TF810 PRO PTO WOOD CHIPPER

OPERATOR'S MANUAL

0007030-M-EN: Rev D
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WOODLAND MILLS

DISCOVER THE WOODLAND™

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INTRODUCTION

Congratulations on your purchase and welcome to Woodland Mills! This manual gives you the necessary information about your machine so you will be able to use it properly. The entire manual must be read and understood before you start using the machine. If any questions should arise that are not covered by this manual, please contact Woodland Mills Inc.

OWNER'S RECORD

Please take a moment to record the following information about your twin flywheel wood chipper. If you need to call for assistance, please be ready to provide your model and serial numbers. This information will allow us to help you more quickly when you call.

MODEL NUMBER

SERIAL NUMBER

DATE OF PURCHASE

This machine is designed for certain applications only. We strongly recommend that this machine is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted us to determine if it can or should be performed on the product.

For technical questions and replacement parts, please contact Woodland Mills Inc.

INTENDED USE

Woodland Mills twin flywheel wood chippers are designed for acreage owners to aid in chipping natural, untreated wood only. Materials that are processed may contain chemicals or by-products that could corrode the machine or damage it, resulting in safety concerns.

SAFETY GUIDELINES

SAVE THESE INSTRUCTIONS

- Do not operate this machine until this manual has been read and fully understood; serious injury or severe machine damage could occur if these safety warnings are ignored.
- Never allow more than one person to operate this machine at one time. If two people are working together it will increase the chance of your workmate engaging the machine or causing you to fall into the machine.
- If your hand is ever near the chipping or feeding area, serious injury could occur.
- Never place your hands or feet on or near the machine while it is engaged.
- Never place your hands or feet on or near the material while it is feeding.
- DO NOT wear loose clothing, jewelry, or anything that can catch a branch that is feeding into the wood chipper.
- DO NOT stand directly in front of the infeed chute when loading material into the hopper; always load from the side of the hopper. This will help prevent any part of your body from being pulled into the machine.
- Always wear safety hearing protection, eye wear, gloves, and long pants when operating the wood chipper.
- Never place your hands beyond the opening of the hopper while the wood chipper is running.
- Never allow children, disabled, or untrained persons to operate the wood chipper.
- Do not operate the wood chipper near bystanders, public roads, or anywhere that debris may travel far enough to injure another person.
- Never move the wood chipper while it is running.
- Shut off the tractor and allow the wood chipper to come to a complete stop before removing any debris.
- Never perform any maintenance or repair while the wood chipper is running.

ROTATING DRIVELINES

STAY CLEAR OF ROTATING DRIVELINES

- Entanglement in rotating driveline can cause serious injury or death.
- Keep tractor master shield and driveline shields in place at all times. Make sure rotating shields spin freely.
- Wear close-fitting clothing.
- Shut off the engine and be sure the PTO driveline has stopped before making adjustments, connections, or cleaning out PTO-driven equipment.
- Do not install any adapter device between the tractor and the primary implement PTO drive shaft that would allow a tractor shaft to power a 540 RPM implement at speeds higher than 540 RPM.
- Do not install any adapter device that results in a portion of the rotating implement shaft, tractor shaft, or the adapter to be unguarded. The tractor master shield shall overlap the end of the splined shaft.

WARNING!

Read and understand all instructions. Failure to properly follow the instructions listed below may result in serious injury or death.

WARNING!

The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product but must be supplied by the operator.

PERSONAL SAFETY

- **Stay alert**, watch what you are doing and use common sense when operating a power tool. Do not use a power tool when you are tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- **Dress properly.** Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts. Air vents often cover moving parts and should be avoided.
- **Use safety apparel and equipment.** Use safety goggles or safety glasses with side shields that comply with current national standards, or when needed, a face shield. Use a dust mask in dusty work conditions. This applies to all persons in the work area. Also use non-skid safety shoes, a hardhat, gloves, dust collection systems, and hearing protection when appropriate.
- **Do not over reach.** Keep proper footing and balance at all times.
- **Remove adjusting keys or wrenches** before connecting to the power supply or turning on the tool. A wrench or key that is left attached to a rotating part of the tool may result in personal injury.
- **Never remove or install blades, conduct any maintenance, or make any other adjustments while the tractor engine is running.** Always shut the engine off, remove the ignition key, and disconnect the PTO shaft prior to carrying out any of the aforementioned procedures. Consult your tractor's manual for safe shutdown procedures to prevent accidental ignition.

WORK AREA

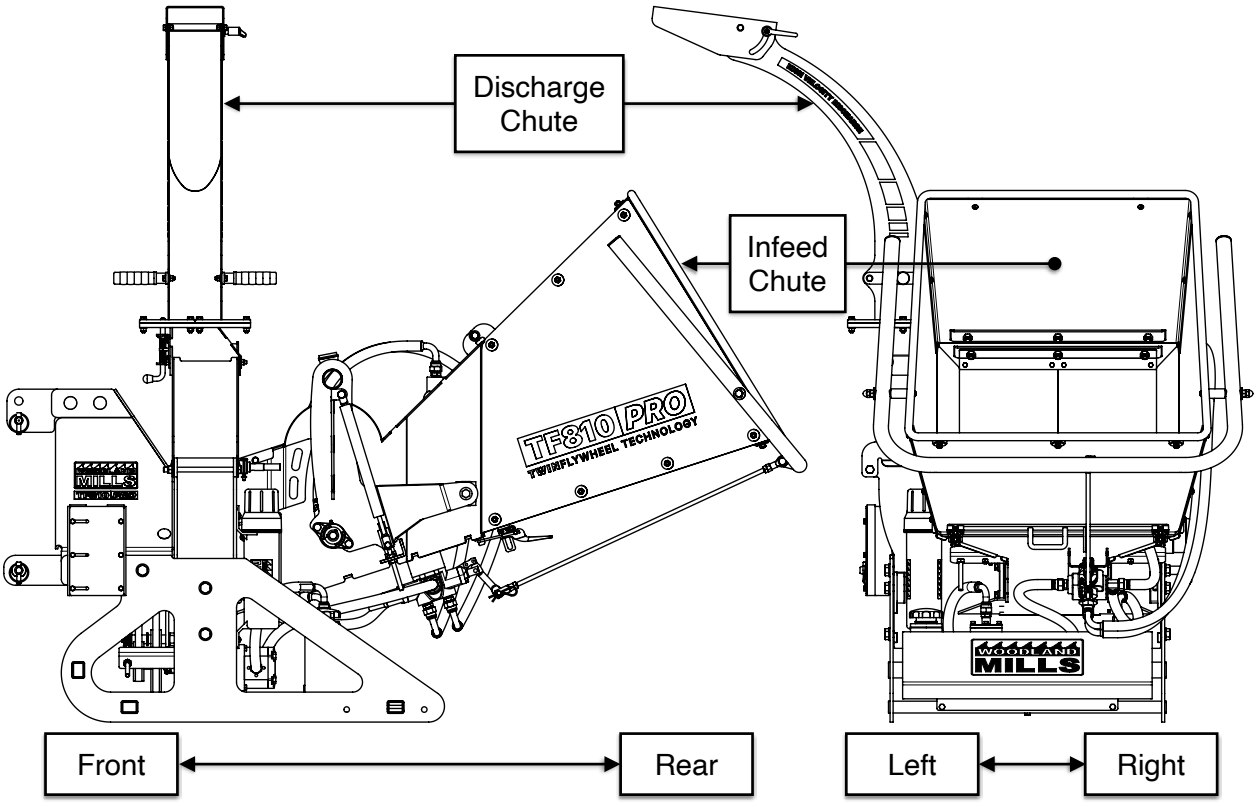
- **Keep work area clean**, free of clutter and well lit. Cluttered and dark work areas can cause accidents.
- **Do not use your wood chipper where there is a risk of causing a fire or an explosion**; e.g. in the presence of flammable liquids, gasses, or dust. Power tools create sparks which may ignite the dust or fumes.
- **Keep children and bystanders** away while operating a power tool. Distractions can cause you to lose control, therefore, visitors should remain a safe distance from the work area.
- **Be aware of all power lines, electrical circuits**, water pipes and other mechanical hazards in your work area, particularly those hazards below the work surface hidden from the operator's view that may be unintentionally contacted and cause personal harm or property damage.
- **Be aware of your surroundings.** Using power tools in confined work areas may put you dangerously close to cutting tools and rotating parts.

TOOL USE AND CARE

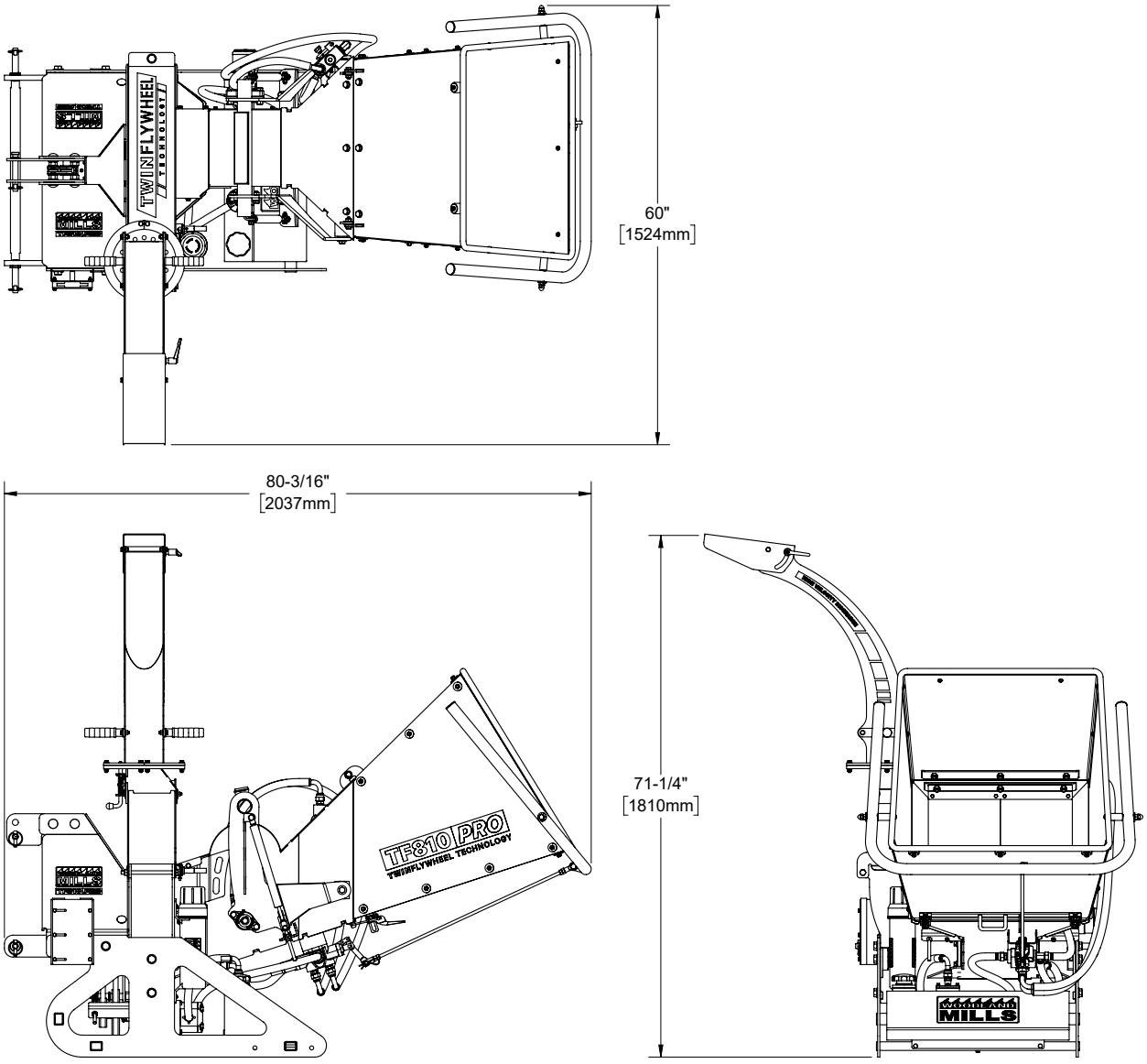
- **Always be sure the operator is familiar** with proper safety precautions and operation techniques before using machine.
- **Do not force the tool.** Tools do a better and safer job when used in the manner for which they are designed.
- **Turn off the tractor engine** and disconnect the PTO shaft before servicing, adjusting, installing accessories or attachments, or storing. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- **Storing the wood chipper.** When the wood chipper is not in use, store it in a dry, secure place or keep it well covered and out of reach of children. Inspect the wood chipper for good working condition prior to storage and before re-use.
- **Maintain your wood chipper.** It is recommended that the general condition of the wood chipper be examined before it is used. Keep your wood chipper in good repair by adopting a program of conscientious repair and maintenance in accordance with the recommended procedures found in this manual. If abnormal vibration or noise occurs, turn the wood chipper off immediately and have the problem corrected before further use.
- **Keep blades sharp and clean.** Properly maintained wood chipper blades are less likely to bind and make feeding-in brush easier.
- **Cleaning and Lubrication.** Use only soap and a damp cloth to clean your wood chipper. Many household cleaners are harmful to plastic and rubber components on the wood chipper.
- **Use only accessories that are recommended** by the manufacturer for your model. Suitable accessories for another wood chipper may create an injury risk when used on this wood chipper.
- **Always** operate the machine with all safety devices and guards in place and in working order. DO NOT modify or make changes to safety devices. DO NOT operate the machine if any safety devices or guards are missing or inoperative.
- **Never leave wood chipper running unattended.**
- **Never use the equipment to chip brush with trunks exceeding 8" [203 mm] in diameter** or for any purpose other than chipping brush as described in this manual.

TECHNICAL SPECIFICATIONS

Component	TF810 PRO Specification
Drive System	PTO
Transport	3-Point Hitch
Minimum HP Required (at PTO)	35 hp
In-Feed System	Hydraulic
Hydraulic Oil	ISO 32 (ISO 46 for warmer climates)
Hydraulic Tank Volume	5 gal [19 L]
Hydraulic Requirement (Tractor)	None. Self contained.
PTO Shear Bolt	Class 8.8 M8 X 50 mm Hex Bolt
Blade Dimensions	6-1/16 X 2-23/32 X 5/16 in [154 X 69 X 8 mm] (8 total)
Blade Hardware	Class 8.8 M10 X 20 mm Hex Head Bolts (3 per blade)
Infeed Roller Diameter	8 in [203 mm] at Tooth Tip
Infeed Chute Dimensions (H X W)	29 X 27-⅝ in [737 X 702 mm]
Product Weight	994 lb [451 kg]
Product Shipping Weight	1124 lb [510 kg]

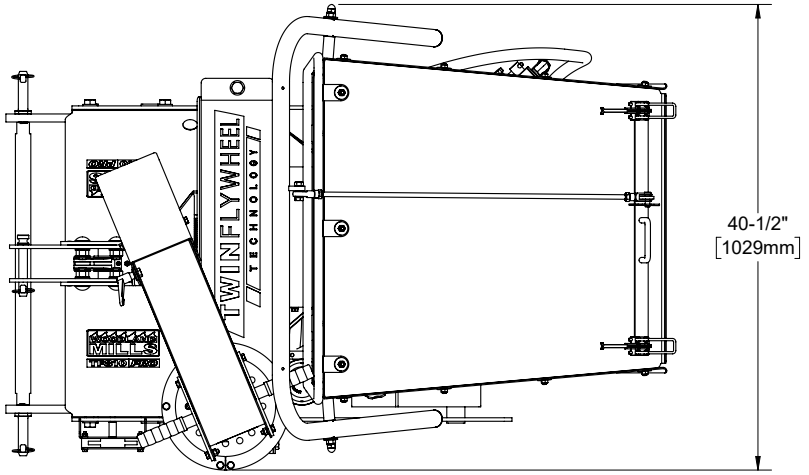


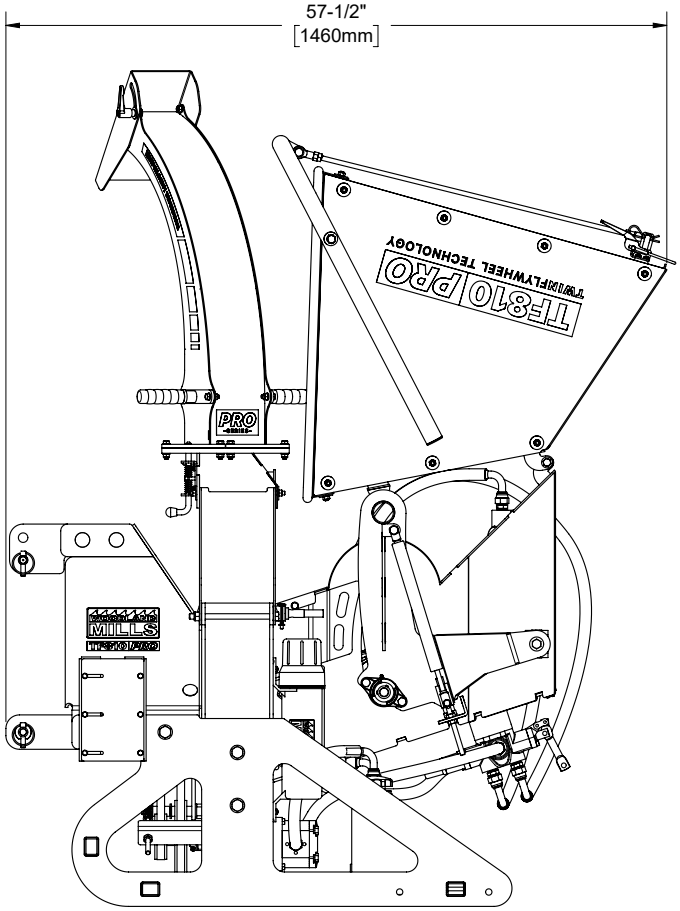
i. OVERALL DIMENSIONS—OPERATING STATE

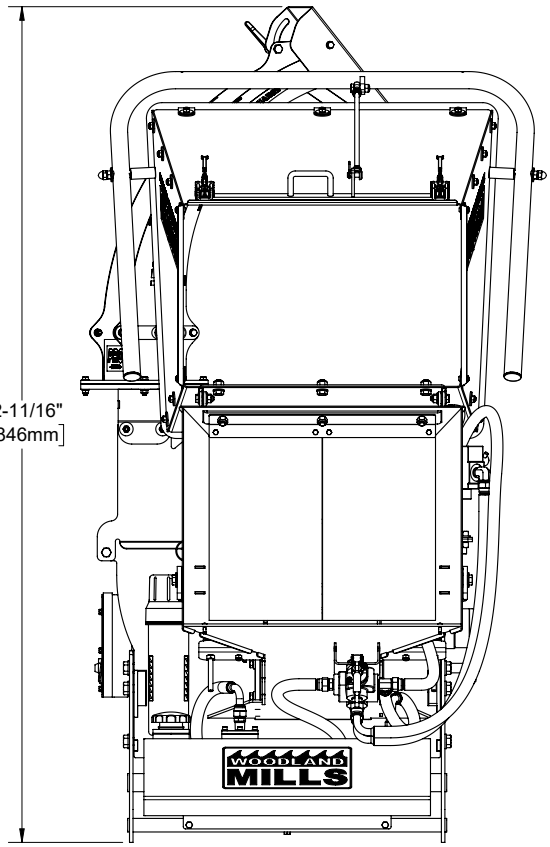


ii. OVERALL DIMENSIONS—STORED STATE

The discharge chute deflector must be pointing down in order to clear the control arm on the infeed chute when it is flipped upward for storage. See section ***STORAGE*** for more information.

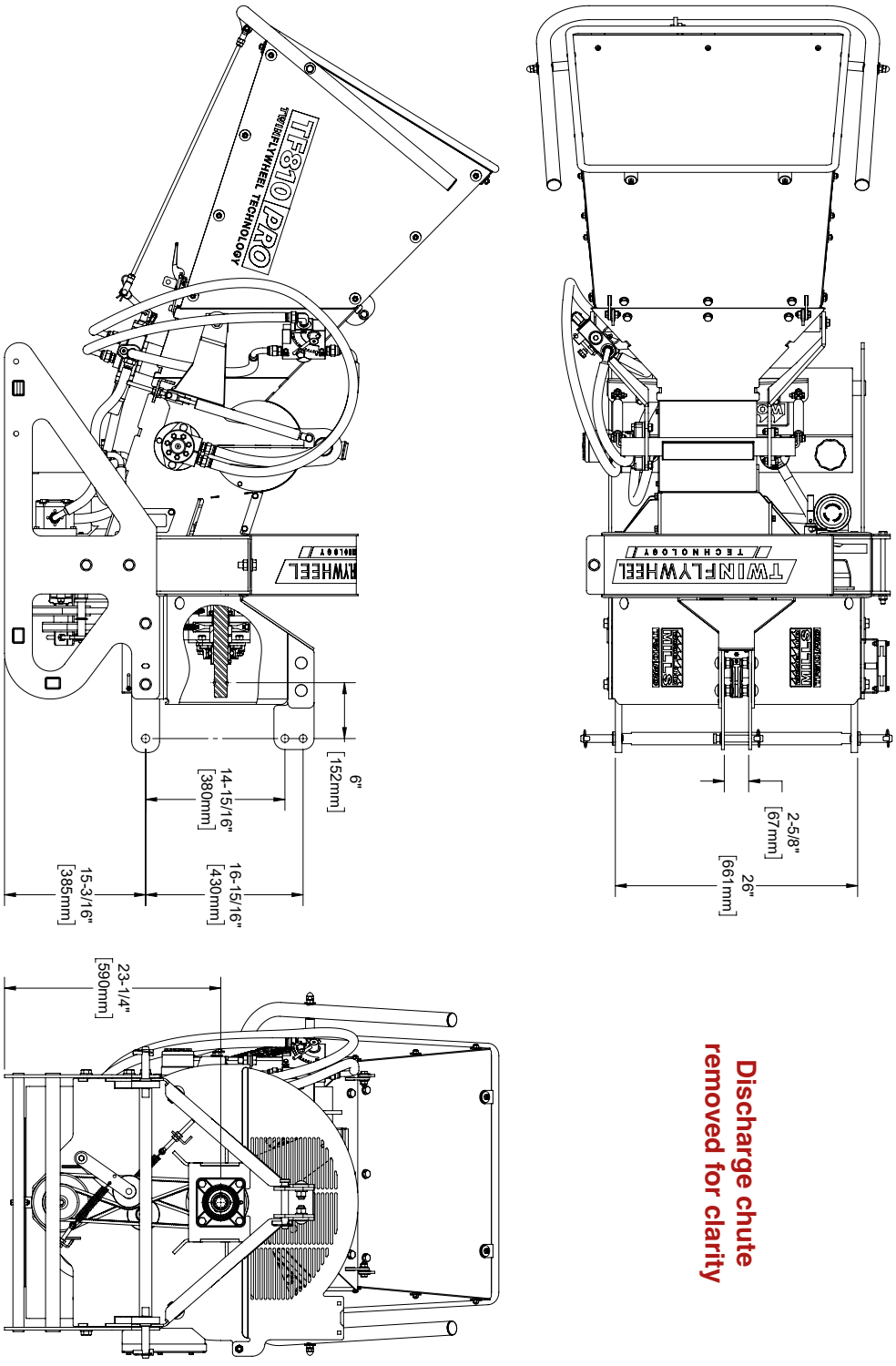






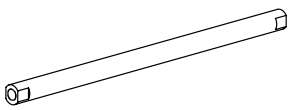
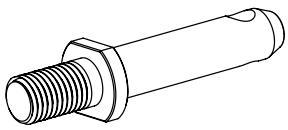
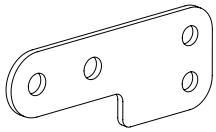
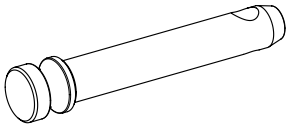
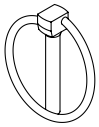
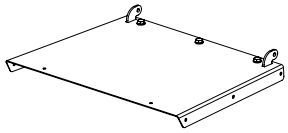
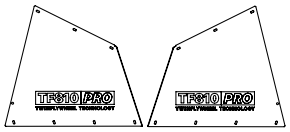
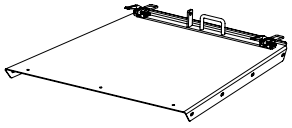
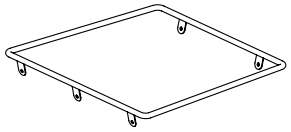
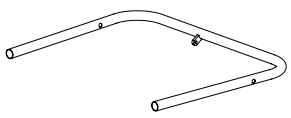
iii. 3-POINT HITCH DIMENSIONS

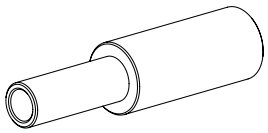
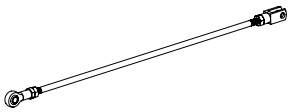
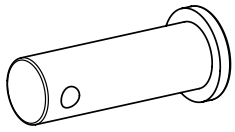
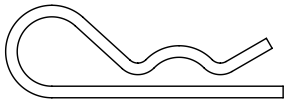
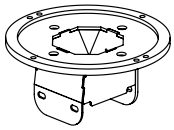
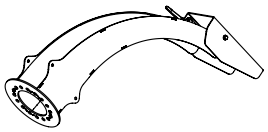
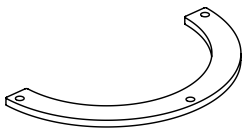
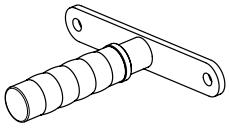
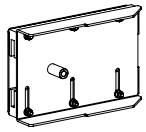
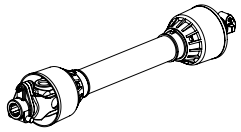
The wood chipper 3-point hitch is a *Category 1* system design to work with tractors in the horsepower range of 35-100+ hp. Top link pin is ¾" [19 mm] diameter and the lift arm pins are ⅞" [22 mm] diameter.



COMPONENT LISTS

Verify all component and hardware quantities are correct prior to assembling the wood chipper.

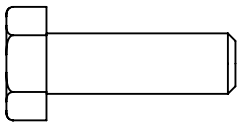
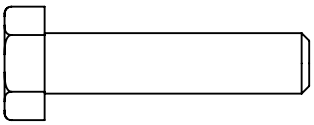
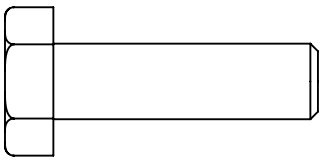
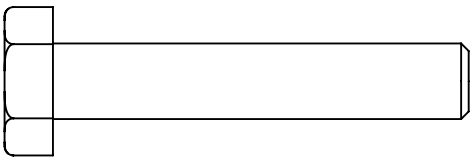
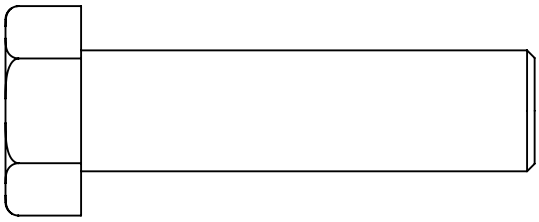
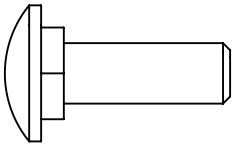
1x	Connecting Rod [0006728]	
2x	Lower Hitch Pin [0007118]	
2x	Upper Hitch Plate [0007036]	
1x	Upper Hitch Pin [0001156]	
3x	Linch Pin [0004705]	
1x	Infeed Chute Top Panel Assembly	
1x 1x	Infeed Chute Side Panels [R: 0008162] [L: 0008161]	
1x	Infeed Chute Bottom Panel Assembly	
1x	Round Edge Bar [0006968]	
1x	Control Arm [0008160]	

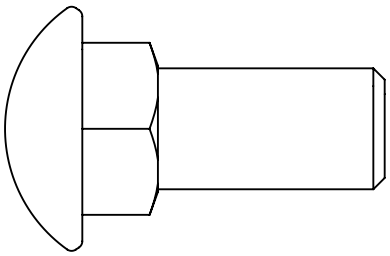
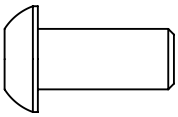
2x	Control Arm Spacer [0008193]	
1x	Linkage Rod Assembly	
1x	Clevis Pin 10 mm [0004749]	
1x	Hairpin Cotter Pin [0004760]	
1x	Discharge Chute Nozzle [0003539]	
1x	Discharge Chute Assembly	
2x	Discharge Chute Retainer [0009211]	
2x	Discharge Chute Handle with Grip	
1x	Chainsaw Holder Assembly	
1x	PTO Shaft [0001761]	

TO-SCALE HARDWARE

BOLTS & SCREWS

Hardware graphics are printed at 1:1 scale for ease of identification. Simply place the hardware over the image in the tables to verify it is the correct size.

4x	**HHB-MBJ080FCJ**	**M8 X 1.25 X 25 mm HEX HEAD BOLT**
		
6x	**HHB-MBJ090FCJ**	**M8 X 1.25 X 35 mm HEX HEAD BOLT**
		
1x	**HHB-MBM090FCJ**	**M10 X 1.5 X 35 mm HEX HEAD BOLT**
		
1x	**HHB-MBM090FCJ**	**M10 X 1.5 X 55 mm HEX HEAD BOLT**
		
4x	**HHB-MCA115PCJ**	**M16 X 2 X 60 mm HEX HEAD BOLT**
		
4x	**SNC-MBJ080FCJ**	**M8 X 1.25 X 25 mm CARRIAGE HEAD BOLT**
		

4x	SNC-MCA095FCJ	M16 X 2 X 40 mm CARRIAGE HEAD BOLT
		
19x	BHS-MBJ073FCM	M8 X 1.25 X 18 mm BUTTON HEAD SCREW
		
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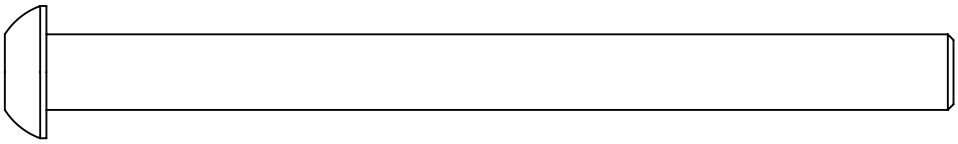
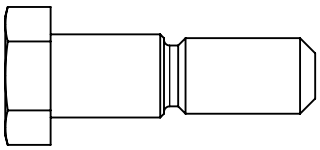
		
2x	HHS-MBM057069AJ	M10 X 1.5 X 20 mm HEX HEAD SHOULDER SCREW
		

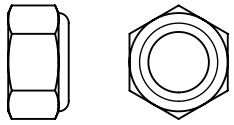
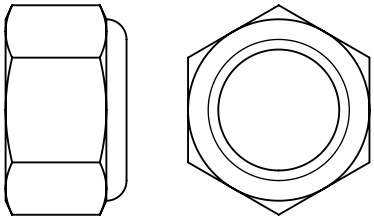
SCALES

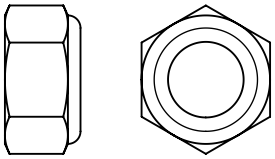
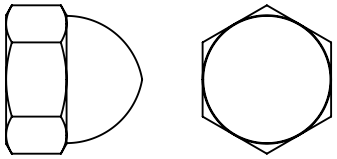
Ruler scales are provided below to double-check bolt and screw lengths if necessary.

CENTIMETRES / MILLIMETRES

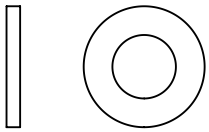
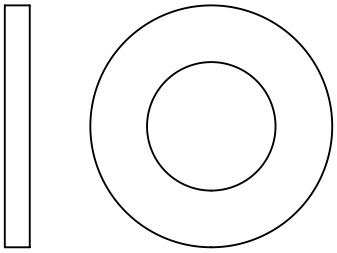
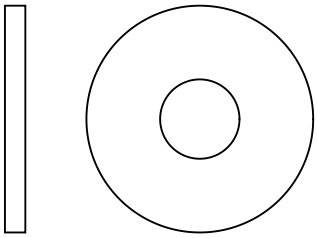
INCHES

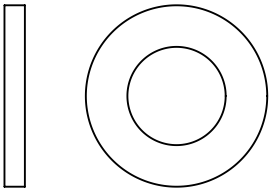
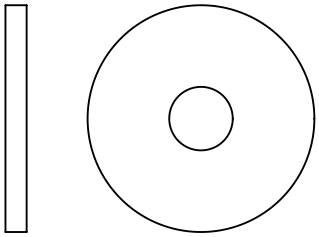
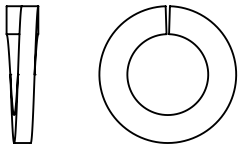
NUTS

33x	HLN-MBJCH M8 X 1.25 LOCK NUT
	
8x	HLN-MCACH M16 X 2 LOCK NUT
	

5x	HLN-MBMCH M10 X 1.5 LOCK NUT
	
2x	ACN-MBMAJ M10 X 1.5 ACORN NUT
	

WASHERS

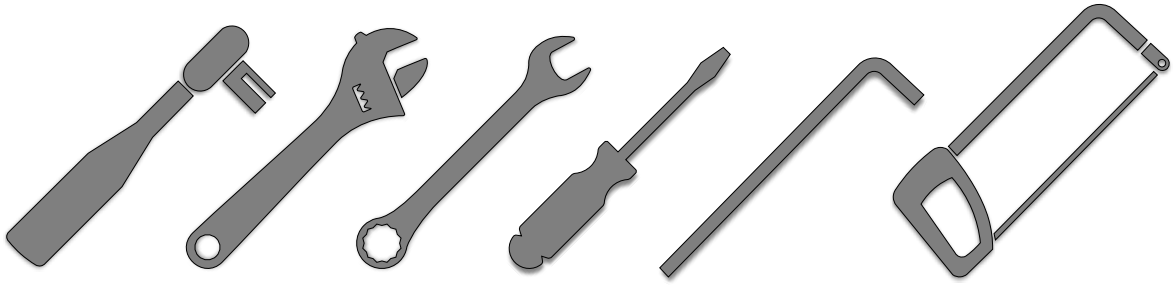
20x	**FTW-MBJ000AJ** **M8 FLAT WASHER**
	
12x	**FTW-MCA000AJ** **M16 FLAT WASHER**
	
3x	**FDW-MBM079000AJ** **M10 FENDER WASHER, 30 mm OD**
	

6x	**FTW-MBR000NA** **M12 NYLON FLAT WASHER**
	
23x	**FDW-MBJ079000AJ** **M8 FENDER WASHER, 30 mm OD**
	
1x	**SLW-MBMAJ** **M10 SPLIT LOCK WASHER**
	

TOOLS REQUIRED

Tool	Specification
Wrench/Socket	13 mm (2X)
Wrench/Socket	16 mm (2X)
Wrench/Socket	17 mm
Wrench/Socket	24 mm or Adjustable Wrench
Wrench	27 mm or Adjustable Wrench
Hex Key	Set of Metric Hex Keys [2-10 mm]
Hacksaw*	Any metal-cutting saw (Sawzall, etc.)

* Only if PTO shaft requires trimming. See ***TRIMMING THE PTO SHAFT*** section for more detail.

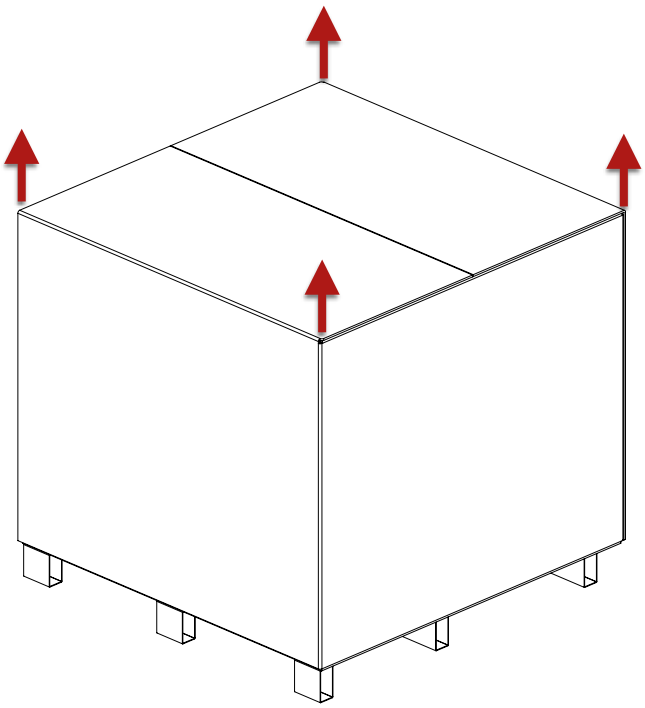


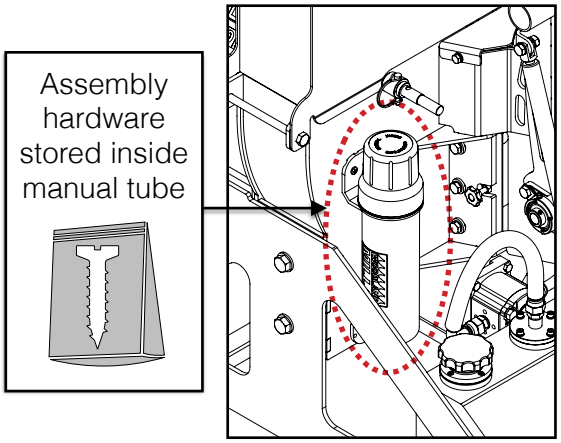
ASSEMBLY

1. UNPACKING

A. UNBOXING THE CRATE

Unpack the contents of the crate by first cutting the nylon strapping and then remove the cardboard top and sides. Remove the four (4) M8 hex bolts and nuts located at each bottom corner of the crate and then lift it off the skid. Discard the crate.

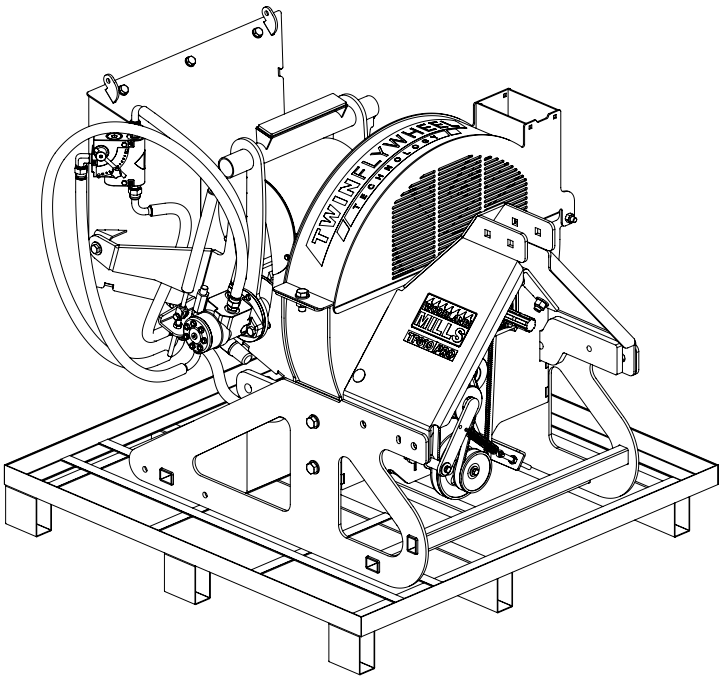




Remove all the loose components from the skid (infeed chute panels, control arm, edge bar, control arm linkage, discharge chute, discharge chute handles, PTO shaft) and set them to the side. Leave the wood chipper on the skid.

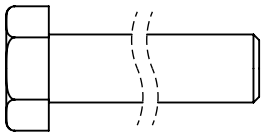
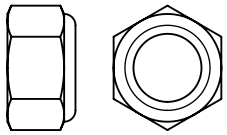
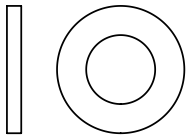
Hardware for assembly is stored inside the manual tube.

Note that the wood chipper is shipped dry (i.e. no hydraulic fluid). See the ***TECHNICAL SPECIFICATIONS*** section for the volume and type of oil required.



B. LOWER HITCH ARMS

Using the hardware listed below, reorient and then assemble the lower hitch arms.

4x	M16 X 60 mm Hex Bolt		4x	M16 Lock Nut	
8x	M16 Flat Washer				

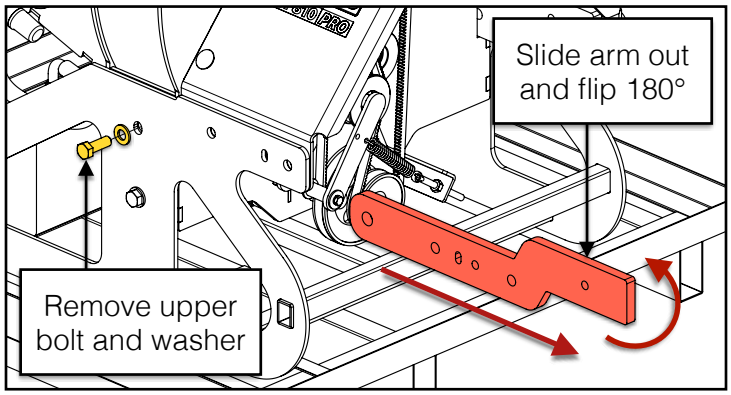
WARNING!

Remove and then reinstall one lower hitch arm at a time. Do *not* remove the upper bolt from both sides of the base at the same time or the flywheel housing could shift making assembly difficult.

The lower hitch arms come temporarily installed to the flywheel housing, flipped 180° from their final assembled position. Remove and reinstall one lower hitch arm at a time.

Remove the *upper* M16 X 45 mm hex bolt and flat washer from one side of the base.

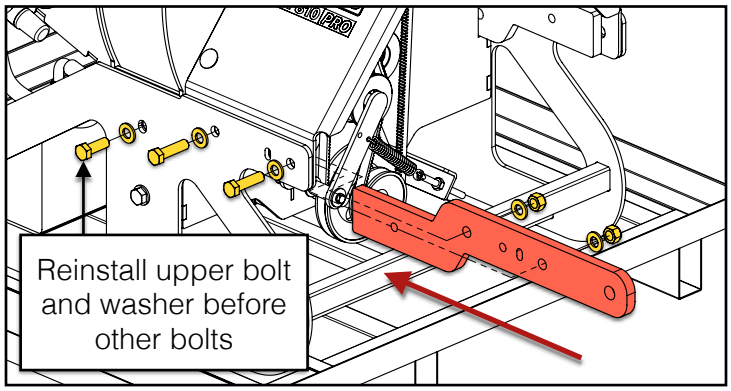
Slide the lower hitch arm out.



Rotate the lower hitch arm 180° and slide it back into the lower flywheel housing.

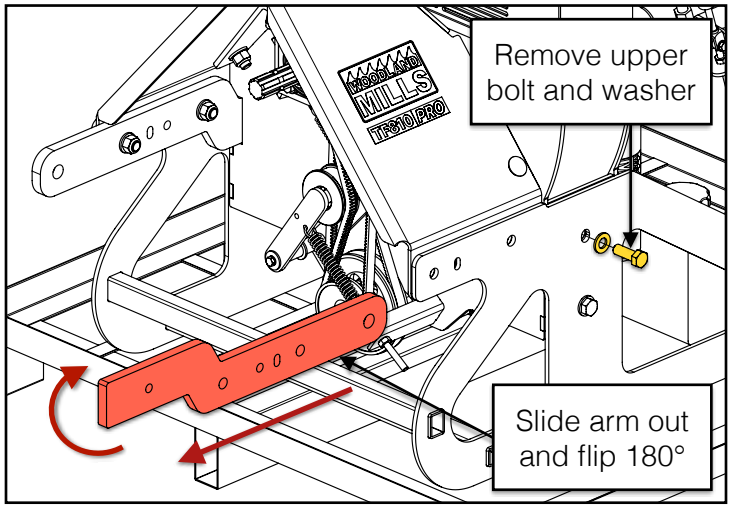
Reinstall the M16 X 45 mm hex bolt and flat washer that were removed in the previous step first. Then use two (2) M16 X 60 mm hex bolts, four (4) M16 flat washers, and two (2) M16 lock nuts fasten the arm to the belt guard as shown.

Do not fully tighten the hardware until instructed in a later step.



Switch to the other side and remove the *upper* M16 X 45 mm hex bolt and flat washer from that side of the base.

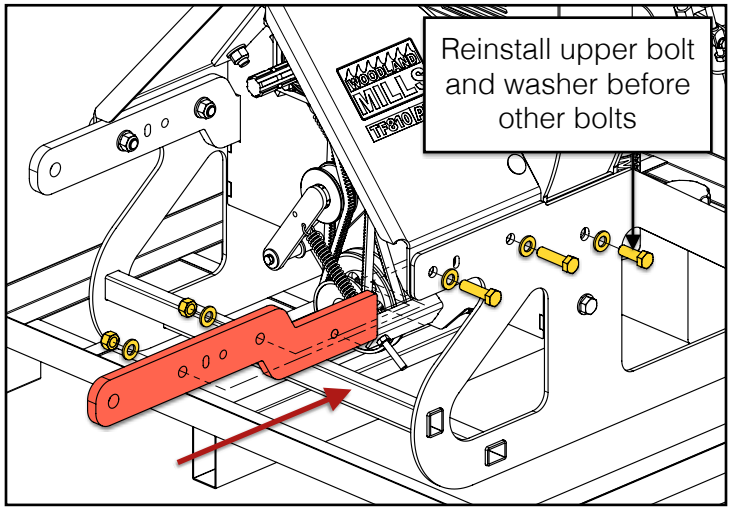
Slide the lower hitch arm out.



Rotate the lower hitch arm 180° and slide it back into the lower flywheel housing.

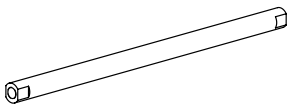
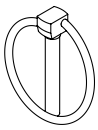
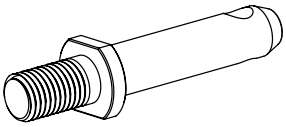
Reinstall the M16 X 45 mm hex bolt and flat washer that were removed in the previous step first. Then use two (2) M16 X 60 mm hex bolts, four (4) M16 flat washers, and two (2) M16 lock nuts fasten the arm to the belt guard as shown.

Do *not* fully tighten the hardware until instructed in a later step.

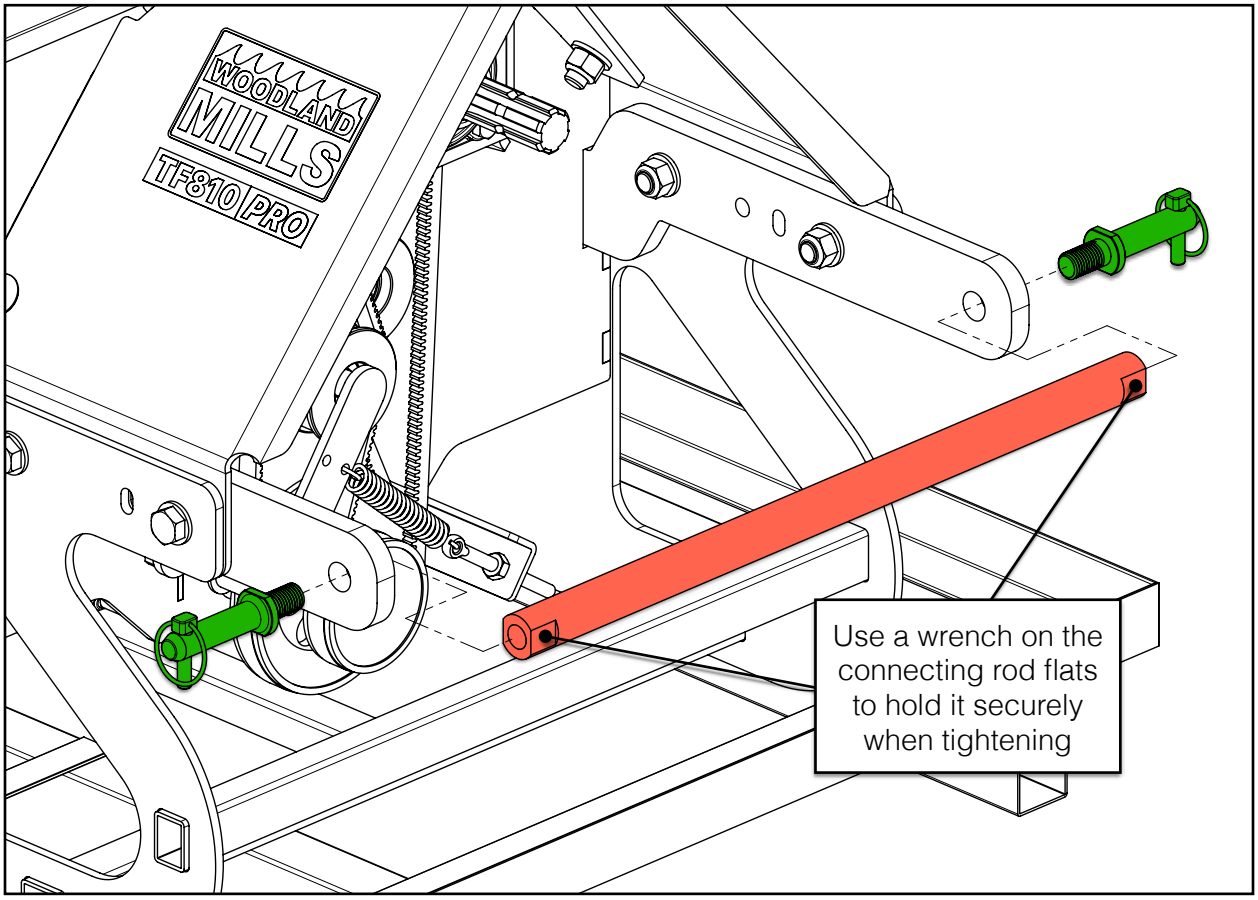


C. CONNECTING ROD

Using the components listed below, assemble the connecting rod and lower hitch pins to the lower hitch arms.

1x	Connecting Rod		2x	Linch Pin	
2x	Lower Hitch Pin				

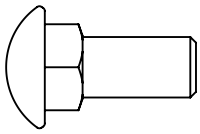
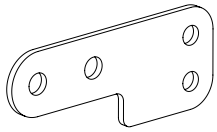
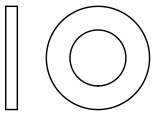
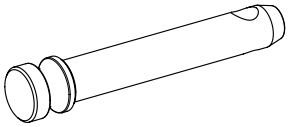
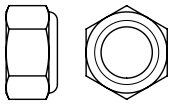
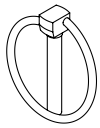
Position the connecting rod between the two (2) lower hitch arms and then thread one (1) lower hitch pin into each end, securing it to the arms. The flats at both ends of the connecting rod will accommodate a 1-⅛ in [28 mm] wrench to prevent it from rotating when tightened.



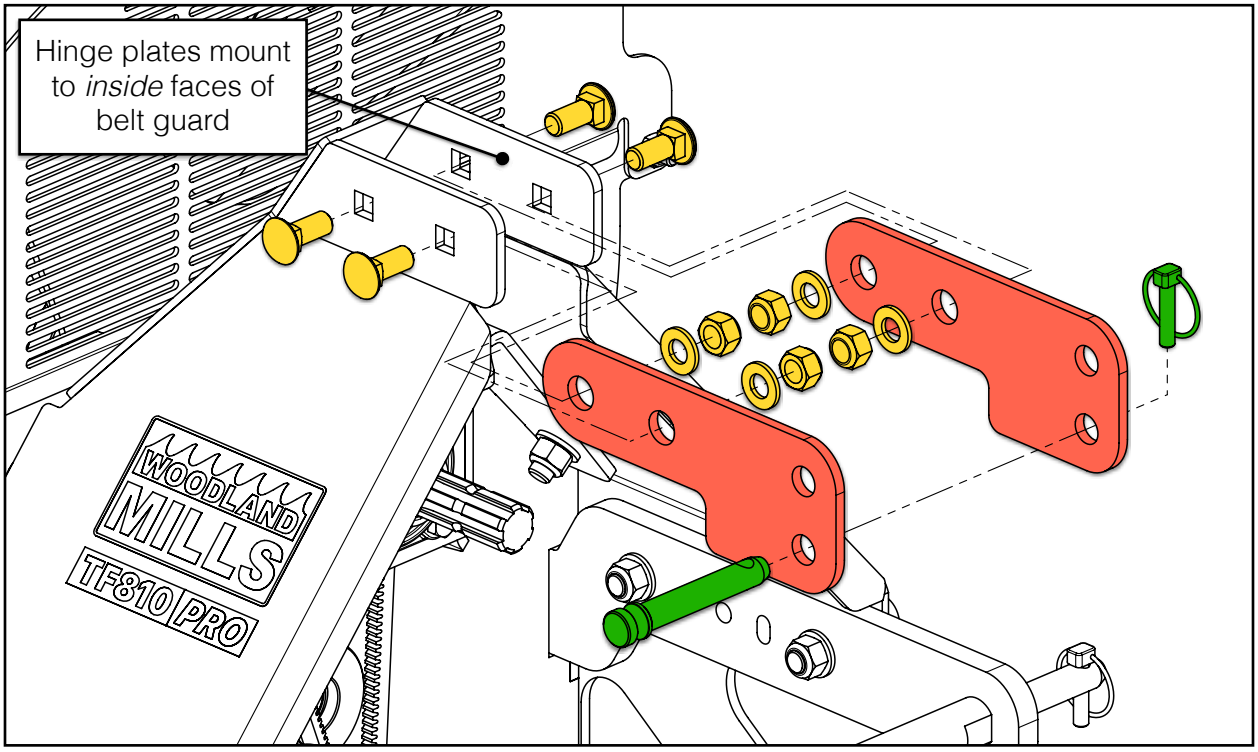
Once the connecting rod and pins are snug, fully tighten all the hardware from the previous step and then fully tighten the connecting rod and lower hitch pins.

D. UPPER HINGE PLATES

Using the hardware and components listed below, assemble the upper hitch plates to the belt guard.

4x	M16 X 40 mm Carriage Bolt		2x	Upper Hinge Plate	
4x	M16 Flat Washer		1x	Upper Hinge Pin	
4x	M16 Lock Nut		1x	Linch Pin	

Assemble the plates to the belt guard using two (2) M16 X 40 mm carriage bolts, two (2) M16 flat washers, and two (2) M16 lock nuts *per plate*. The upper hinge plates mount to the *inner* faces of the belt guard. Fully tighten all the hardware.

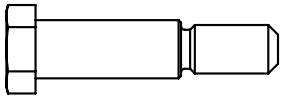
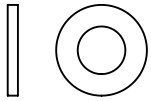
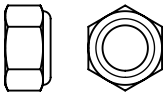
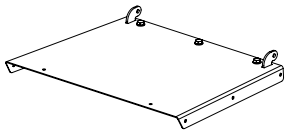


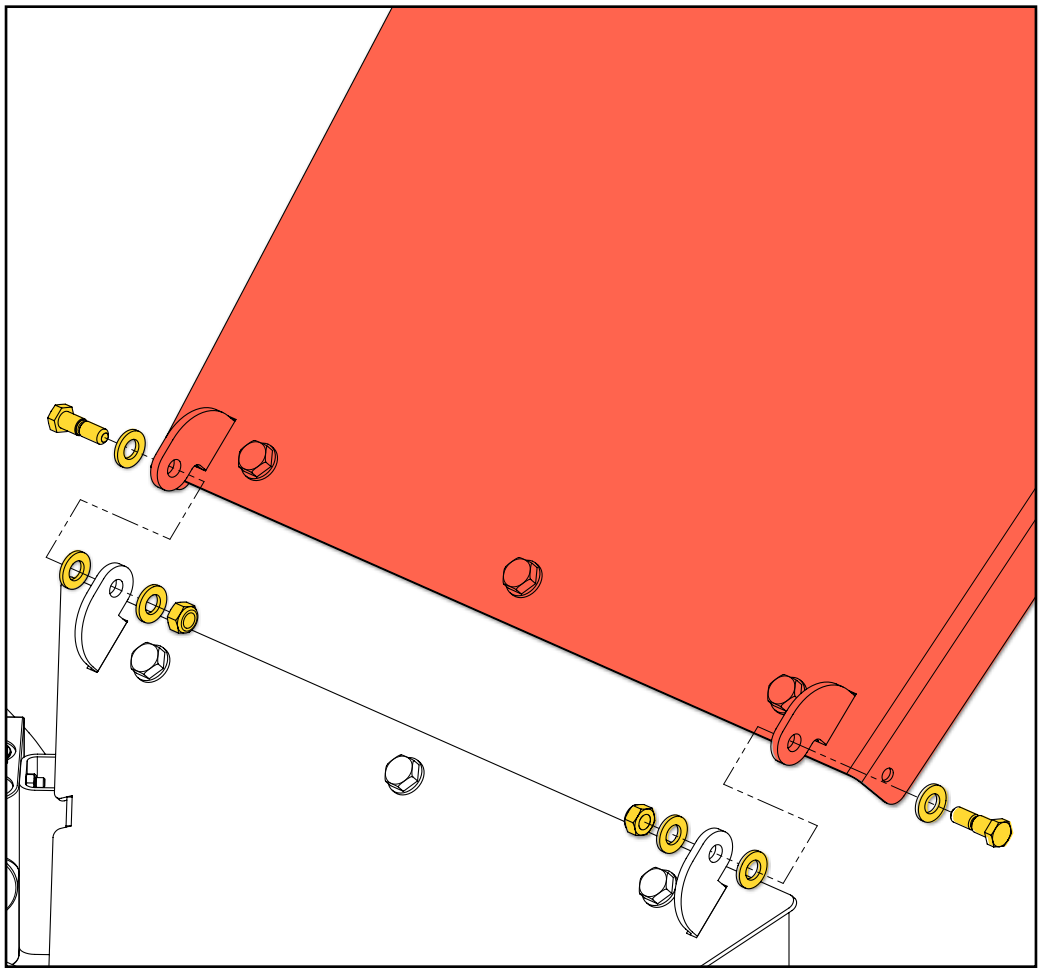
With the hinge arms and plate fully tightened, use the tractor's 3-point hitch to lift the chipper from the skid and set it on the ground. The skid can be discarded.

2. INFEED CHUTE

A. TOP PANEL

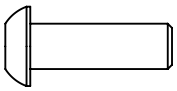
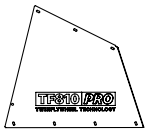
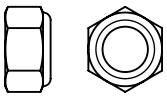
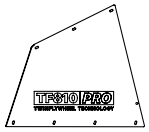
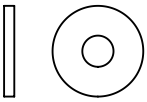
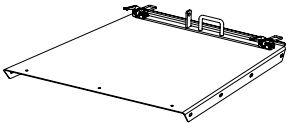
The wood chipper infeed chute consists of four (4) metal panels that are bolted together. The first step is bolting the top panel to the lower flywheel housing that forms the hinge. Using the hardware listed in the table below, assemble the hinge connection. Note that the infeed chute top panel and hinge bracket come pre-assembled.

2x	M10 X 15 X 20 mm Shoulder Bolt		6x	M12 Nylon Flat Washer	
2x	M10 Lock Nut		1x	Infeed Chute Top Panel Assembly	

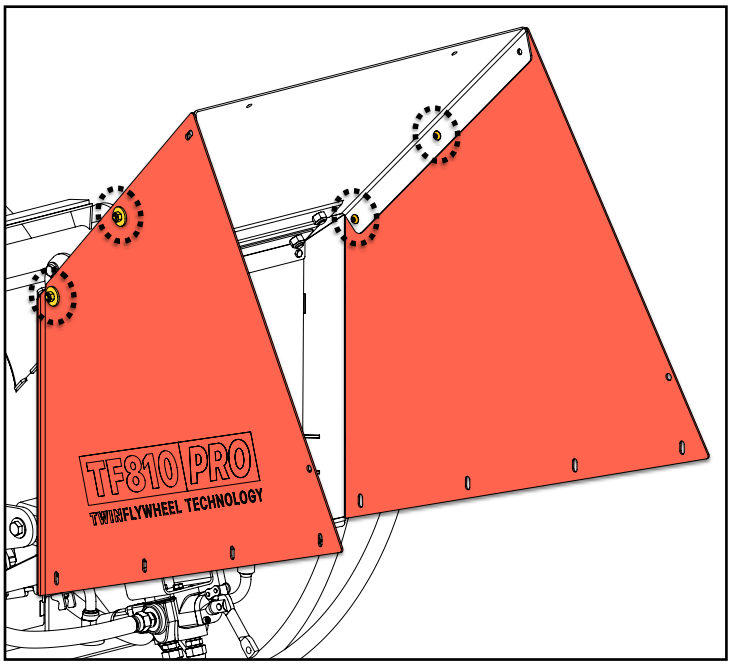


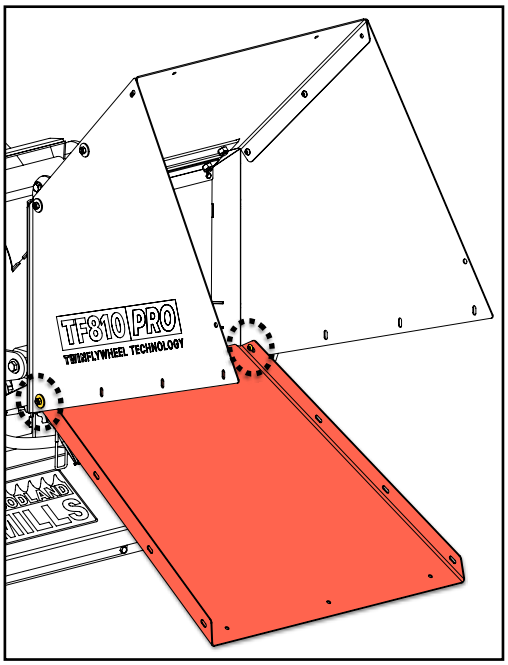
B. SIDE PANELS AND BOTTOM PANEL

With the top panel bolted to the hinge, assemble each side panel to the sides of the top panel using the M8 X 18 mm button head screws, M8 lock nuts, and M8 fender washers. Use a hex key for the screws and a socket/wrench for the lock nuts.

6x	M8 X 18 mm Button Head Screw		1x	Infeed Chute Side Panel [Right]	
6x	M8 Lock Nut		1x	Infeed Chute Side Panel [Left]	
6x	M8 X 30 mm Fender Washer		1x	Infeed Chute Bottom Panel Assembly	

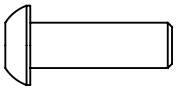
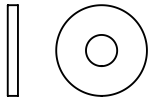
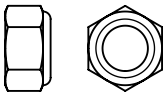
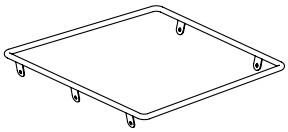
Install two (2) screws per side along the top edge leaving the last holes empty. Do not fully tighten the screws. Be sure to assemble the screws with the heads on the inside of the chute pointing outwards. Next, install the bottom panel using only the first two (2) bolts as shown below (right). This will allow it to swing up to join the side panels in the coming steps. Note that the infeed chute bottom panel and latches come pre-assembled.





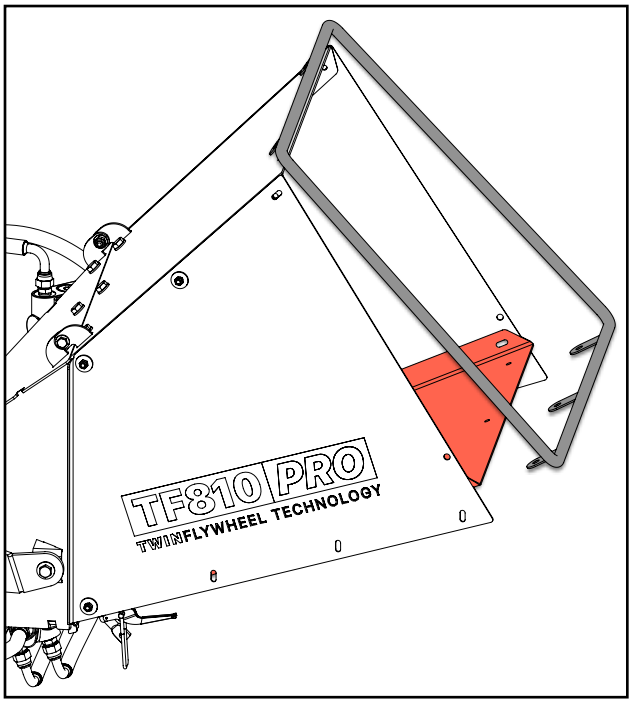
C. ROUND EDGE BAR

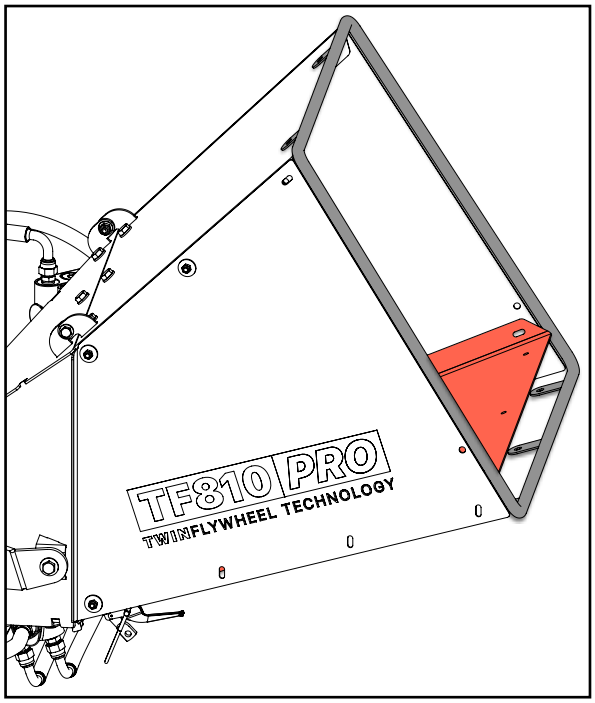
Assemble the round edge bar to the infeed chute using the hardware listed below.

13x	M8 X 18 mm Button Head Screw		13x	M8 X 30 mm Fender Washer	
13x	M8 Lock Nut		1x	Round Edge Bar	

The round edge bar is designed to add additional strength to the infeed panels as well as act as a rounded edge, eliminating branches from getting caught on the edge of the infeed panels.

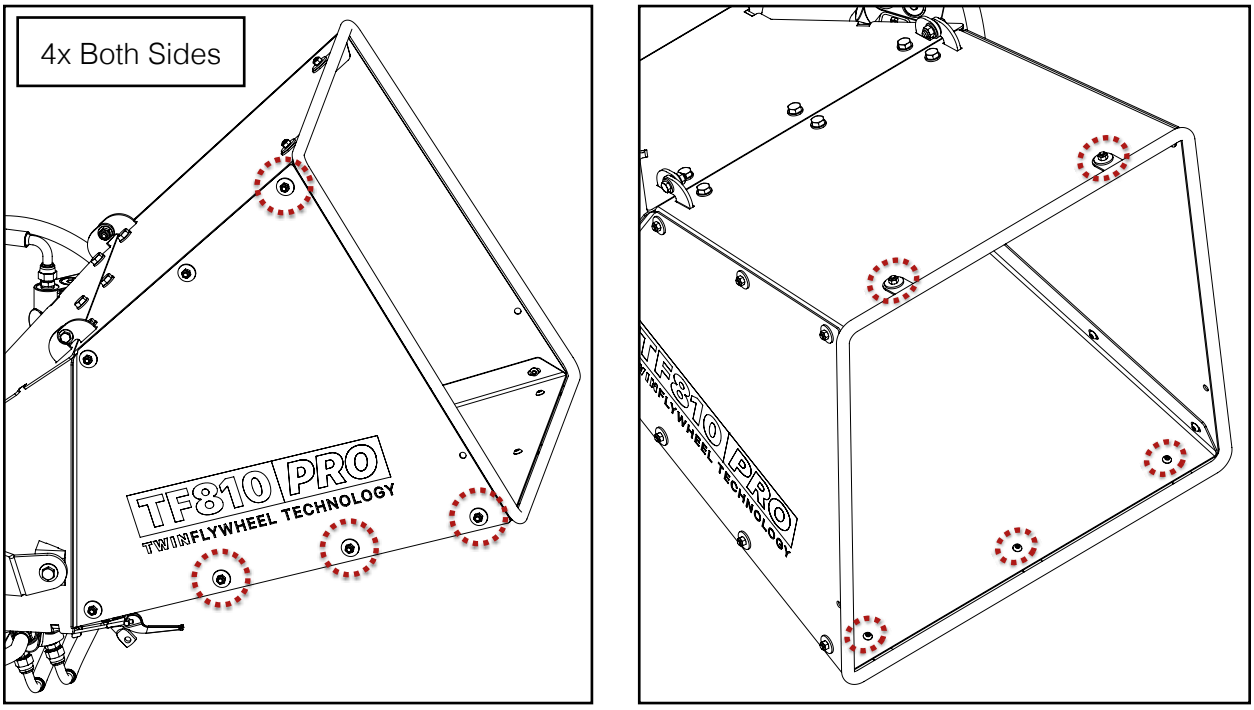
Swing the bottom panel up and fit the top and bottom tabs of the round edge bar over the outside faces of the top and bottom panels as shown below.





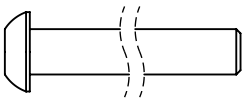
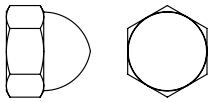
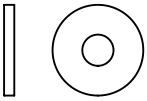
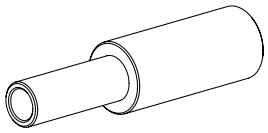
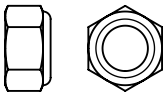
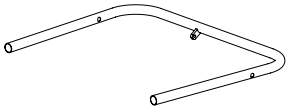
With the edge bar in place, assemble the panels to the edge bar. Use a hex key for the button head screws and a socket/wrench for the lock nuts. Install the remaining thirteen (13) M8 X 18 mm button head screws, M8 lock nuts, and M8 X 30 mm fender washers as shown below to secure the panels and edge bar in place.

Fully tighten *all* the infeed chute screws.

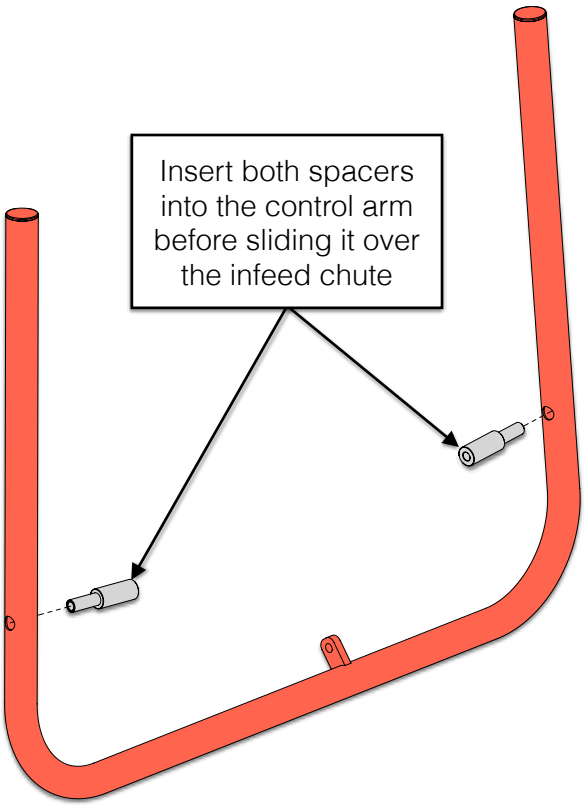


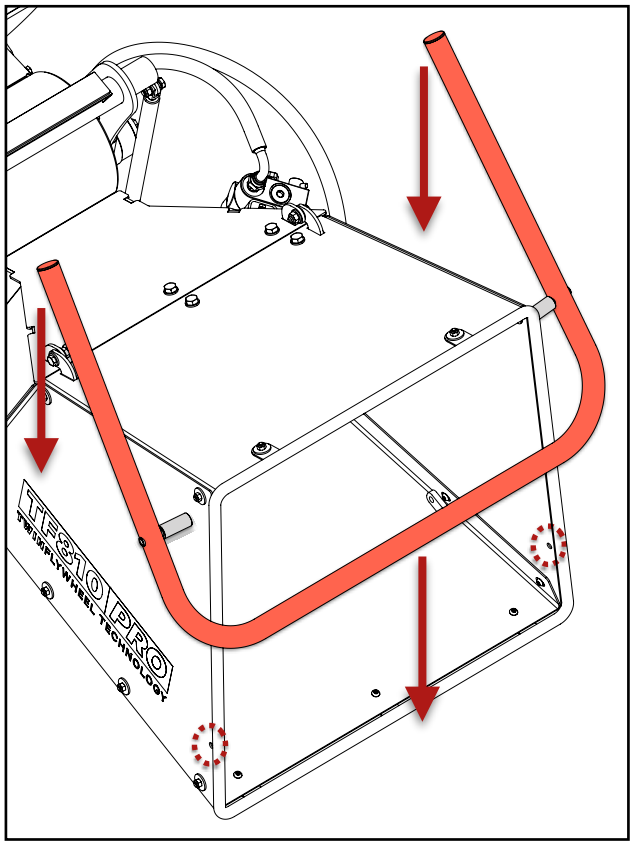
D. CONTROL ARM

The large red infeed control arm is attached to the infeed chute using the hardware below.

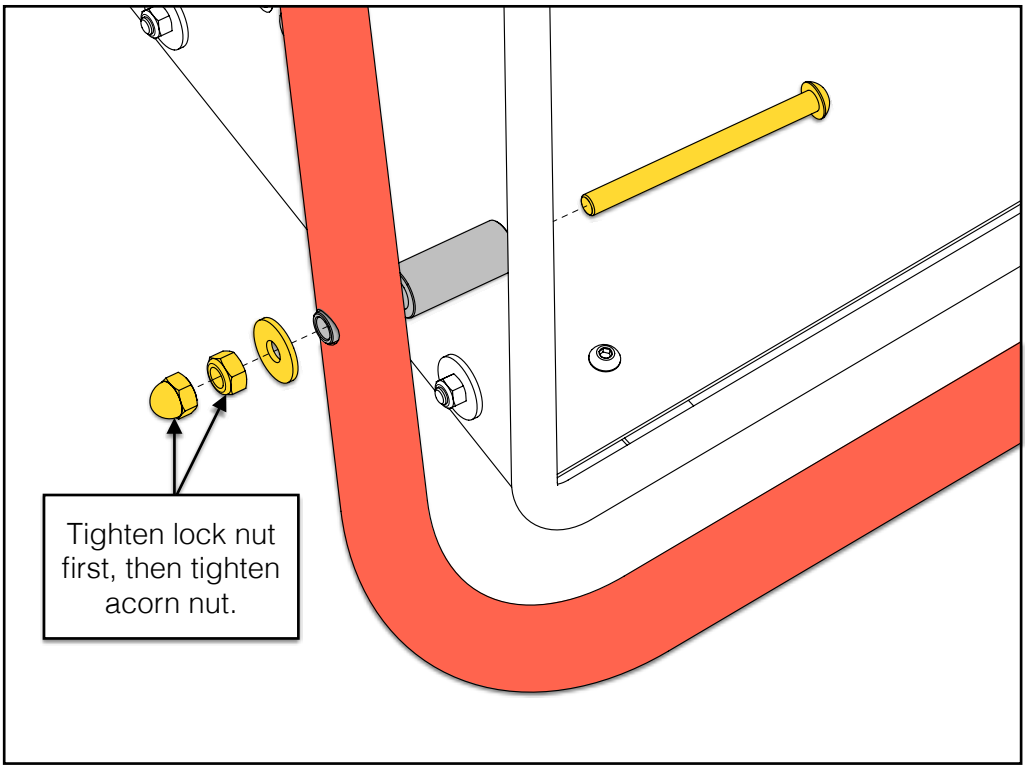
2x	M10 X 120 mm Button Head Screw		2x	M10 Acorn Nut	
2x	M10 X 30 mm Fender Washer		2x	Control Arm Spacer	
2x	M10 Lock Nut		1x	Control Arm	

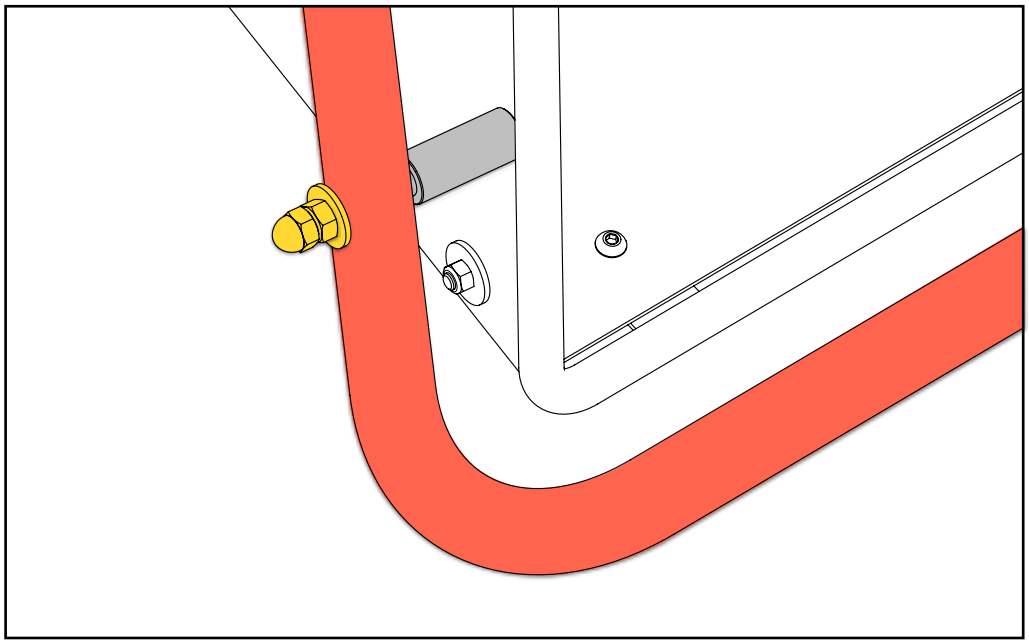
Insert the control arm spacers into the holes in the control arm as shown ***(below-left)***. While holding the spacers in place, slide the control arm down over the top of the infeed chute until the spacers are aligned with the holes in the side panels where noted.





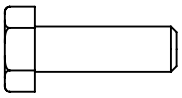
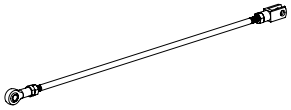
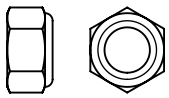
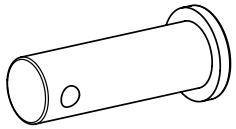
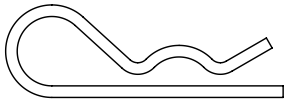
Use one (1) M10 X 120 mm button head screw, one (1) M10 X 30 mm fender washer, one (1) M10 lock nut, and one (1) M10 acorn nut to secure each end of the control arm to the infeed chute side panels. Tighten the lock nuts securely first , then install and tighten the acorn nuts.



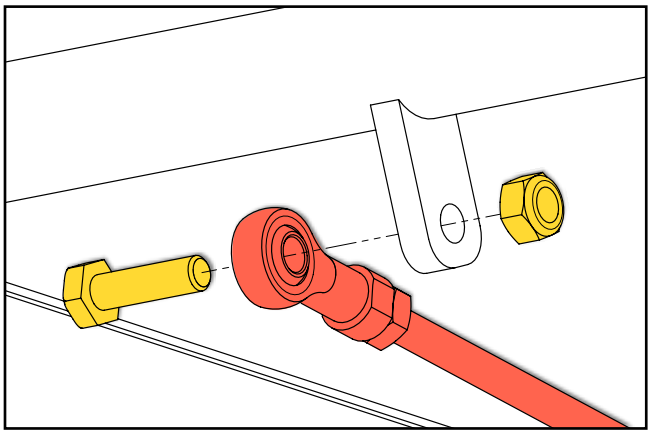


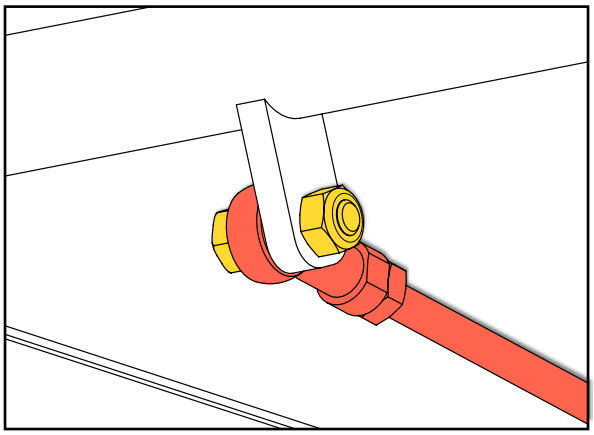
E. CONTROL ARM LINKAGE

With the control arm fastened to the infeed chute, the linkage assembly can now be connected between it and the hydraulic directional control valve.

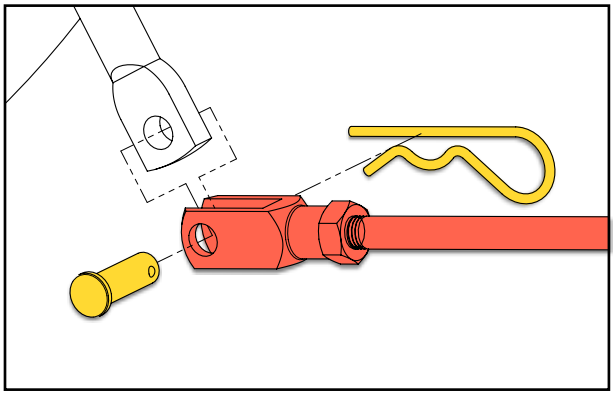
1x	M10 X 35 mm Hex Bolt		1x	Control Arm Linkage Assembly	
1x	M10 Lock Nut		1x	10 mm Clevis Pin	
			1x	Hairpin Cotter Pin	

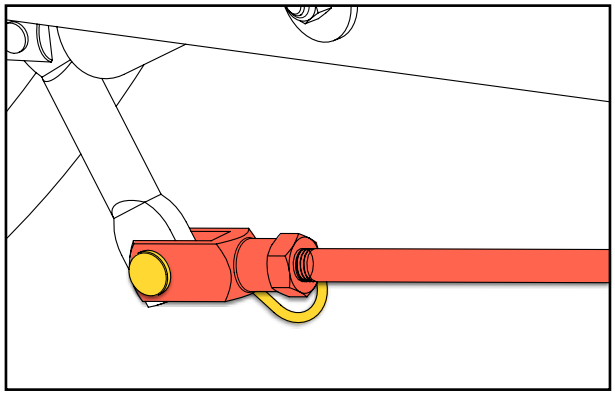
Fasten the rod end bearing to the red control arm with the M10 X 35 mm hex bolt and M10 lock nut as shown below.



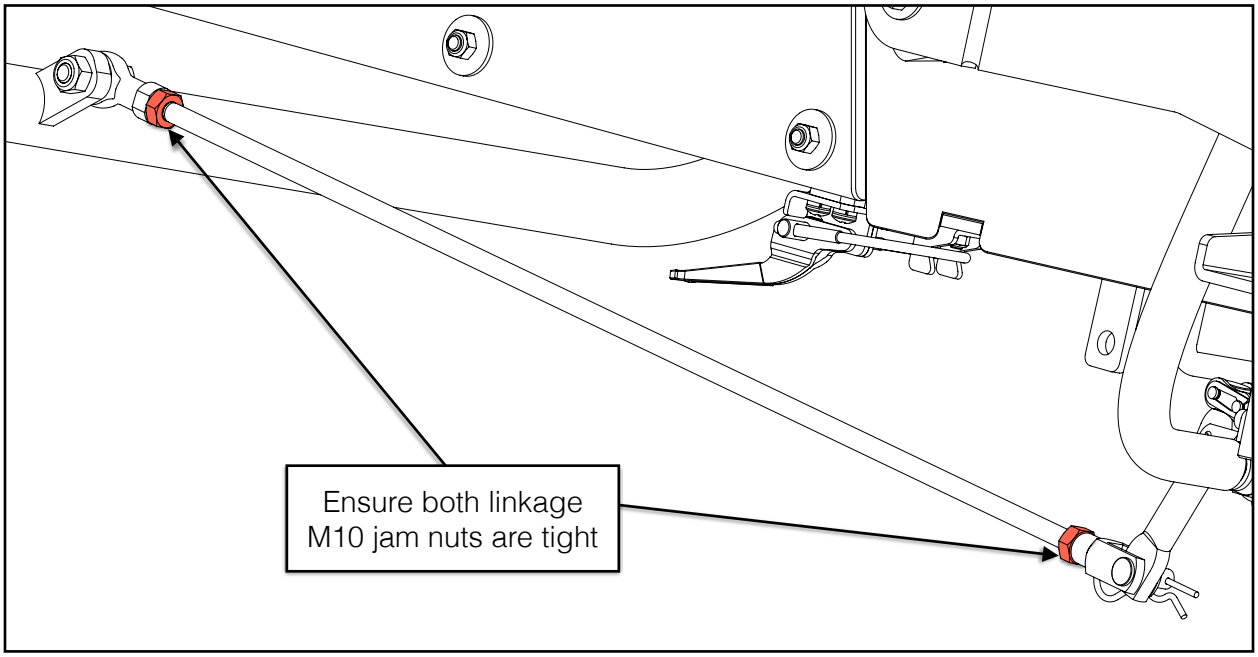


On the opposite end of the linkage, secure the linkage to the the hydraulic directional control valve actuator using the clevis pin and hairpin cotter pin.



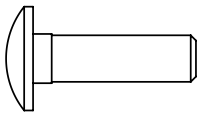
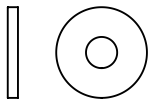
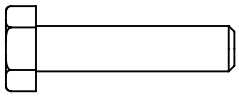
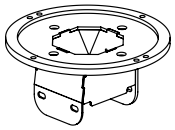
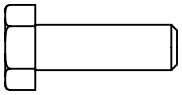
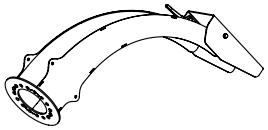
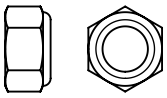
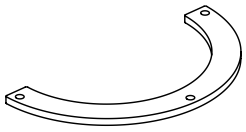
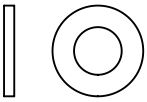
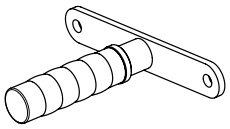


Once the linkage has been assembled, ensure both M10 jam nuts are tight.

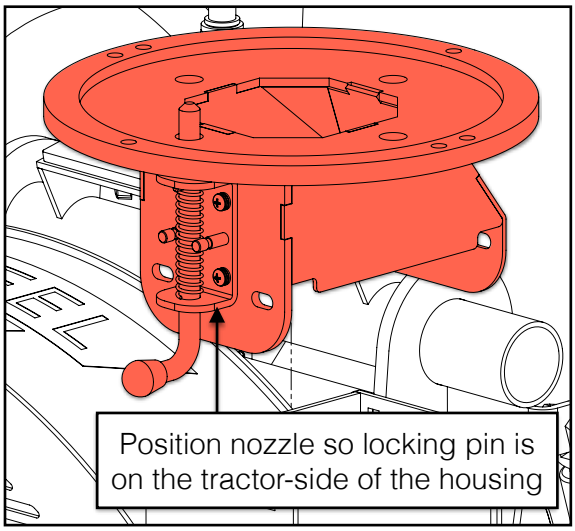


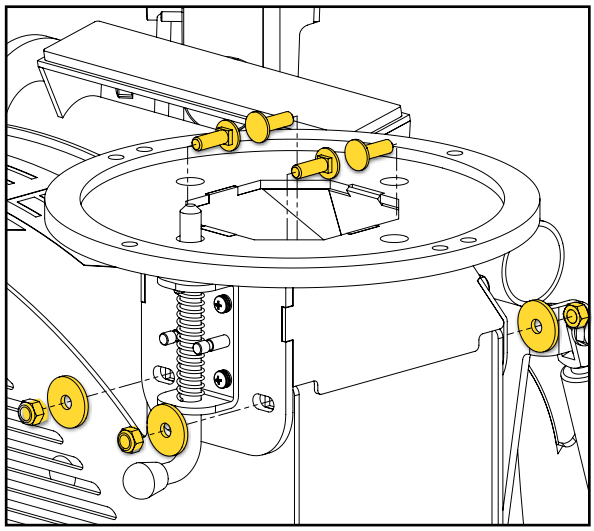
3. DISCHARGE CHUTE

The discharge chute comes partially assembled. With the components and hardware listed below, assemble the discharge chute to the upper flywheel housing.

4x	M8 X 25 mm Carriage Bolt		4x	M8 X 30 mm Fender Washer	
6x	M8 X 35 mm Hex Head Bolt		1x	Nozzle	
4x	M8 X 25 mm Hex Head Bolt		1x	Discharge Chute Assembly	
14x	M8 Lock Nut		2x	Retainer	
20x	M8 Flat Washer		2x	Handle with Grip	

Slide the nozzle over the upper flywheel housing. Secure it to the housing using the four (4) M8 X 25 mm carriage bolts, M8 fender washers, and M8 lock nuts. The carriage bolts are assembled from inside the housing, pointing outward. Fully tighten all the hardware.

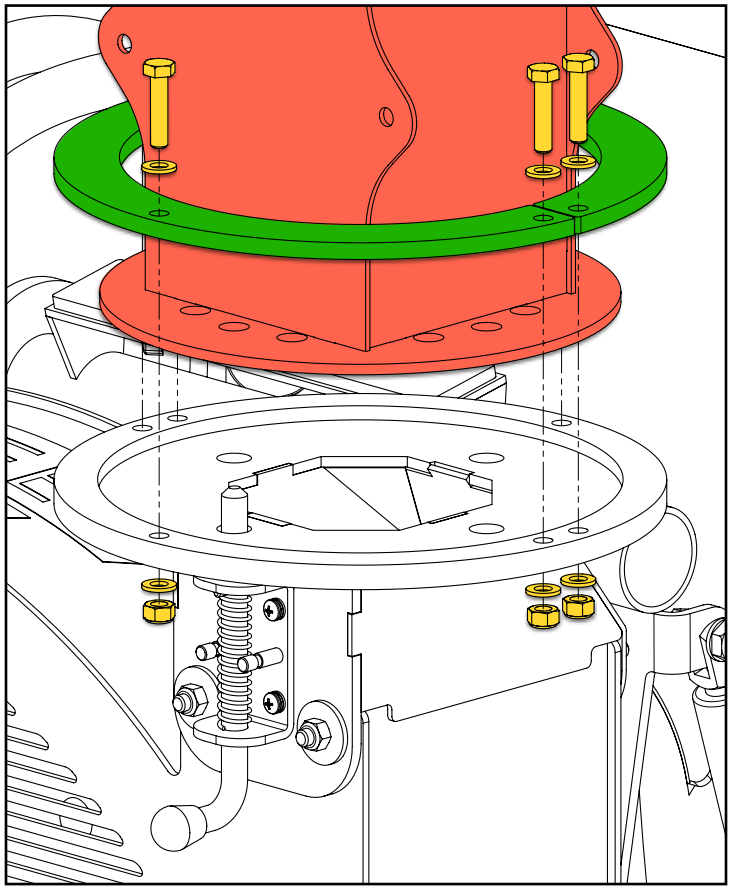




Set the discharge chute into the recess in the top of the nozzle.

Secure the chute to the nozzle using the two (2) retainers with six (6) M8 X 35 mm hex bolts, twelve (12) M8 flat washers, and six (6) M8 lock nuts.

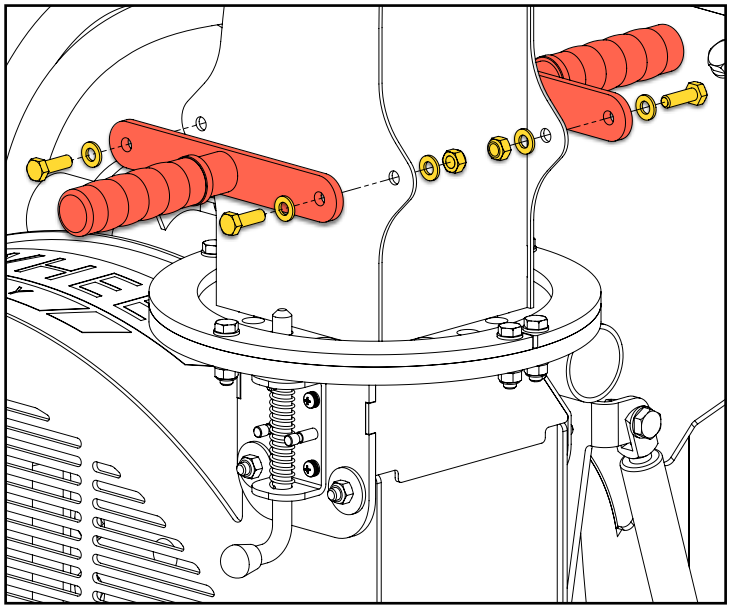
Fully tighten all the hardware.



Assemble the handles—one on each side of the discharge chute.

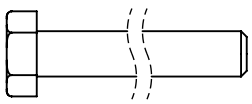
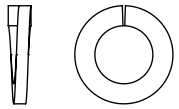
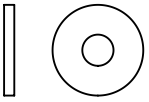
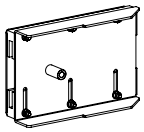
Secure each handle to the chute using two M8 X 25 mm hex bolts, four (4) M8 flat washers, and two (2) M8 lock nuts.

Fully tighten all the hardware.



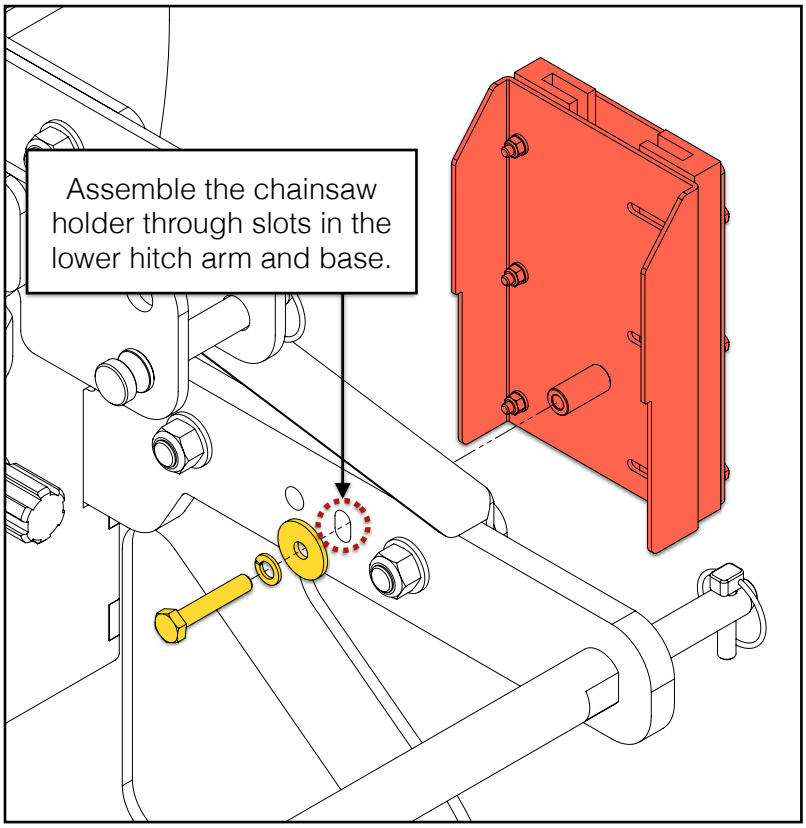
4. CHAINSAW HOLDER

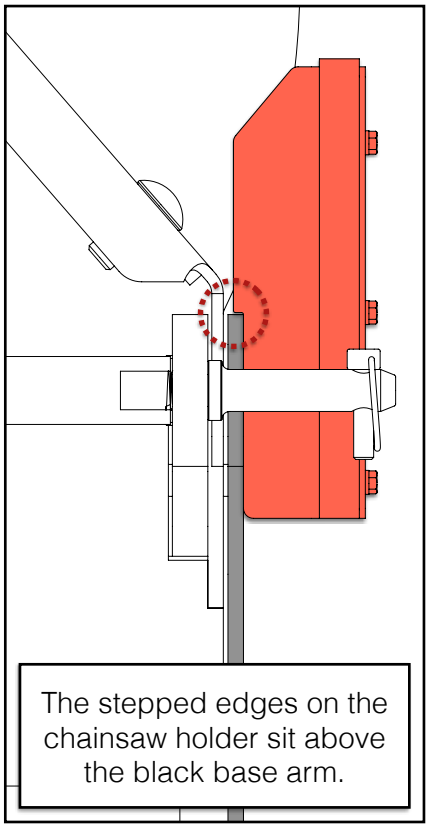
Mount the chainsaw holder assembly to the side of the chipper base using the hardware and components listed in the table below.

1x	M10 X 55 mm Hex Bolt		1x	M10 Split Lock Washer	
1x	M10 X 30 mm Fender Washer		1x	Chainsaw Holder Assembly	

The chainsaw holder can be mounted to either side of the base through the vertical slots in the lower hitch arm and base.

Assemble the holder to the base using one (1) M10 X 55 mm hex bolt, one (1) M10 X 30 mm fender washer, and one (1) M10 split lock washer through the slot as shown. Be sure the stepped edges on the chainsaw holder sit above the base arm. Fully tighten the hardware.





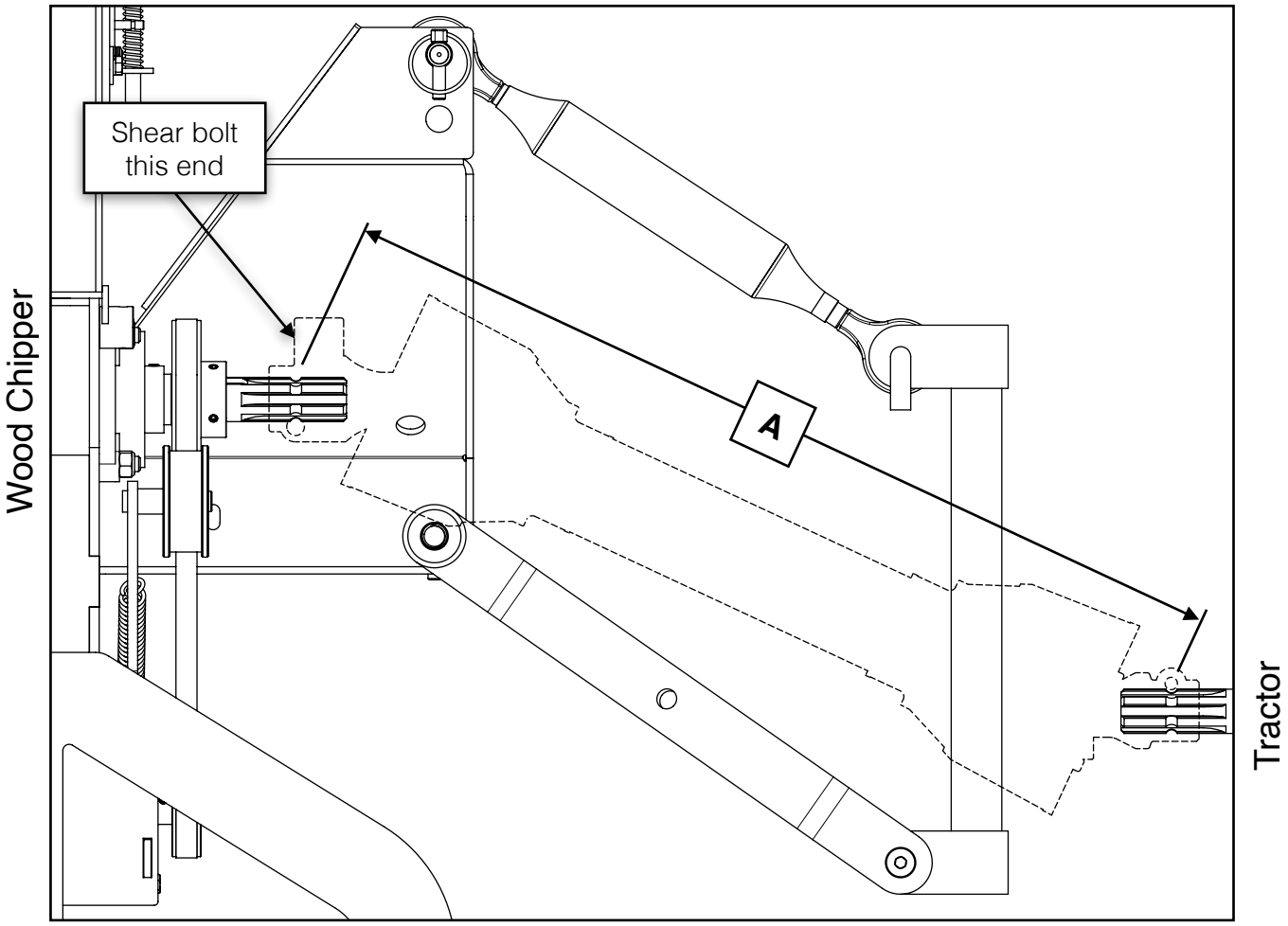
TRIMMING THE PTO SHAFT

The wood chipper is shipped with a PTO shaft that can be fitted to most Category 1 tractors. The PTO shaft may need to be trimmed depending on your tractor and configuration. Follow the steps below to ensure the PTO shaft is correctly fitted to your tractor.

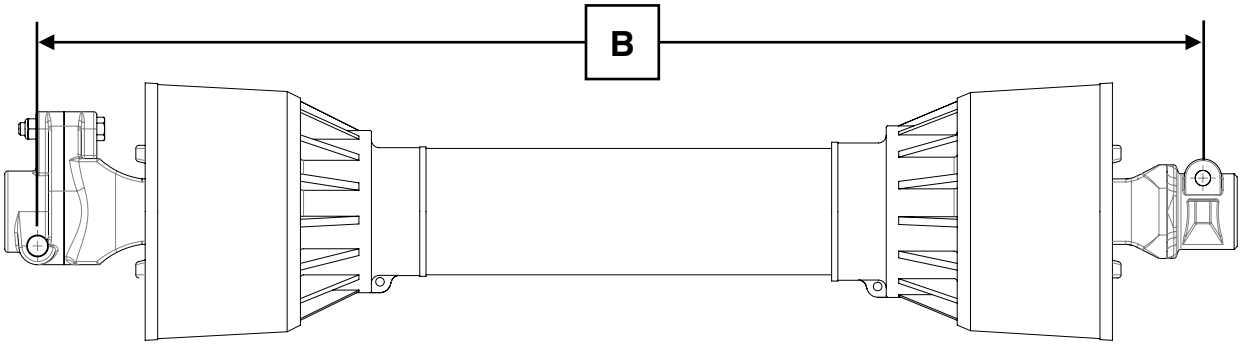
****Note: the shear bolt end of the PTO shaft mounts to the wood chipper.****

1. Attach the wood chipper to the tractor's 3-point hitch system. Do not install the PTO shaft.
2. Raise the wood chipper as high as the tractor's 3-point hitch will allow and measure the straight-line distance between the locking grooves on the splined shafts as shown below.

   Now lower the wood chipper to the ground and measure the distance between the locking grooves again (the two shafts may or may not align—either is normal as tractor output shaft height varies). Whichever dimension is *shortest,* record it as **Dim A**.



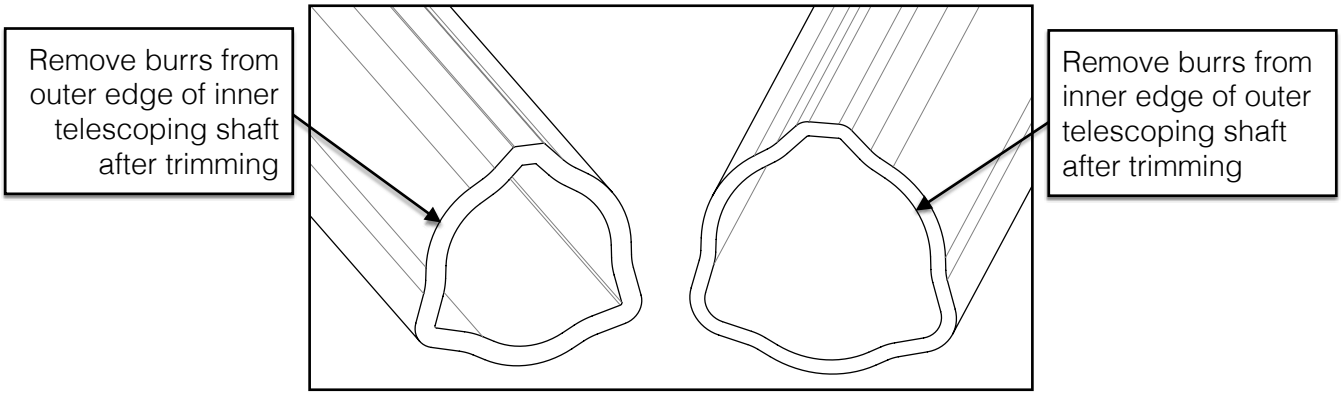
3. Verify the distance between the locking pins on the PTO shaft while in the compressed state (**Dim B**) as shown in the image below. It should measure 29-7/16 in [747 mm].



4. If **Dim A** is at least 1 in [25 mm] longer than **Dim B**, the PTO shaft does not require trimming. It is recommended the shaft not be used if there is less than 6 in [150 mm] of overlap between the two halves of the PTO shaft when the equipment is in the operating position.
5. If **Dim B** is longer than **Dim A**, the PTO shaft will require trimming. Use this equation to calculate the correct amount to trim:

(B - A) + 1 inch = C (Amount to Trim)

6. Once **C** has been calculated, trim that amount from **BOTH** halves of the PTO shaft safety cover *first*, then trim the same amount from both shafts. This will ensure the safety cover on each end remains a few inches back from the ends of the shafts, otherwise PTO shaft reassembly could be difficult.
7. After trimming both halves of the PTO shaft, use a file to remove any burrs or sharp edges and slide the halves back together, ensuring they telescope in-and-out freely. The PTO shaft is now ready to connect the wood chipper to the tractor for operation.



OPERATION

1. PRE-START UP CHECKLIST

i. Fill the hydraulic tank with hydraulic oil per the table below:

Model	Capacity		Hydraulic Oil
	Gallons (gal)	Litres (L)	
WC46	4.5	17	ISO 32, ISO 46, AW 32, AW 46
WC68	5	18.9	
WC88	5	18.9	
➡ TF810 PRO	5	18.9	

ii. Attach the wood chipper to your tractor and take the appropriate measurements to trim the PTO shaft. Refer to the ***TRIMMING THE PTO SHAFT*** section of the operator's manual for detailed instructions.

****Note: Failure to do so may result in severe damage to the implement and is *not* covered under warranty.****

iii. Ensure the bed plate gap is set to within 1/16—1/8 in [1.5—3 mm] between it and the blades. Refer to ***SETTING THE BED PLATE GAP*** in the operator's manual for detailed instructions.

iv. The wood chipper has several bearings fitted with Zerk fittings for greasing. The PTO shaft is fitted with two (2) Zerk fittings, one on each yoke. The PTO shaft and all bearings come pre-greased and do not require greasing on initial start-up. Refer to the ***GREASING BEARINGS AND PTO SHAFT*** section of the operator's manual for detailed maintenance instructions.

v. Check the bolts on each of the eight flywheel blades ensuring the torque is set to 40 ft•lb [54 N•m].

2. START UP

The following steps in the sub-section below (*a*. through *i*.) are a summarization of the steps necessary to safely and properly operate the wood chipper. Please follow the references to other sections that provide further detail into the step being performed.

a. Place the tractor transmission in neutral, set the parking brake, then turn the tractor engine off.

b. Connect the 3-point hitch linkages to the wood chipper and secure them with linch pins.

c. Adjust the top link of the 3-point hitch so that the wood chipper sits level.

d. Connect the PTO shaft to the tractor with the shear bolt end of the PTO on the wood chipper. Make sure the PTO safety chains are attached to both the tractor and the wood chipper to keep the protective PTO safety cover from rotating.

e. Rotate the discharge chute towards a safe direction and lock it in place with the spring-loaded latch and indexing holes. Adjust the chip deflector to the desired position based on how far they should be thrown.

f. Push the red control arm all the way in until it stops, then pull it out one click to ensure the infeed roller is in the neutral position.

g. Start the tractor engine and hold the engine RPM's at a strong idle. Engage the PTO slowly. If the tractor is running at a high speed when the PTO is engaged, you could damage the drive belts or break the shear bolt on the PTO shaft. After the rotor is spinning freely increase the tractor RPM's until the PTO speed is 540 RPM. Most tractor tachometers commonly indicate this with a line and/or text.

h. Pull the red control arm all the way out until it stops (forward position). This will start the infeed roller rotating. Set the infeed roller control to the desired speed.

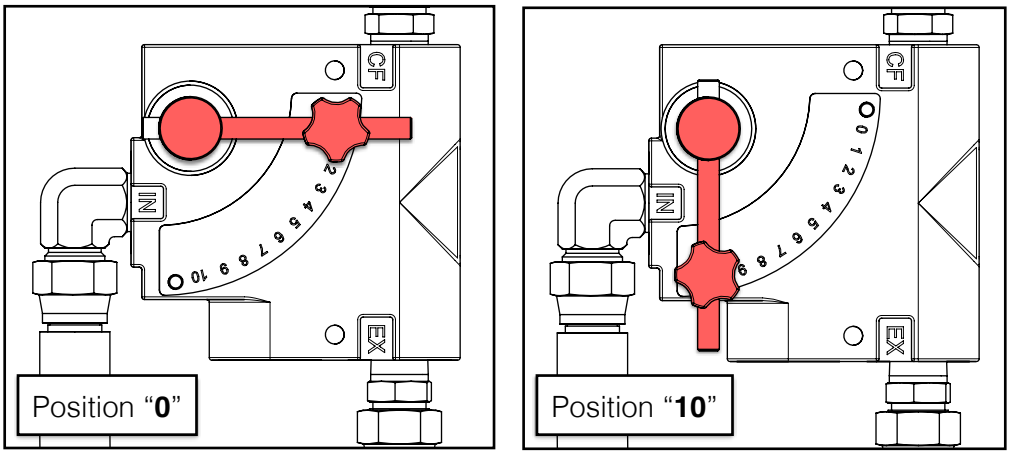
i. With the wood chipper now running and the infeed roller rotating, it is safe to begin chipping. Start by feeding smaller diameter branches until better acquainted with the machine and its operation. Once comfortable, begin feeding in larger pieces. Adjust the infeed roller control as necessary to regulate the infeed rate of the branches.

WARNING!

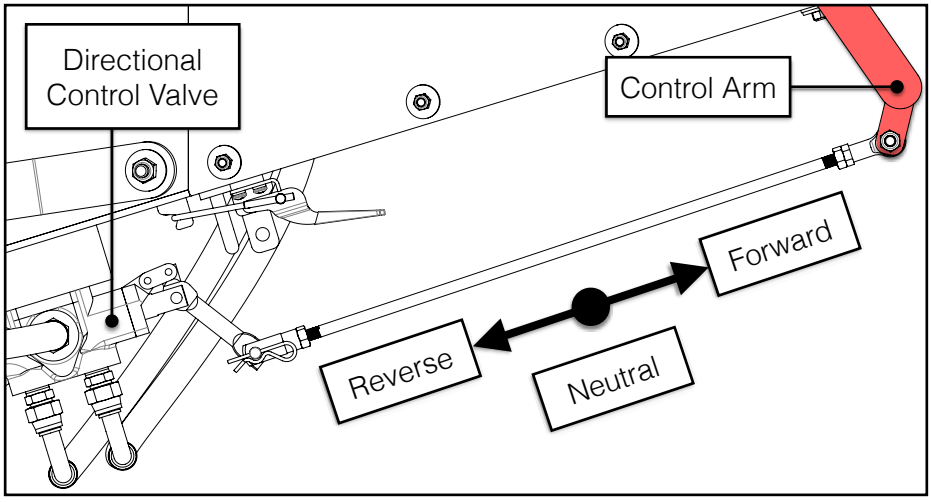
To avoid serious injury or death, do not chip brush containing embedded foreign objects such as nails, wire, metal fragments, etc. The operator and any assistants must always stay clear of the infeed chute of the wood chipper whenever it is running.

3. INFEED ROLLER CONTROL

The wood chipper infeed roller speed control valve is located to the right of the infeed chute. Rotating the arm as shown in the pictures below will increase or decrease the speed of the infeed roller. The number "**0**" (left image) represents no infeed roller rotation while "**10**" (right image) represents full speed. Effective working range is from **0-4**. It is normally not necessary to move the arm past "**4**."



The infeed roller can be set to three (3) different rotation settings—*forward*, *neutral* and *reverse*—by pushing or pulling the red control arm. The *forward* position pulls branches into the wood chipper; *neutral* stops the roller from rotating; and *reverse* pushes the branches back out the wood chipper towards the operator. The diagram below illustrates the 3 positions:

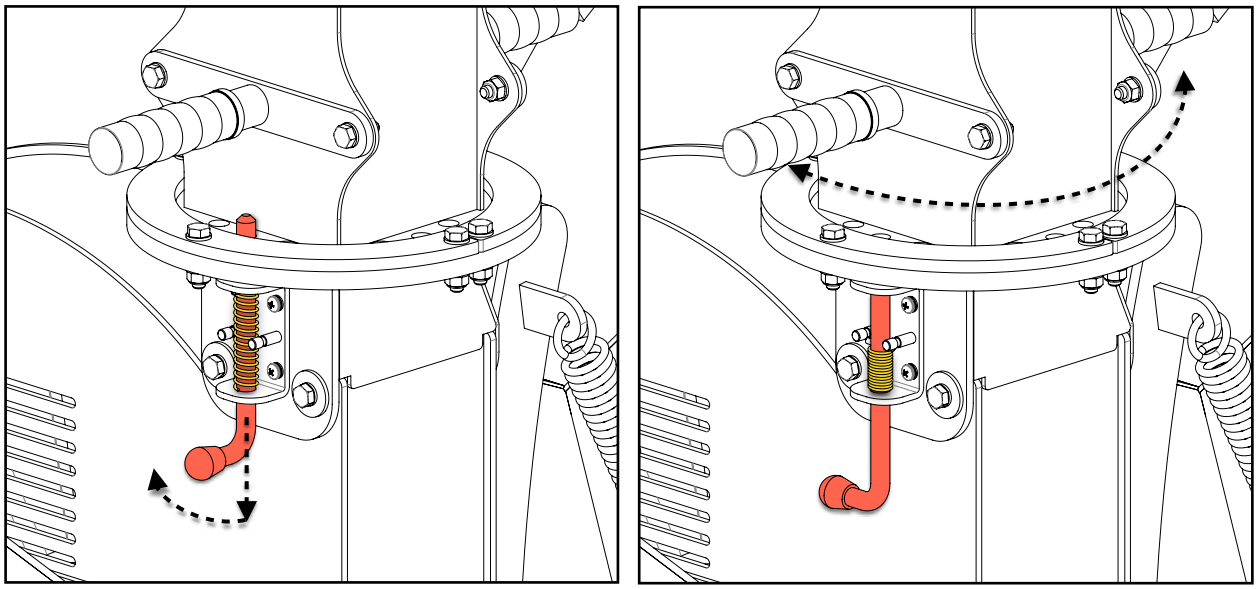


To change the speed of the infeed roller, place the red control arm in the *neutral* position. This stops the infeed roller from rotating. The speed control valve can now be moved to the desired position/speed. Reengage the infeed roller via the control arm.

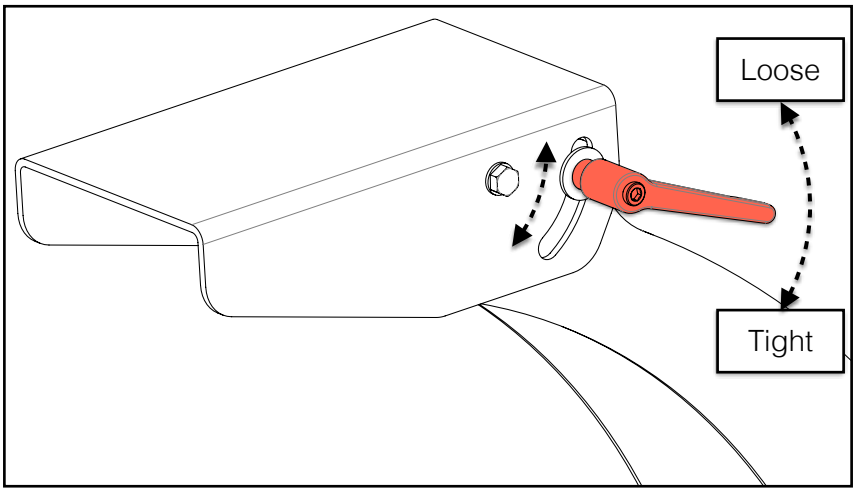
See maintenance section, ***ADJUSTING THE RED CONTROL ARM***, if the control arm feels too loose or stiff, or if it falls into neutral or reverse unexpectedly.

4. DISCHARGE CHUTE

To rotate the discharge chute, push down all the way on the spring-loaded locking pin and twist it 90° to temporarily lock it in the open position. The discharge chute is now free to rotate a full 360°. Using the handles, rotate it to the desired position and then twist the locking pin back 90° so that it extends into the closest locking hole to secure the chute in position.



The chip deflector easily adjusts to regulate the distance the chips are thrown. Rotate the handle counterclockwise to loosen the deflector, adjust the deflector to the desired angle, then re-tighten the handle by rotating it clockwise to secure the deflector.



5. CHIPPING

Keep your face and body away from the feed opening. Do not over reach. Keep proper balance and footing at all times. The wood chipper is designed to chip a variety of materials into a more readily decomposing or handled condition. The following guidelines can be used to help you get started. Please read and follow all safety instructions in this manual. Failure to operate the wood chipper in accordance with the safety instructions **MAY RESULT IN PERSONAL INJURY!**

- Ensure the wood chipper is at full operating speed before starting to chip material.
- Select limbs up to 8" [203 mm] in diameter. Trim side branches that cannot be bent enough to feed into the wood chipper infeed chute. Hold small diameter branches in a bundle and feed simultaneously.
- Feed brush from the side of the infeed chute rather than from the front. Step aside to avoid being hit by brush moving into the wood chipper.
- Never lean into the infeed chute or extend any parts of your body inside the infer chute to push objects further into the wood chipper. Use another stick or branch.
- Do not use hand tools to push brush into the wood chipper. They can go through the wood chipper and cause injury or damage to the wood chipper.
- Place branches, butt end first, into the wood chipper infeed chute until it contacts the infeed roller. Once the infeed roller makes contact with the branches, it will pull the material inwards.
- **NOTE**: The wood chipper blades dull with use and require periodic sharpening and sometimes replacing. Refer to the section under service and maintenance, "Sharpening Wood Chipper Blades," for further instructions.

6. STOPPING

Do not leave the wood chipper unattended or attempt any inspection/service unless the PTO is disengaged and the tractor engine is turned off. Allow time for the wood chipper to come to a complete stop. To stop the wood chipper, follow the steps below:

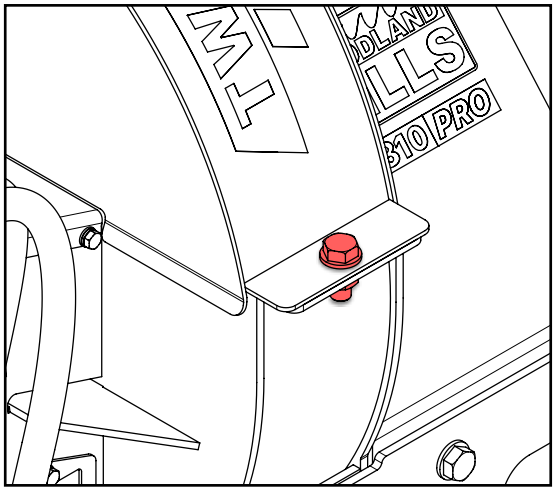
1. Move the tractor throttle to the SLOW/IDLE position.
2. Disengage the PTO lever and turn off the tractor engine.
3. Allow time for the wood chipper to come to a complete stop.

   NOTE: The flywheel continues to spin for some time after the engine or tractor has been turned off. The flywheel has stopped spinning when noise and/or machine vibration are no longer detectable. The PTO shaft will also no longer be spinning.

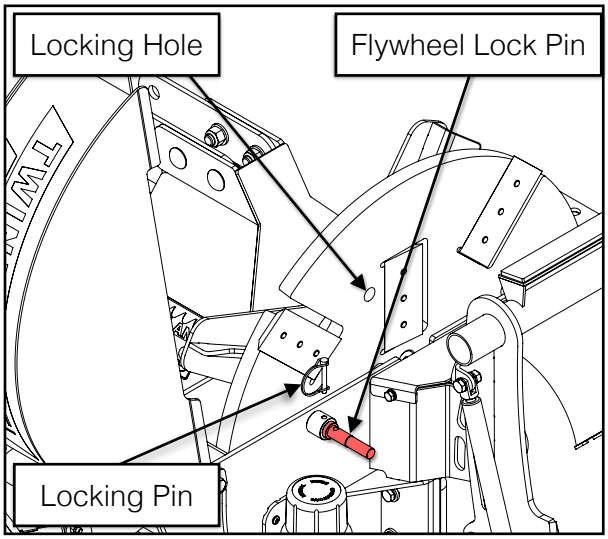
MAINTENANCE
REPLACING BLADES

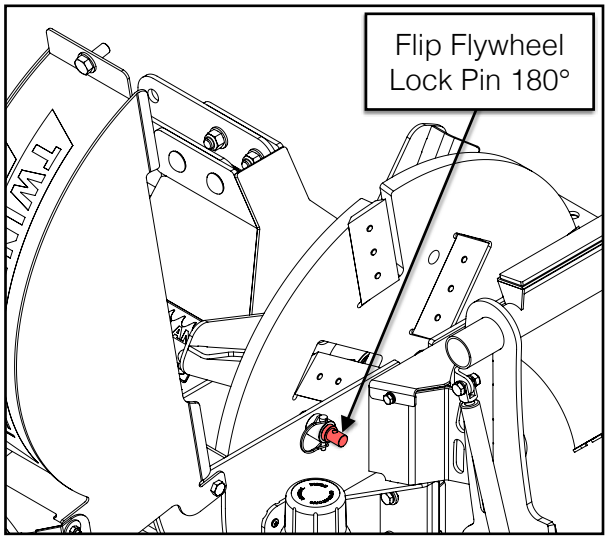
Follow these steps when replacing blades. The TF810 PRO wood chipper uses eight (8) reversible hardened steel blades. Each blade measures 6-1/16 X 2-23/32 X 5/16 in [154 X 69 X 8 mm] in size.

1. If installed, disconnect the PTO shaft from the tractor for safety.
2. Open the upper flywheel housing using a 24 mm socket/wrench by removing the M16 X 40 mm bolt and flat washer securing the upper and lower housings together.

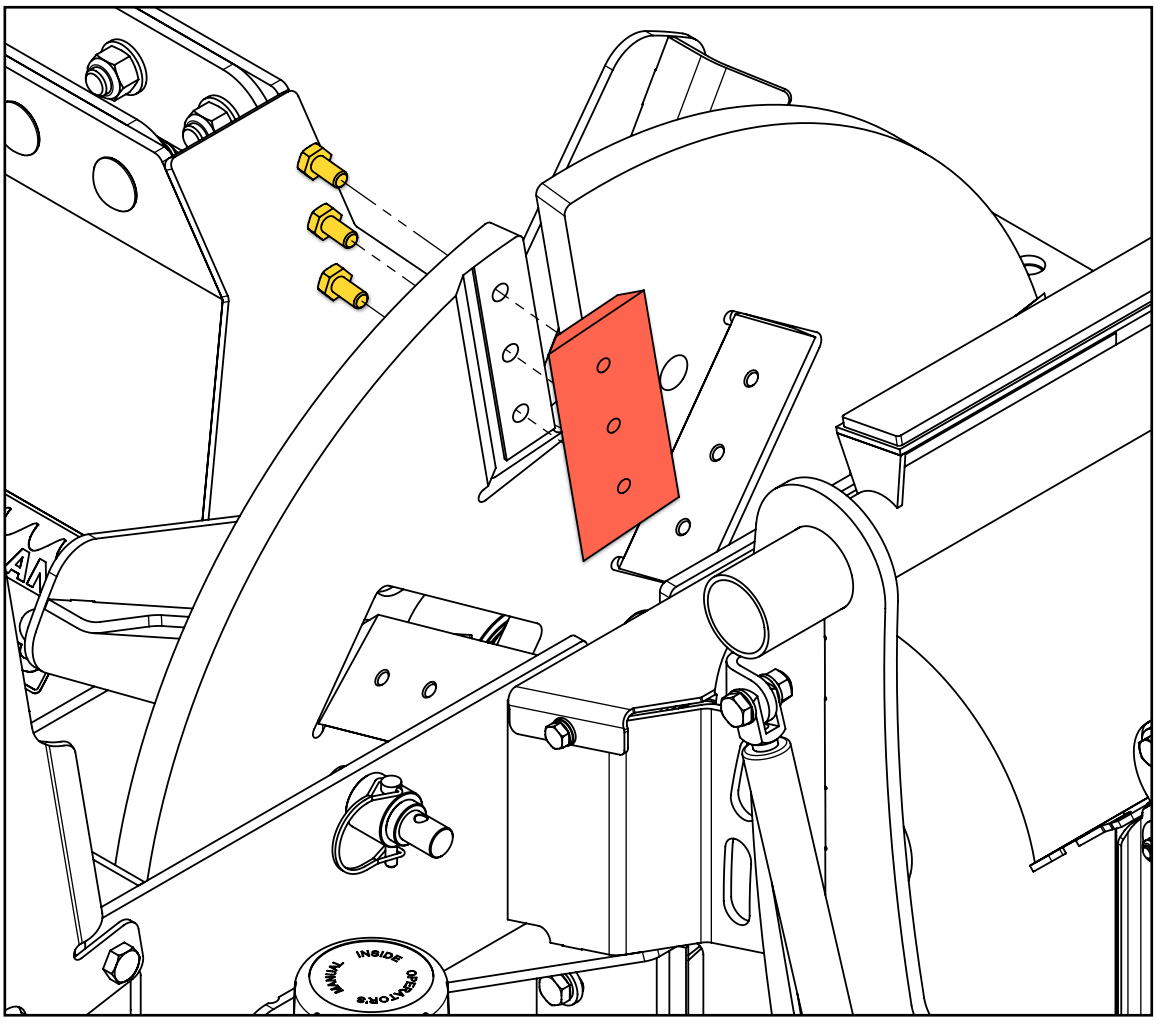


3. With the flywheel exposed, manually rotate it so that one of the four (4) locking holes in the flywheel (near the front of the blade) approximately lines up with the flywheel lock pin at the rear of the housing. Remove the round locking pin from the flywheel lock pin and flip the flywheel lock pin around 180°, passing it through the housing and into the locking hole in the flywheel. Reinstall the round locking pin into the flywheel lock pin.





4. Remove the three (3) M10 X 20 mm hex head bolts that fasten the blade to the flywheel using a socket. Take care not to drop the hardware into the lower flywheel housing. However, should this occur, a telescoping pen magnet can be used to retrieve them.



5. Repeat Steps 3 & 4 above to remove the remaining seven blades. If this is the first time the blades have been removed following either the original wood chipper purchase or a recent blade sharpening, the blades can be reversed to utilize the other cutting edge. Or, the entire blade can be removed and sharpened or it can be replaced with a new blade. Torque the M10 X 20 mm hex head bolts to 40 ft•lb [54 N•m] when installing blades. Refer to section, ***BLADE SHARPENING***, for blade sharpening instructions.
6. Once the blades have been reversed or new blades installed, proceed to section, ***SETTING THE BED PLATE GAP***, to properly set the spacing between the blades and bed plate.
7. Following 3 hours of use after replacing blades, re-torque the blade bolts to ensure they remain secure.

BLADE SHARPENING

The wood chipper blades will dull, making chipping difficult and cause your tractor to labour. It is recommended to sharpen the blades every 25-50 hours of operation. The TF810 PRO wood chipper uses eight (8) hardened steel blades. The blades are reversible and can be sharpened on both sides. Follow the below steps to sharpen the blades.

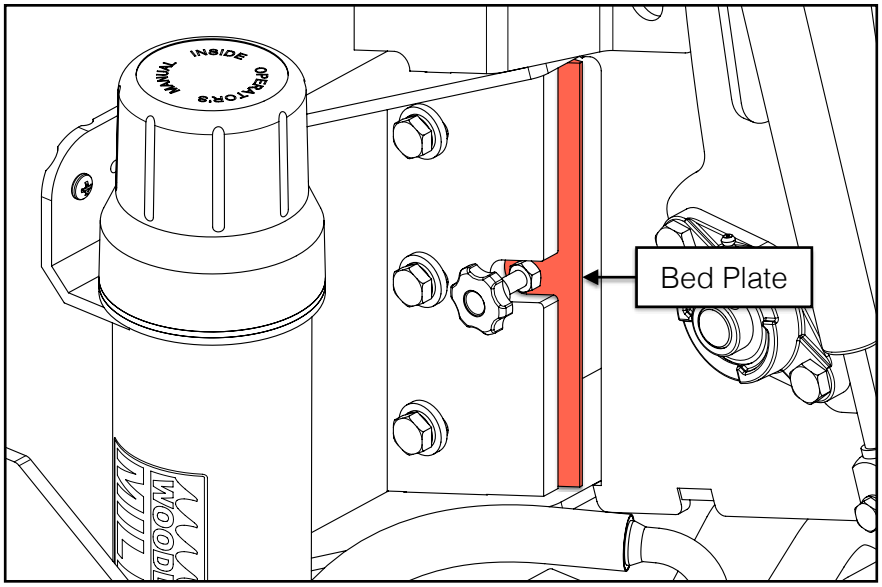
1. Follow the steps from the previous section, ***REPLACING BLADES***, to safely remove the blades from the flywheel.
2. Hand-grind the angled edges of the blade at 33° (see diagram below) using a whetstone or have them sharpened by a professional. A pedestal style bench grinder will likely yield poor results if not used properly. If sharpened quickly or aggressively on a bench grinder, the blade edge can get too hot and change colour, thus removing the heat treating-properties from the steel. Use short grinding times and cool frequently with water. Remove an equal and consistent amount of material from each blade to maintain proper balance when reassembled to the flywheel.

Blade Profile

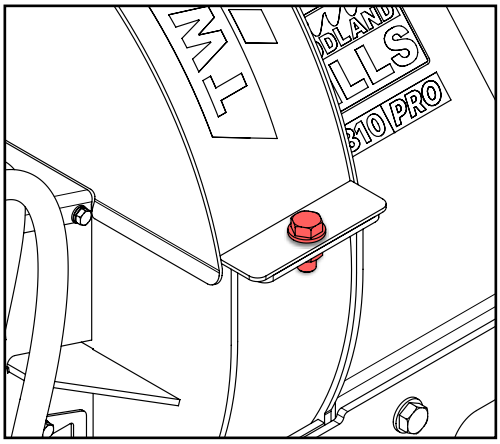
3. Reinstall the sharpened blades on the flywheel and torque the M10 X 20 mm hex head bolts to 40 ft•lb [54 N•m].
4. Once the blades have been sharpened, proceed to the next section, ***SETTING THE BED PLATE GAP***, to properly set the spacing between the newly sharpened blades and the bed plate.
5. Following 3 hours of use after replacing blades, re-torque the blade bolts to ensure they remain secure.

SETTING THE BED PLATE GAP

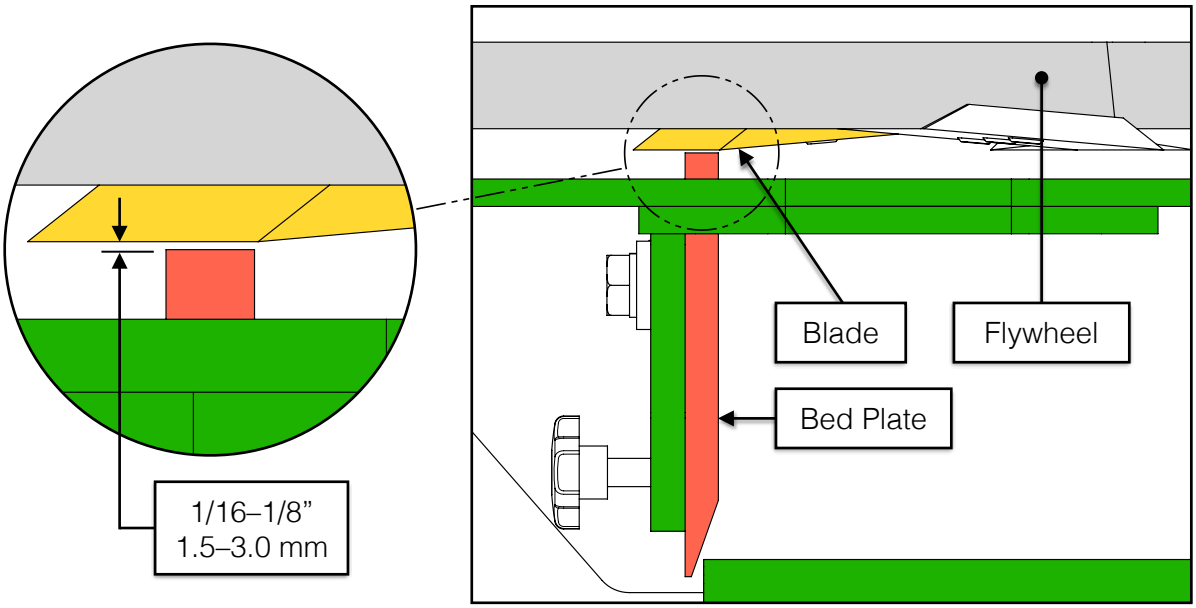
The bed plate (also known as the *anvil plate*) is located on the left side of the flywheel housing (when facing the infeed chute). For ideal chipping performance, the gap between the bed plate and the blades should be set to 1/16-1/8" [1.5-3 mm]. Follow the steps below to set the gap properly. Failure to set the proper gap can lead to poor chipping performance and/or clogging.



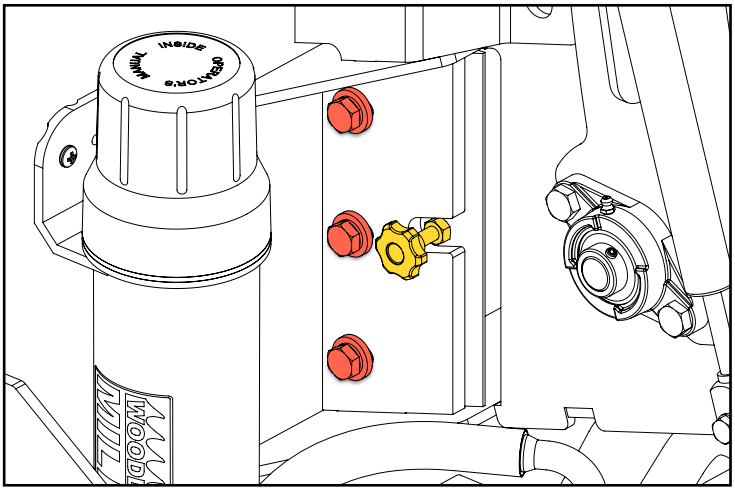
1. If installed, disconnect the PTO shaft from the tractor for safety.
2. Open the upper flywheel housing using a 24 mm socket/wrench by removing the M16 X 40 mm bolt and flat washer securing the upper and lower housings together.



3. With the flywheel exposed, manually rotate it so that the first blade lines up with the bed plate and note the gap between them. Use a flash light for better viewing if necessary. Repeat this process for the remaining three blades, noting which blade is closest. Use this blade to set the bed plate gap.



4. Use a socket/wrench to loosen the three (3) M10 X 25 mm hex bolts securing the bed plate to the lower flywheel housing so the bed plate is free to slide in and out. This movement will increase or decrease the gap between the bed plate and the cutting edge of the blade. Slide the bed plate by gripping the knob and adjust its position so that it is within 1/16-1/8" [1.5-3.0 mm] of the cutting edge of the blade. Ensure the gap is uniform along the entire edge of the blade.



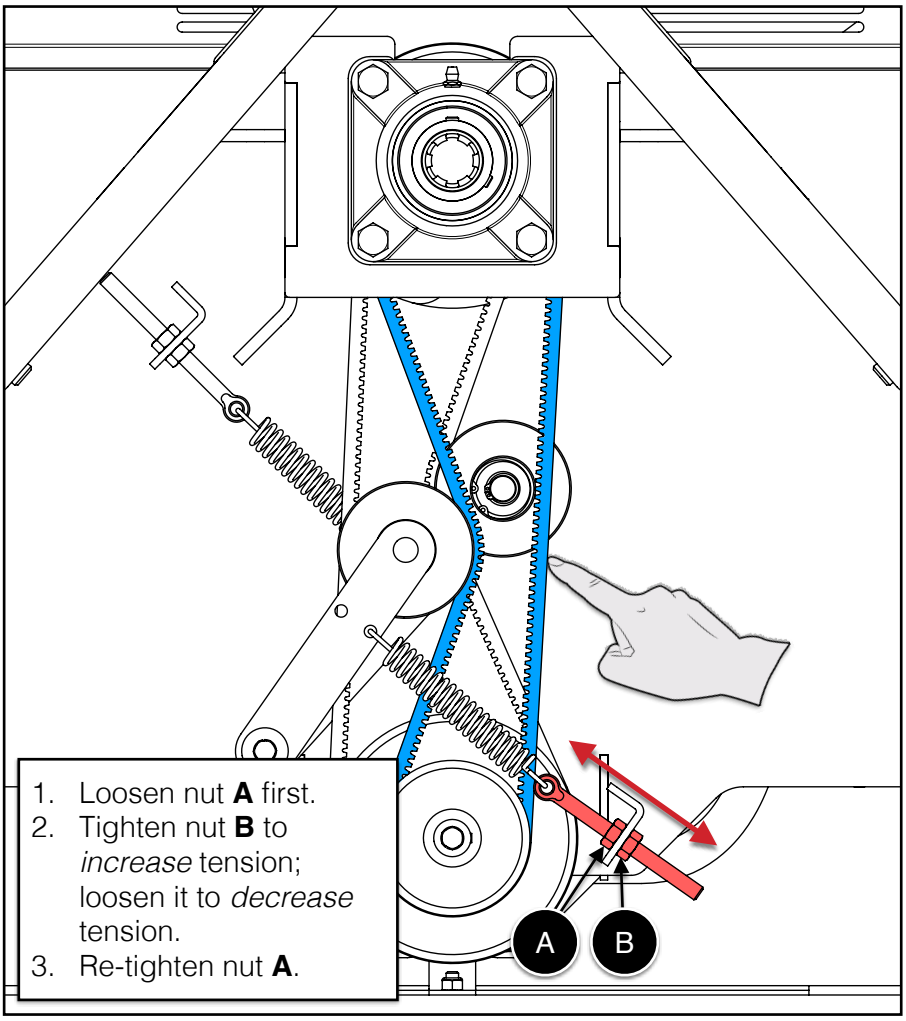
5. Torque the three (3) M10 X 25 mm bed plate hex bolts to 40 ft•lb [54 N•m] once the gap has been set correctly.
6. Rotate the flywheel by hand and note the gap at each blade. Again, the gap should be no more or less than 1/16-1/8" [1.5-3.0 mm] at each blade edge.
7. Close the upper flywheel housing and secure it to the lower housing by reinstalling the M16 X 40 mm bolt and flat washer.

ADJUSTING BELT TENSION

HYDRAULIC PUMP BELT

The hydraulic pump belt is the belt *closest* to the tractor. Check the condition and tension of the belt after every 30 hours of operation. It is self-tensioning via an extension spring. The amount of tension can be adjusted by following these steps:

1. If installed, disconnect the PTO shaft from the wood chipper for safety and to allow rotation of the belt and pulleys.
2. Check the pump belt tension by pressing on it with your finger. There should not be any free slack in the belt. It should be under firm tension.
3. If the pump belt requires more tension, the *lower right-side* eyebolt can be adjusted by loosening and tightening the M10 hex nuts as shown below. This will stretch the spring and increase the tension until the belt is firm.

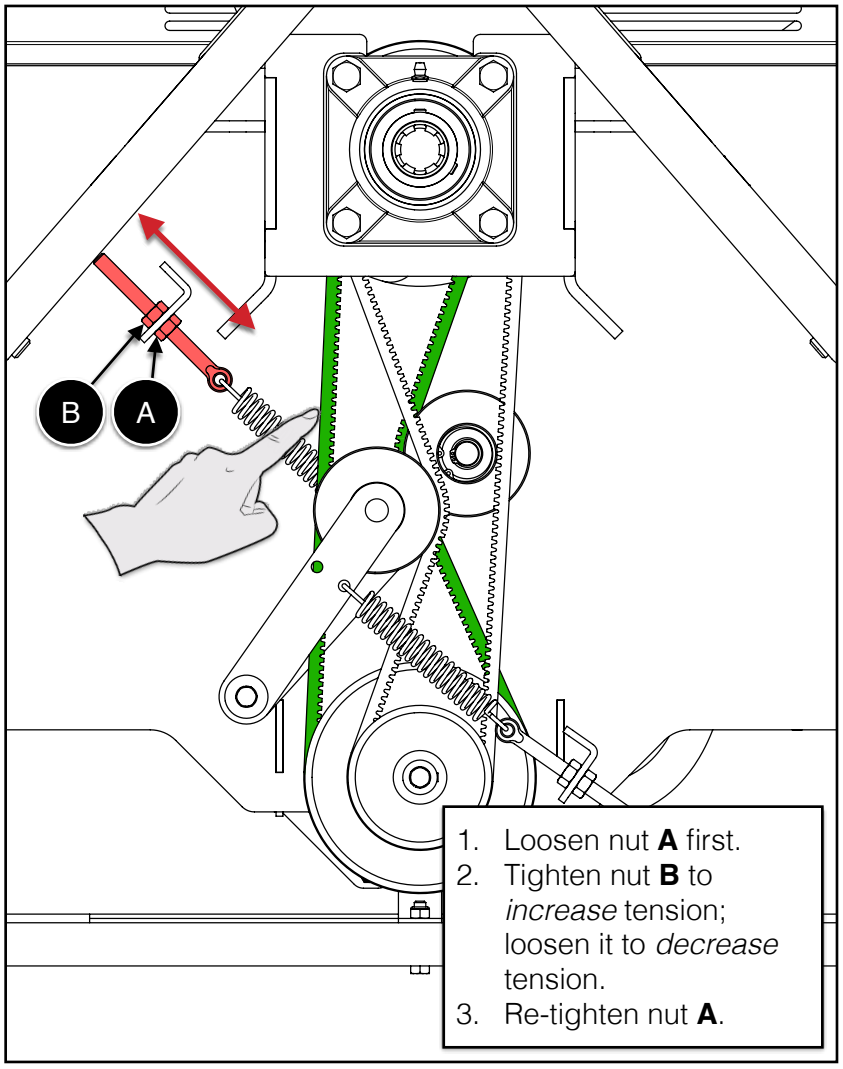


Adjusting Hydraulic Pump Belt Tension

PADDLE FLYWHEEL BELT

The paddle flywheel belt is the belt *farthest* from the tractor. Check the condition and tension of the belt after every 30 hours of operation. It is self-tensioning via an extension spring. The amount of tension can be adjusted by following these steps:

1. If installed, disconnect the PTO shaft from the wood chipper for safety and to allow rotation of the belt and pulleys.
2. Check the paddle flywheel belt tension by pressing on it with your finger. There should not be any free slack in the belt. It should be under firm tension.
3. If the paddle flywheel belt requires more tension, the *upper* left-*side* eyebolt can be adjusted by loosening and tightening the M10 hex nuts as shown below. This will stretch the spring and increase the tension until the belt is firm.



Adjusting Paddle Flywheel Belt Tension

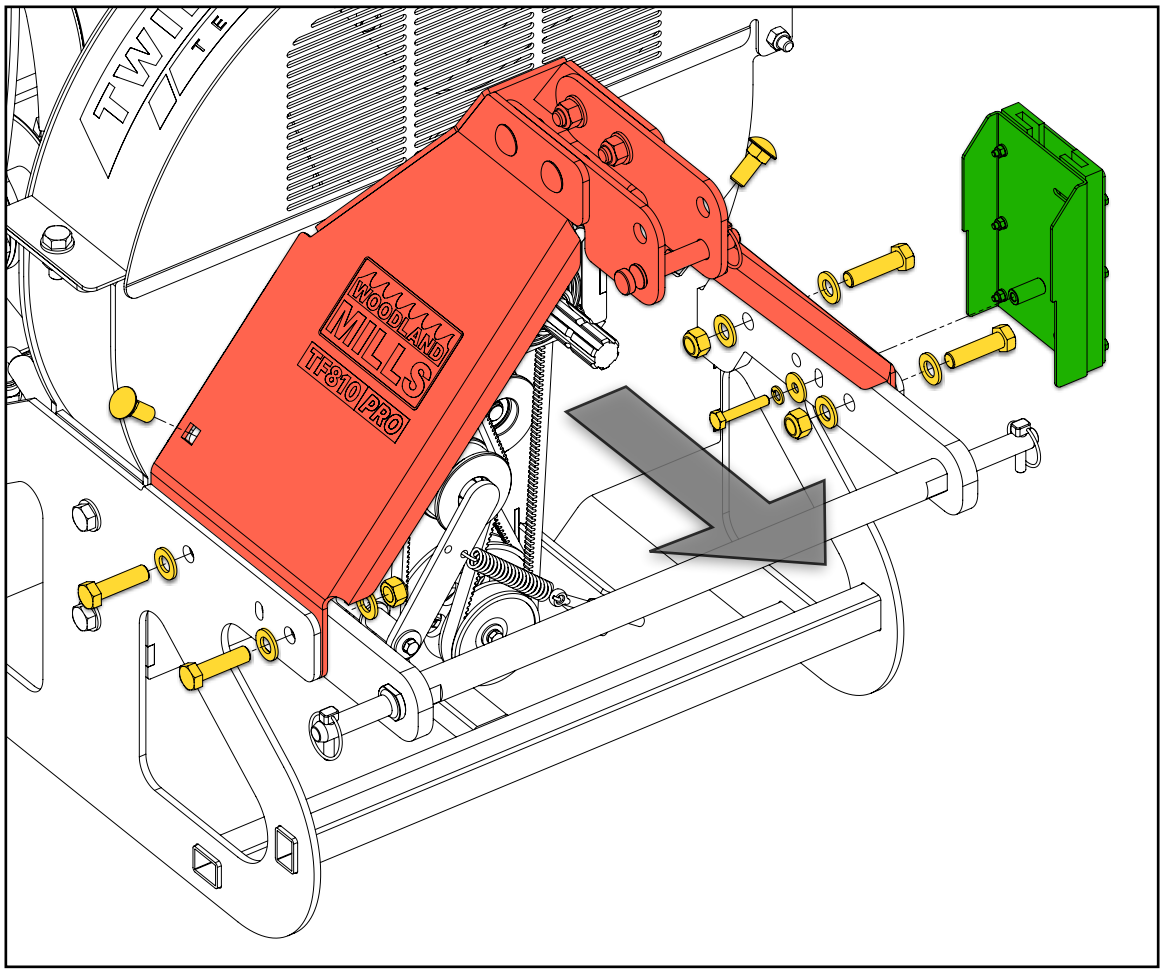
REPLACING BELTS

Check the condition and tension of both belts after every 30 hours of operation. If the infeed roller is not rotating—or rotating slowly—the hydraulic pump belt could be slipping. A squealing noise may also be heard. In either case, these conditions can occur due to a worn belt or improper belt tension (see the previous section, ***Adjusting Belt Tension***). It is recommended *both* belts be replaced at the same time to reduce future maintenance.

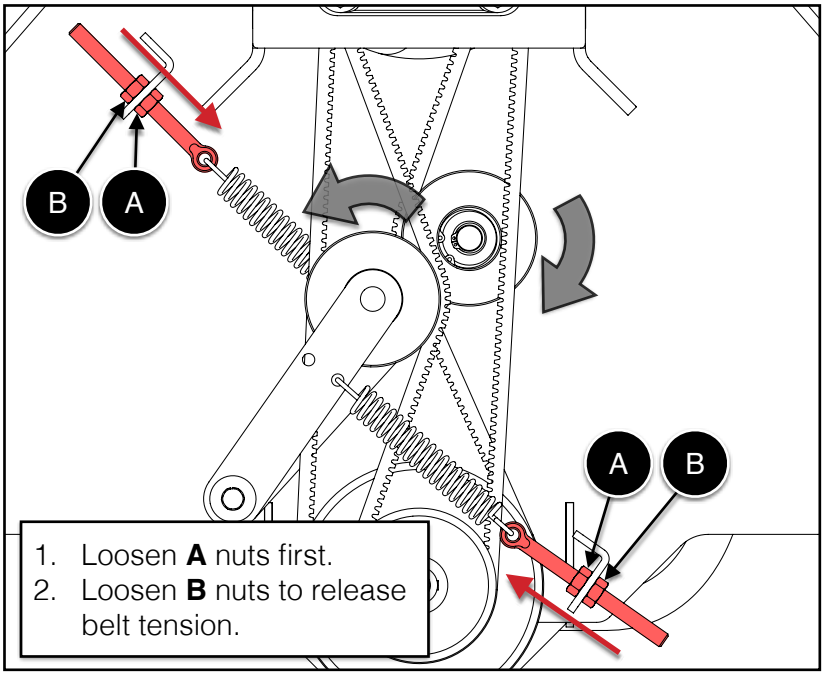
- *Hydraulic Pump Belt*: **BX48**
- *Paddle Flywheel Belt*: **BX50**

To replace the worn belts, follow the steps below:

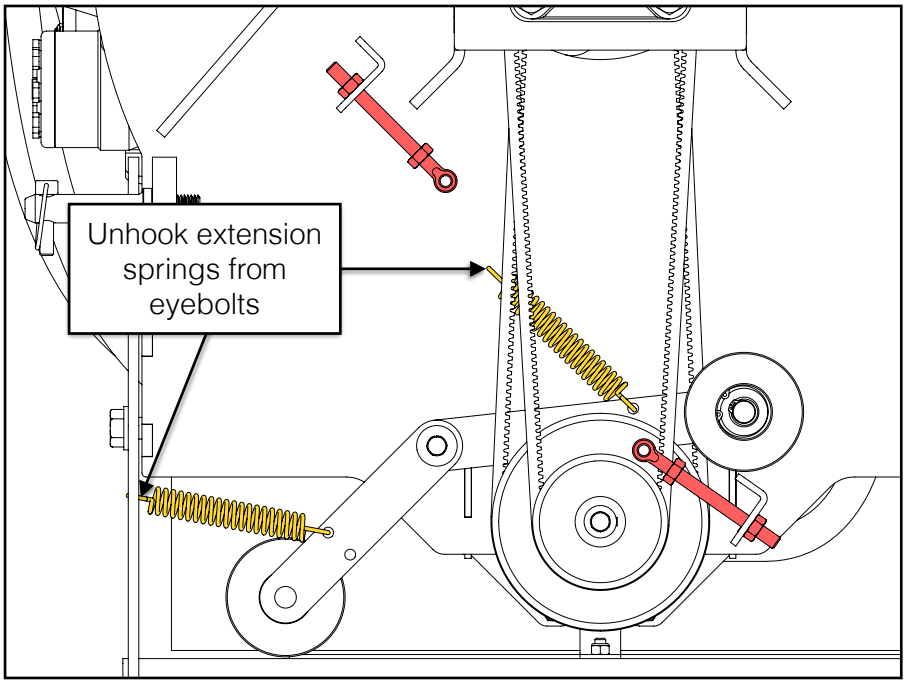
1. If installed, disconnect the PTO shaft from the wood chipper for safety.
2. Remove the four (4) M16 X 60 mm hex bolts, the two (2) M16 X 40 mm carriage bolts, and their respective washers and lock nuts securing the belt guard. Remove the chainsaw holder and its hardware (if installed). Set the belt guard aside.



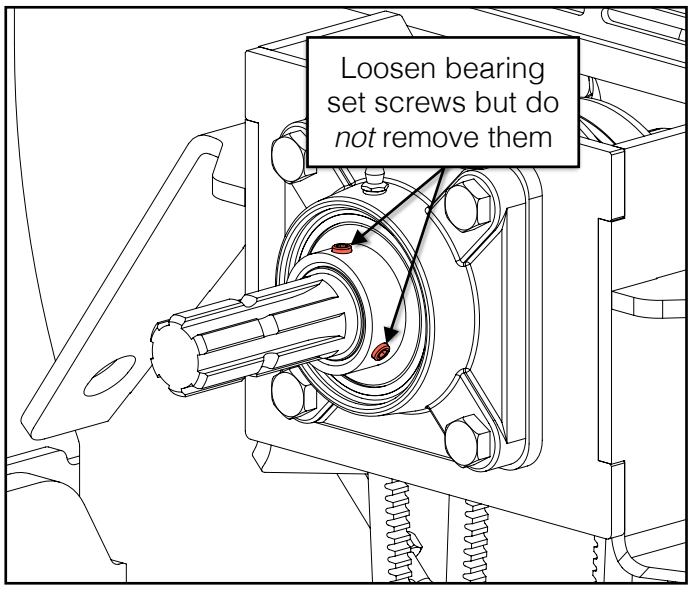
3. Loosen the two (2) jam nuts on both of the belt tensioner eyebolts to completely release the tension on the extension springs.



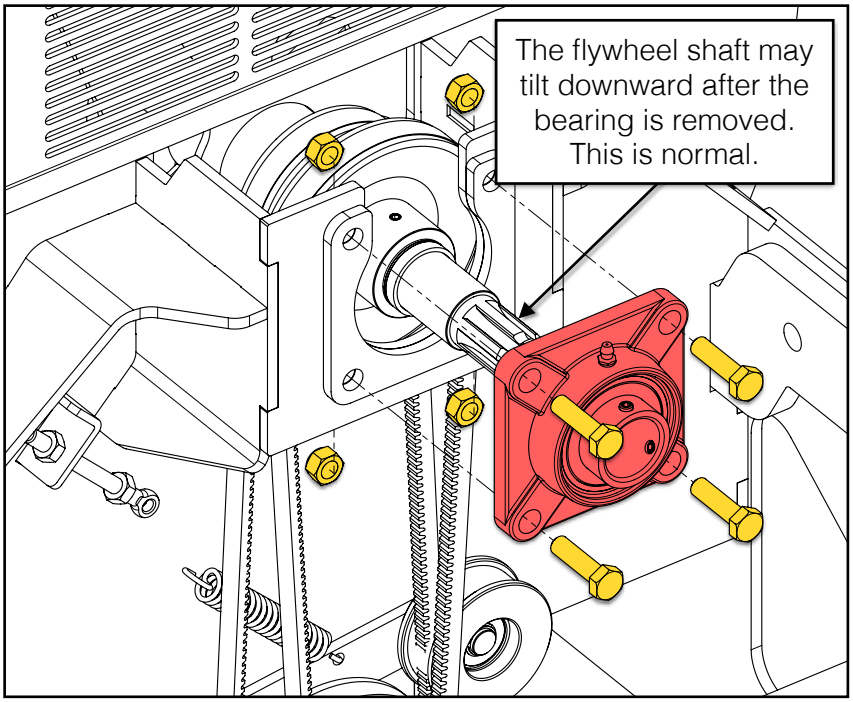
4. Unhook the extension springs from the eyebolts and allow the belt tension arms to rotate downward until they come to rest.



5. Loosen—but do not remove—the two (2) M8 set screws on the bearing collar as shown below.

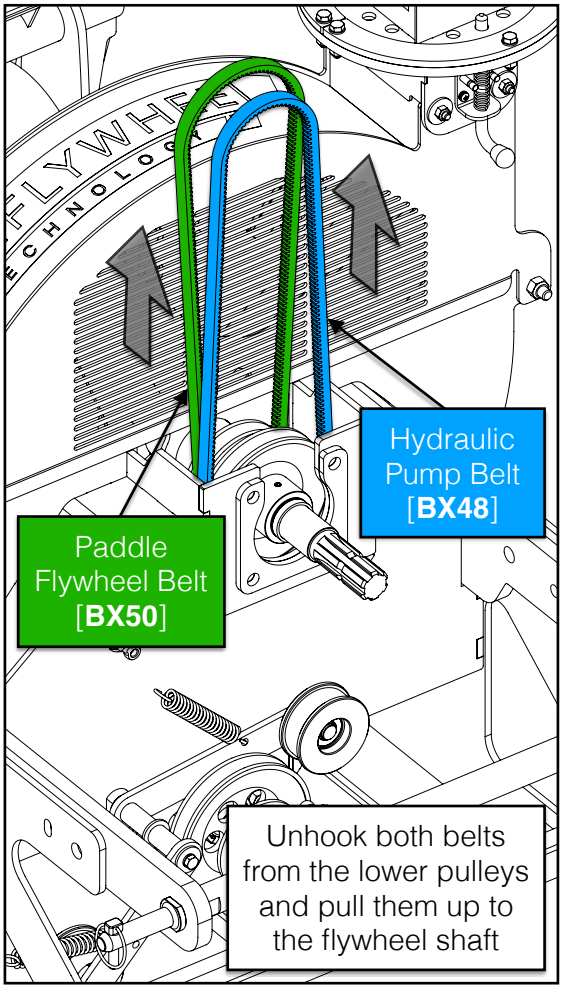


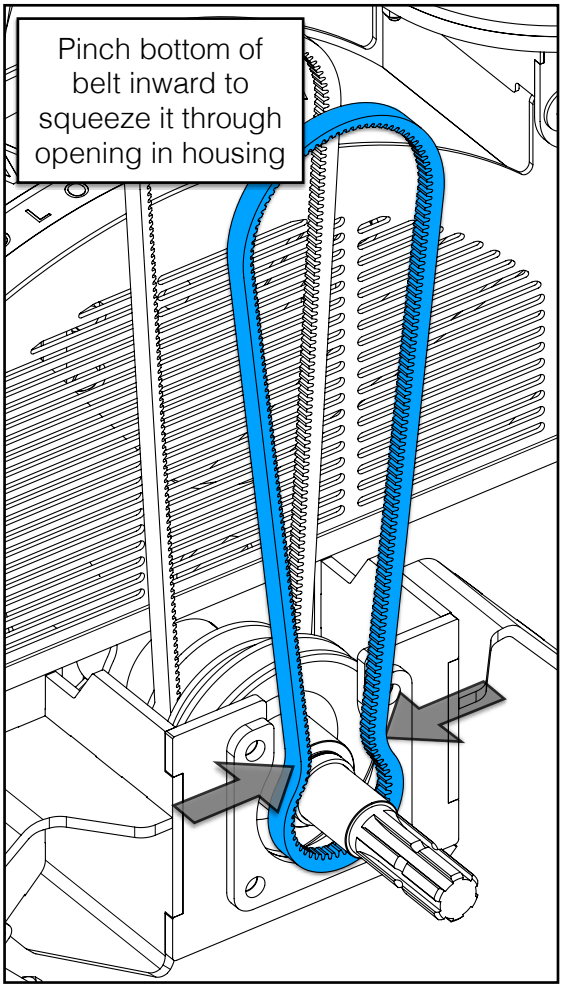
6. Remove the four (4) M12 X 45 mm hex bolts and lock nuts used to mount the bearing and slide it off the flywheel shaft as shown below. The shaft may tilt downward once the bolts are removed but this normal.



7. Unhook both belts from the lower pulleys and pull them up to the flywheel shaft as shown ***below-left***. Remove the hydraulic pump belt (front) first. Pinch the bottom of the belt inward and squeeze it through the opening between the flywheel shaft and housing as shown ***below-right***. Then repeat the procedure to remove the paddle flywheel belt (rear).

   Note: the shaft may have to be lifted up and supported by hand as each belt is removed.



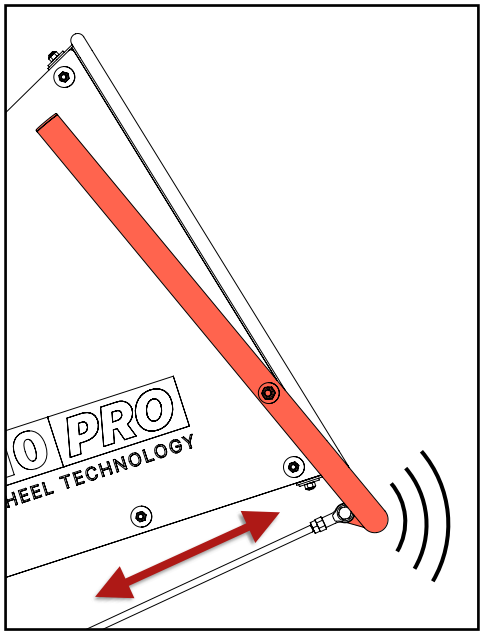


8. Reverse the steps to install new belts. Remember to install the paddle flywheel belt (rear) first before installing the hydraulic pump belt (front).

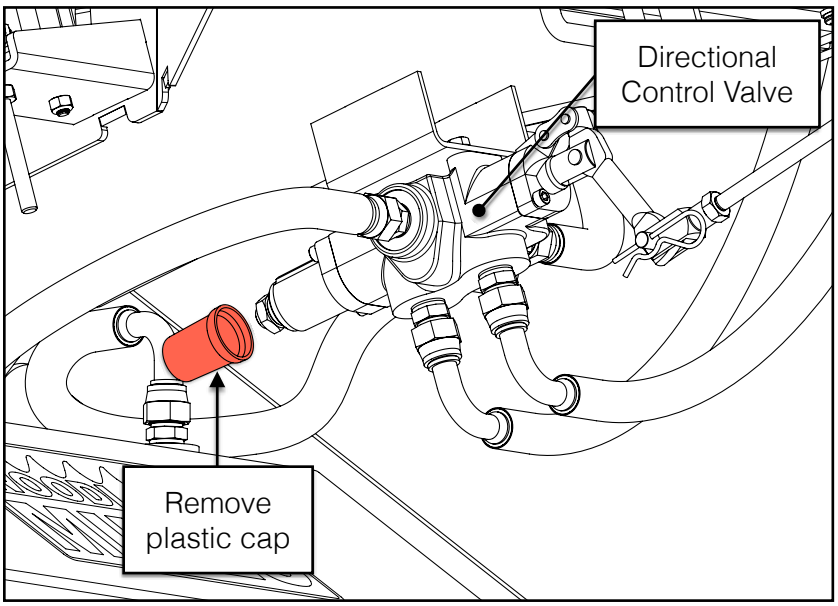
   ****Note: When reinstalling the bearing, be sure to torque the four (4) M12 X 45 mm hex bolts and lock nuts to 65 ft·lb [88 N·m].****

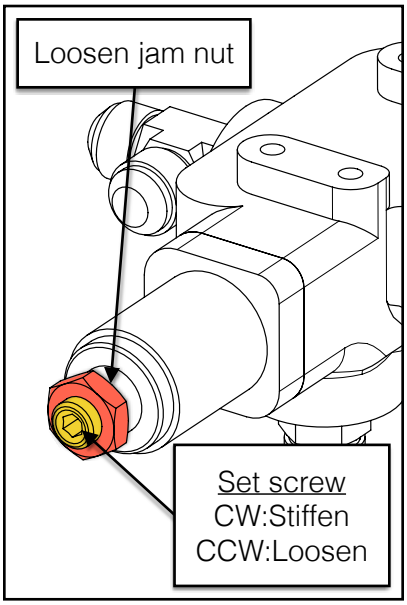
ADJUSTING THE RED CONTROL ARM

If the movement of the red control arm feels too stiff or too loose, or if it falls into neutral or reverse unexpectedly, it can be adjusted via the directional control valve.



Unscrew the plastic cap from the back of the directional control valve (located under the infeed chute), exposing the jam nut and set screw.



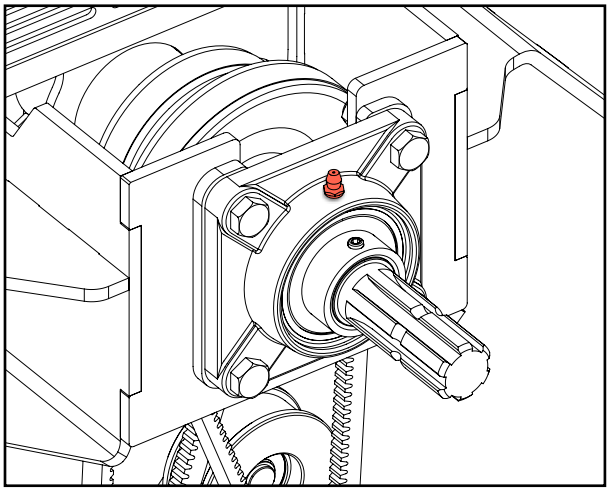


Loosen the jam nut with a 22 mm [⅞ in] wrench. Use a 6 mm hex key and turn the set screw ***clockwise (CW) to stiffen*** the movement of the arm, ***counter-clockwise (CCW) to loosen*** it. Tighten the jam nut and replace the cap after the control arm movement feels satisfactory.

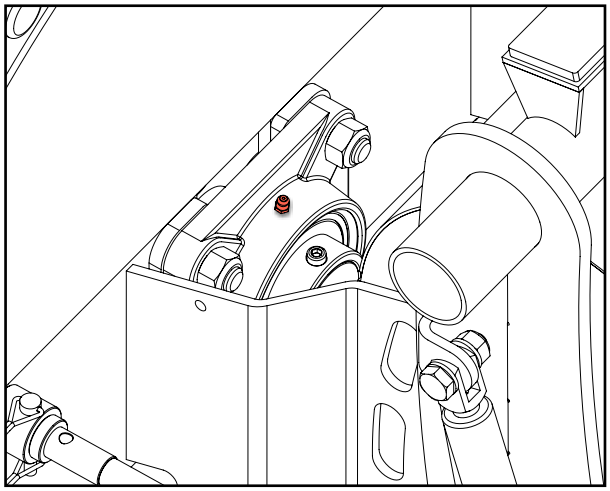
GREASING BEARINGS AND PTO SHAFT

The wood chipper has ten (10) Zerk fitting grease points: two (2) flywheel shaft bearings, two (2) pump shaft bearings, one (1) infeed roller bearing, and five (5) on the PTO shaft. Check each grease point prior to use and add grease as needed.

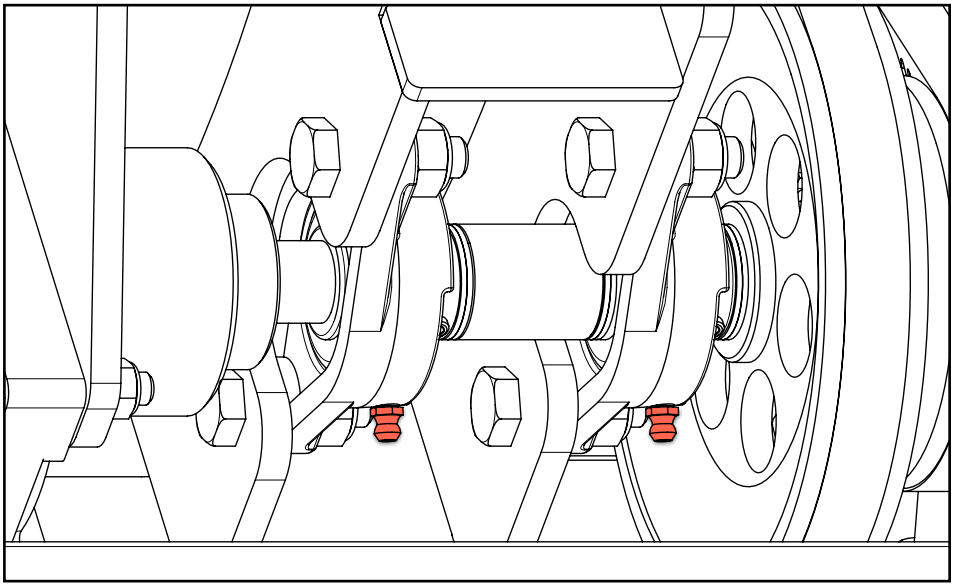
****Warning: These grease points come pre-greased. *Do not add grease to these points on a new wood chipper*. Over-greasing can damage the bearing seals.****



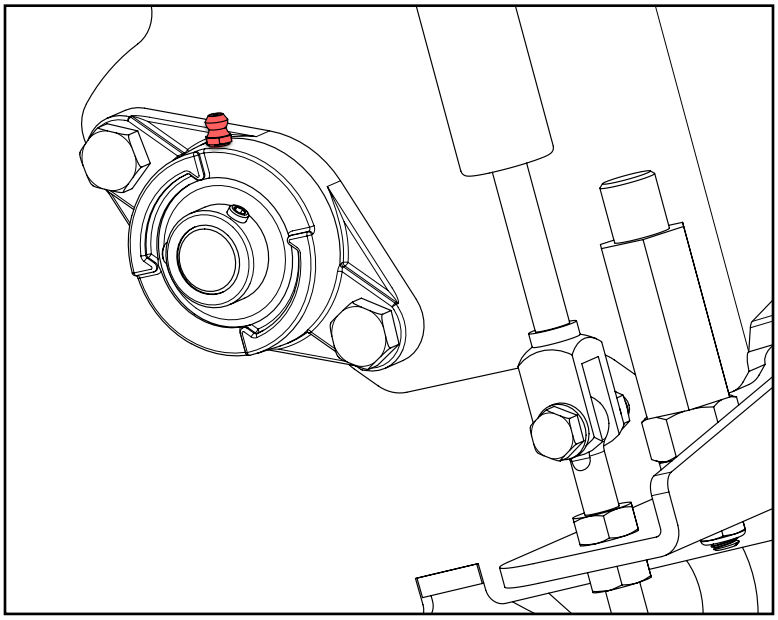
Front Flywheel Shaft Bearing
(Belt guard removed for clarity)



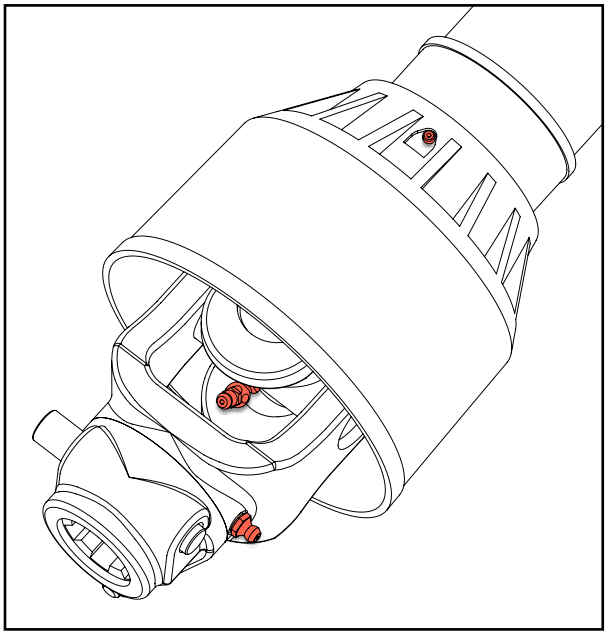
Rear Flywheel Shaft Bearing
(Bearing cover removed for clarity)



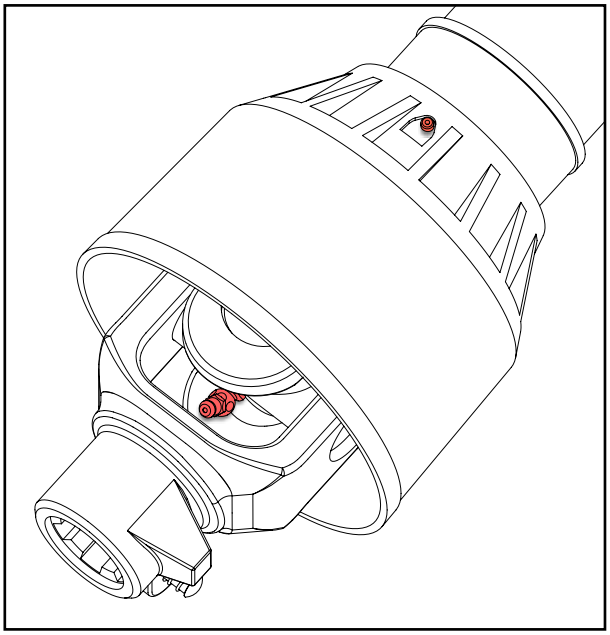
Front and Rear Pump Shaft Bearings
(Underside of flywheel housing)



Infeed Roller Bearing



PTO Shaft U-Joint 1
(#1: Yoke; #2: Yoke Cross; #3: Cover)

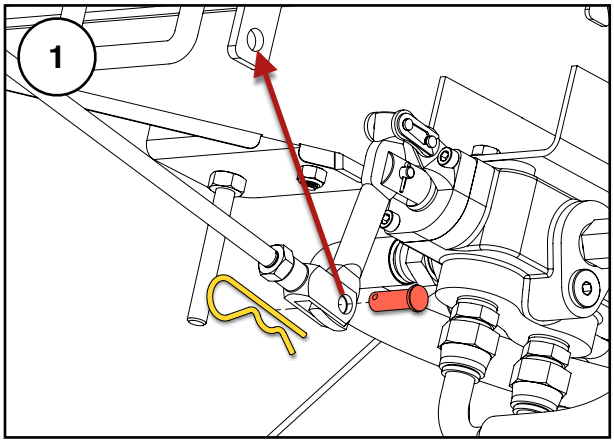


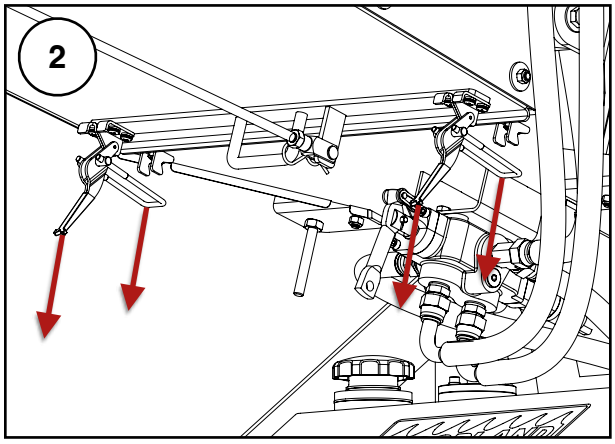
PTO Shaft U-Joint 2
(#1: Yoke Cross; #2: Cover)

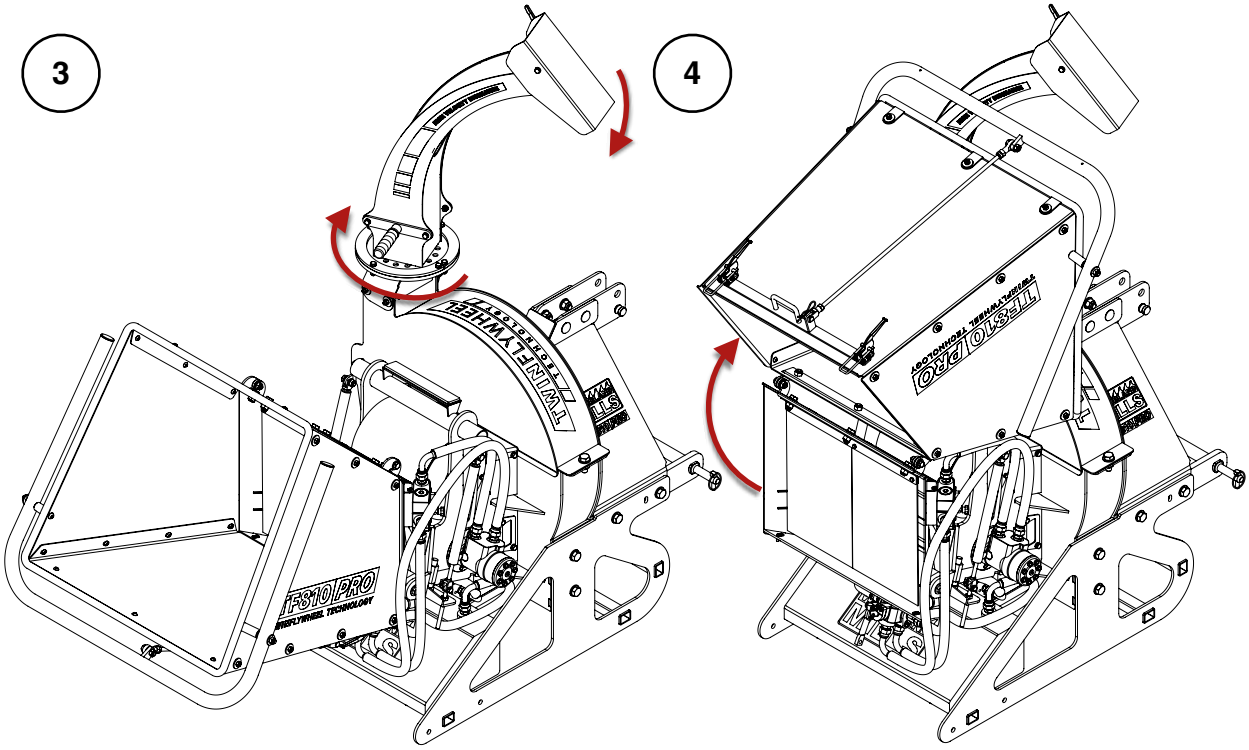
STORAGE

When the wood chipper is not in use, it can be stored to utilize a smaller footprint to save space. Follow these steps to put the wood chipper in its storage state:

1. Disconnect the control bar linkage from the directional control valve and reconnect it to the tab on the underside of the infeed chute bottom panel.
2. Disengage the two (2) latches on the underside of the infeed chute bottom panel.
3. Rotate the discharge chute so that it points to the right and then rotate the deflector until it points down.
4. Swing the infeed chute up until it is resting on the swingarm.





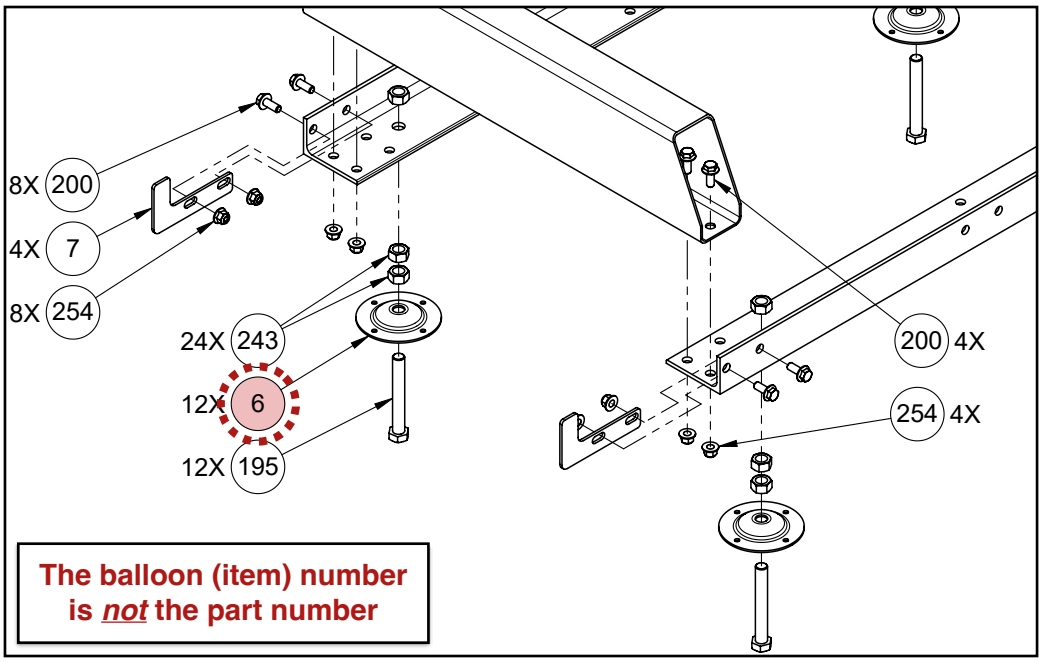


TROUBLESHOOTING

Problem/Issue	Possible Causes	Resolution Options
Brush is feeding too slowly	1. Infeed roller control set too low. 2. PTO RPM below 540. 3. Blades are dull. 4. Improper bed plate gap.	1. Increase infeed roller control to a higher value. Refer to page 39. 2. Adjust tractor RPMs to 540 at output. 3. Reverse, sharpen, or replace blades. Refer to page 42 & page 44. 4. Re-set bed plate gap. Refer to page 45.
Brush exiting discharge chute is stringy	1. Blades are dull. 2. Brush is excessively sappy.	1. Reverse, sharpen, or replace blades. Refer to page 42 & page 44. 2. Clean blades and bed plate.
Excessive clogging	1. Blades are dull. 2. Improper bed plate gap. 3. PTO RPM below 540.	1. Reverse, sharpen, or replace blades. Refer to page 42 & page 44. 2. Re-set bed plate gap. Refer to page 45. 3. Clean blades and bed plate. 4. Adjust tractor RPMs to 540 at output.
Drive belts slipping or squeaking	1. Belt tension not set properly. 2. Belts are old/worn.	1. Adjust belts' tension. Refer to page 47. 2. Replace belts. Refer to page 49.
Excessive noise coming from flywheel bearings	1. Bearings not sufficiently lubricated. 2. Bearings are worn.	1. Grease bearings. Refer to page 54. 2. Replace bearings. Please contact Woodland Mills for bearing replacement instructions.
Red control arm falls into neutral or reverse	1. Directional control valve not adjusted properly.	1. Adjust directional control valve set screw. Refer to page 53.

REPLACEMENT PARTS ORDERING

When ordering replacement parts, first locate the balloon number(s) from the appropriate ***exploded assembly view*** as shown in the example below:



Next, turn to the ***Parts List*** section and locate the balloon number in the "**Item**" column:

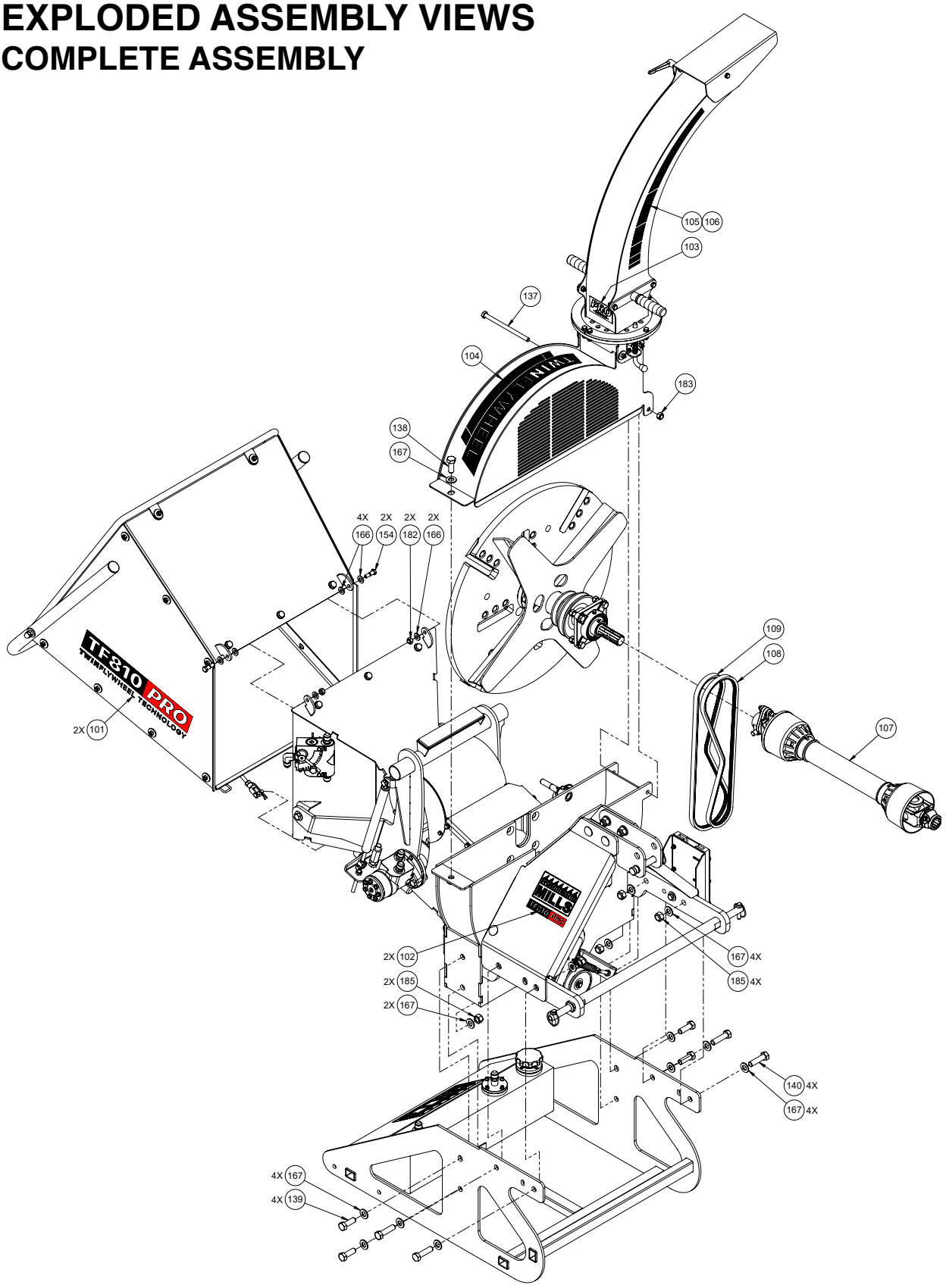
PARTS LIST

Item	Quantity		Part No.	Description
	14 hp	9.5 hp		
1	4	4	0001073	TRACK RAIL, 58.5 mm TALL
2	2	2	0001075	LOG BUNK, END
3	2	2	0001080	LOG BUNK, MID
4	1	1	0001084	LOG BUNK, CENTER
5	2	2	0001072	REINFORCEMENT PLATE, 90 X 200 mm
6	12	12	0001071	LEVELLING FOOT BASE
7	4	4	0001055	CARRIAGE STOP
8	1	1	0001062	LOG CLAMP SHAFT AND BRACKET WELDMENT

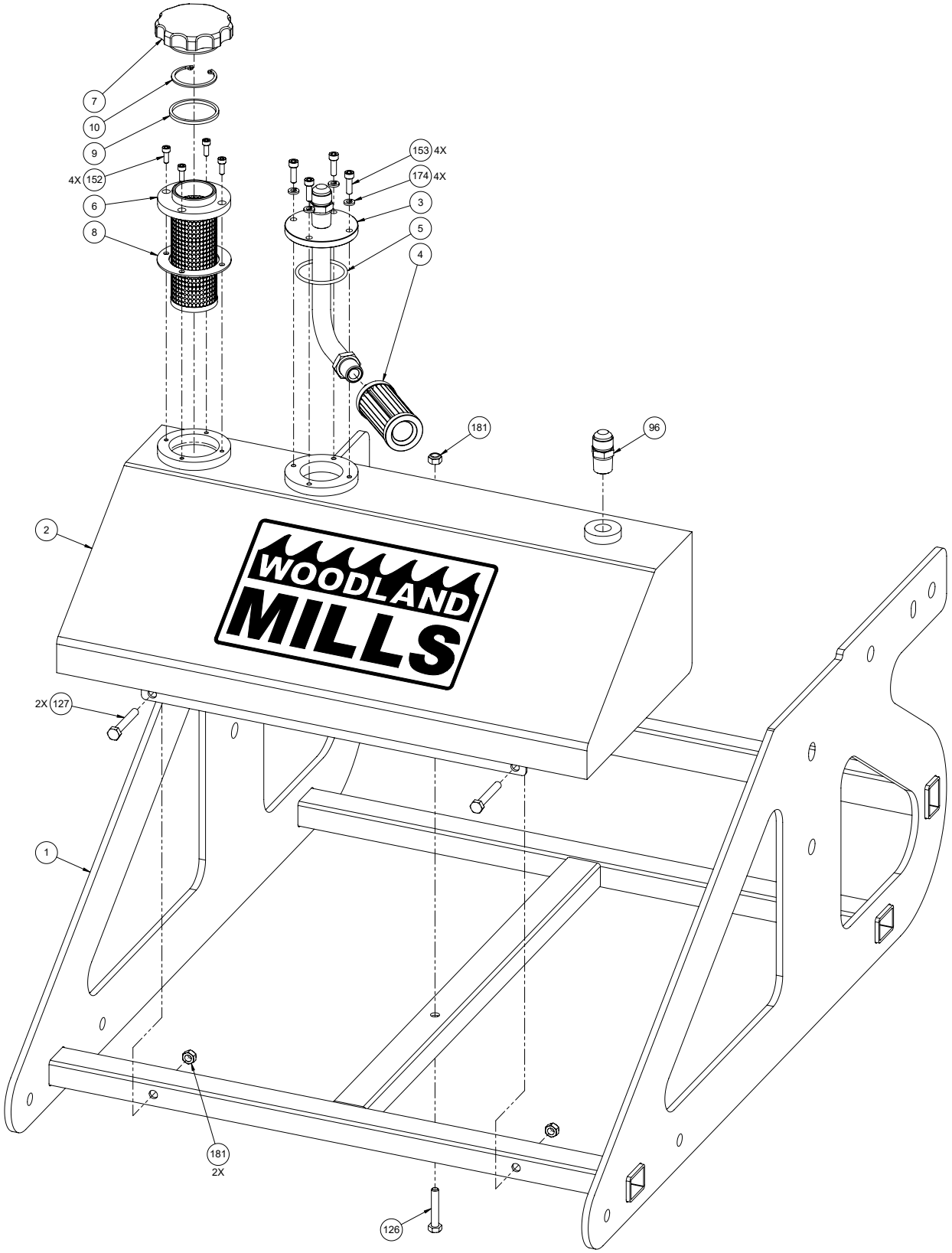
Record the part number (e.g. *0001071, HHB-MBM080FCJ, etc.*) in the "**Part No.**" column.

Contact Woodland Mills through the website or via phone/email. If possible, include the invoice or sales number from the purchased product so an associated account can be located. If the account has multiple addresses on file, please indicate to which address the replacement part(s) will be shipped.

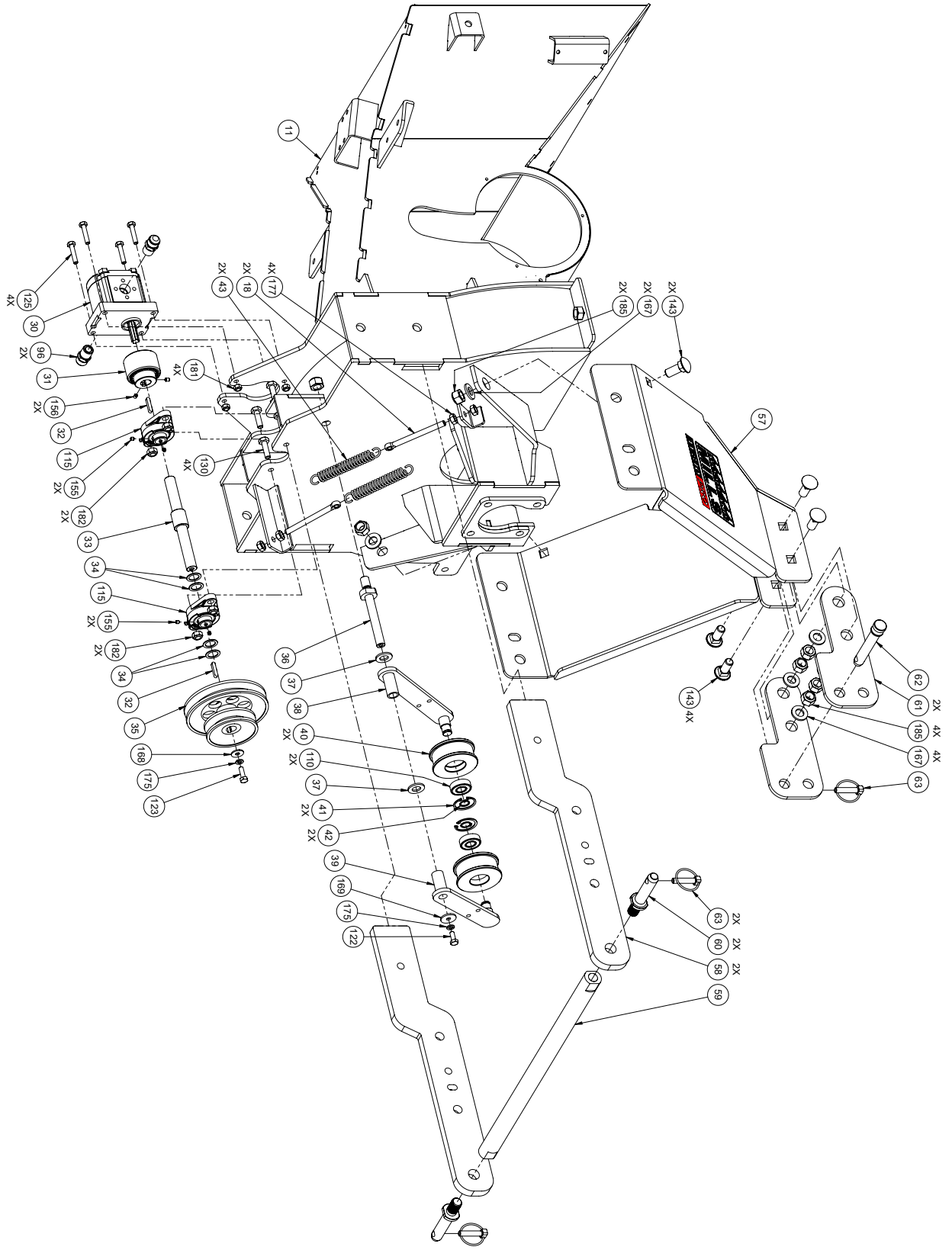
EXPLODED ASSEMBLY VIEWS
COMPLETE ASSEMBLY



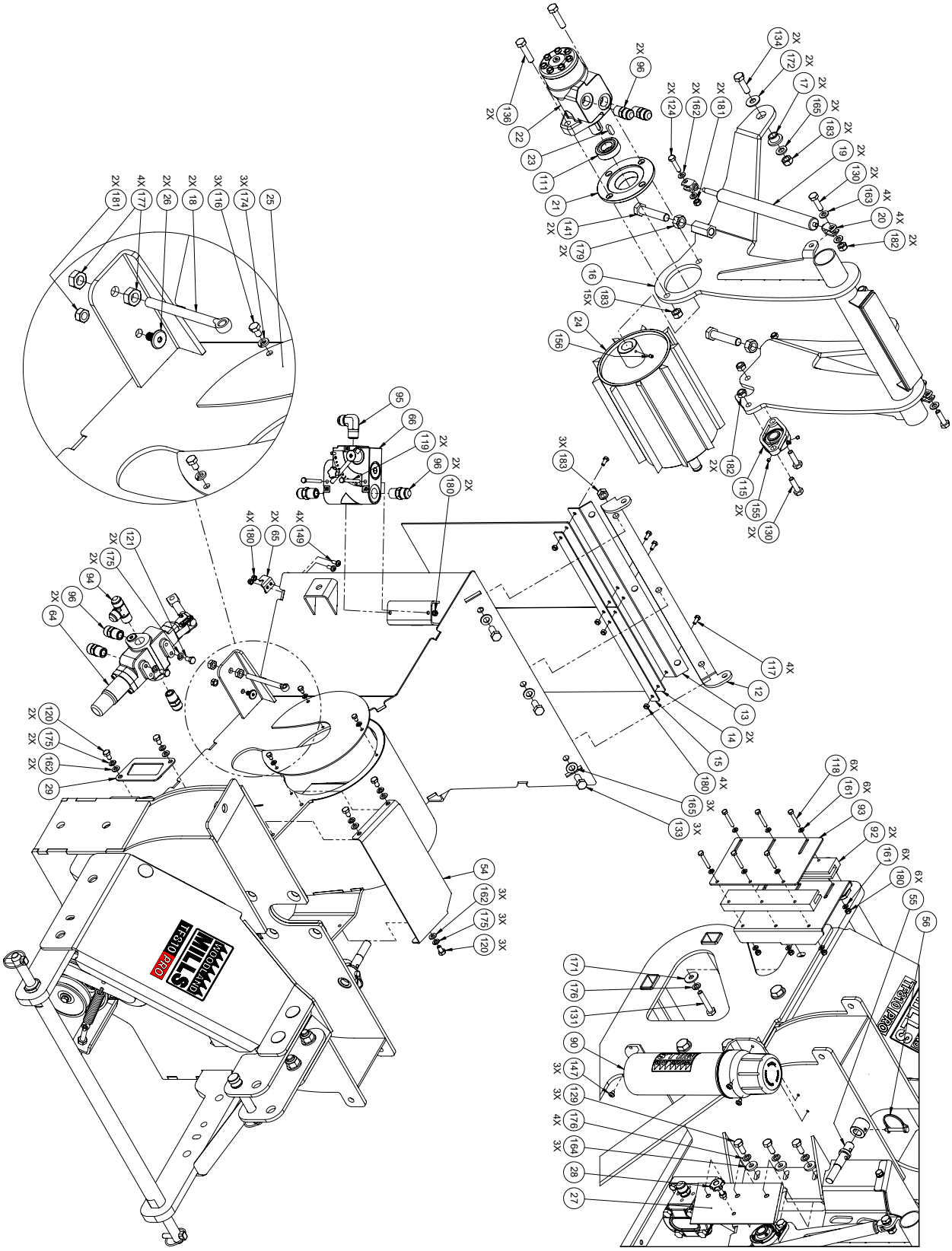
BASE



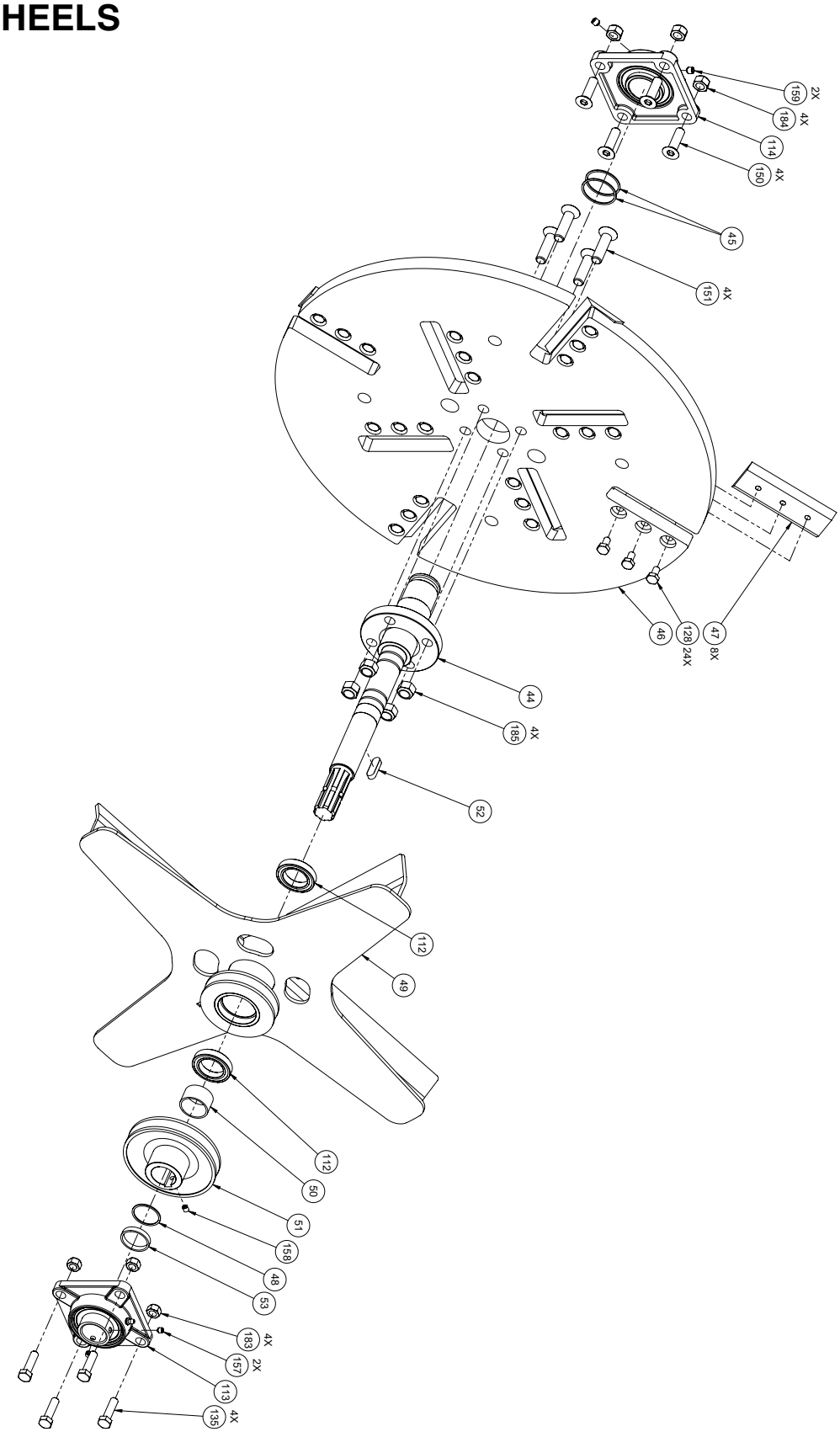
LOWER FLYWHEEL HOUSING [FRONT]



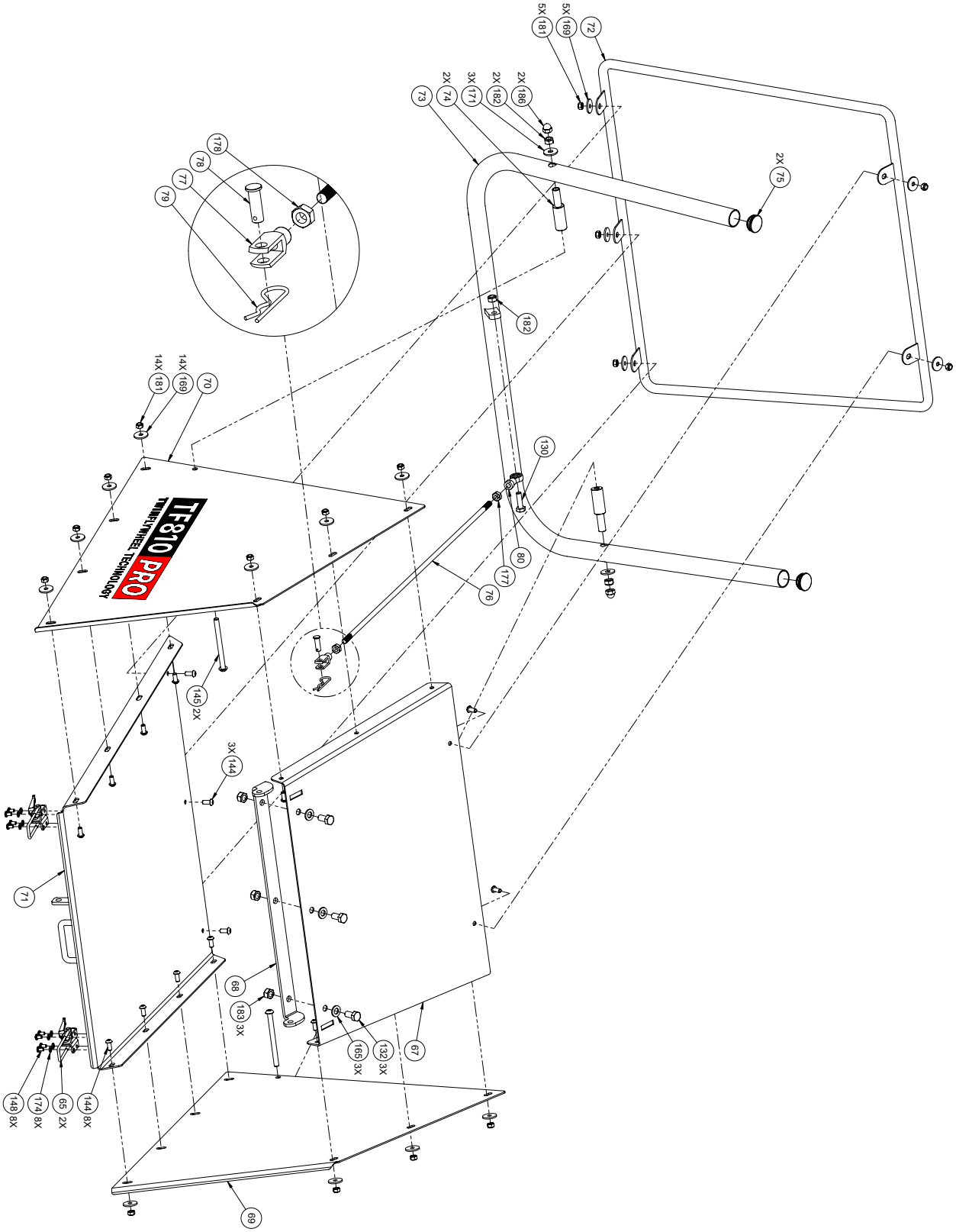
LOWER FLYWHEEL HOUSING [REAR]



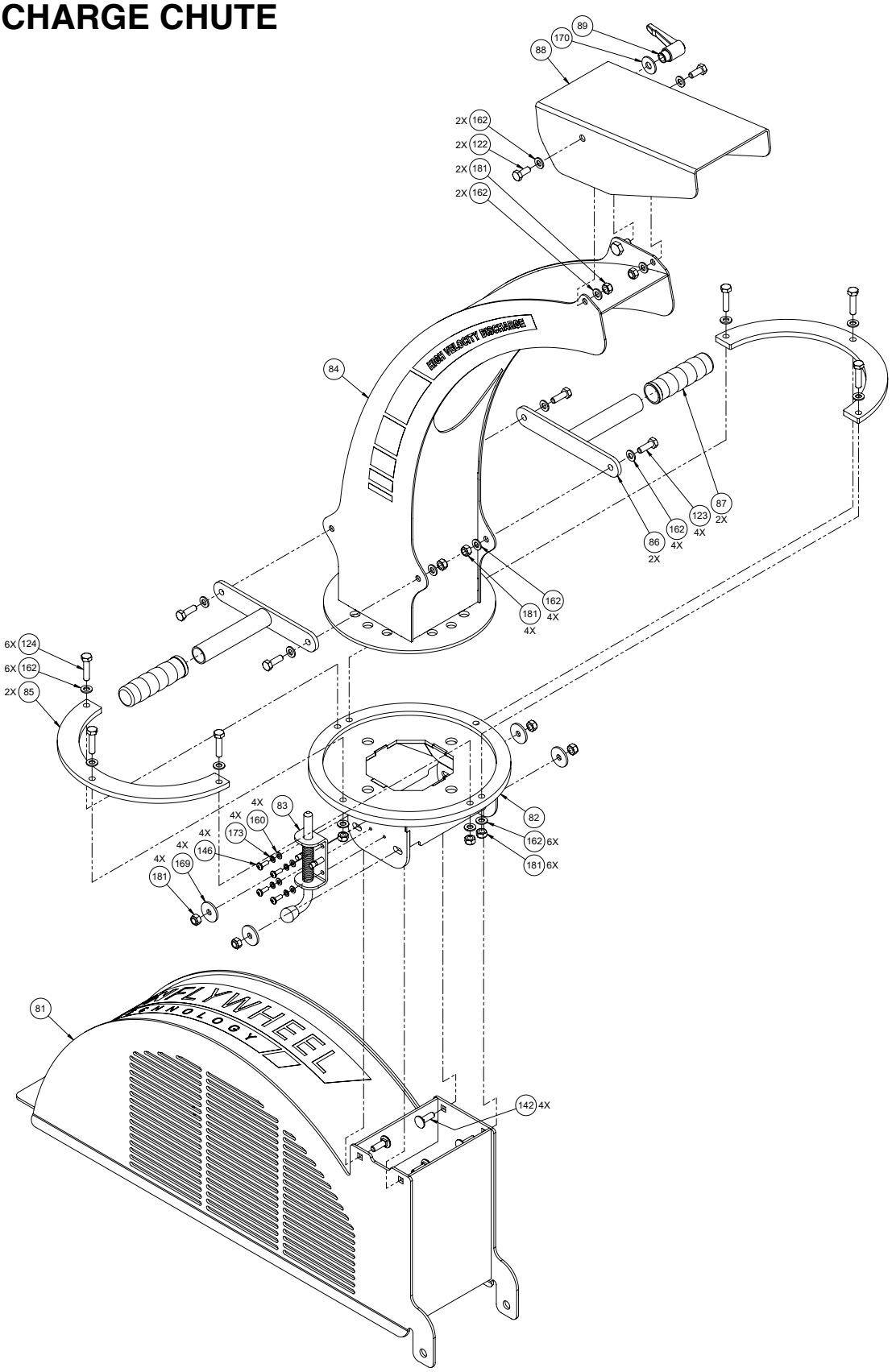
FLYWHEELS


159 2X
184 4X
114
150 4X
45
151 4X
46
128 24X
47 8X
44
185 4X
52
112
49
112
50
51
158
48
53
183 4X
157 2X
113
135 4X

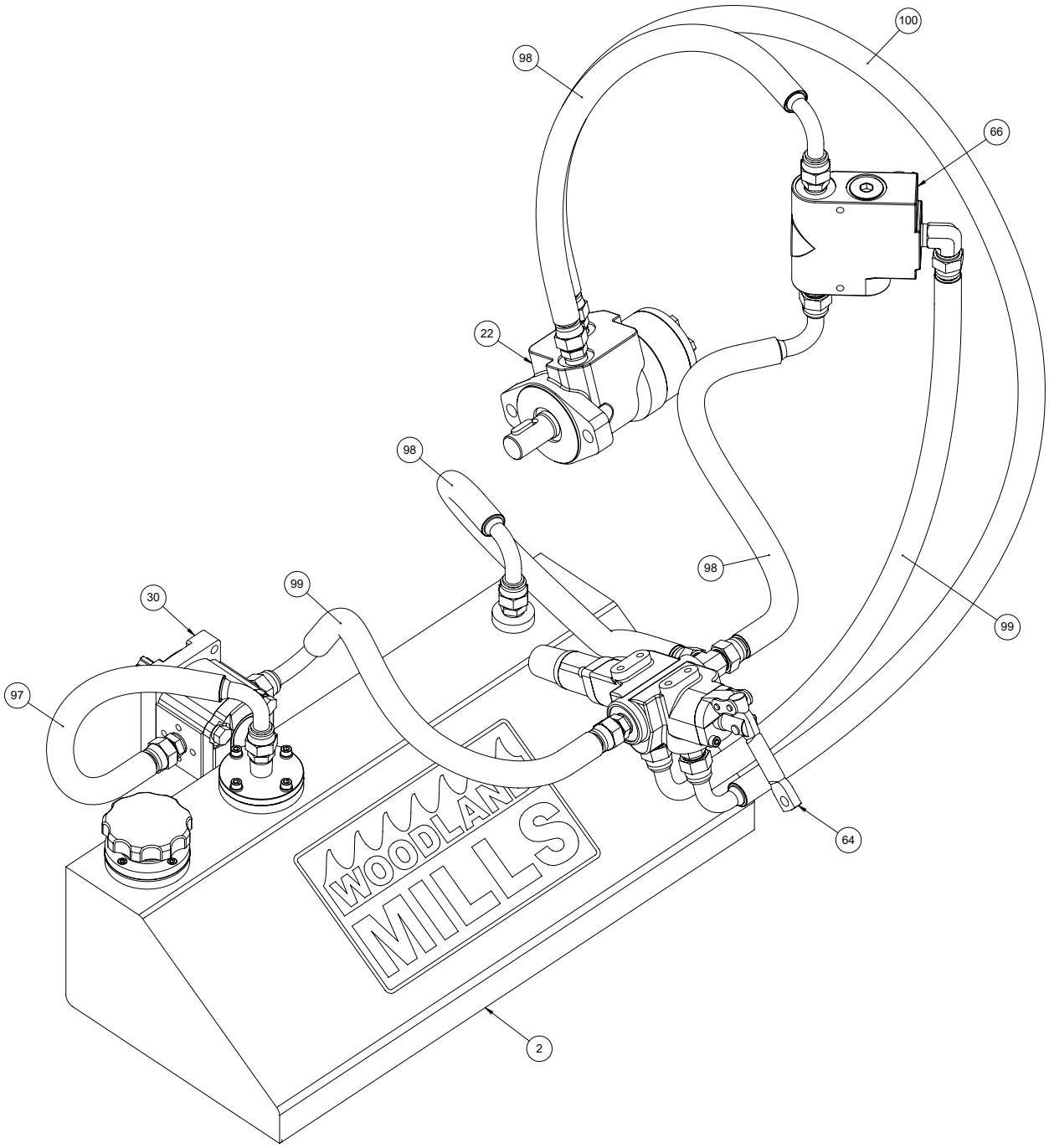
INFEED CHUTE



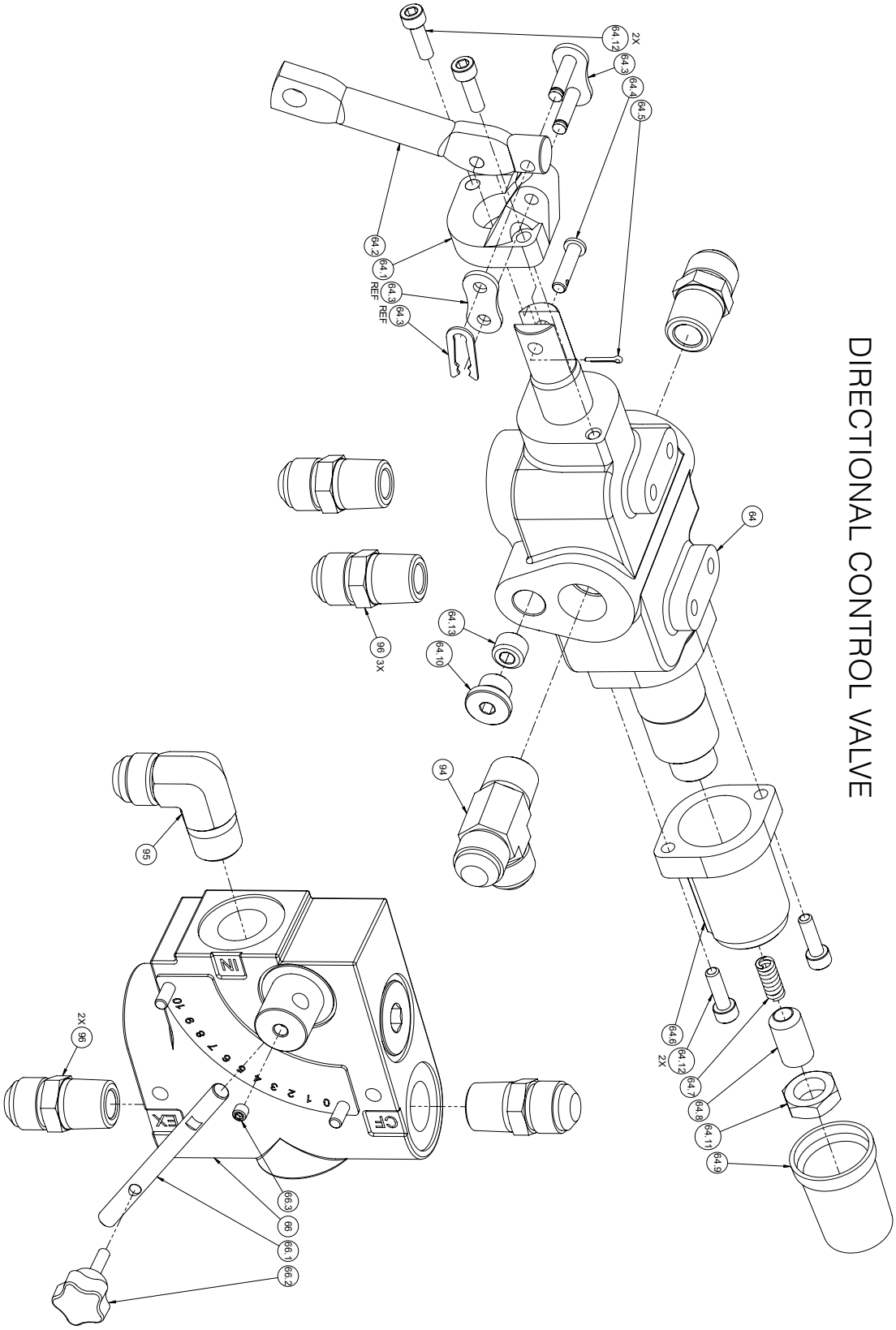
DISCHARGE CHUTE



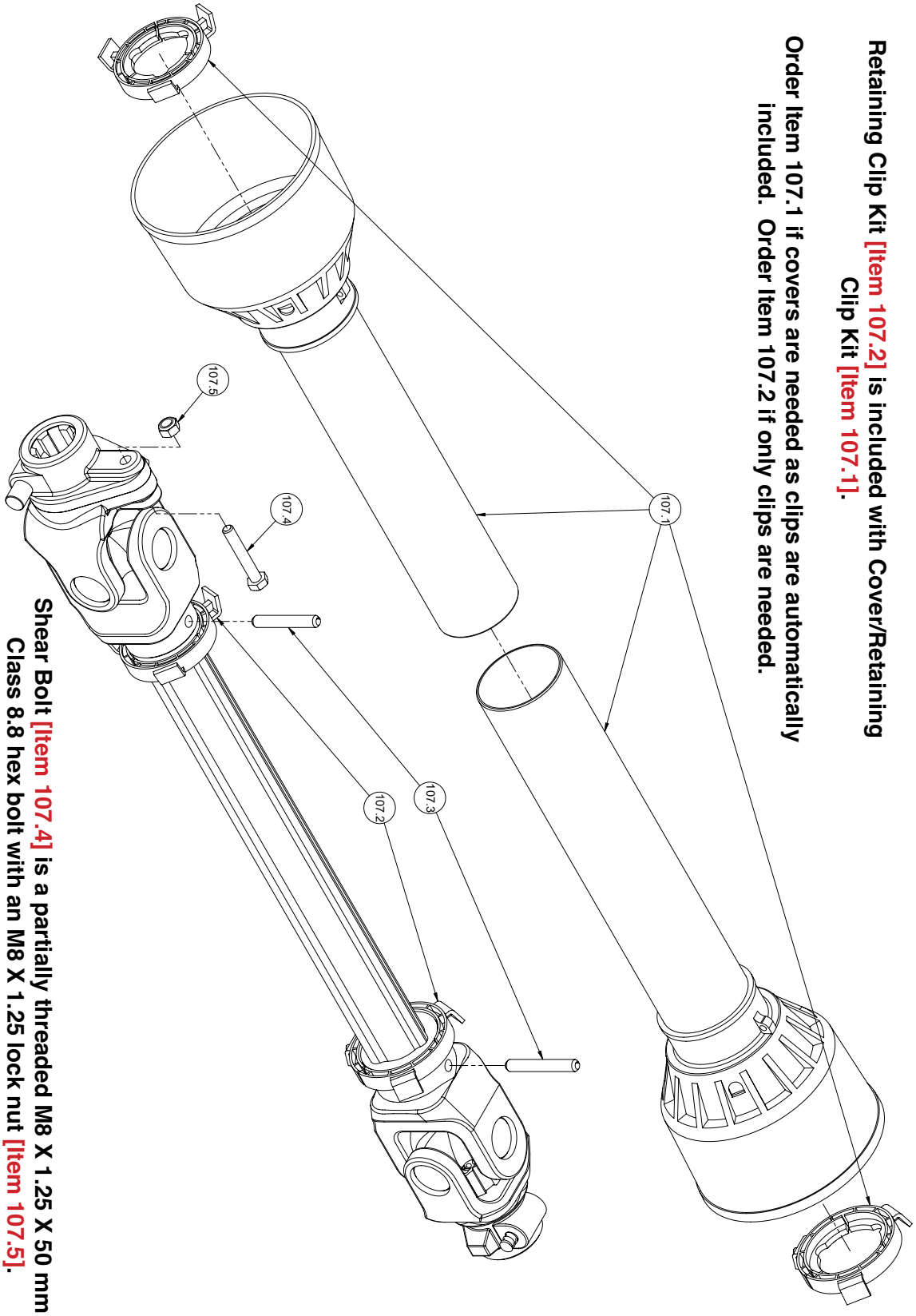
HYDRAULIC HOSES



CONTROL VALVES



PTO SHAFT



Retaining Clip Kit [Item 107.2] is included with Cover/Retaining Clip Kit [Item 107.1].

Order Item 107.1 if covers are needed as clips are automatically included. Order Item 107.2 if only clips are needed.

Shear Bolt [Item 107.4] is a partially threaded M8 X 1.25 X 50 mm Class 8.8 hex bolt with an M8 X 1.25 lock nut [Item 107.5].

Shear Bolt inch equivalent: partially threaded 5/16-18 X 2 in Grade 5 hex bolt with a 5/16-18 lock nut.

PARTS LIST

Item	Qty	Part No.	Description
1	1	0007085	BASE
2	1	0001168	HYDRAULIC TANK, 20 L [5.3 gal]
3	1	0001164	HYDRAULIC TANK INTAKE LINE
4	1	0001752	HYDRAULIC INTAKE FILTER, 1/2 NPT
5	1	0004841	O-RING, 50 mm ID / 57 mm OD, 3.5 mm THK
6	1	0005188	OIL SCREEN, 50 mm DIA X 120 mm LG SCREEN
7	1	0005183	OIL SCREEN CAP, 85 mm DIA, M48 X 2 THD
8	1	0005187	GASKET, OIL SCREEN, 55 mm ID
9	1	0005186	GASKET, OIL SCREEN CAP, 48 mm ID
10	1	0005185	RETAINING RING, INTERNAL, 46 mm BORE (48.5 mm GROOVE)
11	1	0007084	LOWER FLYWHEEL HOUSING
12	1	0006959	INNER HINGE, INFEED CHUTE
13	1	0006970	CURTAIN BRACKET
14	2	0006971	CURTAIN
15	1	0004582	CURTAIN PLATE
16	1	0007113	SWINGARM
17	2	0003846	SWINGARM PIVOT BUSHING, 4 mm SHOULDER
18	4	0006059	EYEBOLT, DIN444, M10 X 1.5, 120 mm LG
19	2	0008153	GAS SPRING, PULLING, 1100 N [247.3 lbf], 200 mm [7.87 in] STROKE, M8 X 1.25
20	4	0008204	CLEVIS ROD END, M8 X 1.25 THD, 10 mm ID, 10 mm JAW OPENING
21	1	0001179	HYDRAULIC MOTOR ADAPTER PLATE, 6205-2RS BEARING
22	1	0004862	HYDRAULIC MOTOR, CW, 240 cc [14.6 in^3/rev], 2-HOLE 1/2 in BSP.F OFFSET PORTS, 25 mm SFT
23	1	0004846	PARALLEL KEY, 8 X 7 mm, 25 mm LG
24	1	0004605	INFEED ROLLER
25	1	0001201	INFEED ROLLER COVER PLATE
26	2	0001733	STRIKE PLATE BOLT, 20 mm HEAD DIA, M8 X 1.25 THD
27	1	0003480	BED PLATE, 204 X 120 X 9.4 mm
28	1	0001191	KNOB, MULTI-LOBE, 32 mm OD, M8 X 1.25, 30 mm LG, M8 WLD HEX NUT
29	1	0007106	INSPECTION WINDOW COVER
30	1	0004868	HYDRAULIC GEAR PUMP, 10 mL/r, SPLINED SHAFT
31	1	0002185	FLEXIBLE SHAFT COUPLING, 20 mm SHAFT TO 12 mm SPLINED SHAFT
32	2	0004845	PARALLEL KEY, 6 X 6 mm, 32 mm LG
33	1	0003549	PUMP SHAFT
34	6	0002703	SPACER, 20 ID X 28 OD X 1.5 mm LG
35	1	0002194	V-BELT PULLEY, DUAL, 20 mm SHAFT, 160/100 mm DIA
36	1	0005561	IDLER PIVOT PIN, 16 mm DIA, 111.5 mm LG, M16 X 2 THD
37	2	0005560	SPACER, 17 ID X 32 OD X 3 mm LG
38	1	0005563	IDLER ARM, PADDLE FLYWHEEL BELT
39	1	0005562	IDLER ARM, PUMP BELT
40	2	0001692	IDLER PULLEY, SINGLE BEARING, 25 mm WD, 80 mm DIA
41	2	0004816	RETAINING RING, INTERNAL, 40 mm BORE (42.5 mm GROOVE)
42	2	0004798	RETAINING RING, EXTERNAL, 17 mm SHAFT (16.2 mm GROOVE)
43	2	0001192	EXTENSION SPRING, HOOK ENDS, 21 mm OD, 3 mm DIA WIRE, 100 mm LG
44	1	0003415	FLYWHEEL SHAFT
45	2	0001158	SPACER, 50.6 ID X 56 OD X 1.5 mm LG

Item	Qty	Part No.	Description
46	1	0004382	FLYWHEEL
47	8	0003484	FLYWHEEL BLADE, 154 X 69 X 8 mm, TAPPED
48	4	0001734	SPACER, 40.6 ID X 46 OD X 1.5 mm LG
49	1	0003407	PADDLE FLYWHEEL
50	1	0002705	SPACER, 40.6 ID X 46 OD X 26.7 mm LG
51	1	0002193	V-BELT PULLEY, 40 mm SHAFT, 150 mm DIA, 60 DIA X 45.5 mm LG COLLAR
52	1	0004850	PARALLEL KEY, 12 X 8 mm, 40 mm LG
53	1	0003858	SPACER, 40.6 ID X 46 OD X 7.75 mm LG
54	1	0004611	BEARING COVER
55	1	0001796	FLYWHEEL LOCKING PIN
56	1	0004728	LOCKING PIN, ROUND, 1/4 in DIA, 1-3/8 in USABLE LG, 2 in LG
57	1	0007086	BELT GUARD
58	2	0007088	3-POINT HITCH LOWER ARM
59	1	0006728	CONNECTING ROD
60	2	0007118	3-POINT HITCH PIN, LOWER, M20 X 2.5, 21 mm DIA, 65 mm USEABLE LG
61	2	0007036	3-POINT HITCH UPPER ARM
62	1	0001156	3-POINT HITCH PIN, UPPER, 19 mm DIA, 90 mm USEABLE LG
63	3	0004705	LINCH PIN, 10 mm DIA, 38 mm USABLE LG, 45 mm LG
64	1	0004872	DIRECTIONAL CONTROL VALVE, 1/2 NPT
64.1	1	0005487	ACTUATOR MOUNT, DIRECTIONAL CONTROL VALVE
64.2	1	0005486	ACTUATOR, 82 mm LG, DIRECTIONAL CONTROL VALVE
64.3	1	0005477	MASTER LINK, NO. 60 CHAIN
64.4	1	0005482	CLEVIS PIN, 6 mm DIA, 20 mm USABLE LG, 25 mm LG
64.5	1	0005483	COTTER PIN, 2 mm DIA, 10 mm LG
64.6	1	0005494	REAR COVER, DIRECTIONAL CONTROL VALVE
64.7	1	0005481	COMPRESSION SPRING, CLOSED GROUND ENDS, 8 mm OD, 1.5 mm DIA WIRE, 23 mm LG
64.8	1	0005489	ADJUSTMENT SCREW, M14 X 1.5, 25 mm LG, DIRECTIONAL CONTROL VALVE
64.9	1	0005488	CAP, DIRECTIONAL CONTROL VALVE
64.10	1	0007182	PRESSURE RELEASE PLUG, DIRECTIONAL CONTROL VALVE
64.11	1	THN-MBYCC	HEX NUT, THIN, CLS 4, M14 X 1.5
64.12	4	SHC-MBE075FCP	SHCS, CLS 12.9, M6 X 1, 20 mm LG, FULL
64.13	1	FTS-MBY059GR	SET SCREW, FLAT TIP, GR 45H, M14 X 1.5, 10 mm LG
65	2	0001304	LATCH-STYLE TOGGLE CLAMP
66	1	0004875	VARIABLE FLOW CONTROL VALVE, 1/2 in NPT, 0-16 gal/min
66.1	1	0007518	LEVER ARM, VARIABLE FLOW CONTROL VALVE
66.2	1	0007519	KNOB, MULTI-LOBE, 25 mm OD, M6 X 1, 20 mm LG
66.3	1	CPS-MBE051GR	SET SCREW, CUP POINT, GR 45H, M6 X 1, 6 mm LG
67	1	0006965	INFEED CHUTE TOP PANEL
68	1	0006973	OUTER HINGE, INFEED CHUTE
69	1	0008161	INFEED CHUTE LEFT SIDE PANEL
70	1	0008162	INFEED CHUTE RIGHT SIDE PANEL
71	1	0006967	INFEED CHUTE BOTTOM PANEL
72	1	0006968	ROUND EDGE BAR, INFEED CHUTE
73	1	0008160	CONTROL ARM, INFEED ROLLER
74	2	0008193	CONTROL ARM SPACER
75	2	0001781	PLASTIC END CAP, ROUND, 38 mm DIA
76	1	0001303	LINKAGE ROD, CONTROL ARM, 670 mm LG
77	1	0004834	CLEVIS ROD END, M10 X 1.5 THD, 10 mm ID, 10 mm JAW OPENING

Item	Qty	Part No.	Description
78	1	0004749	CLEVIS PIN, 10 mm DIA, 24 mm USABLE LG, 30 mm LG
79	1	0004760	COTTER PIN, HAIRPIN, 10-16 mm CLEVIS, 3 mm WIRE DIA
80	1	0004888	ROD END BEARING, 10 mm, M10 X 1.5 FEM THD
81	1	0004654	UPPER FLYWHEEL HOUSING
82	1	0003539	DISCHARGE CHUTE NOZZLE, 281.5 mm DIA
83	1	0001172	DISCHARGE CHUTE LOCK PIN ASSEMBLY, 12 mm DIA
84	1	0009210	DISCHARGE CHUTE
85	2	0009211	DISCHARGE CHUTE RETAINER PLATE, 281.5 mm DIA, BLACK
86	2	0009212	DISCHARGE CHUTE ROTATION HANDLE, 170 mm C-C, BLACK
87	2	0001030	HANDLE GRIP, GROOVED, 26 mm ID, 108 mm LG
88	1	0009213	DISCHARGE CHUTE DEFLECTOR
89	1	0001786	HANDLE, ADJUSTABLE POS, 78 X 54 mm, M10 X 1.5 FEM THD
90	1	0001655	MANUAL TUBE
91	1	0006813	CHAINSAW HOLDER BRACKET
92	2	0002361	NYLON GUIDE
93	1	0002363	CLAMPING PLATE
94	1	0004911	FITTING, TEE, 1/2 NPT TO 7/8-14 (2X)
95	1	0005115	FITTING, ELBOW, 90°, 1/2 NPT TO 7/8-14 THD
96	10	0005124	FITTING, ADAPTER, 1/2 in NPT MALE TO 7/8-14 UNF MALE
97	1	0003297	HYDRAULIC HOSE ASSEMBLY, STR AND ELB FITTINGS, 350 mm LG
98	3	0003298	HYDRAULIC HOSE ASSEMBLY, STR AND ELB FITTINGS, 500 mm LG
99	2	0003301	HYDRAULIC HOSE ASSEMBLY, STR AND ELB FITTINGS, 800 mm LG
100	1	0003302	HYDRAULIC HOSE ASSEMBLY, STR AND ELB FITTINGS, 1850 mm LG
101	2	0008935	LABEL, TF810 PRO TWIN FLYWHEEL TECHNOLOGY
102	2	0008936	LABEL, TF810 PRO W/ WOODLAND MILLS LOGO
103	1	0008937	LABEL, PRO SERIES
104	1	0008938	LABEL, TWIN FLYWHEEL TECHNOLOGY
105	1	0008939	LABEL, HIGH VELOCITY DISCHARGE
106	1	0008941	LABEL, HIGH VELOCITY DISCHARGE (REVERSE)
107	1	0001761	PTO SHAFT W/ SHEAR BOLT, TRIMMABLE, 31-38 in (790-973 mm)
107.1	1	0003069	COVER/RETAINING CLIP KIT, PTO SHAFT W/ SHEAR BOLT
107.2	1	0003073	RETAINING CLIP KIT, PTO SHAFT W/ SHEAR BOLT
107.3	1	0007511	SPRING PIN KIT, PTO SHAFT W/ SHEAR BOLT
107.4	1	HHB-MBJ105PCJ	HEX HEAD BOLT, CLS 8.8, M8 X 1.25, 50 mm LG, 22 mm LG THD
107.5	1	HLN-MBJCH	LOCK NUT, CLS 8, M8 X 1.25
108	1	BX48	V-BELT, COGGED, BX48
109	1	BX50	V-BELT, COGGED, BX50
110	2	6203-2RS	BALL BEARING, SEALED, 17 mm SFT, 40 mm HSG, 12 mm WD
111	1	6205-2RS	BALL BEARING, SEALED, 25 mm SFT, 52 mm HSG, 15 mm WD
112	2	6908-2RS	BALL BEARING, SEALED, 40 mm SFT, 62 mm HSG, 12 mm WD
113	1	UCF208	FLANGE BEARING, SQ, 4-BOLT, 40 mm SFT, 102 mm C-C
114	1	UCF210	FLANGE BEARING, SQ, 4-BOLT, 50 mm SFT, 111 mm C-C
115	3	UCFL204	FLANGE BEARING, OVAL, 2-BOLT, 20 mm SFT, 90 mm C-C
116	3	HHB-MBE059FCJ	HEX HEAD BOLT, CLS 8.8, M6 X 1, 10 mm LG, FULL
117	4	HHB-MBE069FCJ	HEX HEAD BOLT, CLS 8.8, M6 X 1, 15 mm LG, FULL
118	6	HHB-MBE095FCJ	HEX HEAD BOLT, CLS 8.8, M6 X 1, 40 mm LG, FULL
119	2	HHB-MBE115PCJ	HEX HEAD BOLT, CLS 8.8, M6 X 1, 60 mm LG, 18 mm LG THD
120	5	HHB-MBJ067FCJ	HEX HEAD BOLT, CLS 8.8, M8 X 1.25, 14 mm LG, FULL
121	2	HHB-MBJ071FCJ	HEX HEAD BOLT, CLS 8.8, M8 X 1.25, 16 mm LG, FULL

Item	Qty	Part No.	Description
122	3	HHB-MBJ075FCJ	HEX HEAD BOLT, CLS 8.8, M8 X 1.25, 20 mm LG, FULL
123	5	HHB-MBJ080FCJ	HEX HEAD BOLT, CLS 8.8, M8 X 1.25, 25 mm LG, FULL
124	8	HHB-MBJ090FCJ	HEX HEAD BOLT, CLS 8.8, M8 X 1.25, 35 mm LG, FULL
125	4	HHB-MBJ095FCJ	HEX HEAD BOLT, CLS 8.8, M8 X 1.25, 40 mm LG, FULL
126	1	HHB-MBJ100FCJ	HEX HEAD BOLT, CLS 8.8, M8 X 1.25, 45 mm LG, FULL
127	2	HHB-MBJ110PCJ	HEX HEAD BOLT, CLS 8.8, M8 X 1.25, 55 mm LG, 22 mm LG THD
128	24	HHB-MBM075FCJ	HEX HEAD BOLT, CLS 8.8, M10 X 1.5, 20 mm LG, FULL
129	3	HHB-MBM080FCJ	HEX HEAD BOLT, CLS 8.8, M10 X 1.5, 25 mm LG, FULL
130	9	HHB-MBM090FCJ	HEX HEAD BOLT, CLS 8.8, M10 X 1.5, 35 mm LG, FULL
131	1	HHB-MBM110FCJ	HEX HEAD BOLT, CLS 8.8, M10 X 1.5, 55 mm LG, FULL
132	3	HHB-MBR080FCJ	HEX HEAD BOLT, CLS 8.8, M12 X 1.75, 25 mm LG, FULL
133	3	HHB-MBR085FCJ	HEX HEAD BOLT, CLS 8.8, M12 X 1.75, 30 mm LG, FULL
134	2	HHB-MBR095FCJ	HEX HEAD BOLT, CLS 8.8, M12 X 1.75, 40 mm LG, FULL
135	4	HHB-MBR100FCJ	HEX HEAD BOLT, CLS 8.8, M12 X 1.75, 45 mm LG, FULL
136	2	HHB-MBR105FCJ	HEX HEAD BOLT, CLS 8.8, M12 X 1.75, 50 mm LG, FULL
137	1	HHB-MBR245PCJ	HEX HEAD BOLT, CLS 8.8, M12 X 1.75, 190 mm LG, 30 mm LG THD
138	1	HHB-MCA095FCJ	HEX HEAD BOLT, CLS 8.8, M16 X 2, 40 mm LG, FULL
139	4	HHB-MCA100FCJ	HEX HEAD BOLT, CLS 8.8, M16 X 2, 45 mm LG, FULL
140	4	HHB-MCA115PCJ	HEX HEAD BOLT, CLS 8.8, M16 X 2, 60 mm LG, 38 mm LG THD
141	2	HHB-MCA135PCJ	HEX HEAD BOLT, CLS 8.8, M16 X 2, 80 mm LG, 38 mm LG THD
142	4	SNC-MBJ080FCJ	CARRIAGE BOLT, SQ NECK, CLS 8.8, M8 X 1.25, 25 mm LG, FULL
143	6	SNC-MCA095FCJ	CARRIAGE BOLT, SQ NECK, CLS 8.8, M16 X 2, 40 mm LG, FULL
144	19	BHS-MBJ073FCM	BUTTON HEAD SCREW, CLS 10.9, M8 X 1.25, 18 mm LG, FULL
145	2	BHS-MBM175FCM	BUTTON HEAD SCREW, CLS 10.9, M10 X 1.5, 120 mm LG, FULL
146	4	PPH-MBA067FCE	SCREW, PPH, CLS 4.8, M5 X 0.8, 14 mm LG, FULL
147	3	PPH-MBE055FCE	SCREW, PPH, CLS 4.8, M6 X 1, 8 mm LG, FULL
148	8	PPH-MBE059FCE	SCREW, PPH, CLS 4.8, M6 X 1, 10 mm LG, FULL
149	4	PPH-MBE071FCE	SCREW, PPH, CLS 4.8, M6 X 1, 16 mm LG, FULL
150	4	HFH-MBW105FCM	SCREW, HFH, CLS 10.9, M14 X 2, 50 mm LG, FULL
151	4	HFH-MCA115FCM	SCREW, HFH, CLS 10.9, M16 X 2, 60 mm LG, FULL
152	4	SHC-MBA067FCP	SHCS, CLS 12.9, M5 X 0.8, 14 mm LG, FULL
153	4	SHC-MBE075FCP	SHCS, CLS 12.9, M6 X 1, 20 mm LG, FULL
154	2	HHS-MBM057069AJ	SHLDR SCREW, HEX HEAD, ALLOY, 11 X 15 mm LG SHLDR, M10 X 1.5 X 20 mm LG THD
155	6	KCS-MBE051GR	SET SCREW, KNURLED CUP POINT, GR 45H, M6 X 1, 6 mm LG
156	3	KCS-MBE055GR	SET SCREW, KNURLED CUP POINT, GR 45H, M6 X 1, 8 mm LG
157	2	KCS-MBK055GR	SET SCREW, KNURLED CUP POINT, GR 45H, M8 X 1, 8 mm LG
158	2	KCS-MBJ059GR	SET SCREW, KNURLED CUP POINT, GR 45H, M8 X 1.25, 10 mm LG
159	2	KCS-MBN059GR	SET SCREW, KNURLED CUP POINT, GR 45H, M10 X 1.25, 10 mm LG
160	4	FTW-MBA000AJ	FLAT WASHER, M5
161	12	FTW-MBE000AJ	FLAT WASHER, M6
162	33	FTW-MBJ000AJ	FLAT WASHER, M8
163	4	FTW-MBM000AJ	FLAT WASHER, M10
164	3	FTW-MBM165AJ	FLAT WASHER, DIN7349, M10, 4 mm THK
165	8	FTW-MBR000AJ	FLAT WASHER, M12
166	6	FTW-MBR000NA	FLAT WASHER, M12, NYLON
167	21	FTW-MCA000AJ	FLAT WASHER, M16
168	1	FDW-MBJ073000AJ	FENDER WASHER, M8, 24 mm OD
169	24	FDW-MBJ079000AJ	FENDER WASHER, M8, 30 mm OD

Item	Qty	Part No.	Description
170	1	FDW-MBM075000AJ	FENDER WASHER, M10, 26 mm OD
171	3	FDW-MBM079000AJ	FENDER WASHER, M10, 30 mm OD
172	2	FDW-MBR080000AJ	FENDER WASHER, M12, 31 mm OD
173	4	SLW-MBAAJ	SPLIT LOCK WASHER, M5
174	15	SLW-MBEAJ	SPLIT LOCK WASHER, M6
175	9	SLW-MBJAJ	SPLIT LOCK WASHER, M8
176	4	SLW-MBMAJ	SPLIT LOCK WASHER, M10
177	9	HXN-MBMCH	HEX NUT, CLS 8, M10 X 1.5
178	1	HXN-MBNCH	HEX NUT, CLS 8, M10 X 1.25
179	2	HXN-MCACH	HEX NUT, CLS 8, M16 X 2
180	16	HLN-MBECH	LOCK NUT, CLS 8, M6 X 1
181	46	HLN-MBJCH	LOCK NUT, CLS 8, M8 X 1.25
182	13	HLN-MBMCH	LOCK NUT, CLS 8, M10 X 1.5
183	15	HLN-MBRCH	LOCK NUT, CLS 8, M12 X 1.75
184	4	HLN-MBWCH	LOCK NUT, CLS 8, M14 X 2
185	17	HLN-MCACH	LOCK NUT, CLS 8, M16 X 2
186	2	ACN-MBMAJ	ACORN NUT, M10 X 1.5

NOTES

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