

# TECHNICAL PROCEDURE

## ULTRAA-K™ SLIDER SUSPENSION

**SUBJECT:** Pivot Alignment Slot Repair Kit  
Installation Procedures

**LIT NO:** T82003

**DATE:** December 2016

**REVISION:** A

This procedure, for the ULTRAA-K slider suspension only, includes steps for repairing damaged or worn pivot alignment slots on ULTRAA-K® slider frame brackets. The slider does not need to be removed from the trailer for this repair.

**IMPORTANT:** Before performing these procedures, please refer to Hendrickson literature number T12007 Recommended Safety Precautions for Service and Repair Procedures and L64 Weld Parameters available at [www.Hendrickson-intl.com/TrailerLit](http://www.Hendrickson-intl.com/TrailerLit).

For further assistance or any questions, please contact Hendrickson Trailer Technical Services, in the United States and Canada at 866-RIDEAIR (743-3247) or email [HTTS@Hendrickson-intl.com](mailto:HTTS@Hendrickson-intl.com).

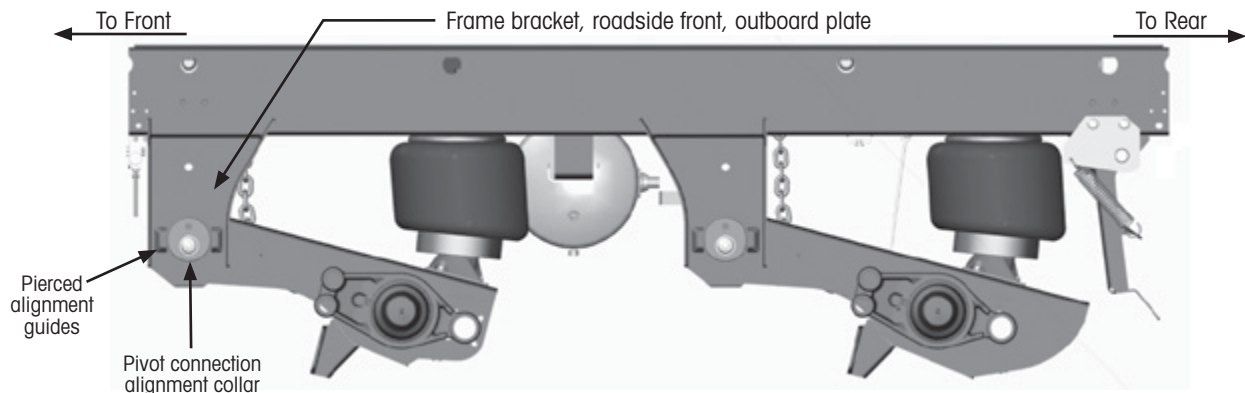


Figure 1: ULTRAA-K Slider Profile (roadside)

### PARTS INCLUDED IN KIT

It is assumed both inboard and outboard pivot alignment slots on a single frame bracket are damaged and need repair. The provided template is to be used to mark, then cut out damaged alignment slots on both sides of the frame bracket.

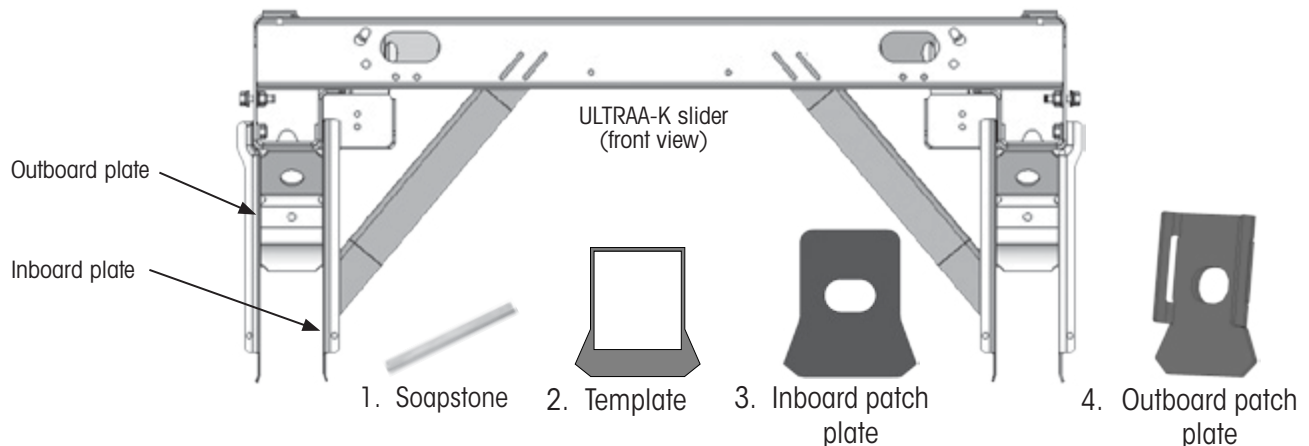


Figure 2: Kit information

## TRAILER/SUSPENSION PREPARATION

Follow this procedure to disconnect the axle/beam weldment from the frame brackets on both sides.

1. **Ensure** the slider box is securely supported. If attached to the trailer, **ensure** all locking pins are fully engaged and the trailer is securely supported.
2. **Raise and support** the axle. **Remove** wheels.

**IMPORTANT:** If with drums, keep drums on to protect brake lining from weld spatter.

3. **Disassemble** pivot connection hardware. **Discard** all original pivot bolt hardware and bushing tube spacers. Refer to Hendrickson literature number [L1072 QUIK-ALIGN® Pivot Connection Fastener Information](#).
4. **Lower and support** the bushing end of the beams from the frame brackets.
5. Inspect the following (Refer to Hendrickson literature number [L578 Preventive Maintenance Guide](#) for applicable maintenance literature):
  - A. Bushings - condition of inner metal ends for wear. Replace bushings if required. (The ends of the inner metal must not be worn at the interface with the frame bracket to maintain integrity of the assembled pivot connection.)
  - B. Bushing tube at end of beams. - if edges are worn into welds, replace the axle.
  - C. Alignment collars - replace if has worn surfaces or otherwise not reusable.
  - D. Pierced alignment guides - ensure no interference with use of template and installation of outboard patch plate. Refer to [T82004 Pierced Alignment Guide Repair](#).
6. Completely **remove and clean** all surface coating from the areas to be patched. Refer to [Figure 3](#) and [Figure 4](#).

**NOTE:** To ensure proper weld, the weld surface must be properly and thoroughly cleaned.

- If surface coat is wax, use a scrapper and a de-waxing (Toluene / Xylene base) cleaner. Refer to Hendrickson literature number [T12004 Hot Wax Surface Coat Maintenance Procedures](#).
- For galvanized coating, a grinder must be used. Refer to Hendrickson literature number [T19003 Welding to Galvanized Steel](#).

**⚠CAUTION: Ensure the area is properly ventilated and wear applicable PPE to avoid fumes.**

## MARKING AREA TO BE REMOVED

Each repair kit includes a soapstone and one template to be used for both outboard and inboard pivot alignment slot repair.

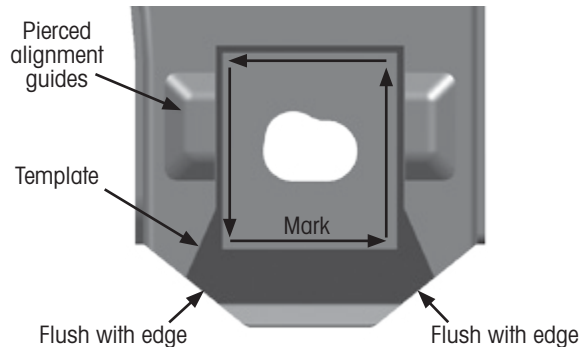


Figure 3: Positioning template on frame bracket, outboard side

1. Horizontally **center and vertically position** template to the plate to be repaired as shown in [Figure 3](#).
2. **Securely clamp** to hold the template in position.
3. Use soapstone, provided in kit, to **mark** the inside edge of template onto the frame bracket.
4. **Remove** the template.

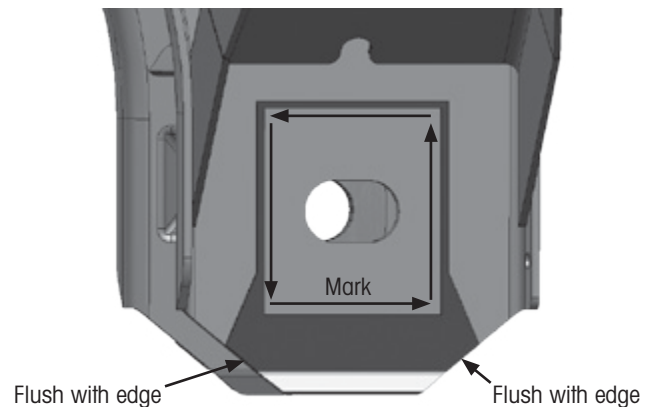
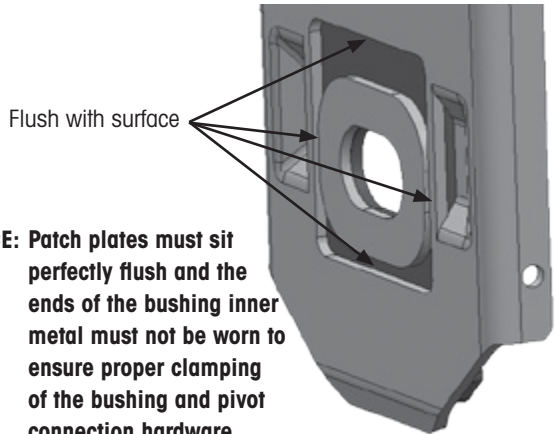


Figure 4: Positioning template on frame bracket, inboard side

5. **Repeat** the previous steps to mark the cutout ([Figure 4](#)) for the frame bracket, inboard side.

## REMOVING ORIGINAL PIVOT ALIGNMENT SLOT

1. **Cut along the marked lines** and **remove** the damaged alignment slot from both sides of applicable frame brackets.
2. **Remove burrs and grind smooth** all applicable surfaces of the frame brackets. Be careful not to remove additional parent material.



**NOTICE:** Patch plates must sit perfectly flush and the ends of the bushing inner metal must not be worn to ensure proper clamping of the bushing and pivot connection hardware.

Figure 5: Patch plate flush against frame bracket (back side of outboard plate shown)

3. Temporarily place the applicable patch plate, inner and outer, in the cutouts to check for proper placement and fit, Figure 5, Figure 6 and Figure 8.
4. If edges of cutout interfere with the placement of the patch plate, enlarge the cutout as needed.
5. Repeat the above steps until all of the below criteria is met for each repair location.

**⚠WARNING:** To ensure proper support and performance of the new pivot connection, the following criteria related to the installation of the patch plates applies:

- Patch plates must align to the frame bracket and original pivot slot position as indicated.
- Patch plates must fit:
  - » Through the cutout without interference.
  - » To the frame bracket in the hole with minimal gap.
  - » Completely flush to the mating surface of the frame bracket.
- The inboard surface must be flat and smooth to avoid damage and premature wear to bushing tube spacers.

If not completely smooth, any burrs or misalignment of the newly installed repair can interfere with bushing inner metal and alignment collar placement. This can result in improper clamping of the pivot connection hardware as defined in Hendrickson literature number [L579 Alignment Procedures](#).

## INSTALLING OUTBOARD PATCH PLATES

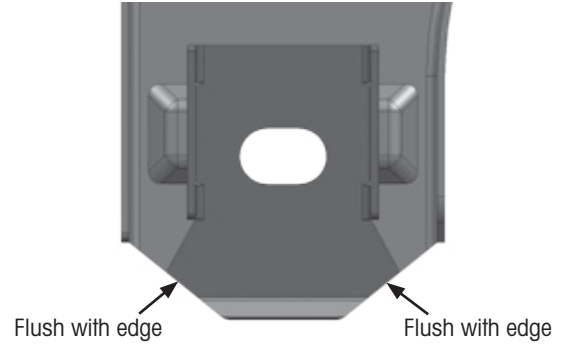


Figure 6: Positioning outboard patch plate

1. Position the outboard patch plate on the frame bracket, outboard side, as shown in Figure 6.
2. Securely clamp into position.

**NOTE:** Refer to [L64 Weld Parameters](#) for more welding details.

**IMPORTANT:** Welds must terminate 0.2" from edge of parent metal.

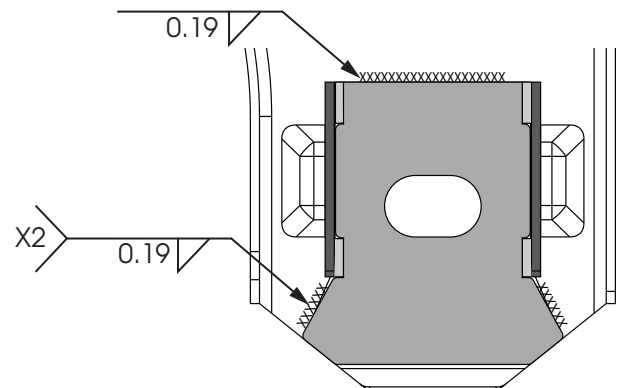


Figure 7: Outboard patch plate welds

3. Weld the outboard patch plate using specifications shown in Figure 7.
4. Remove clamps.

## INSTALLING INBOARD PATCH PLATES

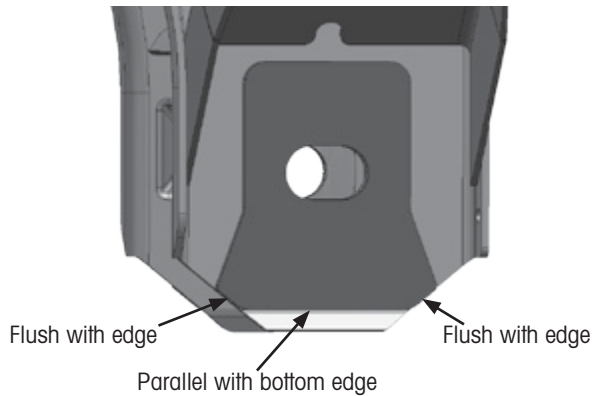


Figure 8: Positioning inboard patch plate

1. **Position** the inboard patch plate on the frame bracket, inboard side, as shown in Figure 8.
2. **Securely clamp** into position.

**NOTE:** Refer to Hendrickson literature number L64 Weld Parameters for more welding details.

**IMPORTANT:** Welds must terminate 0.2" from edge of parent metal.

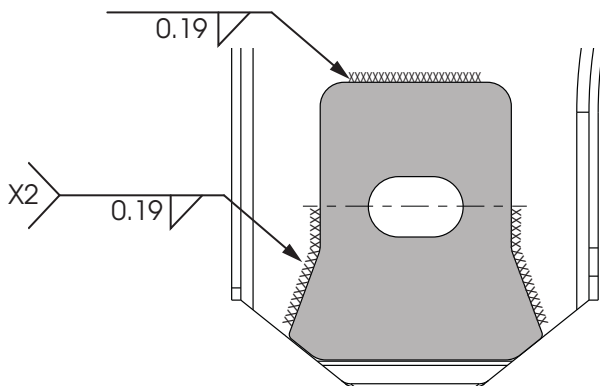


Figure 9: Inboard patch plate welds

3. **Weld** the inboard patch plate using specifications shown in Figure 9.
4. **Remove** clamps.

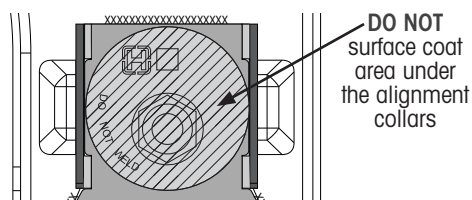


Figure 11: QUIK-ALIGN pivot connection hardware

## CLEAN UP

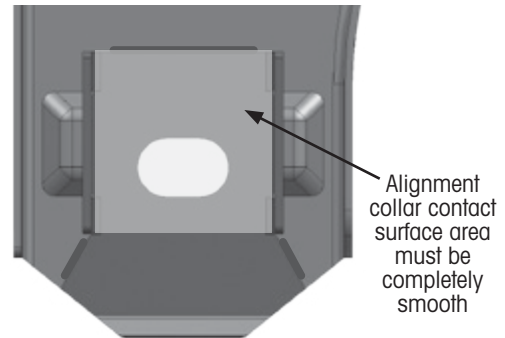


Figure 10: Alignment collar contact surface area

1. **Smooth** the surface on the patch plates to remove all weld spatter where the collars contact the surface, Figure 10.

**NOTICE:** Avoid removal of parent material.

**⚠ WARNING:** If not completely smooth, any burrs or misalignment of the newly installed repair can interfere with bushing inner metal and alignment collar placement. This can result in an improper clamping of the pivot connection hardware.

**⚠ CAUTION:** DO NOT apply undercoating, paint or other surface coating to the suspension and frame brackets until after completing suspension alignment, Step 3.

2. **Loosely reassemble** pivot connections using new pivot bolt hardware and bushing tube spacers. Refer to Hendrickson literature number L1072 QUIK-ALIGN® Pivot Connection Fastener Information.
3. **Align** applicable axles, refer to Hendrickson literature number L579 Alignment Procedures for QUIK-ALIGN.
4. After alignment, **apply** soft coat to all exposed metal surfaces as defined in Hendrickson literature number T12004 Hot Wax Surface Coat Maintenance Procedures, see Figure 11.

**IMPORTANT:** Do not apply surface coating under the alignment collars on either side.

**NOTE:** For galvanized surface coat, refer to Hendrickson literature number T19003 Welding to Galvanized Steel.

Call Hendrickson at **866.RIDEAIR (743.3247)** for additional information.



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