

INSTALLATION OF THE TEMA ISENMANN WS-85 MODULAR SCREEN DECK

Preparing The Screen Deck Frame

- A. Remove crown bars and center tie down bars with torch or air arc being careful not to damage deck frame cross members.
- B. Grind surface of cross members clean and level.
- C. Inspect cross members and other deck frame members for cracks or worn areas. Repair such areas using proper welding techniques.
- D. If cross supports are made of pipe, weld angle iron, inverted C-channels, or flat steel bar stock on top of the cross members in order to have a flat surface on which to weld the WS-85 steel girders. This also helps maintain the structural integrity of the deck by preventing stress points that can occur from welding the girders directly to and across the grain of the cross members.
- E. If cross members are made of square tubing, rectangular tubing, steel beams, or some other steel member which already has a flat surface, it is recommended they be strapped with a 1/4 or 3/16 x 2 or 3 strap. This serves to protect the deck structure as described in step D. If cross member are worn, cracked, or damaged, they should be repaired as noted in step C before the strap is added. It is very important these steps be taken, especially in applications involving heavy loads, large top size feed particles, and (or) weight addition to the deck from the installation of the WS-85 System.

Attaching The WS-85 Girders

A. Even Width Screen Decks (4 , 6 , 8 & 10)

FOR SECTIONS USING FULL WIDTH SIDE PANELS

Locate the exact center of the screen deck and weld in the first girder there. Be certain to have this girder centered on the deck. Use the spacing jigs to locate and weld in the remaining girders on either side of the center girder.

FOR SECTIONS USING HALF WIDTH SIDE PANELS

Locate the exact center of the screen deck. Center and weld in the first girder 150mm (5-7/8) either side of this mark. Be certain this girder is centered 150mm (5-7/8) from the center of the deck. Use the spacing jigs to locate and weld in the girders on either side of this girder.

B. Odd Width Screen Decks (5 , 7)

FOR SECTIONS USING FULL WIDTH SIDE PANELS

(This is opposite of even width decks.)

Locate and weld in the first girder centered 150mm (5-7/8) from the center of the deck. Use the spacing jigs to locate and weld in the remaining girders.

FOR SECTIONS USING HALF WIDTH SIDE PANELS

(This is opposite of even width decks.)

Locate and weld in the first girder centered on the centering of the deck. Use the spacing jigs to locate and weld in the remainder of the girders.

NOTE: Approximately 2 of weld on both sides of the steel girders to the cross member of strap is required.

NOTE: In applications with extreme loads or impact, the WS-85 steel girders can be supplied with angle feet. When using girders with angle feet, welding should be done along the sides of the angle, parallel with the cross members.

Preparing The Side Resting Shelf

Level the top of the side-resting shelf with the top of the girders. Maintain a +1/8 tolerance between the top of the girders and the strap or angle iron of the needed height for the side resting shelf. Welding steel strap or angle iron of the needed height to the side-resting shelf can do this. Care should be taken when welding the side resting shelf shim not to weld on the machine side plates. When using angle iron for the shim, it may be necessary to tack weld the top of the angle to the side plate to hold the angle in place properly. Be careful to only use tack weld on the side plate and strength welds on the resting shelf.

Installing the Side Wear Bar Wedge Angle Clips

TEMA Isenmann can supply both bolt style and wedge style side wear bars. Bolt style bars are normally used only on new machines with factory installed WS-85 decks where the manufacturer can locate the side bar bolt holes in the proper location on the new side plates. Wedge angle clips are normally welded in on most field retrofits. This should be done before the screen panels are installed to prevent damage to the screen from weld splatter. After the side-resting shelf is properly positioned, put the side panel in place with the side wear bar in position on top of the panels up against the side plate. Place the urethane wedges on top of the wear bar centered approximately 12 from each end with the narrow end of the wedge facing the discharge of the machine. Place the wedge angles on top of the wedge with the angle extending over the front end of the wedge about one inch. Mark this location of the angle with soapstone on the side plate. Remove the screen panel and wear bar then weld the angle in place using the soap stone marks as a position guide. Make sure to weld only the vertical ends of the angle. About 1/2 — 3/4 of weld is sufficient.

Installing the Nockin Bars

Nockin Bars only go in the center girders. The WS-85 side panels have the Nockin Bar section molded into them and they go in the outside girders of each 4 section of panels. A short handled 4—8 lb. mallet works best for knocking in the Nockin Bars. It also helps to put some type of lubricant on the Nockin Bar legs. We recommend a GO JO type hand cleaner which is available in most work areas and mining operations be used as a lubricant to help the Nockin Bars go in. It should be applied at the Nockin Bar legs where they fit into the girder.

When installing the Nockin Bars it is important to maintain the 4 lengths. The bars can be stretched or compressed when being installed. If the Nockin Bars extend over the girders on staggered decks, they can interfere with fit and cause gaps between the modular panels. We recommend the Nockin Bar be pounded in at one end for about 8 — 10 , then start the other end even with the end of the girder or at the 4 mark on In-line decks and pound in the Nockin Bar toward the other end that has been started. This procedure can be followed when installing the side panels as well.

Installing the WS-85 Screen Panels

Most WS-85 Panels may be pounded in with a 4-8lb. Mallet. 50mm — 100mm BH Panels can require a larger sledgehammer to pound them in. Using GO JO or some other lubricant will make the Center Panels insert easier if needed. The Side Panels on each 4 row should be installed first, then the Center Panels. One side of the Center Panel is fit under the lip of the mushroom head on the Nockin Bar then the other side is pounded in. Care should be taken to keep the Panel ends straight and even at the 4 mark or even with the end of the girder. Molded Panels can be stretched or compressed while being installed. The procedure used to prevent the Nockin Bars from stretching or compressing can also be used on the screen Panels.

Installing the Urethane Side Wear Bars

WS-85 urethane Side Wear Bars are available in various sizes and materials. The height, length, and material type of the Side Bar are dictated by the screening application in which they are being used. Typically, A material Side Bars are used with A material screens. The bed depth on the screen deck dictates the height of the Side Bars.

Bolt style Side Bars are simply bolted on after the screens are in place. Wedge style Side Bars are placed flat against the side plate even with the ends of the side panel. The wedges are driven in tight and secured between the top of the bar and the wedge angle clip. We recommend the wedges be checked and retightened after the first 8-12 hours of operation.