PRODUCT BULLETIN NUMBER: Catwalk 016

SAFETY ALERT

PRODUCT: AUTOMATED CATWALKS **DATE:** October 6, 2010

SUBJECT: **Carrier Cable Block Retaining Pin Upgrade – Part # 161100095 / AY50361**

SERIAL NUMBERS: **All PC3000 Catwalks**

DISCUSSION:

Canrig has learned that some end-users are not conducting PC3000 – 1000 Day Inspections as required. These inspections are absolutely necessary to ensure the structural integrity of critical load bearing welds and component assemblies and overall safety of the equipment.

An isolated incident occurred on one of the early PC3000 production units where the carrier cable block retaining pins sheared resulting in an uncontrolled drop of the carrier from the rig floor level to the catwalk deck. While this particular incident did not result in any injuries to personnel, some impact damage to the catwalk did occur. To minimize the possibility of any similar incidents occurring, Canrig has implemented the following controls:

1. ECN# CN1427 upgrades the material specifications for the carrier cable block retaining pins (Part # 161100095) from 4140 steel to 17-4PH stainless steel.
2. Canrig 1000 Day Inspection practices for the PC3000 have been updated and now call for the MANDATORY replacement of the carrier cable block retaining pins (Kit AY50361) at time of inspection.

Delay in implementing the *Required Action Procedures* contained herein could result in a critical impact and/or dropped object hazard and potentially put personnel and equipment at risk.

REQUIRED ACTION:

1. Immediately inspect the carrier block assembly, retaining pins and anchor plate for signs of excessive wear, corrosion, and/or metal fatigue on all PC3000 production units delivered prior to January 1, 2009. To ensure safe operation, replace the carrier cable block retaining pins (Kit AY50361). Please refer to the attached Safe Work Procedures for both the inspection and pin replacement.
2. If the catwalk has been in service for 1000 days or more, and it has not already been completed, Canrig cannot stress enough the importance of conducting a “PC3000 - 1000 Day Inspection” as laid out in the attached form AS SOON AS POSSIBLE.

RECOMMENDATIONS: A visual inspection of the carrier cable block assembly, anchor plate, and retaining pins should be conducted every time the carrier cables are replaced as per Canrig specified ton/mile usage guidelines.

ATTACHMENTS:

1. INSPECTION: PC3000 - 1000 Day Inspection Procedure
2. SAFE WORK PROCEDURE: Visual Inspection - Carrier Cable Block Assembly & Anchor Plate
3. SAFE WORK PROCEDURE: Part Replacement – Carrier Cable Block Retaining Pins

INFORMATION: For a complete list of all bulletins go to **www.canrig.com**

CONTACT:

Product Support: 866.433.4345 USA
Canrig Drilling Technology Ltd. 281.774.5649 INTL

PC3000 1000 Day Inspection

Rig:	Date:	Location:	Carrier Cycles:	Running Hours:

Perform the following actions. Enter Pass or Fail and enter comments on all items entered as "Fail".

CATWALK BASE	Action	Pass / Fail	Comments
Skid Roll Ends	MPI		
Ramp Pivot Posts	MPI		
Pipe Rack Arm Mounts/Hitch Blocks	MPI		
Pipe Indexers Mount Plates	Visual		
Pipe Rack Arms	Visual		
RAMP			
Ramp Pivot Posts	MPI		
Carrier Roller Guide Channels	Visual		
Ramp Sheave Support Plates	Visual		
Ramp Sheaves	Visual		
Winch Mounts	MPI		
Winch Protective Guard	Visual		
CARRIER			
Carrier Cable Connections	MPI		
Cable Block & Anchor Plate Welds	MPI		
Cable Block Retaining Pins (AY50361)	Replace		
Carrier Pipe Kickers	MPI		
Carrier Overshoot Dogs	Visual		
Front Carrier Roller Shaft Welds	Visual		
Lift Arm Pivot Bushing Block	Visual		
LIFT ARM			
Lift Arm Pin Mounts	MPI		
Lift Arm Welds	Visual		
HYDRAULIC POWER UNIT			
Hydraulic Fluid Level (3/4 Full)	Visual		
Hydraulic Winch Oil Level	Visual		
Periodic Hydraulic Oil Analysis	Visual		
Periodic Hydraulic Winch Oil Analysis	Visual		
Hydraulic Pump	Visual		
Valve Bank	Visual		
Hydraulic Cylinders	Visual		
No Oil Leakage in the system	Visual		
ELECTRICAL SYSTEM – Lock-Out and Tag-Out when inspecting the junction boxes			
Grounding	Visual		
Wires, Boxes and Connectors	Visual		
Electrical Motor	Visual		
Lights and Proximity Switches	Visual		
Radio Control Unit	Visual		
PLC Box	Visual		
Electrical Control Box	Visual		

Notes:

Canrig Technician:	**Signature:**	**Date:**
Rig Manager or designee:	**Signature:**	**Date:**
MPI Service Company:	**MPI Technician:**	**Print:**

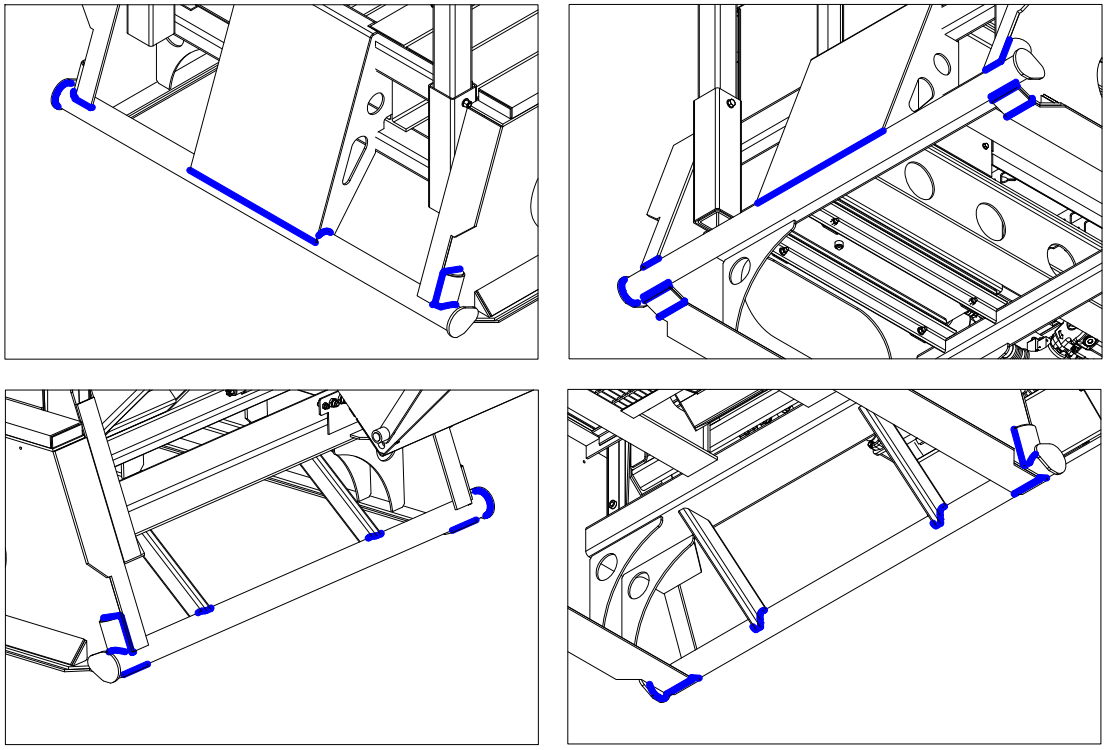
Inspection Indication Map

Part Name: Skid Rollend

The following information should be supplied on the inspection Report as minimum:

Purchase Order #
Inspection Report #
Inspector's Signature/Stamp:
Type of Inspection:

Date:
Canrig Part #
Power Catwalk S/N:
Canrig Representative:



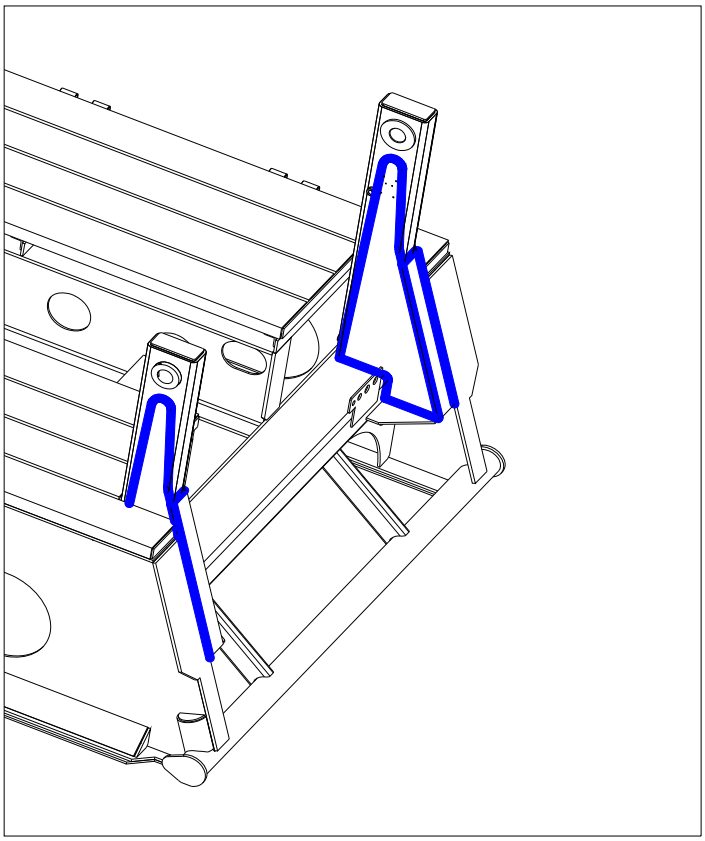
Procedure:
Perform Dry Magnetic Particle Inspection on all welds shown in accordance with ASTM E709. Acceptance criteria are as defined in ASTM E709. All other areas not indicated shall be visually examined for damage and signs of fatigue.

Part Name: Skid Ramp Pivot Post

The following information should be supplied on the inspection Report as minimum:

Purchase Order #
Inspection Report #
Inspector's Signature/Stamp:
Type of Inspection:

Date:
Canrig Part #
Power Catwalk S/N:
Canrig Representative:



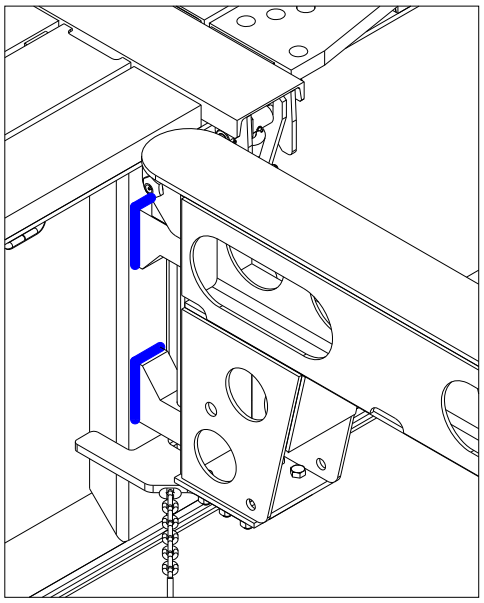
Procedure:
Perform Dry Magnetic Particle Inspection on all welds shown in accordance with ASTM E709. Acceptance criteria are as defined in ASTM E709. All other areas not indicated shall be visually examined for damage and signs of fatigue.

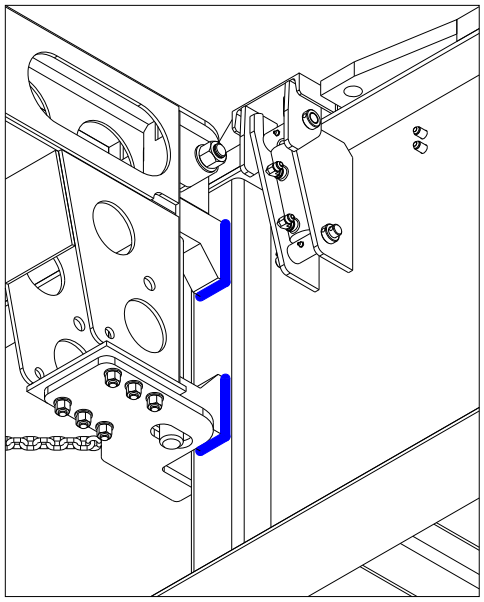
Part Name: Pipe Rack Arm Mount/Hitch Block

The following information should be supplied on the inspection Report as minimum:

Purchase Order #
Inspection Report #
Inspector's Signature/Stamp:
Type of Inspection:

Date:
Canrig Part #
Power Catwalk S/N:
Canrig Representative:





42" Catwalk Shown
26" Only has one Hitch Block

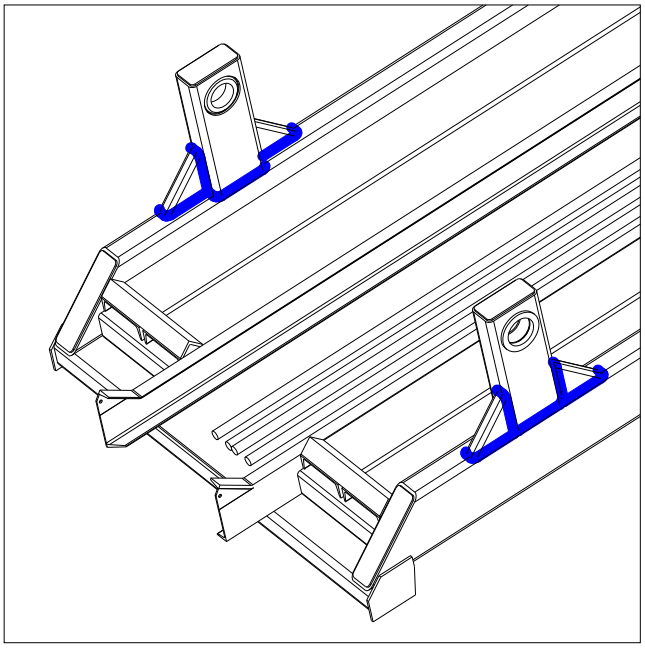
Procedure:
Perform Dry Magnetic Particle Inspection on all welds shown in accordance with ASTM E709. Acceptance criteria are as defined in ASTM E709. All other areas not indicated shall be visually examined for damage and signs of fatigue.

Part Name: Ramp Pivot Post

The following information should be supplied on the inspection Report as minimum:

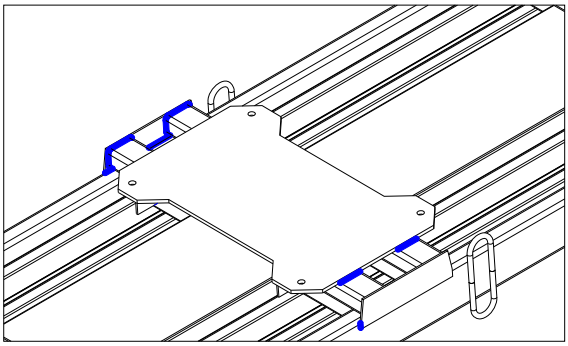
Purchase Order #
Inspection Report #
Inspector's Signature/Stamp:
Type of Inspection:

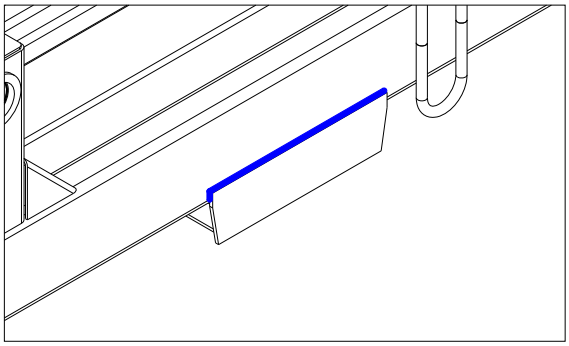
Date:
Canrig Part #
Power Catwalk S/N:
Canrig Representative:



Procedure:

Perform Dry Magnetic Particle Inspection on all welds shown in accordance with ASTM E709. Acceptance criteria are as defined in ASTM E709. All other areas not indicated shall be visually examined for damage and signs of fatigue.



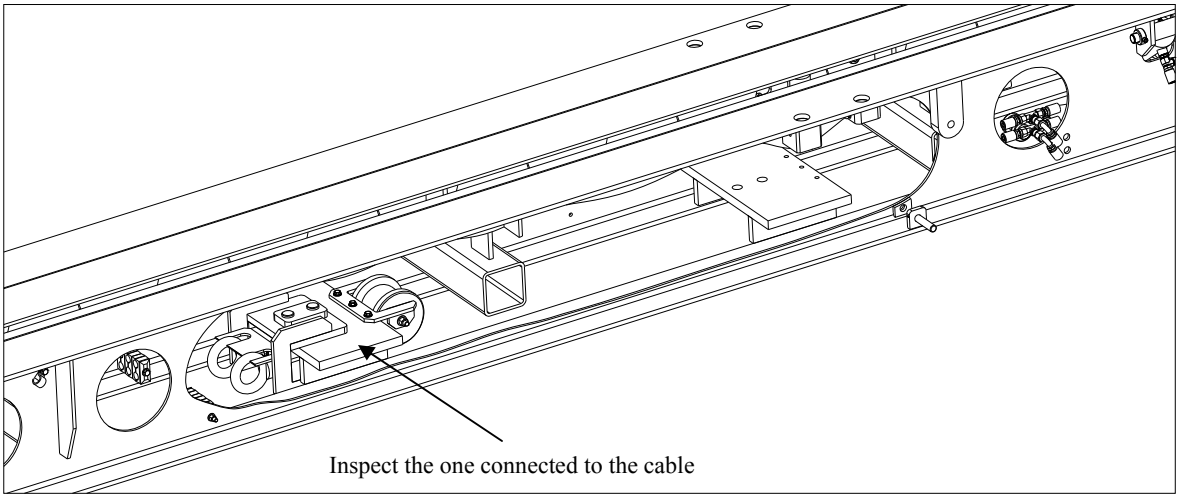


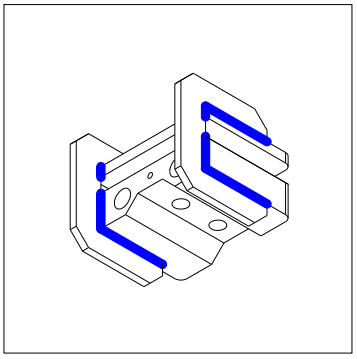
Part Name: Carrier Cable Block and Connections

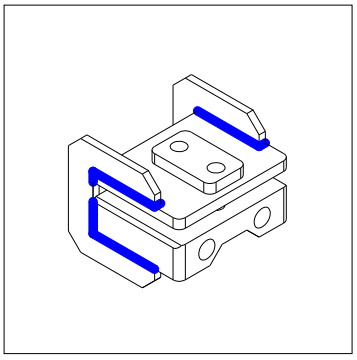
The following information should be supplied on the inspection Report as minimum:

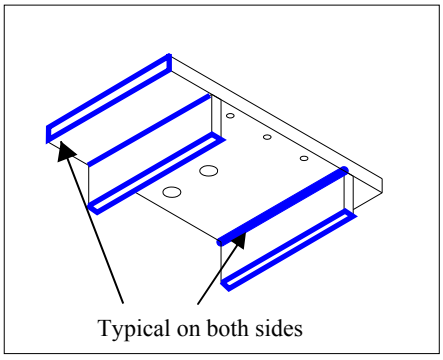
Purchase Order #
Inspection Report #
Inspector's Signature/Stamp:
Type of Inspection:

Date:
Canrig Part #
Power Catwalk S/N:
Canrig Representative:









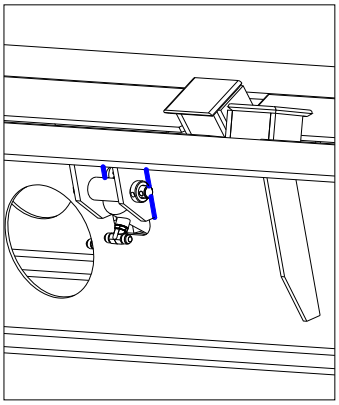
Procedure:
Perform Dry Magnetic Particle Inspection on all welds shown in accordance with ASTM E709. Acceptance criteria are as defined in ASTM E709. All other areas not indicated shall be visually examined for damage and signs of fatigue.

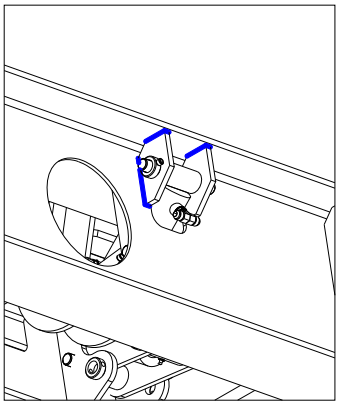
Part Name: Carrier Pipe Kicker Mount

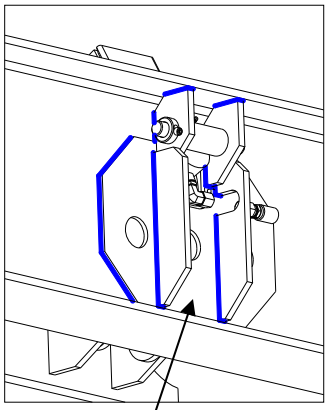
The following information should be supplied on the inspection Report as minimum:

Purchase Order #
Inspection Report #
Inspector's Signature/Stamp:
Type of Inspection:

Date:
Canrig Part #
Power Catwalk S/N:
Canrig Representative:







See Product Bulletin 10

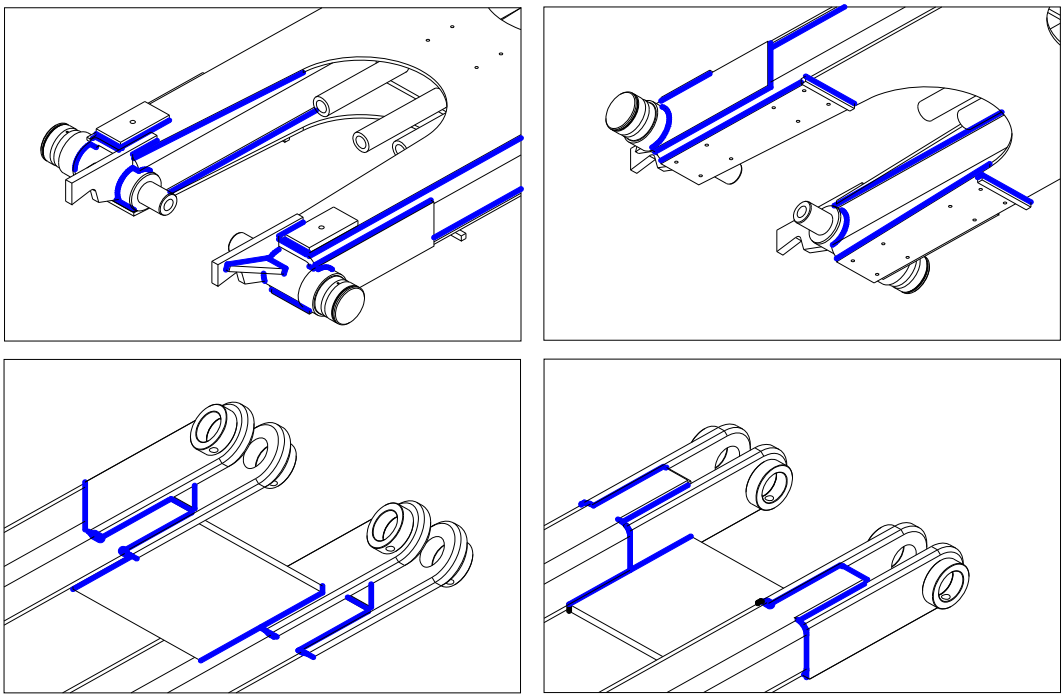
Procedure:
Perform Dry Magnetic Particle Inspection on all welds shown in accordance with ASTM E709. Acceptance criteria are as defined in ASTM E709. All other areas not indicated shall be visually examined for damage and signs of fatigue.

Part Name: Lift Arm Pin Mounts

The following information should be supplied on the inspection Report as minimum:

Purchase Order #
Inspection Report #
Inspector's Signature/Stamp:
Type of Inspection:

Date:
Canrig Part #
Power Catwalk S/N:
Canrig Representative:



Procedure:

Perform Dry Magnetic Particle Inspection on all welds shown in accordance with ASTM E709. Acceptance criteria are as defined in ASTM E709. All other areas not indicated shall be visually examined for damage and signs of fatigue.

Carrier Cable Block Inspection

1. Perform Job Safety Analysis (JSA) to include everyone that could be affected by the task to be performed. All attendees of the JSA must sign the JSA form.

2. Ensure carrier is empty. Raise carrier to a level that will provide adequate safe access to the carrier cable block.

3. Install carrier safety bar as shown below and slowly lower carrier until it rests against safety bar. This should be done in "Snail Mode". To activate Snail Mode, push the furthest right toggle switch on the wireless controller to the up position.

CAUTION: Do not stand inside the catwalk behind the carrier to insert or remove the safety bar.

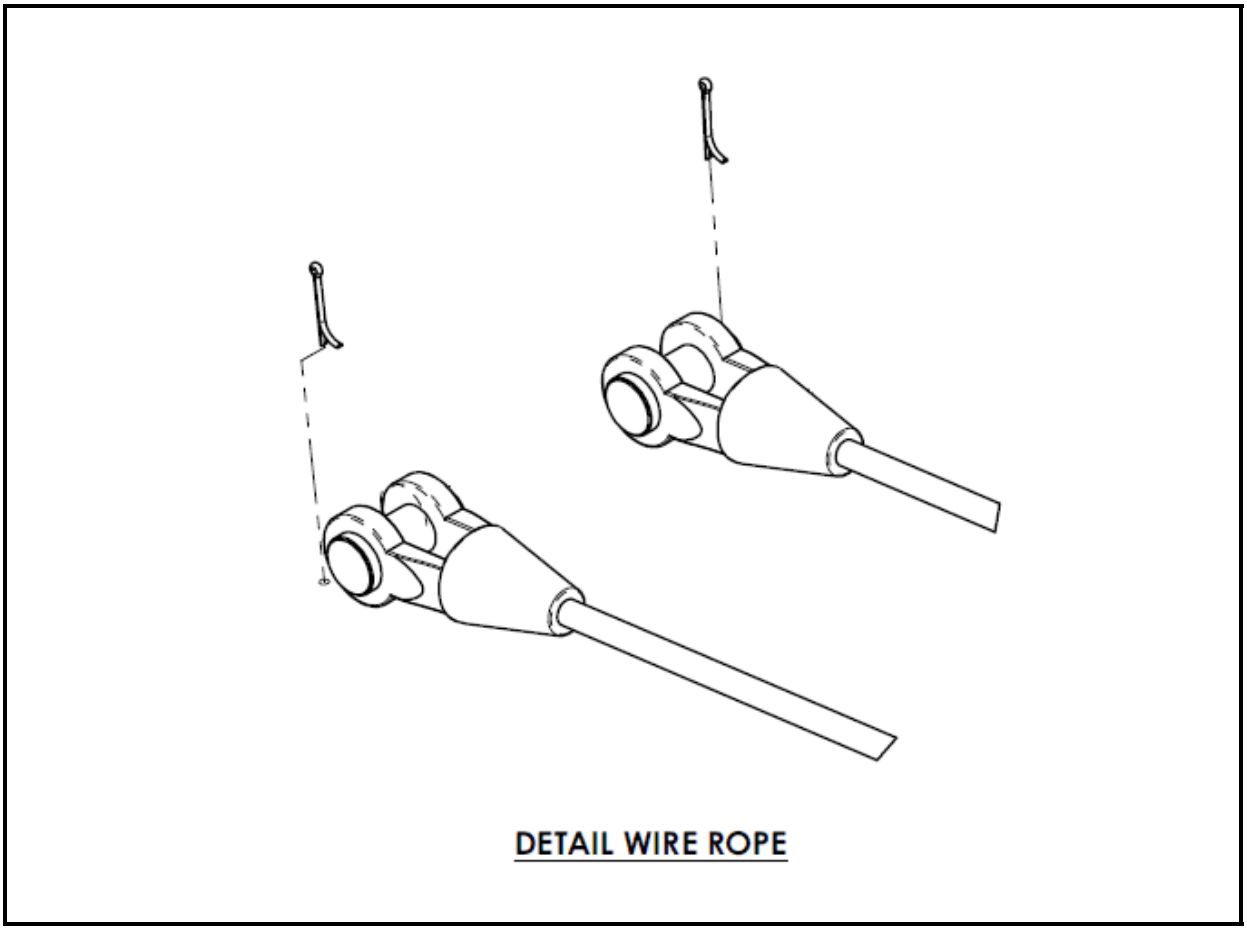
4. Once the carrier is firmly against the safety bar, continue to hold the carrier joystick in the down position and slacken the carrier cables until they can be unpinned from the carrier cable block without excess difficulty.

Caution: **Do not excessively unspool cables. Avoid allowing the cables to fall to the ground under the catwalk ramp.**

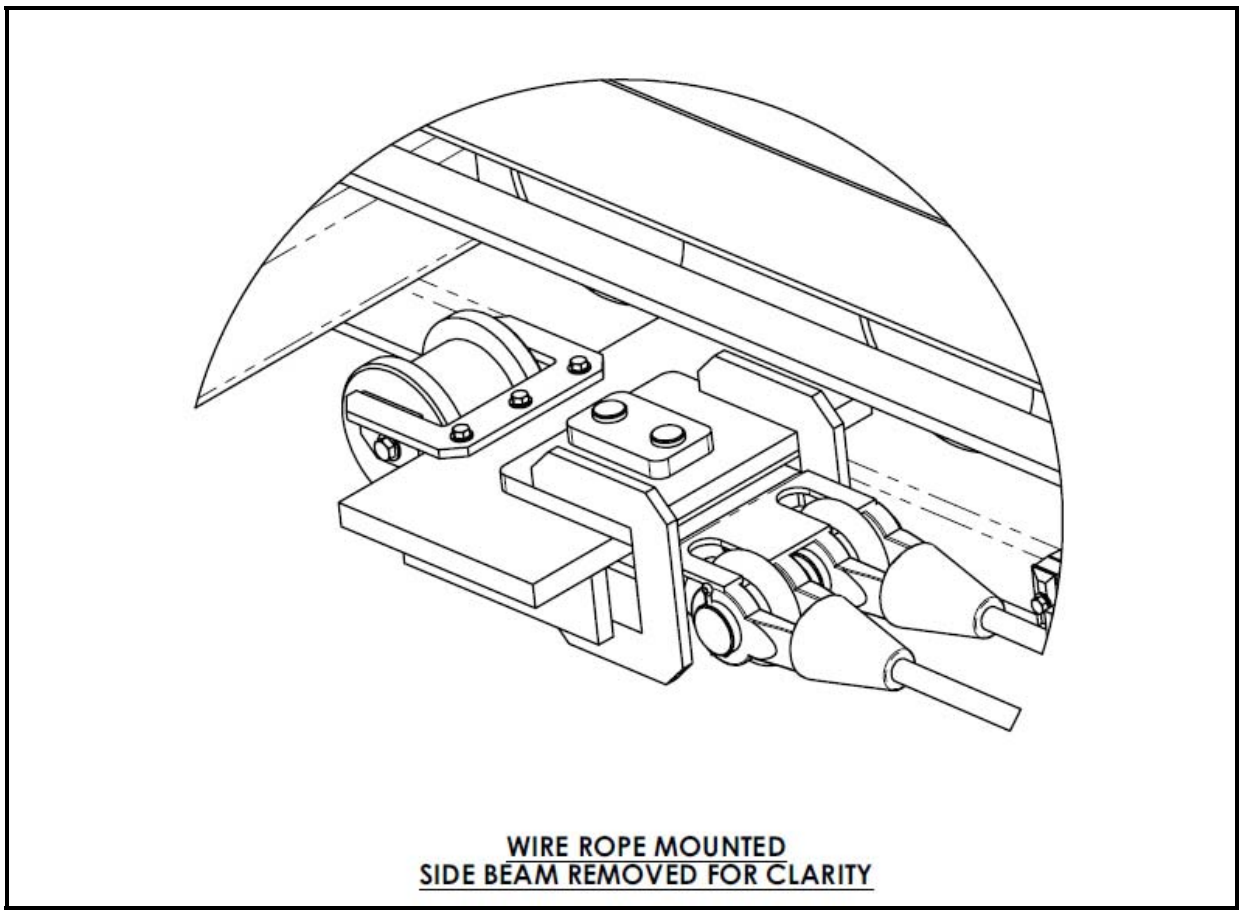
5. Shut off HPU motor and press the E-Stop switch on the tank control console. Use Lock Out / Tag Out procedure as required.

6. Unpin both carrier cables by removing the cotter pin from the cables pins as shown below.

Caution: **Use safe lifting practices and proper body positioning due to the weight of the cables.**

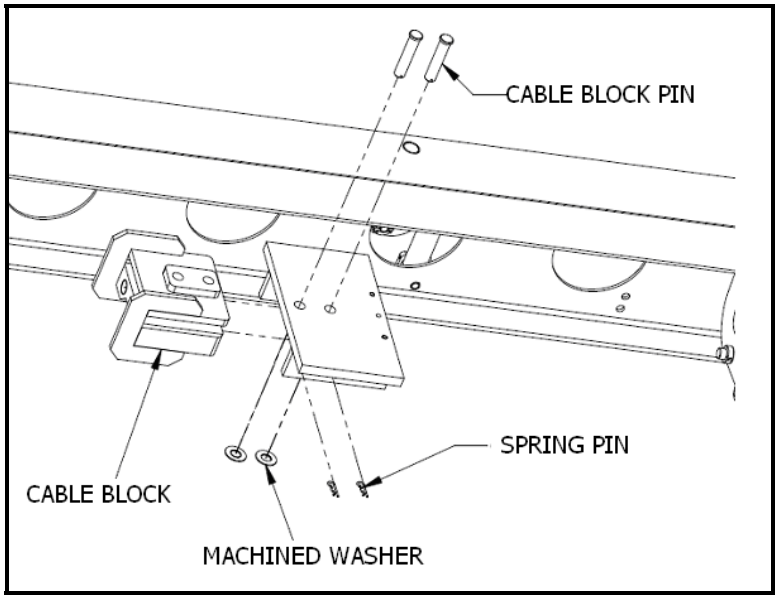


DETAIL WIRE ROPE



WIRE ROPE MOUNTED
SIDE BEAM REMOVED FOR CLARITY

7. Remove the roll pins (spring pin) and washers from the cable block pins and remove the pins from the block.



8. Remove carrier cable block.

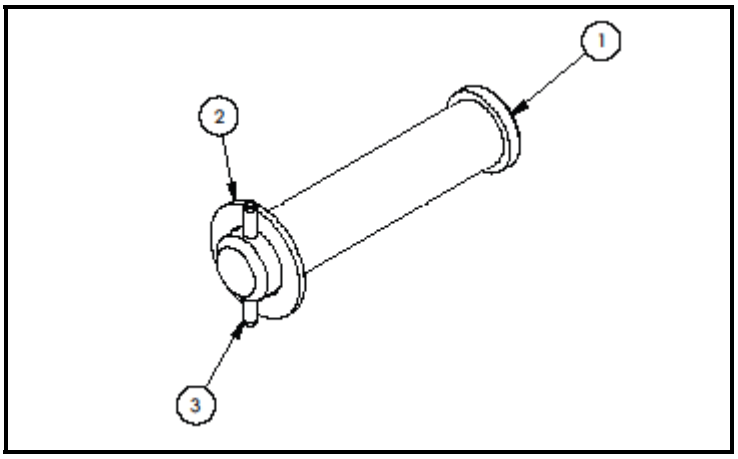
9. Sandblast cable block and the cable block anchor plate and perform MPI according to MPI map in the PC3000 1,000-Day Inspection.

10. Once all raw surfaces are painted and dry, re-install the cable block using new cable block pins. Part number AY50361.

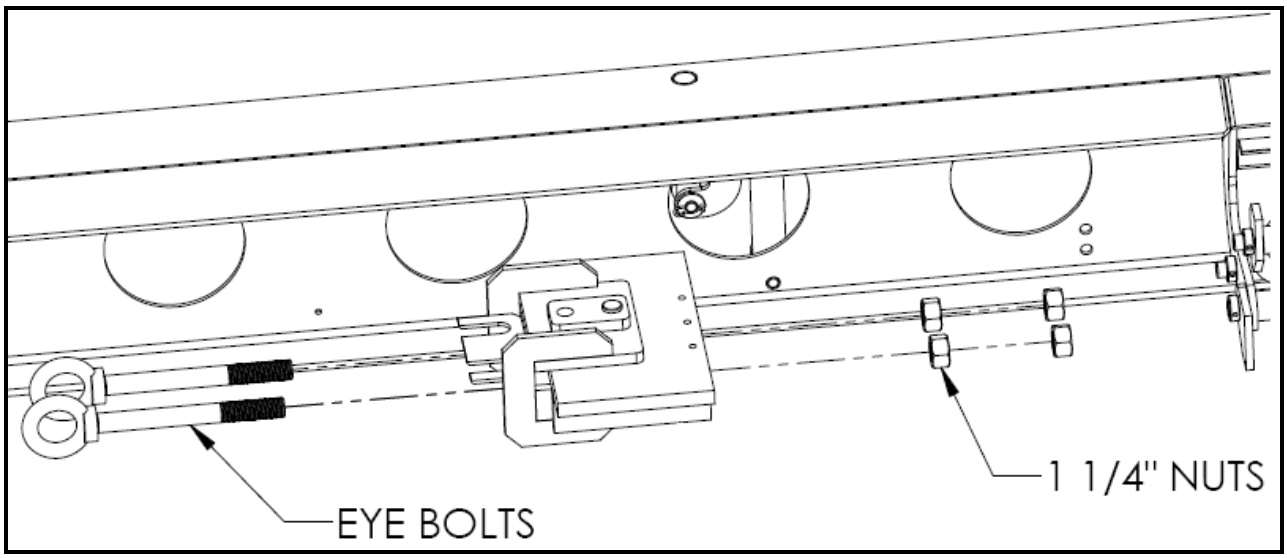
CAUTION: Always change both cable block pins to ensure safe cable block retention.

KIT, CABLE BLOCK CONNECTION

01	**2.00 EA**	**161100095**	**CABLE BLOCK PIN**
02	**2.00 EA**	**FW-1000-A-N**	**WASHER, F, 1, NARROW, TYPE A**
03	**2.00 EA**	**M10585**	**SPR PIN, SLOTTED, 0.1875 x 2.00 LG**



11. After inspecting the cable attachment pins, reconnect cables to the carrier cable block. Replace cable attachment pins if worn; use new cotter pins.



12. Spool cables on until they become nearly snug. Compare the cable tension between the two cables and using the eyebolts adjust cable tension accordingly to make the tension equal.

13. Remove Lock Out / Tag Out as required. Release E-Stop and Snail Mode. Start HPU and raise carrier sufficiently to remove safety bar.

CAUTION: Do not stand inside the catwalk behind the carrier to insert or remove the safety bar.

14. Fully raise and lower carrier to check for proper operation. If catwalk operates properly, resume normal use of catwalk as needed.

Carrier Cable Block Pin Replacement

1. Perform Job Safety Analysis (JSA) to include everyone that could be affected by the task to be performed. All attendees of the JSA must sign the JSA form.

2. Ensure carrier is empty. Raise carrier to a level that will provide adequate safe access to the carrier cable block.

3. Install carrier safety bar as shown below and slowly lower carrier until it rests against safety bar. This should be done in “Snail Mode”. To activate Snail Mode, push the furthest right toggle switch on the wireless controller to the up position.

CAUTION: Do not stand inside the catwalk behind the carrier to insert or remove the safety bar.

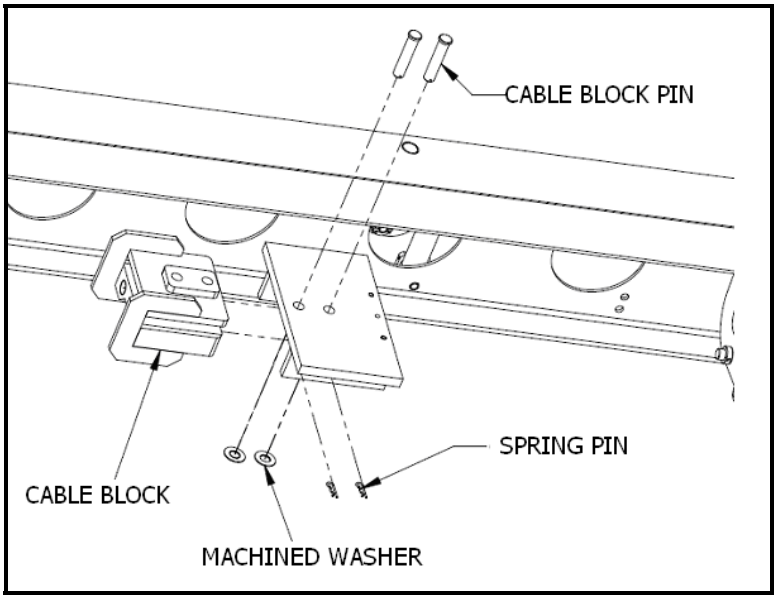
4. Once the carrier is firmly against the safety bar, continue to hold the carrier joystick in the down position and slacken the carrier cables until they can be unpinned from the carrier cable block without excess difficulty (in the event the pins cannot be removed without disconnecting the cables from the block).

Caution: **Do not excessively unspool cables. Avoid allowing the cables to fall to the ground under the catwalk ramp.**

5. Shut off HPU motor and press the E-Stop switch on the tank control console. Use Lock Out / Tag Out procedure as required.

6. Remove the spring pin (roll pin) from one of the cable block pins and remove the pin. Insert the new pin and washer and secure them with a new roll pin. Perform the same task with the second pin.

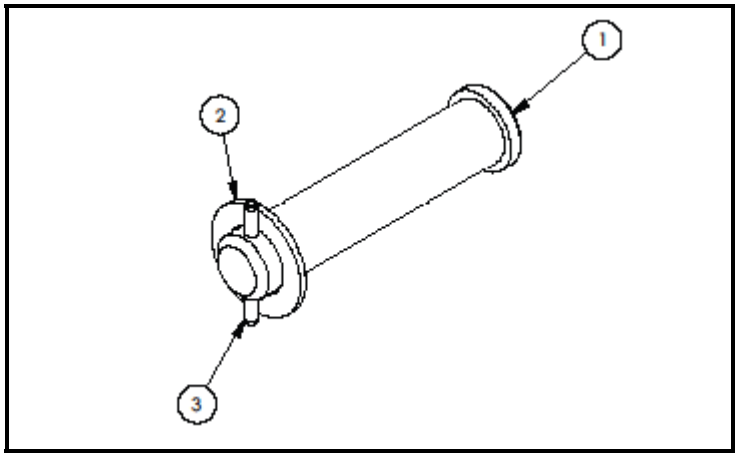
Caution: **Do not remove both carrier block pins while the carrier cables are attached to the block. This may result in serious personal injury.**



Warning: **Never replace only one pin. Always change both pins and their washers and roll pins with new parts. This will help ensure safe cable block retention.**

KIT, CABLE BLOCK CONNECTION

01	2.00 EA	161100095	CABLE BLOCK PIN
02	2.00 EA	FW-1000-A-N	WASHER, F, 1, NARROW, TYPE A
03	2.00 EA	M10585	SPR PIN, SLOTTED, 0.1875 x 2.00 LG



7. Spool cables on until they become nearly snug. Compare the cable tension between the two cables and using the eyebolts adjust cable tension accordingly to make the tension equal.

8. Remove Lock Out / Tag Out as required. Release E-Stop and Snail Mode. Start HPU and raise carrier sufficiently to remove safety bar.

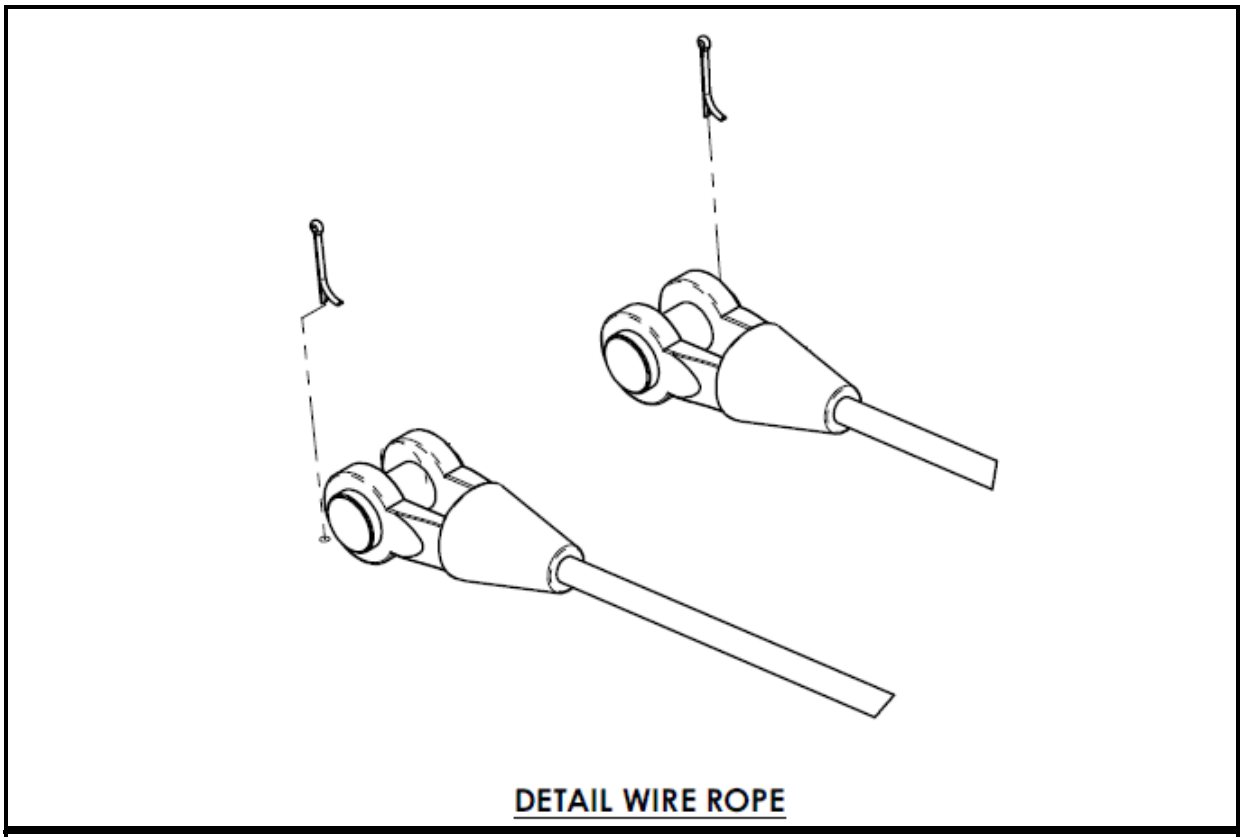
CAUTION: Do not stand inside the catwalk behind the carrier to insert or remove the safety bar.

9. Fully raise and lower carrier to check for proper operation. If catwalk operates properly, resume normal use of catwalk as needed.

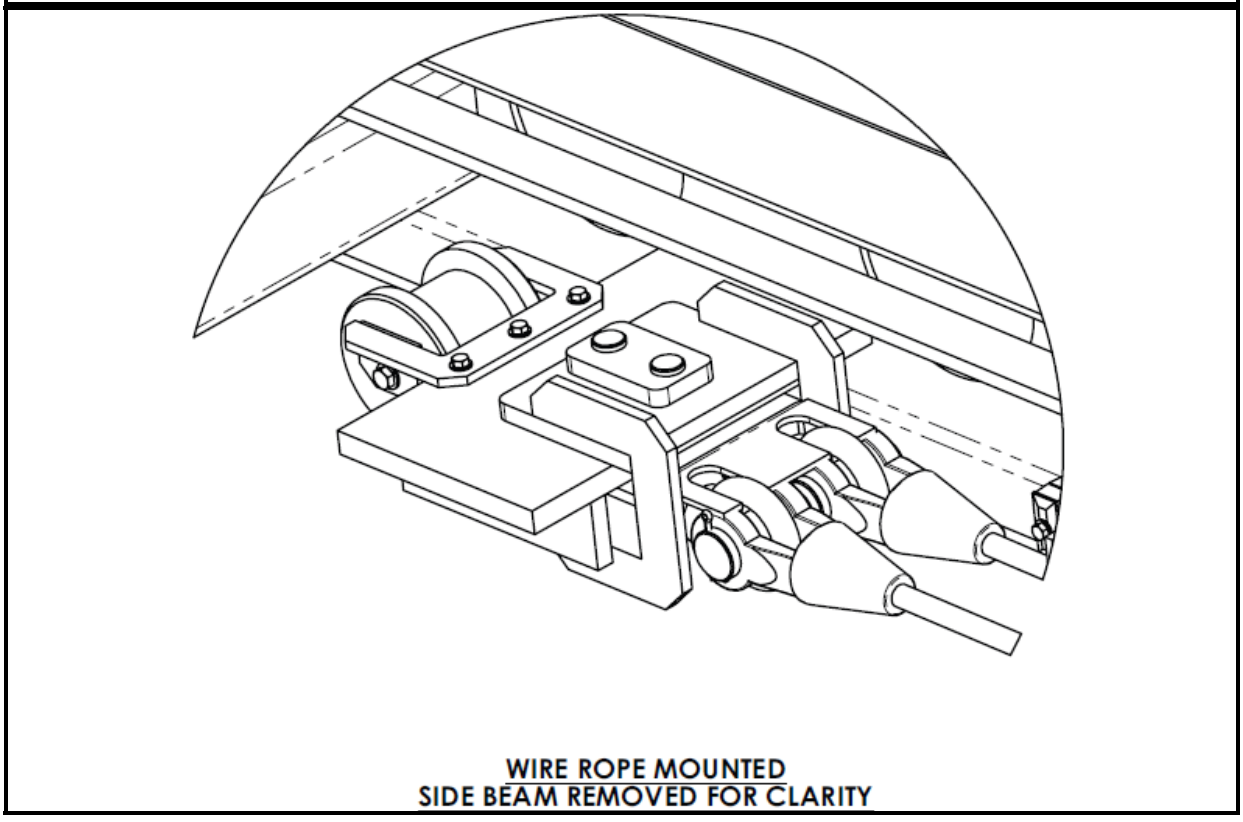
Note: In the event the carrier cable block pins cannot be removed while the carrier cables are connected to the cable block, follow these steps to remove the carrier cables.

CAUTION: Use safe lifting practices and proper body positioning due to the weight of the cables.

- Unpin both carrier cables by removing the cotter pin from the cables pins as shown below.



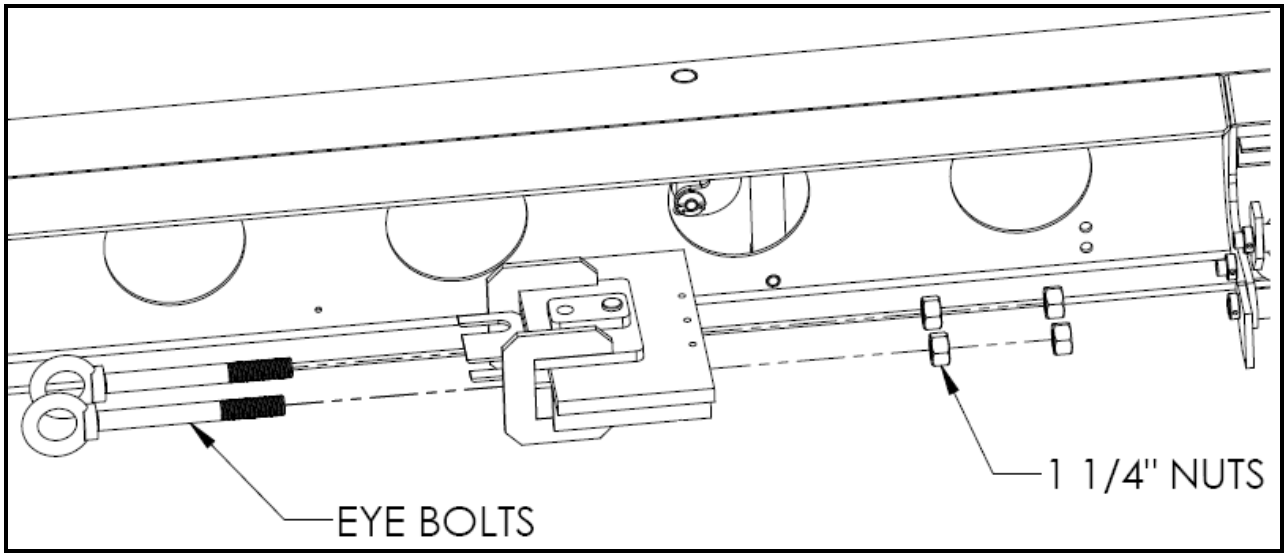
DETAIL WIRE ROPE



WIRE ROPE MOUNTED
SIDE BEAM REMOVED FOR CLARITY

- After disconnecting the cables, **perform step 6** as described above.

- After inspecting the cable attachment pins, reconnect cables to the carrier cable block. Replace cable attachment pins if worn; use new cotter pins.



- **Proceed with steps 7 through 9 as described above.**