TECHNICAL SERVICE BULLETIN

Bulletin No.: **TSB-040**

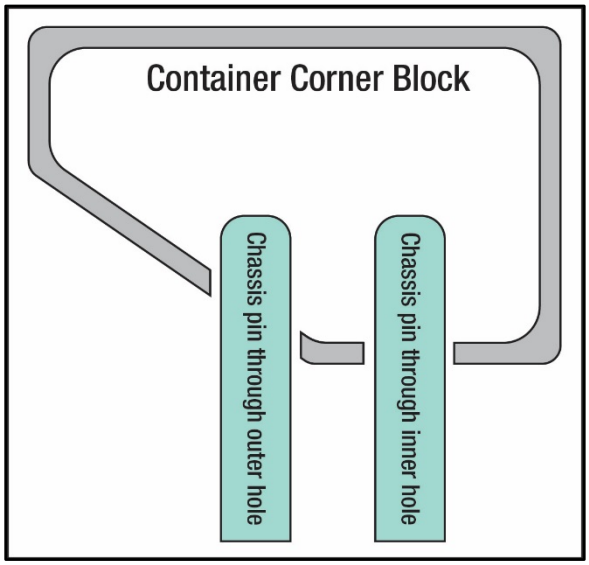
Date: **November 14, 2019**

Subject: **Front Chassis Container Pin**

Models: **Quantum VP Lite 40' and 45' Trailers**

Background

Quantum Virtual Pipeline (VP) trailers are built using high cube containers that utilize a standard ISO latching methodology in the front and rear to secure the container to the chassis.
This high cube container configuration is only available with a horizontal sliding pin for securing the front of the container to the chassis.
This sliding pin configuration can only provide support in two axis.



Condition

In the event of a collision or roll over, it is possible for the chassis container pin to become damaged or displaced and no longer work to retain the container to the chassis.

Due to a reduced engagement depth of the chassis pins that use the chamfered outer hole of the container, chassis that use this chamfered outer hole may be more susceptible to separation from the container in the event of a roll over.

Cause

There are two holes in each of the front corners of the container where the chassis pins may engage. The inner hole will intersect perpendicular to the chassis pin, the outer hole will intersect at an angle to the chassis pin.

Certain manufacturer's chassis are designed to utilize the chamfered outer hole on the container.
On chassis' using the chamfered outer hole, there is a reduced depth of chassis pin engagement in the container corner block when compared to the engagement of the inner pin

Correction

A new fastening method has been developed to improve the connection between the chassis and the container. In the event of a roll over collision this new fastening method should be more durable than the original chassis pin. The new fastening method will provide support in all three axis.

Only Quantum VP Lite trailers using Chassis King and Cheetah chassis use the outer container corner block hole. Quantum will be performing a goodwill update on all trailers that were built with chassis' that utilized the chamfered outer hole in the container corner block.

For customers that choose to update the fastening method on the trailers that utilize the inner hole in the container corner block, a kit and instructions will be provided free of charge from Quantum.

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Labor Time

Estimated labor time for Chassis King and similar chassis: 0.4 – 0.6 hours.
Estimated labor time for Cheetah chassis: 1.5 – 2.5 hours.

VP Lite Trailers: Labor OP: G0007 Time: Excess time Approval Required

Labor is only being reimbursed for units equipped with a Chassis King or Cheetah Chassis.

Parts Information

Description	Part Number	Fits	Qty
KIT- CHASSIS PIN, 45’	120344	Chassis King, Pratt, Kwik	A/R
KIT- CHASSIS PIN, CHEETAH	120373	Cheetah	A/R
KIT- CHASSIS PIN, 40’	120363	Pratt, Kwik	A/R

Note: 120363 retrofit kit can be used for 45’ Pratt and Kwik chassis if needed

Parts for this modification will begin to be available starting in late November on a priority basis. Contact Quantum Warranty Department at 949.399.4546 or at QTWarranty@qtww.com for kit availability

Application
This bulletin may be applied to any Quantum VP Lite 40’ or 45’ series trailer.

Contact Information:
E-Mail: QTService@qtww.com
Phone: U.S. 800.816.8691
Outside U.S. 949.930.3411
Fax: 949.930.3401

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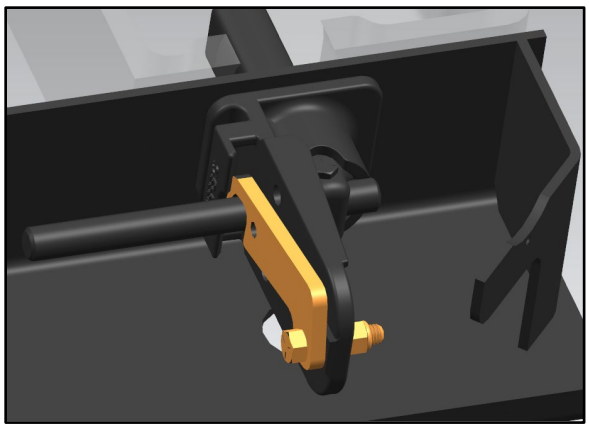
40’ and 45’ Procedure

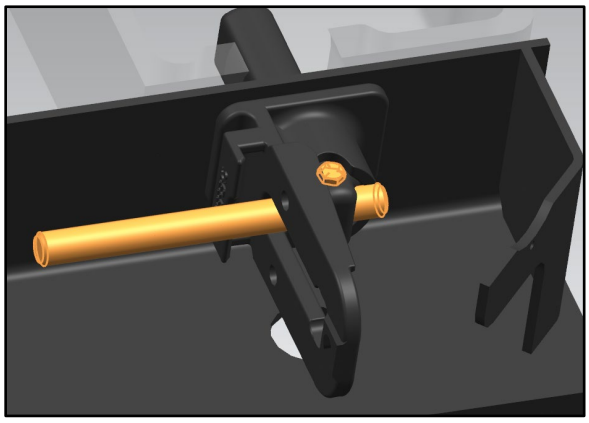
The following procedure can be used to modify the front latch pin used on all 40’ and 45’ VP Lite trailers using Chassis King, Pratt or Kwik chassis. Note that the kit for the Chassis King chassis is unique and requires the tapered nut.

Important: There is a different procedure in this bulletin for use on 40’ chassis / containers.

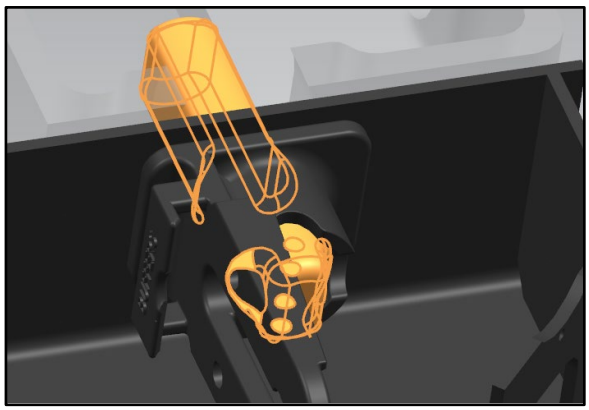
1. Place a stand under the front of the chassis header to hold it firmly in place.
2. Remove and discard the original front chassis safety latch and bolt.



3. Remove and discard the bolt and handle for the chassis pin



4. Remove and discard the existing chassis pin.



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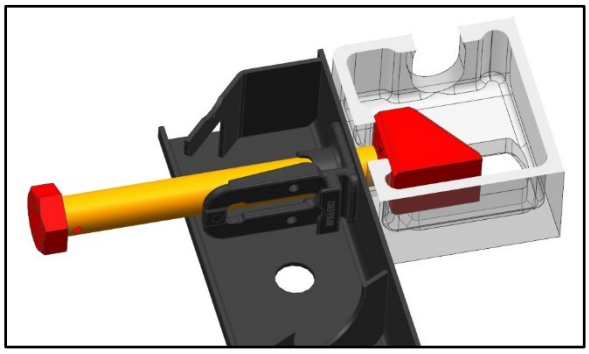
5. Place the bolt through the bushing that the original chassis pin was removed from. Insert the bolt until it is flush with the inside of the container corner pocket.

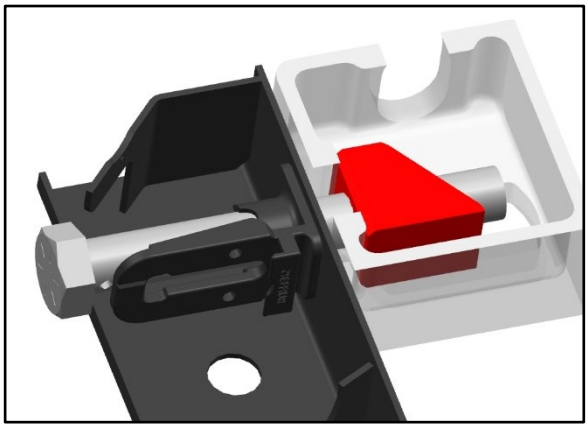


6. Apply anti seize to the threads inside the nut.

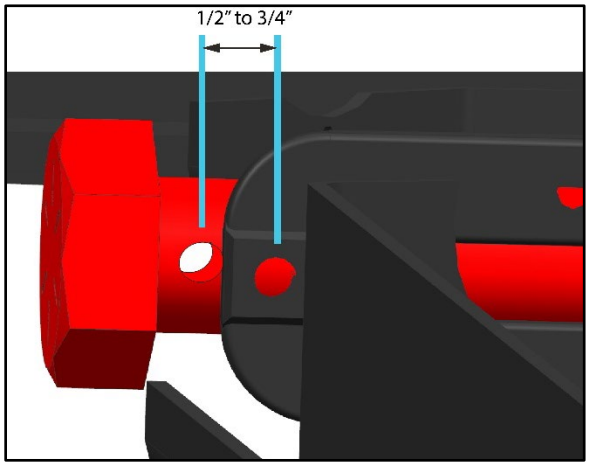
   Insert the nut through the bottom opening of the container corner pocket with the taper side facing forward for Chassis King chassis and rearward for Pratt and Kwik chassis, then rotate 90 degrees.

Note: Picture showing inner pocket installation with taper facing rearward.

7. Hold the nut against the forward inside surface of the container corner block and thread the bolt into the nut.



8. While holding the nut against the inside of the container corner block, thread the bolt in until the cross drilled hole in the bolt is between ½" – ¾" (13mm -19 mm) from the original latch retainer hole.



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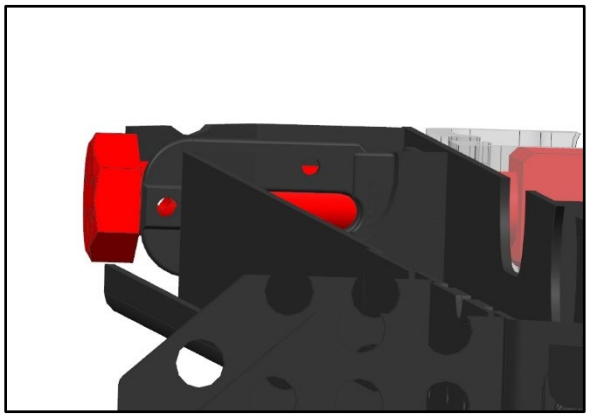
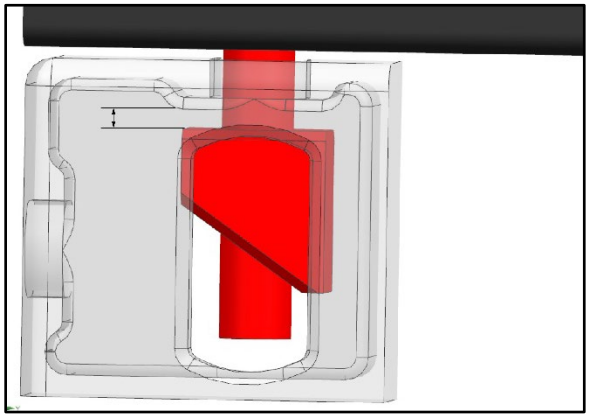
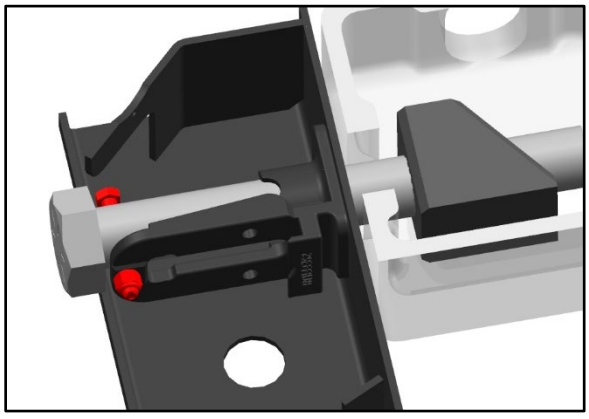
9. Press the bolt in until the cross drill hole in the bolt aligns with the hole in the bracket and insert the cross bolt.



10. Verify that the nut is not in hard contact with the inside surface of the container corner block, if properly adjusted it should float inside the compartment and not touch any side. Adjust as needed.



11. Install a locking nut on the cross bolt and tighten until there is zero clearance between the bolt and the bracket.



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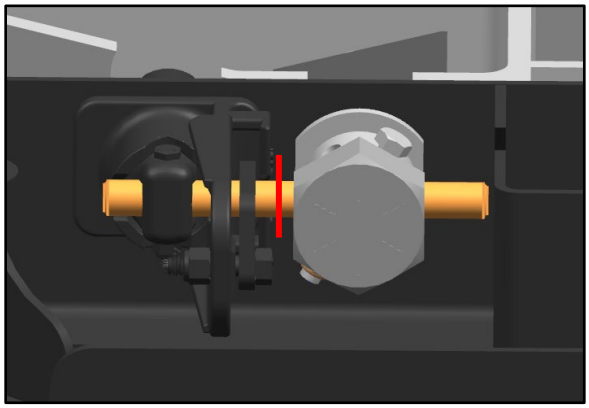
Cheetah Procedure

The following procedure is only applicable to the Quantum VP trailers using a Cheetah Chassis with the factory pin engagement in the outer container corner pocket.
Unlike the previous procedure, this procedure will leave the existing pin in place and install an additional feature to secure the container to the chassis.

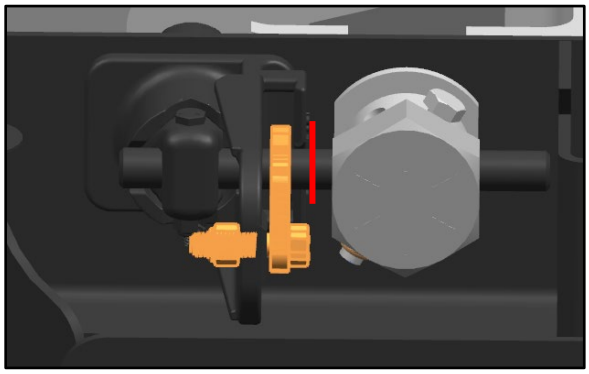
1. Place a stand under the front of the chassis header to hold it firmly in place.

2. The handle for the original locking pin will interfere with the completed installation of the new fastening method.

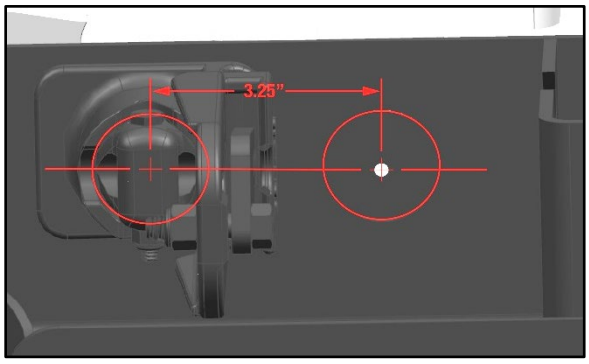
   Cut off the handle approximately ½" past the latch in the area shown.



   IMPORTANT: Verify the safety latch will not move past the end of the cut handle. Tighten the pivot bolt on the safety latch plate as needed to restrict the movement.



3. Locate the hole to be drilled by measuring 3.25" from the centerline of the existing chassis pin and on the same horizontal centerline.
   Note: The chassis pin is 1.5" in diameter, you can measure 2.5" from the outer diameter of the existing pin, make sure you are not measuring from the flats on the existing pin.



4. Drill a ¼" pilot hole and verify the hole location is centered in the container corner pocket.

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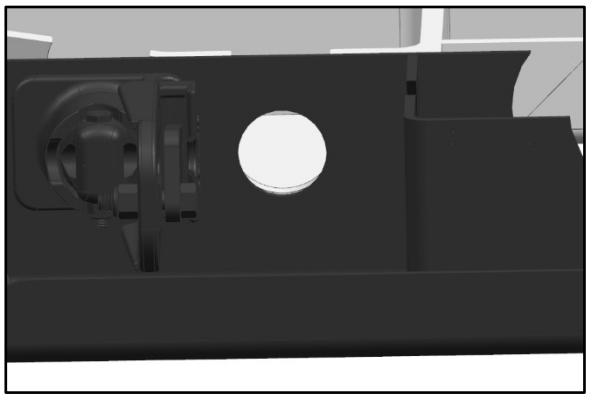
5. Drill a 1.75” (44 mm) hole through the header panel.

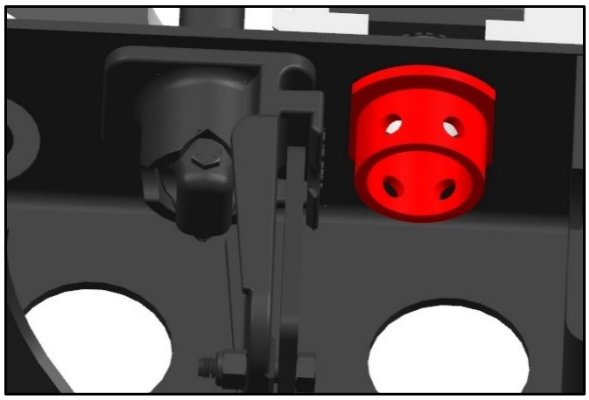
6. Remove any paint around the hole and prepare the surface for welding.

   IMPORTANT: Verify the hole for the cross bolt in the sleeve is positioned so the bolt can be inserted.



7. Center the bolt sleeve over the previously drilled hole and verify it sits flush against the header panel. Grind as needed to provide clearance to any other welds or components. Place the sleeve in position as shown and tack weld in place. Verify positioning and fully weld the sleeve in place with a 3/16” fillet weld.

   Apply a zinc rich primer and paint all areas affected by the cutting and welding process. Prime and paint the sleeve inside and out. It may be necessary to retract the factory container pins and drop the front of the chassis to allow for proper painting on the inside of the header panel.



8. Apply seam sealer to the joint between the sleeve and the header panel on the inner surface of the sleeve. Verify the sealer does not protrude and interfere with installation of the bolt.

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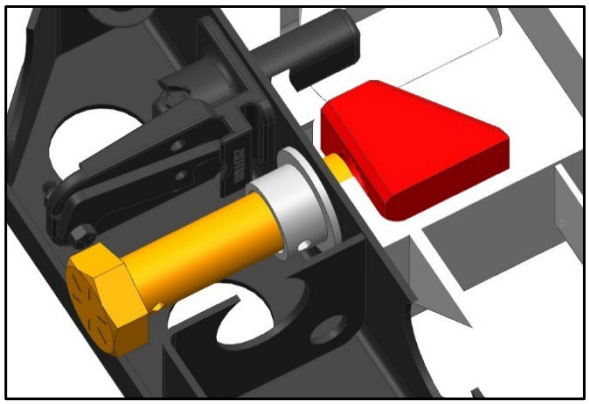
9. Place the bolt through the sleeve that was just installed. Insert the bolt until it is flush with the inside of the container corner pocket.

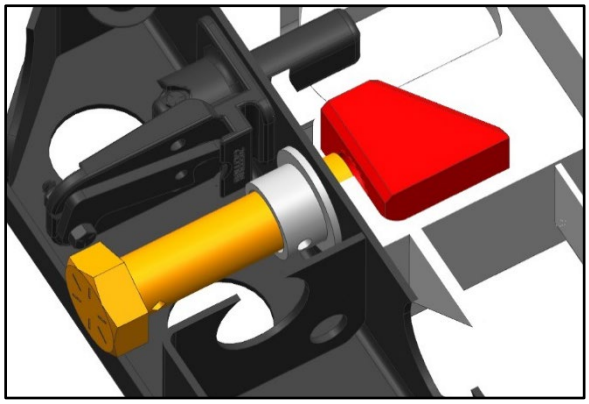


10. Retract factory pins for clearance as needed to insert the nut.

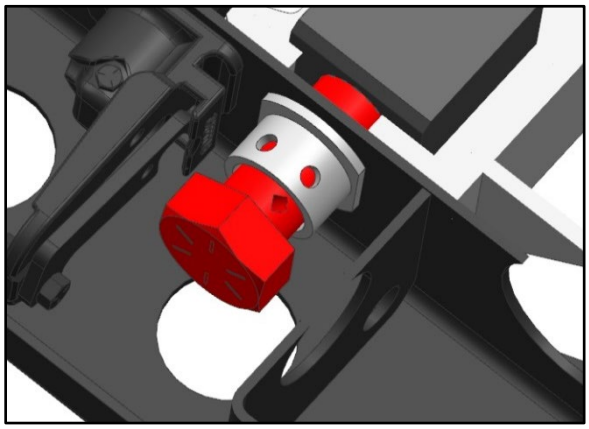
11. Apply anti seize to the threads inside the nut.

    Insert the nut through the bottom opening of the container corner pocket with the taper side (if present) facing rearward and rotate 90 degrees.

12. Hold the nut against the forward inside surface of the container corner block and thread the bolt into the nut.



13. While holding the nut against the inside of the container corner block, thread the bolt in until the cross drilled hole in the bolt is between ½" – ¾" (13mm -19 mm) from the retainer hole in the sleeve.



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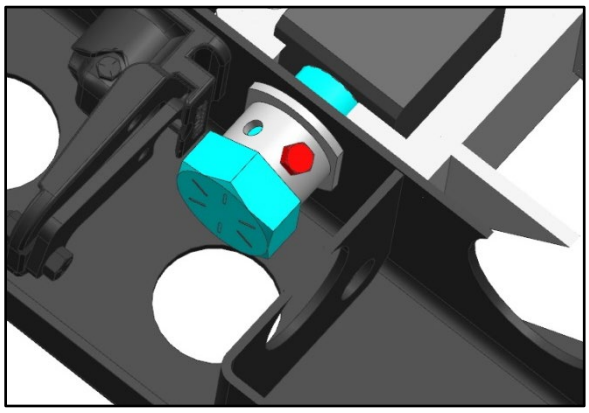
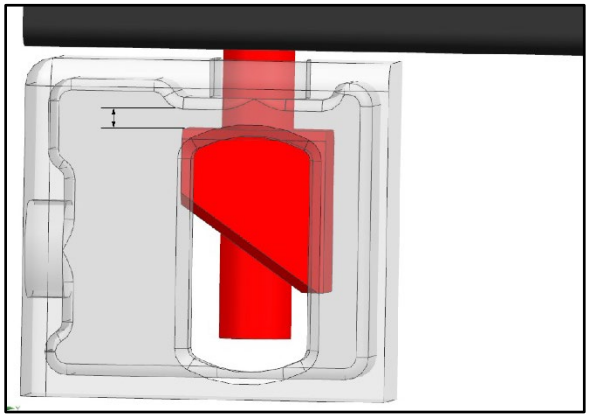
14. Press the bolt in until the cross drill hole in the bolt aligns with the hole in the bracket and insert the cross bolt.



15. Verify that the nut is not in hard contact with the inside surface of the container corner block, if properly adjusted it should float inside the compartment and not touch any side. Adjust as needed.



16. Install a locking nut on the cross bolt and tighten until there is zero clearance between the nut and the sleeve.

17. Verify the original chassis pins are engaged and fully seated.

18. Install a seal on each chassis pin safety latch.