

# **MUNCH MACHINE**

Cluster Bucker

Model: CB1

**Cleaning Guide**

Please read the operator's manual and all included warnings carefully and make sure you fully understand the instructions before using the machine

## **WARNING**

**The operation, servicing and cleaning of the Cluster Bucker by MUNCH Machine is hazardous and could cause severe injuries or worse.** These machines are solely intended to be used for the harvesting and processing of cannabis, hemp and hops. Do not operate, service or clean these machines without proper training, reading the instructions and fully understanding all aspects of these activities on these machines and fully knowing the risks involved. Your failure to abide these warnings is negligence on your part. As warned, you **assume all risks** associated with the lack of proper use, in any manner, of the Cluster Bucker by Munch Machine.

- **WARNING** – This product is a piece of power equipment that if used in ways other than described by this instruction manual can result in operator injury or even death
- **WARNING** – All users need to fully read this instruction manual and familiarize themselves with the machine before operation
- **WARNING** – Keep all shields, guards and safety devices installed and in proper working order at all times
- **WARNING** – Keep all hands, feet and clothing away from power driven parts.
- **WARNING** – This machine is capable of pulling body parts, hair, clothing, gloves, etc. into the feed holes of the installed Die Plate. Use extreme caution to prevent unintended items from entering the feed holes of installed Die Plates.
- **WARNING** – Unexpected energization or startup of the equipment is controlled by unplugging the equipment from the energy source; The plug is under the exclusive control of the employee performing the servicing or maintenance.

## Introduction

Thank you for your purchase of the Cluster Bucker built by MUNCH Machine. Welcome to the best bucking team around! Our products are designed around years of real-world use for the maximum reliability and durability. Every product we bring to market is designed, tested and manufactured 100% in the USA.

This Cleaning Guide is to provide details on the cleaning procedures for the MUNCH Machine Cluster Bucker. If further detail is needed for processes within this guide, please refer to the Cluster Bucker Instruction Manual. This guide is not a replacement for the Instruction Manual.

The Cluster Bucker is a complex piece of equipment, cleaning and maintenance should only be carried out by individuals that have fully read and comprehend the MUNCH Machine Cluster Bucker Instruction Manual.

## Cleaning the Cluster Bucker

This guide is broken out into two main sections, Daily Clean and Deep Clean.

- **Daily Clean** is directing the user to keep the belts and visible components clean and free of debris, but it is not a process that will meet most facility compliance standards.
- **Deep Clean** will direct the user to fully clean and visibly inspect all components of the machine. It is focused on meeting compliance throughout all facilities. A deep clean is required when material is building up within the cassette and pulleys.

It is up to the user and management team to determine what cleaning processes work within each facility to meet compliance standards.

# Daily Clean

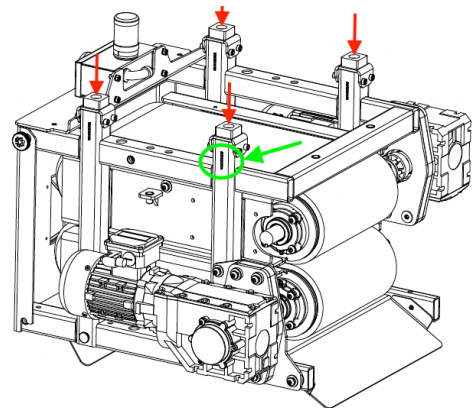
This cleaning process will provide clean surfaces, belts and internals. This process will not meet GMP compliance for some facilities. The Cluster Bucker will also require a Deep Clean on a regular basis. It is up to the user and management team to determine a cleaning procedure that meets regulations pertinent to each facility.

## Tool List:

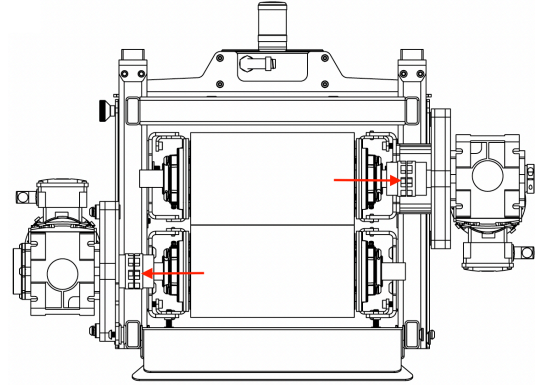
- 2.5mm Hex key
  - 3/8" Hex key (Depending on model –3/4" wrench or socket may be needed instead of a hex key)
  - Simple Green Crystal, or another citrus based cleaner in a spray bottle
  - 70% Isopropyl alcohol in a spray bottle - **Do not use on Belts**
  - Stiff Plastic Bristle Brush
  - Lint Free Towels or Shop Towel
  - Rubber Gloves
1. Ensure machine is turned off and unplugged.
  2. Remove all shielding and faceplate by removing the (6) thumb screws located around the top of the machine.
    - **CAUTION** – Shields are made of steel and need to be handled carefully due to their weight. Additional persons may be needed to handle these parts to prevent dropping the shield and possibly causing injury.

## Shield Removal order of operations

- 1) Rear Shield
  - 2) Top Shield
  - 3) Left or Right-Side Shields
  - 4) Faceplate
3. Locate the Suspension Rule located on each Suspension Tower and note the position of the suspension Force Plate. The position of the Force Plate will be used when Re-applying pressure at the end of the cleaning process. Also, locate the four suspension adjustment bolts at the top of each Suspension Tower. Back the suspension pressure off the Upper Cassette by rotating the Pressure Bolt clockwise using and 3/8" hex key or a 3/4" hex wrench until the force plate is at the top of the rule but still visible. Repeat this process on all four suspension towers.



4. At the back of the machine, Locate the two couplers (1 per cassette). Using a 2.5mm hex key loosen but do not remove the two locking bolts on each black Nylon Coupler Cover ring. The cassettes may need to be manually rotated to access both fasteners.
5. Once loose, slide both black Nylon Coupler Cover rings towards each motor leaving them resting on the outermost coupler cog out of the way.
6. The green Flex Element can then be removed by finding the split and then peeling the teeth out of the Coupler Cogs.
7. The Belts should now roll easily by hand.
8. Spray Simple Green Crystal or another citrus based cleaner on all belt surfaces, rolling the belts by hand to ensure full coverage. Allow the belt to sit with cleaner while you wipe down other parts of the machine.



## Blower or Compressed Air

A blower or compressed air is a good solution to remove the majority of materials from the internals of the machine prior to wiping down all components.

9. Use 70% alcohol in a spray bottle or Simple Green Crystal to spray and wipe off all dirty metal components: **(Do not spray the Belt with the 70% alcohol)**
  - a. Upper Frame
  - b. Motor and Coupler components
  - c. Cassettes side plates and Bearings
  - d. Lower Frame
  - e. Shield Panels and Faceplate & Die Plate
10. Use a stiff bristle brush to scrub, then rotate belts on the cassettes by hand and repeat with additional Simple Green Crystal or another citrus based cleaner. It is best to clean Cassettes at either end, not spraying and scrubbing the top of the Cassette due to cleaning solution pooling internally in the Cassette.
11. Do the same for any debris that is left on the metal components listed above.
12. Once everything has been scrubbed down, apply 70% alcohol to a clean rag and make a final wipe down of all metal components. Also wipe any remaining cleaning residue from Belts with a water-soaked lint free towel or shop towel.
13. Properly dry the machine and apply a thin coat of Food Grade Grease to the exposed Drive Shafts to prevent corrosion.
14. After cleaning, reinstall the Green Elements on each of the two couplers, apply food grade grease to these to extend life. Slide the black nylon Coupler Cover Ring back over the green elements aligning the notches and centering to ensure easy fastener placement. Then tighten and lightly torque the two fasteners on each Coupler Cover.

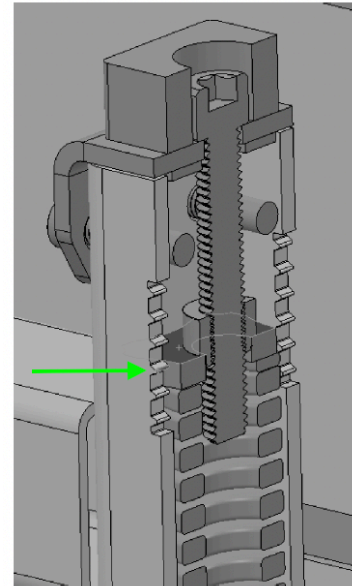
15. Re-apply pressure to the cassettes by rotating the four Suspension Adjustment Bolts counterclockwise to the previously noted position.

16. Re-install all Shielding ensuring that Thumb Screws are hand tight.

Shield Installation order of operations

- 1) Faceplate
- 2) Left or Right-Side Shields
- 3) Top Shield
- 4) Rear Shield

Recommended Pressure



## Pressure Washers

Use of a pressure washer is not recommended for daily cleaning of the machine. A periodic deep clean with a pressure washer will keep the machine running properly, while not creating additional wear on the components.

# Deep Clean

This cleaning process will provide a full breakdown of Cassettes and access to all interior components for thorough cleaning and inspection. This process is intended to meet GMP compliance for most facilities. It is up to the user and management team to determine a cleaning procedure that meets regulations pertinent to each facility.

- **WARNING** – Unexpected energization or startup of the equipment is controlled by unplugging the equipment from the energy source; The plug is under the exclusive control of the employee performing the servicing or maintenance.

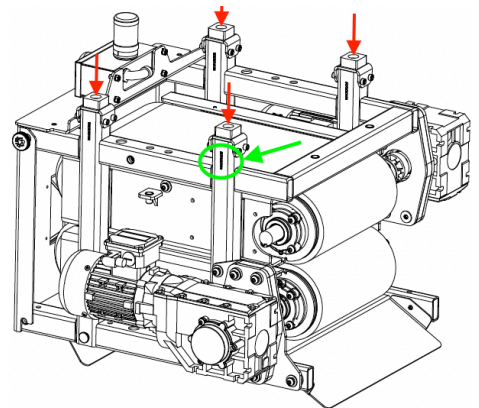
## Tool List:

- 2.5mm Hex key
- 7/32” Hex key
- 3/8” Hex key (Depending on model –3/4” wrench or socket may be needed instead of a hex key)
- Variable height workbench makes removal of Cassettes and cleaning easier.
- Simple Green Crystal, or another citrus based cleaner in a spray bottle
- 70% Isopropyl alcohol in a spray bottle - **Do not use on Belts**
- Stiff Plastic Bristle Brush
- Lint Free Towels or Shop Towel
- Rubber Goves

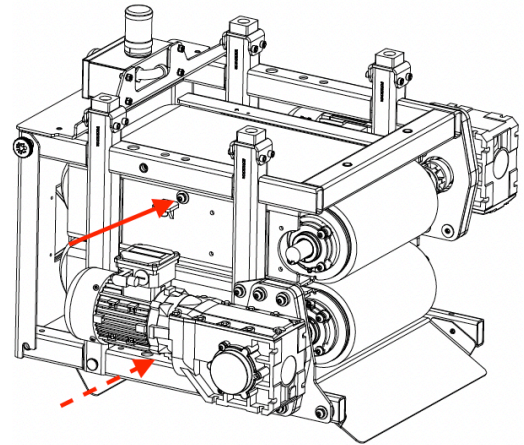
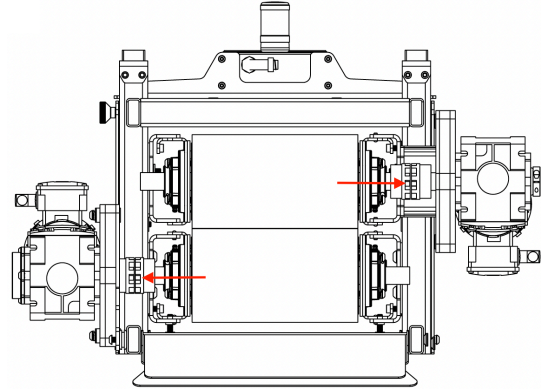
1. Ensure machine is turned off and unplugged.
2. Remove all Shielding and Faceplate by removing the (6) Thumb Screws located around the top of the machine.
  - **CAUTION** – Shields are made of steel and need to be handled carefully due to their weight. Additional persons may be needed to handle these parts to prevent dropping the shield and possibly causing injury.

### Shield Removal order of operations

- 5) Rear Shield
  - 6) Top Shield
  - 7) Left or Right-Side Shields
  - 8) Faceplate
3. Locate the four Suspension Pressure Adjustment Bolts at the top of each Suspension Tower. The position of the Force Plate will be used when Re-applying pressure at the end of the cleaning process. Back the suspension pressure off the Upper Cassette by rotating the Suspension Pressure Adjustment Bolt clockwise using and 3/8” hex key or a 3/4” box wrench or adjustable wrench until the Force Plate is at the top of the rule but still visible. Repeat this process on all four Suspension Towers.



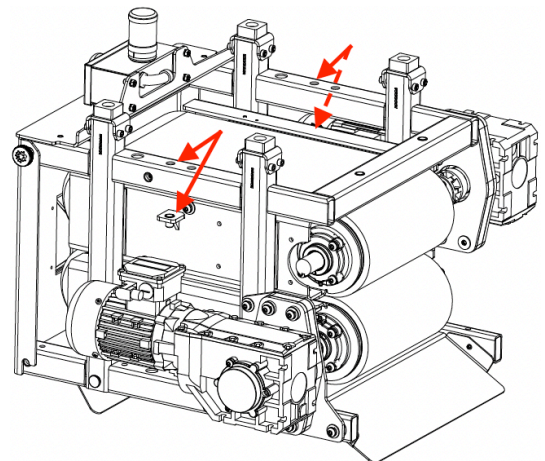
4. At the back of the machine, Locate the two Couplers (1 per Cassette) using a 2.5mm hex key loosen but do not remove the two locking bolts on each black Nylon Coupler Cover ring. The Cassettes may need to be manually rotated to access both fasteners.
5. Once loose, slide both black Nylon Coupler Cover Rings towards each Motor leaving them resting on the outside Coupler Cog out of the way for Cassette removal.
6. The green Flex Element can then be removed by finding the split and then peeling the teeth out of the Coupler Cogs.
7. Remove all 4 Cassette Locking Bolts – 2 per side with a 7/32” hex key and set aside



## Upper Cassette Removal

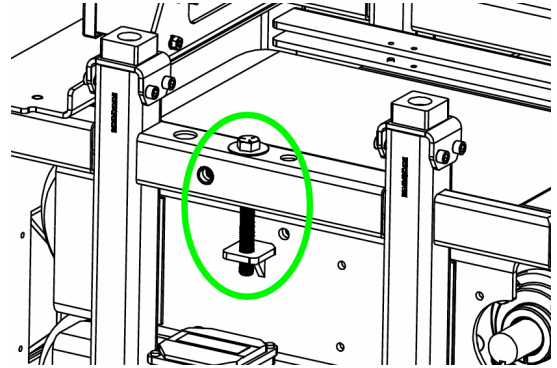
### Machines with Upper Cassette Lifting Mechanism

1. Double check that suspension pressure has already been backed off, and that the Coupler Elements and Cassette Locking Bolts have been removed.
2. Included with the machine are two separate 5” hex bolts and fender washers. On the machine locate the Track Lifting Brackets on the side of each Upper Track, and an accompanying hole in the Upper Frame that aligns with this bracket.
3. Hand thread one hex bolt with washer installed through the Upper Frame down to the Track Lifting Bracket; one will be installed on the left side of the machine, and the second will be installed on the right side of the machine.





4. Once the 5" hex bolts have been started by hand ensuring the fender washer is installed between the hex head and the Upper Frame, you can begin tightening the hex bolts with a 3/4" wrench, socket, or driver to lift the Cassette Tracks.
5. Lift the Cassette Track until the 4 Locating Pins have lifted out of the Cassette, but not so high that the Track hits the Cassette Bearings. Track will lift about 0.42"
6. The Upper Cassette should now be free and can roll out the back of the machine. Cassettes are heavy (80 lbs.) we recommend an adjustable height table that you can roll the Cassette directly onto.



## Machines without Upper Cassette Lifting Mechanism

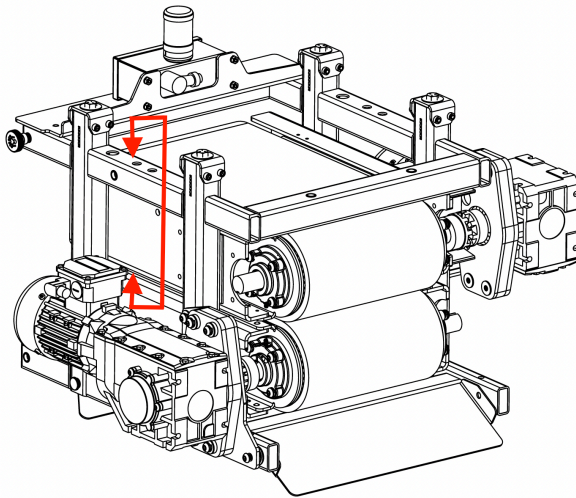
Additional Tools recommended for this procedure

- Quantity 2: 12" trigger clamp

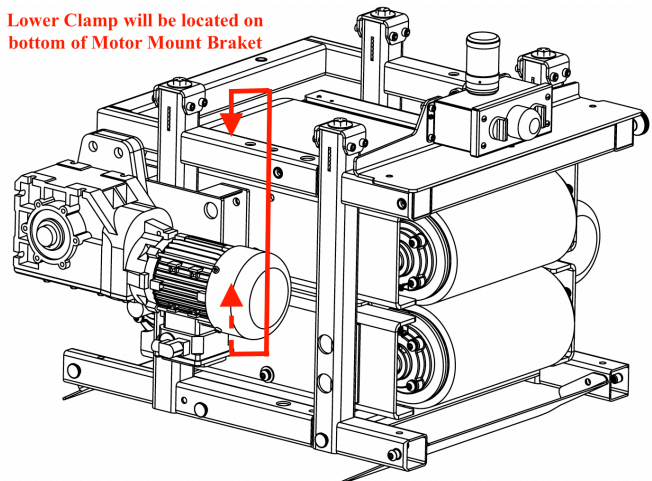


DEWALT 12 in. 100 lbs. Trigger Clamp with 2.43 in. Throat Depth

1. Double check that suspension pressure has already been backed off, and that the Coupler Elements and Cassette Locking Bolts have been removed.
2. Using a 12" trigger clamp compress from the bottom of the top Cassette Track to the top of the Upper Frame, lifting the Cassette Track to disengage the Cassette Pins.



Lower Clamp will be located on bottom of Motor Mount Bracket

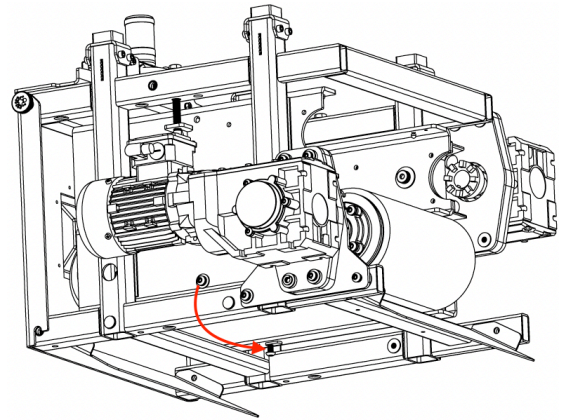


3. Lift the Cassette Track until the 4 Locating Pins have lifted out of the Cassette, but not so high that the track hits the Cassette Bearings. The Track will lift about 0.42"
4. The Upper Cassette should now be free and can roll out the back of the machine. Cassettes are heavy (80 lbs.) we recommend an adjustable height table that you can roll the Cassette directly onto.
5. Once Cassette is removed, release and remove trigger clamps to prevent possible injury.

# Lower Cassette Removal

## Machines with Lower Cassette Lifting Mechanism

1. Ensure the Cassette Locking Bolts have been removed. Insert two of the four Locking Cassette Bolts into the Lower Cassette Lifting Inserts located on the bottom of the Lower Cassette Tracks towards the front of the machine. Using a  $7/32$ " hex key, drive the Cassette Locking Bolt to lift the front end of the Cassette off the Cassette Locking Pins, but not so high that the Cassette Bearing contacts the top edge of the Lower Cassette Tracks.
2. Move to the back of the machine and lift the Cassette upwards at the Bearings off the Rear Locating Pins and shift the Cassette backwards slightly.
3. Slide the Cassette out the back of the machine. Cassettes are heavy (80 lbs.) we recommend an adjustable height table that you can roll the cassette directly onto.



## Machines without Lower Cassette Lifting Mechanism

Additional Tools recommended for this procedure

- Board (roughly a 1"x4") or soft-edged prying instrument (pry bars will damage the belt)
- Soft-blow mallet

### **Removal with two people**

1. It is best to have a second person to help with the removal of the Lower Cassette. One person working at the front of the machine, the second person at the back of the machine.
2. Holding the Cassette at the front and rear Bearings, both people should lift the Cassette upwards 0.42" until the Cassette disengages from the Locking Pins, once disengaged slide the Cassette towards the back of the machine enough for the Locking Pin Holes and the Locking Pins to no longer align. The Cassette Fixed End will slide on the Rear Locking Pins.
3. The person at the front of the machine can help to push the Cassette towards the back of the machine. Do not push beyond the Cassettes balance point causing it to fall out of the machine. Cassettes are heavy (80 lbs.) we recommend an adjustable height table that you can roll the cassette directly onto.

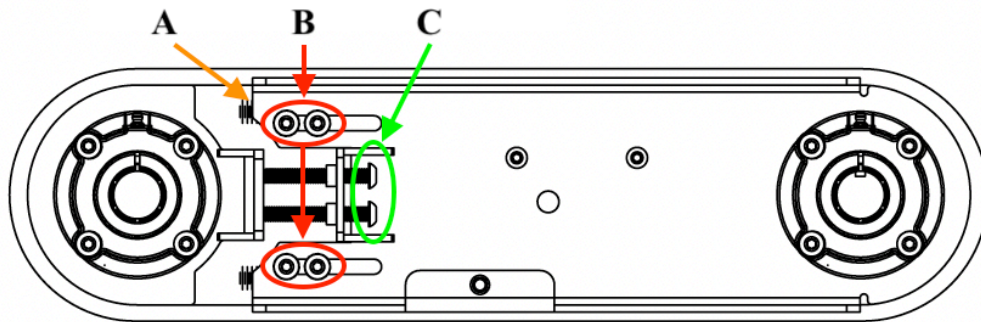
### **Removal with one person**

1. Starting at the front of the machine use a 1x4" board between the Belt and the Upper Frame and slightly pry the Cassette upwards to lift the Cassette off the Front Locating Pins. The Cassette needs to lift 0.42". Once lifted a small wedge or spacer can be placed between the Track and Cassette Fixed End separating the Cassette and the Track on both sides of the machine.
2. Once spacers are in place, move to the back of the machine and lift the Cassette upwards by the bearings off the Rear Locating Pins and shift Cassette backwards slightly.

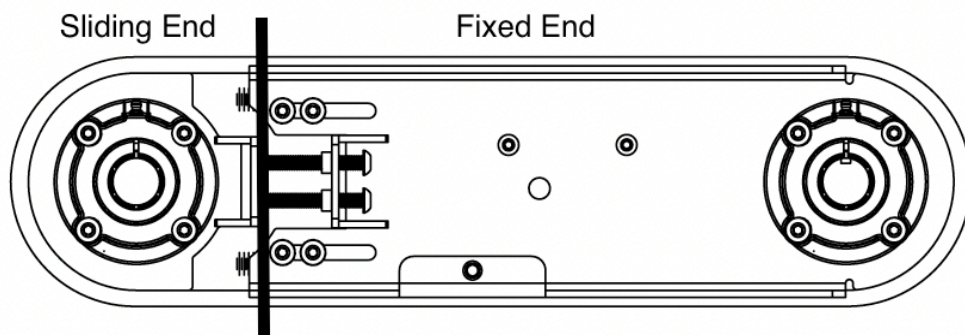
- Slide the Cassette out the back of the machine. Cassettes are heavy (80 lbs.) we recommend an adjustable height table that you can roll the Cassette directly onto.

## Removing Belts from Cassettes

- With the Cassette on a flat worksurface, make note of the Belt Tension Ruler setting on each side of the cassette (A). This setting will be used to reset the tension on the Cassette in the reassembly process. When noting this measurement, it needs to be exact (i.e. The back edge of the 3<sup>rd</sup> small hash mark).
- Loosen but do not remove the 8 Tension Locking Bolts with a 7/32" hex key. Four per Cassette side. (B)
- Loosen fully the 4 Tensioning Bolts, but do not remove, two per cassette side. (C) It is normal for the Tension bolts to loosen. As long as the Tension Locking Bolts are tight and tension is set correctly this is not a problem.



- The Cassette Sliding End can now compress into the Cassette Fixed End, shortening the distance between the two Cassette Pulleys. Ensure that the Tensioning Bolts are not preventing the Cassettes from collapsing completely.



- Re-tighten the at minimum 2 Tension Locking Bolts on each side of the Cassette with the Cassette collapsed. (B)
- Tilt the Cassette up onto its side, be cautious, some parts will be able to move. Pull the belt up off the cassette while simultaneously squeezing the center of the belt. The belt has a center rib that will cause resistance, sometimes rolling the belt back and forth will help it clear the edges of the cassette.

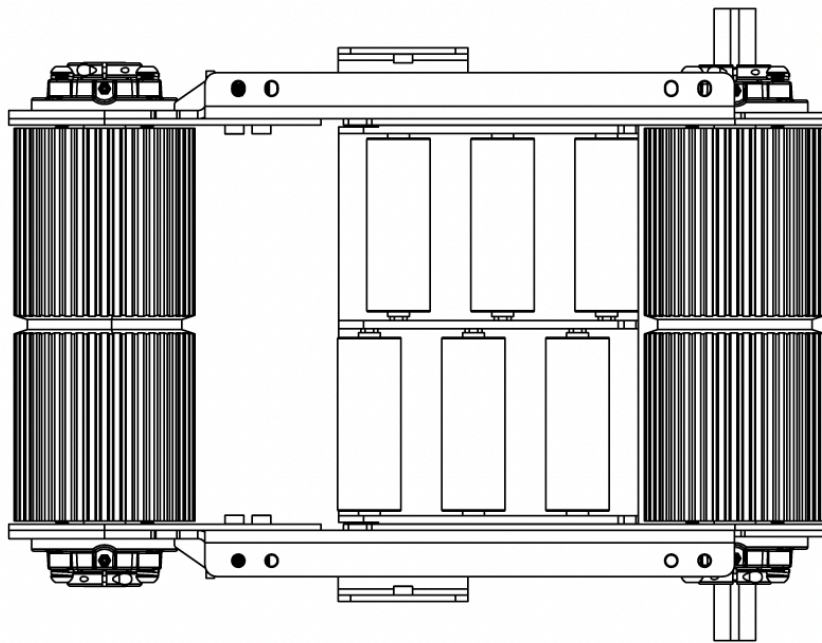
## Deep Cleaning

After removing Cassettes from the machine and removed Belts from the Cassettes you can now access everything necessary for a deep clean.

### Blower or Compressed Air

A blower or compressed air is a good solution to remove the majority of materials from the internals of the machine prior to wiping down all components.

All metal parts and the Cassette pulleys can be cleaned with up to 70% Isopropyl Alcohol. The Belt material must not be cleaned with alcohol. If Isopropyl Alcohol is used on your Belts the Warranty will be voided.



1. Spray Simple Green Crystal or another citrus based cleaner on all Belt surfaces. Allow the belt to sit with cleaner while you wipe down other parts of the machine. Re-apply as product dries to let the citrus cleaner continue to breakdown built up material.
2. Use 70% alcohol in a spray bottle or Simple Green Crystal to spray and wipe off all dirty metal components: **(Do not spray the Belt with the 70% alcohol)**
  - a. Upper Frame
  - b. Motor and Coupler components
  - c. Cassettes side plates and Bearings
  - d. Lower Frame
  - e. Shield Panels and Faceplate & Die Plate
  - f. All Cassette parts including Bearings, Shafts, and Pulleys
3. Use a stiff bristle non-metal brush to scrub Belts and repeat coatings with additional Simple Green Crystal or another citrus based cleaner until clean. Make sure all material buildup between the teeth on the inside of the Belt has been removed and the teeth are free and clear of any debris.
4. Additionally, scrub off any debris left on the metal components listed above. Taking additional time to clean and remove any material within the teeth of the pulleys.

5. Once everything has been scrubbed down, apply 70% Isopropyl alcohol to a clean rag and make a final wipe down of all metal components.
6. A final rinse with clean water of the Belt will remove any remaining residue
7. Properly dry the machine and apply a thin coat of Food Grade Grease to the exposed Drive Shafts to prevent corrosion.

## Pressure Washers

The entire machine may be washed using water from a hose. The Cassettes, Faceplate, Shielding, Die Plate, and Frame may be cleaned using a high-pressure washer. Do not direct a high- pressure stream at any electrical components, Control Buttons, Motors, Cables, Belts or the Bearings.

- **ATTENTION** – Improper use of a pressure washer may cause damage to your machine. Avoid spraying directly into any electrical components, Control Buttons, Motor, Cables or the Bearings.

Use of a pressure washer is not recommended for daily cleaning of the machine. A periodic deep clean with a pressure washer will keep the machine running properly, while not creating additional wear on the components.

- **ATTENTION** - Properly dry and protect and lubricate all components of the machine after using a pressure washer for cleaning.

## Maintenance

General maintenance on the machine is minimal. The machine does have a few wear parts that the user needs to be aware of and maintain to keep the machine in good working order. When the Cluster Bucker is disassembled it is the best time to access the items that possibly need maintained.

### Lubrication

The Flange Bearings on the Cassettes will occasionally require greasing. Grease zerks are installed on each bearing for use with a grease gun. Due to the machine running at low speeds and low temperatures the machine does not use grease as quickly as other equipment.

#### Bearing Lubrication Intervals

- High use situations (daily use, year-round) require application of one grease pump per bearing every 3-4 months.
- Low to Moderate use situations (Seasonal use) require application of one grease pump per bearing 1 time per year.

Pump slowly; one grease pump will add enough grease for this application. One of the primary causes of bearing damage are over greasing.

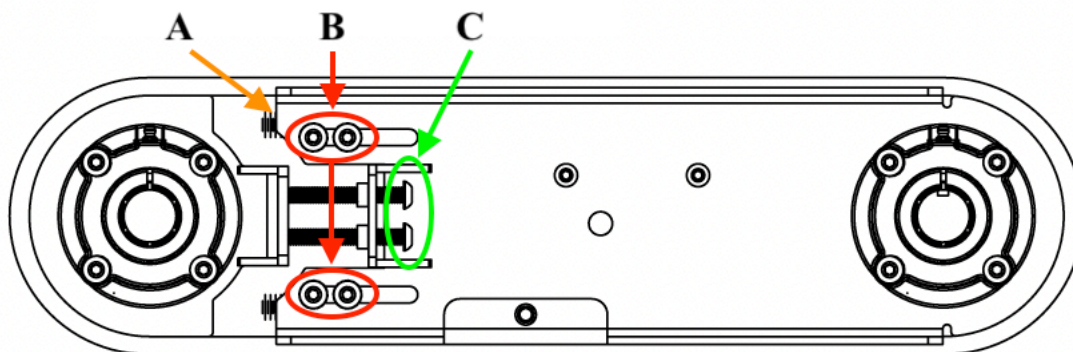
- **ATTENTION** – Damage can occur to the bearing seals if they are over-greased.

**Recommended Food Safe Lubricant:** Lubriplate FGL-2 - product number L0232

# Reinstallation of Components

## Belts

1. Tilt the Cassette up onto its side, be cautious, some parts will be able to move. Pull the belt down over the top edge of the cassette while simultaneously squeezing the center of the belt. The belt has a center rib that will cause resistance, sometimes rolling the belt back and forth will help it clear the edges of the cassette. Ensure the V Guide is aligned with the center groove on both Cassette Pulleys
2. Lay the cassette back down on its belted side taking care not to allow it to roll.
3. Loosen the 8 Tension Locking Bolts (B).
4. Begin Applying pressure via the Cassette Tensioning Bolts (C), tension of the tensioning bolts needs to happen in small increments working one bolt at a time adding a little pressure with each, until the leading edge of the Fixed end of the Cassette aligns with the noted Tension Ruler measurement from disassembly (A). This tension adjustment needs to be as close to exact as possible. If the tension was on the front edge of one line on the ruler you need to set all four point to the front edge of the same line. If your tension is not set equally the belt will not be able to track properly and cause uneven belt wear.
5. Once tension is set, and all four Tension rules on each Cassette match, tighten down all 8 Tension Locking Bolts (B) with a 7/32" hex key until the split washer is fully compressed.
6. Repeat process for the second Cassette.



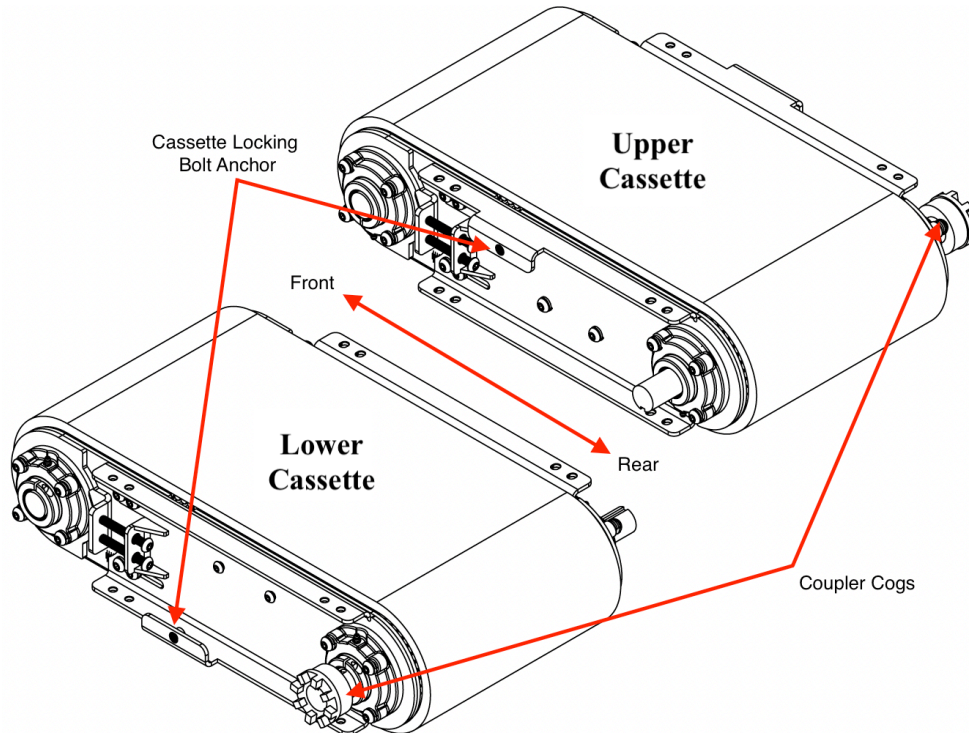
# Cassette Pre-Installation Checklist

The following checklist is to help the installer ensure all parts of the Cassettes have been reassembled correctly. Please go through this checklist on each Cassette individually.

- Belt is centered in the Cassette and sitting in the Pulley Groove
- All 4 Tension Rules are set up equally and the setting is exactly the same as was noted at disassembly
- All 8 tension locking bolts are tight, and the lock washers are flat
- Coupler Cog remained installed

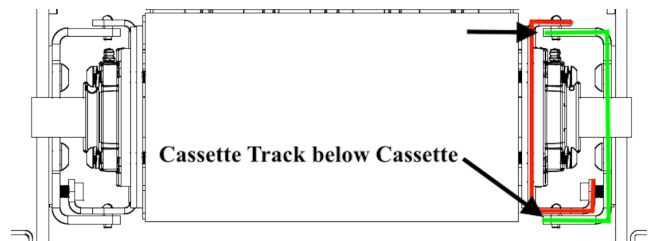
## Layout of Cassettes for Re Installation

1. Cassettes are universal, and work in both the Upper and Lower position. Cassettes will need to be installed opposite one another.
2. The Coupler Cog is the most obvious way to properly orient the Cassettes. Rotate both Cassettes so the Drive Pulley End (end with Coupling Cog installed) are both away from the Cluster Bucker. Then also flip one of the cassettes to have one Coupler Cog facing left and the other Coupler Cog facing right, opposite one another. The Cassette Locking Bolt Anchors are the second indicator of Cassette orientation in case the Coupler Cogs have been removed.



## Lower Cassette Install

1. Ensure black Nylon Coupler Cover ring is positioned out of the way, but on the motor side Coupler Cog.
2. Establish which Cassette will be the Lower Cassette - Coupler Cog oriented to the Left and away from the Cluster Bucker
3. Adjust the height of your adjustable workbench to match the height of the Lower Track bottom edge.
4. Ensure your Upper Track is still lifted and ensure the Lower Track Lifting Bolts have been lowered to allow the cassette to slide past the bolt.
5. When inserting the Lower Cassette, the Lower Cassette Flanges will sit on top of both lower Track Flanges (See Illustration)
6. Slide the Lower Cassette into the Lower Track, Lifting the cassette over the Rear

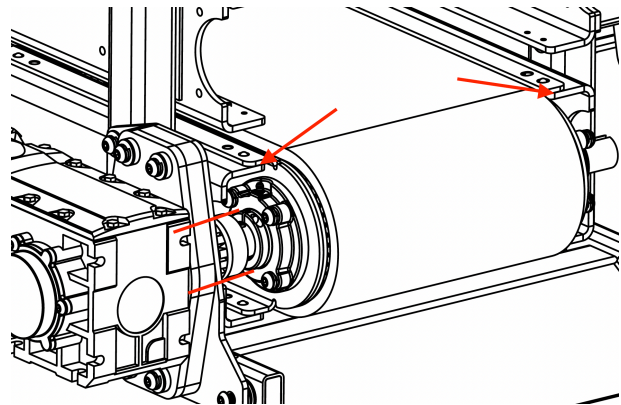




Locating Pins and sliding it forward in the machine not allowing the rear Locating Pins to Engage with the front locating pin holes.

- Slide until the Cassette is touching the Front Locating Pins, the installer should re-tighten the Lower Cassette Lifting Bolts to raise the Cassette above the Locating Pins.

- Continue to slide the Cassette into the machine until the rear edge of the Cassette Flange aligns with the rear edge of the Cassette Track Flange. When aligned the rear Locating Pins should be aligned with the correct Locating Pin Holes on the Cassette. When aligned properly the Coupler Cogs will also be in alignment.



- Starting with the motor side, back out the Lower Cassette Lifting Bolts. Fully remove the bolts and set aside.

- All four Locating Pins on the Track should align with Locating Pin Holes on the Cassettes, if these have not fully engaged, the Cassette may need to be manually shifted to get all four pins to engage. The Lower Cassette must be fully seated flat on the Cassette Tracks prior to installing the Upper Cassette.

- Install Cassette Locking bolts, one on each side of the machine into the Lower Cassette and tighten until lock washer is flat.

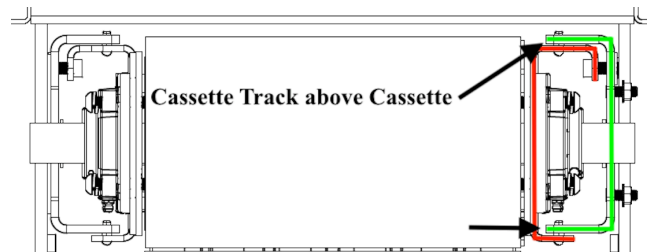
## Upper Cassette Install

- Ensure black Nylon Coupler Cover ring is positioned out of the way, but on the motor side Coupler Cog.

- Ensure your Upper Track is still lifted and ensure the Lower Track is seated properly.

- Ensure your Cassette is oriented properly with the Coupler Cog on the right and away from the machine

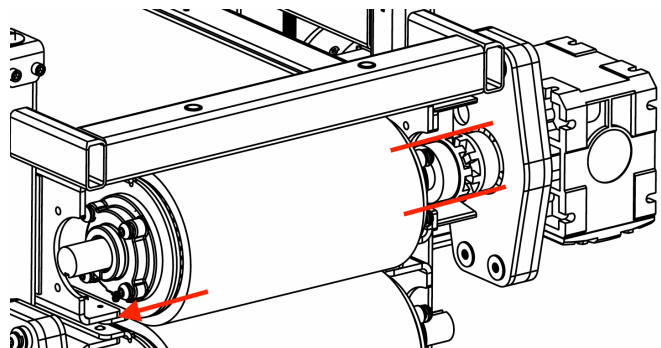
- Adjust the height of your adjustable workbench to allow for the Upper Cassette to roll onto the Lower Cassette.



- Roll the Upper Cassette into the machine with the Upper Belt rolling on the Lower Belt, keep the Upper Cassette aligned and parallel with the Lower Cassette. The Cassette Flanges should be below the Track Flanges on both sides of the machine.

- Roll the Cassette into the machine until rear edge of the Cassette Flange is aligned with the rear edge of the Upper Track. When aligned properly the Coupler Cogs will also be in alignment.

- Using the Upper Track Lifting mechanism back off the lifting pressure and begin to lower the motor side track first. You may need to adjust the Cassette so the Locating Pins engage as the Track comes down, lower the motor side fully and remove the fastener and washer from the system.



8. Lower the opposite side Upper Track and remove the fastener and washer the same way.
9. Check that all locating pins have fully engaged with the cassette and that the cassette and track are fully seated with one another.
10. Install Cassette Locking bolts, one on each side of the machine into the Upper Cassette and tighten until lock washer is flat.

## Installing Coupler Elements and Rings

After cleaning, reinstall the Green Elements on each of the two Couplers, apply food grade grease to these to extend life. Slide the black nylon Coupler Cover Ring back over the green elements aligning the notches and centering to ensure easy fastener placement. Then tighten the two fasteners on each Coupler Cover.

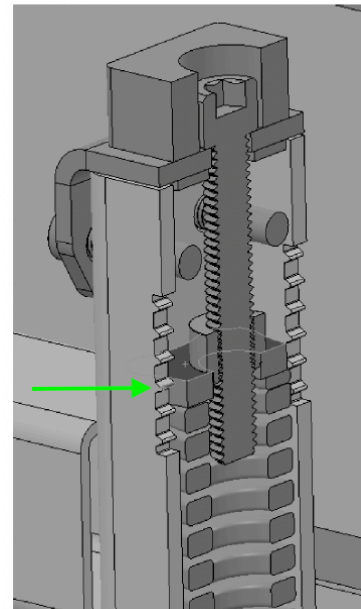
- **CAUTION** – Do not run the machine without a complete Coupler assembly.

## Re Applying Suspension Pressure

Re-apply pressure to the cassettes via the four Suspension Adjustment Bolts to the previously noted position. Rotate the Suspension Adjustment Bolts counterclockwise to apply pressure, clockwise to remove pressure.

- Factory Setting: Top of the Force Plate aligned with the 4<sup>th</sup> hash down from the top
  - **ATTENTION** – If adjustments are made to the suspension system of the machine, the user must ensure that all tensioning blocks are set equally by checking the built-in rule on each suspension tower.
  - **ATTENTION** –higher belt pressure will equal shorter belt life. The longer a machine is run at higher belt pressure the shorter the life expectancy of the belts will be.

Recommended Pressure



## Re Install Faceplate

1. Tilt the faceplate so the bottom edge is closest to the front of the machine with the Faceplate Flanges passing on the outside of the Upper Frame on both left and right sides. Ensure that the lower j slots on the Faceplate Flanges align with and seat onto the Hood Mount Pegs (2) on each side of the machine.
2. Pivot the Faceplate up towards the machine and install Thumb Screws to secure in place. Thumb Screws should be hand tight.

# Cluster Post Deep Clean Checklist

The following checklist is to help the installer ensure all parts of the Cluster has been reassembled correctly. Please go through this checklist only after the Faceplate has been reinstalled.

- Upper Cassette Track Lifting Fastener and Washer have been removed fully and placed in the storage position on the Frame.
- The Lower Cassette is positioned above the Lower Cassette Track Flanges
- The Upper Cassette is positioned Below the Upper Cassette Track Flanges
- Each Cassette is inserted so the rear Cassette Flange is aligned with the rear Cassette track Flange
- Each Cassettes is seated and flush against the Cassette Track on all 8 Locating Pins (16 total Locating Pins on 2 Cassettes)
- Cassette Locking Bolts have been re installed and tightened to flatten the lock washer
- Coupler elements have both been re installed
- Coupler Element Nylon Covers have both been reinstalled and the two fasteners on each are hand tight
- Suspension pressure has been re applied to the desired setting

## Test the Machine

With the Faceplate installed and all checklists having been completed, a test run of the machine will ensure that everything is functioning properly. Be absolutely sure that all tools and persons are clear of the equipment.

- **WARNING** – Unexpected energization or startup of the equipment is controlled by unplugging the equipment from the energy source; The plug is under the exclusive control of the employee performing the servicing or maintenance.
1. Ensure Faceplate and Die Plate are installed
  2. Ensure all Previous Checklists have been completed
  3. Ensure all persons and tools & Equipment are away from the machine
  4. Turn on the machine
  5. Check both Couplers to be sure they are operating correctly
  6. Check Each belt to ensure it is tracking straight within each Cassette
  7. Test Speed adjustment knob by rotating while the machine is running from 0-10.
  8. Test Emergency Stop Button while machine is running. Then disengage the engaged Emergency Stop Button
  9. Turn off Machine

If everything functioned properly the Cluster Bucker is ready to have the shielding re installed and to be put back in service.

## Re Install Shielding

Re-install all Shielding ensuring that Thumb Screws are hand tight.

### Shield Installation order of operations

- 5) Left or Right-Side Shields
- 6) Top Shield
- 7) Rear Shield