-M shown)

Pre-Installation Checks and Options

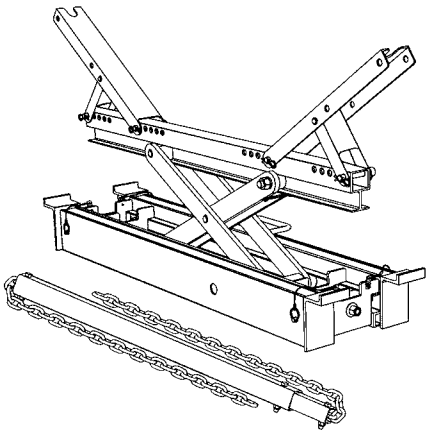
Checklist

- Check the model and size of the impact bed. Is it the right one for your beltline?
- Check the bed to be sure all the parts are included in the shipment.
- Find the Information Packet in the shipment.
- Review the “Tools Needed” section on the front of the installation instructions.
- Prepare the conveyor site:
  - Lift the belt in the transfer zone. Use a lifting hoist or Flexco’s Belt Lifters.
  - Remove the old impact bed or impact idlers.
  - Inspect the conveyor structure for damage or misalignment. Make adjustments as necessary.
  - Troughing idlers should be installed directly before and after the new impact bed.

Optional Installation Accessories

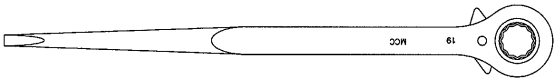
Optional tools can make the installation of the DRX™ Impact Bed easier and faster.

Flex-Lifter™ Conveyor Belt Lifter		
Description	Ordering Number	Item Code
Medium Flex-Lifter™ 36" - 60" (900 - 1500 mm)	FL-M	76469
Large Flex-Lifter 48" - 72" (1200 - 1800 mm)	FL-L	76470
XL Flex-Lifter 72" - 96" (1800-2400 mm)	FL-XL	76983



Flex-Lifter™ Conveyor Belt Lifter

The Flexco® Flex-Lifter makes the job of lifting the conveyor belt easy and safe. Using two Flex-Lifters, the belt can be quickly lifted out of the way to install the impact bed. The Flex-Lifter has the highest safe lift rating available at 4000 lbs. (1800 kg) on Medium and Large, and 6000 lbs. (2725 kg) on XL. And it's versatile. It can also be used to lift topside or return side belt for splicing, roller replacement or other maintenance jobs. Available in three sizes: Medium for belt widths 36" - 60" (900 - 1500mm), Large for belt widths 48" - 72" (1200 - 1800mm), and XL for belt widths 72" - 96" (1800 - 2400mm).



Impact Bed Handy Wrench			
Description	Ordering Number	Item Code	Wt. Lbs.
Impact Bed Handy Wrench	HW-IMPB	76939	1.6

Impact Bed Handy Wrench

A handy ratcheting wrench with two common sizes (3/4" and 15/16" or 19mm and 24mm) for easier installation and maintenance of impact beds.

Shims

Depending on your idler rating and size, shimming may be required. See charts below for quantity of kits required.

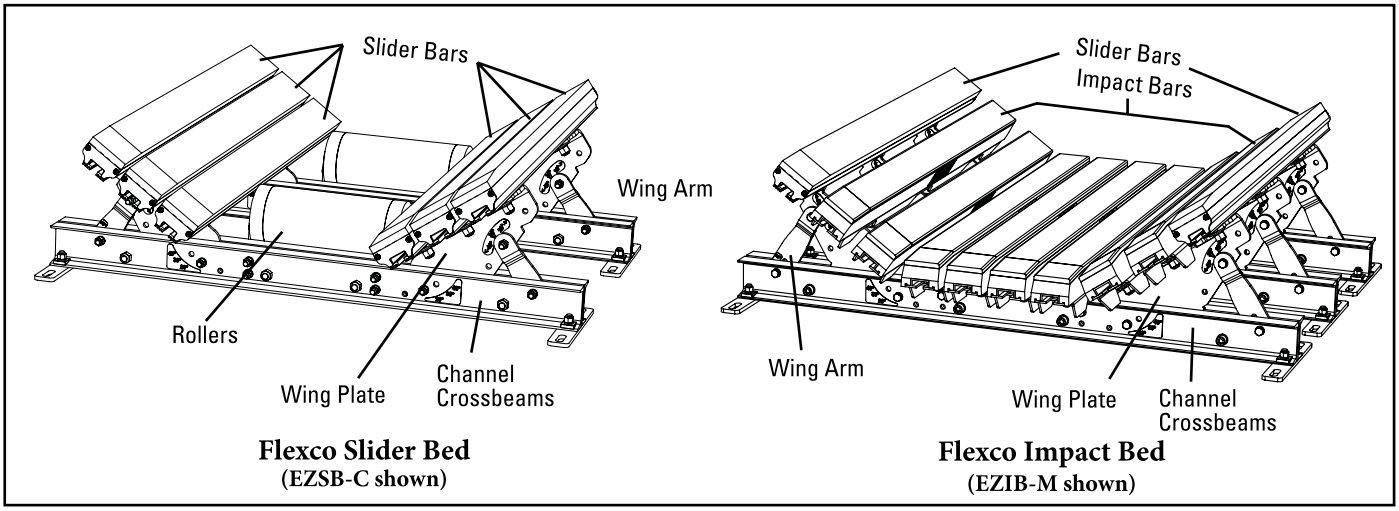
Impact Bed Shim Kits			
Description	Ordering Number	Item Code	Wt. Lbs.
Shim Kit - L	SHIM-KITL	77548	13.6
Shim Kit - M	SHIM-KITM	77549	20.4

Shim Chart - CEMA C or D Idlers			
Model	Impact Bed Size	Cema C or D, 5" (125mm) IDLERS	Cema C or D, 6" (150mm) IDLERS
EZSB-C, EZSB-I, EZIB-L	24"- 36" (600-900mm)	Shim idler up 1/2" (13mm)	No Kits Required
	42"- 72" (1050-1800mm)	No Kits Required	Use (1) SHIM-KITL; Shim up 0.5" (13mm)
EZIB-M	24"- 36" (600-900mm)	Shim idler up 1/2" (13mm)	No Kits Required
	42"- 72" (1050-1800mm)	No Kits Required	Use (1) SHIM-KITM; Shim up 0.5" (13mm)

Shim Chart - CEMA E Idlers			
Model	Impact Bed Size	CEMA E, 6" (150mm) IDLERS	CEMA E, 7" (175mm) IDLERS
EZSB-C, EZSB-I, EZIB-L	36"-60" (600-1500mm)	Use (3) SHIM-KITL; Shim up 1.5" (38mm)	Use (4) SHIM-KITL; Shim up 2" (50mm)
	72" (1800mm)	Use (4) SHIM-KITL; Shim up 2" (50mm)	Use (5) SHIM-KITL; Shim up 2.5" (63mm)
EZIB-M	36"-60" (600-1500mm)	Use (3) SHIM-KITM; Shim up 1.5" (38mm)	Use (4) SHIM-KITM; Shim up 2" (50mm)
	72" (1800mm)	Use (4) SHIM-KITM; Shim up 2" (50mm)	Use (5) SHIM-KITM; Shim up 2.5" (63mm)

Installation Instructions

Flexco Slider/Impact Beds



Flexco Slider Bed
(EZSB-C shown)

Flexco Impact Bed
(EZIB-M shown)

Physically lock out and tag the conveyor at the power source before you begin installation.

Caution: Components may be heavy. Use safety approved lifting procedures.

Before Installation: Inspect structure; confirm CEMA rating. Shim bed or idlers per Table 1. NOTE: Installation of an idler is required 1-6" (25-150mm) before and after a Flexco Slider or Impact Bed. If more than one impact bed is used, idlers should be installed between every one or two beds.

If CEMA rating is unknown, measure the lead and trail idler for height from the top of center roll to the top of conveyor structure. Table 2 shows the nominal center height required for the idler based on belt width. If incorrect, shim idler(s) to the height shown in Table 2.

Tools Needed:

- Welder
- Grease Pencil
- Tape Measure
- Cutting torch
- 90° square
- 3/4" (19mm) open-ended wrench
- 3/4" (19mm) and 15/16" (24mm) deep sockets with socket wrench or impact wrench
- Flex-Lifter™ (helpful)

Table 1: Shim Requirements

Idler Diameter (CEMA C or D)	24"-36" (600-900mm) Belt Width	42"-72" (1050-1800mm) Belt Width
5" (125mm)	Idler up 1/2" (13mm)	No shim
6" (150mm)	No shim	Bed up 1/2" (13mm)
Idler Diameter (CEMA E)	**36"-60" (900-1500mm) Belt Width**	**72" (1800mm) Belt Width**
6" (150mm)	Bed up 1.5" (38mm)	Bed up 2" (50mm)
7" (175mm)	Bed up 2" (50mm)	Bed up 2.5" (64mm)

Table 2: Nominal Center Roll Height

Belt Width	24"- 48" (600-1200mm)	54"- 60" (1350-1500mm)	72" (1800mm)
Height	9" (229mm)	9-1/4" (235mm)	9-1/2" (241mm)

1. **Free the area of previous system.** Remove material (idlers, etc.) from the area of desired installation. Loosen or remove skirting material for extra space. If available, use Flex-Lifters before and after the load zone to lift the belt out of the way.

2. **Visually locate center of loading zone.** Determine the center of the load zone on the side of the structure and mark (Fig. 2). Mark and measure from the end of template to a fixed point on the structure, then transfer this dimension to the opposite side of the structure.

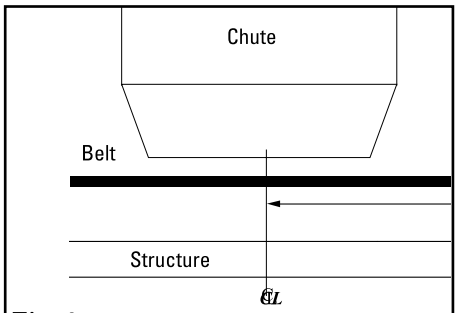


Fig. 2

Installation Instructions

Flexco Slider/Impact Beds (cont.)

3. Locate mounting templates. Measure and mark where the center of the template will sit on the structure by measuring belt width + 9" (230mm) and centering this on the structure (Fig. 3a). Often this can be centered on the holes left from the previous idlers. Lengthwise, center template over the center mark from Step 2. Align notches on mounting templates with marks on structure and mark all the holes (Fig. 3b). Drill or torch holes. Included mounting bolts should fit freely through the holes.

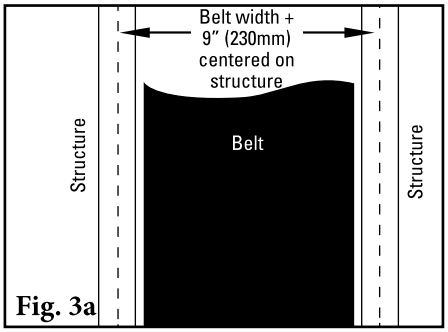


Fig. 3a

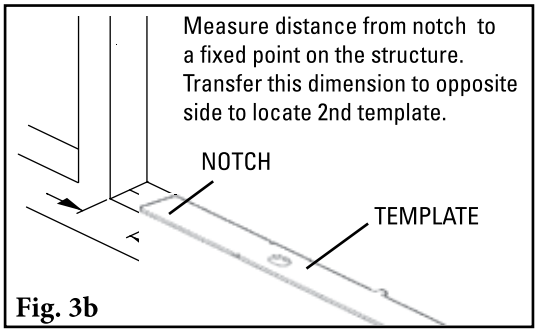


Fig. 3b

If installing a slider bed:

4S. Bed Preparation - lower wing plates, install idler. All beds come preset with a 35° trough. If 35° trough is preferred setting, loosen bolts at base of wing arms and wing plates. Remove bolt between wing arms and wing plates. Rotate wing arms and wing plates down (Fig. 4S-a).

If 20° or 45° trough is preferred setting, remove bolts (Fig. 4S-b). Reassemble bolts loosely at base of wing arms and wing plates in the correct holes for 20° or 45° trough per affixed labels (Fig. 4S-c). Confirm correct setting as shown below (Fig. 4S-d). Confirm crossbeam assembly is ready for assembly installation to conveyor (Fig. 4S-e).

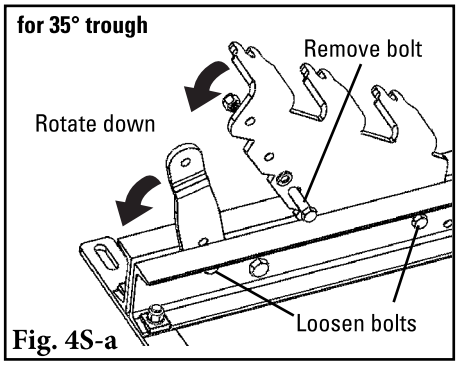


Fig. 4S-a

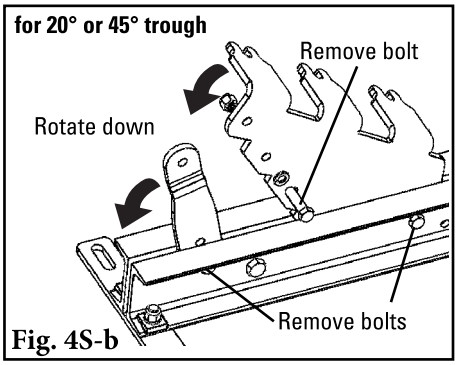


Fig. 4S-b

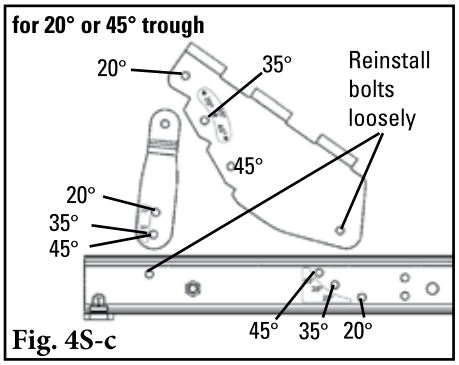


Fig. 4S-c

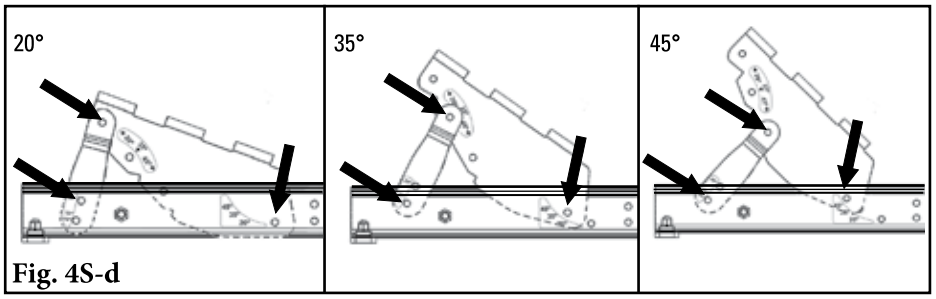


Fig. 4S-d

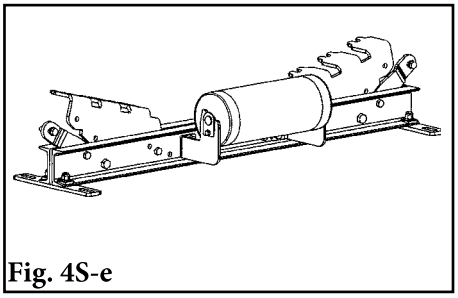


Fig. 4S-e

Flexco Slider/Impact Beds (cont.)

5S. Install channel crossbeams. Position all channel crossbeams onto the conveyor structure with the tabs on the wing plates facing the tail pulley, aligning with the mounting holes from Step 3. Insert the channel crossbeam mounting bolt and leave finger tight (Fig. 5S). Use shim under mounting plate if needed (Table 1). Verify the height of center roller on leading and trailing idlers (Table 2).

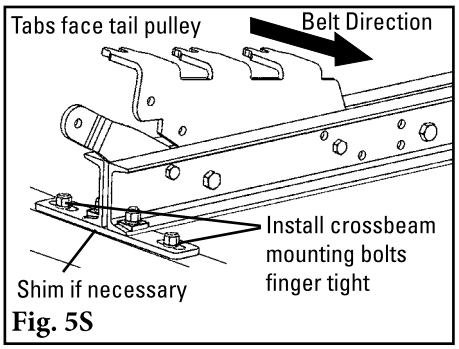


Fig. 5S

Table 1: Shim Requirements		
Idler Diameter (CEMA C or D)	**24"-36" (600-900mm) Belt Width**	**42"-72" (1050-1800mm) Belt Width**
5" (125mm)	Idler up 1/2" (13mm)	No shim
6" (150mm)	No shim	Bed up 1/2" (13mm)
Idler Diameter (CEMA E)	**36"-60" (900-1500mm) Belt Width**	**72" (1800mm) Belt Width**
6" (150mm)	Bed up 1.5" (38mm)	Bed up 2" (50mm)
7" (175mm)	Bed up 2" (50mm)	Bed up 2.5" (64mm)

Table 2: Nominal Center Roll Height			
Belt Width	24"- 48" (600-1200mm)	54"- 60" (1350-1500mm)	72" (1800mm)
Height	9" (229mm)	9-1/4" (235mm)	9-1/2" (241mm)

6S. Square up all channel crossbeams. With a square, ensure the first channel crossbeam is perpendicular to the conveyor structure and belt, then tighten in place. Next, space the remaining channel crossbeams with the correct center-to-center spacing. Use tabs on provided template to set spacing (Fig. 6S-a). If this is not possible, use dimensions in Table 3 (Fig. 6S-b). Tighten all bolts in place. **Note:** Center-to-center spacing must be maintained to within +/- 1/8" (3mm).

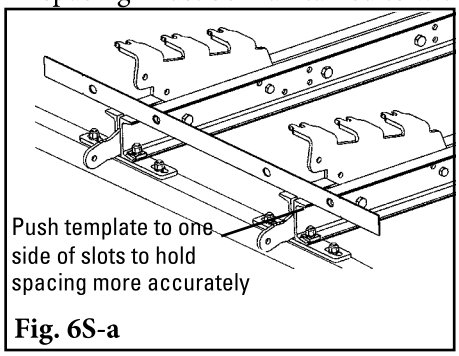


Fig. 6S-a

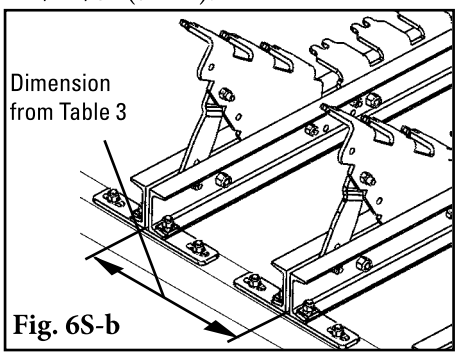


Fig. 6S-b

Table 3: Center-to-center (C-C) Dimensions		
Bed Model	**4' (1.2M)**	**5' (1.5M)**
EZSB-C	26" (660mm)	34" (864mm)
EZSB-I	26" (660mm)	34" (864mm)

7S. Install idlers. If idlers were removed at any point during installation, reinstall now.

8S. Install impact/slider bars to wing plates. Starting with the innermost bars, set the bars in place. Position the studs between the tabs in the wing assembly while confirming the chamfer of the bar is positioned facing the tail pulley (Fig. 8S). See below for bar assembly configuration based on bed model.

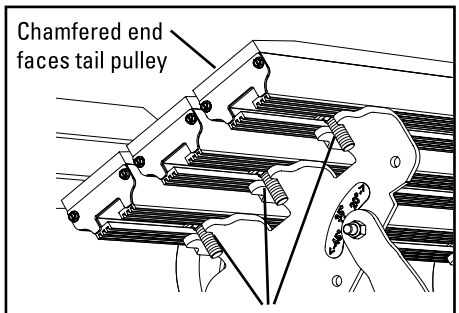
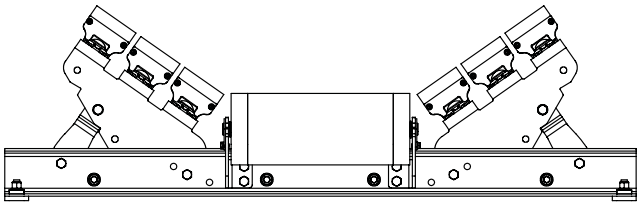
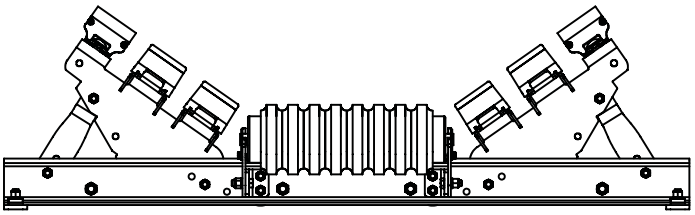


Fig. 8S Position studs between tabs



EZSB-C has 2 nylon idlers under center. All (purple) slider bars on side troughs.



EZSB-4I has 4 impact idlers under center, and EZSB-5I has 5. All (white) impact bars with support bars on side troughs, except last outboard (purple) slider bar on each side.

Flexco Slider/Impact Beds (cont.)

9S. Fasten all impact bars. With all impact bars correctly positioned on the wing assemblies, install on each stud a flat washer, lock washer and a nylock nut (Fig. 9S). Tighten to 100 ft-lb (135 N-m) torque.

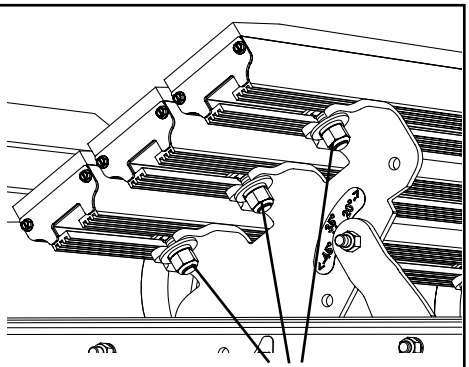


Fig. 9S

Skip to Step 10 - Final Assembly

If installing an impact bed:

4I. Bed preparation - Lower/remove wing plate/center plate. All beds come preset with a 35° trough. If 35° trough is preferred setting, loosen bolts at base of wing plate and wing arms on non-access side and remove wing plates and wing arms completely from the access side. To remove center plate, loosen non-access side bolt and remove the access side bolt (Fig. 4I-a).

If 20° or 45° trough is preferred setting, remove bolts (Fig. 4I-b) and reassemble non-access side wing arm and wing plate to the correct holes for 20° or 45° trough per affixed labels (Fig. 4I-c). Confirm correct setting as shown below (Fig. 4I-d). Prepare crossbeam for installation by removing center plate and access side wing assembly (Fig. 4I-a).

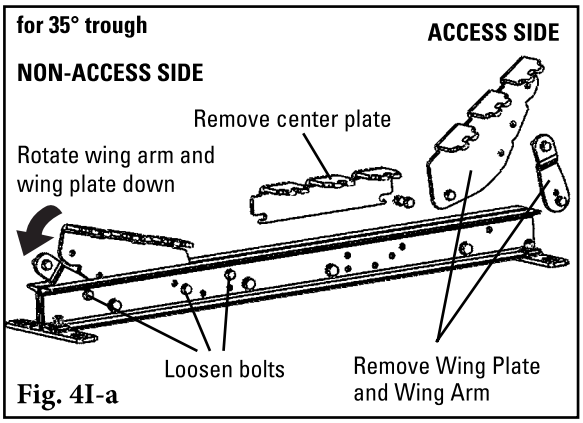


Fig. 4I-a

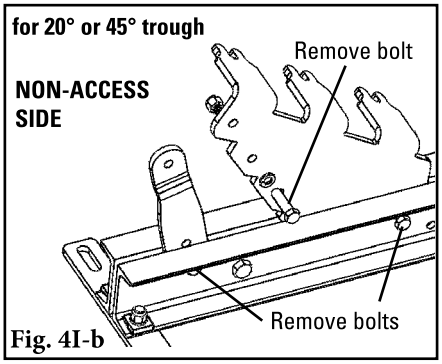


Fig. 4I-b

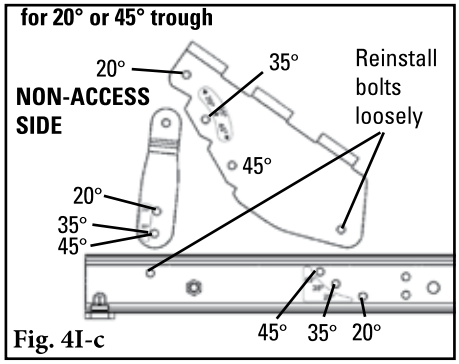


Fig. 4I-c

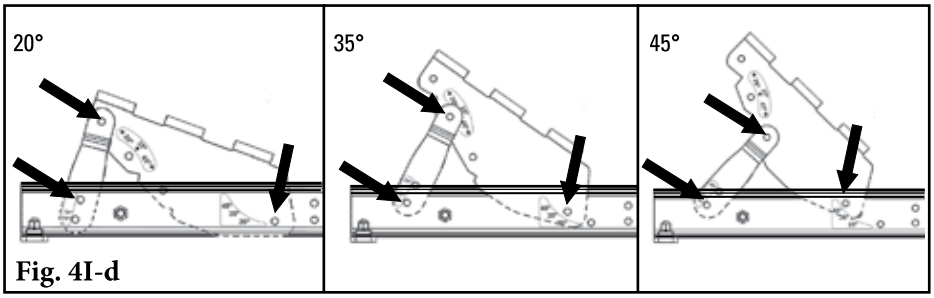


Fig. 4I-d

Flexco Slider/Impact Beds (cont.)

5I. Install channel crossbeams. Position all channel crossbeams onto the conveyor structure with the tabs on the wing plates facing the tail pulley, aligning with the mounting holes from Step 3. Insert the channel crossbeam mounting bolt and leave finger tight (Fig. 5I). Use shim under mounting plate if needed (Table 1). Verify the height of center roller on leading and trailing idlers (Table 2).

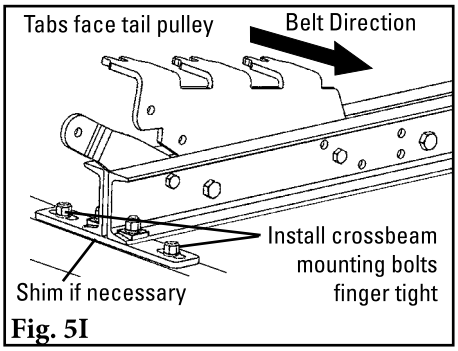


Fig. 5I

Table 1: Shim Requirements		
Idler Diameter (CEMA C or D)	**24″-36″ (600-900mm) Belt Width**	**42″-72″ (1050-1800mm) Belt Width**
5″ (125mm)	Idler up 1/2″ (13mm)	No shim
6″ (150mm)	No shim	Bed up 1/2″ (13mm)
Idler Diameter (CEMA E)	**36″-60″ (900-1500mm) Belt Width**	**72″ (1800mm) Belt Width**
6″ (150mm)	Bed up 1.5″ (38mm)	Bed up 2″ (50mm)
7″ (175mm)	Bed up 2″ (50mm)	Bed up 2.5″ (64mm)

Table 2: Nominal Center Roll Height			
Belt Width	24″- 48″ (600-1200mm)	54″- 60″ (1350-1500mm)	72″ (1800mm)
Height	9″ (229mm)	9-1/4″ (235mm)	9-1/2″ (241mm)

6I. Square up all channel crossbeams. With a square, ensure the first channel crossbeam is perpendicular to the conveyor structure and belt, then tighten in place. Next, space the remaining channel crossbeams with the correct center-to-center spacing. Use tabs on provided template to set spacing (Fig. 6I-a). If this is not possible, use dimensions in Table 3 (Fig. 6I-b). Tighten all bolts in place.
Note: Center-to-center spacing must be maintained to within +/- 1/8″ (3mm).

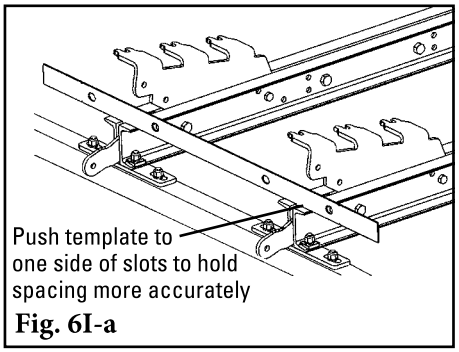


Fig. 6I-a

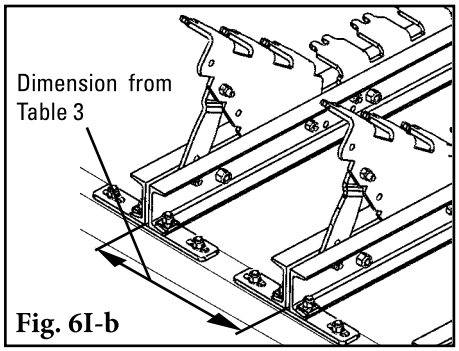


Fig. 6I-b

Table 3: Center-to-center (C-C) Dimensions		
Bed Model	**4′ (1.2M)**	**5′ (1.5M)**
EZIB-L	26″ (660mm)	34″ (864mm)
EZIB-M	16″ (406mm)	22″ (559mm)

7I. Install center impact bars. Slide the center bracket into the channel crossbeam. Tabs must face the tail pulley. Position studs between tabs in the center bracket while confirming the chamfer of the impact bar is positioned facing the tail pulley. Tighten the nuts to the studs on the bars to 100 ft-lb (135 N-m) torque. Slide this assembly into place under the belt until the notch on the center bracket engages the bolt left in the channel crossbeam (Fig. 7I).

Reinstall second bolt and tighten these two with 60 ft-lb (81 N-m) torque. After center plate is installed, reinstall wing assembly to channel crossbeam per Step 4I for access side.

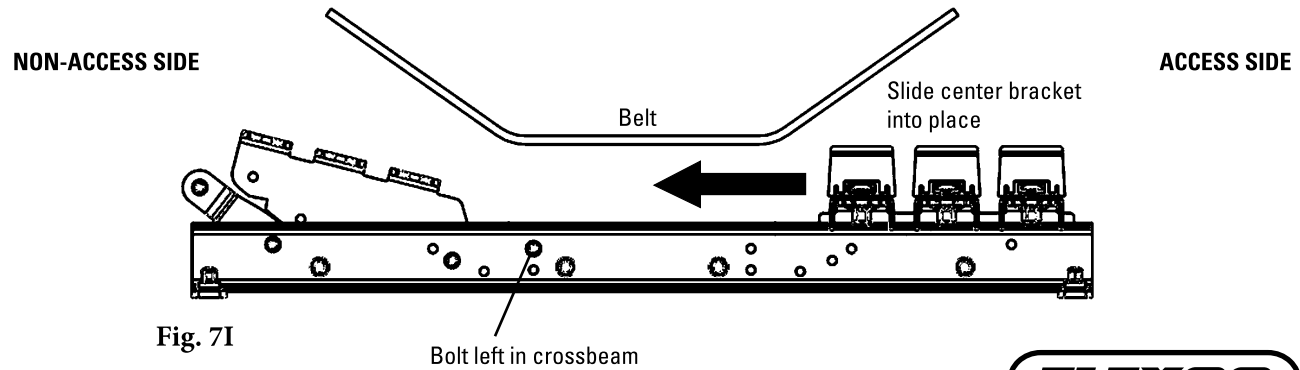
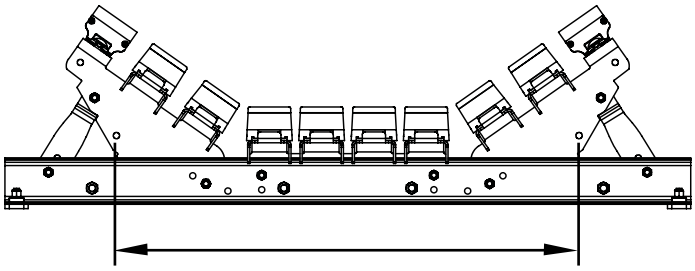


Fig. 7I

Flexco Slider/Impact Beds (cont.)

8I. Install bars to wing plates. Starting with the innermost bars, set the bars in place. Position the studs between the tabs in the wing assembly while confirming the chamfer of the bar is positioned facing the tail pulley (Fig. 8I). See below for bar assembly configuration.



EZIB has bar supports under all white impact bars.

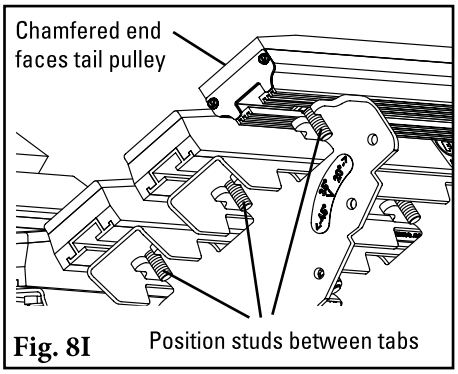


Fig. 8I

9I. Fasten all impact bars. With all impact bars correctly positioned on the wing assemblies, install on each stud a flat washer, lock washer and a nylock nut (Fig. 9I). Tighten to 100 ft-lb (135 N-m) torque.

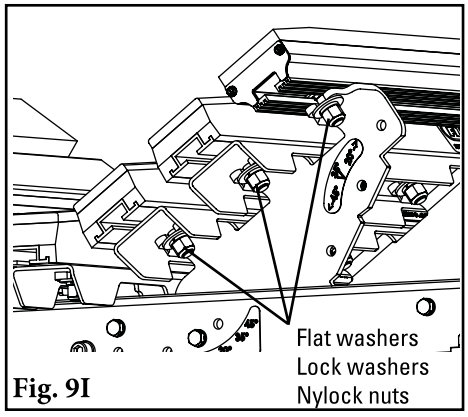


Fig. 9I

Flexco Slider/Impact Beds (cont.)

Final Assembly

10. Lift wing assemblies into operating position. Lift wing assembly up to belt. Rotate wing arm up so that it supports the wing assembly for the correct degree trough angle (Fig. 10a). Insert bolt and ensure all wing plates are set to the preferred trough angle setting (Fig. 10b). Tighten bolts to 60 ft-lb. (81 N-m) torque. Also tighten bolts at base of wing plate and wing arm.
Note: This is easier when the skirt rubber has been removed.

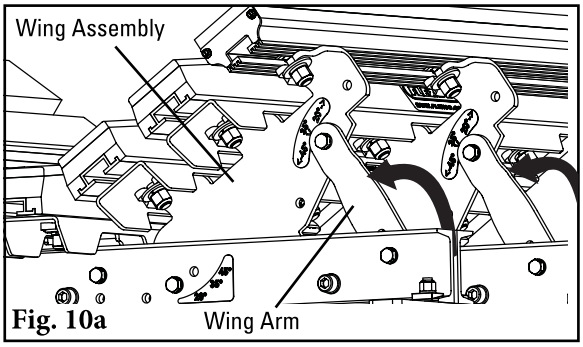


Fig. 10a

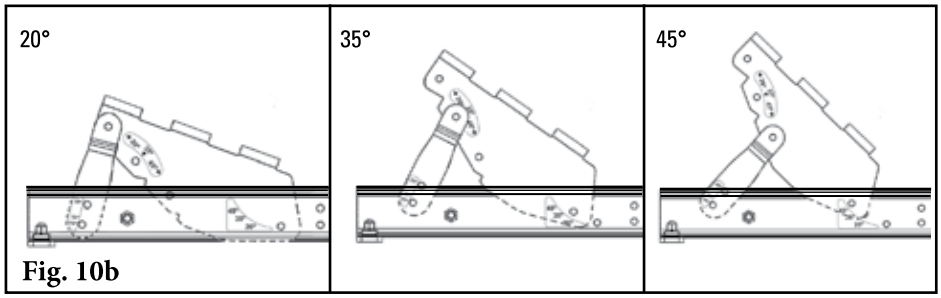


Fig. 10b

11. Confirm correct clearance between impact bars and belt. Reference Table 2 to confirm center roll height. On beds with full bars, this should provide a 1/4" (6mm) gap to lift the belt (Fig. 11a). On beds with rolls, this should align the idler with the rolls on the bed (Fig. 11b). If this gap or alignment is incorrect, shim idlers or bed accordingly.

Table 2: Nominal Center Roll Height			
Belt Width	24"- 48" (600-1200mm)	54"- 60" (1350-1500mm)	72" (1800mm)
Height	9" (229mm)	9-1/4" (235mm)	9-1/2" (241mm)

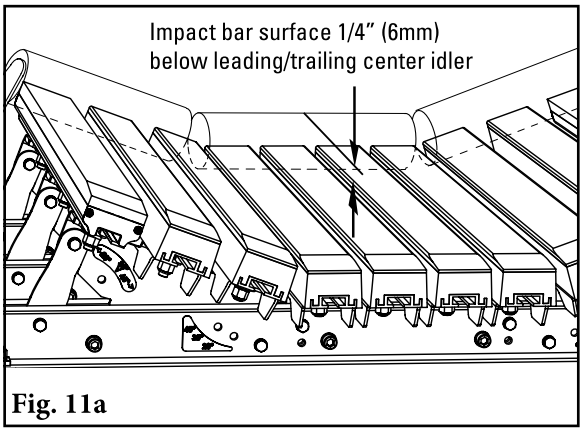


Fig. 11a

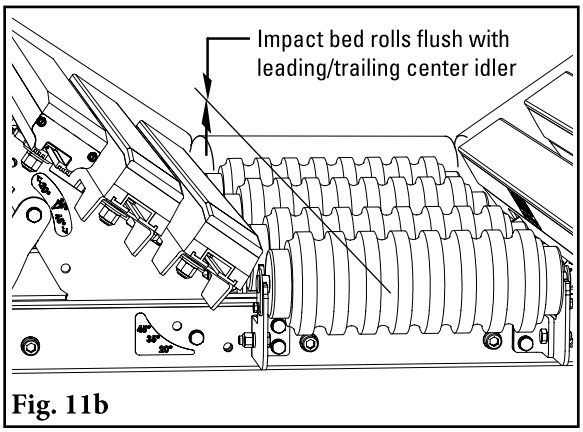


Fig. 11b

12. Readjust skirt rubber to maintain a good seal against impact bed. Replace all protective guarding around load zone.

Pre-Operation Checklist and Testing

Pre-Op Checklist

- Recheck that all fasteners are tight
- Check that empty belt is 1/4" (6mm) above the impact bars
- Apply all supplied labels
- Be sure that all installation materials and tools have been removed from the belt and conveyor area

Test Run the Conveyor

- Run the conveyor for at least 15 minutes and confirm the skirt rubber is properly sealing the transfer point. Adjust skirt rubber as needed.

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No.9, New Door No.51, Anna Salai, Nagalkeni, Pammal, Chrompet, Chennai- 600044, India
Ph: 044-48566761/62, E-mail: info.india@flexco.com, Visit us at www.flexco.com