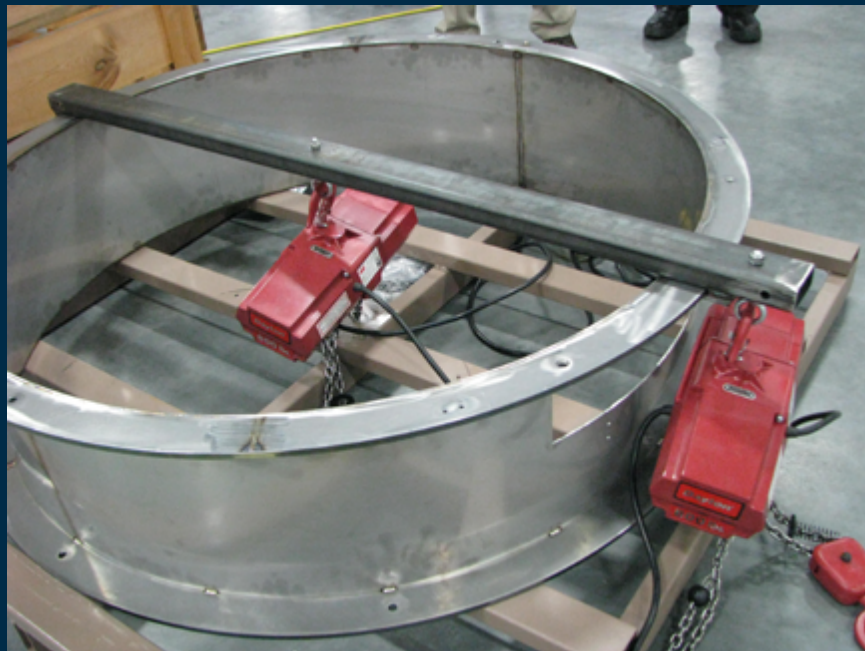




CBT BOWL MOTOR VERTICAL LIFT KIT



Revision History

rev. level 01_03.14.2012
 rev. level 02_03.19.2012
 rev. level 03_03.23.2012
 rev. level 04_05.30.2013

NOTE: due to the fact that a new machine (never exposed to seed treatment) was used to demonstrate replacing the Bowl & Wrap procedures in this manual, chemical protective equipment was not used in the photos.

WARNING: always wear protective clothing, as described on the following page, whenever exposed to chemicals and chemical dust!

EXPOSURE CONTROL

Always use caution and common sense when working with chemicals. Read the product label and SDS carefully and follow their instructions exactly as described. The following Personal Protective Equipment (PPE) recommendations and best practices help promote safe use in seed treatment.



Wear protective clothing

Wear disposable or reusable coveralls with long sleeves.



Hand protection required

Wear chemical-resistant gloves.



Wear rubber boots

Wear chemical resistant rubber boots.



Labels

Label recommendations and directions for handling must be followed, including treatment procedure (use of sticker) as well as the safety requirements.



Treatment products

Keep products in a locked room that has been approved for crop protection products.



Wear a mask

Wear respiratory protection.



Eye protection required

Wear protective eyewear.



Calibration

Seed treatment equipment must be checked and calibrated regularly to ensure accurate and safe application.



Clean seed

Use well cleaned seed to avoid creation of polluted dust that will contaminate the treating facility, workers, farmers and the environment during sowing.



Cleaning

Use a vacuum to clean machines and coveralls. Never use compressed air.



Laundry

Wash soiled reusable clothing separately. Workers must take a shower after each shift.



Empty containers

Non-returnable empty containers must be triple rinsed before they can be disposed. For others the recommendation of the producer must be followed.



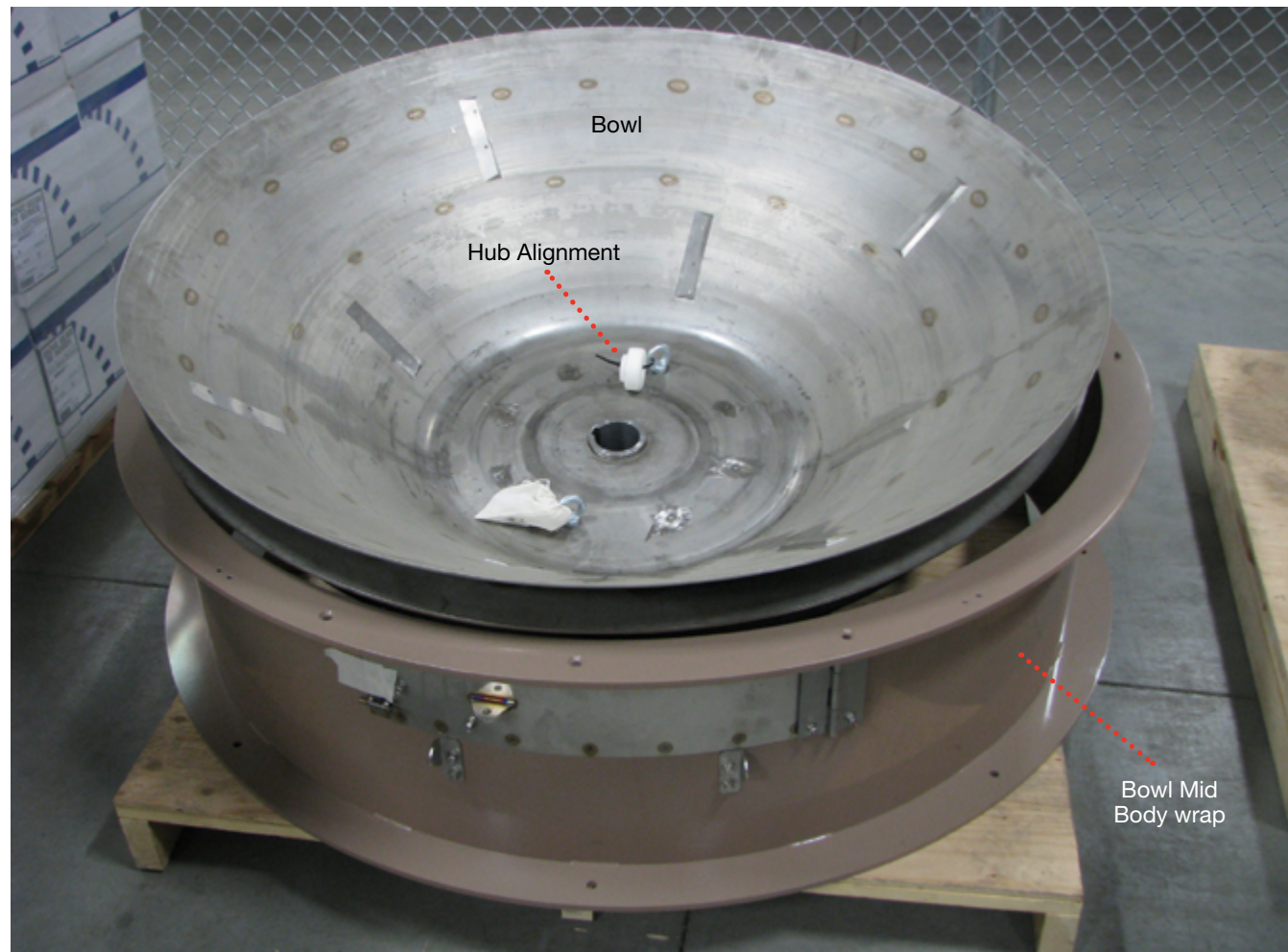
Spillage

Spillage must be avoided; it must be thoroughly cleaned up to avoid contaminating the environment and waterways.



Maintenance

Keep machinery clean between treating sessions.



CBT200 REPLACEMENT KIT A424200

The CBT200 replacement kit A424200 will be used in this manual for demonstration purposes only. Remove the CBT Bowl & Wrap replacement Kit from shipping crate. Inspect for damaged or missing parts.

- BOWL REWORK (1) - the Bowl
- CYLINDER WELDMENT (1) - the Bowl Mid Body Wrap
- HUB ALIGNMENT GUIDE (1), EYE BOLT -long (2), EYE BOLT -short (2), METRIC HARDWARE, SHIMS

PART 1

Removing the existing Bowl & Wrap



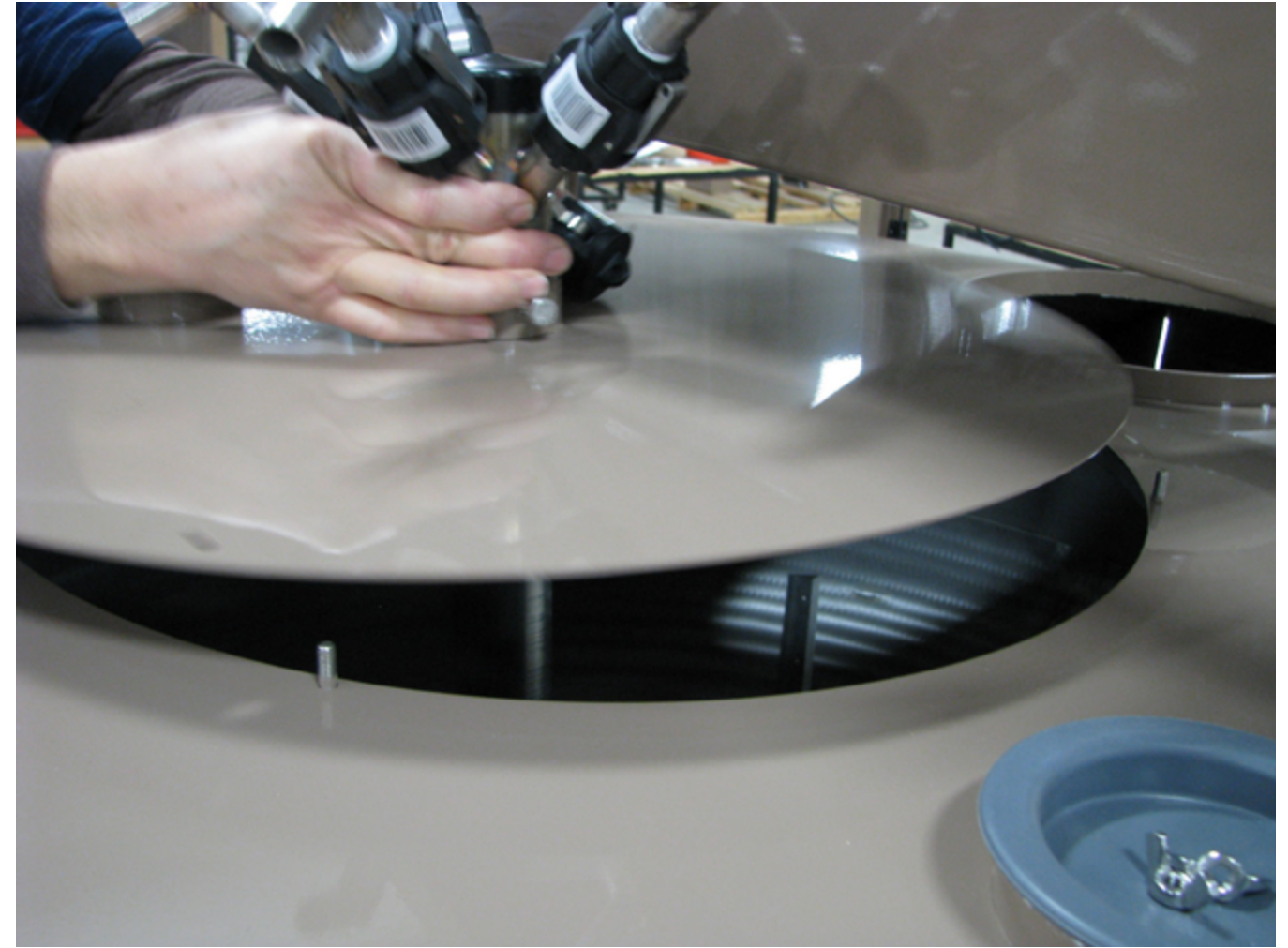
Required assembly tools

- FORKLIFT OR LIFTING DEVICE
- TORQUE WRENCH
- RATCHET WRENCH
- DIE GRINDER (hand held)
- 7/16 STANDARD SOCKET HEAD
- 10mm SOCKET HEAD
- 13mm SOCKET HEAD
- 17mm SOCKET HEAD
- SNAP RING PLIERS
- PLIERS
- PHILLIPS SCREWDRIVER
- SLOTTED SCREWDRIVER
- PUTTY SCRAPER
- ANTI-SEIZE (recommend SAF-T-EZE brand)
- LOCTITE (recommend LOCTITE 242 threadlocker brand)
- RTV SEALANT (recommend DOW CORNING 742 clear)
- CLEAN WIPES & DENATURED ALCOHOL
- TAPE MEASURE



SEED INLET COLLAR

Step 1: On the existing machine, loosen and remove the Seed Inlet Collar from the bottom of the Transition.



CHEMICAL INLET PLATE ASSEMBLY

Step 1: Remove the four (4) wing nuts holding the Chemical Inlet Plate on top of the Bowl Cover.

Step 2: Remove the Chemical Inlet Plate from top of the Bowl Cover (Chemical Inlet Assembly will stay connected to the Plate).



BOWL COVER CLAMPS

Step 1: Loosen the five (5) clamps that hold down the Bowl Cover onto the Bowl Mid Body Wrap. Ensure they each hang completely down out of the way of the Bowl Cover Clamp Mounts (see insert photo).



SWING ARM

Step 1: Push in tab on Scale Clamp (see insert photo).

Step 2: Lower Scale Clamp and hook into Bowl Cover (see insert photo) and lift the Scale Clamp in upright position. The Scale Clamp will lock in place. This will lift the Bowl Cover up off the Bowl Mid Body.

Repeat on both sides of the Swing Arm.



BOWL COVER

Step 1: CAREFULLY swing the Bowl Cover away from the Bowl Mid Body Wrap.



Note: Can remove the Bowl Cover from the Swing Arm Hooks until Bowl replacement procedure is complete.



ACCESS PANELS

Step 1: Use 10mm socket head to remove four (4) 6mm bolts, washers and lock washers.

Step 2: Remove both (R-L) Lower Body Wrap Access Panels & Gaskets from the front of the Lower Body Wrap.



DUST EVACUATION

Step 1: Use a slotted screwdriver to disconnect and remove dust exhaust tube from the port on Discharge Assembly.



DISCHARGE SUPPORT

Step 1: Use 10mm socket head to remove four (4) 6mm bolts, washers and lock washers. Use 13mm socket head to remove two (2) 8mm bolts, washers and lock washers.

Step 2: Remove both (R-L) Bowl Discharge Supports from the front of the Lower Body Wrap.

Step 3: Reach inside the Lower Body Wrap through the Lower Body Access Panel opening with one hand to catch the nut and with the other hand, use a ratchet wrench to loosen and remove the bolt, washer and lock washer.

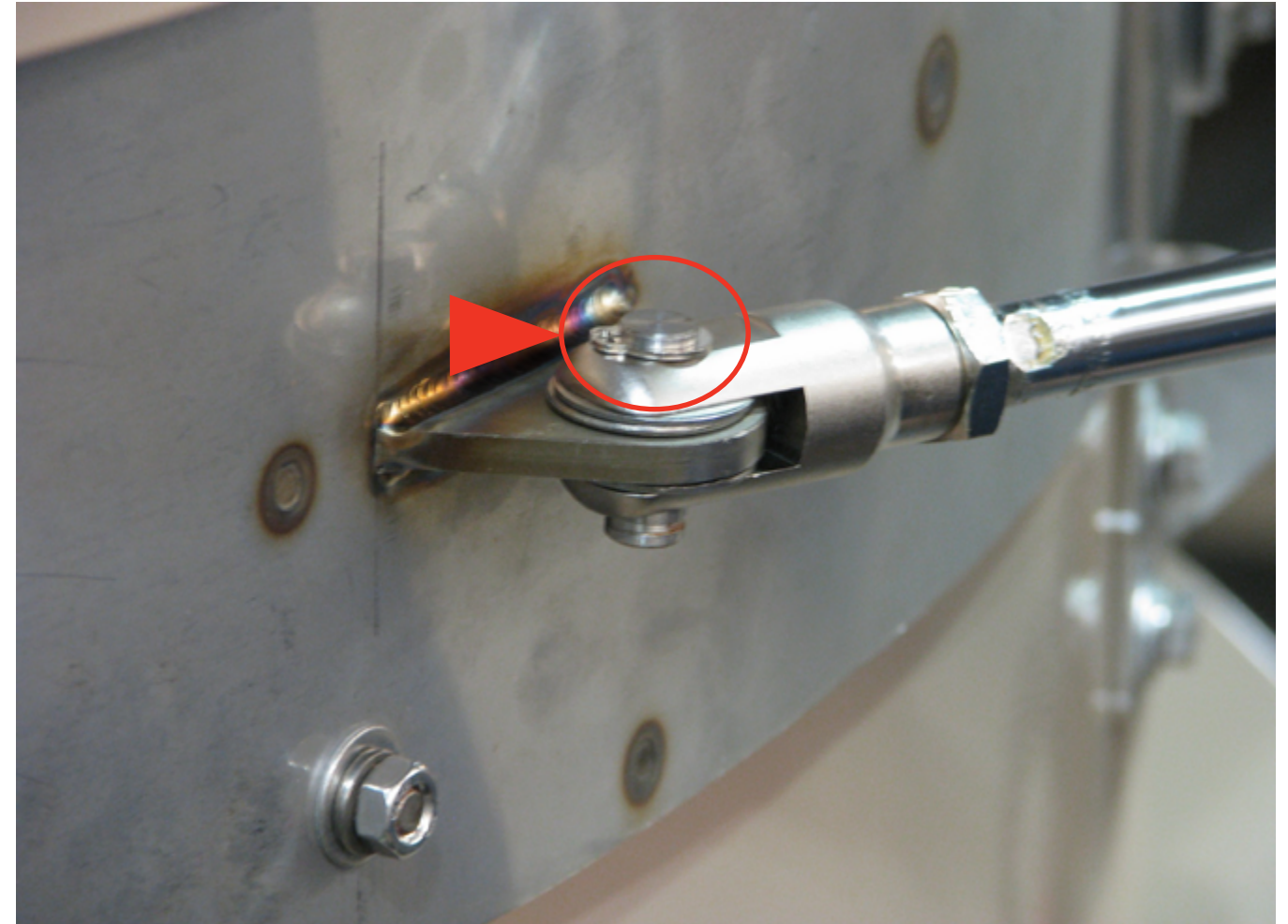


DISCHARGE ACCESS PANELS

Step 1: Remove both the Top and Front Discharge Access Panels.

TOP PANEL: Use 7/16 socket head to remove two (2) 1/4-20 bolts, washers and lock washers.

FRONT PANEL: Remove the two (2) 6mm wing nuts.

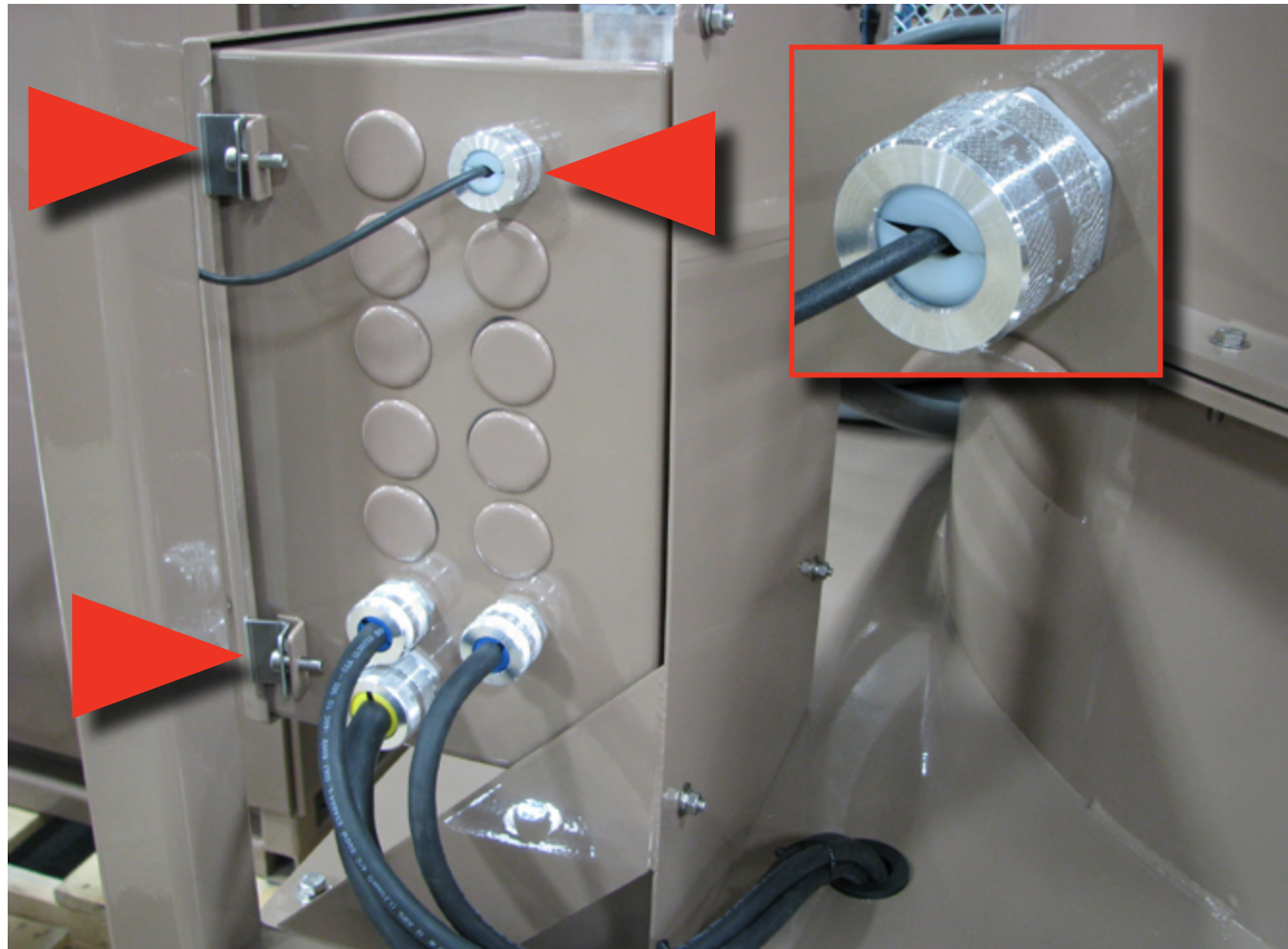


DISCHARGE AIR CYLINDER CLIP

Step 1: Use snap ring pliers to remove the Air Cylinder snap ring.

Step 2: Remove Air Cylinder snap ring that holds the Air Cylinder to the Discharge Door.

Step 3: Reach inside Discharge Top Access Panel and remove the Air Cylinder Assembly. Set aside on Bowl Lower Body.



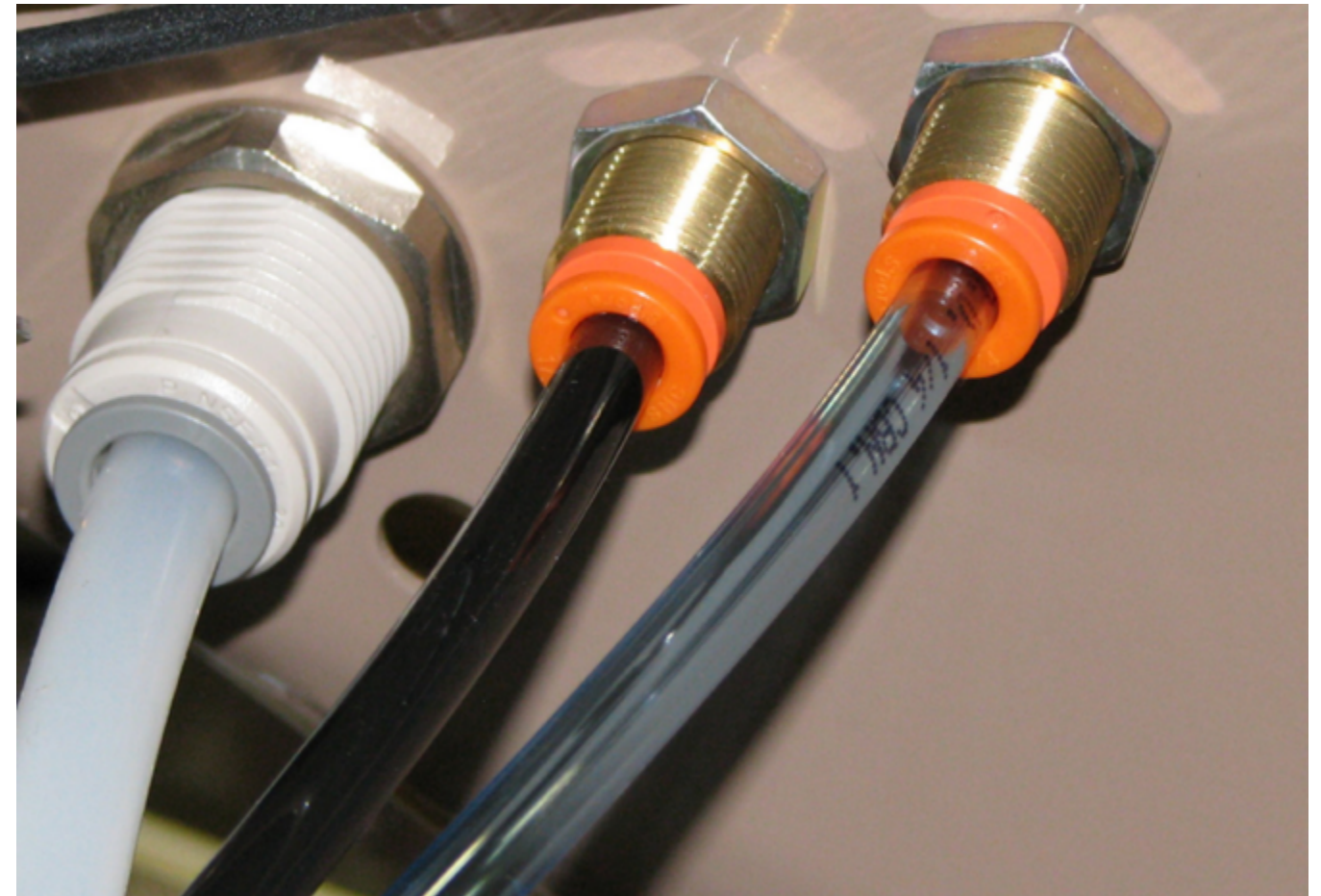
DISCHARGE SENSOR CABLE

Step 1: Use a Phillips screwdriver to loosen the clips and open the Main Junction Box mounted on the Treater Frame.

Step 2: Disconnect the Sensor cable (black wire) leads. Refer to image below - three (3) leads (Brown, Blue and Black) are connected inside Main Junction Box. Each lead is labeled.



Note: recommend removing (unscrew) the top silver connector on the outside of the Main Junction Box, in order to CAREFULLY pull the leads through, without tearing off the labels (see insert photo above).



TRANSITION AIR LINES

Step 1: Remove the Blue, Black and White Air Lines from the Transition.

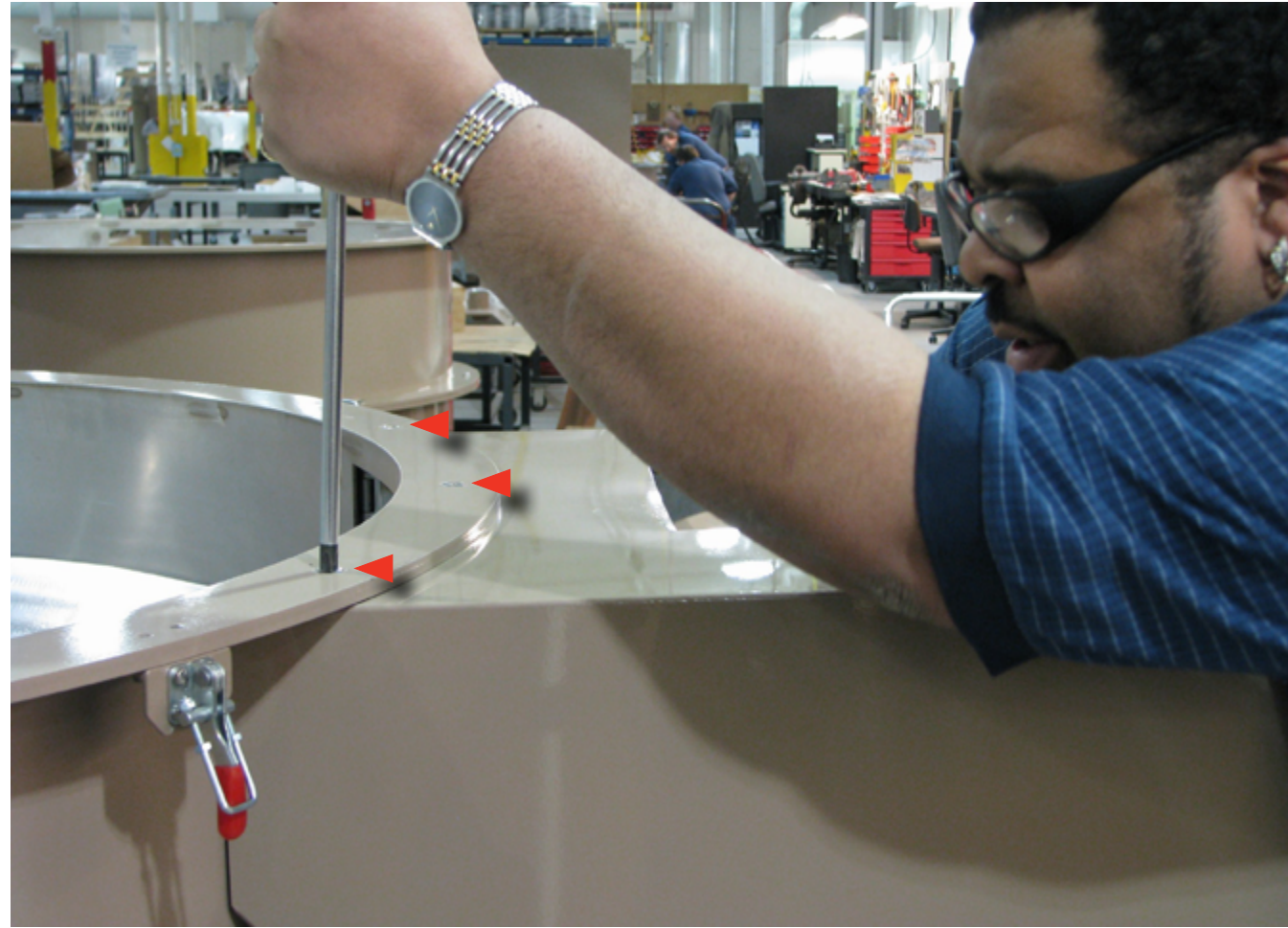
Step 2: With one hand push in the orange/gray tab and with the other hand pull each tube out of the fitting.

Step 3: Cut all the wire ties from the tabs that hold the Air Lines and Sensor Cable (refer to photo below). The Air Lines and Sensor Cable will stay connected inside the Discharge Assembly.



Note: ensure which air line (black on left and Blue on right, as shown above) connects to which fitting. Recommend labeling each fitting the color of tubing.





DISCHARGE ASSEMBLY

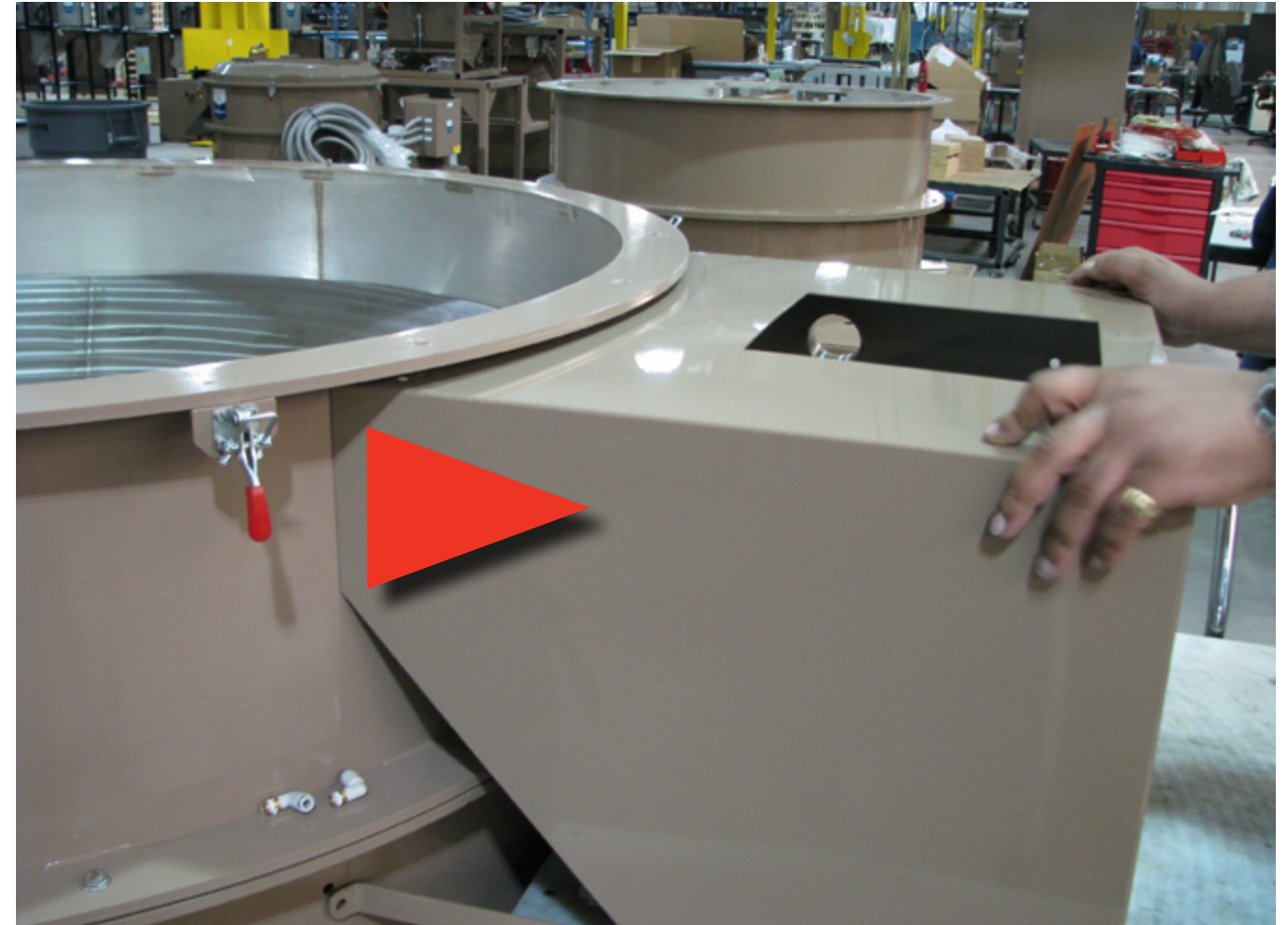
Step 1: Use Phillips screwdriver to remove three (3) 8mm pan head screws, lock washers and nuts.

Step 2: Remove the Discharge Assembly screws on the Bowl Mid Body Wrap.

Step 3: Use one hand to reach inside the Discharge Assembly to catch the nut and lock washer and the other hand to remove the Phillips pan head screws.



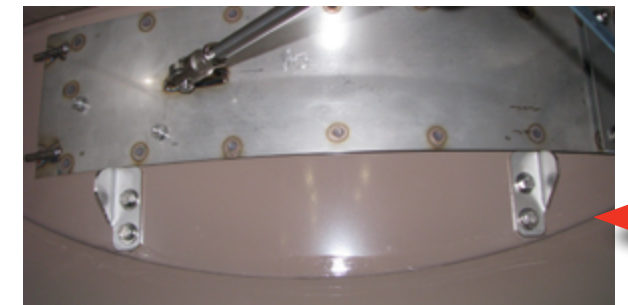
This may require two people - or use a makeshift device - to support the Discharge Assembly!

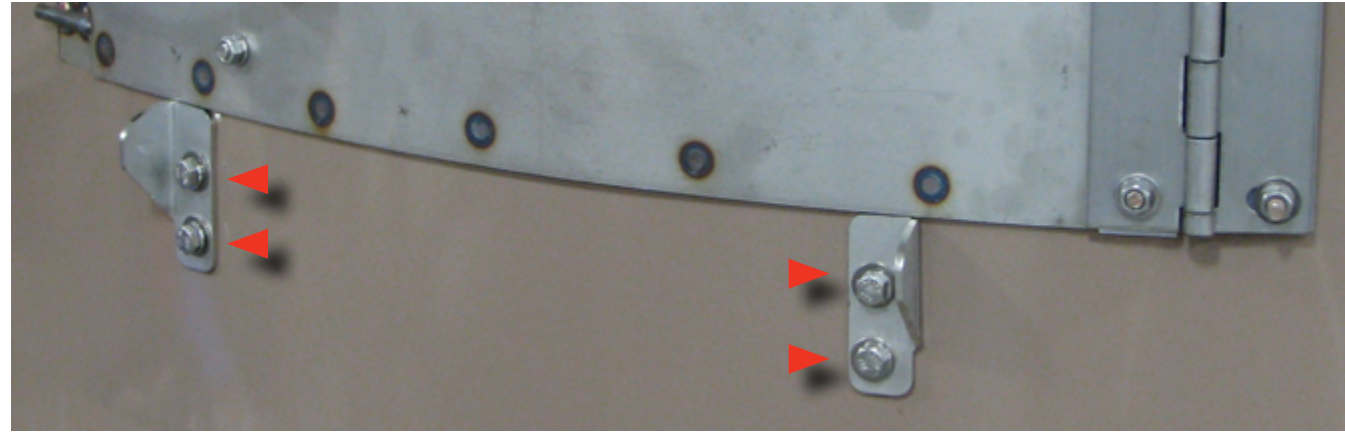


DISCHARGE ASSEMBLY

Step 1: CAREFULLY cut the RTV seal around the outside and inside of the Discharge Assembly (see images below).

Step 2: Remove the Discharge Assembly from the Bowl Mid Body Wrap. Set aside out of the way.



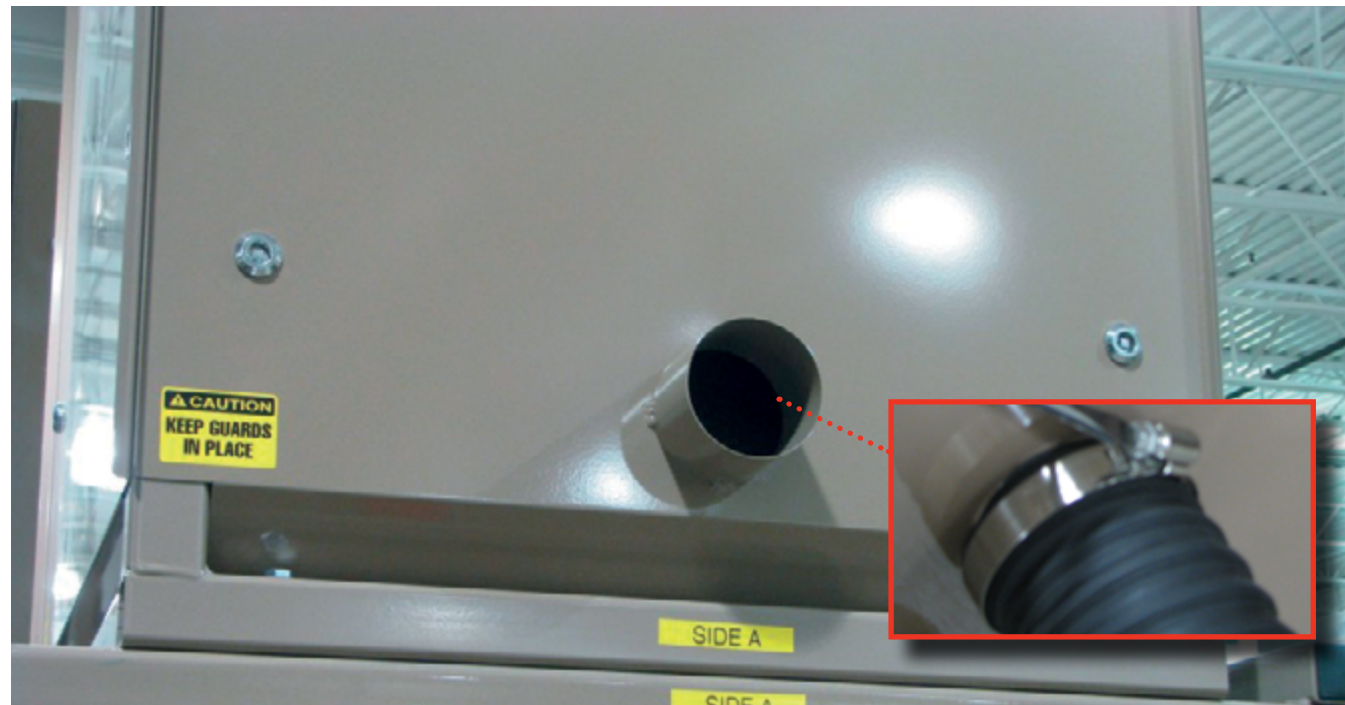


DISCHARGE DOOR GUIDES

Step 1: Use Phillips screwdriver to remove three (3) 8mm pan head screws, lock washers and nuts. Use 10mm socket head to remove four (4) 6mm bolts, washers and lock washers.

Step 2: Remove the two (2) Door Guide bolts from the Bowl Mid Body Wrap. Use a ratchet wrench to loosen and remove the bolt, washer and lock washers and guides.

Step 3: Use Phillips screwdriver to remove three (3) 8mm pan head screws, lock washers and nuts.



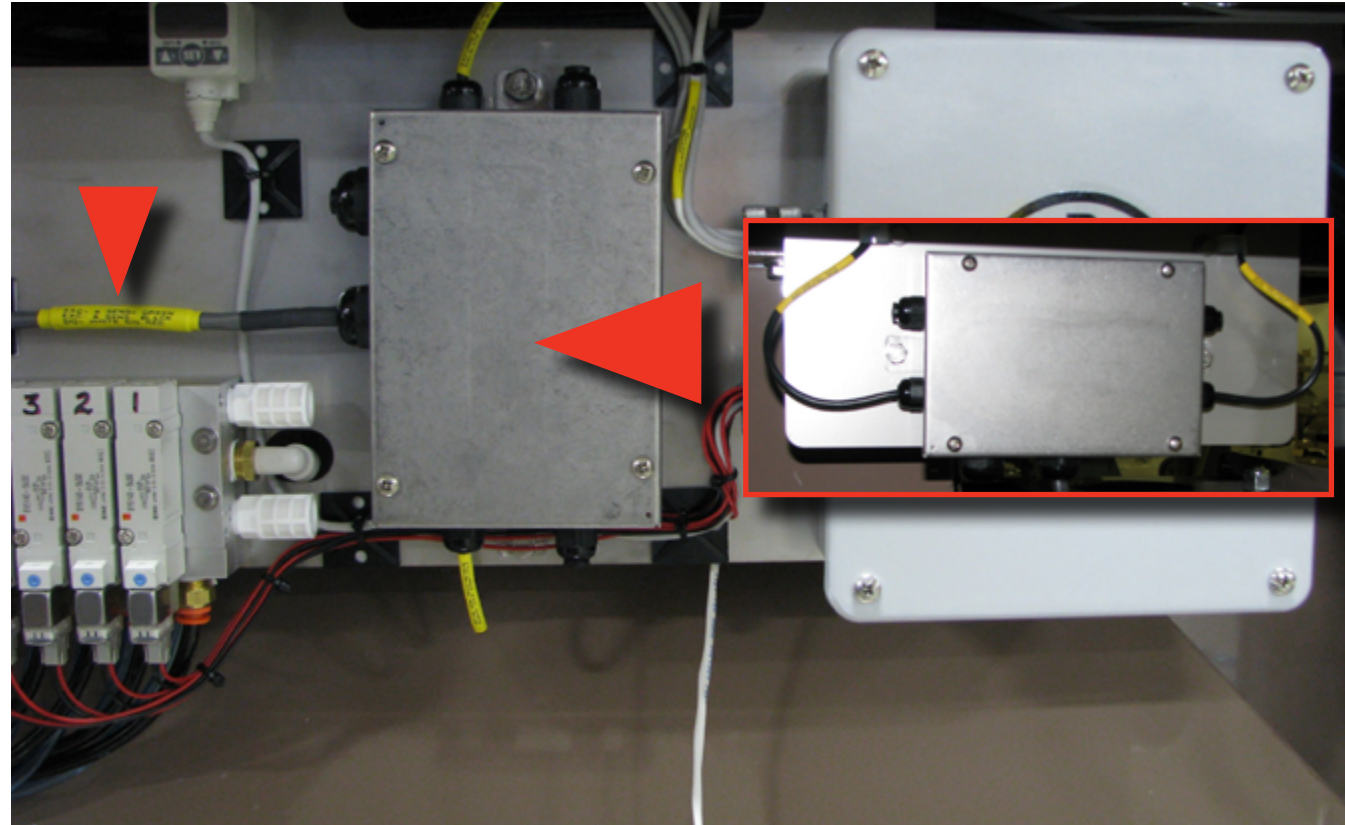
DUST EVACUATION

Step 1: Use a slotted screwdriver to disconnect and remove dust exhaust tube from the port on Scale Guard Panel (see insert photo above).



SEED TRANSITION

Step 1: Use the factory-supplied Safety Key and remove each Guard Panels from the Scale (see insert photo above).



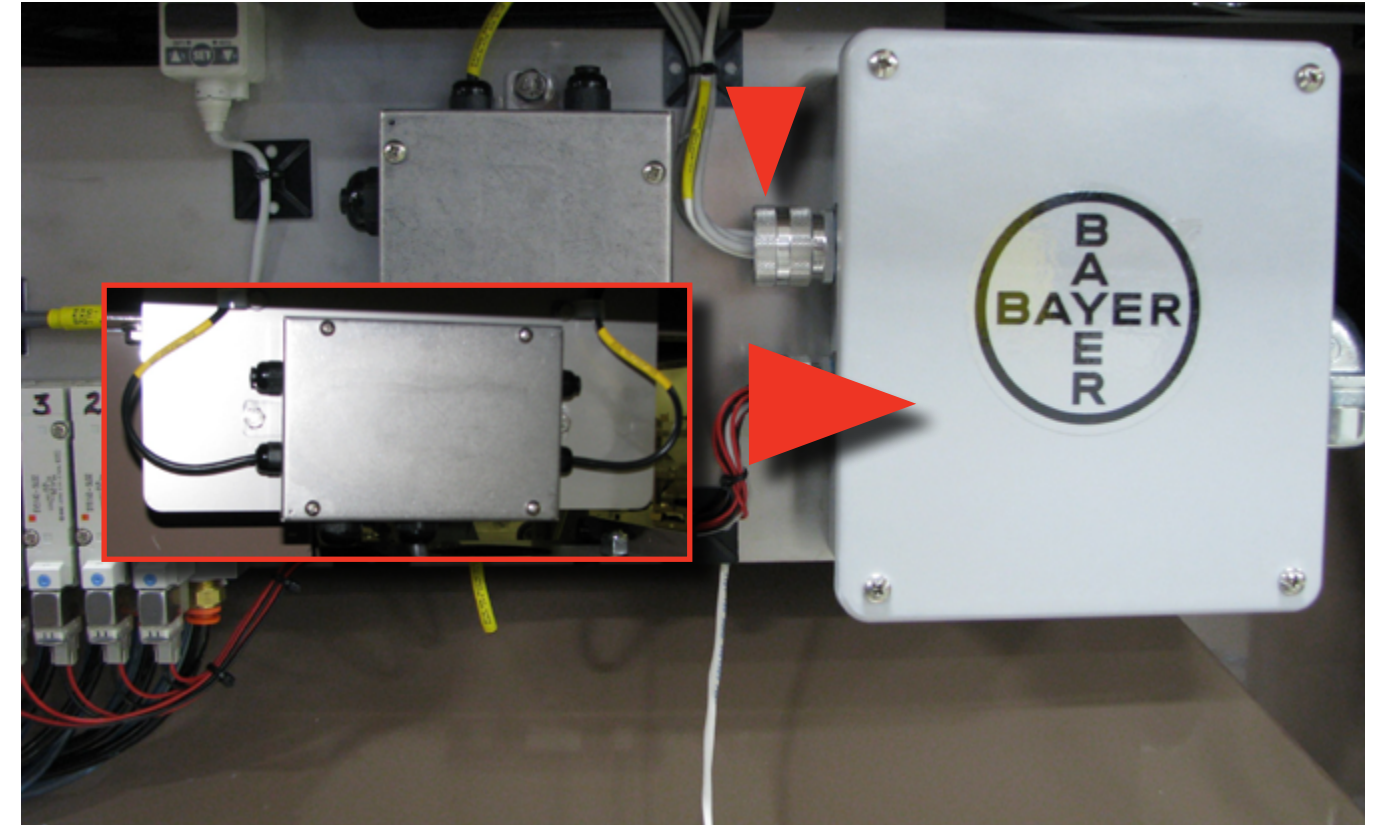
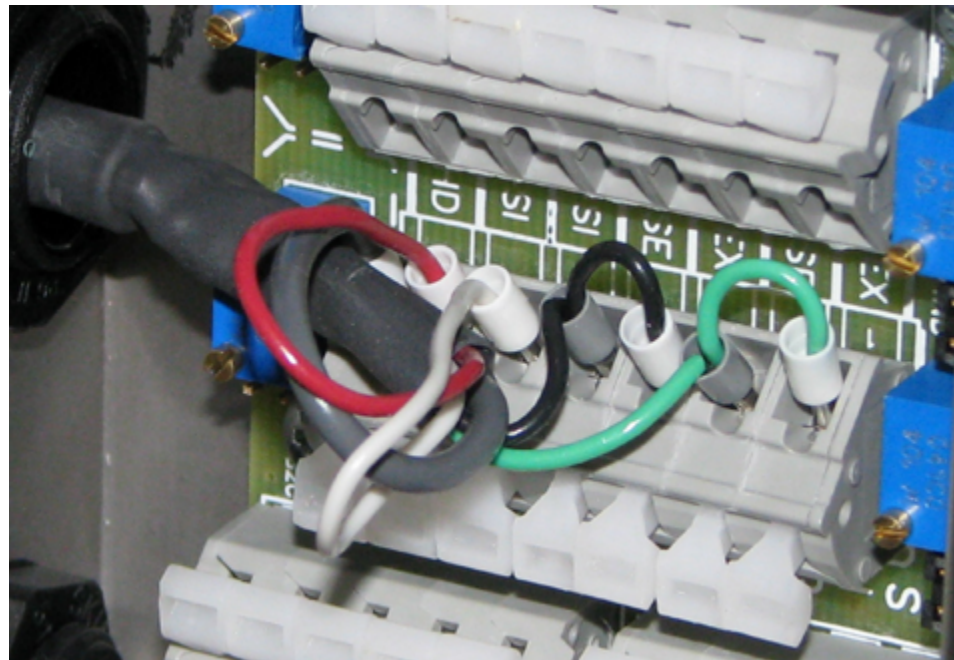
GRAY SCALE LOAD CELL WIRE

Step 1: Use a Phillips screwdriver to open the Junction Box cover on the left (older style junction box, see photo insert above).

Step 2: Disconnect the GRAY Scale Load cell wire leads. See image below (conneted).

Step 3: Remove the GRAY, red, white, black AND green wires.

Step 4: CAREFULLY pull the wire and leads out of the Junction Box and out of the Seed Transition.



WHITE SCALE CALIBRATION WEIGHT WIRE

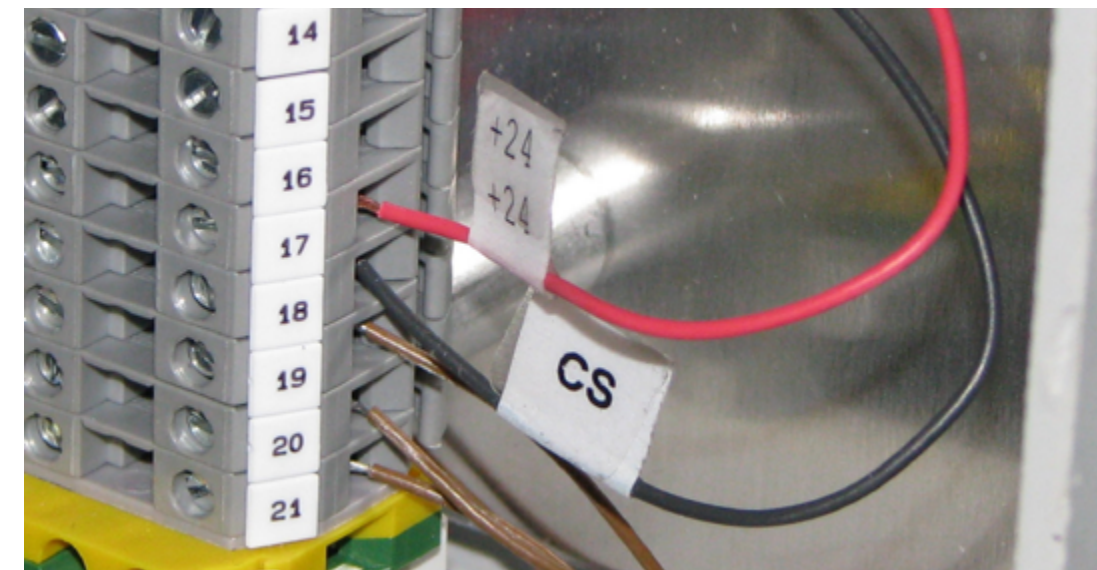
Step 1: Use a Phillips screwdriver to open the Junction Box cover on the right (older style junction box, see photo insert above).

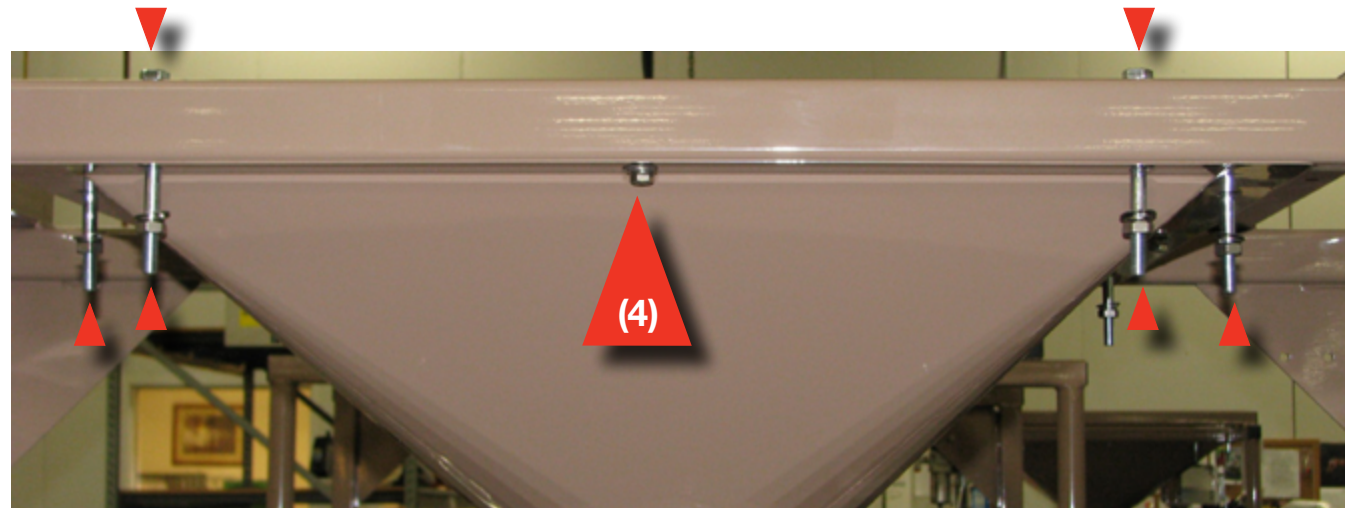
Step 2: Loosen the silver connector on the outside of the Gray Junction Box, in order to pull the leads through without tearing off the labels.

Step 3: Disconnect the WHITE Scale Calibration Weight wire leads. See image below (conneted).

Step 4: Remove the red, and black wires.

Step 5: CAREFULLY pull the wire and leads out of the Junction Box and out of the Seed Transition.





SEED TRANSITION

Step 1: Use two ratchet wrenches to loosen and remove the eight (8) Scale bolts that connect the Scale to the Scale Support frame and the Seed Transition.

Step 2: Use a ratchet wrench to loosen and remove the four (4) Seed Transition bolts that connect it to the Scale Support Frame.

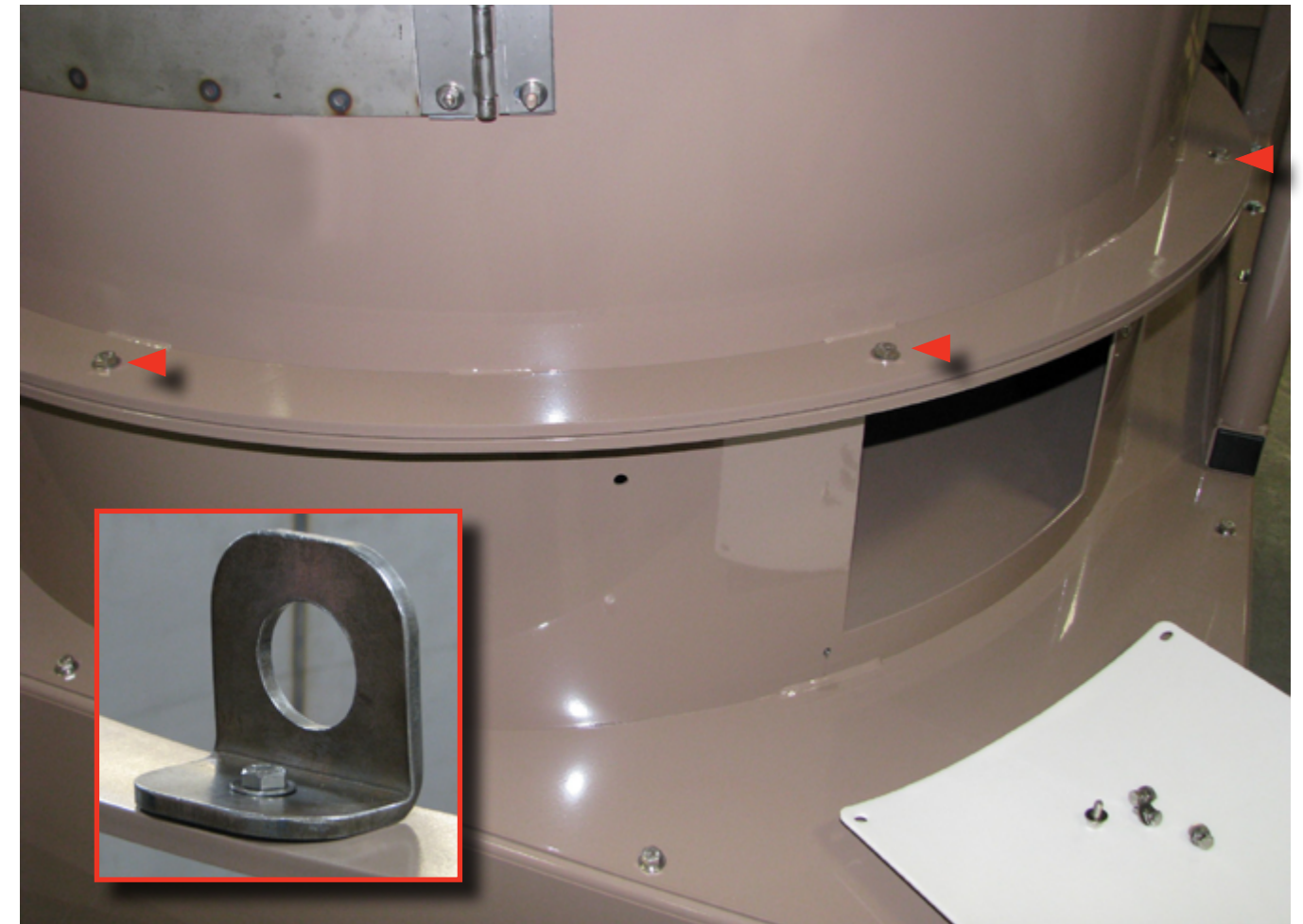
Step 3: Use a ratchet wrench to loosen and remove the Seed Transition from the Scale Support Frame.

Step 4: Once the Transition is removed, re-connect the Scale bolts to hold it in place on top of the Scale Support Frame.

Scale Bolts: Use 17mm socket head to remove eight (8) 10mm bolts, washers and lock washers.

Seed Transition Bolts: Use 13mm socket head to remove four (4) 8mm bolts, washers and lock washers.

Step 5: Remove and set the Seed Transition out of the way.



BOWL MID BODY WRAP

Step 1: Use 13mm socket head to remove eight (8) 8mm bolts, washers and lock washers.

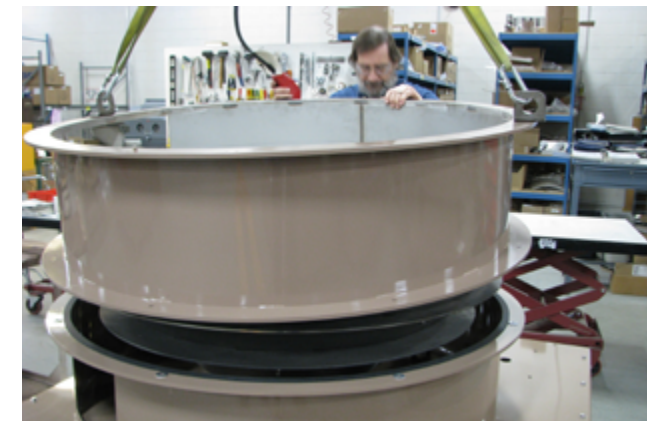
Step 2: Remove the eight (8) Bowl Mid Body bolts that connect it to the Bowl Lower Body.

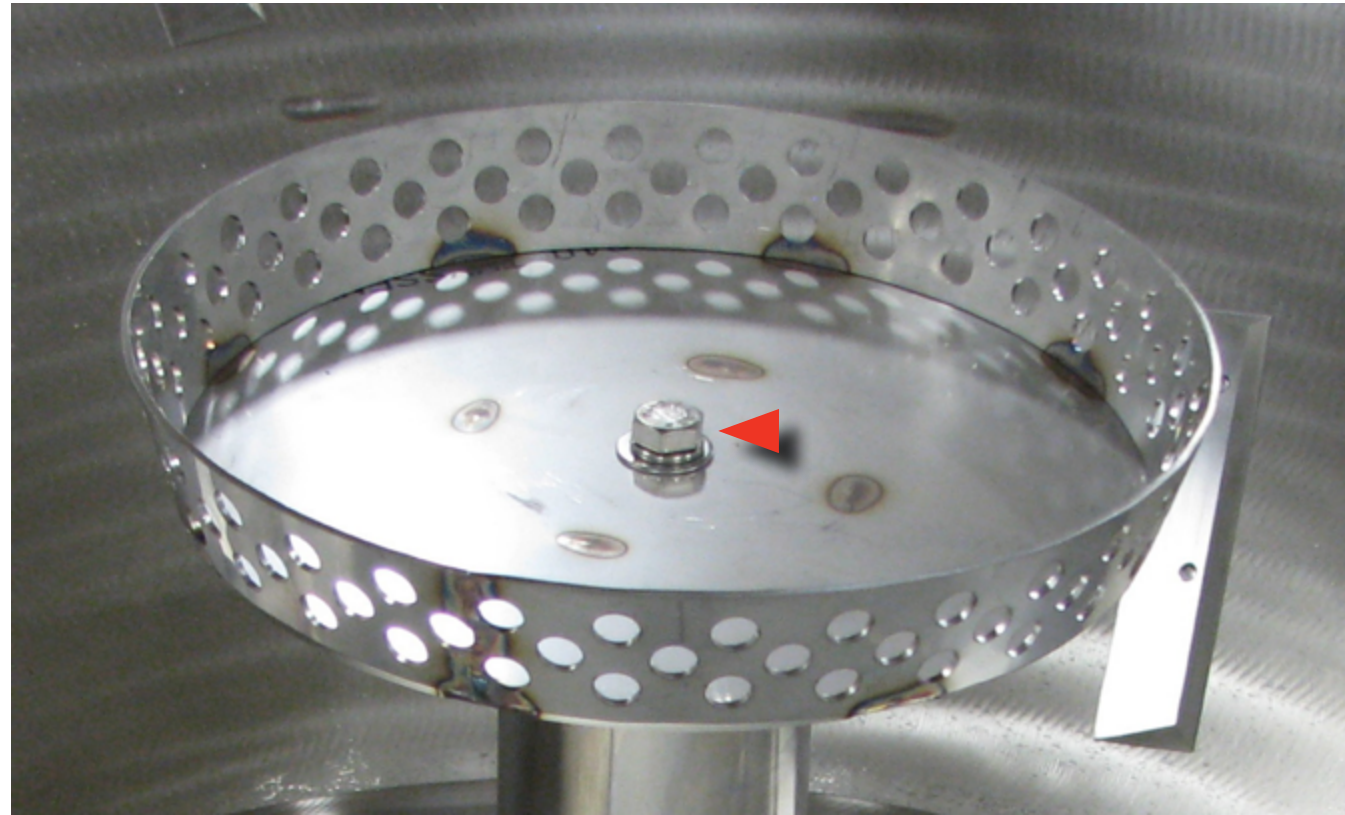
Step 3: Use a ratchet wrench to loosen and remove the bolt, washer and lock washers.

Step 4: CAREFULLY lift up and remove the Bowl Mid Body Assembly from the Bowl Lower Body (refer to image below).



Note: recommended the customer fabricate lifting lugs (see photo insert) and attach them to the top of the Bowl Mid Body Wrap to properly rig and lift it up from the Bowl Lower Body Assembly. Wrap weight = 150lbs

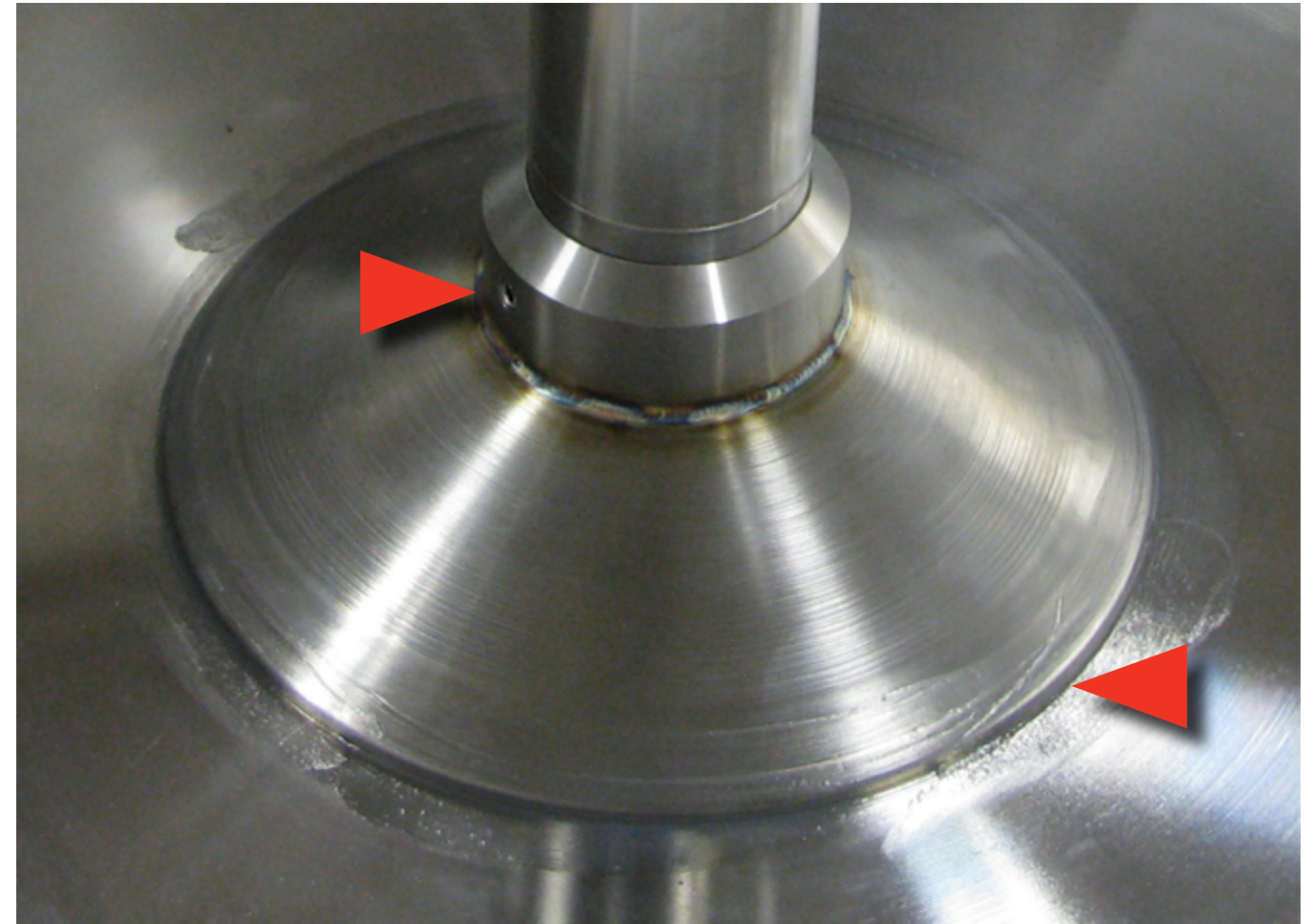




ATOMIZER

Step 1: Use 13mm socket head to remove the 8mm bolt, washer and lock washer that connects the Atomizer to the Driveshaft.

Step 2: Remove the Atomizer from the Driveshaft.



INNER CONE COVER

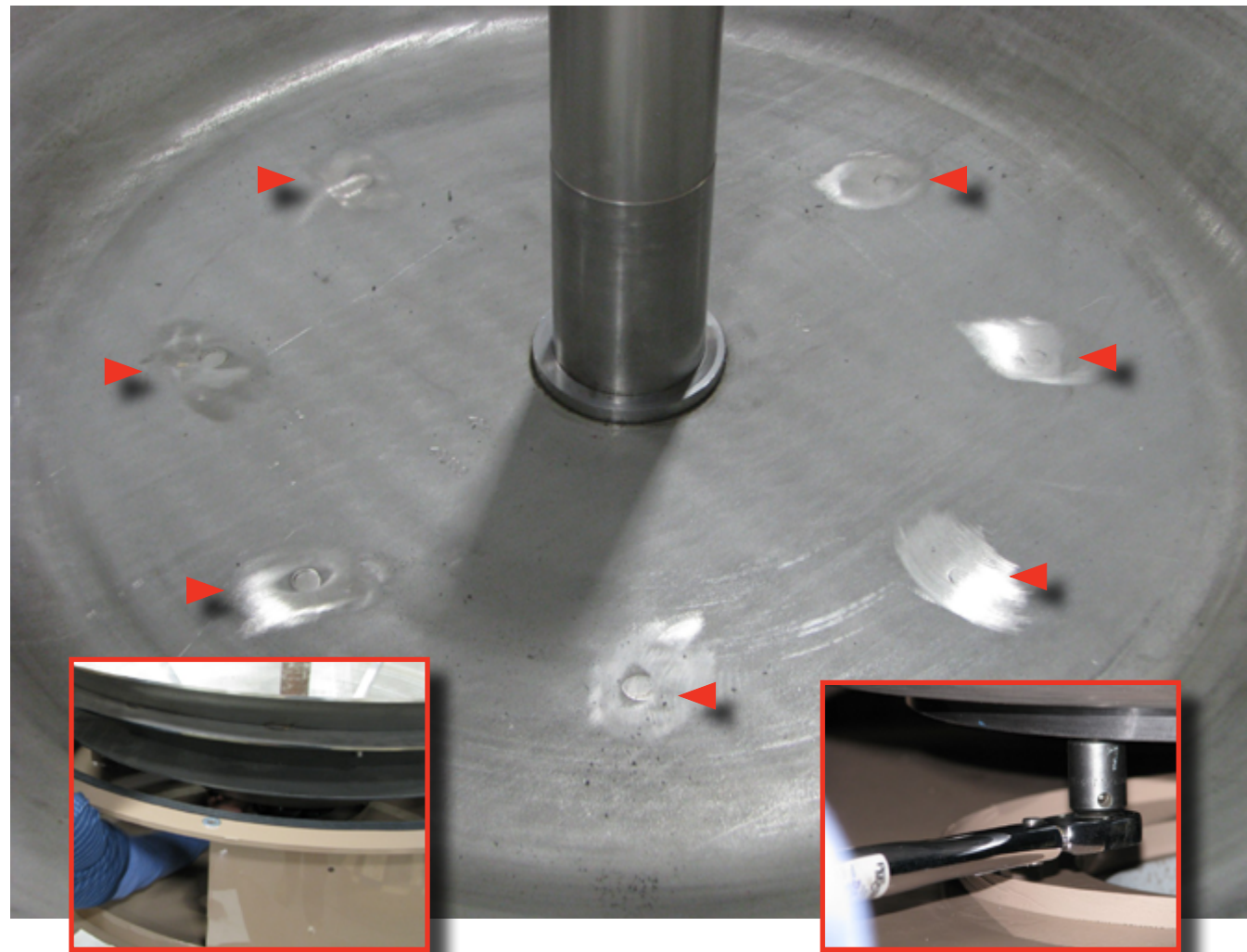
Step 1: Make certain the Driveshaft is completely cleaned of all chemical buildup! Use a putty scraper and emery cloth to make the driveshaft as clean as possible. The Cone Cover fits very snug on the Driveshaft.

Step 2: Use a 4mm Allen wrench to loosen the 8mm set screw on the Cone Cover.

Step 3: CAREFULLY use a utility knife to cut the seal around the bottom edge of the Inner Cone Cover and the Bowl. Use a flat screwdriver to pry the cone loose.

Step 4: Lift the Inner Cone Cover up over the Driveshaft.

Step 5: Clean excess RTV off the Bowl and Inner Cone Cover.



EYE BOLTS

Step 1: Use 17mm socket head to Remove the eight (8) bolts that hold the Bowl down onto the Hub.

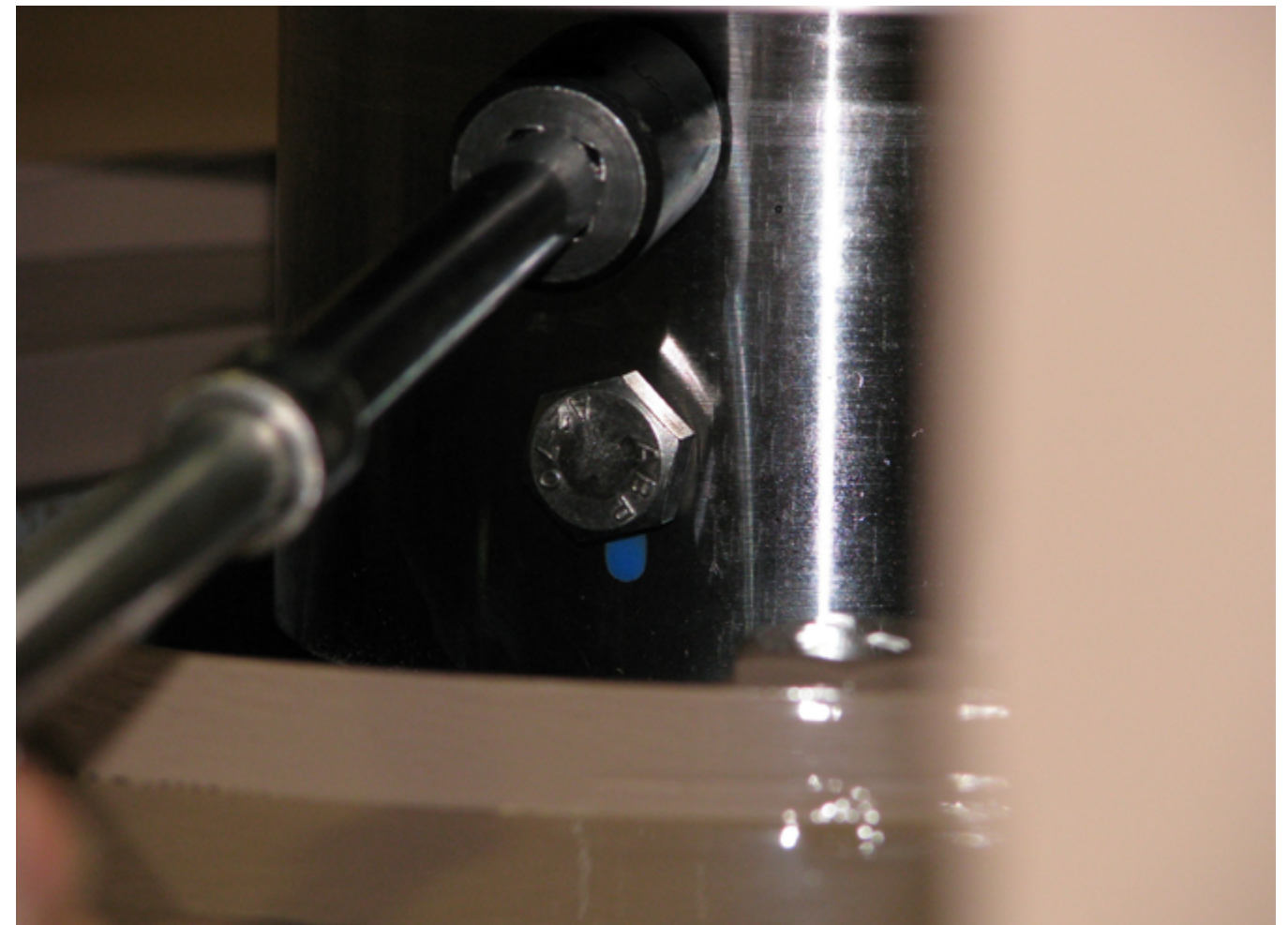
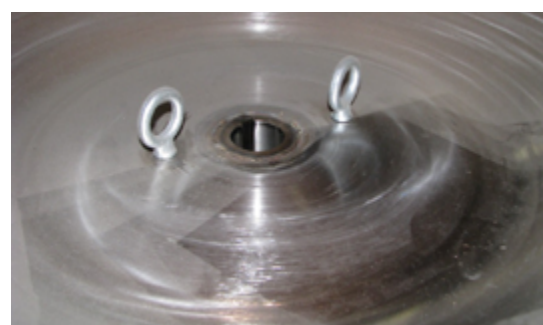
Step 2: Reach underneath the Bowl through the Access Panel opening (see photo insert, left) to access the eight bolts.

Step 3: Use a ratchet wrench (see photo insert, right) to loosen and remove the bolt, washer and lock washers.

Step 4: Insert two eye bolts (shipped with Bowl) into the Bowl opposite from each other. Securely hand tighten. This will re-connect the Bowl to the Hub for removal.

Step 5: For older style Bowls and CBT 100, see image below. The Hub is attached to the Bowl. Insert two eye bolts in the Bowl and loosen the two set screws underneath the Bowl (see page 29).

Step 6: Properly rig and lift the entire Bowl & Hub Assembly up off the Driveshaft. NOT recommended to lift by hand! See warning on page 30.



HUB SET SCREWS

Step 1: Reach under the Bowl through the Access Panel opening and Use 17mm socket head to remove the two (2) 10mm Hub set screws. Recommend using extensions on ratchet wrench, as shown.



Note: the Hub needs to be replaced only if it is an older style or CBT 100 (if the Hub is attached to the Bowl, see page 28). New CBT machines will be manufactured with the new style Hub and Bowl as two separate pieces. Then, only the Bowl will need to be replaced.



BOWL & HUB ASSEMBLY

Step 1: Properly rig and CAREFULLY lift the Bowl & Hub Assembly straight up and off the Driveshaft (see image below).

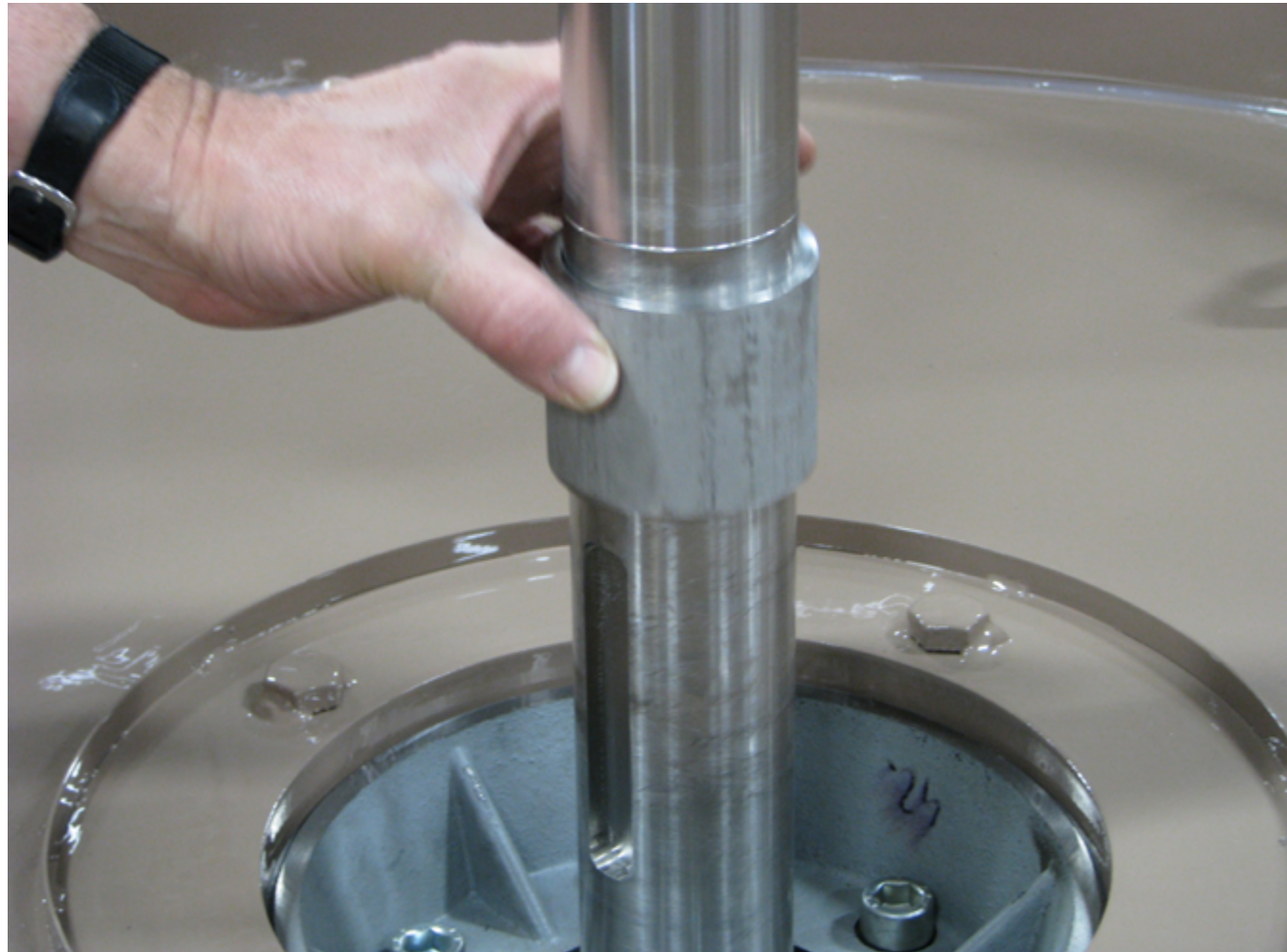


Warning! Recommended NOT to lift the Hub by hand or even two people! This is a reaching, weight as well as a pinch-point hazard. Use proper rigging and lifting device, as shown above. Bowl weight = 180lbs.



REMOVE KEYWAY

Step 1: Use a pair of pliers to grab and remove the Driveshaft Keyway. May need to use a screwdriver to pry the Keyway out of the Driveshaft groove if caked with chemical.



REMOVE SPACER

Step 1: Slide the Driveshaft Spacer up and off the driveshaft.

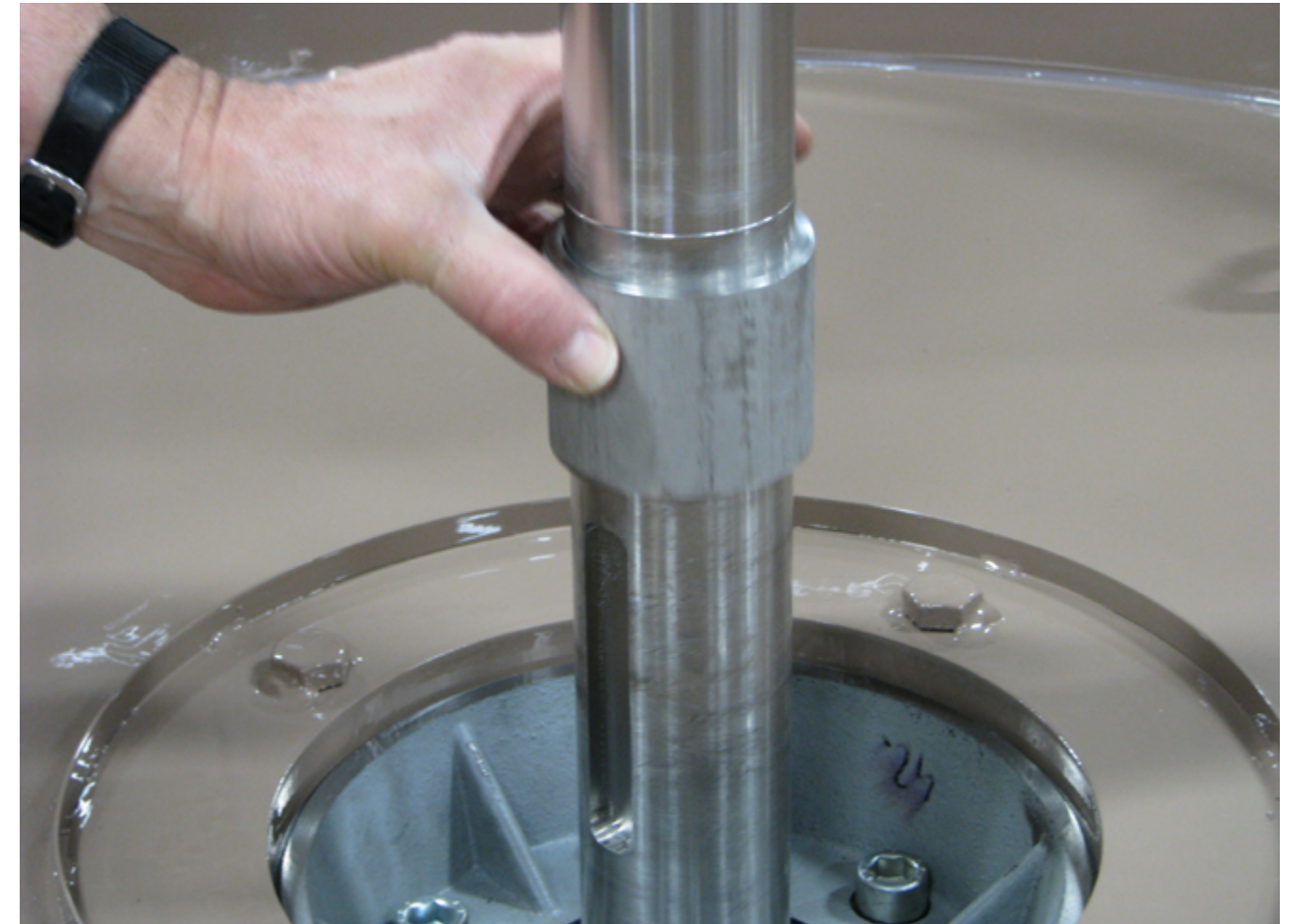
PART 2

Installing the new Bowl & Wrap



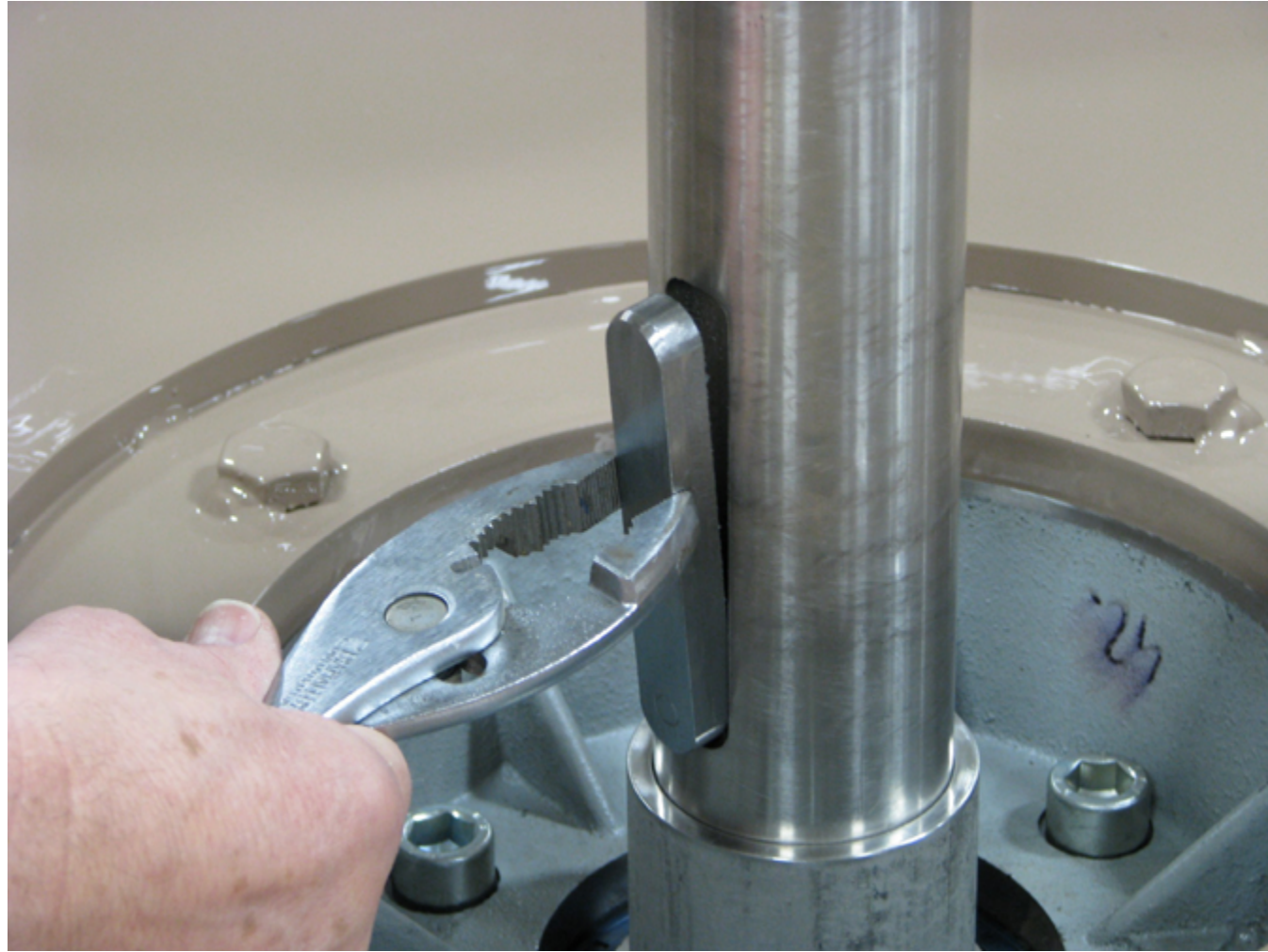
INSERT SHIMS

Step 1: Slide two (2) factory-supplied Shims on the driveshaft.

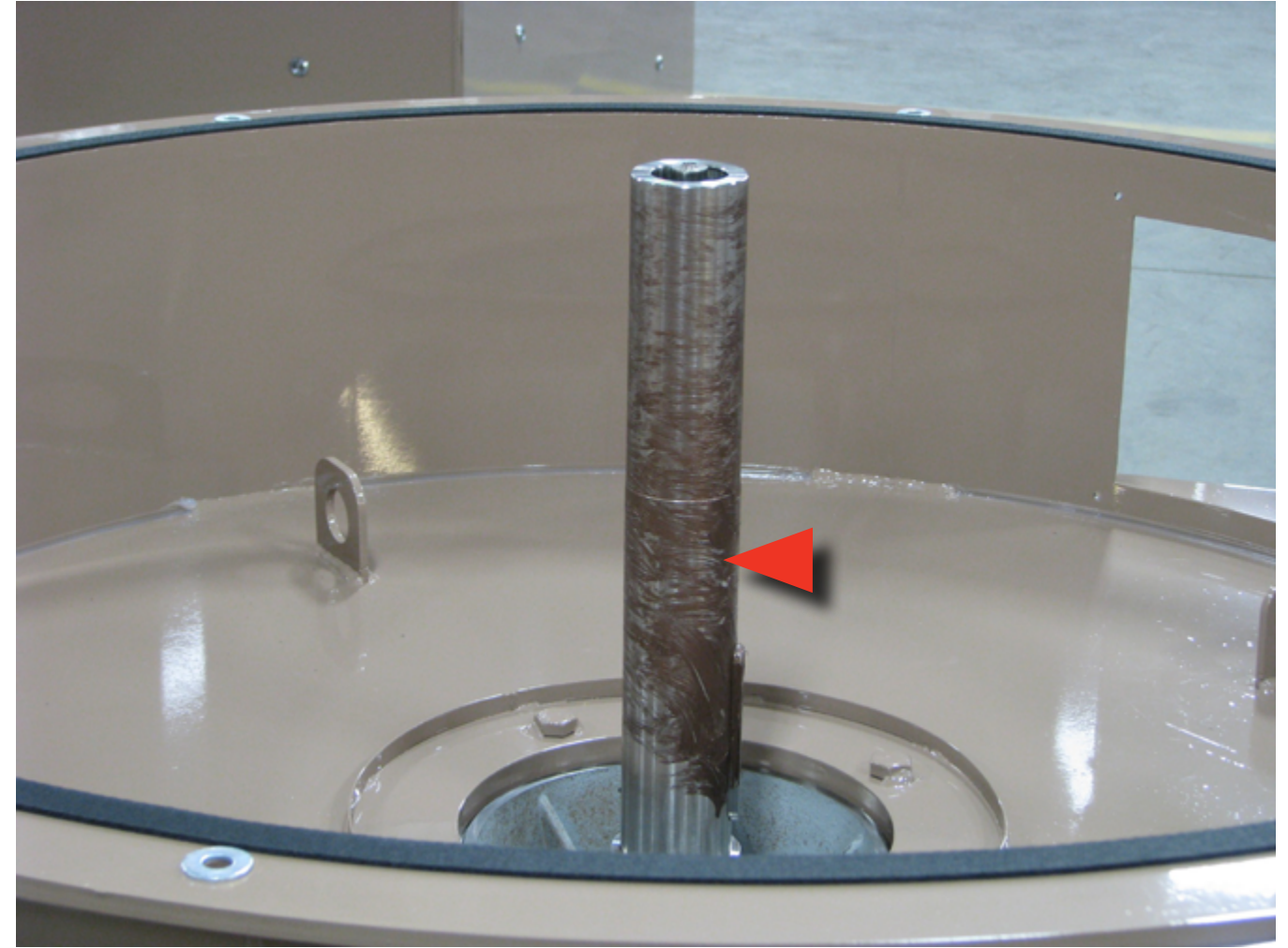


REPLACE SPACER

Step 1: Slide the Driveshaft Spacer down on the Driveshaft.

**REPLACE KEYWAY**

Step 1: Use a pair of pliers to grab and replace the Keyway in the groove on the Driveshaft.

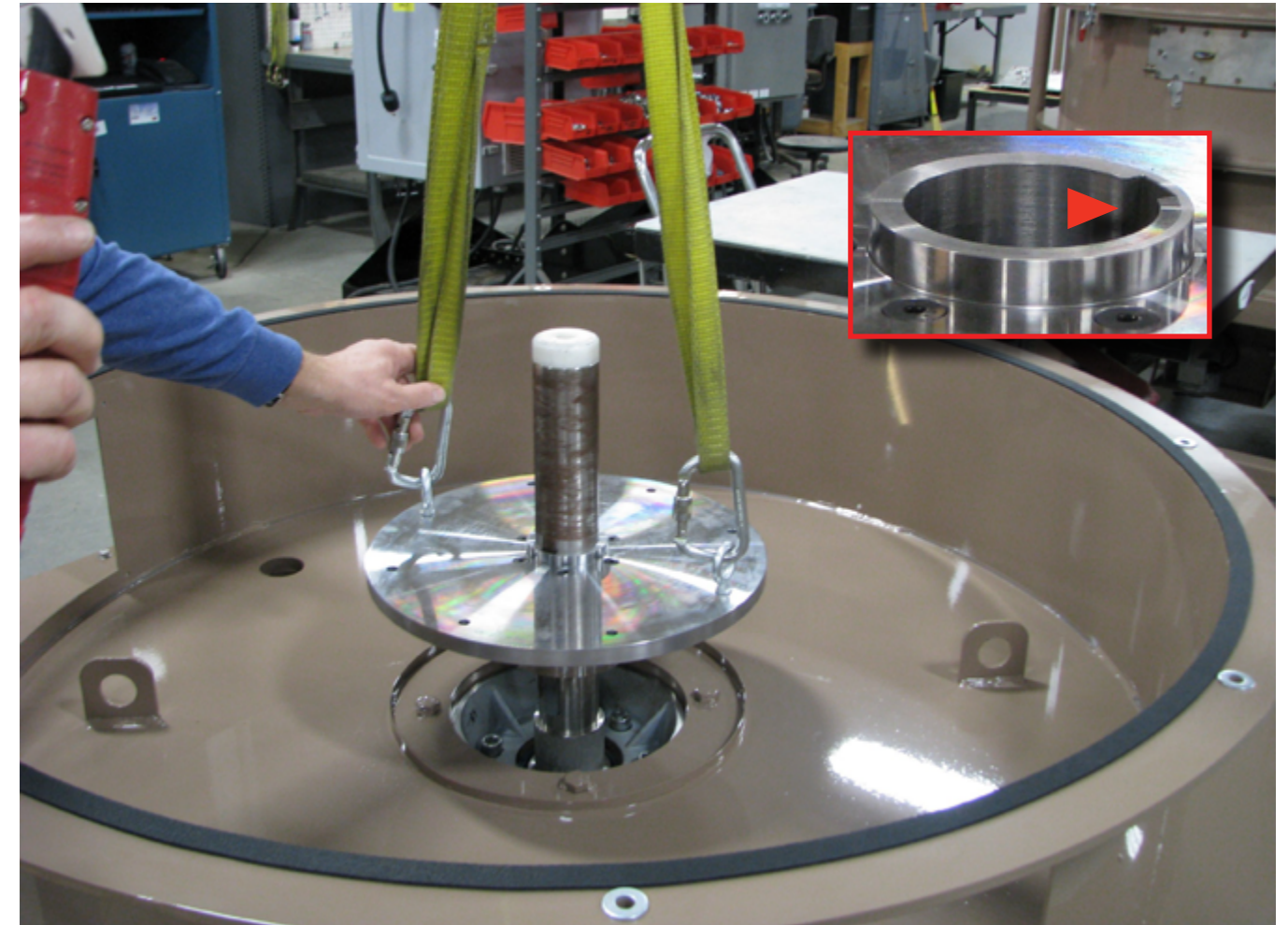
**BOWL MOTOR DRIVESHAFT**

Step 1: On the existing Bowl Motor Driveshaft, apply an anti-seize lubricant.



HUB ALIGNMENT GUIDE

Step 1: Place the White Hub Alignment Guide on the end of the Bowl Motor Driveshaft.



HUB

Step 1: Insert two (2) Eye Bolts & Nuts (customer-supplied) into the Hub. Hand tighten bolts. Safely rig the Hub and lift over the Bowl Driveshaft.

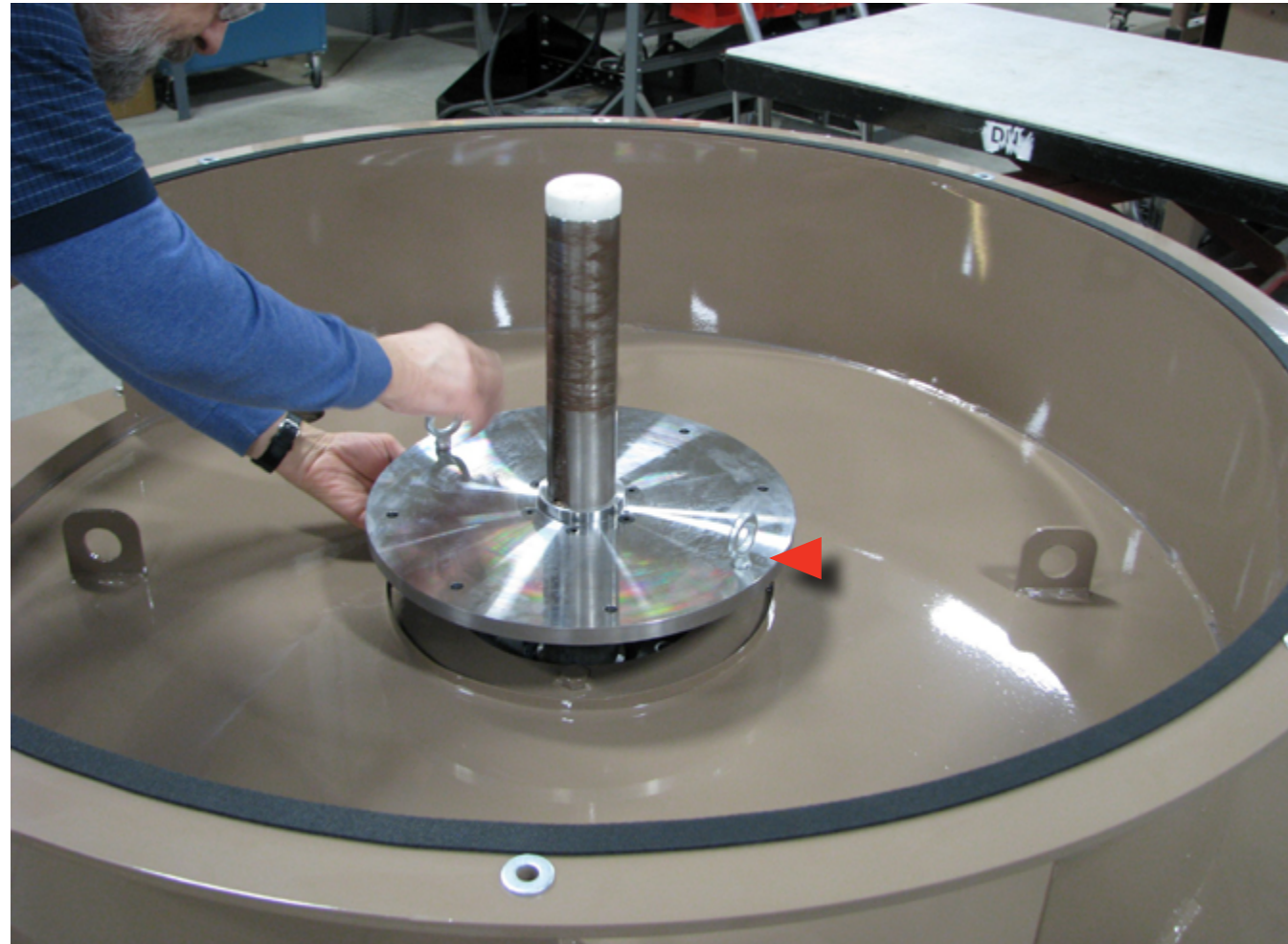
Step 2: Ensure the existing Driveshaft Keyway aligns with the notch on the Hub (see insert photo). CAREFULLY slide the Hub down on the Driveshaft until it sits on the Bowl Motor Driveshaft spacer.



Note: the two (2) Eye Bolts shipped with the Bowl will NOT fit in the Hub. Customer will need to supply eye bolts for this procedure.

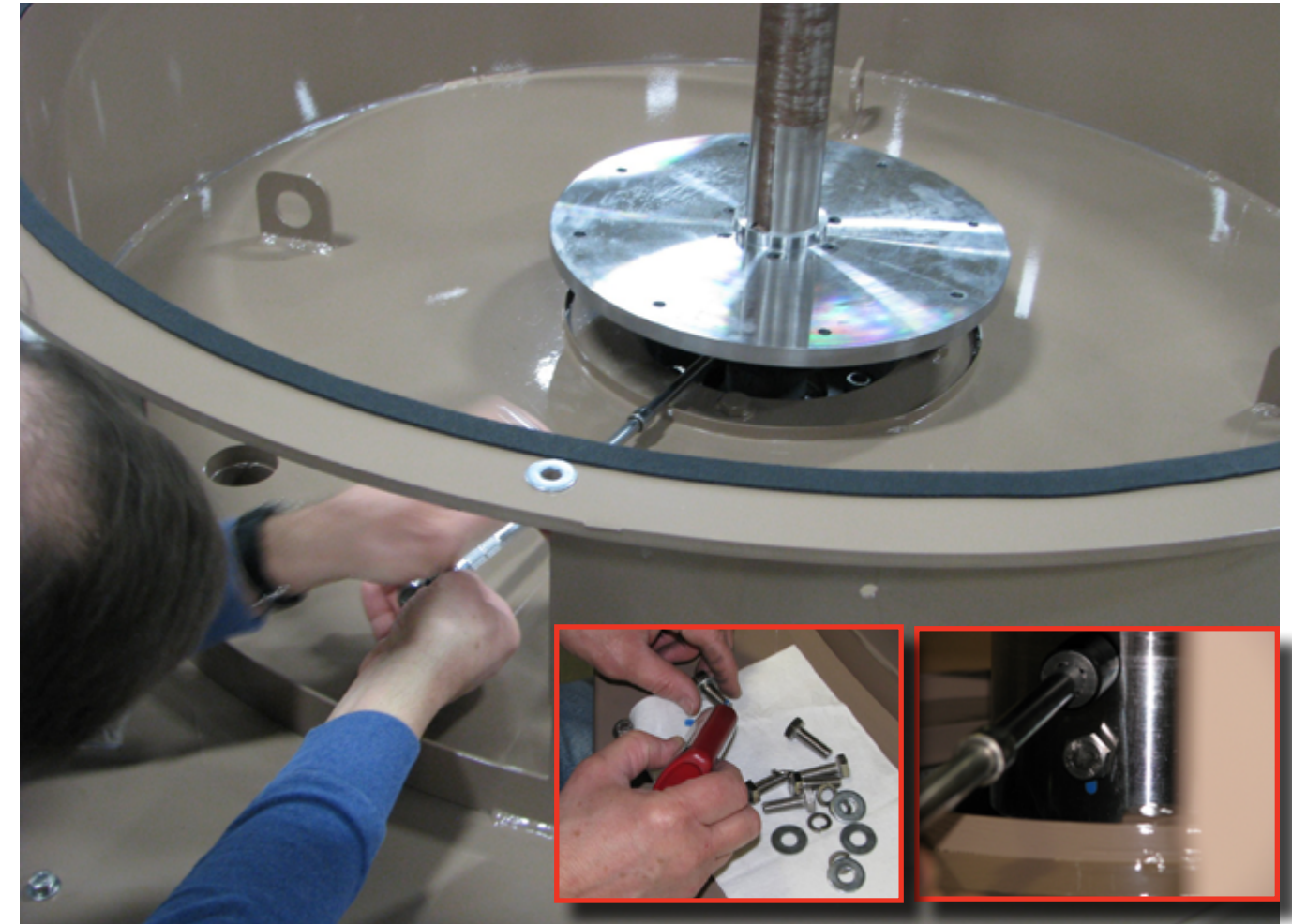


Warning! Recommended NOT to lift the Hub by hand or even two people! This is a reaching, weight as well as a pinch-point hazard. Use proper rigging and lifting device, as shown above. Bowl weight = 180lbs.



HUB

Step 1: Remove the rigging and the two (2) Eye Bolt & nuts from the face of the Hub.



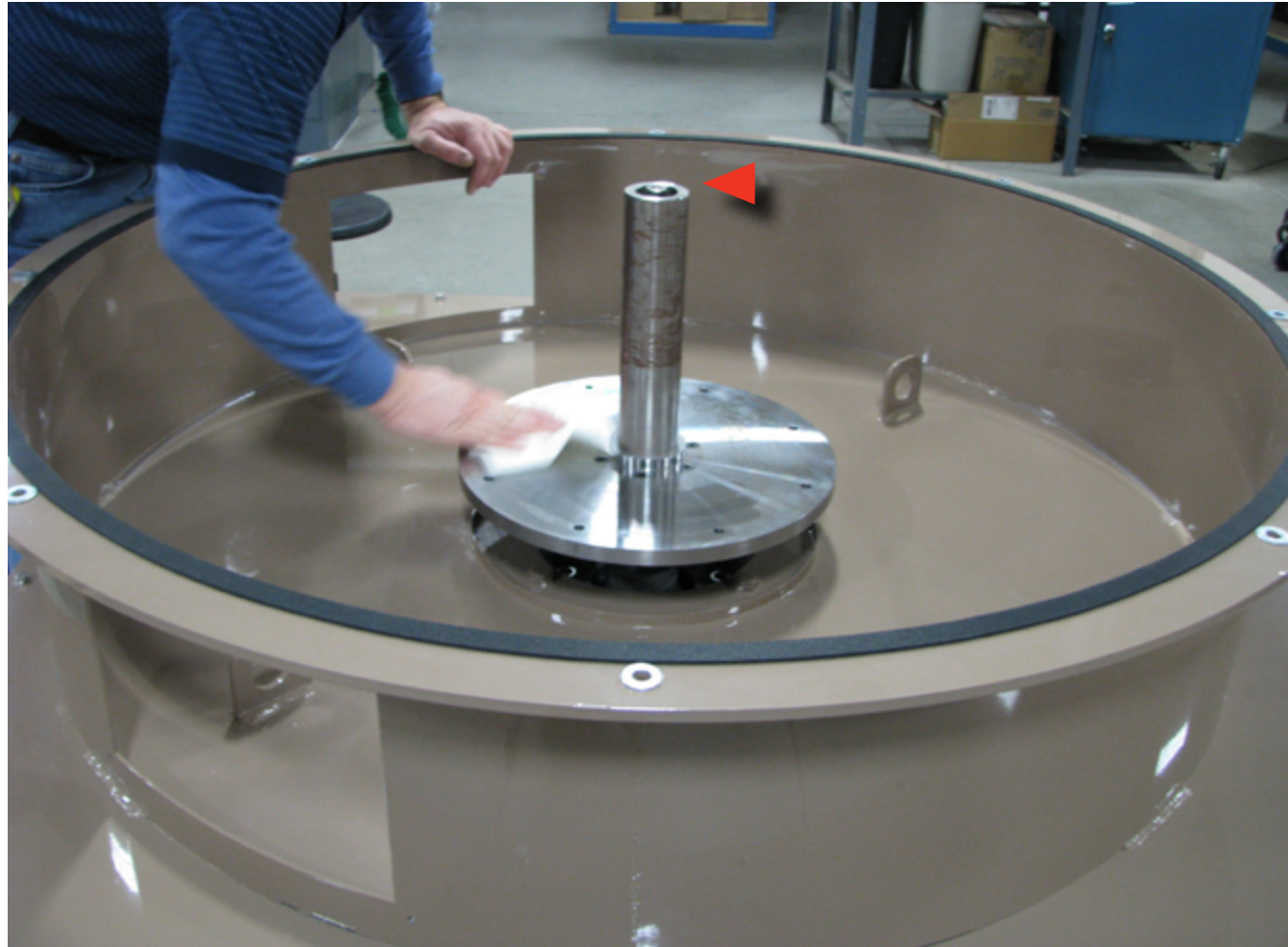
HUB SET SCREWS

Step 1: Apply a thread locker lubricant onto each bolt (see insert photo).

Step 2: Reach inside the Lower Access panel and Use 17mm socket head to replace the two (2) 10mm Hub set screws. Securely tighten.

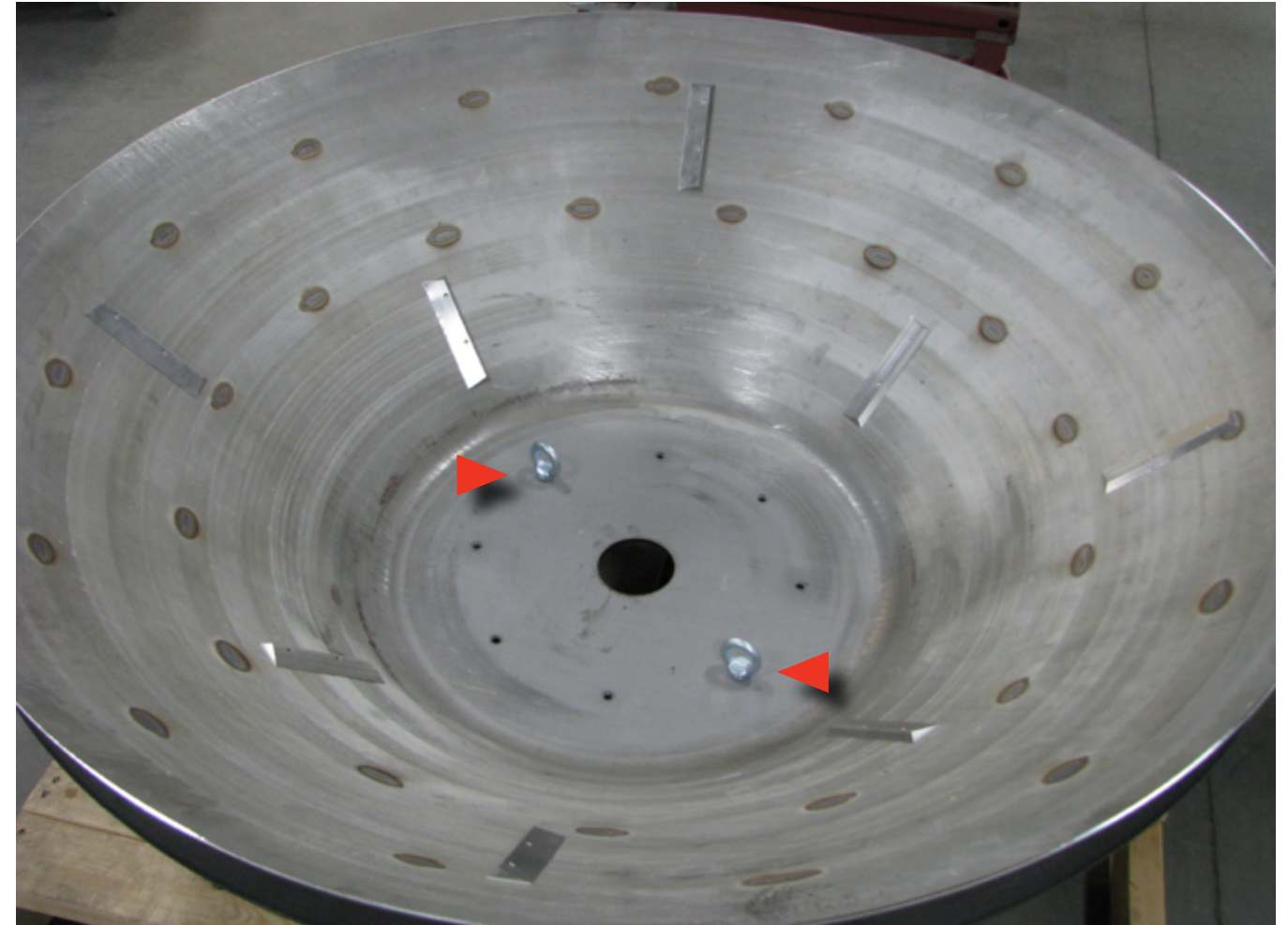


Recommend using extensions on ratchet wrench, as shown (see photo insert).

**HUB**

Step 1: Use denatured alcohol and wipe clean the top surface (face) of the Hub.

Step 2: Remove the White Hub Alignment Guide from the end of the Driveshaft.

**BOWL**

Step 1: Insert two (2) Eye Bolts (shipped with the Bowl) into the Bowl opposite each other, as shown. The bolt holes in the Bowl are threaded.



BOWL BASE

Step 1: Properly rig and lift the Bowl. The Bowl will shift to a verticle position as shown.

Step 2: Use denatured alcohol and wipe clean the bottom surface of the Bowl.

Step 3: Dispose of rags responsibly.



BOWL

Step 1: Safely lift the Bowl over the Bowl Driveshaft. CAREFULLY slide the Bowl down on the Driveshaft until it sits on the Hub (see photo insert).



Recommend tipping the Bowl slightly to guide onto Driveshaft.



Warning! Recommended NOT to lift the Hub by hand or even two people! This is a reaching, weight as well as a pinch-point hazard. Use proper rigging and lifting device, as shown above. Bowl weight = 180lbs.



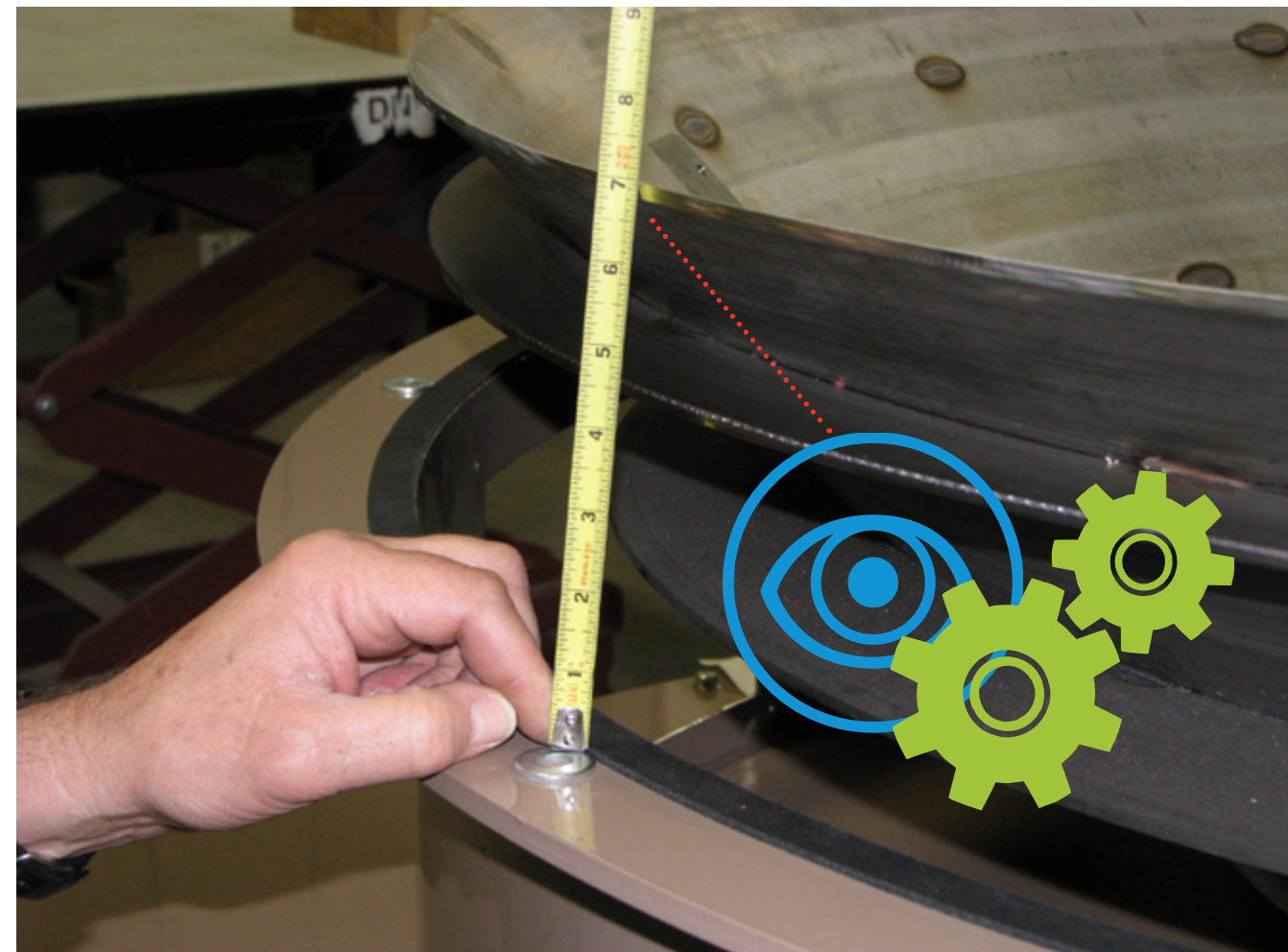
BOWL

Step 1: Remove the two (2) Eye Bolts from the Bowl used to lift the Bowl onto the Driveshaft.

Step 2: Ensure the eight (8) Hub holes align with the eight (8) holes in the Bowl.

Step 3: Apply a thread locker lubricant onto each bolt (see insert photo).

Step 4: Reach inside the Lower Access Panel opening and insert each of the eight (8) factory-supplied Bowl bolts through the Hub and hand tighten them into the bottom of the Bowl as follows: BOLT + LOCK WASHER + WASHER. This connects the Bowl to the Hub. This is temporary, until the bowl height is matched to the Discharge Door on the Bowl Mid Body Wrap.



BOWL HEIGHT

Step 1: Use a tape measure to check the Bowl height. Measure from the top of the washer to the top of the Bowl, as shown above. Slowly turn the Bowl by hand and check the Bowl height in several places. Measurement should be 7.0" or less.

ACCEPTABLE BOWL HEIGHT RANGE: 6-7/8-7.0"

If height is not within the above range, remove the Shims (page 34).

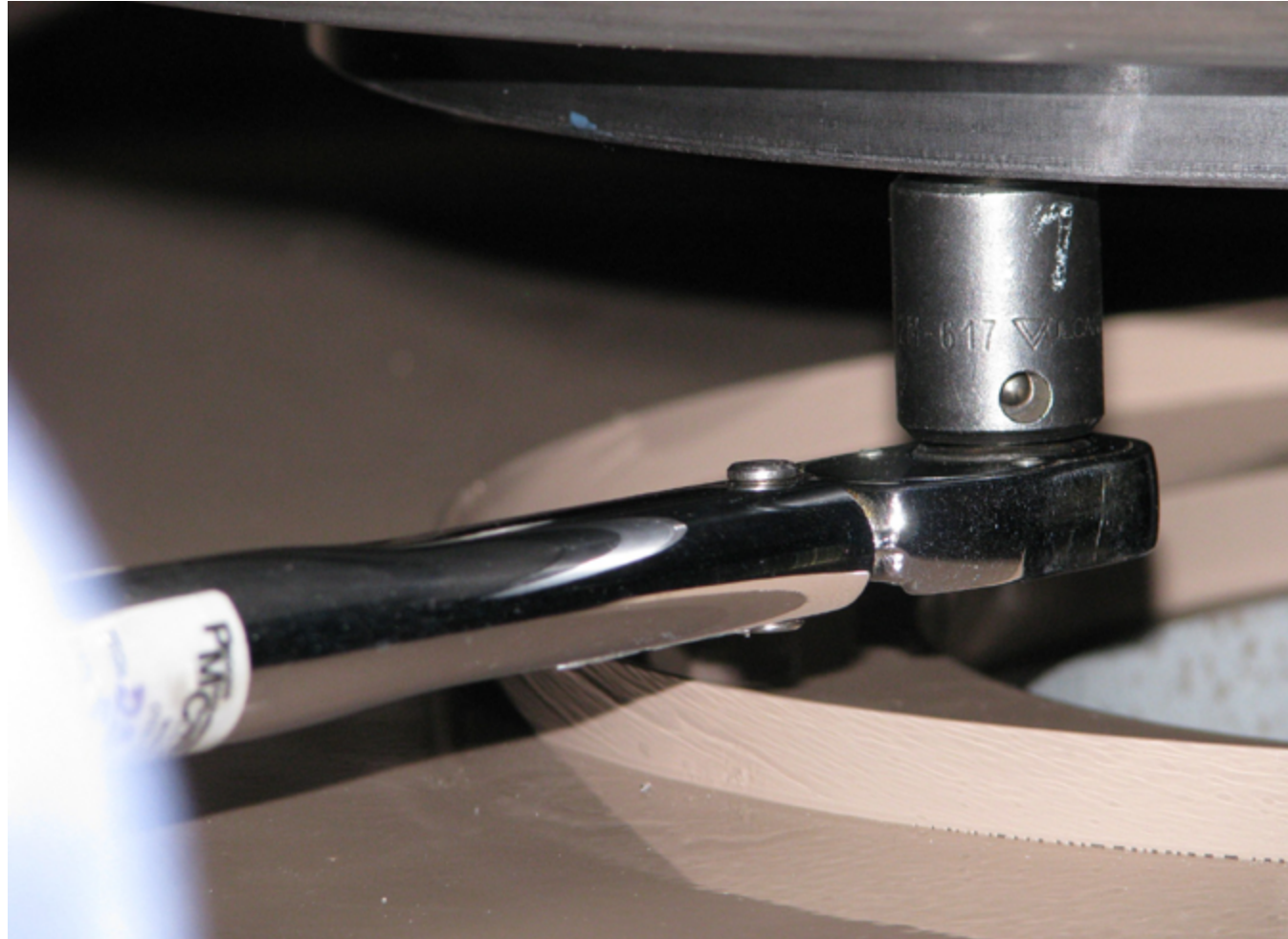
To remove/replace the Bowl, Hub, and Shims, refer to pages 34-48 and repeat the steps shown.



Note: Most new replacement Bowl & Hub Assemblies will be the right height.



Warning! DO NOT PROCEED ANY FURTHER UNTIL THE BOWL HEIGHT ISSUE IS RESOLVED!

**BOWL**

Step 1: Set the torque wrench to 25 foot pounds and tighten each Bowl bolt until the torque wrench “clicks.” Reach in through the Lower Access Panel opening and Use 17mm socket head to tighten the eight (8) 10mm Bowl bolts.



Note: each bolt will protrude through the bottom of the bowl.

**BOWL**

Step 1: Use die grinder to grind bolts smooth with Bowl surface.



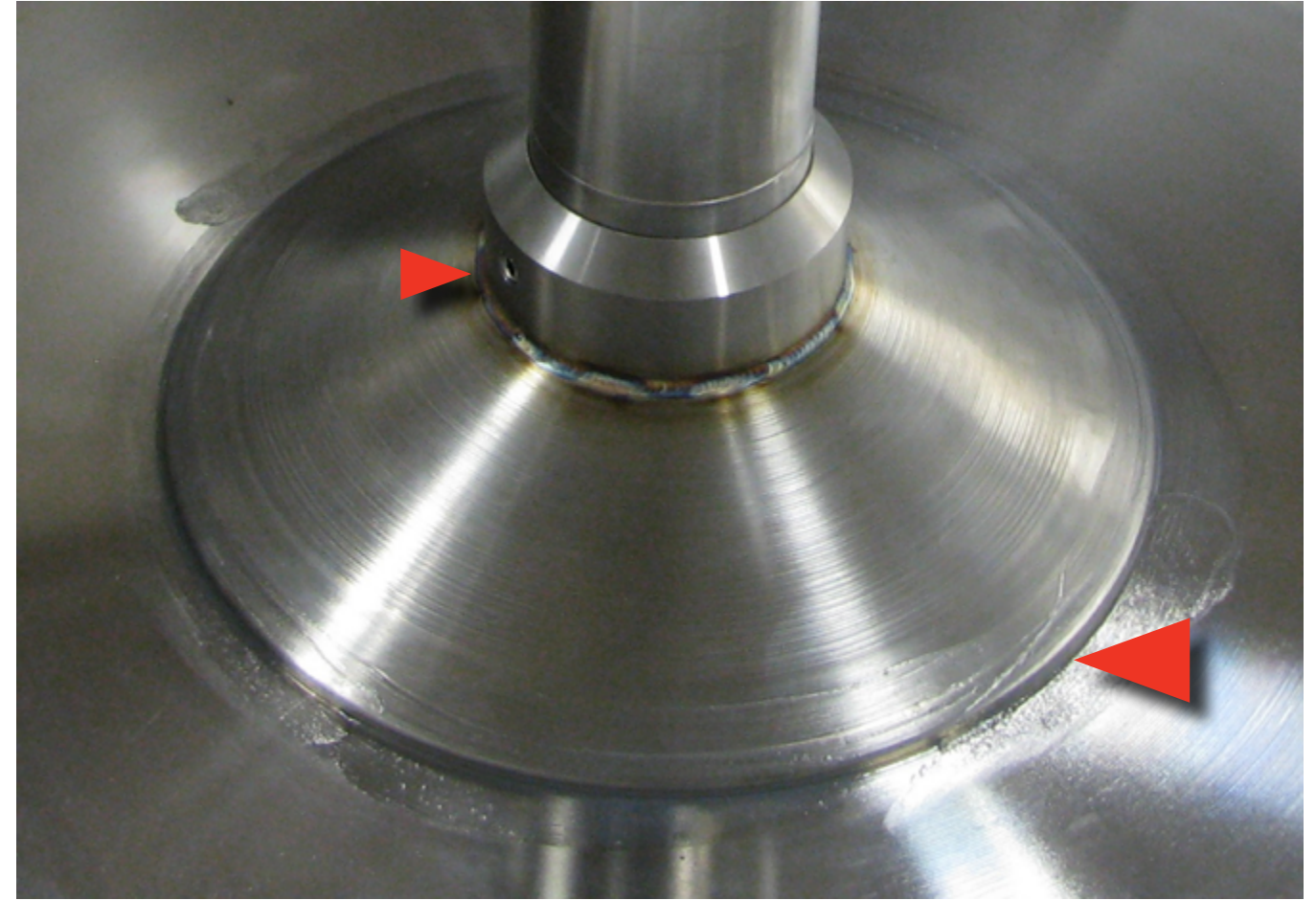
Caution! Grinding can cause injury! Wear proper personal protective equipment: gloves and safety glasses.





BOWL DRIVESHAFT

Step 1: Use denatured alcohol to wipe down Driveshaft. Dispose of rags responsibly.

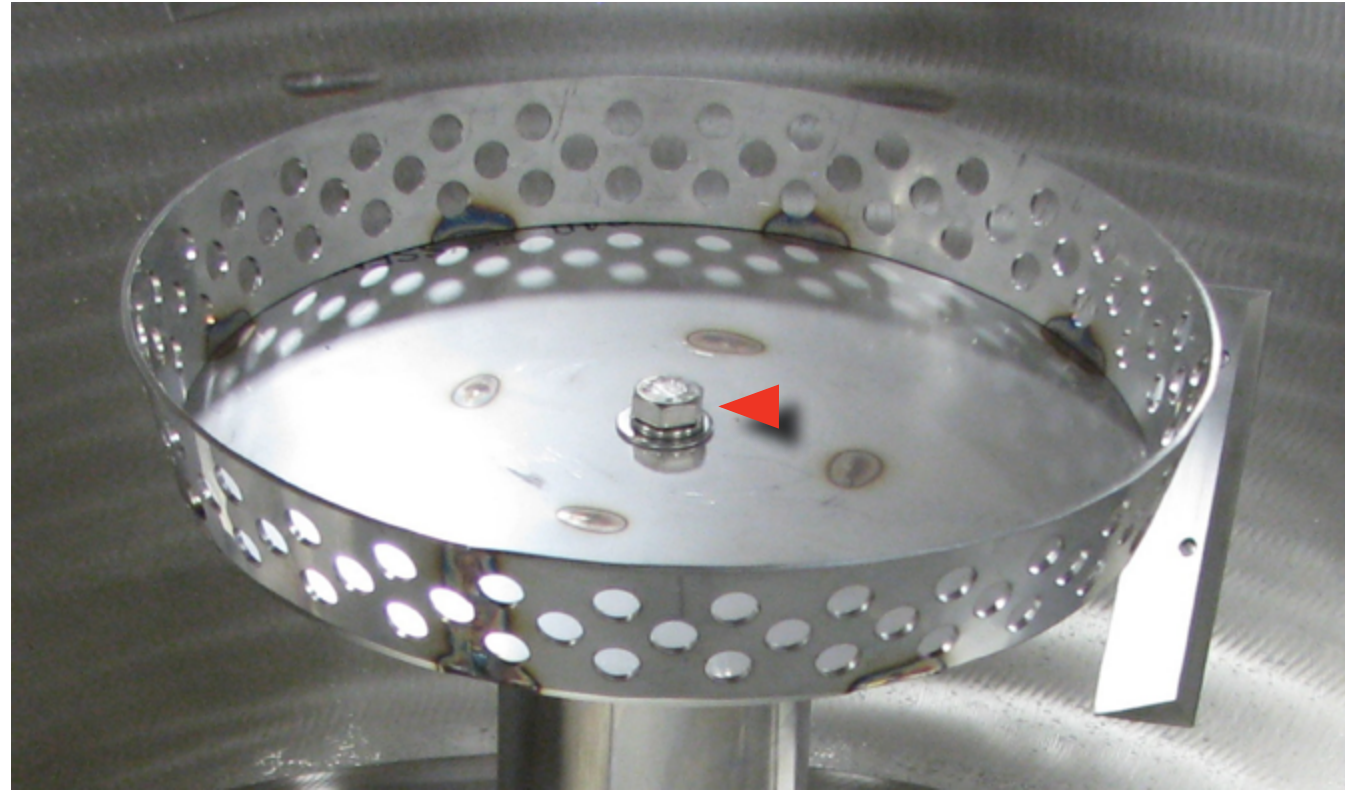


INNER CONE COVER

Step 1: Place the Inner Cone Cover over the Driveshaft.

Step 2: Use RTV sealant around the base edge of the Inner Cone Cover and the Bowl.

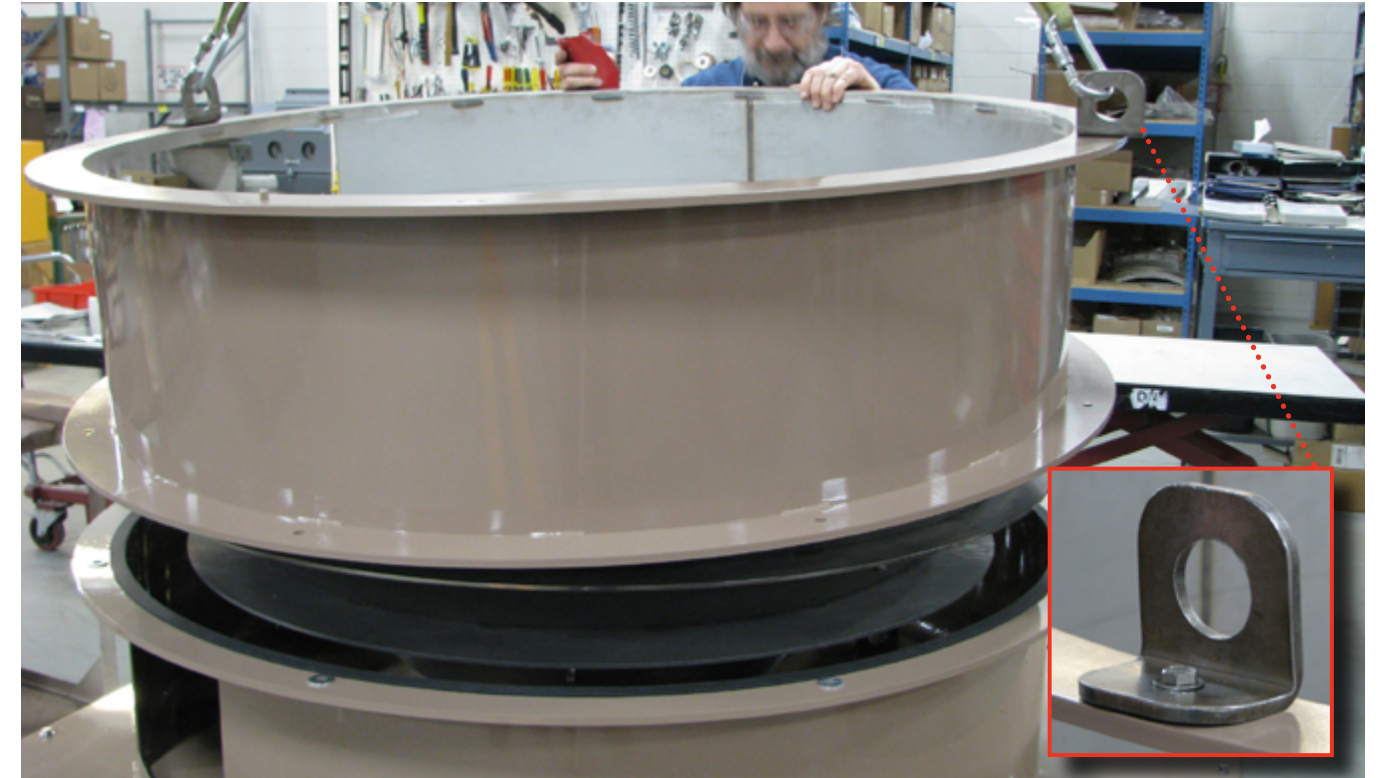
Step 3: Use a 4mm Allen wrench to tighten the 8mm set screw on the Cone Cover.



ATOMIZER

Step 1: Place the Atomizer on the Driveshaft.

Step 2: Use a ratchet wrench with 13mm socket head to fasten the 8mm bolt to fasten the bolt, washer and lock washers.



BOWL MID BODY WRAP

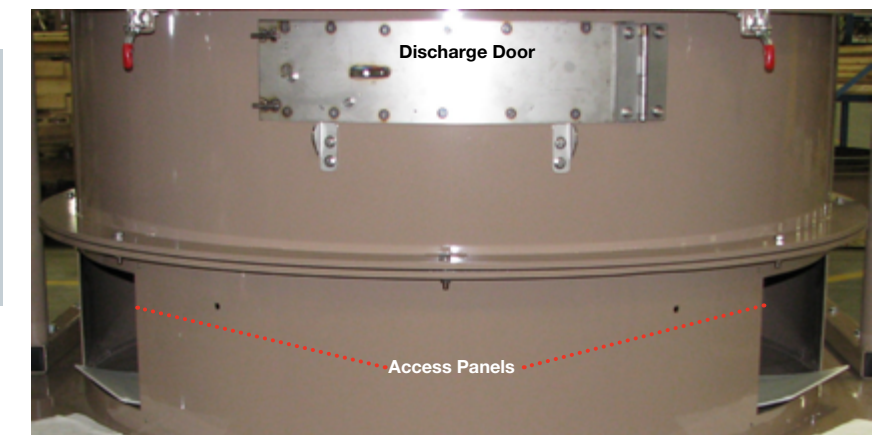
Step 1: Properly rig and CAREFULLY lift the Bowl Mid Body Wrap over the Bowl and onto the Bowl Lower Body.

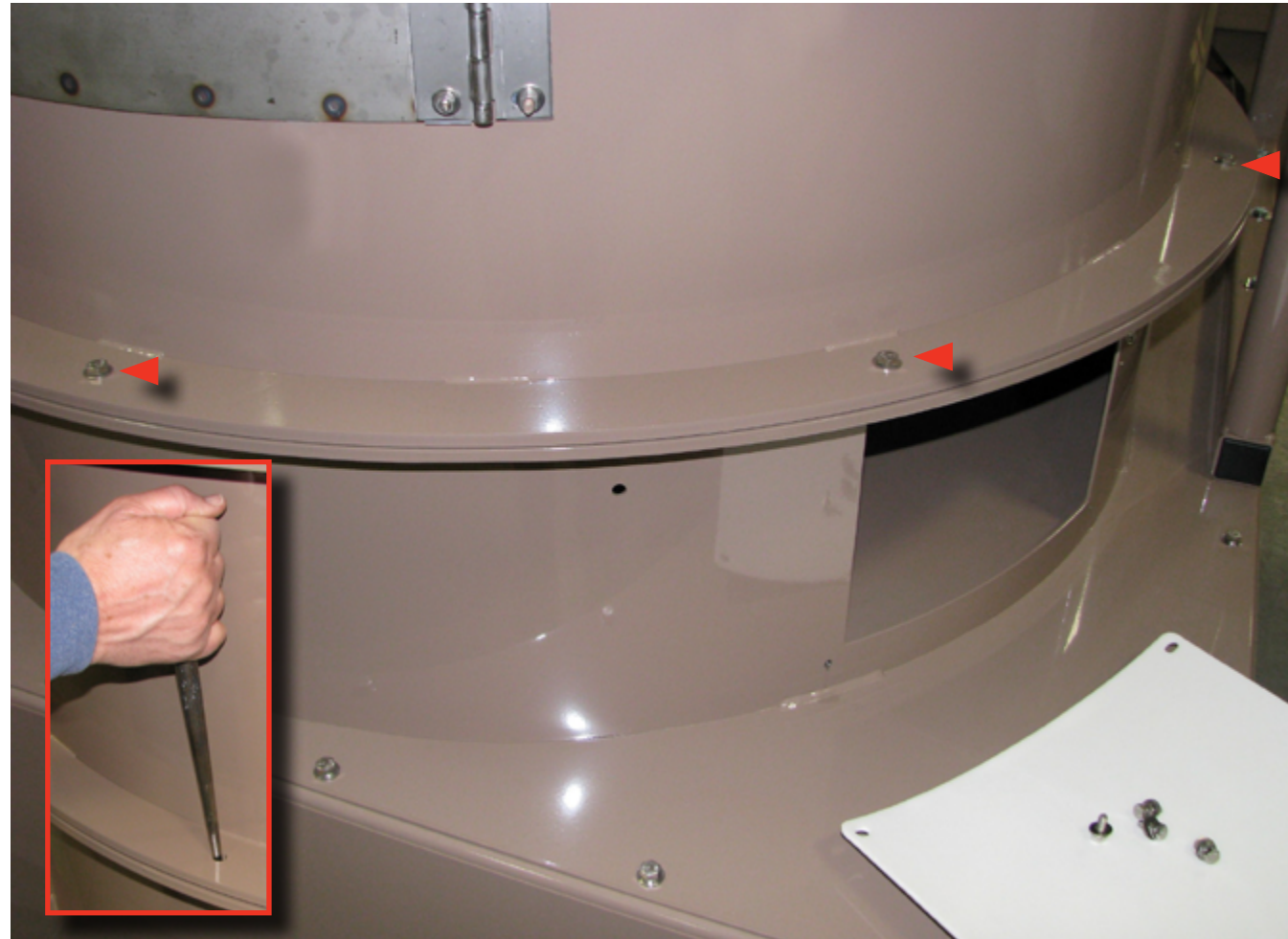


Recommend customer fabricate lifting lugs (see photo insert) and attach them to the top of the Bowl Mid Body Wrap to properly rig and lift it up from the Bowl Lower Body Assembly. Wrap weight = 150lbs.



Note: orientation of the Discharge door MUST be towards the FRONT of the Bowl Lower Body - as indicated by the Lower Access Panels (see image below).





BOWL MID BODY WRAP

Step 1: Insert the eight (8) Bowl Mid Body bolt, washer and lock washers that connect it to the Bowl Lower Body.

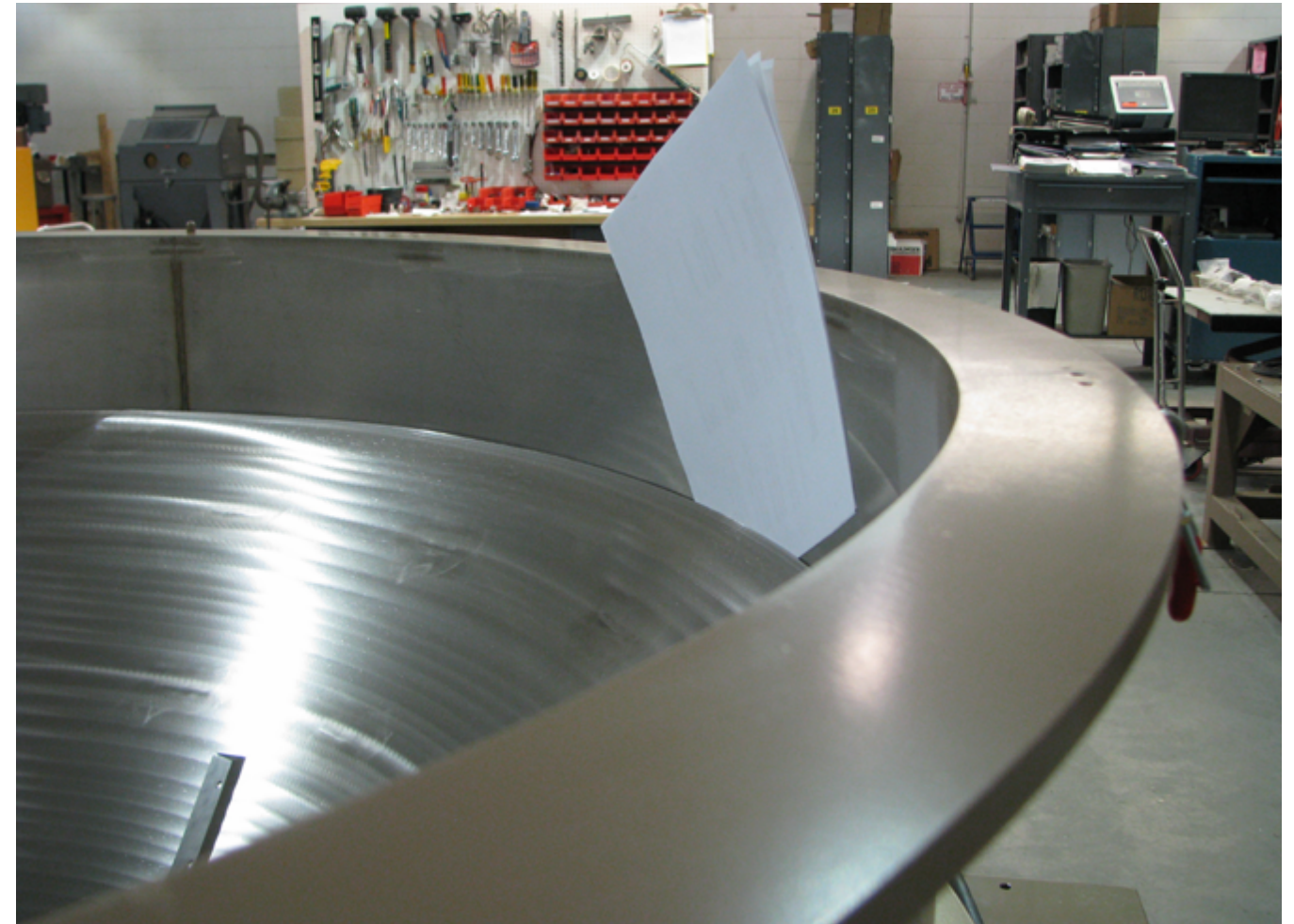
Step 2: Use a torque wrench with 13mm socket head to tighten eight (8) 8mm bolts, washers and lock washers.



Use a punch or screwdriver to align the holes on the Bowl Mid Body Wrap with those on the Lower Body Wrap (see insert photo).



Warning! Very critical that the bolts are NOT tightened down completely! Use either a star or a clockwise pattern of small incremental tightening. Recommend starting with 5 ftlbs, then increase to 10, 15, 20, etc. At the same time, spin the Bowl by hand (refer to page 49) to see if the Bowl rubs in any spot where a bolt has been tightened. If it does rub in a spot, back that bolt tension off slightly, then continue tightening, until the Bowl Wrap is tightened snug and secure and the Bowl does not rub the Bowl Mid Body Wrap.

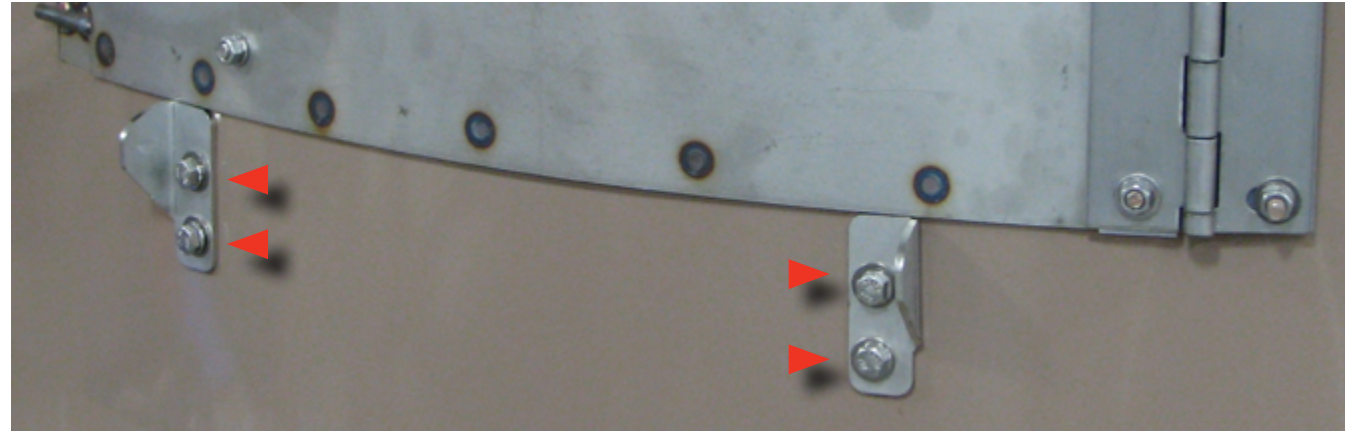


BOWL & WRAP

Step 1: Ensure the space between the Bowl and the inside of the Mid Body Wrap is the thickness of three (3) pieces of paper, as shown. Spin the Bowl by hand and check for any rubbing spots or catching noises.



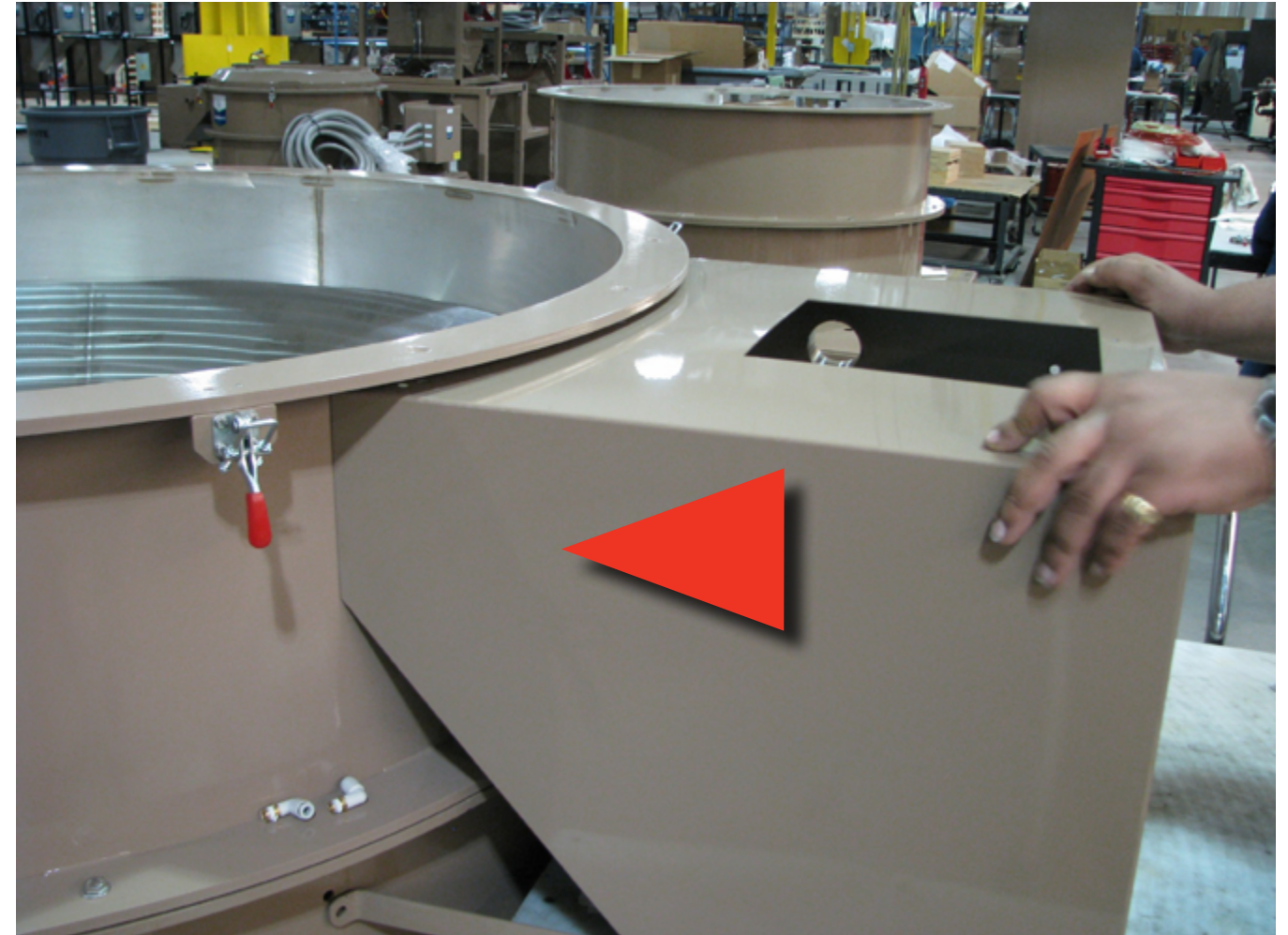
Note: the Bowl and Wrap are machined to match at the factory for precision fit prior to shipping.



DISCHARGE DOOR GUIDES

Step 1: Replace the two (2) Door Guide bolts on the Bowl Mid Body Wrap.

Step 2: Use a ratchet wrench with 10mm socket head to fasten four (4) 6mm bolts, washers and lock washers and fasten the guides.

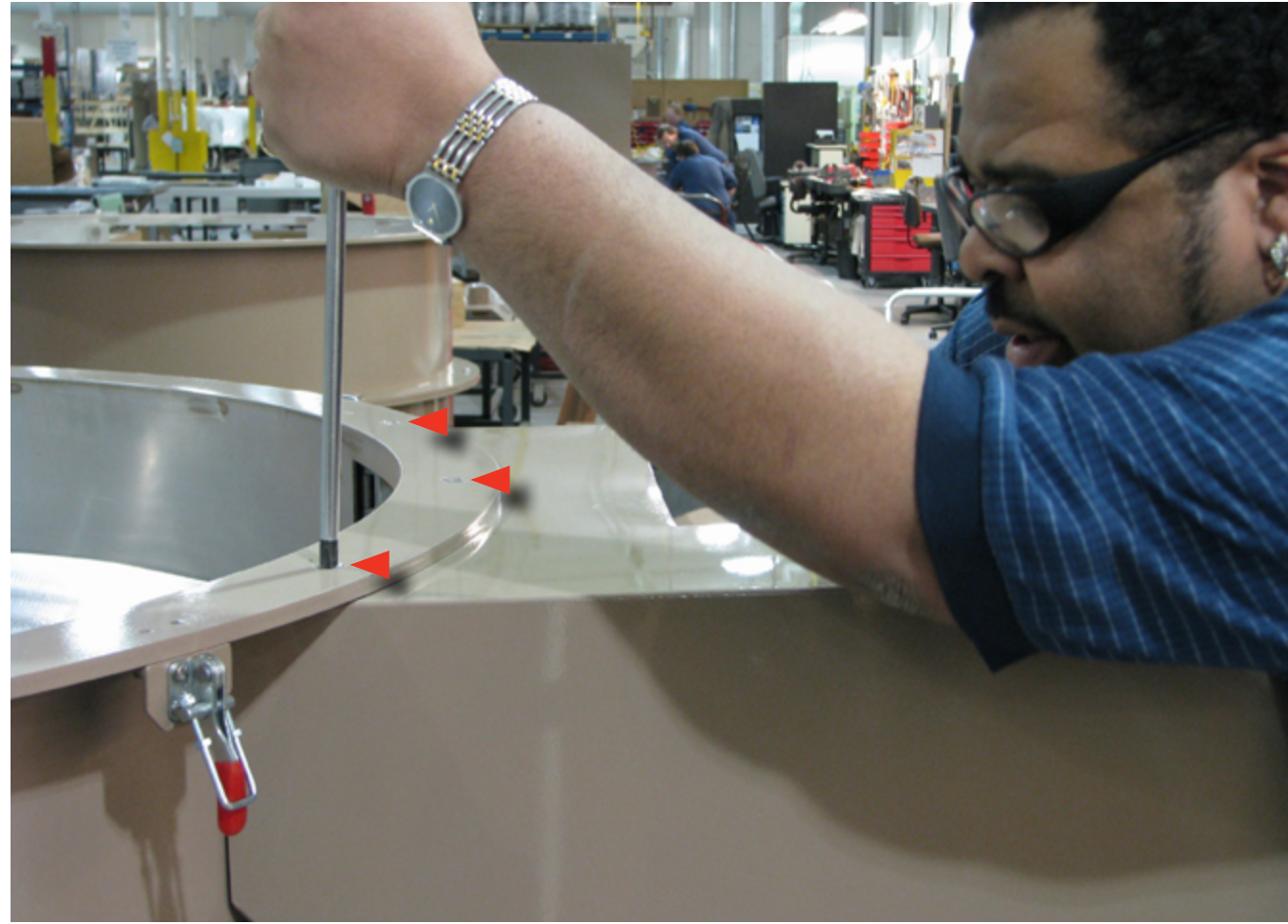


DISCHARGE ASSEMBLY

Step 1: Replace the Discharge Assembly on the Bowl Mid Body Wrap.

i

Can use a cart or another person to hold the Discharge in place.



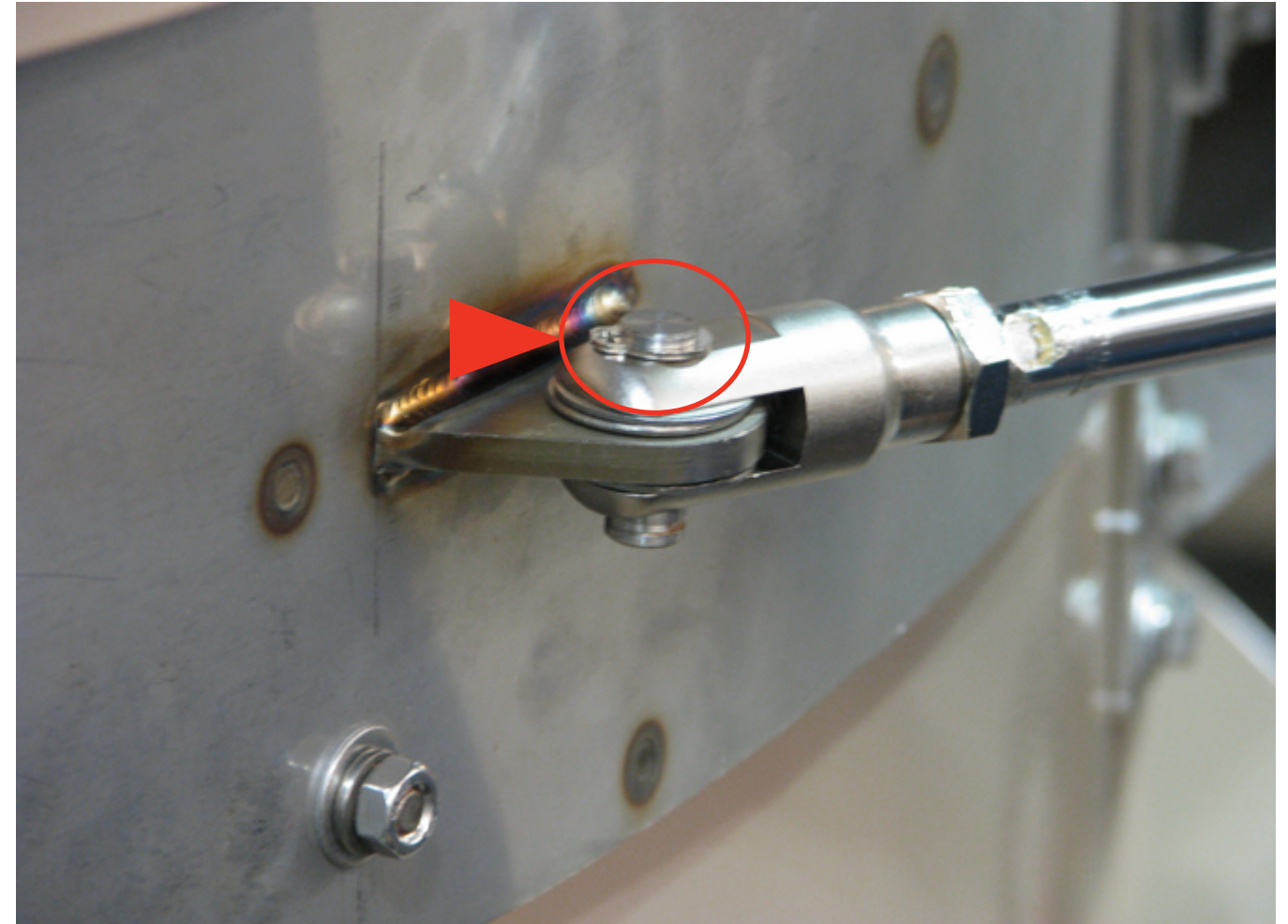
DISCHARGE ASSEMBLY

Step 1: Align the Discharge Assembly holes on the Bowl Mid Body Wrap.

Step 2: Reach inside the Discharge Assembly and use a Phillips screwdriver to fasten three (3) 8mm pan head screws, lock washers.



Can use a cart or another person to hold the Discharge in place.



DISCHARGE AIR CYLINDER CLIP

Step 1: Replace Air Cylinder snap ring that holds the Air Cylinder to the Discharge Door.

Step 2: Use snap ring pliers to fasten the Air Cylinder snap ring.



DISCHARGE ACCESS PANELS

Step 1: Replace both the Top and Front Discharge Access Panels.

TOP PANEL: Use 7/16 socket head to fasten two (2) 1/4-20 bolts, washers and lock washers.

FRONT PANEL: Replace the two (2) 6mm wing nuts.



DISCHARGE SUPPORT

Step 1: Connect both (R-L) Bowl Discharge Supports to the front of the Lower Body Wrap.

Step 2: Reach inside the Lower Body Wrap through the Lower Body Access Panel opening with one hand to hold the nut.

Step 3: With the other hand, use a ratchet wrench with 13mm socket head to fasten two (2) 8mm bolts, washers and lock washers.



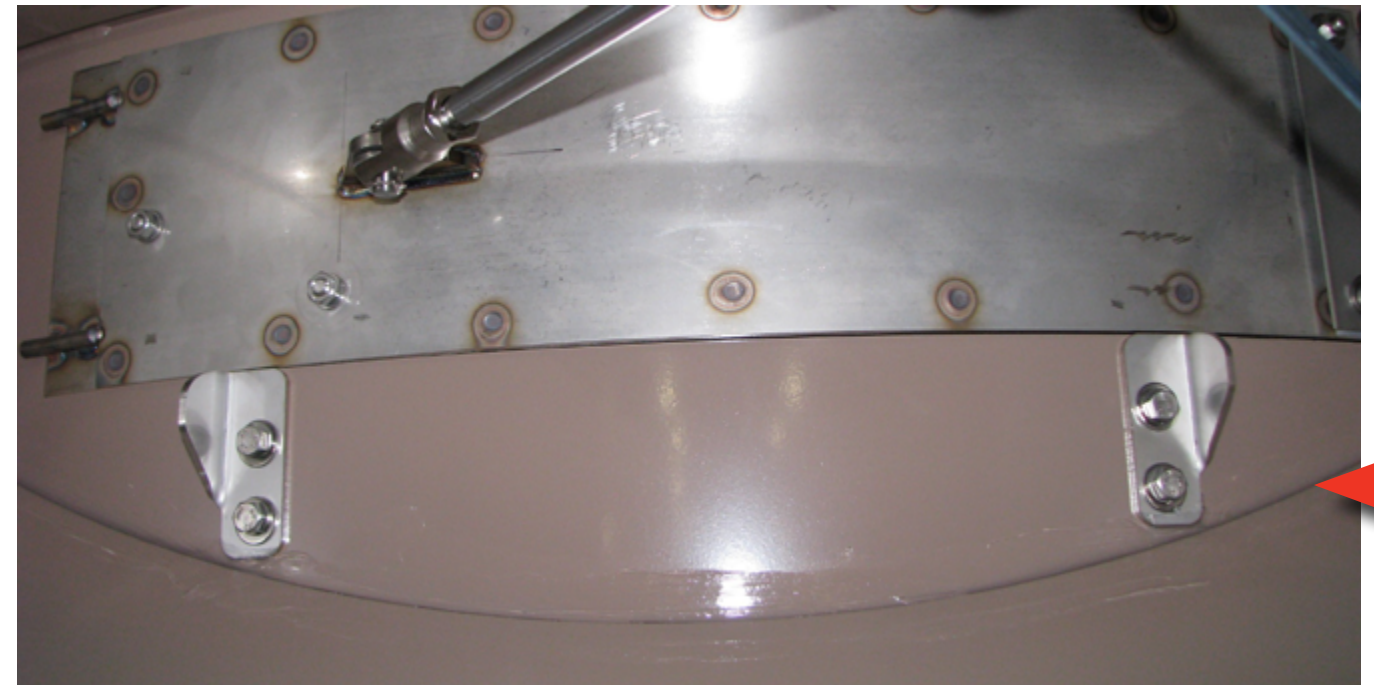
DUST EVACUATION

Step 1: Use a slotted screwdriver to fasten dust exhaust tube to the port on Discharge Assembly.



DISCHARGE

Step 1: Use RTV sealant around the (R-L) outside edge of the Discharge as well as inside the Discharge (see image below).

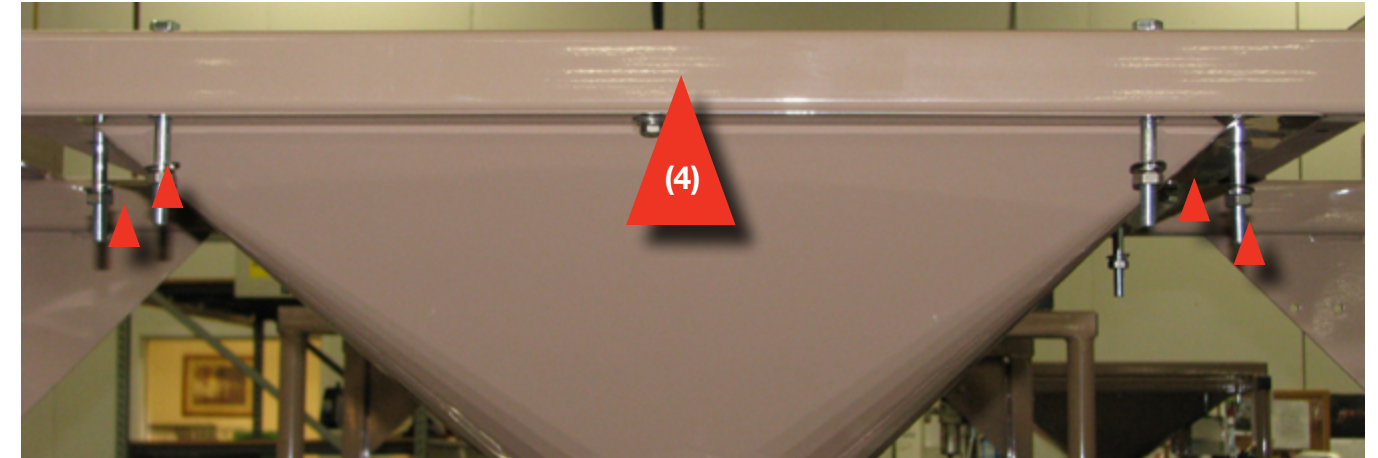




ACCESS PANELS

Step 1: Replace both (R-L) Lower Body Wrap Access Panels & Gaskets on the front of the Lower Body Wrap.

Step 2: Use 10mm socket head to fasten four (4) 6mm bolts, washers and lock washers.



SEED TRANSITION

Step 1: Move the Swing Arm out of the way.

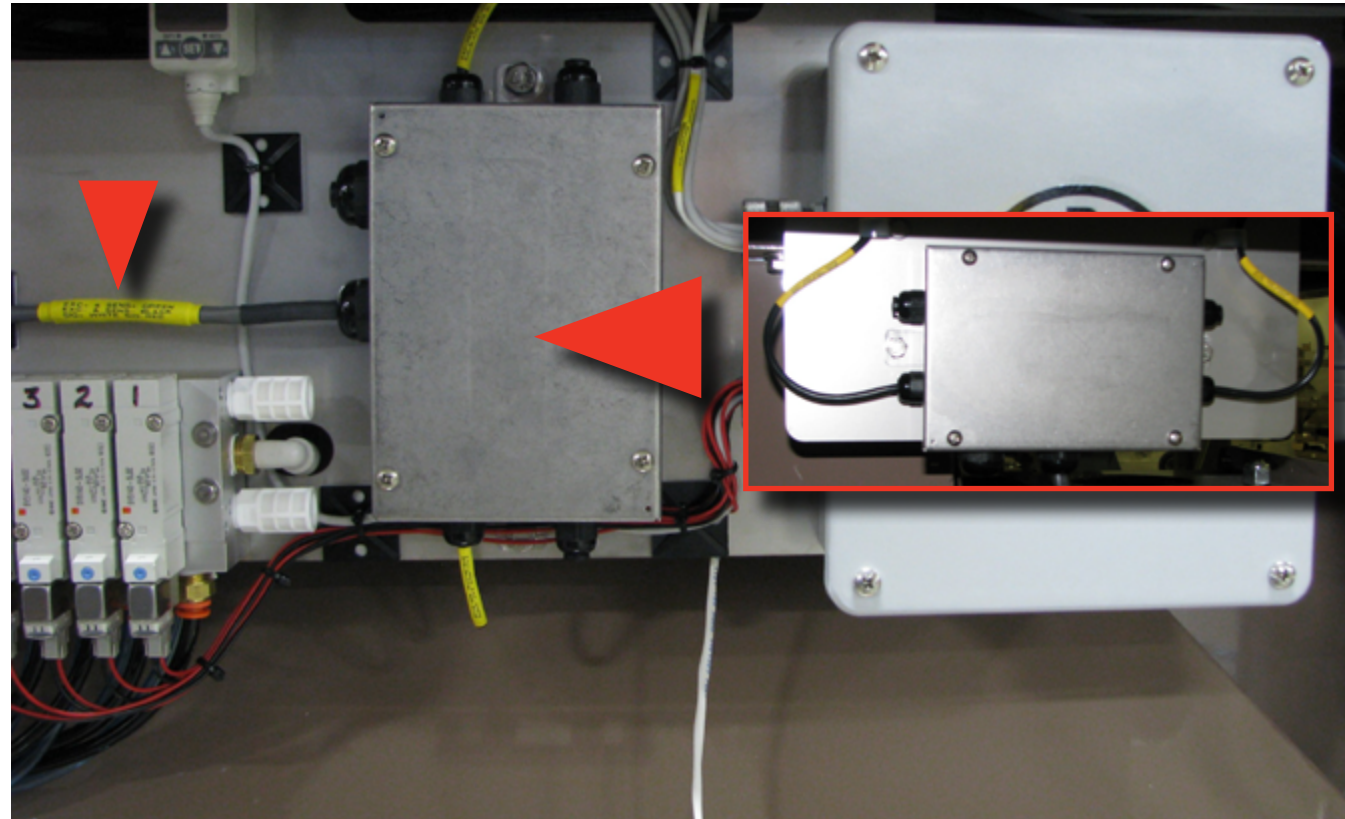
Step 2: Replace the Seed Transition under the Scale Support Frame.

Step 3: Hand tighten the eight (8) Scale bolts that connect the Scale to the Scale Support frame and the Seed Transition.

Step 4: Hand tighten the four (4) Seed Transition bolts that connect it to the Scale Support Frame.



Note: do not tighten hardware in place with ratchet at this time. May cause alignment problems with the Bowl Cover and the Seed Inlet Collar!



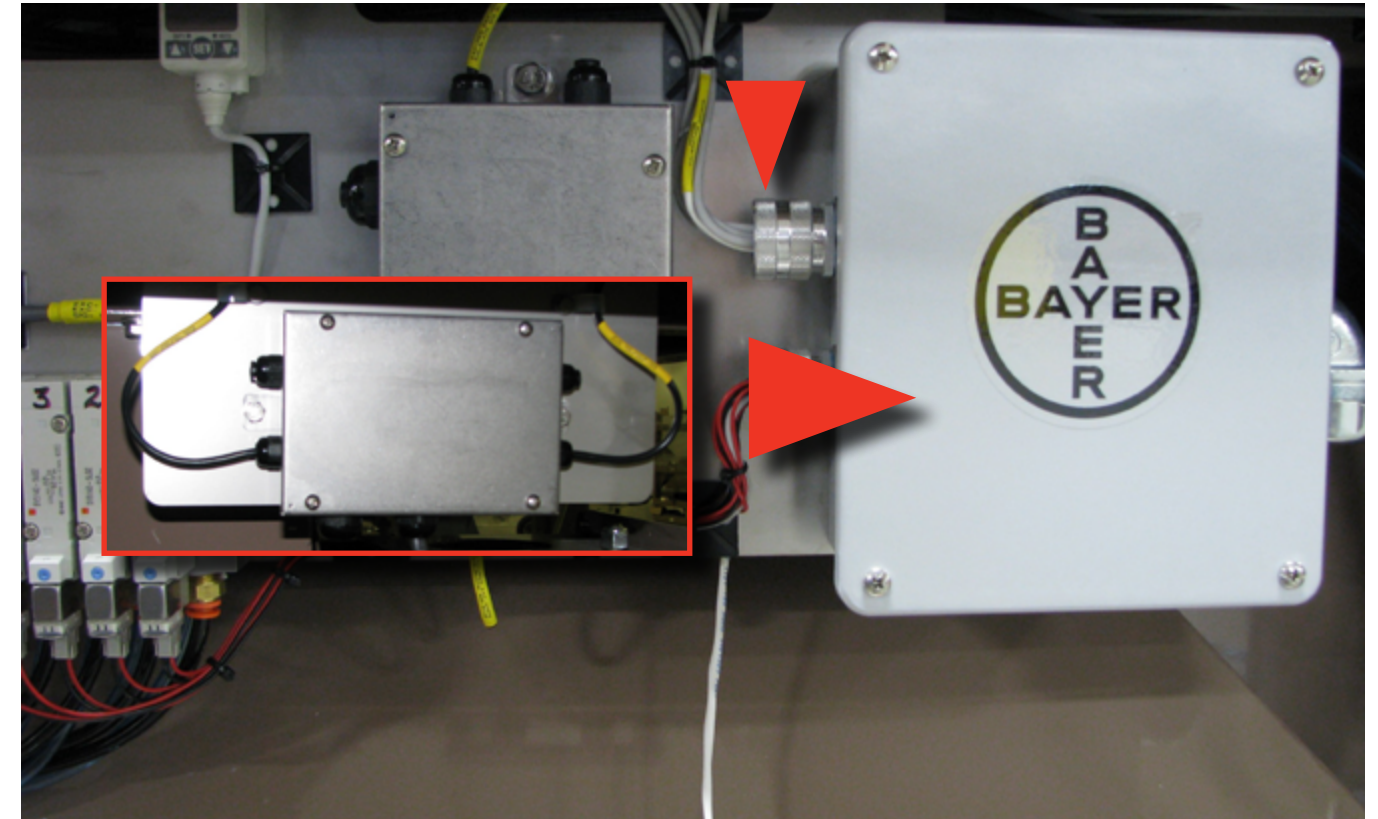
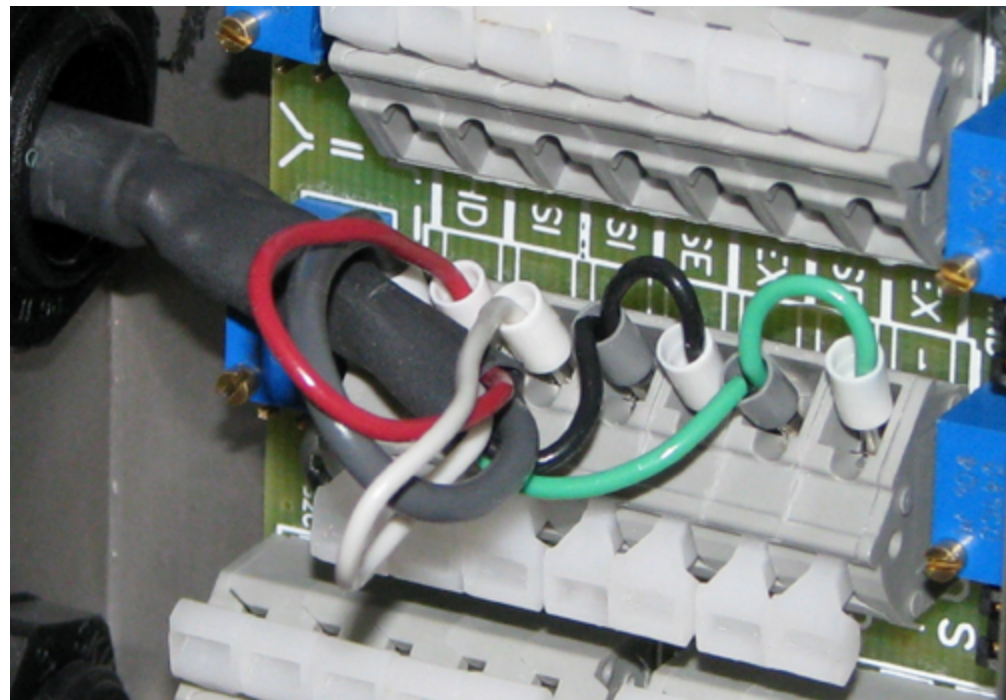
GRAY SCALE LOAD CELL WIRE

Step 1: Use a Phillips screwdriver to open the Junction Box cover on the left (older style junction box, see photo insert).

Step 2: CAREFULLY insert the wire leads into the Seed Transition and the Junction Box.

Step 3: See image below and connect the gray, red, white, black AND green wires.

Step 4: Use a Phillips screwdriver to close the Junction Box cover.



WHITE SCALE CALIBRATION WEIGHT WIRE

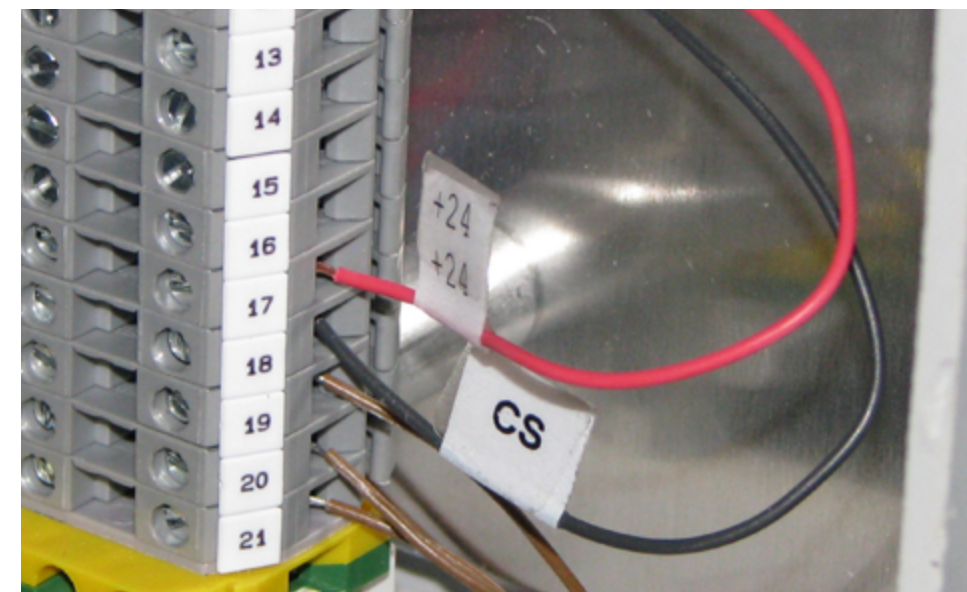
Step 1: Use a Phillips screwdriver to open the Junction Box cover on the right (older style junction box, see photo insert).

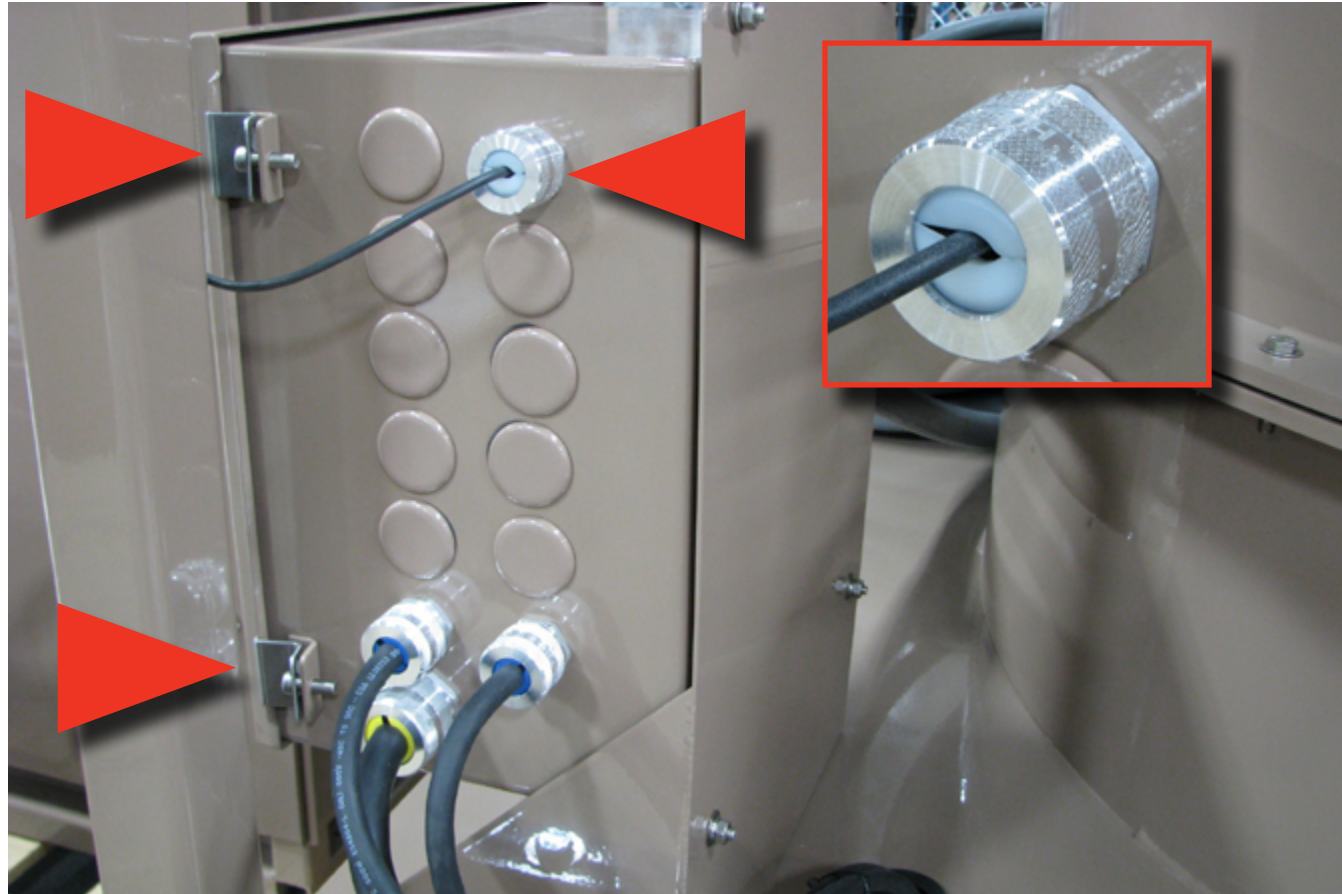
Step 2: CAREFULLY insert the wire and leads through the Seed Transition and into the Junction Box.

Step 3: Loosen the silver connector on the outside of the Gray Junction Box, in order to insert the leads through without tearing off the labels.

Step 4: See image below and connect the red, and black wires.

Step 5: Use a Phillips screwdriver to close the Junction Box cover.





DISCHARGE SENSOR CABLE

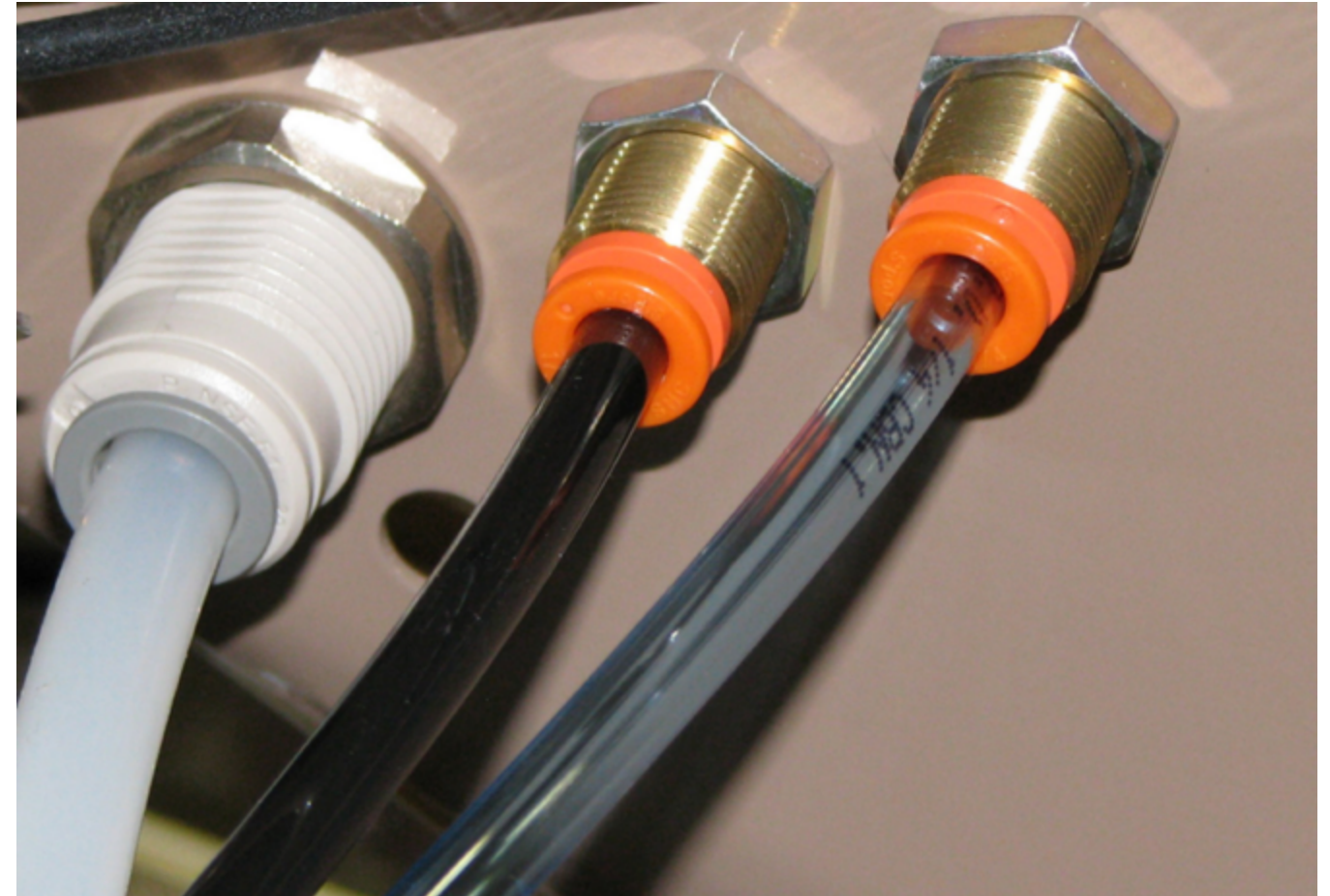
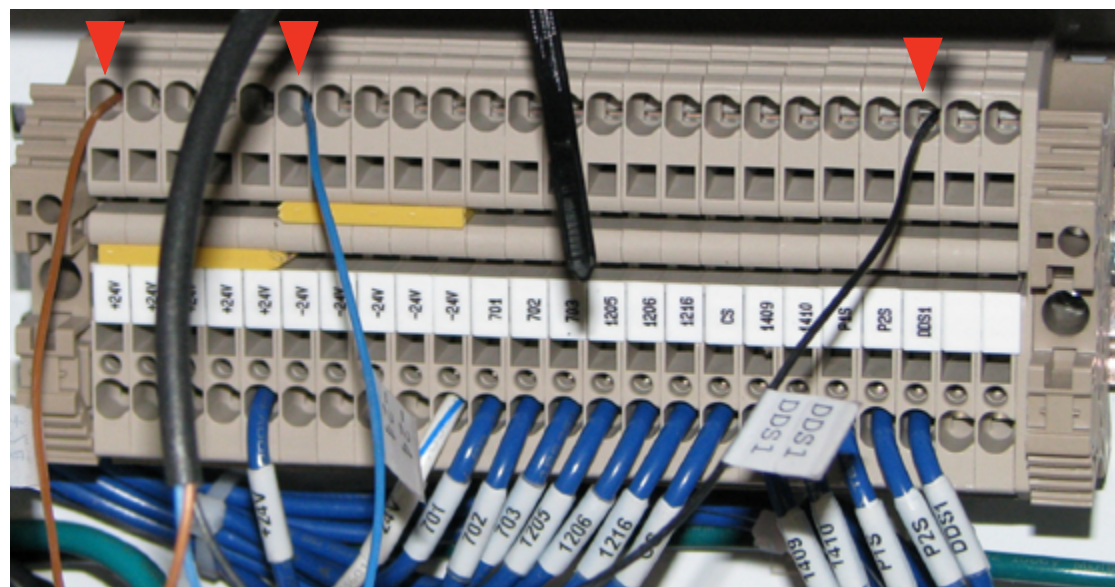
Step 1: Use a Phillips screwdriver to loosen the clips and open the Main Junction Box mounted on the Treater Frame.

Step 2: CAREFULLY insert the black wire leads through the top silver connector on side of Junction Box.

Step 3: Refer to image below - three (3) leads (Brown, Blue and Black) are connected inside Main Junction Box. Each lead is labeled.

Step 4: Once connected, tighten the top silver connector on the side of the Junction Box.

Step 5: Use a Phillips screwdriver to tighten the clips on the Main Junction Box.



TRANSITION AIR LINES

Step 1: Connect (push in) the Blue, Black and White Air Lines into the Transition fittings, as shown above.

Step 2: Use wire ties to connect the Air Lines and black Sensor Cable (refer to photo below) to the treater frame and Bowl Lower Body. The Air Lines and Sensor Cable will still be connected inside the Discharge Assembly.



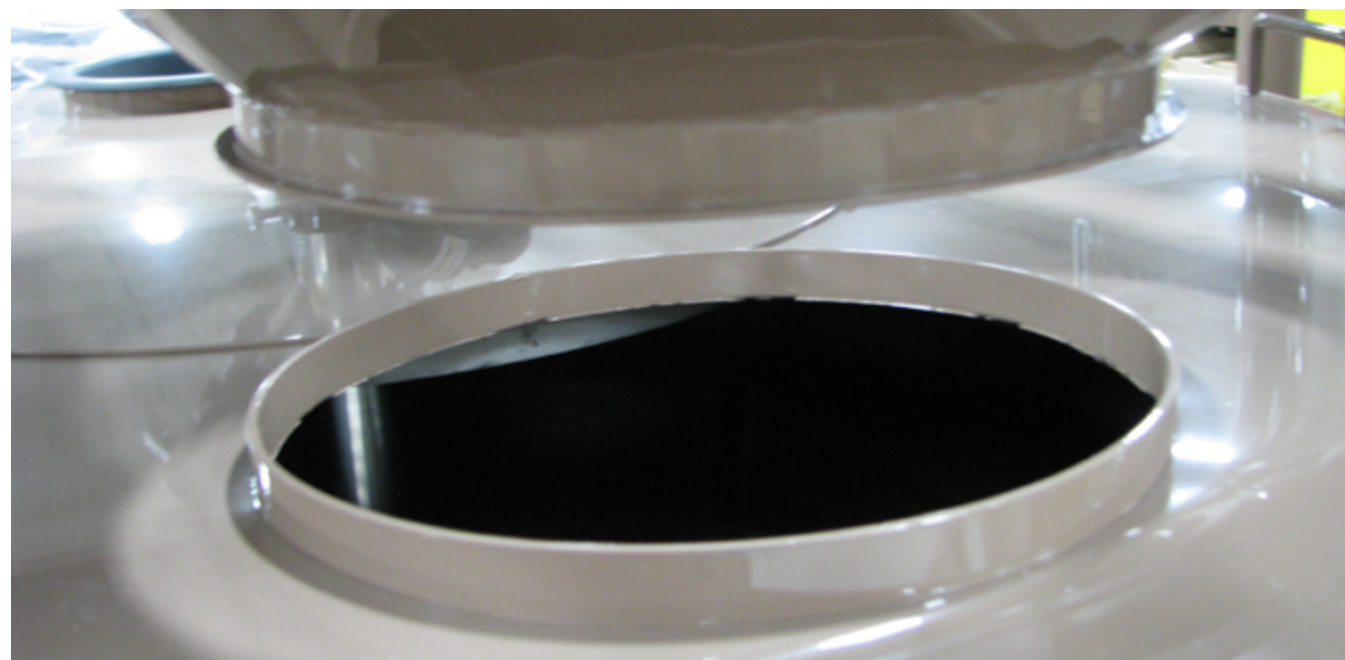


BOWL COVER

Step 1: CAREFULLY swing the Bowl Cover over the Bowl Mid Body Wrap.



Note: ensure the orientation of the Seed Inlet opening is towards the back of the Bowl (aligns underneath the Seed Inlet Transition - see image below).



SWING ARM

Step 1: Push in tab on Scale Clamp (see insert photo) to lower the Cover onto the Bowl Mid Body Wrap.

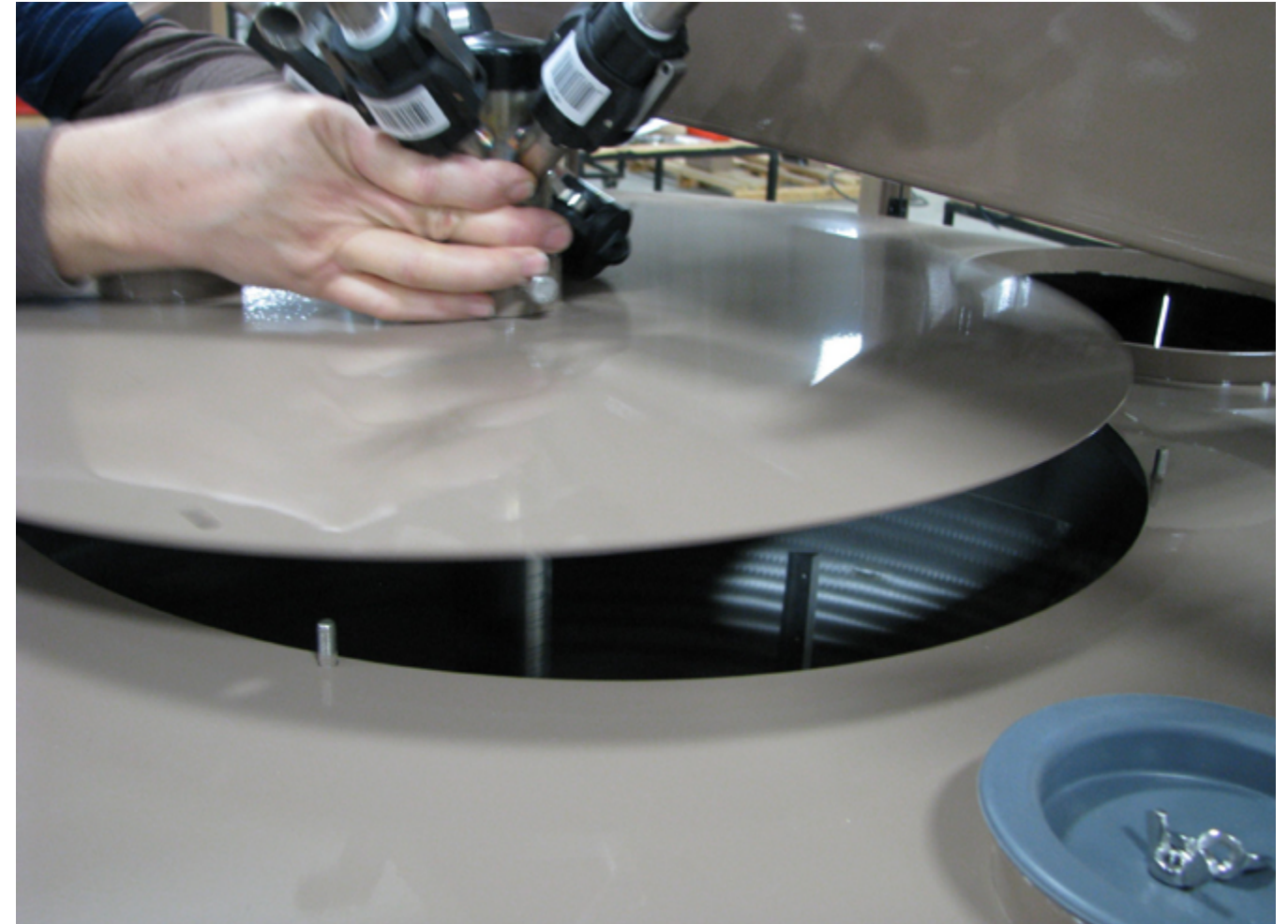
Step 2: Remove the hook from the Bowl Cover (see insert photo).

Repeat on both sides of the Swing Arm.



BOWL COVER CLAMPS

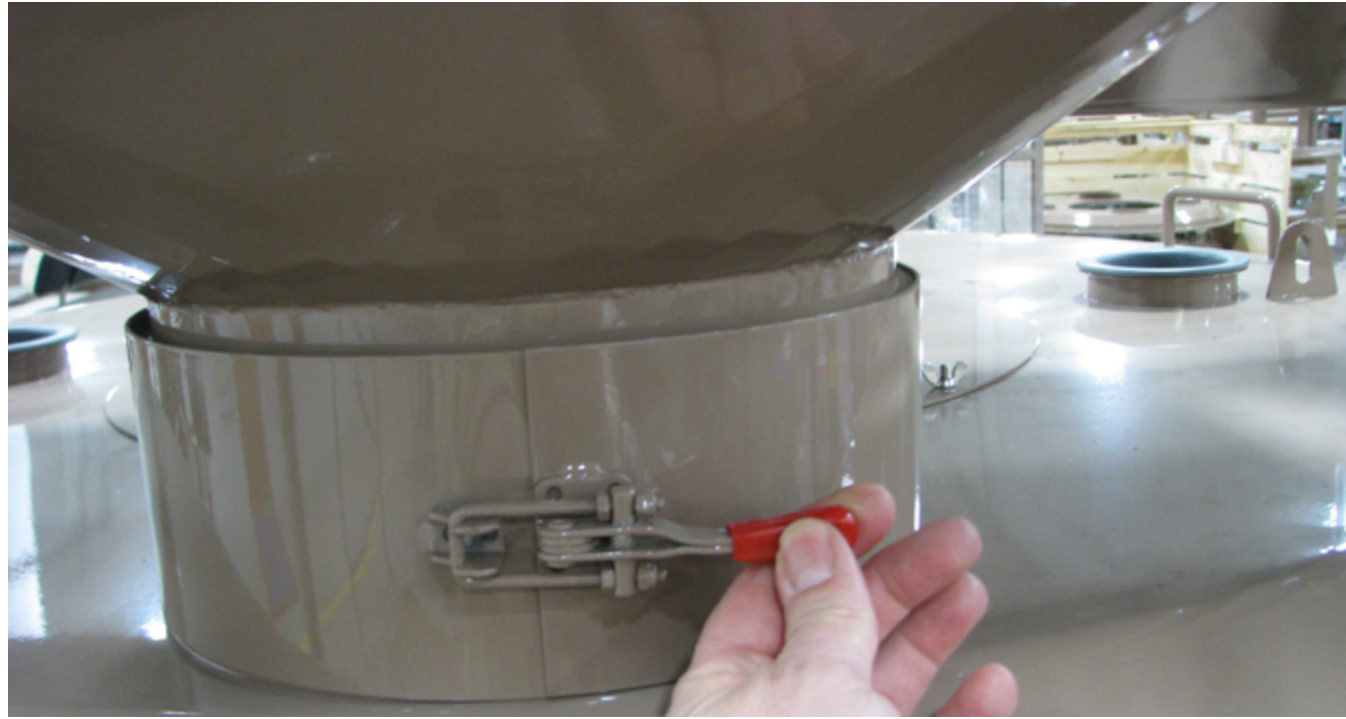
Step 1: Latch and lock down the five (5) clamps that hold the Bowl Cover onto the Bowl Mid Body Wrap (see insert photo).



CHEMICAL INLET PLATE ASSEMBLY

Step 1: Replace the Chemical Inlet Plate on top of the Bowl Cover.

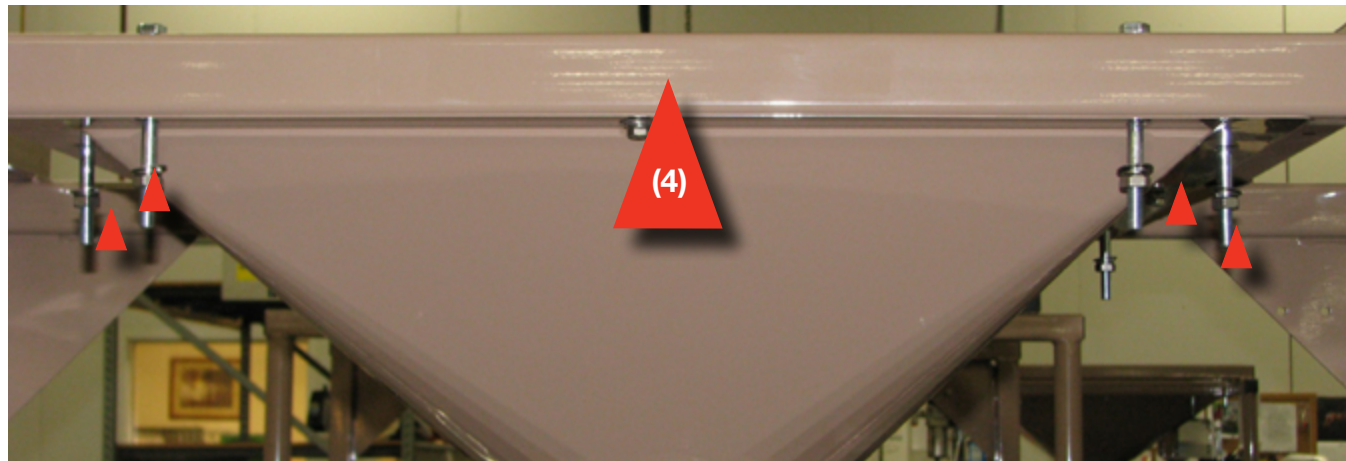
Step 2: Replace the four (4) wing nuts that fasten the Chemical Inlet Plate on top of the Bowl Cover.



SEED INLET COLLAR

Step 1: Replace the Seed Inlet Collar on the bottom of the Transition. Ensure alignment of transition and Bowl Cover.

Step 2: Lock in place.



SEED TRANSITION

Step 1: Move the Swing Arm out of the way.

Step 2: Use a ratchet wrench to fasten the Transition and Scale hardware in place.

Scale Bolts: Use 17mm socket head to fasten eight (8) 10mm bolts, washers and lock washers.

Seed Transition Bolts: Use 13mm socket head to fasten four (4) 8mm bolts, washers and lock washers.

Step 3: Move the Swing Arm back in place.



SCALE GUARDS

Step 1: Use the factory-supplied Safety Key to connect each Guard Panel on the Scale (see insert photo).



DUST EVACUATION

Step 1: Use a slotted screwdriver to connect the dust exhaust tube to the port on Scale Guard Panel (see insert photo).





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