

Operator & Parts Manual **Model 818**



MANUFACTURER OF OUTDOOR POWER EQUIPMENT

Products for Turf & Lawncare, Rental, Construction, Tree Care, Wood Processing, Nursery & Farm Industries

3-1/2" - 18" Capacity, Gas, Diesel, & P.T.O. Wood/Brush Chippers

Gas & Electric Rollers - Tranz-Former - CRV Core Recovery Vehicle

Mini-Paver - Mini-Track Paver - Cobra Curber - Scorpion Router - Concrete Paver

Chipper Shredder Vacuums - Tailgate & Truckloader Vacuums

9 cu. yds. - 50 cu. yds. Per Hour, Electric, P.T.O. & Diesel Powered Shaving Mills

105 School House Road

Cheshire, CT 06410 U.S.A.

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MODEL 818 CHIPPER

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STATEMENT OF FACT

You have just purchased the highest quality, most dependable, Chipper, on the market today. This unit has the ability to meet exact standards and perform for years with minimum downtime. HOWEVER, it cannot read nor will it understand this manual no matter how long you leave it on top of the machine.

It is your responsibility to read and understand this manual; it is also your responsibility to be certain this information is passed along to anyone who is expected to operate this equipment. Should you choose not to read, understand and pass along the information provided you, please expect equipment failure and possible injuries to persons around this equipment.

For the safety of the operator, it is **imperative** that this manual is carefully read and understood.

Once you have read this manual, it is your responsibility to be sure that all new operators read and understand this manual, especially all cautions stated.

As a manufacturer of equipment, we have a responsibility to design a safe piece of equipment. NOTE: The important safeguards and instructions in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution, and care are factors, which cannot be built into any product. These factors must be supplied by the person(s) caring for and operating this equipment.

ONLY YOU CAN PREVENT ACCIDENTS!!

SPECIFICATIONS & FEATURES

The Model 818 is a single feed roll unit with an 18" x 18" infeed opening. Designed for mountains of brush and large branches, this chipper feeds up to a rate of 65' per minute, and is almost impossible to keep up with.. **Live Hydraulics, 9,000 lb. Heavy Duty Jack, Dual 5,000 lb. Capacity Axles, Electric Brakes, Wide Tires, 360° Exhaust Chute and Heavy Duty Fenders with Light Enclosures, are all part of the standard base unit.** The Model 818 has dual reversible, sharpenable bed knives and utilizes 1/2" thick double-sided chip blades. All tanks and boxes are lockable, and all tanks have drain plugs.

OPTIONS ARE AS FOLLOWS: (Click on the Specification tab below to view the full specifications and all the options that are available.)

- Lower Feed Roll (This option upgrades the single feed roll to a dual feed roll)
- Speed Sensing (Single Feed Roll Unit)
- Speed Sensing with Auto Reverse (Dual Feed Roll Unit)
- Hydraulic Feed Roll Lift with Down Pressure
- Safety Light Package
- Adjustable Height Exhaust Chute
- 360° Hand Crank Exhaust Chute
- Easy Adjust Exhaust Flap
- High Speed Winch
- Dirt Drop Infeed Grate
- Flashing Amber Warning Light
- Flashing Amber Warning Light Mount
- Fold Down Infeed Tray

MACHINE REGISTRATION

MANUFACTURED BY:

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THIS MANUAL COVERS MODEL (s): 818 Wood/Brush Chipper

This company reserves the right to discontinue, add improvements to, or change the design of any model or product at any time without obligation to improve existing machines, either by changing the design or adding new parts.

It has been and will continue to be the policy of SALSCO to update existing machines at its own discretion. Whenever possible, new designs will be made in such a way that they can be "Retro Fit" if so desired.

Record in the space provided below the model and serial number of this unit. Please retain these numbers for future reference.

No parts orders will be accepted **WITHOUT MODEL NUMBERS OR PART NUMBERS**. All part numbers are listed in this manual.

Serial Number

Model Number

NOTE: Be sure to complete your warranty card. This will insure immediate processing of any warranty claims.

READ AND UNDERSTAND THIS MANUAL BEFORE STARTING THE MACHINE

1/06

BRUSH CHIPPERS
ANSI Z133.1-2006
American National Standard for Arboricultural Operations
Safety Requirements

5.3 Brush Chippers

- 5.3.1 The items contained in section 5.1 shall always be included in the review of this section.
- 5.3.2 Access panels (for example, guards) for maintenance and adjustment, including discharge chute and cutter housing, shall be closed and secured prior to starting the engine of brush chippers. These access panels shall not be opened or unsecured until the engine and all moving parts have come to a complete stop (see Annex C, General Safety Procedures That Apply to All Tree Work).
- 5.3.3 Rotary drum or disc brush chippers not equipped with a mechanical infeed system shall be equipped with an infeed hopper not less than 85 inches (2.15 m) measured from the blades or knives to ground level over the center line of the hopper. Side members of the infeed hopper shall have sufficient height so as to prevent workers from contacting the blades or knives during operations.
- 5.3.4 Rotary drum or disc brush chippers not equipped with a mechanical infeed system shall have a flexible anti-kickback device installed in the infeed hopper to reduce the risk of injury from flying chips and debris.
- 5.3.5 Chippers equipped with a mechanical infeed system shall have a quick-stop and reversing device on the infeed system. The activating mechanism for the quick-stop and reversing device shall be located across the top, along each side, and close to the feed end of the infeed hopper within easy reach of the worker.
- 5.3.6 Vision, hearing, and/or other appropriate personal protective equipment shall be worn when in the immediate area of a brush chipper in accordance with section 3.4, Personal Protective Equipment.
- 5.3.7 Arborists, mechanics, and other workers shall not, under any circumstances, reach into the infeed hopper when the cutter disc, rotary drum, or feed rollers are moving.
- 5.3.8 When trailer chippers are detached from the vehicles, they shall be chocked or otherwise secured in place.
- 5.3.9 When in a towing position, chipper safety chains shall be crossed under the tongue of the chipper and properly affixed to the towing vehicle.
- 5.3.10 See section 8.6, Brush Removal and Chipping, for additional requirements.

BRUSH REMOVAL AND CHIPPING
ANSI Z133.1-2006
American National Standard for Arboricultural Operations
Safety Requirements

8.6 Brush Removal and Chipping

- 8.6.1 Traffic control around the jobsite shall be established prior to the start of chipping operations along roads and highways (see section 3.2, Traffic Control Around the Jobsite).
- 8.6.2 Brush and logs shall not be allowed to create hazards in the work areas.
- 8.6.3 To prevent an entanglement hazard, loose clothing, climbing equipment, body belts, harnesses, lanyards, or gauntlet-type gloves (for example, long-cuffed lineman's or welder's gloves) shall not be worn while operating chippers.
- 8.6.4 Personal protective equipment shall be worn when in the immediate area of chipping operations in accordance with section 3.4, Personal Protective Equipment, of this standard.
- 8.6.5 Training shall be provided in the proper operation, feeding, starting, and shutdown procedures for the chipper being used.
- 8.6.6 Maintenance shall be performed only by those persons authorized by the employer and trained to perform such operations.
- 8.6.7 Brush and logs shall be fed into chippers, butt or cut end first, from the side of the feed table center line, and the operator shall immediately turn away from the feed table when the brush is taken into the rotor or feed rollers. Chippers should be fed from the curb-side whenever practical.
- 8.6.8 The brush chipper discharge chute or cutter housing cover shall not be raised or removed while any part of the chipper is turning or moving. Chippers shall not be used unless a discharge chute of sufficient length or design is provided that prevents personal contact with the blades (see Annex C, General Safety Procedures That Apply to All Tree Work).
- 8.6.9 Foreign material, such as stones, nails, sweepings, and rakings, shall not be fed into chippers.
- 8.6.10 Small branches shall be fed into chippers with longer branches or by being pushed with a long stick.
- 8.6.11 Hands or other parts of the body shall not be placed into the infeed hopper. Leaning into or pushing material into infeed hoppers with feet is prohibited.
- 8.6.12 While material is being fed into the chipper infeed hopper chute, pinch points continually develop within the material being chipped and between the material and machine. The operator shall be aware of this situation and respond accordingly.
- 8.6.13 When feeding a chipper during roadside operations, the operator shall do so in a manner that prevents him or her from stepping into traffic or being pushed into traffic by the material that is being fed into the chipper.
- 8.6.14 When using a winch in chipper operations, the operator shall ensure that the winch cable is properly stored before initiating chipper operations.
- 8.6.15 Refer to section 5.3, Brush Chippers, for additional information.

OPERATING INSTRUCTIONS
Count your extremities before you start!
(Feet, hands, fingers, etc.)

NEVER – Run this machine without a dedicated operator to control the Forward/Reverse Handle

ALWAYS watch chipper shaft when starting machine or engaging the clutch. If the shaft does not begin to turn easily, stop the engine, and check for a piece of wood, that may be keeping the disc from turning. **Avoiding this procedure will cause clutch failure.**

1. Read the manual again.
2. Look at the finger decal and study it. These could be yours!
3. Be sure all guards are in place before starting the machine.
4. Set feed handle in reverse position (push towards machine).
5. Check engine oil and fuel levels, as per engine manufacturer specifications.
6. Be sure machine is on a dry, flat surface and it is secured from rolling.

HINT: BE SURE MACHINE IS NOT TOO CLOSE TO THE WOOD PILE. YOU NEED ROOM TO WORK AND MOVE AROUND.

7. Set engine just above idle and start motor. (Be sure to check that no one is around the machine. Only trained personnel should be allowed to operate or be around this machine.)
8. With machine just over idle and after the engine has warmed up, engage the clutch slowly.
9. Check the manual for the full throttle R.P.M. recommendations and bring your machine to that R.P.M.
10. You are ready to chip wood **as soon as you put your safety glasses and gloves on and insert your earplugs.**
11. Move the feed handle away from the machine. This will engage the feed roll.
12. Standing at the rear of the machine, looking at the hopper, feed the wood to the feed roll. Once the machine begins to pull in the branch, turn and walk away from the machine. The machine will draw the wood in without your help. Go get another piece and repeat the procedure.

HINT: The impeller weighs approximately 750-lbs, so **raise and lower the R.P.M. slowly.** This procedure will add life to your clutch, as well as the engine.

13. With large diameter pieces, it may be necessary to send in a smaller piece to start the feed rolls. Also, it may be necessary to monitor R.P.M. and back off on feed speed.
14. **MACHINE SHUTDOWN PROCEDURES:** Bring R.P.M. down to a full idle, and disengage the clutch. Let the engine run a few minutes to cool down and then shut down. Chipper flywheel will still be rotating.

**NEVER PERFORM ANY SERVICE OR MAINTENANCE, OR REMOVE ANY GUARDS
WHILE THE FLYWHEEL IS MOVING!**

OPERATING PROCEDURE HINTS

1. When operating machine, stand off to the side of the feed hopper when feeding wood into the machine. **NEVER STAND DIRECTLY IN FRONT OF THE FEED HOPPER WHEN FEEDING WOOD INTO THE MACHINE.**
2. When using the chipper and you have a short piece of wood bouncing around and not being grabbed by the feed roll, **LEAVE IT! DO NOT TRY TO PUSH IT THROUGH WITH ARMS OR LEGS!** The next limb will push it through.
3. When through with the job, let the engine run at full R.P.M., making sure **all the material has run through the machine before shutting it down.** This will prevent any injuries from flying debris when the machine is started up at the next job.
4. COUNT YOUR EXTREMITIES AGAIN. BE SURE THIS NUMBER MATCHES YOUR STARTING NUMBER.
5. There is nothing funny about this machine. It has no mercy and will not slow down.

- **STAY ALERT!**
- **PAY ATTENTION!**
- **KNOW YOUR FELLOW CO-WORKERS WHEREABOUTS AT ALL TIMES!**
- **NEVER LET ANYONE OPERATE THIS MACHINE WITHOUT THE PROPER TRAINING!**
- **REMEMBER, THIS MACHINE CAN CHIP UP A TELEPHONE POLE IN 1-MINUTE!**

SERVICE AND MAINTENANCE INSTRUCTIONS

A. CHECK PTO CLUTCH ADJUSTMENT. PASS THIS ALONG TO ALL SERVICE PERSONNEL! **REFER TO THE CLUTCH MANUAL.**

HINT: Improper adjustment of PTO clutch may shorten clutch life. Make sure adjustments are made properly.

NOTE: New clutches or new facings usually require several, frequent adjustments until the friction facing surfaces have “worn in”. The clutch friction facing will become glazed, and possibly permanently damaged if the clutch is permitted to slip.

NOTE: If your unit is equipped with a Fluid Coupler, following is a recommended list of oils to be used.

1. 10WT – Non-Detergent Oil
2. ISO32 – Hydraulic Oil
3. AW32 – Hydraulic Oil
4. VG32 – Hydraulic Oil

(Refer to the Fluid Coupler manual for further recommendations and maintenance)

B. IMPELLER REMOVAL PROCEDURE

1. Remove key from engine and disconnect battery cables.
2. Remove discharge elbow.
3. Remove pin lock and pivot top housing open.
4. Remove top housing half.
5. Remove belt guard.
6. Remove hydraulic pump. Leave hoses connected, just slide out of sleeve and lay on the side.
7. Loosen engine mounting bolts and back off slide pusher bolts. Loosen belt and remove.
8. Remove pulley from impeller shaft.
9. Remove top and bottom clevis pins from front feed wheel lift cylinder if unit is equipped with this option.
10. Loosen horizontal and vertical bed knives and slide them away from the impeller
11. Remove chip blades from impeller. (Follow procedure in service schedule, line item #4)
12. Connect lifting device to impeller. (Use bolt hole for chip blade and **KEEP IN MIND – WHEN CHOOSING A LIFTING DEVICE, THE IMPELLER WEIGHS APPROXIMATELY 750 –LBS.**)
13. Remove bolts from both flange bearings. Back off setscrews in bearings.
14. Carefully lift impeller out of machine.
15. Remove both flange bearings and all spacers from impeller.

C. INSTALLATION OF IMPELLER

1. Connect suitable lifting device to impeller and set in machine. **KEEP IN MIND – WHEN CHOOSING A LIFTING DEVICE, THE IMPELLER WEIGHS APPROXIMATELY 750 –LBS.** Be sure both shaft ends are clean and free of burrs. Bearing must slide freely on shaft.
2. Slide bearings on shaft and start the four bolts, rear bearing, two front bearing, two front bearings diagonally.
3. Tighten four bolts on rear bearing and two bolts on front bearing, diagonally.
4. Slide impeller toward rear of machine. Impeller hub should touch rear-bearing race.
5. Measure distance from impeller hub and front bearing race.
6. Remove front bearing slide shims over shaft to equal that distance **CAUTION: DO NOT ADD MORE SHIMS THAN ARE REQUIRED.** This could cause premature bearing failure. Reinstall front bearing.
7. With impeller shimmed and bearings tight, impeller should not slide front or rear.
8. Install all bearing mounting bolts with blue Loctite. Also, Loctite and tighten bearing set screws.
9. Install all chip blades. Be sure to use new hardware and Loctite each time blades are removed and reinstalled. (Follow procedure in service schedule, line item #4.)
10. Set bed knives and lock in place. **(.070 clearance between chip blades and bed knives).**
11. Reinstall top housing and discharge elbow. Be sure to use roll pin to keep housing aligned.
12. Install pulley. Be sure to use straight edge to line up pulley.

INSTALLATION OF IMPELLER (Continued from previous page)

13. Install belts and adjust to specs shown in service manual with discharge chute and impeller assembly.
14. Be sure to recheck pulley with straight edge.
15. Install pump and use Loctite.
16. Install belt guard.
17. Install front lift cylinder, if so equipped.
18. Check to be sure all guards are in place and all bolts and nuts have been installed and tightened to proper specs.
19. Connect battery cables and start engine.
20. Engage clutch slowly. Start impeller and check for noise or vibration.
21. Engage impeller and bring engine up to operating R.P.M. **DO NOT START UNIT WITHOUT ALL GUARDS IN PLACE.**
22. Test lift cylinder feed wheel if so equipped.
23. Lower feed wheel and bring engine to idle.
24. Shut down engine and put machine in neutral.
25. Once machine has come to a halt, re-grease bearings.
26. Send machine to work. It is ready!

REMEMBER! REMOVE KEY FROM ENGINE, DISCONNECT BATTERY CABLES AND LOCKOUT UNIT WHENEVER PERFORMING SERVICE AND MAINTENANCE.

D. TESTING HYDRAULIC FEED ROLL PRESSURE (See drawing on following page)

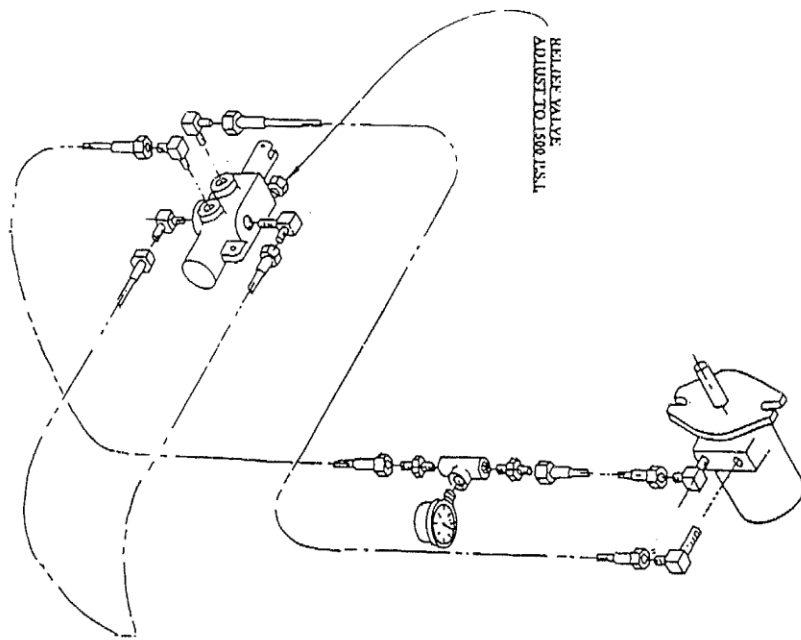
The following are instructions for checking and setting the pressure on the hydraulic feed roll. This should only be necessary if hydraulic components are changed or if the feed roll looks sluggish or seems to stop momentarily during normal feed function. This check should be made yearly to assure the maximum performance from your Salsco chipper.

Please call with any questions on this or any other problems.

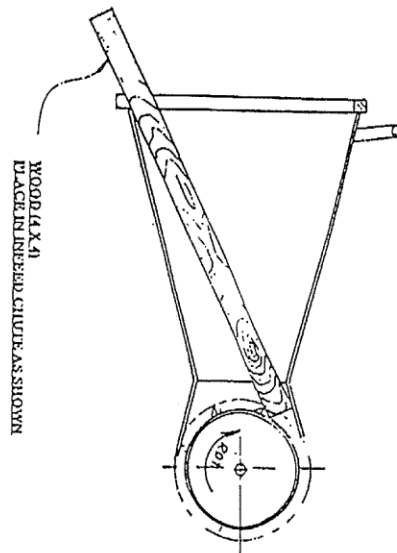
1. **With the motor off**, loosen the acorn nut at the pressure relief. Remove the cap and washer and set aside until later. Loosen the jamb nut and back the screw out counter clockwise 3-4 turns, at least.
2. If you have caps for the hoses, remove them at the drive motor and cap. **NOTE:** Be sure to mark the hoses for reassembly.

If you **do not have** the proper caps for the hydraulic lines, you can deadhead the system by wedging a piece of wood in the feed chute as shown. This will create system pressure.

3. Be sure the feed handle is in neutral and starts engine. Engage chipper section at low R.P.M. (1200 – 1300 R.P.M.)
4. Walk to rear of machine and move the feed handle to the feed position. Gauge should move and show a pressure increase.
5. If there is no pressure on gauge, turn relief screw in 1 – 2 turns. If no pressure on gauge, back screw off to start position. Stop machine. Shut down engine and put gauge in other line of valve.
6. Repeat start up procedure. Now pressure should show in gauge. Once pressure shows in gauge, raise engine R.P.M. to 2500 R.P.M. Turn screw clockwise until 1500 P.S.I. is reached on gauge. Put the control valve in neutral and tighten jamb nut. After jamb nut, acorn nut and washer have been replaced and tightened, check pressure again. Do not run over 1500 P.S.I.
7. Remove gauges, caps, wood, etc. and reassemble the machine the way it was when you started. Run and check all hoses for possible leaks.
8. Check the hydraulic tank. Replenish if necessary.



SET-UP FOR SETTING HYDRAULIC PRESSURE



E. SERVICE SCHEDULE

1. **Engine & Clutch adjustments** – follow service manual schedule set forth by the manufacturer in the engine and clutch manual.
2. **Grease** all main bearings once a day. **DO NOT OVER GREASE.** Wipe extra grease off bearings. Bearing under guards for feed rolls, need to be greased at least once a week. When removing the guards, check chain tension.
3. Be sure to **clean** the entire machine, especially around the engine after using. Should it become necessary to remove the exhaust chute, **REMOVE KEY FROM ENGINE. NEVER TURN ENGINE OVER WHILE EXHAUST CHUTE IS REMOVED.**
4. **Sharpen/change chipper blades:** Remove the engine key and remove spark plug wire (gas engines only). Be sure throttle is in off position and clutch is disengaged. Be sure to put a red lock out tag on this machine to warn others of pending danger. Be sure everything has stopped moving before removing any guards or before you start to work on this machine. Remove top pin from chipper housing access door and pivot housing open. This will allow access to impeller. Rotate impeller to a comfortable working position and tighten pusher screw against impeller. This will lock the impeller while you service the blades. Sharpen blades as evenly as possible, be sure to use Locktite, and tighten all bolts. A loose bolt coming out of this machine would be a large bullet. Should you drop a nut, bolt or blade in the housing you must retrieve it before you start up the machine. **HINT:** Salsco recommends replacement of nuts, bolts and washers, when replacing or sharpening chipper blades. The locking ability of these parts may have been violated. **HINT:** It is strongly recommended to have a set of blades, bolts, nuts and washers, on the shelf, to prevent downtime while blades are being sharpened. **HINT:** Blades need sharpening after approximately 8 – 15 hours of use.
5. **Bed knife adjustment** on hydraulic feed machine is .070. To adjust the vertical bed knife, remove access door on side of chip chamber and rotate impeller until blades pass in front of bed knife. Check with feeler gauge and set to .070. Repeat procedure for horizontal knife.
6. **Adjust infeed roll housing:** Remove both guards, pry housing front or rear, and shim behind nylon. Tighten up and remove play. Check chain adjustment on infeed roll assembly. Remove guards and adjust chain.
7. **Check belt for wear and/or adjustment:** Belt needs adjustment when belt is loose. Adjust belt as follows: Loosen four bolts holding engine and adjust engine to tighten belts. You must remove the belt guard for proper access to belts.
8. **Remove infeed hopper:** Infeed hopper is removable for maintenance or storage, but unit must **NEVER run without the hopper in place.** Connect chain hoist or lifting device of some sort and remove bolts. Now hopper can be stored.
9. **Remove feed roll box:** Periodically the feed roll assembly will require disassembly. Remove the tow hoses going to the drive motor. (Be sure to mark them for reassembly) Also, you must check the rotation of the feed roll upon reinstallation. Cap open hydraulic hoses. **Dirt is any hydraulic system enemy.** Connect chain hoist or lifting device to feed roll box assembly and remove from machine. The feed roll can now be worked on to make necessary repairs. When replacing the feed roll box, be sure to shim behind the nylon wear strips to remove endplay.

The following schedule is provided as a guide to regular service. We suggest that you fill in the service schedule provided with this manual. This unit will provide many years of dependable service if maintenance guides and schedules are followed. Should you have any questions about the service and maintenance on this unit, please either contact your Salsco Dealer or Salsco direct.

SERVICE SCHEDULE	AS NEEDED	DAILY	WEEKLY	MONTHLY
CHECK WHEEL BEARINGS	X			X
CHECK LUG NUTS	X			X
CHECK LIGHTS	X	X		
CHECK ENGINE OIL	X	X		
CLEAN MACHINE	X	X		
GREASE INFEED ROLL BEARING	X		X	
GREASE DISC SHAFT BEARING	X	X		
SHARPEN CHIPPER BLADES	X OR		X	
CHECK & ADJUST BED KNIFE	X OR		X	
CHECK & ADJUST ROLL HOUSING				X
CHECK TIRE AIR PRESSURE	X			X
CHECK ALL NUTS & BOLTS	X	X		
CHECK ENGINE BELT TENSION	X		X	
CHECK HYDRAULIC OIL	X			X
CHECK HYDRAULIC HOSES	X			X

10) Oil & Filter Type - It has been determined that your Salsco machine will perform better by using a 25 micron filter. Salsco recommends using Mobil DTE 26 or Citgo HYD 68, non-detergent hydraulic oil, or their equivalents. The oil should have a viscosity rating of at least 100 SSU. While this is not a necessity, it will improve the overall performance of your machine. Salsco is now using this filter and hydraulic oil on all our machines using hydraulics.

WHENEVER PERFORMING SERVICE ON ANY PIECE OF OUTDOOR POWER EQUIPMENT, A RED LOCKOUT TAG SHOULD BE PLACED ON THE UNIT.

Maintaining Your Power Take-Off

Keeping your twin disc over center clutch in good operating condition is easy if you know these guidelines. This Tech Tip will show you how to check your clutch for adjustment, how to adjust it, and how to keep it lubricated.

When to Adjust Your Clutch

The key to maintaining your clutch is knowing when to adjust it. Monitor the force necessary to engage your clutch. If the pressure requires to engage it drops 10-15%, your facings are wearing and your PTO needs adjustment.

How to Monitor Engagement Force

Recently, service people have developed an easy method to measure engagement force. They weld a socket on to one end of the cross shaft and use a torque wrench. This technique is so simple that it can be done as part of your daily maintenance. The chart below tells you when it is time to adjust your PTO.

Clutch Size	Engagement Force	Must Adjust At:
8"	65 - 72 ft. lbs.	55 ft. lbs.
10"	101 - 108 ft. lbs.	85 ft. lbs.
11 1/2"	108 - 115 ft. lbs.	91 ft. lbs.

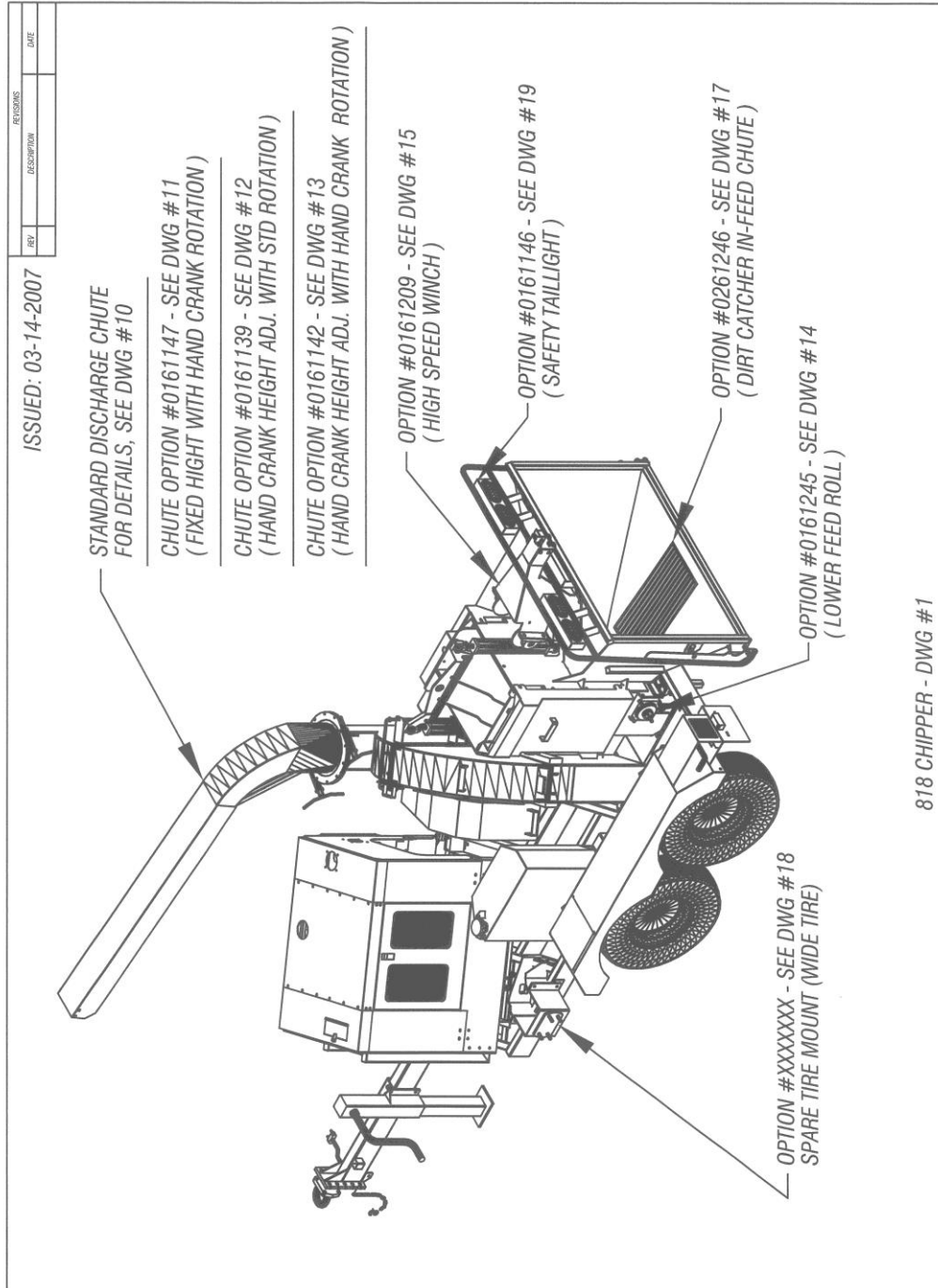
How to Adjust Your Clutch

Here are the steps to take: Disengage the clutch, remove the inspection plate and rotate the clutch to gain access to the adjusting ring lock. Then adjust to obtain the proper handle engagement force. When done, reposition the locking finger in a slot and tighten the adjustment lock bolt.

Lubricate Your Clutch

Use lithium base #2 grease prior to installation of your PTO. Grease the release bearings (if not sealed), the main bearings (rotate shaft by hand until the grease comes out), and the cross shaft. Once the PTO is installed, follow this schedule below.

Lubricating Schedule	
Bronze Release Bearings	Daily
Main Bearings	Every 100 Hours
PTO Cross Shaft	Every 500 Hours
Linkage and Levers	Use SAE 30 Synthetic every 500 Hours



***Call the factory for availability

ISSUED: 03-14-2007

REV	DESCRIPTION	DATE

ITEM	DESCRIPTION	PART NO	QTY
1	ENGINE	***	
2	ENGINE ENCLOSURE	***	
3	PTO CLUTCH, #3 BELL HOUSING	0337350	1
4	FLUID COUPLER (OPTION)	***	
5	FENDER, RIGHT	0216045	1
6	BRACKET, VALVE MOUNTING	0206839	
7	HANDLE, FWD / REVD POWER FEED	0223121	1

ITEM	DESCRIPTION	PART NO	QTY
8	ADJUSTER, VALVE	0201038	1
9	FWD / REVD ACTUATOR	0233192	1
10	CHUTE, INFEED	0226150	1
11	DIRT CATCHER CRATED IN-FEED CHUTE	0261246	1
12	AXLE, #12 TORFLEX	0302094	2
13	TIRE / WHEEL ASSY	0354137 0354045	4
14	FENDER, LEFT	0216046	1
15	FRAME, ENGINE MOUNTING	0219330	1

818 CHIPPER - DWG #2

ITEM	DESCRIPTION	PART NO	QTY
1	TOWFRAME, BASE	0219328	1
2	TANK, FUEL	0252088	1
3	CAP, GAS/OIL FILL LOCKING	0271024	2
4	BOX, TOOL	0280002	1
5	COVER, TOOL BOX	0271021	1
6	TANK, HYDRAULIC	0252089	1
7	GUARD, BELT-ENGINE SIDE	0221444	1

ITEM	DESCRIPTION	PART NO	QTY
8	GUARD, BELT- IMPELLER SIDE	0221432	1
9	PANEL, BELT GUARD-BOTTOM	0239885	1
10	BATTERY, 12 VOLT	0315122	1
11	TOP POST TERMINAL	0315058	2
12	BATTERY CABLE, 2 GA. - (BLACK)	STOCK	1
13	BATTERY CABLE, 2 GA. - (RED)	STOCK	1
14	BOX, BATTERY	0280001	1
15	COVER, BATTERY BOX	0271020	1

ISSUED: 03-14-2007

818 CHIPPER - DWG #3

REV	DESCRIPTION	DATE

ITEM		DESCRIPTION	PART NO	QTY
1		BASE, TOWFRAME	0219328	1
2		BLADE, VERTICAL BED KNIFE	0405131	1
3		BLADE, HORIZONTAL BED KNIFE	0405130	1
4		DOOR, BED KNIFE ACCESS	0260058	1
5		CHUTE, INFEED	0226150	1
6		HOUSING, IMPELLER - LOWER	0228245	1
7		BLADE, CHIP	0305090	10
8		FLAT HD, SOCKET CAP SCREW	0346488	20

ITEM		DESCRIPTION	PART NO	QTY
9		SPLIT LOCK WASHER	0353017	20
10		NUT, STOVER	0338154	20
11		PIN, HINGE- LOWER HOUSENG	0440034	1
12		HOUSING, IMPELLER-UPR REMOVABLE	0228250	1
13		PIN, HOUSING LOCKING	0240118	1
14		HOUSING, IMPELLER - UPPER FIXED	0228249	1
15		SHAFT / IMPELLER	0248232	1

ISSUED: 03-14-2007

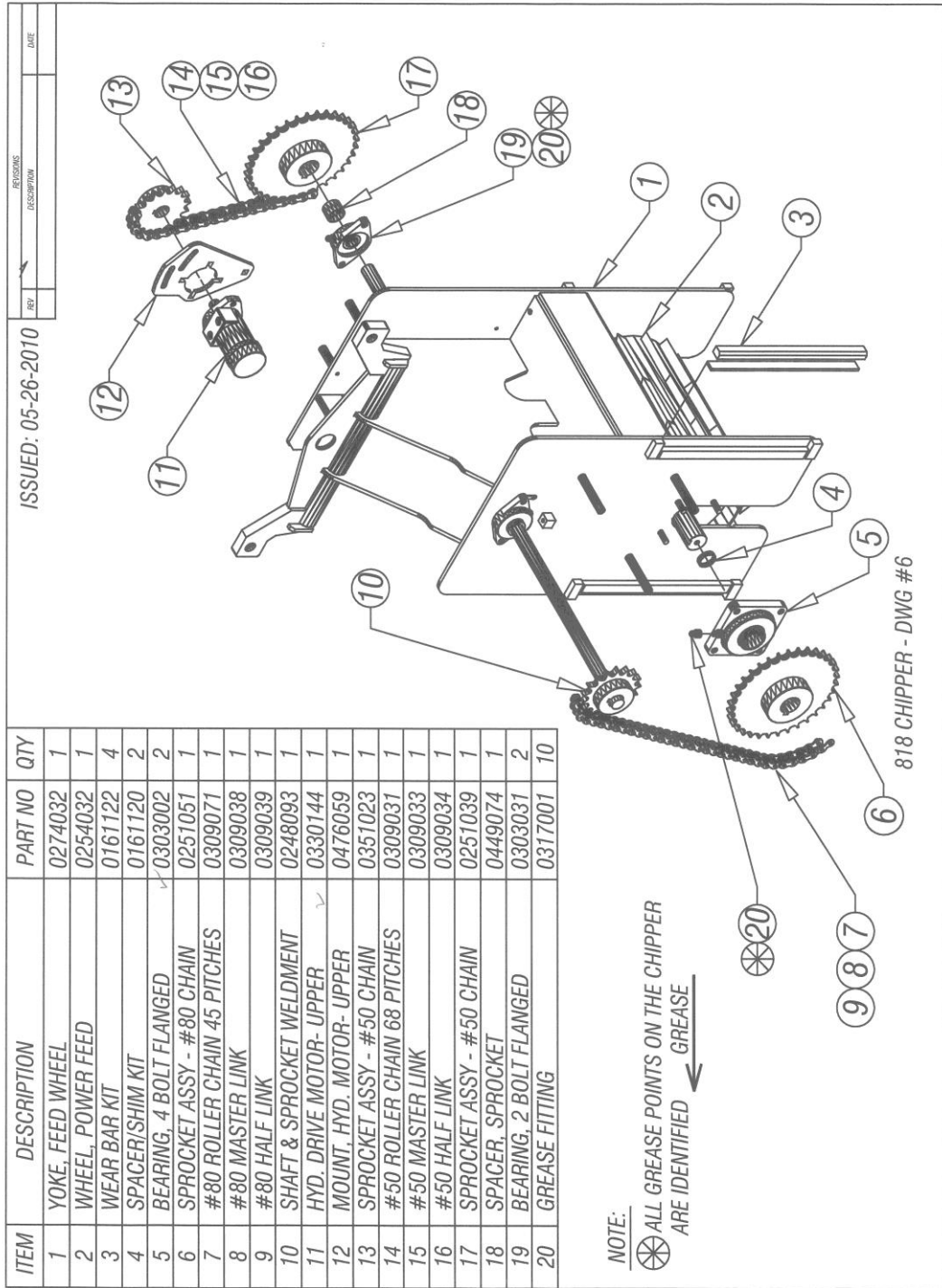
818 CHIPPER - DWG #4

ITEM	DESCRIPTION	PART NO	QTY
1	BASE, TOWFRAME	0219328	1
2	HOUSING, IMPELLER - LOWER	0228245	1
3	YOKE, FEED ROLL	0274032	1
4	CYLINDER, HYDRAULIC	0330170	2
5	GUARD, CHAIN OUTER - RIGHT	0221451	1

ISSUED: 03-14-2007

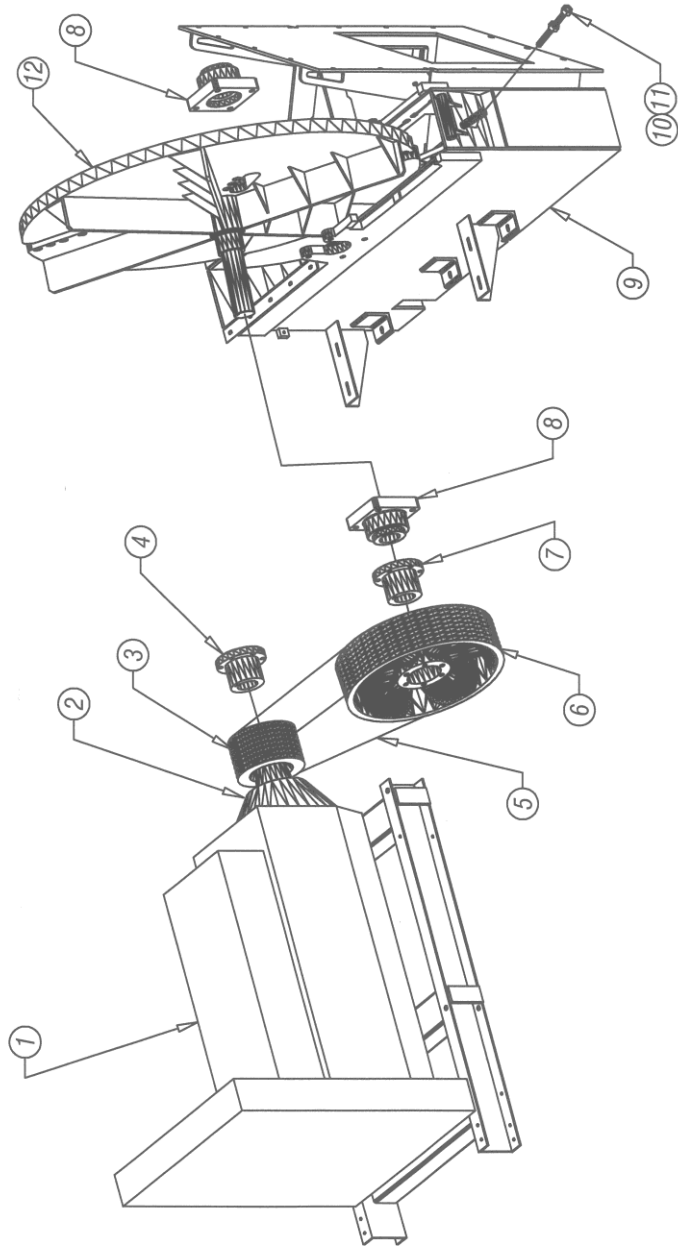
ITEM	DESCRIPTION	PART NO	QTY
6	SUPPORT, YOKE - RIGHT	0277215	1
7	GUARD, INNER CHAIN - RIGHT	0221450	1
8	GUARD, INNER CHAIN - LEFT	0221448	1
9	SUPPORT, YOKE - LEFT	0277214	1
10	GUARD, OUTER - LEFT	0221452	1

818 CHIPPER - DWG #5

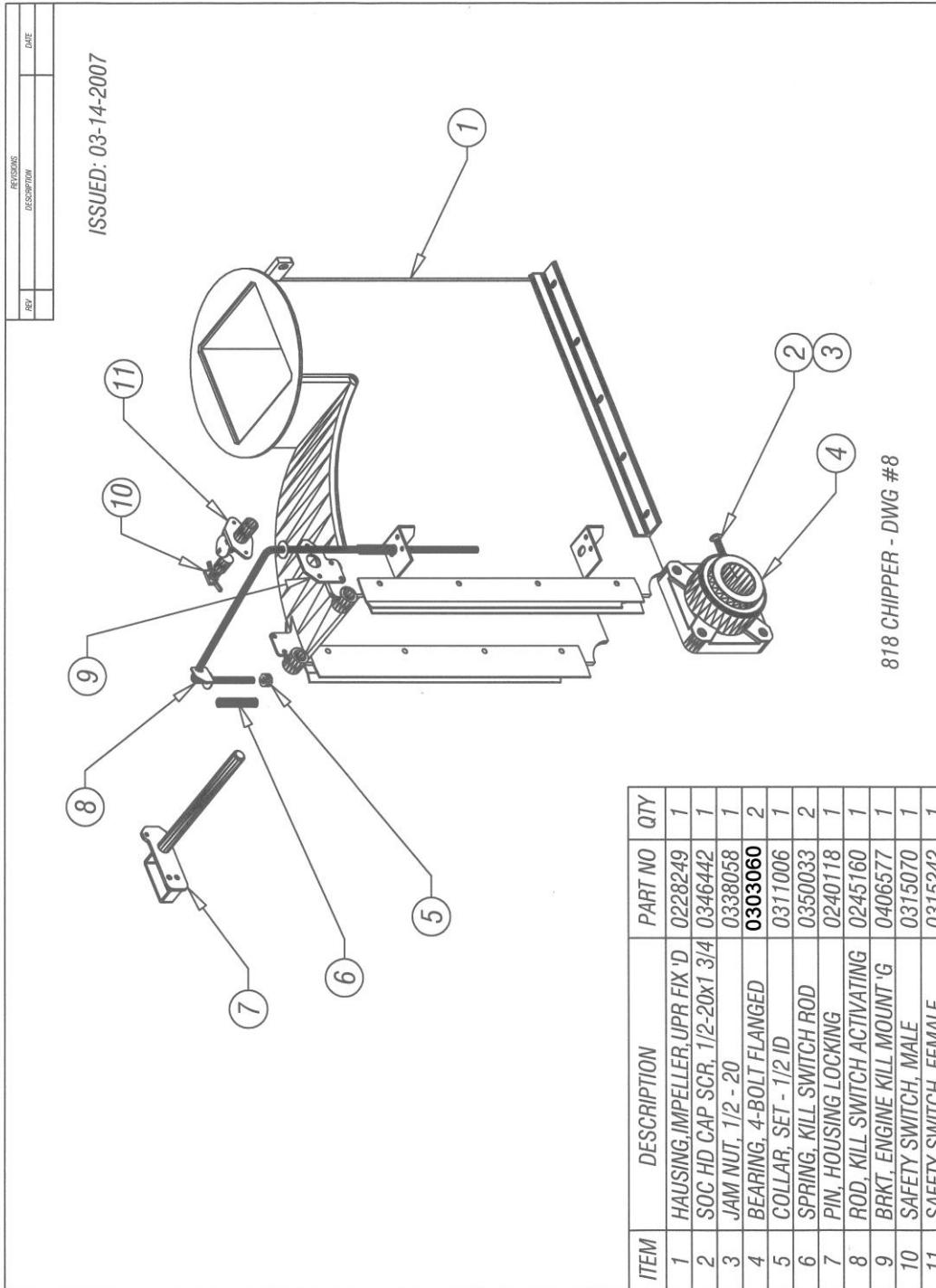


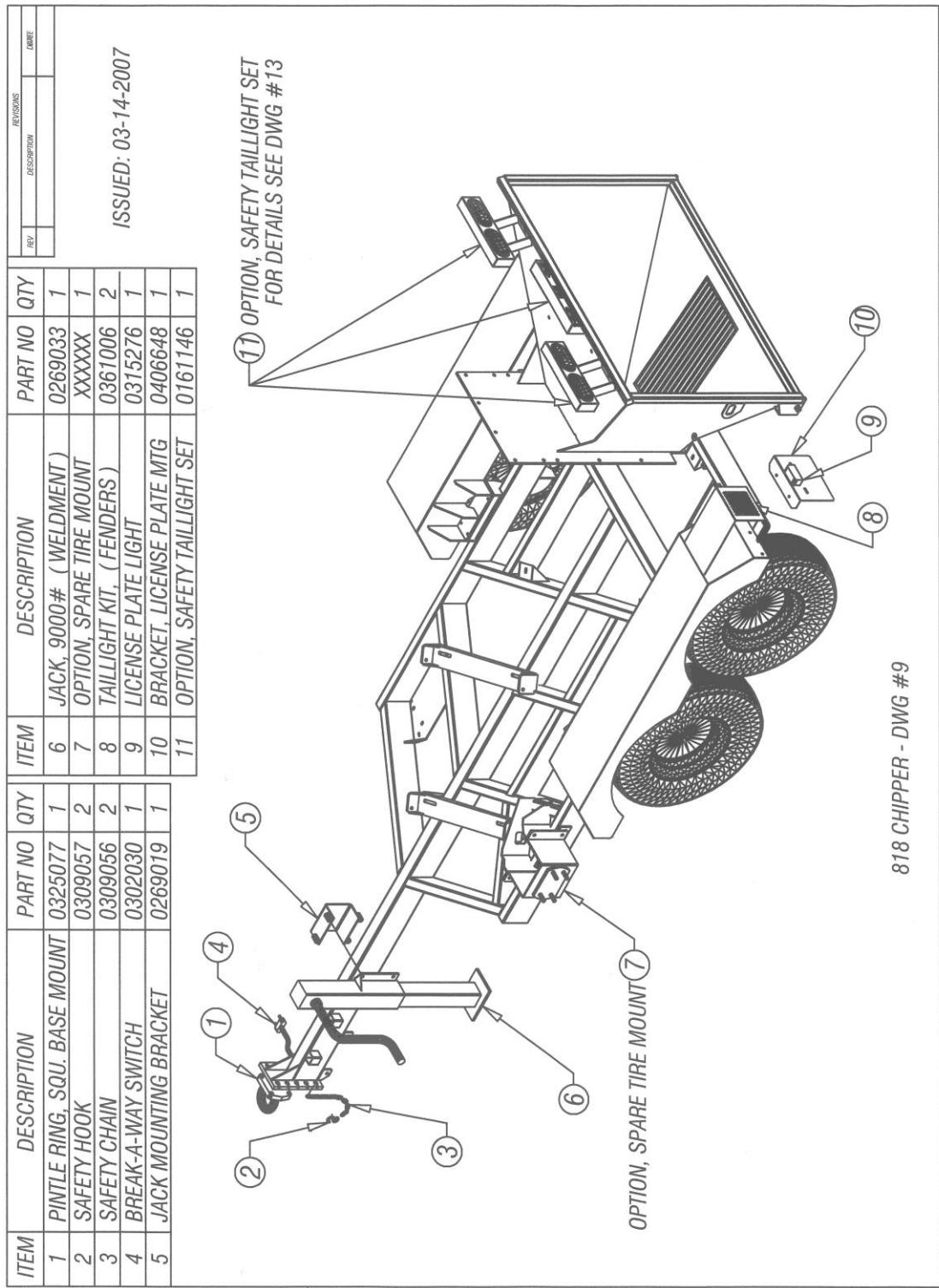
ITEM	DESCRIPTION	PART NO	QTY	ITEM	DESCRIPTION	PART NO	QTY	REVISIONS	
								REV	DATE
1	ENGINE, 127 HP CATERPILLA	0337379	1	7	BUSHING, IMPELLER SHEAVE	0342174	1		
2	PTO CLUTCH, #3 BELL HOUSING	0337350	1	8	BEARING, 4-BOLT FLANGED	0303060	2		
3	6.7" SHEAVE, 5V SECTION	0342126	1	9	HOUSING, IMPELLER - LOWER	0342144	1		
4	BUSHING, FOR 6.7" ENG. SHEAVE	0303060	1	10	STOP IMPELLER- 3/4-10 x 9" LG	STOCK	1		
5	BELT, MOTOR TO IMPELLER	0304109	5	11	HEX NUT- 3/4-10	0338033	2		
6	SHEAVE, IMPELLER	0342073	1	12	SHAFT/ IMPELLER	0248232	1		

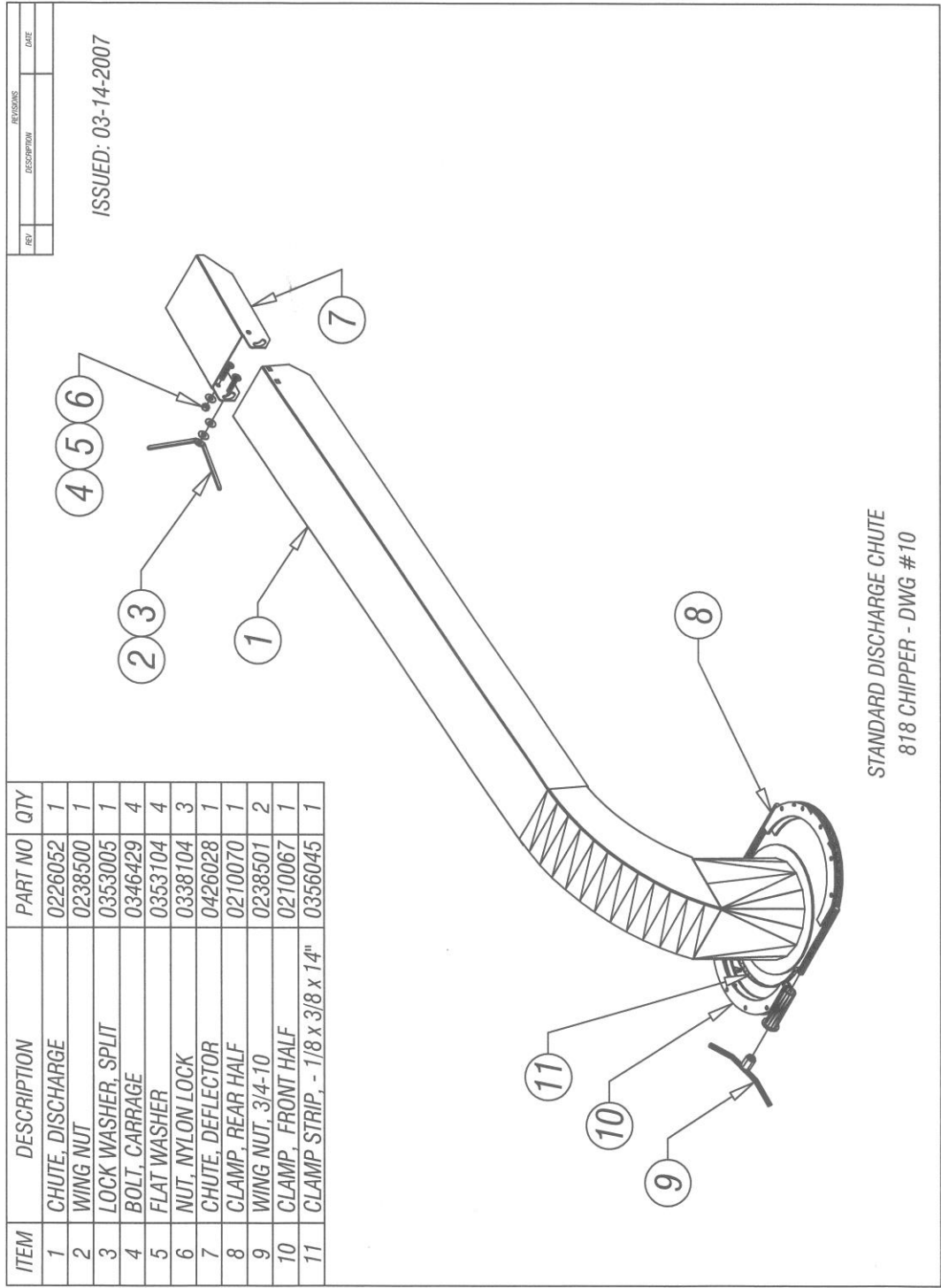
ISSUED: 03-14-2007

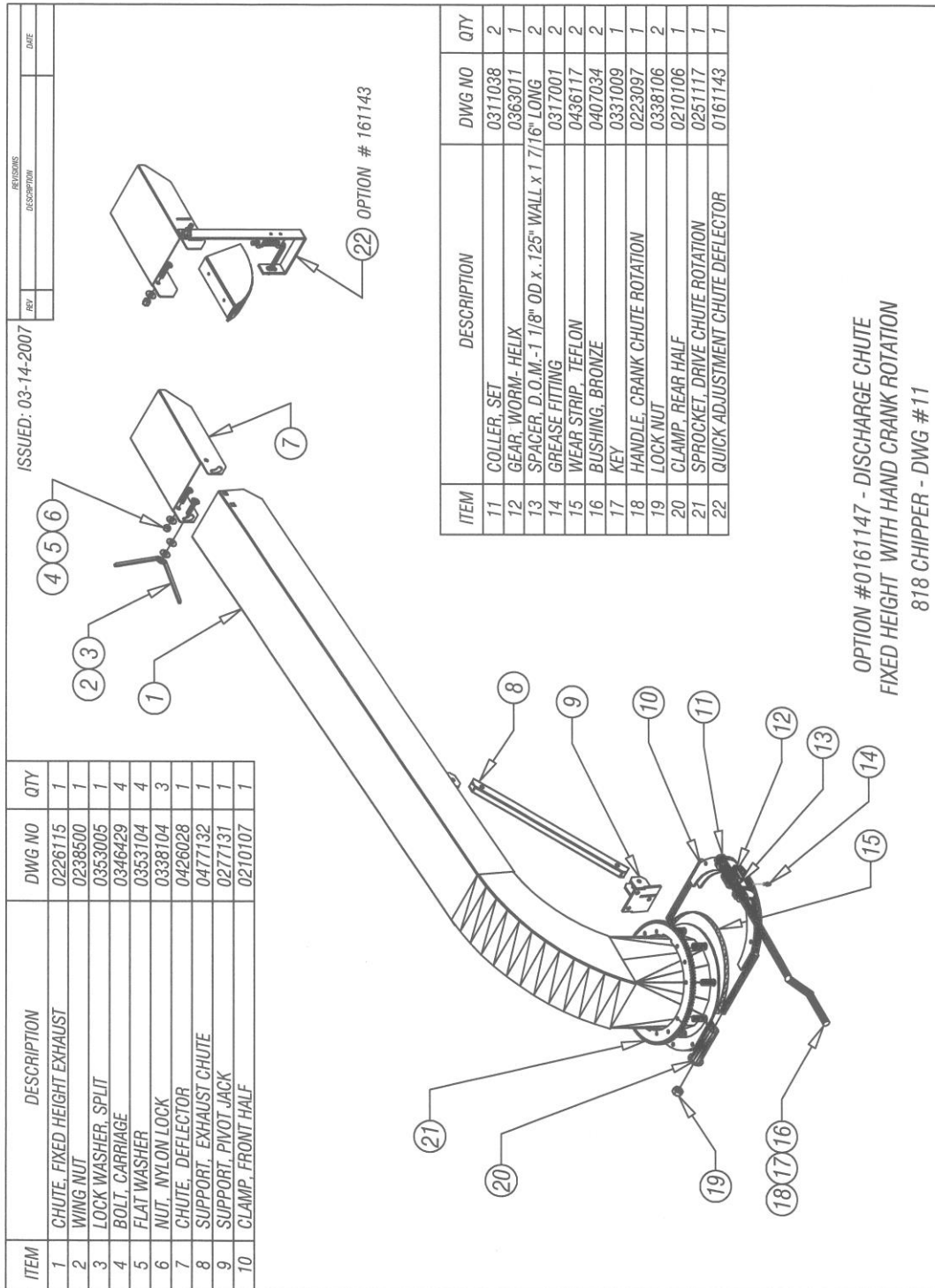


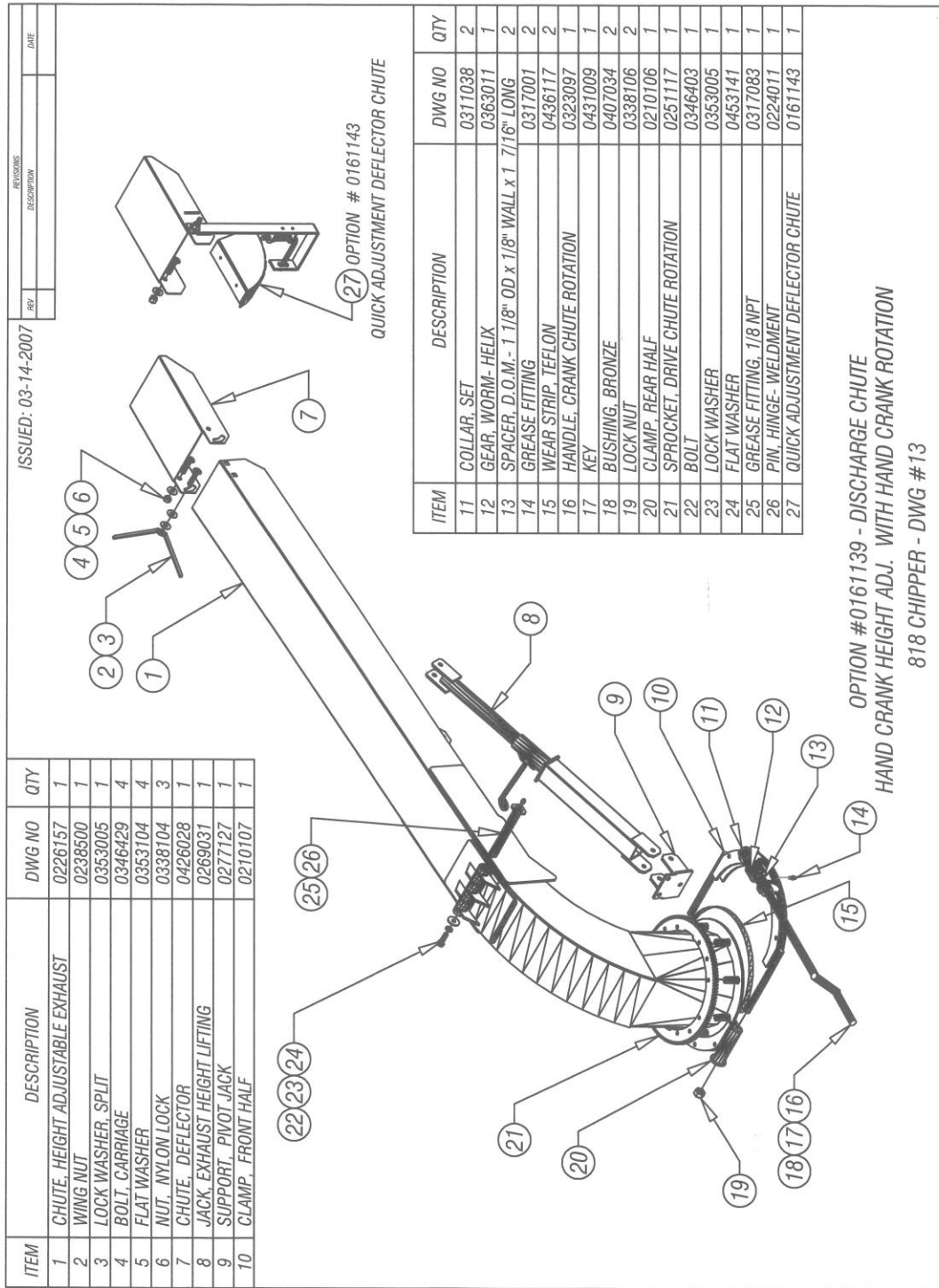
818 CHIPPER - DWG #7

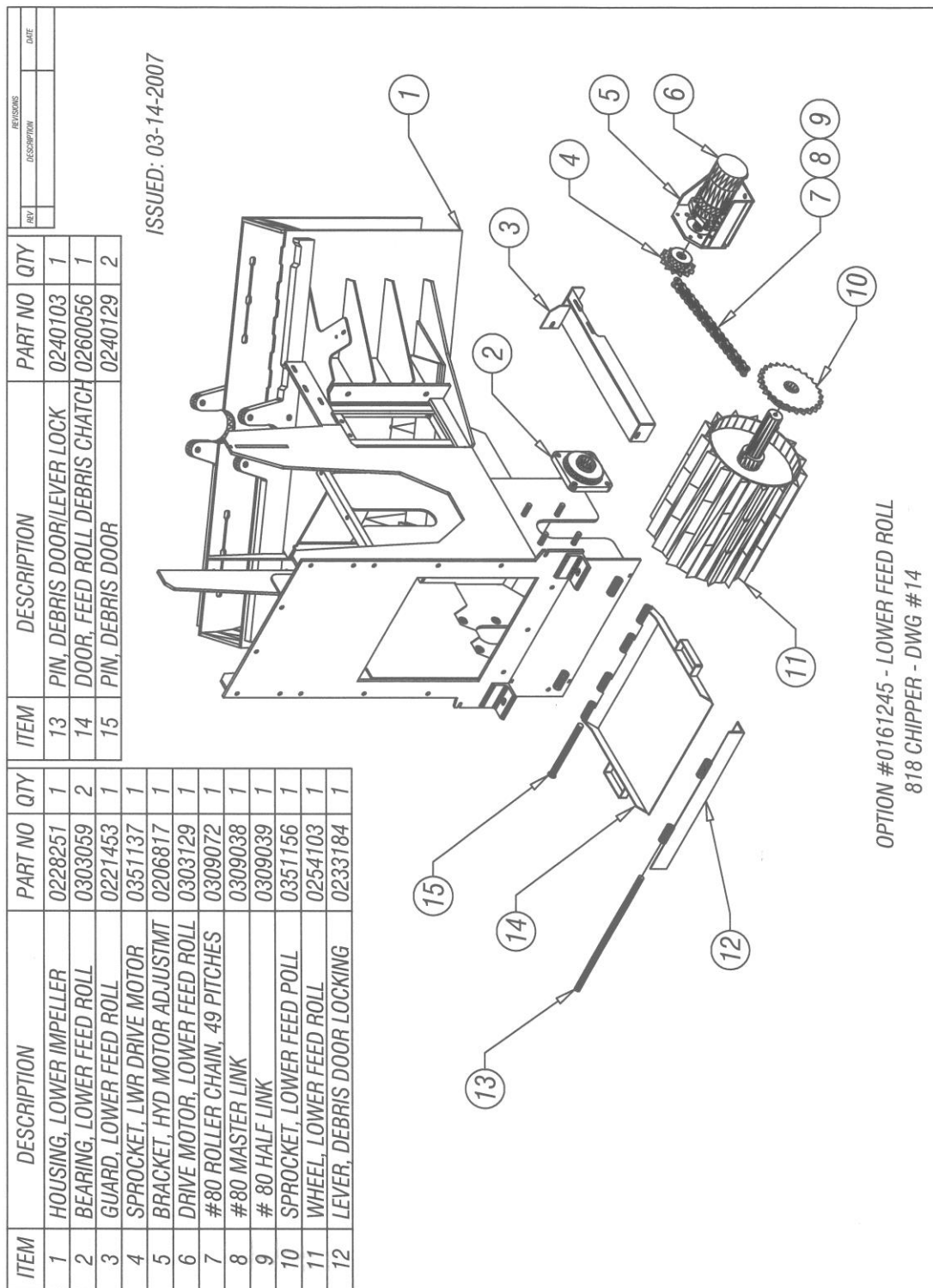






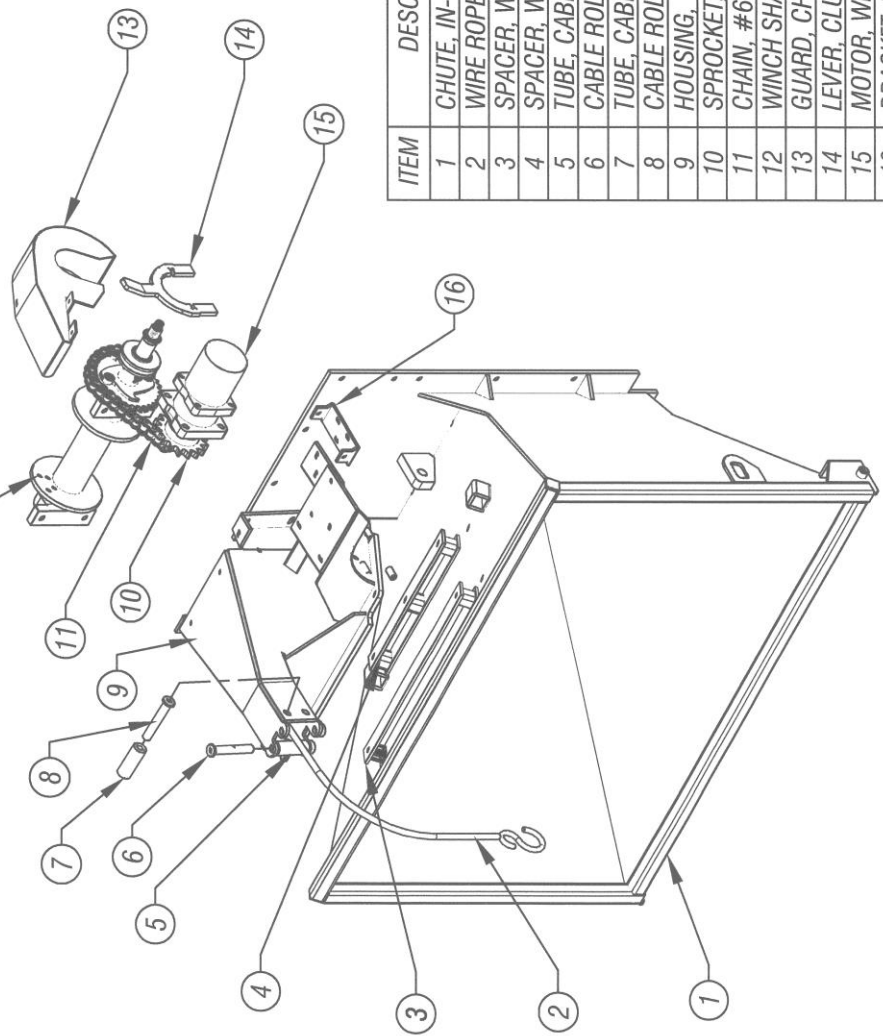






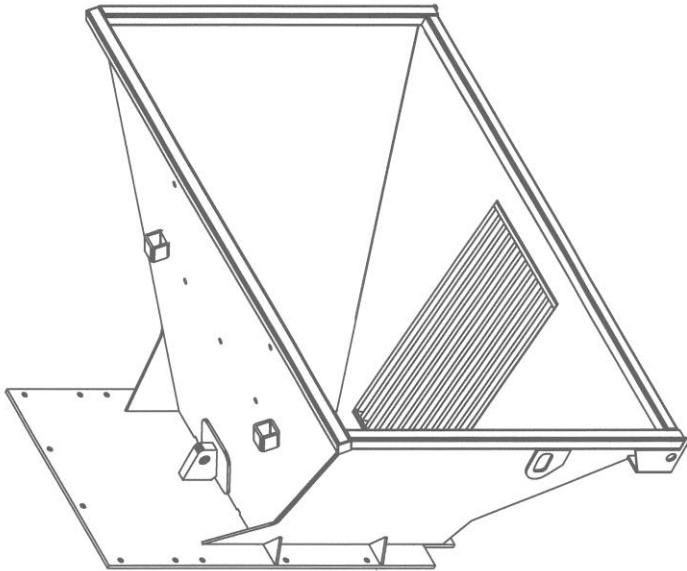
-ISSUED: 03-14-2007
ISSUED: 08-08-2013

0148212- WINCH REEL ASSY
FOR DETAIL, SEE DWG #16



OPTION #0161209 - HIGH SPEED WINCH
818 CHIPPER DWG #15

ITEM	DESCRIPTION	PART NO	QTY
1	CHUTE, IN-FEED	0226150	1
2	WIRE ROPE WITH HOOK	0330122	1
3	SPACER, WINCH M'NT- REAR	0249200	1
4	SPACER, WINCH M'TG- FRONT	0249199	1
5	TUBE, CABLE ROLLER (VERTIC)	0467313	2
6	CABLE ROLL PIN (VERTICAL)	0240112	2
7	TUBE, CABLE ROLLER (HORIZ)	0467628	2
8	CABLE ROLL PIN (HORIZONTAL)	0240176	2
9	HOUSING, WINCH	0228242	1
10	SPROCKET, WINCH MOTOR	0351223	1
11	CHAIN, #60 (BULK, TO FIT)	0309048	1
12	WINCH SHAFT ASSY	0148212	1
13	GUARD, CHAIN	0221419	1
14	LEVER, CLUCH NEUTRAL	0233173	1
15	MOTOR, WINCH	0330143	1
16	BRACKET, MOUNT C/N LEVER	0406718	1

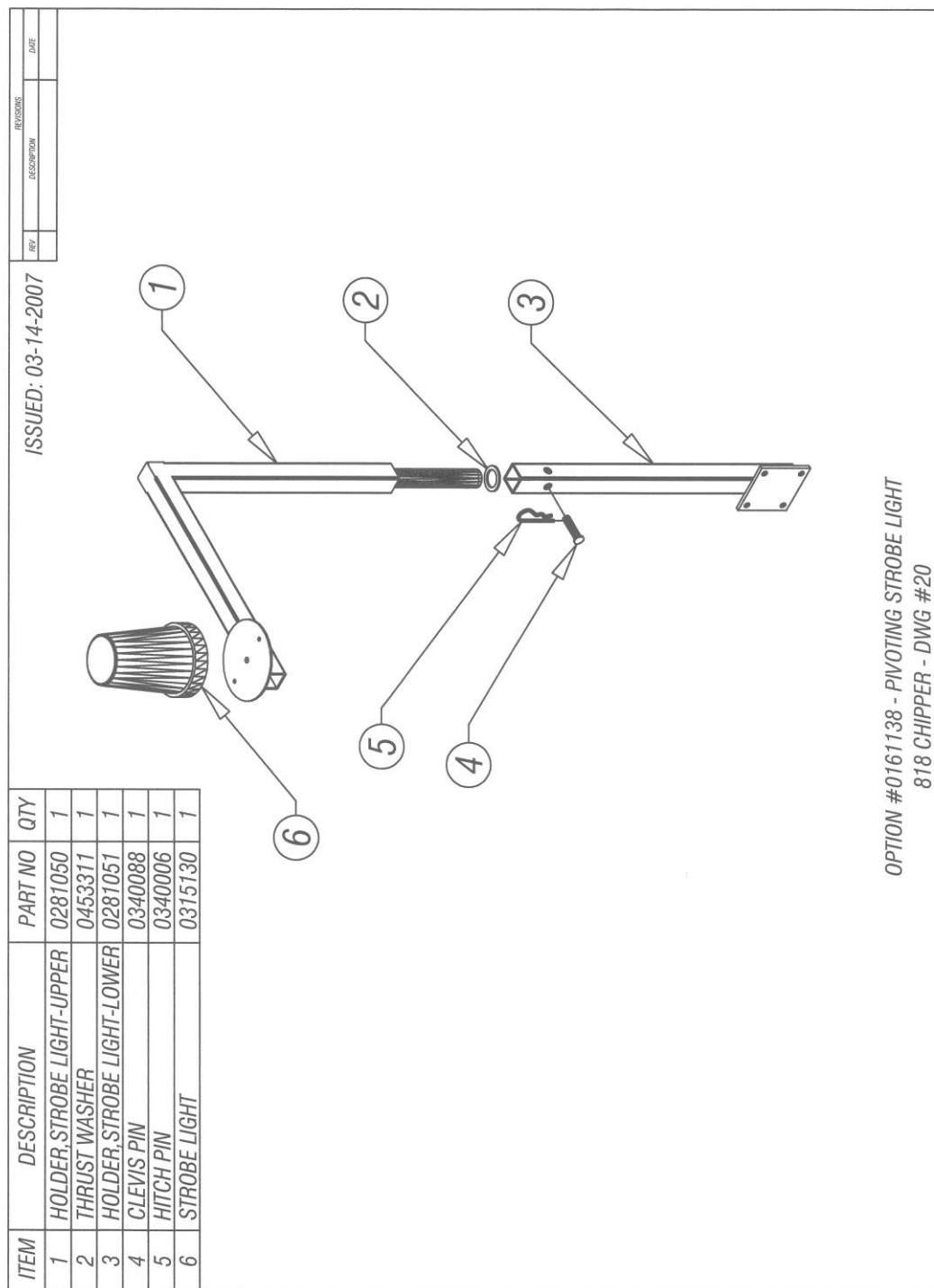
ITEM	DESCRIPTION	PART NO	QTY	ISSUED: 03-14-2007			REV	DESCRIPTION	DATE
									
				OPTION #0261246 - DIRT CATCHER IN-FEED CHUTE					
				818 CHIPPER DWG #17					

ITEM		DESCRIPTION	PART NO	QTY	ISSUED: 03-14-2007		REV	DESCRIPTION	REVISIONS	DATE
1		FRAME MOUNT BRACKET (SPARE TIRE)	XXX	1						
1		SPARE TIRE MOUNT (WIDE TIRE)	0261144	1						

OPTION XXX - SPARE TIRE MOUNT (WIDE TIRE)
818 CHIPPER - DWG #18

ITEM		DESCRIPTION	PART NO	QTY	REVISIONS		
1		BOX, TAILLIGHT - CENTER	0280025	1	REV	DESCRIPTION	DATE
2		LIGHT, 3-BAR (SEALED)	0315238	1	ISSUED: 06-09-2010		
3		MOUNT, TAILLIGHT ASSEMBLY	0276383	2			
4		BOX, TAILLIGHT - DUAL OBLONG LENS	0280026	2			
5		TAILLIGHT ASSY - OBLONG SEALED BEAM	0315237	2			

OPTION #0161146 - SAFETY LIGHT (IN-FEED CHUTE MOUNT)
818 CHIPPER - DWG #19

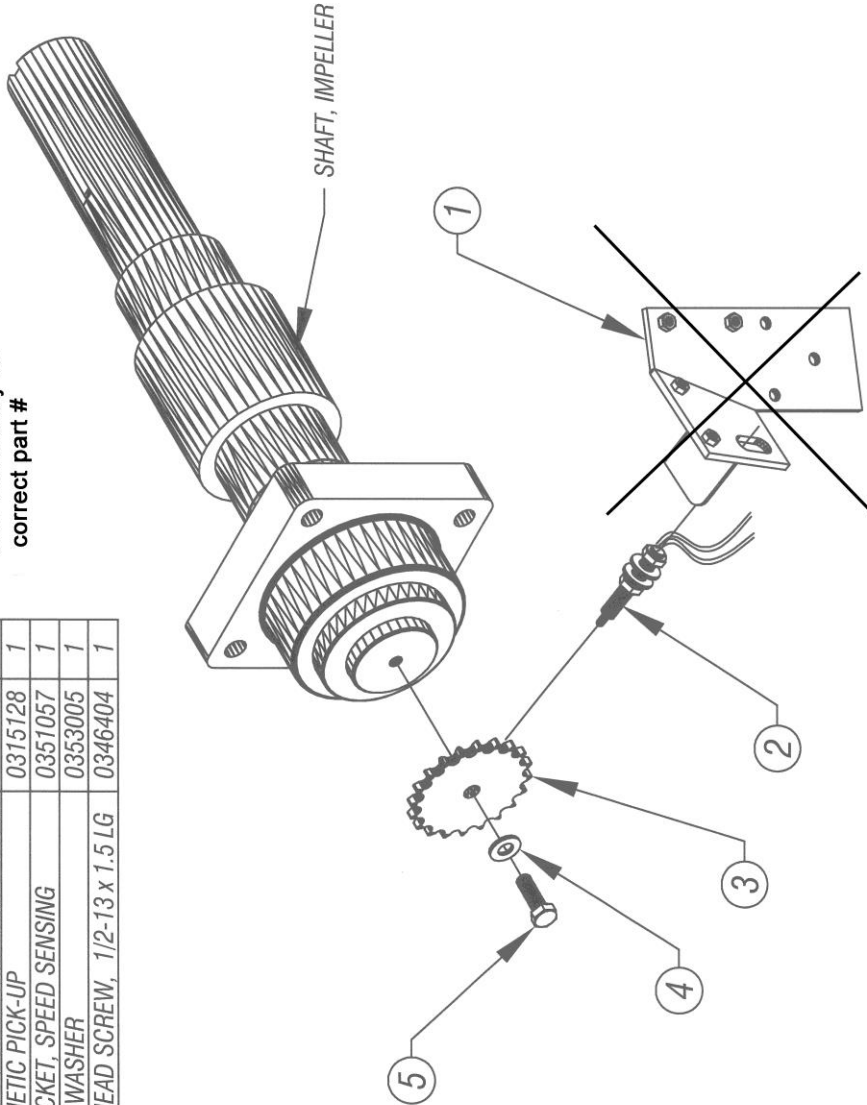


ITEM	DESCRIPTION	PART NO	QTY
1	BRACKET, MAGNETIC PICKUP MOUNT	***	1
2	MAGNETIC PICK-UP	0315128	1
3	SPROCKET, SPEED SENSING	0351057	1
4	LOCK WASHER	0353005	1
5	HEX HEAD SCREW, 1/2-13 x 1.5 LG	0346404	1

ISSUED: 06-10-2010

*** Call the factory for correct part #

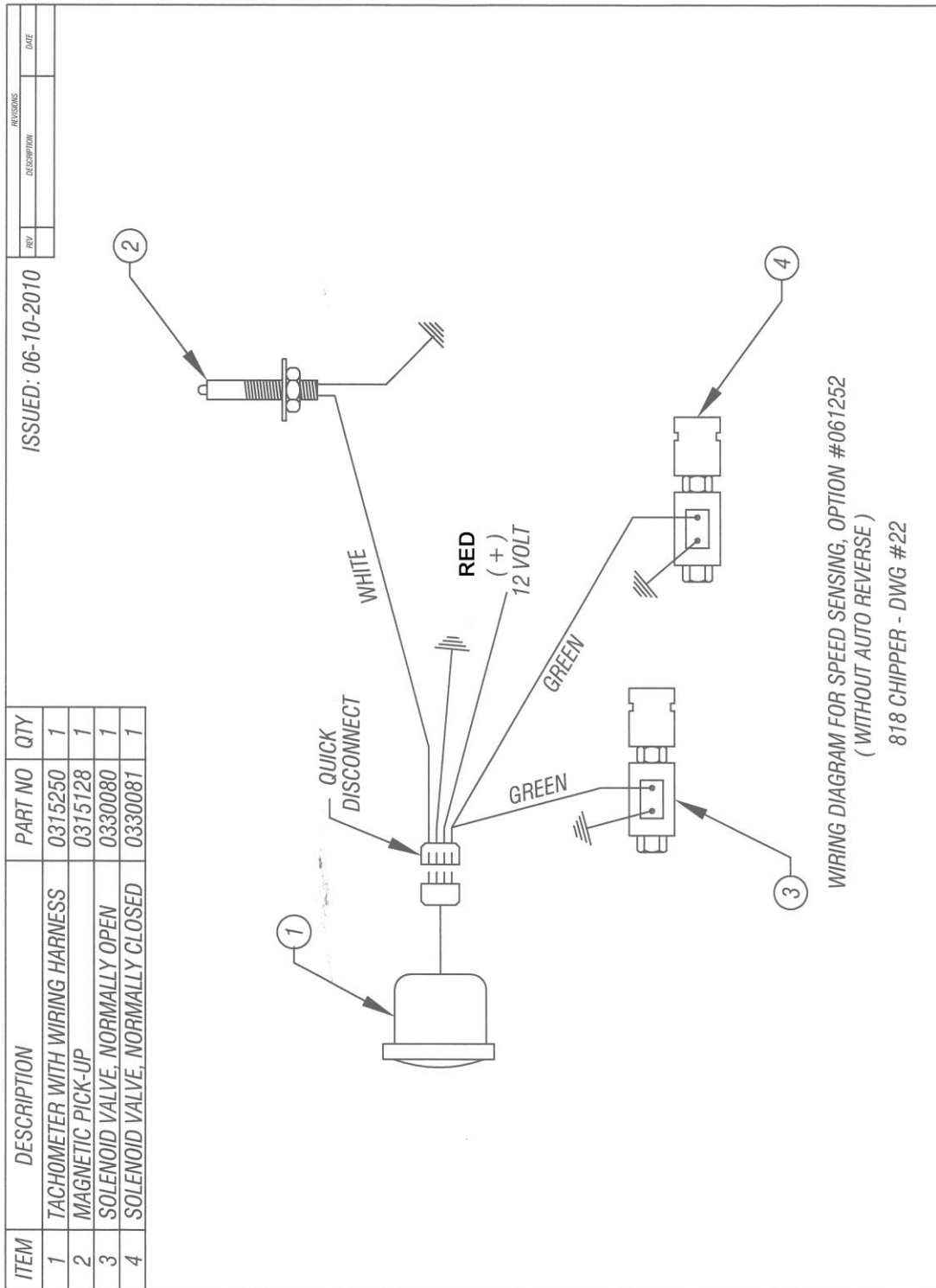
SHAFT, IMPELLER



SPEED SENSING - OPTION #0161252

818 CHIPPER - DWG #21

REV	DESCRIPTION	DATE

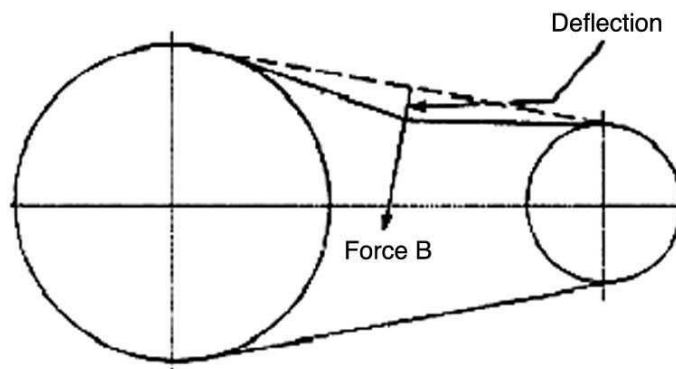


Below is a quick reference chart for various “Flat Head Cap Screws” and the torque recommendations.

VALUES ARE STATED IN FOOT POUNDS

BOLT SIZE	Thds Per Inch	SAE Grade 5	SAE Grade 8
$\frac{1}{4}$	20	10	14
	28	---	---
5/16	18	19	29
	24	---	---
3/8	16	33	47
	24	---	---
7/16	14	54	78
	20	---	---
$\frac{1}{2}$	13	78	119
	20	---	---
9/16	12	114	169
	18	---	---
5/8	11	154	230
	11	---	---
$\frac{3}{4}$	10	257	380
	10	---	---
7/8	9	382	600
	9	---	---
1	8	587	700
	8	---	---

Drive Belt Tension Measurement by Deflection



Deflection should be $\frac{3}{8}$ " when 8-12 lbs. push is applied at "B"

WARRANTY POLICY

Please remember to complete and return your Warranty Card and Dealer Delivery Report. Warranty Claims will not be considered if the Warranty Card and Dealer Delivery Report have not been returned to Salsco.

Your Salsco Commercial or Turf Equipment product is a commercial type product and is normally manufactured and sold for commercial or industrial use. **Salsco will, for the original purchaser, for one (1) year from the date of purchase (90 days if used for rental purposes) repair or replace, free of charge, any SALSCO part or parts found to be defective in material, workmanship or both.** Any transportation or shipping charges will be borne by the purchaser. If, during the warranty period stated above, the product does not function properly due to defect, simply contact Salsco and follow the Warranty Procedures included in this manual.

This warranty **does not** include:

- Incidental or consequential damages and is exclusive of any implied warranties.
- Normal maintenance parts, including, but not limited to hoses, chains, belts, filters, lubricants, etc.
- Parts or components, which are covered under the original manufacturer warranty, including, but not limited to engines, pumps, and motors.

WARRANTY PROCEDURE

In order for Salsco to consider your warranty claims in a timely manner you must follow the simple procedures listed below:

MACHINE OR PART FAILURE

- a) Call our service department for helpful instruction on how to correct or repair the problem. Preventive maintenance will also be suggested.
- b) When ordering parts for Warranty issues, you **MUST** retain possession of the old parts in question until notified with respect to returning the parts to Salsco or other disposition.
- c) Warranty Claims **MUST** be filed within 30-days from completion of the work performed. Contact our office for an electronic warranty claim form.
- d) Fill in all information requested on warranty claim form, a copy of which is included in this manual, (date of purchase, company name, address, etc.). List all parts used. Make sure part numbers are correct. You can obtain these from your manual. (include good description of problem; i.e. "leaking from spool" rather than "leaking").
- e) It is our goal to consider and reach a disposition on each Warranty Claim within 30-days from the date that it is received. Therefore it is important that you respond promptly to any request for further information. Claims with no response to inquiries will be closed as **"denied for lack of response"** 90-days from the date of request.
- f) Email, Fax or Send Warranty Claim form to our Warranty Department. – **Warranty on parts most often requires return of the parts that were replaced.** DO NOT DISCARD OLD PARTS UNTIL YOU HAVE RECEIVED A DETERMINATION AS TO WHETHER THESE PARTS MUST BE RETURNED.
- g) Our Warranty Department will contact and instruct you on how to return the Parts to Salsco on an RA #. Returns **MUST** be made within 30-Days from issuance of RA #. **FREIGHT CHARGES ON RETURN OF PARTS IS THE RESPONSIBILITY OF THE CUSTOMER.** Normal pre-delivery adjustments are not covered under warranty. Labor Warranties are based on reasonable time allowances as determined by Salsco, Inc. and paid at 75% of posted labor rate. **TRAVEL TIME IS NOT REIMBURSED UNDER THE WARRANTY POLICY.**
- h) Be sure to put the RA form inside the box that you are shipping back, also be sure to put on the outside of the box "Return of Goods" and the RA #.
- i) Ship returns via a traceable method such as UPS Ground Service. Be sure that the shipment is insured for the appropriate value. If uninsured parts are lost, we cannot issue a credit.

PLEASE NOTE: *Warranty forms should be filled out completely.*

PREVENTIVE MAINTENANCE IS YOUR BEST INSURANCE AGAINST EQUIPMENT FAILURE. BE SURE TO READ THIS MANUAL, ESPECIALLY THE MAINTENANCE, OPERATING AND CAUTION SECTIONS.

SALSCO, INC., 105 School House Rd.
Cheshire, CT 06410
800-872-5726, 203-271-1682
203-271-2596 (Fax)
sales@salsco.com, www.salsco.com

WARRANTY CLAIM FORM

SALSCO, INC.
105 School House Rd.
Cheshire, CT 06410

Phone: (203) 271-1682, (800) 872-5726
Fax: (203) 271-2596
Email: s.clark@salsco.com
Website: www.salsco.com

END OWNER**Date Submitted:**

Name:	Phone:	Work Order #:
Email:	Fax:	Office Use Only
Address:		Date Rec'd
		Cust ID:
		Salsco WC
		Salsco RA

PURCHASED FROM

Name:	Phone:	Date Approved:
Email:	Fax:	Date Rejected:
Address:		Processed By:
		Dir. Del Report on File: YES NO
		Warranty Card on File: YES NO
		Part(s) Total:
		Labor Total:

Equipment/Warranty Information (Must be complete)

Purchase Date:	Invoice #	Date Failed:	Total Approved:
Model #:	Serial #:	Repair Date:	Approved/Rejected:
			Name:
Hrs Used:	Primary Use:		Reason for Rejection:
Warranty Claim/Work Order#:			
Was a Salsco Return Authorization # issued for repairs or			
Return of Parts? YES NO			Suggested Preventative Maint:
Probable Cause of Failure:			

Work Performed/Comments on Repair:

Shop Labor Rate:						Submitted By:			
Total Labor Hours to Repair:						Printed Name:			
Parts Required for repair									
Salsco Part #: Description:						Qty.	Price Each	Total	Inv #
								\$	
								\$	
								\$	
								\$	

Fill in all information requested on warranty claim form.

INCOMPLETE FORMS CANNOT BE PROCESSED & WILL BE RETURNED

List all parts used. Make sure part numbers are correct. Any parts that you believe to be defective or any parts that break should be retained for possible inspection until after the warranty has been paid or part has been replaced.

SALESMAN ID # _____

SALES MANAGER'S NAME _____

800-872-5726, 203-271-1682
203-271-2596 (Fax)**SALSCO, INC.**
105 School House Road
Cheshire, CT 06410**www.salsco.com**
sales@salsco.com**DEALER DELIVERY REPORT**

MODEL:		SERIAL NO:		
DEALER:		CITY:	STATE:	ZIP:
PURCHASER:	ADDRESS:	CITY:	ST:	ZIP:
The undersigned dealer warrants that the above-described machine was carefully inspected, adjusted and prepared for delivery before delivery to the purchaser; that both the operation and maintenance of the machine were explained to the purchaser; and that a copy of the Owner's Instruction Manual were given to the purchaser and his attention called to Our Warranty and any operating instructions included in the manual and caution notes.		The undersigned purchaser certifies that the operation and maintenance of the above-described machine have been explained to him; acknowledges receipt of a copy of the Owner's Instruction Manual and Our Warranty Policy printed in said Instruction Manual and Caution Notes. I also understand that it is my responsibility to explain and make Salsco manuals available to new operators.		
DATE:		DATE: PURCHASER:		
SIGN BY:		SIGN BY:		
PHONE:	FAX:	PHONE:		
E-Mail		EMAIL:		

MODEL:		SERIAL NO:		
<u>SALSCO LIMITED WARRANTY CARD</u>				
DATE PURCHASED:				
PURCHASER:	ADDRESS:	CITY:	ST:	ZIP:
EMAIL:		PHONE:		
DEALER:		STATE: CT		
Will this equipment be used commercially?		Yes	No	
Did Dealer service this equipment and instruct you in its care and safe operation?		Yes	No	
Did you receive an "Operation & Service Manual" and safety pamphlet?		Yes	No	
Signed		Purchaser		
<u>NOTICE:</u> IMPORTANT: THIS CARD MUST BE FILLED OUT COMPLETELY AND MAILED TO THE FACTORY WITHIN 10 DAYS OF PURCHASE DATE, OR YOUR LIMITED WARRANTY WILL BE VOIDED.				

SERVICE RECORD

If kept properly, this schedule will help track problems in the future.

[illegible]

MODEL # _____ S/N _____

DATE PURCHASED: _____