BANDIT
THE BEAST®

OPERATING & PARTS MANUAL

MODEL 1425

Model No: 1425

Serial No: _____

Engine Make: _____

Serial No: _____

Clutch Make: _____

Model: _____ S/N _____

DEALER:

Name: _____

Address: _____

City/State: _____

Phone No: _____

Delivery Date: _____

ATTENTION:

Depending on what replacement parts you are ordering, we will need the following information:

RECYCLER COMPONENTS	ENGINE COMPONENTS	CLUTCH COMPONENTS
Serial Number	Brand	Brand
Model Number of Recycler	Engine Serial Number	Clutch Serial Number
	Engine Model Number	Clutch Model Number

Bandit INDUSTRIES, INC.
6750 Millbrook Rd. • Remus, MI 49340 • 1-989-561-2270

MANUFACTURED BY BANDIT INDUSTRIES, INC
PHONE: (989) 561-2270
PHONE: (800) 952-0178 IN USA
FAX: (989) 561-2273 ~ SALES DEPT.
FAX: (989) 561-2962 ~ PARTS/SERVICE
WEBSITE: www.banditchippers.com

CALIFORNIA PROPOSITION 65

⚠ WARNING ⚠ ADVERTENCIA

Breathing diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

- **Always start and operate the engine in a well-ventilated area.**
- **If in an enclosed area, vent the exhaust to the outside.**
- **Do not modify or tamper with the exhaust system.**
- **Do not idle the engine except as necessary.**

For more information go to:
www.P65warnings.ca.gov/diesel

Respirar gases de escape de motores diesel le expone a químicos conocidos por el estado de California como causales de cáncer y defectos congénitos u otros daños reproductivos.

- **Siempre encienda y opere el motor en áreas bien ventiladas.**
- **Si está en un área cerrada, ventile escape hacia el exterior.**
- **No modifique ni altere el sistema de escape.**
- **No deje el motor en ralentí a no ser que sea necesario.**

Para mayor información visite:
www.P65warnings.ca.gov/diesel

SPW-46 8/18

⚠ WARNING
⚠ ADVERTENCIA

Cancer and Reproductive Harm

Cáncer y daño reproductivo

www.P65warnings.ca.gov

SPW-47 8/18

WARRANTY VALIDATION FORM (RECYCLER)

IMPORTANT - WARRANTY WILL BE DEEMED NULL AND VOID IF THIS FORM IS NOT FILLED OUT COMPLETELY AND ACCURATELY AND RETURNED TO THE CUSTOMER DATA DEPARTMENT WITHIN 10 DAYS OF EQUIPMENT DELIVERY

Customer Data Department
6750 Millbrook Road
Remus, MI, USA 49340
Phone: (800) 952-0178 in USA
Phone: (989) 561-2270
Fax: (989) 561-2273
Website: www.banditchippers.com

PURCHASER / OWNER INFORMATION:

Company Name _____ Contact Name _____

Mailing/Street Address _____ City _____

State _____ Zip Code _____ Country _____ Telephone Number (__) _____

E-mail _____ Machine Model No. _____ Date Put Into Service _____

Machine Serial No. _____ Machine Work Order No. _____ Machine Hours _____

Engine Make _____ Engine Serial No. _____ Machine Color _____

DEALER / SELLER INFORMATION:

Dealer/Seller Name _____ Contact Name _____

Mailing/Street Address _____ City _____

State _____ Zip Code _____ Country _____ Telephone Number (__) _____

1. _____ The customer has received instruction and fully understands all operational, safety and maintenance requirements of the equipment.

2. _____ The customer has received instruction and fully understands that everyone within 100 feet of the machine must wear proper personal safety equipment including hard hat, face shield, safety glass, gloves, ear protection and/or other items per OSHA and ANSI requirements.

3. _____ The customer has received instruction and fully understands the equipment maintenance schedules and procedures. The customer understands that it is their responsibility to perform scheduled maintenance that includes periodic relief valve adjustments, retightening all fasteners as needed, periodic cleaning of flow divider, clutch and belt adjustments, and other items.

4. _____ The customer has received instruction and fully understands the hazards of working under, and how to properly lock, the feedwheel in the up position.

5. _____ The customer has received instruction and fully understands that the operators must always be located within easy reach of controls and shut down devices, and know how to use, activate, and maintain the fire extinguishers.

6. _____ The customer has received instruction and fully understands, and agrees that all potential operators must use proper shut down procedures, check for fires, and remove all potential fire hazards. Always clean off and remove all flammable debris such as: wood, mulch, oils, fuels, etc. from anywhere materials collect.

7. _____ The customer has received instruction and fully understands the purpose of and proper operation of any and all safety devices and guards. The customer understands to never attempt to override any safety device or guard.

8. _____ The customer has received instruction and fully understands that before performing any maintenance on the machine the ignition key must be removed, the cables must be completely disconnected from the battery, the cutter head must have come to a complete stop. The customer understands they must allow the necessary time for the cutter head to come to a complete stop before performing any type of maintenance or service procedures. The customer has received instruction and fully understands the purpose of the beltshield inspection door and that they are never to attempt any maintenance or service procedures until visually confirming the belts have come to a complete stop.

9. _____ The customer has received instruction and fully understands the operational, electrical, and radio devices on the machine, and no one is to be within restricted area, around recycler, while it is running.

10. _____ Customer has reviewed and fully understands limited warranty, and all written and visual instructions.

11. _____ The customer has received instruction and fully understands that warranty will not apply if the machine is operated with replacement parts or equipment not manufactured or recommended by Bandit Industries, Inc.

12. _____ Customer has received, been advised, and understands the manuals, and the Safety/Service video supplied with the recycler. A video is supplied for equipment models as available.

13. _____ All Danger, Warning and Operational decals are properly displayed on equipment and fully understood by customer.

14. _____ Customer has been instructed, understands, and agrees that all potential operators must: See the supplied video, be instructed on all the Danger, Warning and Operational decals, read the manual and follow the procedures.

I have inspected this equipment and find it in correct working condition. To the best of my knowledge, the customer and his/her personnel are aware of, and agree to the above procedures.

Signed: _____ **Date:** _____

(Dealer Representative)

The equipment has been thoroughly checked by the above named dealer representative, and I am satisfied with his/her instructions. I have also read, understand, and agree to reverse side of page.

Signed: _____ **Date:** _____

(Customer)

TO BE RETURNED AFTER THIRTY (30) DAYS OF OPERATION

DATE PURCHASE: _____

MODEL: _____

SERIAL NUMBER: _____

DEALER NAME: _____

_____

Please return to: Customer Data Department
6750 Millbrook Road
Remus, MI 49340

Phone: (800) 952-0178 in USA
Phone: (989) 561-2270
Fax: (989) 561-2273
Website:www.banditchippers.com

RECYCLER QUALITY REPORT

All of the employees that build your equipment strive to manufacturer the **very best quality** product on the market. We would appreciate your efforts in letting us know how we are doing.

We would like you to operate your machine for thirty (30) days and then fill out this questionnaire and mail it to us. This will help us to keep producing a good product and improving our products through your recommendations.

1. Did your machine perform to your expectations? _____
2. Was the machine delivered on schedule? _____
3. Was the paint color and finish to your satisfaction? _____
4. Was machine equipment as ordered? _____
5. Did all welds appear to be high quality? _____
6. Was the overall machine to your liking? _____
7. What problems have you experienced? _____
8. Have any components regularly loosened that caused problems? _____
9. Does the hydraulic system seem to have adequate power for feeding material into the recycler? _____
10. Is the machine manufactured to accommodate service in an adequate manner? If not, please explain:
    _____
11. General comments and/or suggestions: _____
    _____
    _____
12. Would you like to be contacted concerning more of our equipment? _____

YOUR COMPANY: _____

NAME: _____

ADDRESS: _____

CITY: _____

STATE & ZIP: _____

PHONE: (____) _____

E-MAIL: _____

TABLE OF CONTENTS

NOTICE

ANY PART, PORTION, DESIGN, NUMBER, SPECIFICATION, AND/OR DIMENSION IN THIS MANUAL IS SUBJECT TO CHANGE WITHOUT NOTICE BY THE MANUFACTURER.

INTRODUCTION

The purpose of this manual is to provide the user with specifications and procedures for the operation, maintenance and repair of this BANDIT product. As with any piece of equipment, safety should always be a constant thought while the machine is being operated, serviced or stored. In order to highlight this consideration, the material which addresses safety is proceeded by the following signal words:

Signal Word	Likelihood of Occurrence	Degree of Potential Injury or Damage
⚠DANGER	Will occur if warning is ignored	Severe
⚠WARNING	Can occur if warning is ignored	Severe
⚠CAUTION	Will or can occur if warning is ignored	Minor to Severe
NOTICE	Important, but not hazard related	Minor

The equipment is designed and manufactured in accordance with the latest product industry standards. This alone does not prevent injury. It is the operator's responsibility to use good judgement and follow the warnings and instructions as indicated in this manual, on the machine and follow all safety standards per ANSI and OSHA instructions.

⚠WARNING

Improper use of the product can result in severe personal injury. Personnel using the equipment must be qualified, trained and familiar with the operating procedures as defined in this manual, prior to operating the product.

⚠WARNING

It is the responsibility of the owner or employer to ensure that the operator is trained and practices safe operation while using and servicing the machine. It is also the owner's responsibility to provide and follow a regularly scheduled preventative maintenance and repair program on the product, using only factory approved replacement parts. Any unapproved repairs or modifications may not only damage the machine and its performance, but could result in severe personal injury. Unapproved repairs or modifications will void warranty and eliminate manufacturer of any liability claims. Consult the equipment manufacturer with any questions.

Each machine is shipped with a manual, a customer's check sheet on the product, and any available parts & service manuals on component parts not produced by this manufacturer. Additional copies of these manuals and check sheets can be purchased from the manufacturer, or through the dealer. Engine parts, service and maintenance manuals MUST be purchased through the engine manufacturer or their dealer.

NOTICE

The producer of this Bandit product reserves the right to make any modifications or revisions to the design or specifications of its machine without advance notice. The producer also reserves the right to change machine and part prices as needed without advance notice.

TYPICAL MACHINE SERIAL NUMBER AND/OR WORK ORDER NUMBER LOCATIONS

1. Serial number on side of tongue
2. Work order number on top of tongue

NOTICE

The engine information is located on the engine block. The clutch information is located on the clutch plate (if equipped).

SAFETY PROCEDURES

⚠DANGER

The words ⚠Danger, ⚠Warning, ⚠Caution, and Notice are used on the safety decals and throughout this manual, to make you aware of the safety procedures. These procedures are very important, read and obey them.

YOUR SAFETY IS VERY IMPORTANT TO US!

This machine is equipped with safety decals, guards and designs for your protection.

Don't ever take the machine for granted, always be cautious and careful when operating your equipment.

Read and follow all the instructions in your manual thoroughly. Your safety is dependent on your knowledge of how to operate and maintain this machine. You may obtain additional copies of this manual from your Bandit Dealer.

Before operating machine, you must have all potential operators; read and understand manuals and decals, watch the video and follow the recommendations.

Regardless of how hard a manufacturer tries to produce a safe machine, accidents still happen. Normally accidents are caused by people making mistakes. They do not read the manual, they ignore warning decals or do not use lockouts provided for their safety. This normally happens after the person has become accustomed to the machinery. In the initial start up and operation of the machinery, they are cautious, they are very careful because they do not understand the machine.

This equipment is intended for use by personnel who are experienced with similar equipment. Always operate safely. There must be at least two qualified and trained operators at the work site. They must be positioned in safe working locations, following safety procedures and instructions, and aware of each others whereabouts. There must, also, be at least two people on site during maintenance and service procedures in case an accident should occur. Never operate any machine while under the influence of drugs or alcohol.

Keep children, bystanders and animals clear of working area. Never operate equipment that is in need of repair or adjustment.

⚠DANGER

Before starting the machine, take a minute to check a few things. The machine should be in an area restricted from people passing by. This area around the machine must be free of all objects that can obstruct your movement when working with the machine. The machine should be checked for loose tools or foreign objects, especially in the infeed hopper area. All tools not in use should be secured in a tool box.

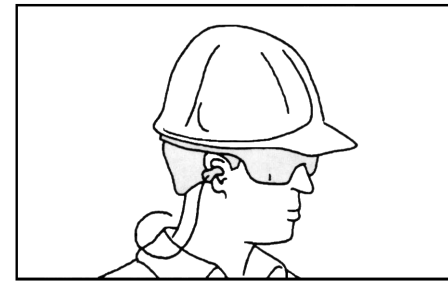
⚠WARNING

Operators **must** at all times be located within easy reach of all feed control and shut-off devices when the unit is running. They must be attentive and prepared to activate the devices.

⚠DANGER

Torn or loose clothing is more likely to get caught in moving machinery parts or tree branches. Keep such items as long hair, shirt sleeves, and shirt tails properly contained. Avoid wearing necklaces, rings, watches, and especially neckties while operating this machinery. Make sure the machine is in excellent condition, and all the guards are in place, tight and secure.

Wear all personal protection equipment (PPE) and follow all safety standards per ANSI and OSHA instructions. Examples of (PPE) equipment: hard hat, face shield, safety glasses, gloves, ear protection, etc. Do not wear gauntlet or secured fit gloves. Always keep a fully charged fire extinguisher with the machine while operating or servicing the machine.



⚠WARNING

WEAR EYE & PERSONAL PROTECTION EQUIPMENT

Wear all personal protection equipment and follow all safety standards per ANSI and OSHA instructions.

SAFETY PROCEDURES

⚠DANGER

NEVER sit, stand, lay, climb or ride anywhere on this machine while it is running, operating, or in transit. You will be injured.

⚠DANGER

Avoid moving parts. Keep hands, feet, and clothing away from power driven parts. Keep all guards and shields in place and properly secured.

⚠DANGER

Keep hands clear of all pinch points.

⚠DANGER

Always block the tires and the machine tongue whenever the machine is unhooked for operation. DO NOT rely on the tongue jack for operational stabilization.

NOTICE

Tongue jacks or optional rear stabilizers, whether hydraulic or manually operated are designed to stabilize the machine. The tongue jack or rear stabilizers are not designed to hold the machine off the ground at any time. Install secure blocking and / or chocking as needed. Before transporting the machine, ensure the tongue jack and rear stabilizers are fully retracted and secured in the transport position.

⚠DANGER

Do not touch hot machine surfaces. The machine surfaces may be hot due to the machine operating recently or the machine setting in the sunlight.

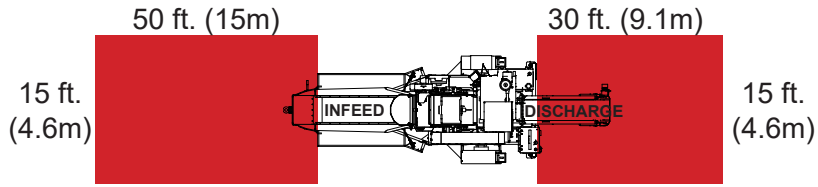
⚠DANGER

Entanglement in the discharge belt conveyor or infeed conveyor can cause serious injury. Stay away from the conveyors during operation. If the conveyor drive is not shut off, a stalled conveyor may restart unexpectedly as the obstruction is removed. Avoid the discharge belt conveyor and infeed conveyor area. Ejected material can cause serious injury. Stay away! Stay clear of thrown and falling objects. Take the following precautions to avoid injuries from thrown and falling objects: Wear all applicable safety equipment. Do not approach the restricted areas while the machine is in operation or you will be injured. Do not leave controls unattended while the machine is running. locate the machine a safe distance from buildings, public roads, and populated areas.

⚠DANGER

Never stand at the entrance or sides of the infeed conveyor. Never attempt to manually dislodge material located on the infeed conveyor while the machine is running. Never raise the feedwheel yoke and look inside or look down infeed conveyor while machine is running. Entanglement with the infeed conveyor can cause serious injury. Stay away from the infeed conveyor during operation. If the conveyor drive is not shut off a stalled conveyor may restart unexpectedly as the obstruction is removed.

⚠DANGER



DO NOT APPROACH THE RESTRICTED AREAS WHILE THE MACHINE IS OPERATING OR YOU WILL BE INJURED.

D-83 11/19

SAFETY PROCEDURES

⚠DANGER

Inspect raw materials pile for prohibited materials. The following are examples of prohibited materials to be avoided. Material and products containing toxic substances, explosive or flammable materials including chemicals, liquids, gases, pressurized containers etc., tires, glass, sheet metal, masonry, stone materials, and solid metals.

⚠DANGER

The teeth must be securely fastened and torqued in position. If one comes loose or breaks during operation, someone may get injured or something may get damaged.

⚠DANGER

DO NOT run or operate this machine with any door/compartment open. Door enclosures are guards, you can be injured if open during operation.

⚠WARNING

DO NOT operate this machine unless all hydraulic control devices operate properly. They must function, shift and position smoothly and accurately at all times. Faulty controls can cause personal injury!

⚠DANGER

DO NOT operate this machine indoors! Exhaust fumes can be fatal. Never refuel while the machine is running. Never refuel in the shop or building. Always refuel in a well ventilated area, away from sparks or open flames, DO NOT SMOKE. Extinguish all smoking materials. Wipe up all spilled fuel before restarting the engine. Do not fill above 1/2" (12.7mm) from top of tank.

To obtain the most from your machine, for the least amount of cost, it is a good practice to set up and follow a scheduled preventative maintenance program. It will eliminate many possible problems and down time.

⚠WARNING 

Operation of this equipment may create sparks that can start fires around dry vegetation. A spark arrester may be required. The operator should contact local fire agencies for laws or regulations relating to fire prevention requirements.

⚠DANGER

Keep the machine in good condition. Be sure the machine is in good operating condition and that all safety devices, including guards and shields are installed and functioning properly. Visually inspect the machine daily before starting the machine. Refer to the "Daily Start Up & Maintenance". Make no modifications to your equipment unless specifically recommended or requested by Bandit Industries Inc.

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

⚠WARNING

Before performing maintenance on the machine remove all debris, oil, grease, water, snow, ice, etc. from all machine surfaces.

⚠DANGER

Never turn the cutterhead by hand, always carefully use a pry bar or wood bar. This will help prevent the person turning the cutterhead from being injured should the cutterhead break loose.

A sight hole in the beltshield has been provided. If the drive belts are moving do not open cutterhead hood. Do not stick fingers in sight hole.

⚠WARNING

The machine was built with a cutterhead hood engine disable plug which disables the engine if it is not installed properly with the hood pin holding the cutterhead hood in the closed position. Correctly installed and maintained, the engine will not start or it will shut off if the cutterhead hood engine disable plug is disconnected. The cutterhead hood must NEVER be opened if the cutterhead is turning. If the cutterhead hood is incorrectly open while the cutterhead is turning, DO NOT push the door closed.

⚠WARNING

The machine was built with a discharge access door engine disable plug which disables the engine if it is not installed properly ensuring the maintenance door in the closed position. Correctly installed and maintained, the engine will not start or it will shut off if the discharge access door engine disable plug is disconnected. The discharge access door must NEVER be opened if the cutterhead is turning.

SAFETY PROCEDURES

⚠DANGER

DO NOT remove the hood pin until the cutterhead has came to a complete stop. The cutterhead will coast for several minutes after the engine is shut down. Always wait at least several minutes.

DO NOT operate this machine without the Hood Pin in place. Do not operate the machine with any type of makeshift hood pin or an improperly installed hood pin! The Hood Pin MUST be padlocked.

DO NOT operate the machine with the cutterhead hood open under any circumstances.

⚠WARNING

It is very important after you have operated a new machine for approximately an hour to shut down the machine and recheck all hydraulic fittings. Retighten as needed.

DO NOT GO NEAR HYDRAULIC LEAKS! High pressure oil easily punctures skin causing serious injury, gangrene, or death. Avoid burns from fluid. Hot fluid under pressure can cause severe burns. DO NOT use fingers or skin to check for leaks. Lower load or relieve hydraulic pressure before loosening fittings. Relieve all pressure in the system before disconnecting the lines, hoses, or performing other work. Use a piece of cardboard to find leaks. Never use your bare hands. Allow system to cool down to ambient temperature before opening any coolant or hydraulic oil system.

In cold weather situations let your hydraulic system idle for approximately 15 minutes to allow the system to warm up to operating temperature.

⚠WARNING

It is very important after you have operated a new machine for approximately an hour to shut down the machine and recheck all nuts and bolts. It is normal for nuts and bolts to loosen once on a new piece of machinery. If you tighten them now, there is a good possibility they won't loosen again. Certain nuts and bolts should be checked periodically such as cutterbody and tooth hardware for torque and fit.

Most of the nuts used on the machine are self locking. The cutterhead only has self locking nuts on the cutterbodies. After a nut or bolt has been removed five times, it should be replaced to ensure proper tightness. This is especially critical on the cutterhead and tooth nut and bolts. After the engine is started, let the cutterhead turn at the lowest RPM's possible. Listen for any type of noise that is foreign. Any steel on steel noise is foreign. If you hear a noise, stop the engine, find the problem and fix it.

⚠DANGER

Do not work inside the mouth of the machine or around the feedwheel, until you have installed the yoke cylinder lock and yoke lock pin completely and securely to help keep the feedwheel in the raised position. Block the feedwheel up before doing any work inside the throat. Always block or stabilize infeed conveyor when working inside or around the infeed system.

⚠DANGER

Before changing the screen in the machine, do not do any maintenance work inside or around your machine without disengaging the clutch, waiting for the cutterhead to come to a complete stop, turning off the engine, removing the ignition key, making sure the ignition key is in your possession, waiting 2 minutes and then disconnect the battery.

NOTICE

Do not attempt to start the engine or engage the engine PTO (power-take-off) system on this machine if the cutterhead is jammed or frozen in place. If you do, you will damage or ruin the drive belts, the PTO, engine, or starter which will not be covered under warranty and will cost you down time and money.

⚠DANGER

Do not work on the machine if the engine is running with the clutch disengaged. A clutch can self engage if either the pilot or throw-out bearing happens to seize to the main output shaft.

There are various types of clutches (PTO's) available for this type of equipment. Make sure to study the original clutch manufacturer's manual that is provided with the machine and follow its instructions for operation, service, and adjustments. Some styles require clutch engagement to be maintained so that it takes a lot of force, others will require very little force, and some are push button, electric, manual lever, or hydraulic activation. Each different style clutch (PTO) is a very expensive item that will fail if not correctly maintained and adjusted. It will be quite costly if a few minutes are not taken daily, weekly, and monthly to keep the clutch serviced as required.

The operator must take care in the engagement and disengagement of the clutch, engine RPM must always be at idle speed. When the engine has sufficiently warmed up, bump the clutch handle against engagement to start the cutterhead turning. This will have to be repeated until the cutterhead is turning at the proper ratio with the engine RPM. Then push or pull the handle all the way out to fully engage the clutch until it locks into position securely. After engagement raise engine RPM to full throttle. Engaging and disengaging the clutch at high engine RPM will quickly and excessively wear out clutch plates as well as bearings. Refer to clutch manufacturer's manual for proper service and operation.

SAFETY PROCEDURES

NOTICE

Expensive damage will occur if proper preparation is not taken before welding on the machine. Be sure to disconnect battery cables, the engine ECM (engine control module), and the DEF tank controller before welding. Follow the specific Engine MFG. instructions for proper welding and grounding procedures, before attempting to weld on the machine. If welding on the machine, do not ground the welder through the machine bearings, ground near work to be performed.

⚠WARNING

Never use jumper cables during freezing temperatures. Tow the machine inside and allow the battery time to warm up. If the machine must be started outside, inspect the battery acid for ice formation. Explosion will occur with a frozen battery. If the machine is going to be operated in excessively cold conditions, a larger cold cranking amp battery may be needed to ensure proper and prompt starting. Never use jumper cables in a confined or unventilated area. Battery acid fumes are explosive. Battery acid can cause severe burns. Never expose an open flame or spark near the battery. Keep all burning materials away from the battery. When servicing the battery, shield eyes and face, and do not smoke. Service in a well ventilated area.

⚠WARNING

EXPLOSION HAZARD: Ultra low sulfur diesel (ULSD) poses a greater static ignition hazard than earlier diesel formulations with higher sulfur content. Avoid death or serious injury from fire or explosion; consult with your fuel or fuel system supplier to ensure the delivery system is in compliance with fueling standards for proper grounding and bonding practices.

⚠WARNING

Check laws and regulations. Know and obey all federal, state, and local laws and regulations that apply to your work situation and the transportation of a machine this size.

⚠WARNING

Before you begin to transport your trailerized machine follow all of the transportation procedures on page 19. Make sure that the tongue has been raised to the proper height and attach the machine securely to the towing vehicle. Once secured to vehicle, locate tongue jack and secure it in the transport position. Always hook safety chains to vehicle by crossing them under the tongue allowing enough slack to avoid binding or dragging the ground when making turns. Check brakes and highway lights make sure that they are all operating properly. Check that the plug terminal functions match the towing vehicle for proper operation. Be sure to check tire pressure before you begin to transport the machine. Store remote or tether in control cabinet. Close and secure any of the following, if equipped: tool box, battery box, engine cowl doors and side panels, radiator debris screens, inspection doors, cabinet doors, housing covers, tank caps and covers, etc.

⚠WARNING

CLEAN MACHINE OF ALL DEBRIS! DO NOT leave this machine unattended until all potential fire debris is removed, no fire or smoldering exists, and hot spots are cold. The engine creates many hot spots including: exhaust manifold, exhaust, turbo (if equipped), etc. Remove all flammable debris such as wood, chips, leaves, oils, fuels, etc. from engine exhaust, engine turbo (if equipped), beside, around, and under engine, around and under tanks, inside and around (including behind) the beltshield and guards, inside battery and tool boxes, inside cabinets (if equipped), and anywhere materials collect. ALWAYS keep several type A:B:C fire extinguishers operational and on the job at all times.

VOLUME OF A CONE

$$\text{Approximate Volume of Pile In Cubic Yards} = \frac{\text{Diameter} \times \text{Diameter} \times \text{Height}}{100}$$

$$\text{Approximate Volume of Pile In Cubic Meters} = \text{Diameter} \times \text{Diameter} \times \text{Height} \times 0.26$$

EQUIPMENT SPECIFICATIONS

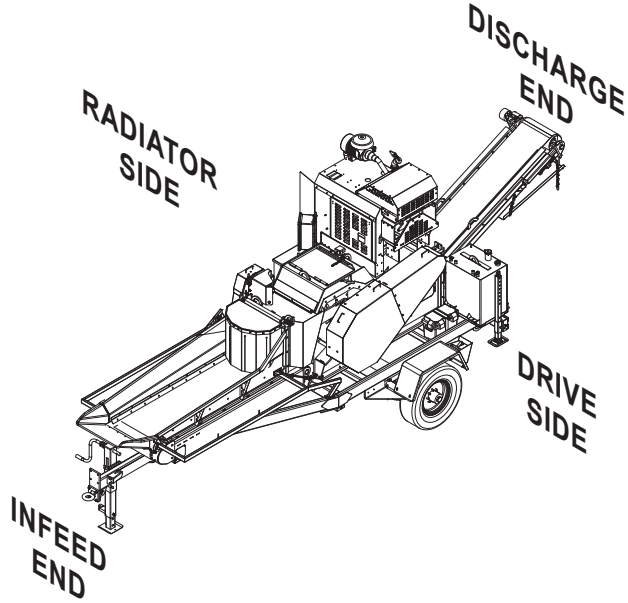
Approximate Dimensions & Weights

(Dimensions & weights will vary depending on optional equipment)

Model 1425

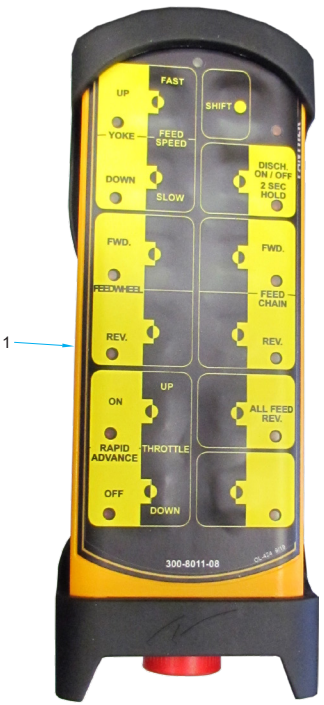
Height	116” (2.9 m)
Length	308” (7.8 m)
Width	98” (2.4 m)
Weight	11,500 - 12,000 lbs. (5,220 - 5440 kg)
Fuel Tank Capacity	40 gal. (151 L)
Hydraulic Tank Capacity	40 gal. (151 L)

MACHINE ORIENTATION REFERENCE



COMPONENTS

Basic Location of Components		
#	Description	Location
1	Remote	
2	Infeed Conveyor	Infeed end
3	Foot Pad Jack	Infeed end, on tongue
4	Emergency Shut Down	Infeed end, on both sides of Infeed Conveyor
5	Keypad	Radiator side, on oil cooler mount
6	Lug Nuts	Drive side & radiator side, on wheels
7	Tool Box	Radiator side, underneath engine on fender
8	Hydraulic Valve Bank	Radiator side, underneath engine
9	Hydraulic Tank	Radiator side, towards discharge end
10	DEF Tank	Discharge end, under discharge conveyor
11	Discharge Conveyor	Discharge end
12	Clutch Handle	Radiator side, on engine
13	Control Panel	Radiator side, on engine
14	Yoke Cylinder Lock	Radiator side, on yoke cylinder
15	Yoke Lock Pin Hole	Radiator side, on pivoting arm
16	Fuel Tank	Drive side of the machine, towards discharge end
17	Cutterhead Belts	Drive side
18	Wooden Push Paddle	Drive side on beltshield
19	Cutter Teeth & Hardware	On cutterhead

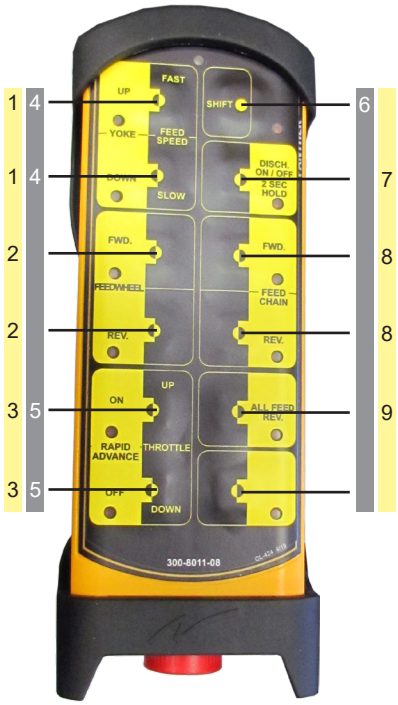


COMPONENTS

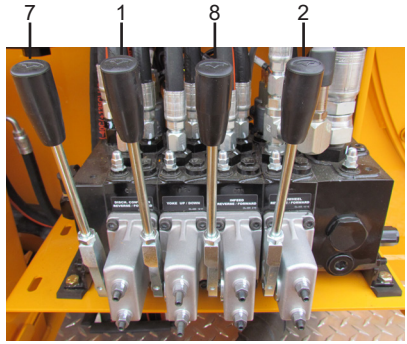

13
OFF
ON
START
IGNITION SWITCH
11
12
14
15
2
10
9
8
7
6
5
4
3
BANDIT
www.banditchippers.com
18
17
16
5
6

CONTROLS

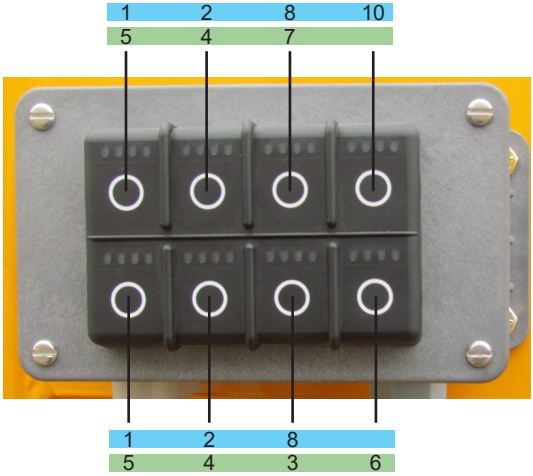
REMOTE



HYDRAULIC VALVE



KEYPAD



CONTROL PANEL

CONTROLS

1. **Yoke Up / Down:** The yoke lift control operates the top yoke lift cylinder. To lower the yoke to apply down pressure: press the button labelled “Yoke Down” on the remote or keypad, or pull the handle labelled “Yoke Up/Down” towards you on the hydraulic valve. To lift the yoke for maintenance: press the button labelled “Yoke Up” on the remote or keypad, or push the handle labelled “Yoke Up/Down” away from you on the hydraulic valve. Otherwise, in the off position, the top yoke will float as needed over incoming material.

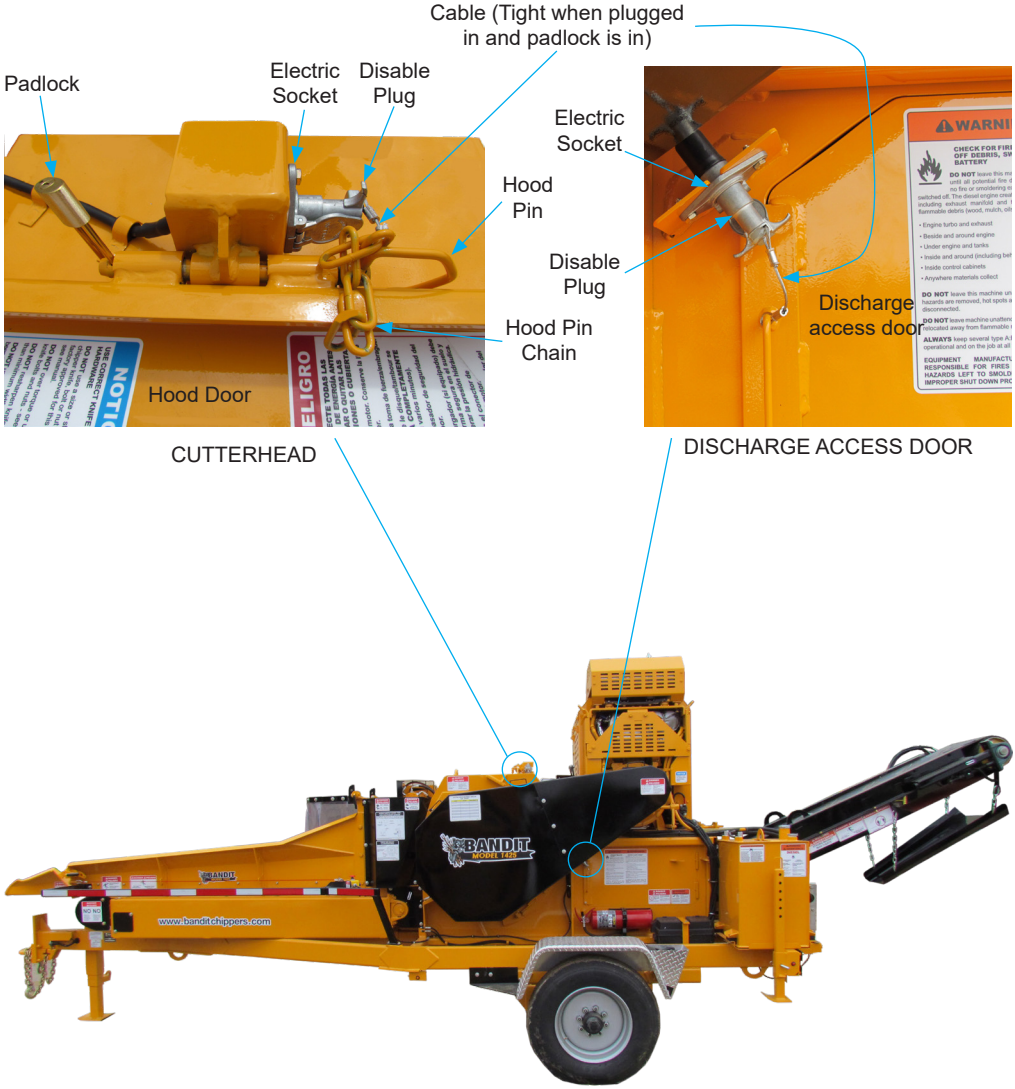
   ⚠DANGER

   The yoke must be raised using the hydraulic valve when placing the yoke locks. Always use the yoke cylinder lock and yoke lock pin when working under the yoke.

2. **Feedwheel Forward / Reverse:** The feedwheel forward/reverse controls the top feedwheel only. To feed material into the machine press the button labelled “Feedwheel Forward” on the remote or keypad, or pull the handle labelled “Feedwheel Reverse/Forward” towards you. To reverse material out of the machine press the button labelled “Feedwheel Reverse” or push the handle labelled “Feedwheel Reverse/Forward” away from you on the hydraulic valve (Note: Must also use the reverse function on the “Infeed Conveyor Forward/Reverse” on the hydraulic valve or use the “All Feed Reverse” button on the remote or keypad).
3. **Rapid Advance On / Off:** To speed up the discharge press the button labelled “Rapid Advance On” on the remote or keypad, or in the mode screen of the control panel. To return the discharge to normal speed press the button labelled “Rapid Advance Off” on the remote or keypad, or in the mode screen of the control panel.
4. **Feed Speed Fast / Slow (Only Use When Rapid Advance is “Off”):** To increase the speed material is fed through the machine press the button labelled “Feed Speed Fast” on the remote or keypad, or in the mode screen of the control panel. To decrease the speed material is fed through the machine press the button labelled “Feed Speed Slow” on the remote or keypad, or in the mode screen of the control panel,.
5. **Throttle Up / Down:** To increase the engine throttle, press the button labelled “Throttle Up” on the remote or keypad, or push the toggle switch up in the control panel. To decrease the engine throttle press the button labelled “Throttle Down” on the remote or keypad, or pull the toggle switch down in the control panel.
6. **Function Shift (Remote & Keypad Only):** The function shift button on the remote and keypad allows the use of the secondary functions. The keypad will change colors and match the text on the decal.
7. **Discharge On / Off:** To turn the discharge on in the forward direction press the button labelled “Discharge On/Off 2 Sec Hold” for two seconds on the remote or the keypad, in the mode screen of the control panel, or push the handle labelled “Discharge Forward/Reverse” away from you on the hydraulic valve. To stop the discharge press the button labelled “Discharge On/Off 2 Sec Hold” for two seconds on the remote or the keypad, in the mode screen of the control panel, or pull the handle labelled “Discharge Forward/Reverse” towards you.
8. **Infeed Conveyor Forward / Reverse:** The infeed conveyor forward/reverse controls the infeed conveyor only. To feed material into the machine press the button labelled “Feed Chain Forward” on the remote or keypad, or pull the handle labelled “Infeed Reverse/Forward” towards you on the hydraulic valve. To reverse material out of the machine press the button labelled “Feed Chain Reverse” on the remote or keypad, or push the handle labelled “Infeed Reverse/Forward” away from you on the hydraulic valve (Note: Must also use the reverse function on the “Infeed Conveyor Forward/Reverse” on the hydraulic valve or use the “All Feed Reverse” button on the remote or keypad).
9. **All Feed Reverse:** The all feed reverse function reverses material out of the machine controlling both the feedwheel and the infeed conveyor. To reverse material out of the machine press the button labelled “All Feed Reverse” on the remote or keypad. Hold the button as long as needed to reverse the material out. Once the button is released the feedwheel and infeed conveyor stop.
10. **Keypad On / Off:** To use the keypad press the button labelled “Keypad On/Off”. Note: To use the functions on the keypad; the control panel must be set to “Manual”

ENGINE DISABLE PLUG OPERATION

The engine disable plugs are installed for safety purposes. They are designed to shut down the engine if the engine disable plugs and hood pin are not properly in place. The discharge access door must be in the closed position and the hood pin must be properly in place holding the cutterhead hood in the closed position. These systems must be correctly maintained and operative at all times. If the engine disable plugs are not correctly installed the engine will not start or run. If the engine disable plugs become disconnected during operation the engine will be shut down and disabled from operating until they are properly plugged back in.



TRANSPORTATION PROCEDURES

⚠WARNING

BEFORE TRANSPORTING THE MACHINE THE FOLLOWING MUST BE COMPLETED.

1. Idle engine, disengage clutch.
2. Turn the discharge off at the control panel or key pad controls.
3. Make sure the feedwheel is in the lowered position.
4. Turn off engine, wait for the cutterhead to come to a complete stop and you must have the ignition key in your possession.
5. Remove all excess debris. Remove any wood or debris which may have collected.
6. Raise the rear stabilizer legs to the transport position if equipped.
7. Raise the front of the machine with the tongue jack and remove the stabilization blocks used.
8. Couple machine to the transport vehicle by lowering the machine onto the hitch. Make sure the hitch matches the coupling size. Then secure hitch and lock it.
9. Attach the safety chains by crossing them under hitch, make sure to allow the proper amount of slack in chains to avoid binding or dragging the ground when making turns.
10. Connect the brake breakaway cable and plug in the electrical connection for the lights on the machine or transport trailer.
11. Check running lights, turn signals, and brake lights. All must be operating properly before transporting the machine. Also check brakes to make sure they are operating correctly.
12. Check tires for correct pressure, cuts or damaged rims.
13. Check lug nuts and retorque if necessary. Check new units before operation, check again after 20-25 miles (32-40 km) and regularly check at least weekly.
14. Inspect and replace any axle dust caps that are damaged or leaking.
15. Check wheel bearings and grease or oil axles per axle manufacturer's manual.
16. Walk around the machine to confirm that everything is secure and that there is not anything loose that could fall off during transport. Look under machine to ensure nothing is dragging. Look down both sides of the machine for anything sticking out that may become damaged during transport.
17. Close and secure any of the following, if equipped: engine cowl doors and side panels, radiator debris screens, inspection doors, housing covers, tanks caps and covers, etc.
18. The machine is now ready for transport. Make sure to obey all local regulations and laws regarding the transporting of this type of machine.
19. Do not drive too fast for road conditions or exceed speed regulations for equipment towing. Machine must be hauled level and the towing vehicle must be sized to handle hitch weight, towing weight, and braking requirements.

MAINTENANCE

The Bandit is a very simple machine to maintain. If you will follow a regular scheduled preventative maintenance program, you should have years of trouble free operation.

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

⚠DANGER

Do not let anyone operate or maintain this machine until they have thoroughly read this manual, reviewed the equipment decals, watched the equipment video, and has been properly trained. You can purchase additional Bandit manuals, decals and videos for a nominal fee.

⚠DANGER

Keep hands clear of all pinch points.

⚠WARNING

Before performing maintenance on the machine remove all debris, oil, grease, water, snow, ice, etc. from all machine surfaces.

NOTICE

Consult your engine manual for proper break-in procedures. Various engines require somewhat different procedures, but basically the engines need to operate at lower R.P.M.'s and loads for a specific time.

NOTICE

Failure to properly break-in your engine may result in poor bearing and piston ring surfaces.

NOTICE

The Bandit has only been run for a short time to test proper hydraulic pressures, possible leaks, etc. The fuel tank will be empty. Fuel is provided through a small auxiliary tank for testing. This immensely helps maintain safety in our manufacturing facility and while shipping.

NOTICE

Expensive damage to the Bandit will occur if proper preparation is not taken before welding on the machine. Be sure to disconnect both battery cables and the engine ECM (engine control module) before welding. Follow the specific Engine MFG. instructions for proper welding and grounding procedures, before attempting to weld on the machine. If welding on the machine, do not ground the welder through the machine bearings, ground near work to be performed.

DAILY START UP & MAINTENANCE

1. **Check the safety decals and engine gauges:** Replace any missing or damaged decals and/or engine gauges.
2. **Check all safety equipment:** Check for proper operation. Repair or replace as needed.
3. **Check the entire machine for the following:** Check the entire machine to make sure there are no cracks or damage. Make sure all bolts and nuts are not loose or missing. Make sure all parts and components are not loose or missing and are functional. Repair, replace, tighten, or torque as needed. See page 24 for specific bolt torques.
4. **Check all guards:** Check to make sure all guards are in place and installed correctly. Make sure they are secure.
5. **Check cutterhead hood hinge:** Make sure the cutterhead hood hinge operates correctly, and is lubricated. Must replace hinge if damaged.
6. **Checking for foreign objects:** Before opening the cutterhead hood make sure the clutch is disengaged, the cutterhead came to a complete stop, the engine off, the ignition key is in your possession, and battery is disconnected. Remove the hood pin padlock, disconnect the cutterhead hood engine disable plug, and then remove the hood lock pin. Look for any foreign objects inside the cutterhead chamber or on the infeed conveyor. Remove any foreign objects found.

DAILY START UP & MAINTENANCE (cont.)

7. Check the condition of the cutterhead assembly, cutterbodies, cutter teeth, rakers, wiper inserts, and attaching hardware:
Check for elongated bolt holes in cutterbody support arms, cracks in breakaway points on cutterbody, loose cutterbody bolts, loose tooth bolts, and loose raker bolts. Inspect rakers, and inspect the cutterhead bearings. Check the cutterhead chamber for wear or damage. If a problem is found, contact the machine manufacturer or an authorized Bandit dealer. Check the condition of the cutterbodies, cutter teeth, rakers, and wiper inserts. Look for, find, and tighten any component and attaching hardware that has loosened up, become damaged, or missing. Replace as necessary. Make sure all components are torqued according to the chart on page 24.

8. Check cutterhead to turn:
Very carefully, manually with a pry bar or wood bar, turn the cutterhead a full revolution. This is to ensure the cutter teeth have proper clearance. If the cutterhead is jammed with debris or frozen in place, **DO NOT** attempt to start the engine and engage clutch until the cutterhead rotates freely. NOTE: It is the best practice to spin the cutterhead backwards.

9. Check anvil clearance, tightness, and wear:
Measure the anvil clearance. The clearance should be 0.25" (6.4 mm) from a new tooth. Check the anvil hardware, make sure the bolts are at the proper torque. Replace anvil and hardware as needed.

10. Check the screen:
Check for wear or damage. Repair or replace as necessary. Check clearance at each end and at the center of the screen. Make sure they are adjusted 1/4" (6.35 mm) from the cutterhead using a new tooth. NOTE: Screen is pushed back away from the cutterhead, this will increase wear inside cutterhead chamber.

11. Hood lock pin and padlock:
After closing cutterhead hood, reinsert the hood pin and padlock, make sure pin is tight and secure. If worn replace immediately. Don't use a worn or makeshift hood pin. Make sure the chipper hood engine disable plug is installed correctly and that it is also operating properly.

12. Discharge access door:
Make sure the discharge access door is closed and securely bolted. Make sure the discharge access door engine disable plug is installed correctly and that it is also operating properly.

13. Grease all feedwheel, discharge conveyor, and infeed conveyor bearings:
Use an EP-2 Lithium type grease only for all bearings. Grease the feedwheel bearings, discharge conveyor bearings, and infeed conveyor bearings, with one shot of grease. This type of bearing is designed with a relief system that will not allow over greasing. In other words, you can not hurt the bearing seals by pumping in too much grease. Most of the failures related to bearings are diagnosed as "Contamination". Contamination is caused by improper lubrication. Wipe off excess grease. **Excessive grease will attract dirt.**

14. Clean debris inside and around (including behind) beltshield:
Be sure to remove any debris from inside and around (including behind) the beltshield at the end of each day. Debris left inside the beltshield can affect the belts and shorten the life of the belts.

15. Check / adjust the cutterhead belt tension:
Inspect belt condition and replace if needed. The belts will need to be tightened several times in the first few days of operation. A loose belt will slip and then glaze over. Once they slip you must replace them. Check hydraulic pump drive belts also if equipped. See pages 40 - 41 for procedures.

16. Check infeed conveyor tracking:
Check the tracking of the infeed conveyor. Make sure the conveyor is running true. Adjust as needed.

17. Check discharge conveyor tracking:
Check the tracking of the discharge conveyor. Make sure the conveyor is running true. Adjust as needed.

18. Check the hydraulic pump and motor shafts:
Check the hydraulic pump and hydraulic motor shafts for fit and tightness.

19. Check hydraulic oil level:
The hydraulic oil reservoir tank level should always remain at 7/8 full. Remember to check **DAILY** to avoid excessive heat build up.

20. Check hydraulic shut-off valves:
Check to ensure all shut-off valves on hydraulic tank are open.

21. Check for any fluid leaks:
Inspect for any oil, fuel, hydraulic oil, or engine coolant leaks. Check all hoses, fittings, lines, and tanks. **DO NOT** use fingers or skin to check for hydraulic leaks. Repair or replace any damaged or leaking components.

22. Check hydraulic control valves:
Inspect all hydraulic control valves and ensure they operate smoothly and shift correctly.

DAILY START UP & MAINTENANCE (cont.)

23. Check clutch:
Check for proper lubrication, and engagement tension adjustment, frequently adjust and lubricate per PTO clutch manufacturer's manual. Bandit Industries, Inc. **does not warranty clutch failures.**

24. Check the fuel level:
Check the fuel level, running out and repriming is time consuming. Do not over fill, and you must leave fuel expansion space in the top of the tank: 2" (50 mm) from the top for diesel engines.

25. Check engine oil and coolant level:
Follow the engine manufacturer manual recommendations for fluid levels. You MUST follow specific ENGINE MFG. manual recommendations for radiator coolant, additives, lubrication, correct engine speed, ETC.

26. Check DEF level on Tier 4 engines:
Check the Diesel Emissions Fluid (DEF) level on Tier 4 engines. Fill to engine manufacturer's manual recommendations.

27. Check air cleaner and precleaner:
Clean or replace element following engine manual recommendations. Also, check and clean the vacuator valve.

28. Check radiator, debris screen:
Refer to the engine manufacturer's manual. Thoroughly clean radiator fins at least once a day or more in excessive conditions. Make sure debris is not packed between fins. Use compressed air and/or pressurized water (soap may also be needed) to clean the radiator, depending on the level and type of debris. If pressurized water is used, be careful not to turn the debris hard and pack solid between the radiator fins. Make sure to clean the radiator in the correct direction depending on if the cooling fan is a sucker or a pusher; do not propel the debris into the radiator with compressed air or pressurized water. A partially plugged radiator will not allow the engine to cool properly. Keep the compressed air or pressurized water a safe distance from the radiator fins so they are not damaged. Visually inspect the radiator fins and make sure they are not bent or closed off, repair or replace as needed. Clean cooling fan, shroud on air cooled engines, and the debris screen (if so equipped). Improper service, maintenance, or neglect will cause overheating problems and/or engine failure.

29. Check oil cooler:
Thoroughly clean cooler fins at least once a day or more in excessive conditions. Make sure debris is not packed between fins. Use compressed air and/or pressurized water (soap may also be needed) to clean the oil cooler, depending on the level and type of debris. If pressurized water is used, be careful not to turn the debris hard and pack solid between the cooler fins. Make sure to clean the cooler in the correct direction; do not propel the debris into the cooler with compressed air or pressurized water. Keep the compressed air or pressurized water a safe distance from the cooler fins so they are not damaged. Visually inspect the cooler fins and make sure they are not bent or closed off, repair or replace as needed.

30. Check tires (if equipped):
Check tires for wear, air pressure, weather checking and damage. Replace if damaged. Fill each tire to rated capacity on tire.

31. Inspect axle dust caps (if equipped):
Inspect axle dust caps and replace if damaged or leaking.

32. Check the discharge conveyor location:
Make sure the discharge conveyor is positioned in a safe location.

33. Block the tires and tongue (if equipped):
Before operation block the tires and tongue for stability. Do not rely on tongue jack for operational stabilization.

34. Remove all potential fire hazards:
Remove fire hazards such as wood debris, mulch, oils, fuels, etc.

35. Check around machine:
Check around the entire machine for tools, cans, saws, etc. All tools not in use should be stored in a tool box.

36. Review all safety procedures on decals, from manual, and from video.

37. Make sure all safety equipment is being worn:
Make sure you are wearing all of your safety equipment: hard hat, face shield, gloves, eye protection, ear protection, etc. per ANSI and OSHA standards.

38. Remember to check EVERYTHING on the checklist.

WEEKLY MAINTENANCE

1. Check cutterbody bolts:
Use a torque wrench and torque the cutterbody bolts to 700 ft.-lbs. (949 Nm).

2. Check wheel lug nuts (if equipped):
Keep lug nuts tight, retorque, replace if needed.

3. Check infeed conveyor tightness:
Check the tightness of the infeed conveyor. Make sure the conveyor is running true. Adjust as needed .

4. Check discharge conveyor tightness:
Check the tightness of the discharge conveyor. Make sure the conveyor is running true. Adjust as needed.

5. Grease yoke arm pivot bushings:
Grease yoke arm pivot bushings with 2 to 3 shots of EP-2 Lithium type grease. Wipe off excessive grease. **Excessive grease will attract dirt.**

6. Grease yoke cylinder pins:
Grease each yoke cylinder pin with 2 to 3 shots of EP-2 Lithium type grease. Wipe off excessive grease. **Excessive grease will attract dirt.**

7. Grease discharge conveyor adjusters:
Grease discharge conveyor adjusters with 1 to 2 shots of EP-2 Lithium type grease. Wipe off excessive grease. **Excessive grease will attract dirt.**

8. Grease infeed conveyor adjusters:
Grease infeed conveyor adjusters with 1 to 2 shots of EP-2 Lithium type grease. Wipe off excessive grease. **Excessive grease will attract dirt.**

9. Lubricate all steel friction areas:
Lubricate all steel friction areas including, but not limited to pivoting, hinged, sliding, rotating areas on the machine (i.e. cabinet doors, radiator screen hinge, engine adjusters, etc.)

10. Check alternator and fan belts on engine:
Inspect belt condition and replace as needed. As applicable adjust and maintain per the engine manufacturer's manual. When adjusting engine fan belts, fan shroud and finger guard may need to be adjusted to give the fan blades proper clearance from shroud and finger guard.

11. Lubricate top feedwheel chain driven components:
Use a dry lube on the top feedwheel chain driven sprockets and chain.

MONTHLY MAINTENANCE

1. Grease cutterhead bearings:
Grease with 16 pumps, every 120 hours or once a month with EP-2 Lithium type grease. **Wipe off excess grease.**

2. Check towing hitch (if equipped):
Check for excessive damage or wear. Replace if needed. Keep pintle ring greased to reduce wear.

3. Check discharge conveyor motor connection:
Check and maintain correct torque on discharge conveyor motor connection. See page 44.

4. Inspect infeed conveyor motor connection:
Check and maintain correct torque, on feedwheel motor and infeed conveyor connections. See page 43.

5. Check feedwheel teeth for sharpness:
Replace if needed.

6. Check bearings and sheave bushings:
Check, retighten all bearing bolts, bearing lock collars, and also belt sheave bushings to correct torques.

7. Check hydraulic function pressures:
Check, reset and maintain all hydraulic function pressure settings to a maximum of the specified PSI (bar). This will give you the best performance from the hydraulic system.

8. Check wheel bearings (if equipped):
Check and grease or oil wheel bearings per axle manufacturer's instructions.

9. Check and adjust brakes (if equipped):
Check and adjust brakes as needed per axle MFG. manual.

10. Check top feedwheel chain tension:
Check tension on top feedwheel chain and tighten as necessary. Chain tension is 1/4" (6 mm) per foot (0.3 m) of center distance between the sprockets, NOT to exceed 1/2" (13 mm) of deflection. Do not over tighten, which may result in hydraulic motor failure

3 MONTH MAINTENANCE

1. Hydraulic oil filter(s):
Must be replaced after FIRST 10 HOURS OF OPERATION, USE A 10 MICRON FILTER. After first change replace oil filter every 3 months or 400 hours.

YEARLY MAINTENANCE

1. Hydraulic oil:
Change hydraulic oil and flush the hydraulic reservoir tank.

2. Hydraulic suction screen(s):
Change hydraulic suction screen(s) yearly or every 2000 hours.

3. Fuel tank:
Drain and clean the fuel tank yearly.

4. On machines built before 4/20, remove old grease from drum head bearings and repack with new grease:
Disassemble the drum head bearings, remove all grease from the bearing housing, repack the bearing with new grease, fill the housing 1/2 of the way and reassemble the bearing, once a year with EP-2 Lithium type grease. See page 42.

BOLT TORQUE CHART

(THESE TORQUES ARE BASED ON DRY, CLEAN THREADS)

DESCRIPTION	BOLT SIZE	TORQUE (FT.-LBS.)	TORQUE (Nm)
Cutterhead Bearing Bolts	3/4" - 10 NC	220	298
Cutterhead Shaft Bushing "4040"	3/4" - 10 NC	142	193
Anvil	3/4" - 10 NC	375	508
Cutter Tooth Bolts	3/4" - 10 NC	375	508
Raker Bolts	3/4" - 16 NF	375	508
Cutterbody Holder Bolts	1" - 14 NS	700	949
Wiper Insert Bolts	5/8" - 11 NC	160	217
Beast Knife Bolt	3/4" - 16 NF	420	569
Feedwheel / Conveyor Bearing Bolts	5/8" - 11 NC	75	102
Feedwheel / Conveyor Bearing Set Screws	3/8" - 24 NF	20	27
Discharge Idler Roller Bushings	7/16" - 14 NC	46	62
Grip-Tight Feedwheel / Conveyor Bearing Set Screws		2	3
"TG" Hydraulic Motor Shaft Nut	1" - 20 NEF	250 - 300	339 - 407
Discharge Motor Coupler	5/8" - 18 NF	250	339
Engine Hold Downs	5/8" - 11 NC	125	169
Engine Sheave Bushing "E"	1/2" - 13 NC	60	81
Chipper Sheave Bushing "J"	5/8" - 11 NC	135	183
Feedwheel Motor Sprocket Bushing "Q1"	3/8" - 16 NC	29	39
Feedwheel Sprocket Bushing "R1"	3/8" - 16 NC	29	39
Hitch Mount Bolts	5/8" - 11 NC	220	298

Before tightening bolts be sure you have the correct size bolt for the correct amount of torque.
Use only factory approved knives and hardware.

BASIC WHEEL TORQUE REQUIREMENTS (per mfg.)

Keep lug nuts properly tightened, check new unit before operation, after the first 10, 25, and again at 50 miles. Check the torque weekly.

DESCRIPTION	BOLT SIZE	TORQUE (FT.-LBS.)	TORQUE (Nm)
5 & 6 Lug hubs	1/2" - 20 Studs	90 - 120	122 - 163
8 Lug Hubs	1/2" - 20 Studs	90 - 120	122 - 163
8 Lug Hubs	9/16" - 18 Studs	140 - 170	149 - 163
8 Lug Hubs (Cone Nut)	5/8" - 18 Studs	190 - 210	258 - 285
8 Lug Hubs (Flange Nut)	5/8" - 18 Studs	275 - 325	373 - 441
8 Lug Hubs (Flange Nut)	22 mm x 1.5 Studs	450 - 500	610 - 678
10 Lug Hubs	22 mm x 1.5 Studs	450 - 500	610 - 678
10 Lug Hubs	3/4" - 16 Studs	450 - 500	610 - 678
10 Lug Hubs	1 1/8" - 16 Studs	450 - 500	610 - 678

(Consult axle manufacturers manual shipped with each machine for specific axle-stud-wheel combination lug nut torques.)

DAILY START UP & MAINTENANCE CHECK LIST

Each day before starting your machine these checks must be made:

		OK	REPAIRED
1.	Check the safety decals and engine gauges, replace if damaged.	☐	☐
2.	Check, maintain, and service all safety equipment for proper operation: engine disable plugs, hood pin, etc.	☐	☐
3.	Check entire machine for cracks, damage, loose bolts and nuts, and loose or missing components.	☐	☐
4.	Check all guards to make sure they are tight and securely in place.	☐	☐
5.	Make sure cutterhead hood hinge operates correctly, is not damaged, and is lubricated.	☐	☐
6.	Open the cutterhead hood and check for any foreign objects in the cutterhead chamber or on the infeed conveyor.	☐	☐
7.	Check the condition of cutterhead assembly, cutterhead chamber, & cutterhead bearings.	☐	☐
8.	Carefully rotate the cutterhead with a pry bar or wood bar to ensure proper anvil clearance. If cutterhead is jammed with debris or frozen in place, do not attempt to start engine and engage clutch until cutterhead rotates freely.	☐	☐
9.	Check the anvil clearance, tightness, wear, and attaching hardware.	☐	☐
10.	Check the screen for wear or damage.	☐	☐
11.	After closing cutterhead hood, reinsert the hood pin and padlock, make sure the hood pin is tight and secure. Make sure the hood lock pin is firmly in place, and the cutterhead hood engine disable plug is installed correctly.	☐	☐
12.	After closing the discharge access door, securely bolt it, and make sure the discharge access door engine disable plug is installed correctly.	☐	☐
13.	Grease the feedwheel, discharge conveyor, and infeed conveyor bearings (1 shot) daily.	☐	☐
14.	Remove any debris from inside, around, and behind the beltshield at the end of each day.	☐	☐
15.	Check belt tension on cutterhead and hydraulic pump belt drives; adjust/replace as necessary.	☐	☐
16.	Check infeed conveyor tracking.	☐	☐
17.	Check discharge conveyor tracking.	☐	☐
18.	Check hydraulic pump and hydraulic motor shafts for fit and tightness.	☐	☐
19.	Check and always maintain hydraulic level at 7/8 full.	☐	☐
20.	Check to ensure all hydraulic shut-off valves are open on hydraulic tank.	☐	☐
21.	Check all hoses, fittings, lines, and tanks for damage and fluid leaks.	☐	☐
22.	Check hydraulic control valves and ensure they operate and shift correctly.	☐	☐
23.	Check clutch for proper engagement tension and lubrication, frequently adjust and grease per PTO manufacturer's manual recommendations.	☐	☐
24.	Check fuel level. (Running out and repriming is time consuming).	☐	☐
25.	Check engine oil, coolant levels, and correct engine speed. Follow ENGINE MANUFACTURER'S manual specs.	☐	☐
26.	Check DEF level on Tier 4 engines. Fill to ENGINE MANUFACTURER'S manual recommendations.	☐	☐
27.	Check air cleaner, precleaner, and vacuator valve. Clean or replace as necessary.	☐	☐
28.	Check radiator and debris screen. Clean as necessary.	☐	☐
29.	Check oil cooler. Clean as necessary.	☐	☐
30.	Check condition of the tires (if equipped). Fill as needed.	☐	☐
31.	Inspect and replace any axle dust caps that are damaged or leaking (if equipped).	☐	☐
32.	Make sure the discharge conveyor is positioned in a safe location.	☐	☐
33.	Block tires and tongue for stability before operation. Do not rely on tongue jack.	☐	☐
34.	Remove all potential fire hazards, wood debris, mulch, oils, fuels, etc.	☐	☐
35.	Check around entire machine for any foreign objects, tools, cans, saws, etc.	☐	☐
36.	Review all safety procedures on decals, from manual, and from video.	☐	☐
37.	Wear all applicable safety equipment: hard hat, face shield, gloves, eye protection, ear protection, etc.	☐	☐
38.	Remember to check EVERYTHING on the checklist.	☐	☐

WEEKLY CHECK LIST

Every week these checks must be made:

		OK	REPAIRED
1.	Check cutterbody bolt torque with a torque wrench: 700 ft.-lbs. (949 Nm).	☐	☐
2.	Check and retorque wheel lug nuts.	☐	☐
3.	Check infeed conveyor tightness.	☐	☐
4.	Check discharge conveyor tightness.	☐	☐
5.	Grease yoke arm pivot bushings with 2 to 3 shots.	☐	☐
6.	Grease yoke cylinder pins with 2 to 3 shots.	☐	☐
7.	Grease discharge conveyor chain adjusters with 1 to 2 shots.	☐	☐
8.	Grease infeed conveyor chain adjusters with 1 to 2 shots (if equipped).	☐	☐
9.	Lubricate steel friction areas: pivoting, hinged, sliding, & rotating areas (i.e. cabinet doors, radiator screen hinge, engine adjusters, etc.).	☐	☐
10.	Check alternator and fan belts on engine, adjust or replace.	☐	☐
11.	Use a dry lube on top feedwheel chain driven components.	☐	☐

MONTHLY CHECK LIST

Every month these checks must be made:

		OK	REPAIRED
1.	Grease cutterhead bearings every 120 hours or monthly with 16 pumps of EP-2 Lithium type grease.	☐	☐
2.	Check towing hitch for wear, keep pintle ring greased (if equipped).	☐	☐
3.	Check discharge conveyor motor coupler torque.	☐	☐
4.	Inspect infeed conveyor motor connections.	☐	☐
5.	Check feedwheel teeth for sharpness.	☐	☐
6.	Check, retighten all bearing and sheave bushing bolts.	☐	☐
7.	Check hydraulic function pressures. Set to specified PSI (bar).	☐	☐
8.	Check and grease or oil wheel bearings, follow axle MFG. instructions (if equipped).	☐	☐
9.	Check and adjust brakes, follow axle MFG. instructions (if equipped).	☐	☐
10.	Check and adjust top feedwheel chain tension.	☐	☐

3 MONTH CHECK LIST

Every three months these checks must be made:

		OK	REPAIRED
1.	Replace hydraulic filter(s) after first 10 hours then quarterly or every 400 hours.	☐	☐

YEARLY CHECK LIST

Every twelve months these checks must be made:

		OK	REPAIRED
1.	Change hydraulic oil and flush the hydraulic tank.	☐	☐
2.	Replace hydraulic suction screen(s) annually or every 2000 hours.	☐	☐
3.	Drain and clean the fuel tank.	☐	☐
4.	On machines built before 4/20, remove all grease from drum head bearings, repack and fill housing 1/2 full.	☐	☐

PAINT & DECAL CARE

PAINT CARE

To help keep up the appearance of your Bandit equipment and reduce the possibility of surface rust follow these steps:

1. The machine should be washed on a regular basis with a non-abrasive mild detergent and then rinsed thoroughly. **Do not pressure wash sensitive areas** like: decals, gauges, electronic devices, autofeed control, etc.
2. If a stone chip, paint scratch, or paint crack occurs - it should be repaired immediately. Simply sand the edges of the damaged paint area, mask off the surrounding area, and apply primer and paint to the dry, clean, and warm area. This will keep the damaged area from spreading or getting worse.
3. If you are unable to sand and mask the area, there are containers of primer and paint available. A small brush can be used to touch up the area.
4. Also, primer and most colors of paint are available in aerosol spray cans to simply spray over the effected area after it is cleaned, dry, and warmed. This method is not as reliable as the process in step #2.

It is also reported that some equipment owners polish their machine at least yearly, and keep good mud flaps on their towing trucks to prolong the machine's paint.

DECAL CARE

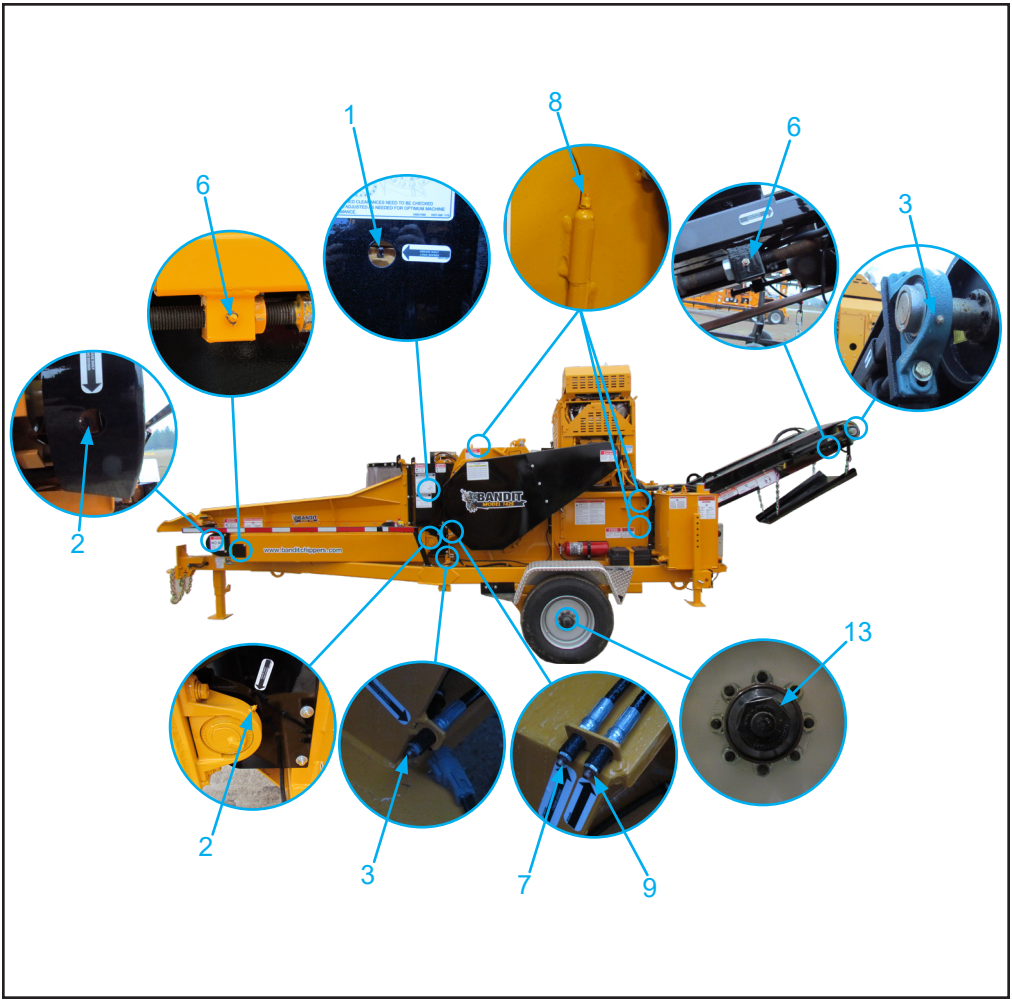
Decals located on your Bandit equipment contain useful information to assist you in operating your equipment safely. The safety decals are shown and explained in this section along with decal locations.

It is very important that all decals remain in place and in good condition on your machine. Please follow the care and instructions given below.

1. You should use soap and water to keep your decals clean. Never use mineral spirits or any other abrasive cleaners.
2. Immediately replace any missing or damaged decals. The location the decal is going to be applied to must be clean and dry, and at least 40°F (5°C) before applying decal.
3. When the need arises to replace a machine component with a decal attached, be sure and replace the decal.
4. Replacement decals are available, and can be purchased from the manufacturer or your Bandit Dealer.
5. Peel back about half of the backer paper on the decal. Position it on the flat, dry, clean surface so it is smooth and secure. Peel off the remainder of the backer paper as you continue to stick the decal on the surface.
6. Rub decal from the center outward to remove air bubbles and to secure contact.
7. English/Spanish decals are typically standard. Other foreign language decals are available and may be purchased. Mail translated decals required to Bandit Industries, Inc.

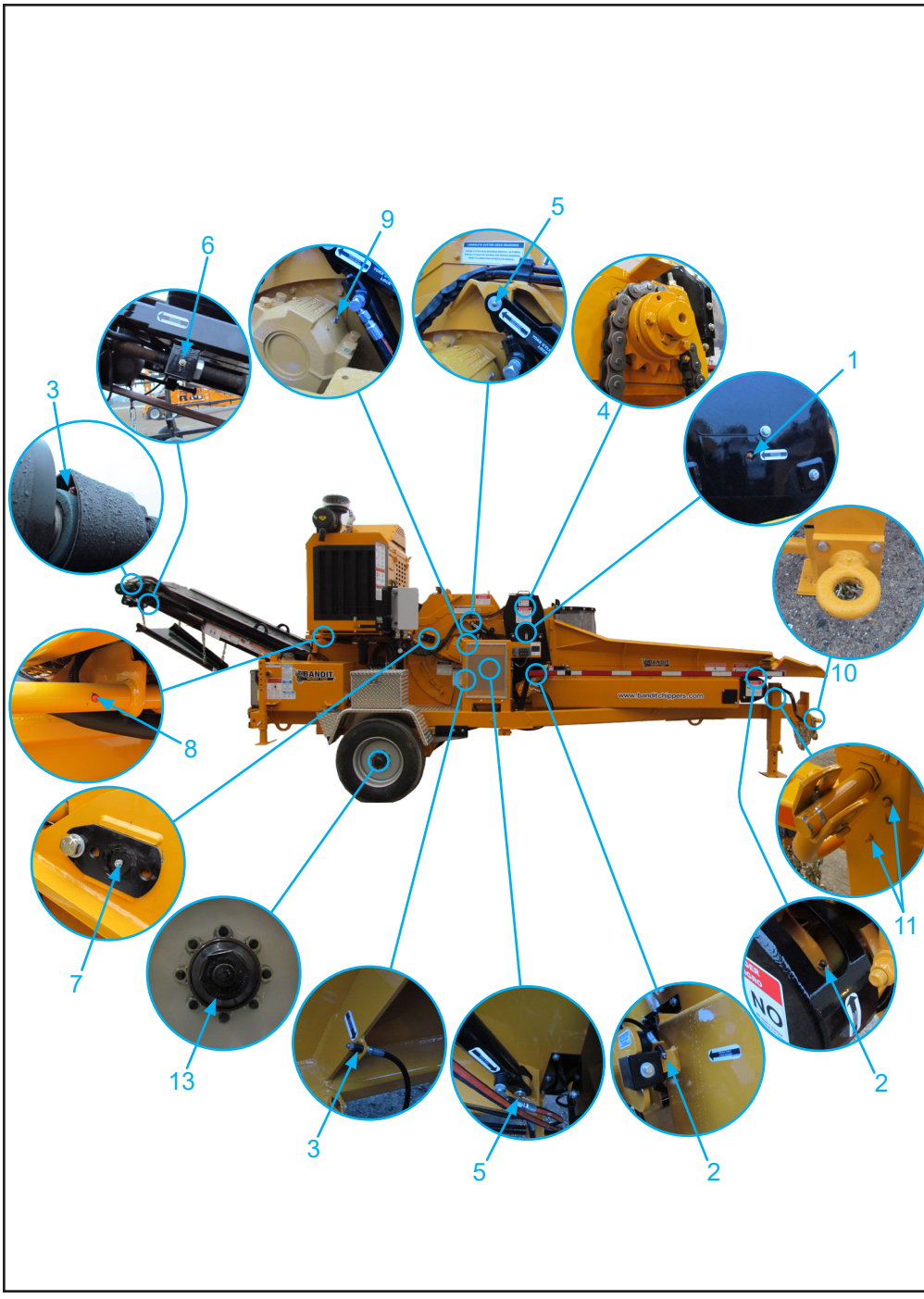
LUBRICATION CHART

			CHECK			
#	DESCRIPTION	QTY	DAY	WEEK	MONTH	PROCEDURE
1	Feedwheel Bearings	2	X			2 - 3 shots of grease - wipe off excess
2	Infeed Conveyor Bearings	4	X			2 - 3 shots of grease - wipe off excess
3	Discharge Conveyor Bearings	4	X			2 - 3 shots of grease - wipe off excess
4	Feedwheel Drive Chain	1	X			Dry lube
5	Cylinder Pins	2	X			1 - 2 shots of grease - wipe off excess
6	Infeed & Discharge Adjusters	2		X		1 - 2 shots of grease - wipe off excess
7	Yoke Arm Pivot Pin	2		X		2 - 3 shots of grease - wipe off excess
8	Steel Friction Areas: pivoting, hinged, sliding, rolling.			X		Lubricate
9	Cutterhead Bearings	2			X	16 pumps - wipe off excess
10	Pintle Eye Ring	1			X	Grease to reduce wear
11	Tongue Jack	1			X	1 - 2 shots of grease - wipe off excess
12	Clutch	→				Lubricate per MFG's instructions
13	Axles	→				Lubricate per MFG's instructions



NOTICE Use as a reference only, locations may vary depending on options or component manufacturer. Lubrication point instructions are described on the machine, in the Maintenance Section of this manual or component manufacturer's manual.

LUBRICATION CHART



NOTICE Use as a reference only, locations may vary depending on options or component manufacturer. Lubrication point instructions are described on the machine, in the Maintenance Section of this manual or component manufacturer's manual.

CUTTERHEAD

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

- Always keep the cutterbody bolts torqued at 700 ft.-lbs. (649 Nm). Loose bolts can cause premature wear to the cutterbody, cause the support arm to crack, or form oblong holes on the support arm.
- Always keep cutter teeth torqued at 375 ft.-lbs. (508 Nm). If using replaceable rakers: keep torqued at 375 ft.-lbs. (508 Nm) (See Figure 1).
- Always keep Beast knives torqued at 420 ft.-lbs. (569 Nm) (See Figure 2).
- Replace the support arm if the mounting holes measure more than 1.042" (26.5 mm) in diameter or if they are oblong (See Figure 3).

NOTICE

It is a good practice to stop after 20 or 30 minutes of running new teeth or cutterbodies in order to retighten any loose nuts and bolts to their specified torque.

- Always use cutterbody bolts supplied by Bandit or a Bandit dealer. The cutterbody bolts are specially made for this application. The use of any other bolts will cause extensive damage to the machine and will void the warranty.
- Do not allow the cutter tooth to wear beyond useful life of carbide or wear material. Replace immediately.
- The shank of the cutterbody holder bolt should be 1/8" (3.2 mm) inside of the support arm (See Figure 4). When clamping the cutterbody be sure the nut does not bottom out.

Figure 1

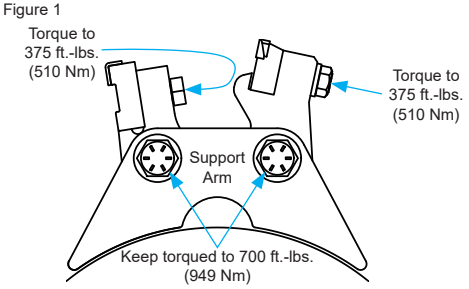


Figure 2

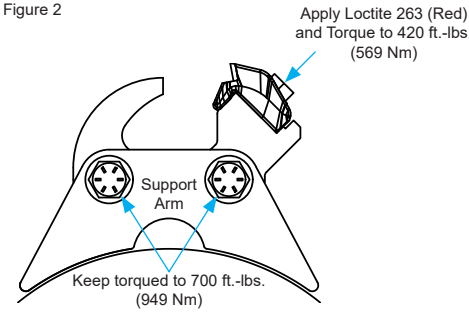


Figure 3

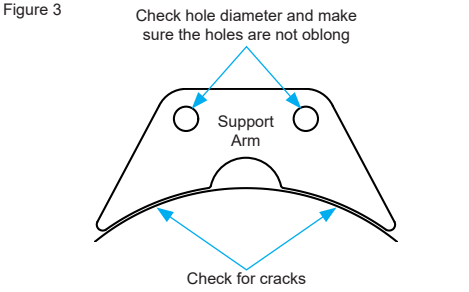
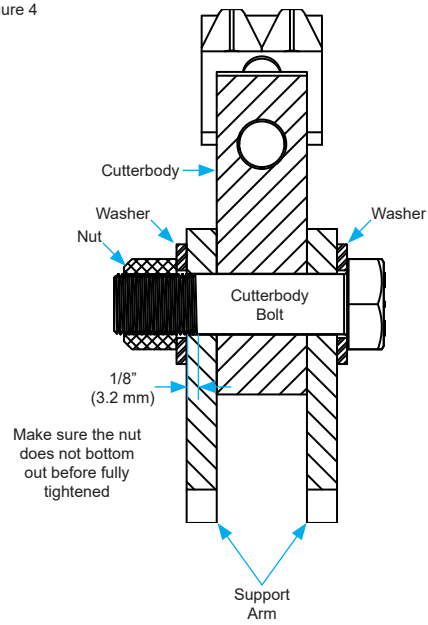


Figure 4



CUTTERHEAD

RAKERS

Rakers are designed to control the depth the cutter tooth will cut. The cutter tooth will take a larger cut the more a raker wears. Depending on the screen being used larger cuts taken will not pass through and beat around inside the cutterhead chamber until small enough to pass through the screen. Taking bigger cuts robs horsepower used at the cutter tooth, puts stress on the cutterhead shaft that can cause shaft failure, cause cutterbodies to stretch and fail prematurely, and cause the cutterbody bolts to bend or break.

The hard surface weld on the replaceable raker or the raker area must be maintained. See Figure 1 for maximum allowable wear. While on the machine the measurements can be taken from the face of the cutterhead. When worn either replace the replaceable raker, or remove the cutterbody and build up the raker area with a hard surface weld using the dimensions in Figure 1 as a guide. If there is excessive wear to the raker it is recommended to replace with a new one. Do not build up the worn area more than the height shown in Figure 1. It will affect how the machine feeds.

⚠WARNING

Never weld on the cutterbodies while they are on the machine. This can cause a fire.

If building up a non replaceable raker, it is recommended to use “Lincoln Lincore 60-0” or “Stoody 101HC” wire if using a wire feed welder; if using a stick welder it is recommended to use “Lincoln Wearshield 60” or “Stoody Stoodite 2134”.

Figure 1 (Raker on Cutterbody)

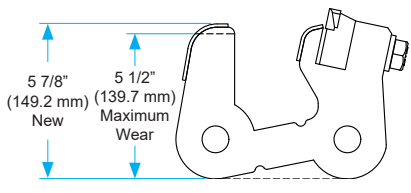


Figure 2 (Raker on Cutterbody)

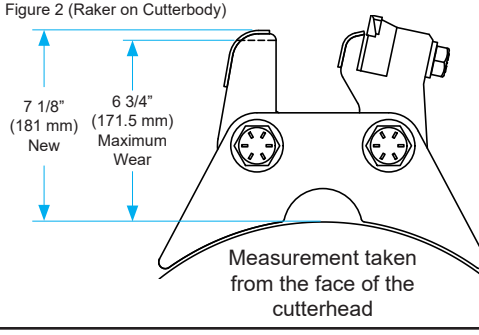


Figure 1 (Replaceable Raker)

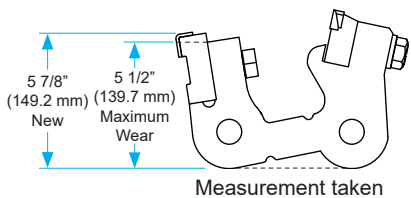
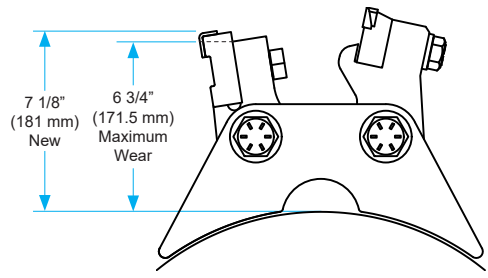


Figure 2 (Replaceable Raker)



CUTTERBODY BOLTS

Using the wrong bolts or not keeping them tight allows for movement between the cutterbody and the support arms which in turn leads to fatigue and failure. Once the cutterbody is allowed to run loose the integrity of the hole in the support arm is lost and must be replaced. Otherwise the bolt will never be able to stay tight again. Torque every bolt with a torque wrench. If you over torque these bolts, it can cause premature failure. Make sure the cutterbody support arms are properly clamped on the cutterbody. The bolts alone are not enough to secure the cutterbody in place. When replacing cutterbodies, the cutterbody bolts must be replaced as well.

REPLACING CUTTERBODIES

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

NOTICE

ALWAYS use Bandit replacement parts. Failure to do so may cause major damage to your machine.

⚠WARNING

Whenever servicing the cutterhead area, ALWAYS look for cracked welds and / or excessive wear on the support arms. Cracks and worn support arms could cause a cutterbody to come off the cutterhead. This will cause major damage to your machine.

CUTTERBODY REPLACEMENT

1. Follow all pre-maintenance shut down procedures.
2. Unplug the cutterhead hood door engine disable plug.
3. Remove the hood pin padlock and pull the hood pin out.
4. Open the cutterhead hood.
5. Very carefully, manually with a pry bar or wood bar turn the cutterhead to the cutterbody that needs replaced.
6. Block the cutterhead so that it will not turn on you when working on the cutterbodies.
7. Remove the bolts and nuts that attach the cutterbody to the support arms, this will allow the cutterbody to be taken out of the cutterhead.
8. Remove all the debris from between the support arms before installing a new cutterbody. Debris will reduce the clamping affect on the cutterbodies, also check the bolt holes in the support arms to make sure they are not elongated.
9. Insert the new cutterbody into the support arms. Use only bolts supplied by Bandit to put back together. Failure to do so, may cause premature failure to the cutterbodies and will cause damage to your machine.
10. Tighten the cutterbody bolts and nuts to 700 ft.-lbs. (949 Nm).
11. If the cutterbody does not have a cutter tooth and raker installed, see page 33 for installation instructions.
12. Remove the block from the cutterhead that was keeping the cutterhead from turning.
13. Repeat steps 5 through 12 for each cutterbody that needs to be replaced.
14. Very carefully, manually with a pry bar or wood bar turn the cutterhead a full revolution. This is to ensure the cutter teeth have proper clearance. If the cutterhead is jammed with debris or frozen in place, DO NOT attempt to start the engine and engage the clutch until the cutterhead rotates freely.
15. Close the cutterhead hood, reinsert the hood pin, and padlock the hood pin.
16. Reconnect the cutterhead hood door engine disable plug and the battery.
17. See page 36 for instructions on checking and adjusting the anvil.
18. After the engine is started, engage the clutch and let the cutterhead turn at the lowest RPM's possible. Listen for any type of noise that is foreign. Any steel on steel noise is foreign. If you hear a noise, follow all pre-maintenance shut down procedures, find the problem and fix it.

REPLACING BEAST CUTTER TEETH

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

NOTICE

ALWAYS use Bandit replacement parts. Failure to do so may cause major damage to your machine.

⚠WARNING

Whenever servicing the cutterhead area, ALWAYS look for cracked welds and / or excessive wear on the support arms. Cracks and worn support arms could cause a cutterbody to come off the cutterhead. This will cause major damage to your machine.

TOOTH LIFE

Tooth life depends on the amount of abrasive materials and contaminates in the raw material, the amount of production being processed, and how fine the end product is. As a general rule we suggest that you change your worst 6 teeth daily if they need it or not. You can use these teeth for future running if some may break or go bad. Changing the six worst teeth will keep your cutterhead operating well. Contact your local dealer or Bandit Industries for further questions.

TOOTH & RAKER REPLACEMENT

1. Follow all pre-maintenance shut down procedures.
2. Unplug the cutterhead hood door engine disable plug.
3. Remove the hood pin padlock and pull the hood pin out.
4. Open the cutterhead hood.
5. Very carefully, manually with a pry bar or wood bar turn the cutterhead to the tooth or raker that needs replaced.
6. Block the cutterhead so that it will not turn on you when working on the teeth and rakers.
7. Remove the bolt from the cutter tooth along with the tooth.
8. Remove the bolt from the raker (if equipped) along with the raker.
9. Remove all debris before installing a new tooth and raker, so that the tooth and raker can seat properly.
10. Install a new cutter tooth and torque the bolt to 375 ft.-lbs. (508 Nm).
11. Install a new raker and torque the bolt to 375 ft.-lbs. (508 Nm).
12. Remove the block from the cutterhead that was keeping the cutterhead from turning.
13. Repeat steps 5 through 12 for each tooth and raker that needs to be replaced.
14. Very carefully, manually with a pry bar or wood bar turn the cutterhead a full revolution. This is to ensure the cutter teeth have proper clearance. If the cutterhead is jammed with debris or frozen in place, DO NOT attempt to start the engine and engage the clutch until the cutterhead rotates freely.
15. Close the cutterhead hood, reinsert the hood pin, and padlock the hood pin.
16. Reconnect the cutterhead hood door engine disable plug and the battery.
17. See page 36 for instructions on checking and adjusting the anvil.
18. After the engine is started, engage the clutch and let the cutterhead turn at the lowest RPM's possible. Listen for any type of noise that is foreign. Any steel on steel noise is foreign. If you hear a noise, follow all pre-maintenance shut down procedures, find the problem and fix it.

KNIFE SHARPENING

Only Bandit knives and hardware are recommended for use in your machine. Only then can you be assured of a quality product that fits and performs the best to the standards of excellence that is expected from the machine.

Beast knives MUST be kept sharp at all times for the ultimate cutterhead and knife performance. The main cause of poor cutting performance is dull knives.

Dull Knives Cause:

- Excessive waste of engine horsepower
- Bad quality chips; chunks, slivers, etc.
- Excessive strain on knives and mounting hardware
- Excessive strain on cutterhead bearings and total machine
- Excessive chipping vibration damaging the machine
- Excessive strain on drives, PTO's, engines, etc.
- Loss of time and money

The Dulling Of Knives Is Caused By:

- Poor quality knives
- Improper cutterhead anvil to knife clearance
- Dirt, grit, or foreign material on the wood
- Knives sharpened at wrong angle
- Improper care of knives and knife hardware

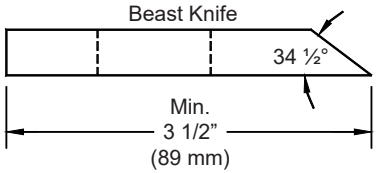
These are just a few factors, there are other situations that can lead to the dulling of knives.

NOTICE

Many times a knives cutting edge/point can be brought back to a good edge with a #10 Flat Bastard Mill File. This can reduce the amount of resharpening.

Typical Knife Sharpening Angles:
Beast Knives = 34½° ± ½° Angle

Knives should be replaced in sets. These sets are determined by the amount of resharpening done to the knives (knife width). Resharpening knives reduces the width of the knife. Knife replacement should be done in sets of the same width knives. That will reduce chipping vibration and increase chipping performance.



NOTICE

- Keep knives sharp.
- Keep knife angle correct when sharpening.
- Do not over sharpen so knife is narrower than allowed width, or you will pack wood and break knives.
- Use correct knife size, knife quality, knife mounting hardware, and torque knife mounting hardware to the specified torque.
- Replace knife mounting hardware after (5) times of tightening.

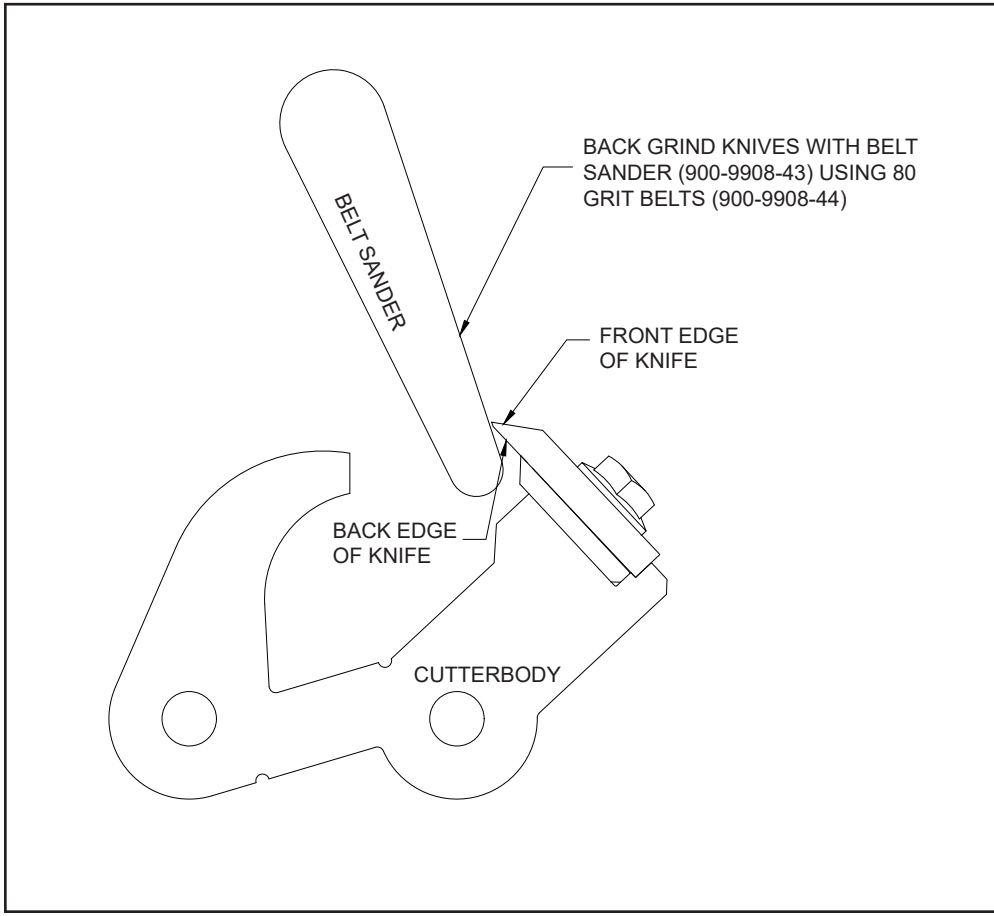
⚠CAUTION

Do not sharpen the knives in a direction which produces a radius, or hollow grind, on the surface of the knife. Strength and life of the cutting edge is reduced.

- For maximum cutterhead efficiency, the original cutting angle must be maintained when the knives are sharpened.
- Sharpen Beast knives with a belt sander (part number: 900-9908-43) equipped with an 80 grit belt (part number: 900-9908-44) from the bottom side of the knife as shown in the illustration.
- Do not sharpen knife to a razor sharp edge.
- Always put a slight back grind on all new knives that are installed. Run the grinder across the bottom edge of the knife one time to eliminate the razor sharp edge.
- Knives may be sharpened repeatedly as long as their original width is not reduced to less than the specified minimum width. If a knife measures less than the specified minimum width after sharpening, it must be discarded.
- Inspect the knives after sharping to ensure the knives are free of cracks.
- Maintain spare sharpened knives to avoid downtime for knife sharpening.

BELT SANDER: 900-9908-43
80 GRIT BELT: 900-9908-44

KNIFE SHARPENING



KNIFE SAVER KIT

Through various tests, Bandit has found that using the Knife Saver will increase the life span of chipper knives if used during the recommended times. Each knife installed in every new machine at Bandit has the Knife Saver used on it before leaving the factory. The Knife Saver can be purchased from your local Bandit dealer.

- Use the Knife Saver on brand new knives.
- Use the Knife Saver on freshly resharpened knives.
- Use the Knife Saver every day during the Daily Start-Up & Maintenance while the knives are checked.
- Use the Knife Saver when the machine is shut down for a break during the day.

PART NO.	DESCRIPTION
900-9901-68	Knife Saver Kit
900-9901-65	File For Knife Saver Kit Only
900-9901-63	Replacement Blades For Knife Saver
900-9901-66	Knife Changing Gloves

CUTTERHEAD ANVIL ADJUSTMENT

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

1. With the engine still running, stop the infeed conveyor, disengage the clutch, wait for the cutterhead to come to a complete stop, and stop the discharge.
2. Lift the feedwheel and install the yoke cylinder lock and yoke lock pin.
3. Turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.
4. Block the feedwheel in the raised position.
5. The anvil bolts are located on the bottom side of the anvil underneath the machine (See Figure 1). Adjust the anvil to have a 3/16" - 1/4" (4.8 mm - 6.4 mm) clearance from a new tooth and tighten the anvil bolts (See Figure 2).
6. Tighten and torque the anvil bolts to 375 ft-lbs. (508 Nm).
7. Very carefully, manually with a pry bar or wood bar, turn the cutterhead a full revolution. This is to ensure the cutter teeth have proper clearance. If the cutterhead is jammed with debris or frozen in place, DO NOT attempt to start the engine and engage clutch until the cutterhead rotates freely.
8. Remove the block from the feedwheel.
9. Start the engine and remove the yoke cylinder lock and yoke lock pin, allowing the feedwheel to lower.
10. After the engine is started, engage the clutch and let the cutterhead turn at the lowest RPM's possible. Listen for any type of noise that is foreign. Any steel on steel noise is foreign. If you hear a noise, follow all pre-maintenance shut down procedures, find the problem and fix it.

Figure 1

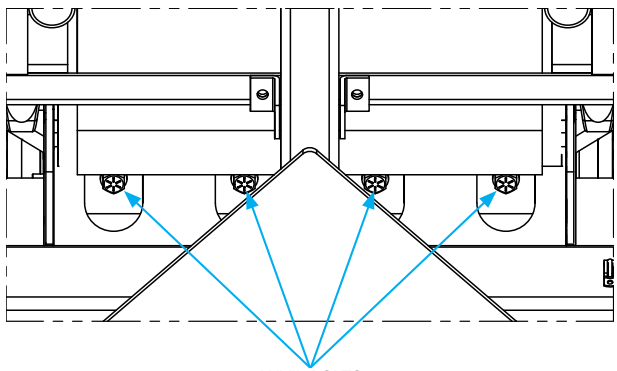
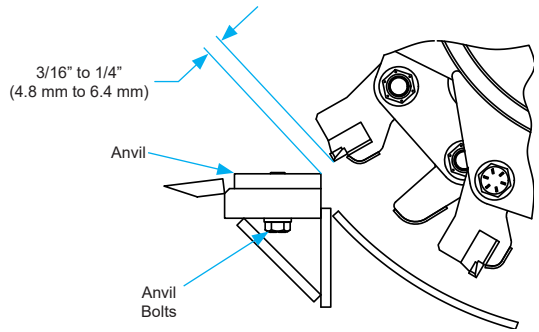


Figure 2



SCREEN REPLACEMENT

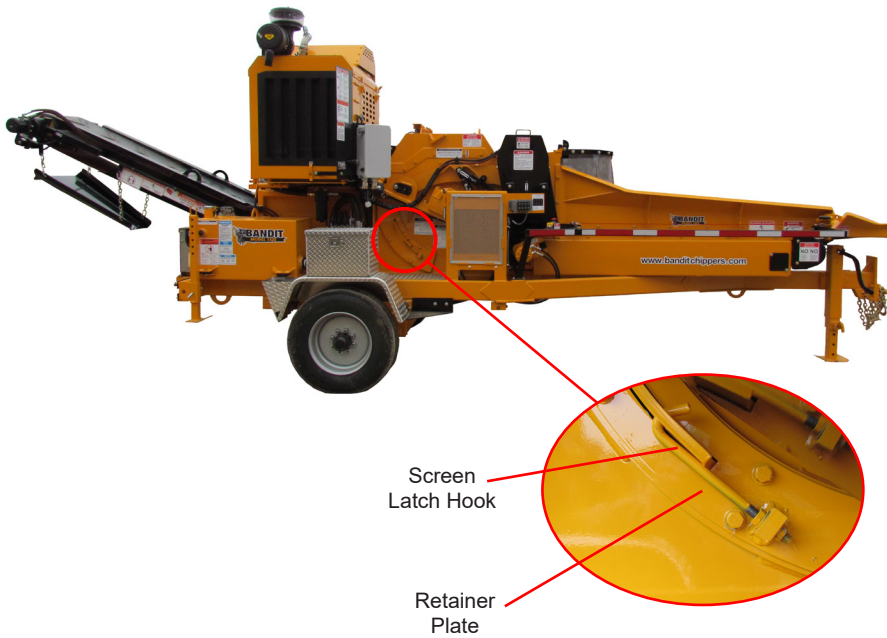
⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

NOTICE

Various screens are available for sizing the product. Screens are a wear item on your machine and should be checked frequently. If screens are bent or broken, replace immediately. Failure to do so will cause costly damage to your machine.

1. Loosen and remove the screen latch hook on both sides. See below.
2. Remove the 6 mounting bolts from the retainer plate on the radiator side that holds the screen in place.
3. Slide the screen out through the slot on the radiator side.
4. Be sure to clean the area where the screen sets.
5. Start the new screen into the slot.
6. Push the screen all the way back into position.
7. Put the retainer plate back into place, tighten and retorque the 6 mounting bolts to 75 ft-lbs. (102 Nm).
8. Insert and retighten the screen latch hooks on both sides.
9. Open the cutterhead hood and very carefully, manually with a pry bar or wood bar, turn the cutterhead a full revolution to make sure there is no contact between cutter teeth and screen.
10. Close the cutterhead hood, reinsert the hood pin, and padlock the hood pin.
11. Reconnect the cutterhead hood door engine disable plug and the battery.



INFEED MAINTENANCE

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

NOTICE

Damage to the infeed conveyor belt will occur if the belt is too tight. The infeed conveyor will surge if the conveyor belt is running too tight.

ADJUSTING INFEED CONVEYOR BELT TENSION

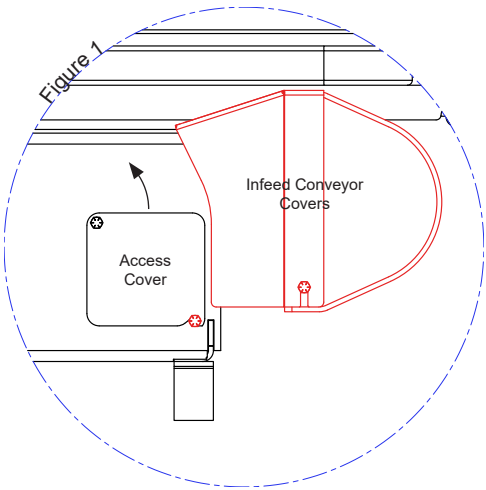
If the infeed conveyor belt is slipping, it needs to be tightened. It is better for the infeed belt to run loose than too tight. Adjust as needed.

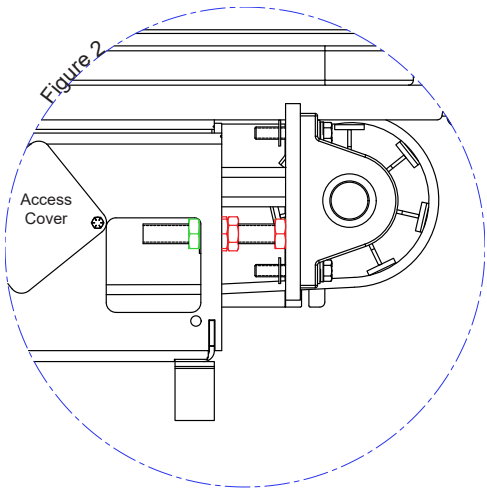
1. Remove the bolts and the covers (highlighted in red in Figure 1) on both sides of the infeed conveyor to adjust the infeed conveyor belt.
2. Loosen the nuts (highlighted in red in Figure 2) on both sides of the infeed conveyor assembly.
3. Adjust the nut (highlighted in green in Figure 2) on both sides so the infeed conveyor tail shaft moves equally on both sides. Do not overtighten.
4. Tighten the nuts (highlighted in red in Figure 2) on both sides of the infeed conveyor assembly.
5. Make sure the infeed belt is running in the center of the infeed conveyor tail shaft and in the center between the infeed sides after the machine is started. If it is not refer to the “Adjusting Infeed Conveyor Belt Tracking” instructions below
6. Reinstall the access covers and infeed conveyor bearing covers on both sides.

ADJUSTING INFEED CONVEYOR BELT TRACKING

If the infeed conveyor belt is running to one side of the machine, the tracking needs to be adjusted on the same side. The machine must be setting level to adjust the infeed conveyor belt properly.

1. Remove the bolts and the covers (highlighted in red in Figure 1) on both sides of the infeed conveyor to adjust the infeed conveyor belt.
2. Loosen the nuts (highlighted in red in Figure 2) on the appropriate side as determined above.
3. Adjust the nut (highlighted in green in Figure 2) so the infeed conveyor tail shaft moves out. Do not overtighten.
4. Tighten the nuts (highlighted in red in Figure 2).
5. Make sure the infeed belt is running in the center of the infeed tail shaft and in the center between the infeed sides after the machine is started. If the conveyor belt is still not running center repeat steps 3-5 until it is.
6. Reinstall the access cover and infeed conveyor bearing covers.





DISCHARGE MAINTENANCE

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

NOTICE

Damage to the discharge conveyor belt will occur if the belt is too tight. The discharge conveyor will surge if the conveyor belt is running too tight.

ADJUSTING DISCHARGE CONVEYOR BELT TENSION

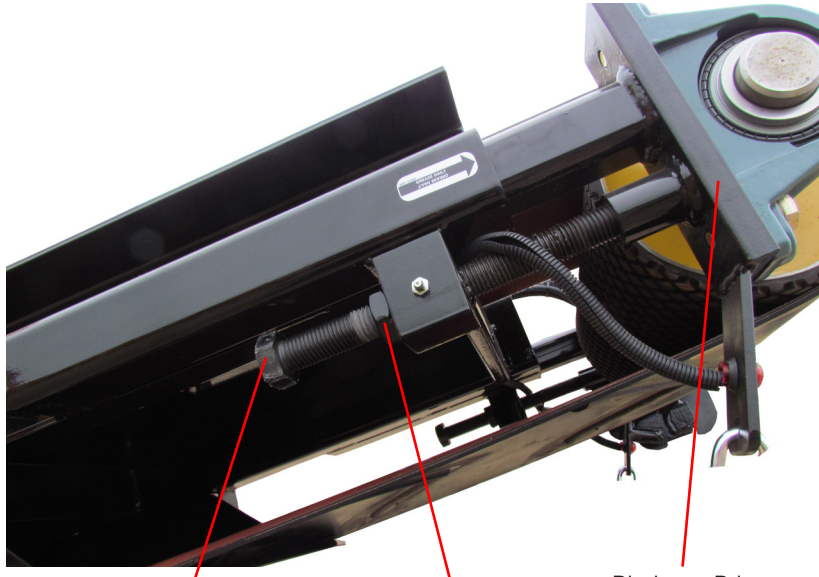
If the discharge conveyor belt is slipping or rubbing on the frame, it should be tightened. It is better for the discharge belt to run loose than too tight. Damage to the discharge belt will occur if it's too tight. Adjust as needed.

1. Loosen the jam nuts.
2. Tighten the discharge drive adjuster assemblies equally on both sides until the belt is no longer slipping. Do not over tighten.
3. Tighten the jam nuts
4. Make sure the discharge belt is running in the center of the discharge drive pulley and the center of the discharge frame after the machine is started. If it is not refer to the "Adjusting Infeed Conveyor Belt Tracking" instructions below.

ADJUSTING DISCHARGE CONVEYOR BELT TRACKING

If the discharge conveyor belt is not running in the center of the discharge drive roller and the center of the discharge frame, the tracking needs to be adjusted.

1. If the discharge belt is running to one side of the machine, the discharge drive adjuster assembly on the same side needs to be adjusted out.
2. Loosen the appropriate jam nut and tighten the adjusting bolt so the discharge drive pulley moves out. Do not overtighten.
3. Tighten the jam nut.
4. Make sure the discharge belt is running in the center of the discharge drive pulley and the center of the discharge frame after the machine is started.



CUTTERHEAD DRIVE BELT TENSION

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

NOTICE

Every month, the beltshield cover needs to be removed and the belts need to be checked and adjusted. For best results use a good belt tension tester. The slot in the beltshield is for a quick daily check of the belt tension.

NOTICE

It is a good practice to rotate the sheaves during tensioning. Then recheck deflections. The belts may need to be tightened again.

GENERAL RULES FOR TENSIONING

1. Check tensioning during the first 2 through 48 hours of run-in operation especially.
2. Over tensioning or under tensioning shortens belt and bearing life.
3. Keep belts free from foreign materials that may cause the belt to slip.
4. Make V-drive inspection on a periodic basis. Never use belt dressing as this will damage the belt and cause early failure.
5. Belts should never be forced over the sheave. Allow enough room for belts to slip on.
6. Always make sure sheaves are aligned properly (See Figure 1).

MAIN DRIVE BELTS

1. Follow all pre-maintenance shut down procedures.
2. Locate the center of the belt span between the sheaves.
3. Push or pull down on each poly band belt until the belt has deflected 3/8” (9.5 mm).
4. Record the push or pull down force for each poly band belt. The force should be 48 to 51 lbs. (21.8 to 23.1 kg).
5. Adjust the belt tension if the force fall outside of this range.

⚠WARNING

If belts are not properly adjusted belts will slip, glaze over, and be ruined. **THIS FAILURE IS NOT COVERED BY WARRANTY!**

NOTICE

DO NOT IGNORE THIS MAINTENANCE RULE

New belts stretch very soon and must be adjusted several times in the first few hours of operation. Adjust after one hour of operation, then every four hours until the belts quit stretching. Failure to do this will cause the belts to burn and fly off. **THIS FAILURE IS NOT COVERED BY WARRANTY!**

⚠DANGER

Keep hands clear of all pinch points

ADJUSTMENT PROCEDURE

1. Follow all pre-maintenance shut down procedures.
2. Remove beltshield.
3. To adjust the belt tension, loosen the four engine mounting bolts and the jam nuts on the engine adjuster on the radiator end of the engine.
4. Adjust the belt tension with the engine adjuster on the clutch end of the engine. If you have to push the engine with the adjuster, the belts will tighten slightly after the engine is realigned.
5. Use the engine adjuster on the radiator end of the engine to realign the engine, so the engine sheave and chipper sheave are aligned. The sheaves can be checked with a string or straight edge.
6. Torque the two engine mounting bolts (see Torque Chart for the correct torque) on the opposite side of the engine from the engine adjusters.
7. Loosen the jam nuts on the engine adjuster on the radiator end of the engine.
8. Torque the engine mount bolt and then tighten the engine adjuster jam nuts on the radiator end.
9. Hand tighten the remaining engine mount bolt. Loosen the engine adjuster jam nuts all the way and torque the engine mount bolt.
10. Tighten the engine adjuster jam nuts on the clutch end.
11. Recheck the belt tension and alignment, if readjustment is needed go back to step 2.
12. Reinstall beltshield.

CUTTERHEAD DRIVE BELT TENSION

FIGURE 1

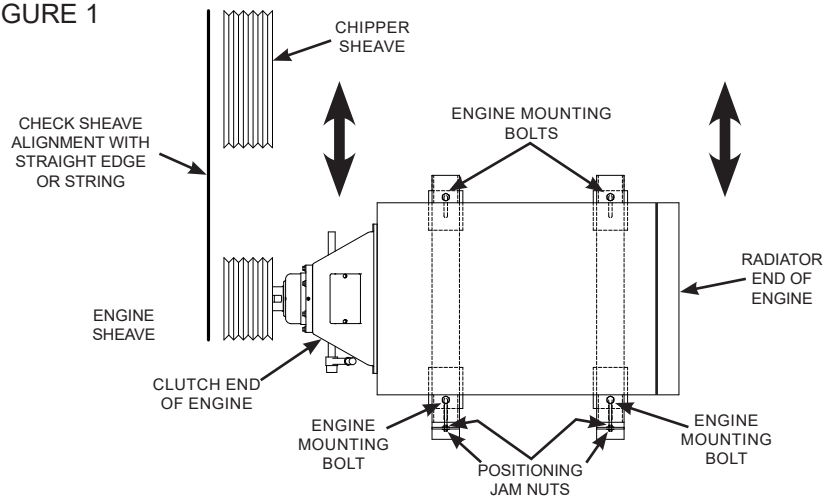
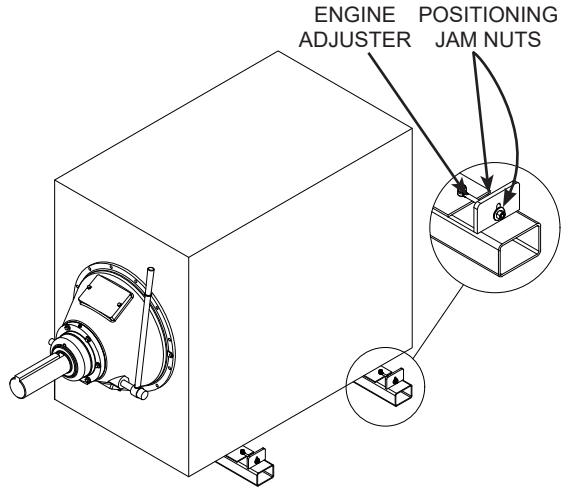


FIGURE 2



BELT TENSION GAUGES

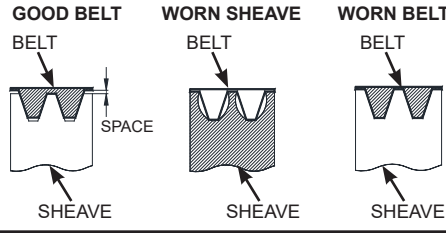
SINGLE BARREL GAUGE
(UP TO 30 lbs.) **900-1919-23**

DOUBLE BARREL GAUGE
(UP TO 66 lbs.) **900-1917-02**

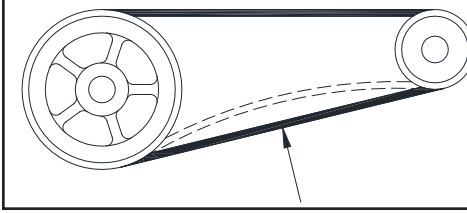
TRIPLE BARREL GAUGE
(UP TO 90 lbs.) **900-1919-67**

FIVE BARREL GAUGE
(UP TO 165 lbs.) **900-1919-66**

Worn or misaligned belts and sheaves in the power train causes belt slippage, thus power loss. Keep the power train working for you, not against you, by checking for needed adjustment or replacement.



Main Drive Belts: 3/8" (9.5 mm) deflection with 48 - 51 lbs. (21.8 - 23.1 kg) of force per poly band belt.



CUTTERHEAD BEARING YEARLY SERVICE (if machine built pre 4/20)

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

1. Follow all pre-maintenance shut down procedures.
2. Clean off and around bearing.
3. Mark the bearing cap and bottom of the bearing housing to make sure the bearing cap is installed correctly after greasing the bearing.
4. Release belt tension before removing the 2 cap bolts and 2 bolts that pass through the entire housing and mounting pad from the bearing housing.
5. With a pry bar, pry sequentially under the cap pry slots at each corner of the bearing.
6. Lift off the bearing cap, inspect, and wipe off the interior.
7. With nitrile gloves on and a clean rag, manually scoop and wipe out the grease from the bearing cavity and place in a disposal bucket. See Figure 1.
8. Manually work new grease into existing bearing while slowly turning the bearing and remove the old grease as it gets pushed out by the new grease. See Figure 2.
9. Fill the bottom bearing housing to approximately 1/2 full and apply some grease to the bearing cap. See Figures 3 through 5.
10. Ensure mating surfaces are clean and labyrinth seals are seated properly. Match marks have to line up.
11. Reinstall the bearing cap and tap with a rubber hammer until the top and bottom halves of the bearing housing are seated.
12. Clean the bearing housing cap bolts and lightly oil.
13. Reinstall the four bearing housing cap bolts and retorque sequentially (a clockwise pattern is suggested in 5 ft-lbs (7 Nm) increments are suggested). The 2 cap bolts that go into the bearing housing are torqued to 375 ft-lbs (508 Nm) and the 2 cap bolts that go through bearing housing are torqued to 40 - 45 ft-lbs (55 - 67 Nm) cutterhead bearings. See Figure 6.

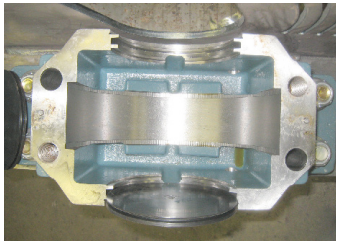


Figure 1

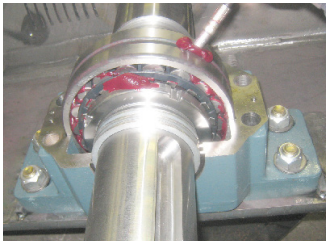


Figure 2

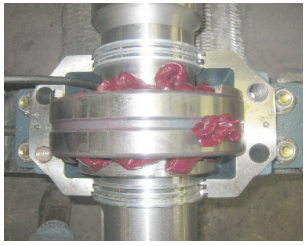


Figure 3

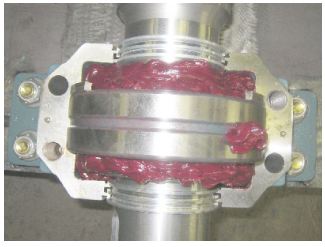


Figure 4

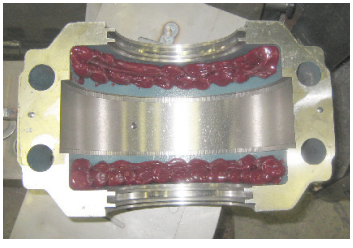


Figure 5

Figure 6

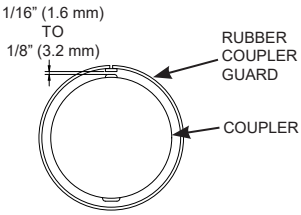
PROPER PROCEDURE FOR INSTALLATION AND REMOVAL OF J.B. COUPLERS & INFEED CONVEYOR MOTOR

A. **Proper Equipment Needed**

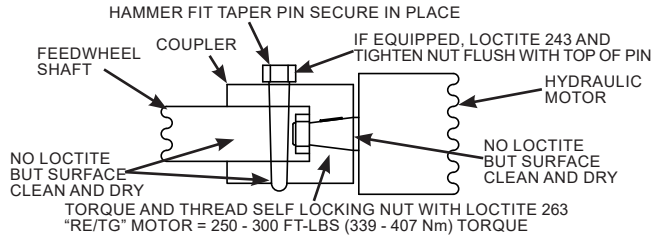
1. Feedwheel motor with tapered shaft.
2. 5/16" x 9/32" x 15/16" long key (900-3934-06) for "RE/TG" motor.
3. Correct feedwheel shaft, coupler and taper ass'y
4. Loctite 263 (red).
5. Loctite 243 (blue).
6. Emery cloth and/or a file.
7. A degreaser agent.
8. Self locking nut.
9. Hammer.
10. Torque wrench and 1 3/8" socket for "TG" motor.
11. 1 1/16" hand wrench for "TG" motor

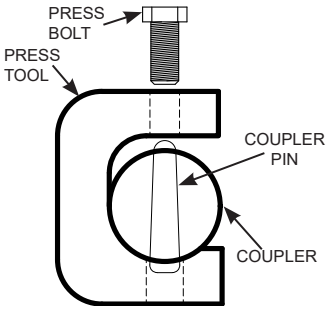
B. **Installation Procedure**

1. Remove any sharp edges on the coupler bores or the motor shaft. Example: Emery cloth or file for burrs on keyways or shafts.
2. Clean the coupler bores and motor shaft with a degreasing solvent.
3. Install the correct key in the feedwheel motor shaft.
4. Slide the coupler onto the motor shaft, making sure that the two mate tightly. Example: The coupler does not rock or slop on the shaft.
5. Install the self locking nut with Loctite 263 on the threads.
6. Tighten to the correct torque, 340 ft.-lbs. (461 Nm) for "TG" motor.
7. Slightly tap with a hammer on the coupler face to ensure proper seating.
8. Retorque self locking nut.
9. Deburr and degrease the feedwheel shaft.
10. Install the motor and coupler assembly onto the feedwheel shaft.
11. Install the correct tapered pin through the coupler and feedwheel shaft.
12. If coupler pin is threaded and is equipped with a nut, make sure the nut is flush with top of pin.
13. Hammer the pin into the coupler to secure the coupler and feedwheel shaft. If the pin is threaded and has a nut do not hammer the pin directly, use a piece of wood as a buffer.
14. If the tapered pin is equipped with a nut, put Loctite 243 (Blue) on the threads and then tighten nut flush with top of pin.

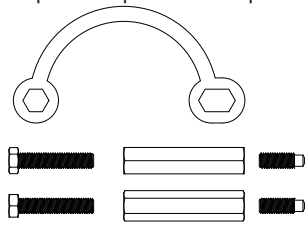


Press Tool for Coupler Pin Removal
Part Number: 981-0501-61





Removal if tapered pin is equipped with a nut to assist in pin removal: Use a hand wrench and turn the tapered pin nut clockwise, half a turn and then hit the small end of the tapered pin with a hammer and punch. Repeat this process until pin is removed.



Coupler Removal Tool Kit
Part Number: 980-2003-59

⚠CAUTION Always wear proper safety equipment and take caution with tapered pin when attempting to remove. The use of this tool will assist in the removal of the tapered pin in the feedwheel coupler. Lubricate end of bolt and threads with grease. Position the press tool so that it cradles the coupler, with the large end of the tapered pin at the side opposite the press bolt. You may want to remove yoke springs to get easier access to coupler. Set the tool as described and hand tighten press bolt to snug tool against coupler. Make sure press bolt is set on small end of tapered pin, and that pin will go through hole in tool without interference. Use of a 1/2" impact wrench is recommended. Run impact on bolt to start pin removal, then usually a good hit with hammer on the end of bolt will knock out the pin. You may have to run impact on bolt and hit with hammer a few times to remove pin. Do not spend excessive time trying to remove the pin and coupler. If problems occur during pin and coupler removal, contact your nearest dealer or Bandit Industries.

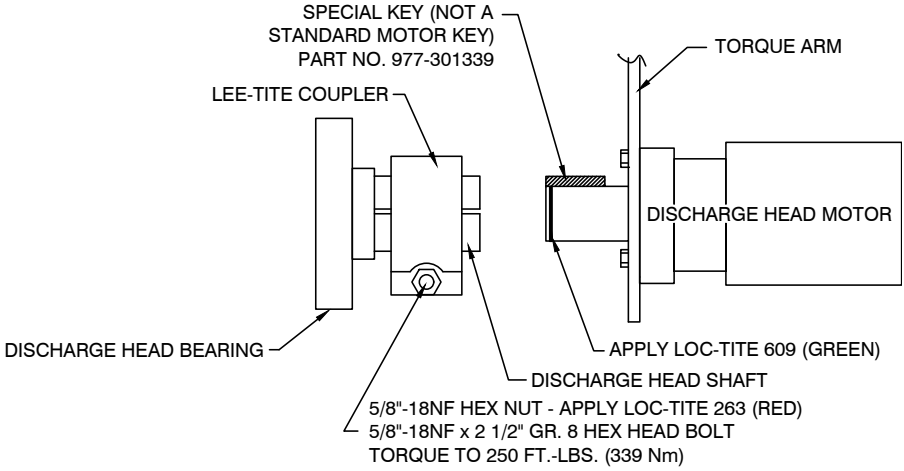
PROPER PROCEDURE FOR INSTALLATION OF LEE-TITE COUPLERS AND DISCHARGE MOTOR

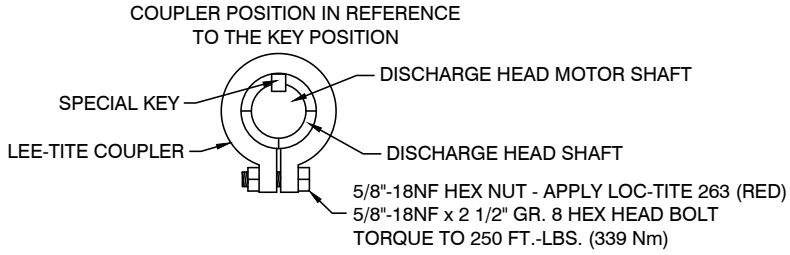
A. Proper Equipment Needed:

1. Discharge head motor with straight shaft.
2. 5/16” x 1/2” x 1 7/16” long key (special)
3. Part number: 977-301339
4. Correct discharge head shaft and coupler ass’y
5. Emery cloth and/or a file
6. Torque wrench
7. 15/16” socket
8. A degreaser agent
9. Loctite 263 (red)
10. Loctite 609 (green)

B. Installation Procedure

1. Remove any sharp edges on the coupler bore, the motor shaft, or the discharge head shaft. Example: Emery cloth or file for burrs on keyways or shafts.
2. Clean the coupler bore, motor shaft, and discharge head shaft with a degreasing solvent.
3. Install the correct key in the discharge head motor shaft.
4. Slide the coupler onto the discharge head shaft.
5. Apply Loctite 609 (green) on the discharge head motor shaft.
6. Install the motor with the torque arm installed and key into the discharge head shaft.
7. Position the coupler so the keyway in the discharge head shaft is covered by the solid portion of the coupler. See figures below.
8. Apply Loctite 263 (red) on the coupler nut.
9. Tighten the coupler bolt and torque to 250 ft.-lbs. (339 Nm).





EMERGENCY SHUT DOWN SWITCH

Figure 1

START WO#: 200562

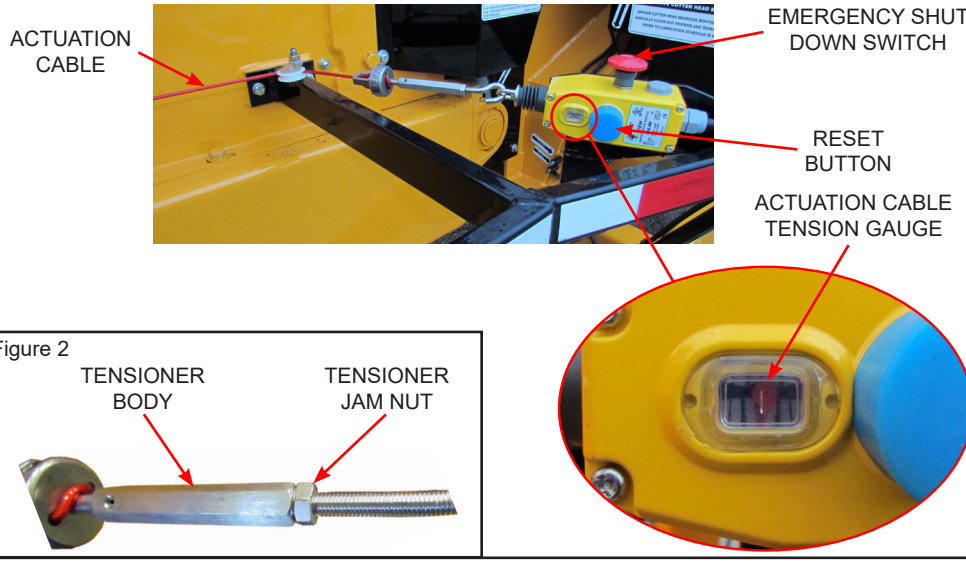
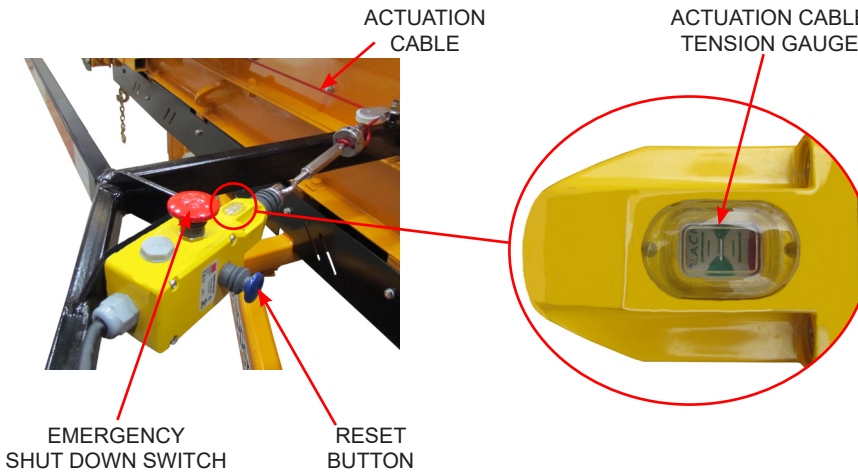


Figure 2

Figure 3

PRE WO#: 200562



There are two emergency shut down switches, one located on each side of the infeed. To shut the machine down, you can either push down on the emergency shut down switch or you can push or pull the actuation cable that runs along each side of the infeed. Before restarting the machine, the emergency shut down switch must be reset by pressing the blue reset button on the side (see Figures 1 & 3).

To adjust the actuation cable, loosen the tensioner jam nut and then turn the tensioner body to tighten up the actuation cable (see Figure 2). While adjusting the actuation cable, look at the cable tension gauge. Keep looking at the cable tension gauge until it is centered as shown.

TIRE MAINTENANCE

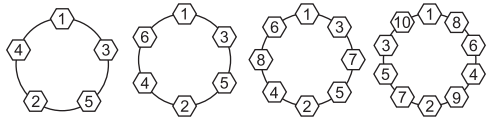
BASIC WHEEL TORQUE REQUIREMENTS (per mfg.)

Keep lug nuts properly tightened, check new unit before operation, after the first 10, 25, and again at 50 miles. Check the torque weekly.

DESCRIPTION	BOLT SIZE	TORQUE (FT.-LBS.)	TORQUE (Nm)
5 & 6 Lug Hubs	1/2" - 20 Studs	90 - 120	122 - 163
8 Lug Hubs	1/2" - 20 Studs	90 - 120	122 - 163
8 Lug Hubs	9/16" - 18 Studs	140 - 170	149 - 163
8 Lug Hubs (Cone Nut)	5/8" - 18 Studs	190 - 210	258 - 285
8 Lug Hubs (Flange Nut)	5/8" - 18 Studs	275 - 325	373 - 441
8 Lug Hubs (Flange Nut)	22 mm x 1.5 Studs	450 - 500	610 - 678
10 Lug Hubs	22 mm x 1.5 Studs	450 - 500	610 - 678
10 Lug Hubs	3/4" - 16 Studs	450 - 500	610 - 678
10 Lug Hubs	1 1/8" - 16 Studs	450 - 500	610 - 678

(Consult axle manufacturers manual shipped with each machine for specific axle-stud-wheel combination lug nut torques.)

Tighten the 5, 6, 8, and 10 lug hubs in sequence according to the following diagrams.



BRAKE ADJUSTMENT - see www.dexteraxle.com for more information

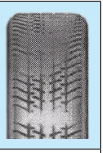
Axle Size	Size	Type	Diametral Clearance	Clicks to Back Off
10,000 Lbs.	12 1/4" x 3.38"	Elec. or Hyd.	.040" (1 mm)	Automatic Adjusting
12,000 Lbs.	12 1/4" x 5"	Elec. or Hyd.	.040" (1 mm)	Automatic Adjusting

TIRE WEAR DIAGNOSTIC CHART

The wear pattern and tread life of tires involves many variables that the user has control of, but does not fall under faulty manufacture or design.

The following is a list of some causes supplied by tire suppliers and axle manufacturers:

- Misalignment - from rough roads, pot holes, excessive speeds and hitting curbs.
- Tire Width - the wider the tire for flotation, the more uneven the tire wear.
- Tire Air Pressure - too much or too little, for the load.
- Vehicle Hitch Height - if trailer is not level with ground, axle camber is misaligned.
- Maintenance - wheel bearing lubrication and adjustment. Follow axle manufacturer's instructions.
- Brakes - uneven or misadjusted brakes cause irregular brake activation.

Wear Pattern								
	Edge Wear	Side Wear				Cup Wear	Center Wear	Flat Spots
Cause	Under Inflation	Not hauling trailer level	Bent axles	Wide tires	Wheel bearings	Out of balance wheel bearings	Over inflation	Wheel lockup and tire lock up
Action	Adjust pressure to particular load per tire catalog	Must be hauled parallel to the ground	Replace as needed	Replace as needed. Characteristic of wide flotation tires	Adjust or replace	Check bearing adjustment and balance tires. Adjust or replace.	Adjust pressure to particular load per tire catalog	Avoid sudden stops and adjust brakes

TROUBLESHOOTING

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

PROBLEM: ENGINE WILL NOT TURN OVER

POSSIBLE CAUSE	SOLUTION
Battery cables cut or unhooked.	Inspect battery cables for damage and repair or replace as necessary.
Corroded battery terminals.	Clean battery terminals and reconnect the battery.
Dead or low battery	Charge or replace battery.
No power to ignition switch, circuit breaker tripped.	Reset circuit breaker on back of engine enclosure.
No power to engine gauge panel, main fuse blown.	Check the in-line fuse near engine starter and replace if necessary. This fuse protects the entire engine gauge panel and its functions.
Engine disable plug disconnected (Start-up horn will still sound).	Check the cutterhead hood engine disable plug and the discharge access door engine disable plug to ensure that they are both installed and operating correctly. See pages 18.

PROBLEM: ENGINE TURNS BUT WILL NOT START

POSSIBLE CAUSE	SOLUTION
No fuel	Fill tank and prime engine fuel system
Problem with the engine or the control panel	Check maintenance screen on control panel and refer to the control panel operating notes for further troubleshooting.
Emergency shut down switch is activated.	Make sure both emergency shut down switches are not activated by pressing the reset buttons and make sure the actuation cable tension gauge is centered, see page 45. Also, check the control panel for errors.

PROBLEM: HYDRAULIC SYSTEMS NOT WORKING MANUALLY

POSSIBLE CAUSE	SOLUTION
Shut-off valves on hydraulic oil tank not on.	Turn shut-off valves on.
Low oil in the hydraulic tank.	Keep oil level 7/8 full.
Broken pump shaft.	Repair or replace pump.
Suction strainer in hydraulic tank is plugged.	Remove and clean or replace strainer.

PROBLEM: KEY PAD CONTROLS NOT WORKING

POSSIBLE CAUSE	SOLUTION
Hydraulic systems not working	If the engine will throttle up or down, refer to *Hydraulic systems not working*. A hydraulic or coil issue is eliminated as the problem if the control handle on the valve moves.
Blown fuse.	Check fuses on front of control panel and replace if needed.

TROUBLESHOOTING

PROBLEM: REMOTE CONTROLS NOT WORKING

POSSIBLE CAUSE	SOLUTION
"Remote" mode not selected on the control panel MODE screen.	Switch to the "Remote" mode on the control panel.
Hydraulic systems not working.	If the engine will throttle up or down, refer to *Hydraulic Systems Not Working Manually.* A hydraulic or coil issue is eliminated as the problem if the control handle on the valve moves.
Battery inside the radio remote is dead.	Recharge battery.
Blown fuse.	Check fuses on front of control on front of control panel and replace if needed.
No radio signal.	Check control panel on maintenance screen for transmitter signal and inputs.

PROBLEM: YOKE WILL NOT RAISE USING MANUAL CONTROLS

POSSIBLE CAUSE	SOLUTION
Material wedged or bound up around feedwheel yoke.	Check around the yoke to determine what might be restricting it.
Low hydraulic system pressure	Check the hydraulic pressure by placing the pressure gauge in the diagnostic port on the control valve. Pull the yoke handle towards you to check the working pressure. A very low pressure reading would indicate a problem with the pressure relief valve, the hydraulic pump, or an internal leak in the cylinder. See relief valve setting in the hydraulic section.
No hydraulic system pressure.	Check to see if any other function on the valve bank works. If another function works, check the cylinder. Check the pump.
Broken piston or bad seals in lift cylinder	Repair or replace cylinder.

PROBLEM: FEEDWHEEL NOT OPERATING USING THE MANUAL CONTROLS (ALL OTHER FUNCTIONS WORK)

POSSIBLE CAUSE	SOLUTION
Material wedged or stuck preventing the feedwheel from turning.	Raise and secure the feedwheel using all safety devices. With the machine shut down, check around feedwheel looking for anything that may have it bound up.
Feedwheel bearing failure.	Raise and secure feedwheel using all safety devices and check bearing. Replace if necessary.
Low hydraulic system pressure.	A check of the hydraulic pressure can be done by placing the pressure gauge into the diagnostic port provided on the control valve and plugging the feedwheel hydraulic lines. Put the feedwheel manual control into forward or reverse position to check the feedwheel hydraulic pressure. A very low pressure reading would indicate a hydraulic problem with the pressure relief valve or the hydraulic pump. See relief valve setting in the hydraulic section.
No hydraulic system pressure.	Check to see if any other function on the valve bank works. If another function works, check the motor. Check the pump.

TROUBLESHOOTING NOTES

PROBLEM: FEEDWHEEL NOT OPERATING WITH REMOTE OR KEY PAD (ALL OTHER FUNCTIONS WORK)

POSSIBLE CAUSE	SOLUTION
Bad solenoid on the control valve.	Check to see if the handle on the valve moves. Swap the solenoid with the solenoid from a different valve and if the problem follows the solenoid replace the solenoid.
No electrical signal to the solenoid on the control valve.	Check for electrical power at the solenoid while engaging the switch for the feedwheel on the radio remote or the tether controls. A wire may be broke or have a faulty output. Refer to maintenance screen on control panel to check that outputs are functional.
Faulty switch in radio remote control.	If using the radio remote control, check the maintenance screen on control panel to check that inputs are functional (Refer to the Bandit Controls manual).
Low hydraulic system pressure.	A check of the hydraulic pressure can be done by placing the pressure gauge into the diagnostic port provided on the control valve and plugging the feedwheel hydraulic lines. Put the feedwheel manual control into forward or reverse position to check the feedwheel hydraulic pressure. A very low pressure reading would indicate a hydraulic problem with the pressure relief valve or the hydraulic pump. See relief valve setting in the hydraulic section.

PROBLEM: YOKE WILL NOT LOWER (ALL OTHER FUNCTIONS WORK)

POSSIBLE CAUSE	SOLUTION
Yoke cylinder lock is installed.	Remove.
Yoke lock pin is in.	Raise feedwheel and remove the yoke lock pin.
Material wedged or bound up around feedwheel yoke.	Check around the feedwheel to determine what might be restricting it.
Bent lift cylinder rod	Repair or replace

PROBLEM: YOKE WILL NOT RAISE USING REMOTE OR KEY PAD (ALL OTHER FUNCTIONS WORK)

POSSIBLE CAUSE	SOLUTION
Bad solenoid on the control valve.	Check to see if the handle on the valve moves. Swap the solenoid with the solenoid from a different valve and if the problem follows the solenoid replace the solenoid.
No electrical signal to the solenoid on the control valve.	Check for electrical power at the solenoid while engaging the switch for the yoke on the radio remote or key pad. A wire may be broke or have a faulty output. Refer to maintenance screen on control panel to check that outputs are functional.
Faulty switch in radio remote control or tether control.	If using the radio remote control, check the maintenance screen on control panel to check that inputs are functional (Refer to the Bandit Controls manual).

TROUBLESHOOTING NOTES

PROBLEM: INFEED CONVEYOR NOT OPERATING USING MANUAL CONTROLS (ALL OTHER FUNCTIONS WORK)

POSSIBLE CAUSE	SOLUTION
Material wedged or stuck preventing the discharge belt from turning.	With the machine shut down, check around the infeed conveyor belt looking for anything that may have the infeed conveyor belt bound up.
Broken key.	Check and replace broken or damaged motor or shaft keys.
Low hydraulic system pressure.	Check the hydraulic pressure by placing the pressure gauge in the diagnostic port on the control valve and plugging the hydraulic lines or raising the infeed all the way to simulate a load. Pull the yoke handle towards you to check the working pressure. Put the infeed conveyor manual control valve into forward or reverse position to check the infeed conveyor working hydraulic pressure. A very low pressure reading would indicate a hydraulic problem with the pressure relief valve or the hydraulic pump. See relief valve setting in the hydraulic section.
No hydraulic system pressure	Check to see if any other function on the valve bank works. If another function works, check the motor. Check the pump.

PROBLEM: INFEED CONVEYOR NOT OPERATING WITH REMOTE OR KEY PAD (ALL OTHER FUNCTIONS WORK)

POSSIBLE CAUSE	SOLUTION
Bad solenoid on the control valve.	Check to see if the handle on the valve moves. Swap the solenoid with the solenoid from a different valve and if the problem follows the solenoid replace the solenoid.
No electrical signal to the solenoid on the control valve.	Check for electrical power at the solenoid while engaging the switch for the infeed conveyor on the radio remote or key pad. A wire may be broke or have a faulty output. Refer to maintenance screen on control panel to check that outputs are functional.
Faulty switch in radio remote control or tether control.	If using the radio remote control, check the maintenance screen on control panel to check that inputs are functional (Refer to the Bandit Controls manual).

PROBLEM: DISCHARGE CONVEYOR BELT NOT RUNNING (ALL OTHER FUNCTIONS WORK)

POSSIBLE CAUSE	SOLUTION
Material wedged or stuck preventing the discharge belt from turning.	With the machine shut down, check around discharge conveyor belt looking for anything that may have the discharge conveyor belt wound up.
Material wedged in idler drum causing a high spot.	With the machine shut down, remove any debris trapped in the idler drum.
Discharge belt conveyor running off track	Refer to “Adjusting Discharge Conveyor Belt Tracking” on page 39.
Discharge belt conveyor drive roller spinning inside of belt.	Refer to “Adjusting Discharge Conveyor Belt Tension” on page 60.
Broken drive key.	Check and replace broken or damaged key between motor and drive shaft.
Bent shaft on drive or idler drum rollers.	Check both drum rollers and replace if damaged.
No hydraulic system pressure	Check to see if any other function on the valve bank works. If another function works, check the motor. Check the pump.

THE BANDIT HYDRAULIC SYSTEM

⚠DANGER

Before attempting any type of maintenance, disengage clutch, wait for the cutterhead to come to a complete stop, turn off engine, remove the ignition key, make sure the ignition key is in your possession, wait 2 minutes and then disconnect the battery.

⚠WARNING

It is very important after you have operated a new machine for approximately an hour to shut down the machine and recheck all hydraulic fittings. Relieve all pressure and retighten as needed.

DO NOT GO NEAR HYDRAULIC LEAKS! High pressure oil easily punctures skin causing serious injury, gangrene, or death. Avoid burns from fluid. Hot fluid under pressure can cause severe burns. DO NOT use fingers or skin to check for leaks. Lower load or relieve hydraulic pressure before loosening fittings. Relieve all pressure in the system before disconnecting the lines, hoses, or performing other work. Use a piece of cardboard to find leaks. Never use your bare hands. Allow system to cool down to ambient temperature before opening any coolant or hydraulic oil system.

In cold weather situations let your hydraulic system idle for approximately 15 minutes to allow the system to warm up to operating temperature.

⚠WARNING

DO NOT operate this machine unless all hydraulic control devices operate properly. They must function, shift and position smoothly and accurately at all times. Faulty controls can cause personal injury!

NOTICE

Some equipment and components such as fluid engagement clutches (PTOs) have their own lubrication requirements. Consult the manufacturer's manual for that information.

⚠CAUTION

After the initial start-up of the machine and after any replacement of hydraulic components, fittings and hoses must be re-checked for leaks and clearances.

NOTICE

When returning hydraulic components for warranty make sure to box up all warranted parts to avoid additional damage while shipping. **Do not disassemble any hydraulic components which are to be warranted.** Anything which has been disassembled or tampered with will not be warranted. Items being returned must be clean. All hydraulic components must have all hosing ports plugged. Failure to plug ports will allow debris to enter components which will void warranty.

The Bandit is equipped with a very efficient, simple hydraulic system. Each component is capable of withstanding a specified PSI (bar) and still operate for a very long time.

If the simple rules mentioned below are followed, the hydraulic components will last for years:

- Avoid hydraulic pump cavitation. Low oil levels or cold start-ups will cause the hydraulic pump to cavitate. Cavitation will ruin the pump and possibly the entire hydraulic system. Cavitation only has to happen once. This will start the pump on its way to ruin. Allow hydraulic system to turn slowly for several minutes in cold weather in order for hydraulic system to warm up. Cavitation is not covered under warranty.
- Keep hydraulic oil clean. Dirty oil will cause excessive wear and loss of hydraulic power.
- Replace the hydraulic oil filter(s) after first 10 hours and with each 400 hours of operation or 3 months.
- Replace hydraulic oil & suction screen(s) at least once yearly. This is also a very good time to flush and clean the tank. Replace hydraulic oil immediately if it is contaminated or looks "milky". Refer to "Hydraulic Fluid Requirements" for more information.
- If the Bandit's hydraulic system is kept clean and the hydraulic pressures are not increased beyond the specified PSI (bar), the maximum use and life should be received from the Bandit grinder hydraulic system.
- If a problem is encountered, it will more than likely be located in the relief valve.
- Never close the ball valves on the hydraulic tank suction ports (if equipped) while the machine is running, this will ruin the hydraulic pump and components.

HYDRAULIC FLUID REQUIREMENTS

This machine is equipped with “Petro-Canada Hydrex XV” hydraulic fluid and it is recommended to be replaced with the same. “Petro-Canada Hydrex XV” is an all season hydraulic fluid. This is a premium performance, long life anti-wear, hydraulic fluid, designed for all season use in heavy duty hydraulic systems. “Petro-Canada Hydrex XV” allows year round use under wide extremes of temperature. It allows the hydraulic system to start at temperatures as low as -40°C/-40°F, under no load conditions and it improves lubrication of hydraulic components at high operating temperatures. It will also help protect against hydraulic failures during the wide temperature swings of spring and fall.

Multi Viscosity motor oils are not recommended to mix with “Petro-Canada Hydrex XV” hydraulic oil. AW oils may mix with “Petro-Canada Hydrex XV” hydraulic oil. The following are specifications and authorizations of compatible oils. Only a high quality anti-wear (AW) hydraulic oil containing foam, corrosion, rust and oxidation inhibitors should be used. This viscosity grade depends on the oil temperature in service, based on the climate and operating conditions.

Alternative hydraulic oils are available, but they do not equal the performance or longevity of the “Hydrex XV” oil. Consult the following information supplied by the oil distributor.

NOTICE

These specifications may vary depending on the manufacturer. Contact the manufacturer for exact specifications.

	Hydrex XV	ISO 22, AW	ISO 32, AW	ISO 46, AW	ISO 68, AW	ISO 100, AW
Viscosity Index	245	110	110	104	106	102
Cold Start-up °C (°F)	-40 (-40)	-37 (-29)	-31 (-14)	-26 (-3)	-22 (16)	-16 (24)

CELSIUS (°C)	-40	-20	-18	-13	-5	0	1	7	15	25	35	45	55	65	75	85	95
FAHRENHEIT (°F)	-40	4	0	9	23	32	34	45	59	77	95	113	131	149	167	185	203

The above chart is a suggested guide for viscosity of hydraulic fluids at start up ambient temperature. The load, demand, and cleanliness of the equipment will affect actual oil temperatures which can increase dramatically above ambient air temperatures during operation. The actual viscosity needed is based on oil temperature during operation and not air temperature. Compare your fluid specifications with the specifications above to verify compliance.

Based on the varying temperatures of the area where Bandit equipment is used, and the high demand and loads placed on this equipment, Bandit has filled each hydraulic system with Petro-Canada’s Hydrex XV All Season Hydraulic Fluid for maximum protection and performance.

Hydraulic fluids vary in their resistance to oxidation at elevated temperatures, their ability to protect against metal-to-metal contact under increasing temperature, and their ability to separate water from the fluid. Viscosity is temperature dependant. Fluids with high viscosity index (VI) will thin out slower at higher temperature and thicken slower at colder temperatures allowing a wider operating range. Choose a fluid that has test results in these areas for best results.

When choosing a hydraulic fluid - these maximum and minimum specifications must be met:

Minimum Viscosity during operation = 12 cSt
Maximum No-Load Viscosity at start-up = 2000 cSt

To find the closest “Petro-Canada Hydrex XV” dealer call 1-866-335-3369, press 1 for English, then 1 for lubricants, then press 2 for new customer. Or go to “lubricants.petro-canada.com” and click on “Contact Us” then click “Request A Quote” to find your nearest Petro-Canada dealer.

HYDRAULICS

TYPICAL HYDRAULIC RELIEF PRESSURE SETTINGS
TYPICAL HYDRAULIC FLOW SETTINGS
(Approximate, For Reference Only, Engine At Full RPM)

Equipment Model	1425		
Pump GPM (LPM)	1st Speed 9.25 (35)	2nd Speed 12.5 (47.3)	3rd Speed 15.7 (59.4)
Top Feedwheel GPM (LPM)	1st Speed 2.25 (8.5)	2nd Speed 4.5 (17)	3rd Speed 6.7 (25.4)
Infeed Conveyor GPM (LPM)	1st Speed 1 (3.8)	2nd Speed 2 (7.6)	3rd Speed 3 (11.4)
Discharge Conveyor GPM (LPM)	6 (22.7)		
Feedwheel RPM	24		
Infeed Conveyor RPM	35		
Top Feedwheel PSI (bar)	1400 (96)		
Infeed Conveyor PSI (bar)	2500 (172)		
Main Relief PSI (bar)	2300 (158)		
Feed Relief PSI (bar)	2300 (158)		
Yoke Relief PSI (bar)	1500 (103)		
Discharge Conveyor PSI (bar)	3000 (203)		

NOTICE

These typical hydraulic flows and relief pressure settings are with the engine at full RPM. All settings are subject to change!

⚠CAUTION

After the initial start-up of the machine and after any replacement of hydraulic components, fittings and hoses must be re-checked for leaks and clearances.

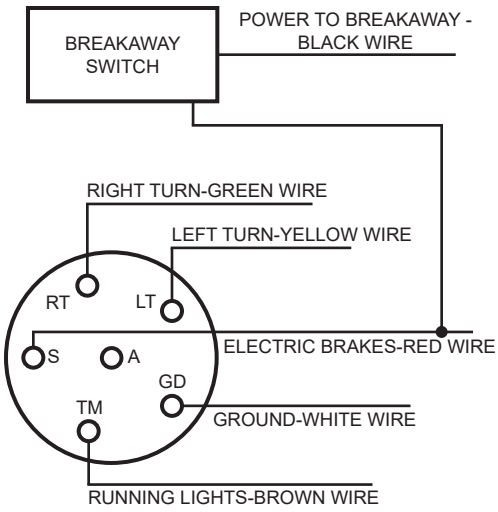
NOTICE

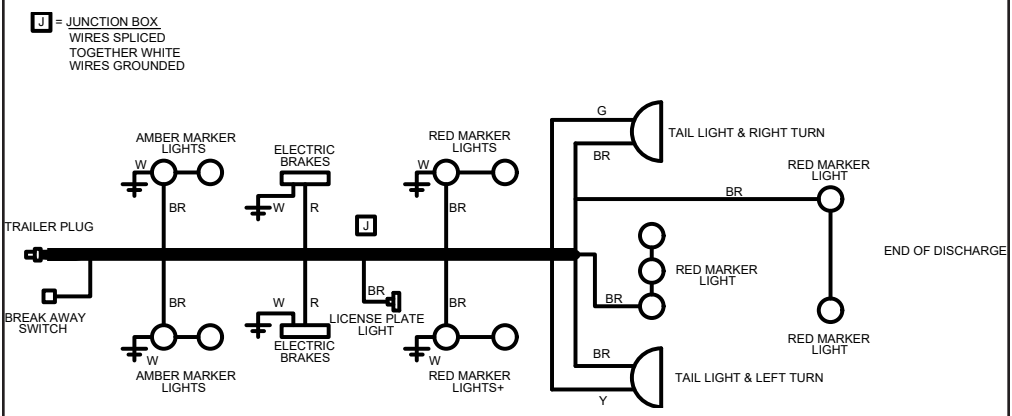
Do not under any circumstances over-set these relief pressures, because it will cause damage to component parts as well as hydraulic parts.

TYPICAL ELECTRICAL WIRING DIAGRAMS

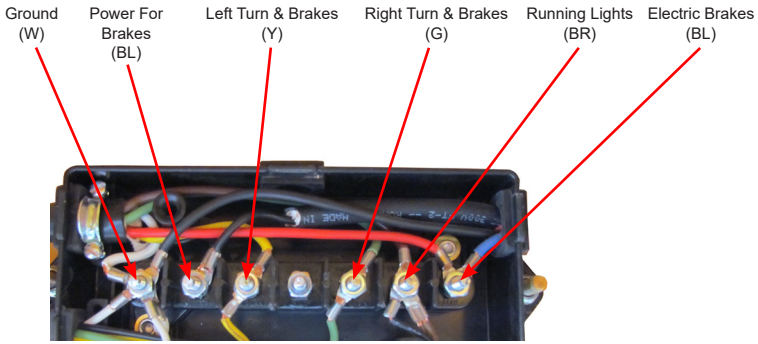
WIRING FOR STANDARD 6 PRONG PLUG AND 6 WIRE MAIN CABLE

6 Wire Main Cable Color Code
Red R (Brakes & Breakaway Switch)
White W (Ground)
Green G (Right Turn)
Yellow Y (Left Turn)
Brown BR (Running Lights)
Black BL (Power to Breakaway Switch)





JUNCTION BOX



REPLACEMENT PARTS SECTION

Depending on what replacement parts you are ordering the following information will be needed:

MACHINE COMPONENTS	ENGINE COMPONENTS	CLUTCH COMPONENTS
Serial Number	Brand	Brand
Model Number of Machine	Engine Serial Number	Serial Number
	Engine Spec. Number	Assembly Number of Clutch

NOTICE

When ordering any replacement parts you should have the serial number (S/N) and model of the machine to ensure that you receive the correct replacement part. See page 6 for typical serial number & work order number locations.

NOTICE

All nuts, bolts, washers, and many other components can be ordered by physical description.

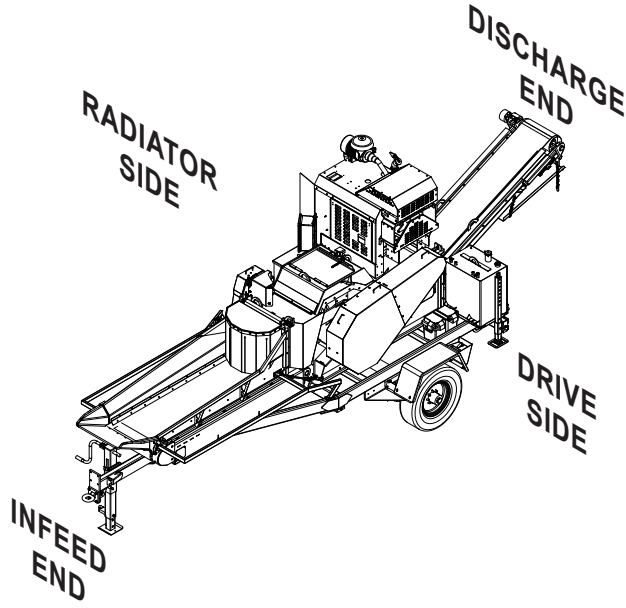
NOTICE

Some of the components shown in this section are for optional equipment and may not apply to every machine.

NOTICE

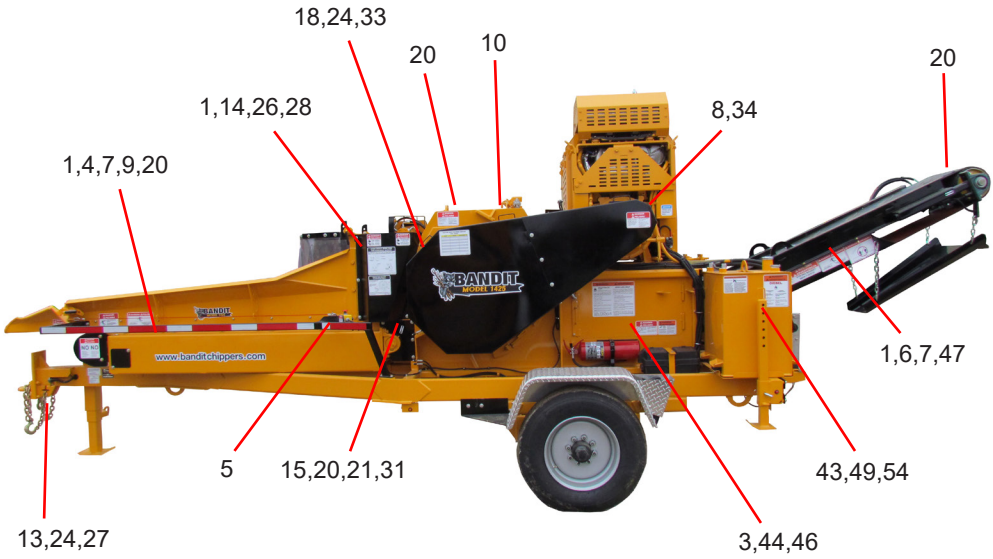
Bandit Industries Inc. reserves the right to make changes in models, size, design, installations and applications on any part without notification.

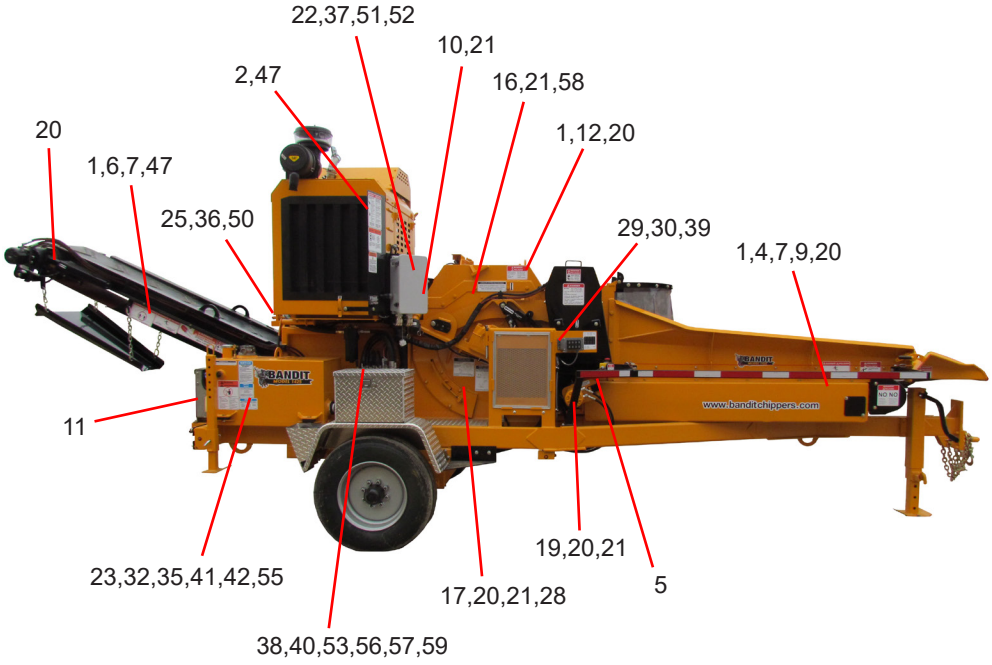
MACHINE ORIENTATION REFERENCE



DECAL LOCATIONS

Decal locations may vary, these are general locations.





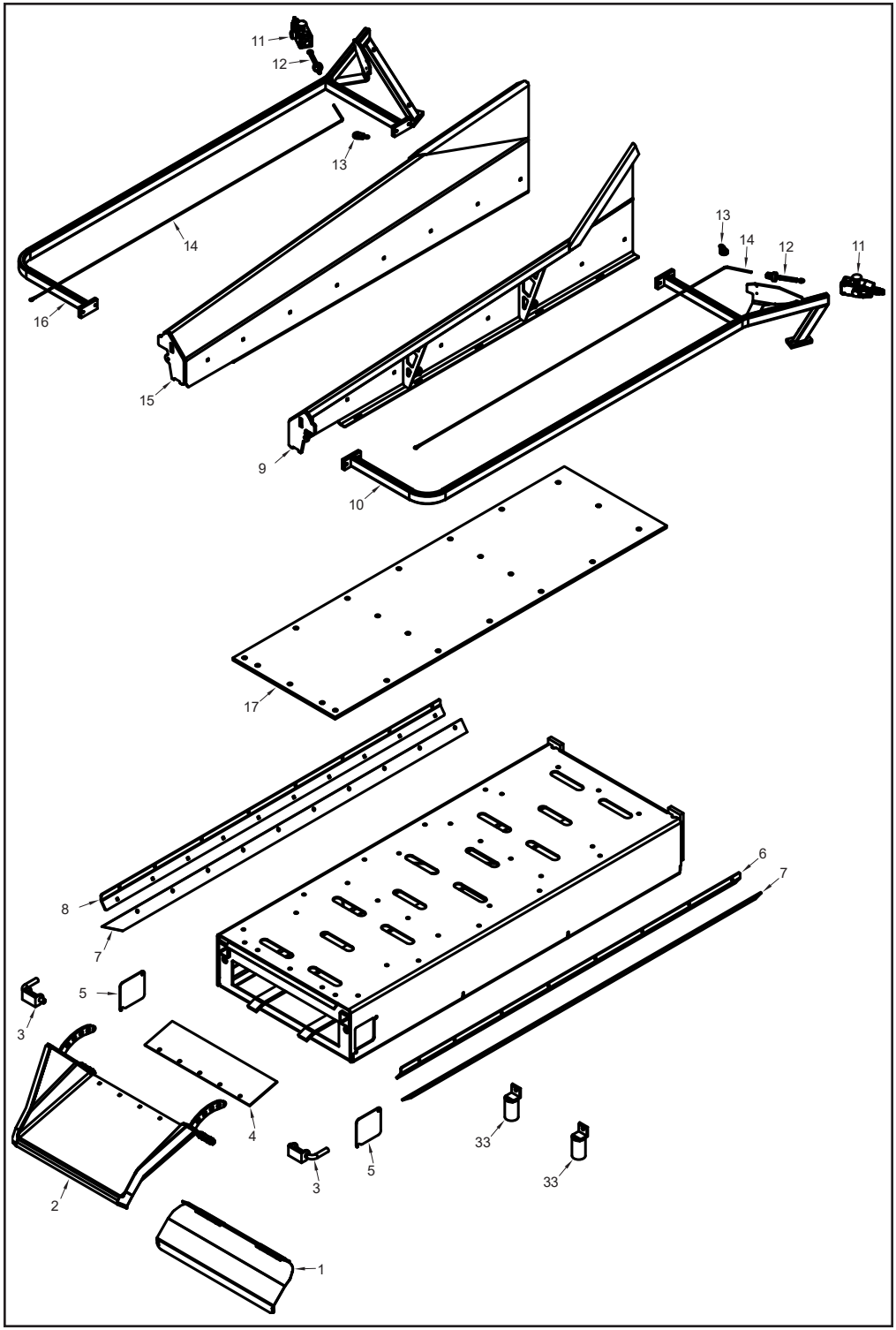
NOTICE Some decals are for optional equipment. Decal locations may vary, these are general locations. If any decals become damaged, replace immediately.

DECAL LOCATIONS

Modifications and/or additions of decals to this list will happen.
Consult equipment dealer or manufacturer for most current decal package.

#	Part Number	Description
1	SPD-02	Moving Parts...
2	SPD-03	Lockout All Energy Sources...
3	SPD-17	Do Not Run or Operate...With Door/Compartment Open
4	SPD-20	Flying Objects...Stand Clear
5	SPD-22	Emergency Shut Down Switch
6	SPD-24	Falling Objects...Stand Clear
7	SPD-25	Stand Clear...Moving Conveyor
8	SPD-28	Do Not Insert Fingers
9	SPD-29	Do Not Climb or Reach Into Infeed Conveyor...
10	SPD-30	Do Not Sit, Stand, Lay, Climb...
11	SPD-32	Do Not Operate This Machine...
12	SPD-33	Do Not Work Under Top Feed Roller...
13	SPD-62	Stay Clear Tongue Jack/ Stabilizer
14	SPD-70	Keep Hands Clear...
15	ID-67	Bandit Industries, Inc...USA
16	INST-02	Yoke Lock Hole
17	INST-03	Yoke Lock Bar
18	INST-04	Arrow
19	INST-11	Motor Coupler Guard
20	INST-12	Grease Daily (Arrow)
21	INST-16	Grease Weekly (Arrow)
22	INST-45	For Parts and Service...
23	INST-53	Hydraulic Oil...Hydrex XV
24	INST-95	Electric Plug-In Schematic
25	INST-100	Lubricate Cutter Head Bearings...
26	INST-101	Canada Engine Decal
27	INST-279	Test Trailer Brake
28	INST-374	Avoid Costly Down Time
29	INST-389	Check & Adjust Clearances Daily
30	INST-392	Remote Key Pad
31	INST-417	Grease Log Chart
32	N-02	Maintain Lubrication...
33	N-03	Belt Maintenance
34	N-05	Adjust, Grease
35	SPN-06	Decal Maintenance...

#	Part Number	Description
36	N-07	Clutch Operation...
37	SPN-14	Do Not Start To Weld...Unless...
38	N-27	Set Feed Speed To Match Material
39	N-48	Hydraulic Clutch Shut Down
40	N-57	Disconnect before welding...
41	N-69	Patents...
42	SPW-01	Do Not Go Near Oil Leaks...
43	SPW-02	Diesel Fuel Only...
44	SPW-04	Frozen Battery Can Explode...
45	SPW-08	Wear Personal Protection...
46	SPW-13	Check for Fires, Clean Off Debris, Switch Off Battery...
47	SPW-21	Strong Magnet
48	SPW-27	...Equipment May Create Sparks...
49	SPW-31	Explosion Hazard...Ultra Low Sulfur Diesel...
50	SPW-46	Proposition 65...Diesel Fumes
51	OL-33	Ignition Off, On, Start
52	OL-124	Throttle Fuel Auxiliary
53	OL-289	Yoke Up/Down Valve Bank
54	OL-312	Diesel Only
55	OL-313	Hydraulic Fluid Only
56	OL-365	Feedwheel Reverse/Forward Valve Bank
57	OL-367	Discharge Conveyor Reverse/ Forward Valve Bank
58	OL-392	Yoke Cylinder Lock
59	OL-396	Infeed Reverse/Forward Valve Bank
60	900-2909-94	Red Reflective Decal
61	900-2909-95	Amber Reflective Decal
62	900-9901-69	Reflective Conspicuity Tape (Red/White)
63	**900-8915-63**	**Safety Decal Kit - English/Spanish**
64	**900-8918-02**	**Safety Decal Kit - English Only**
65	**900-8915-62**	**Model 1425 Logo Decal Kit**

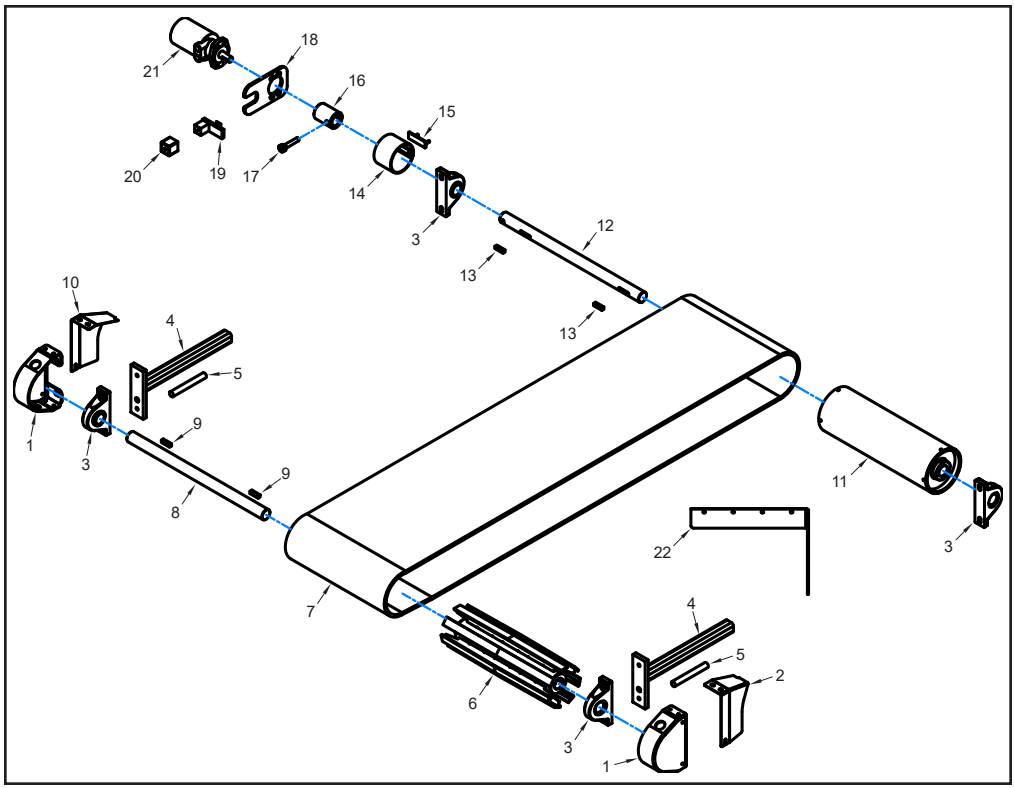


NOTICE Parts may not be exactly as shown.

#	Part Number	Description
1	931-2001-54	Tail Shaft Cover
2	931-2001-18	Folding Tray
3	900-4904-90	Spring Lock for Folding Pan
4	931-3002-56	Rubber Deflector for Folding Tray
5	977-304089	Access Cover
6	931-3004-11	Infeed Conveyor Deflector Mount - Drive Side
7	931-3003-91	Infeed Conveyor Deflector
8	931-2000-89	Infeed Conveyor Deflector Mount - Radiator Side
9	931-2000-90	Infeed Deflector Assembly - Drive Side

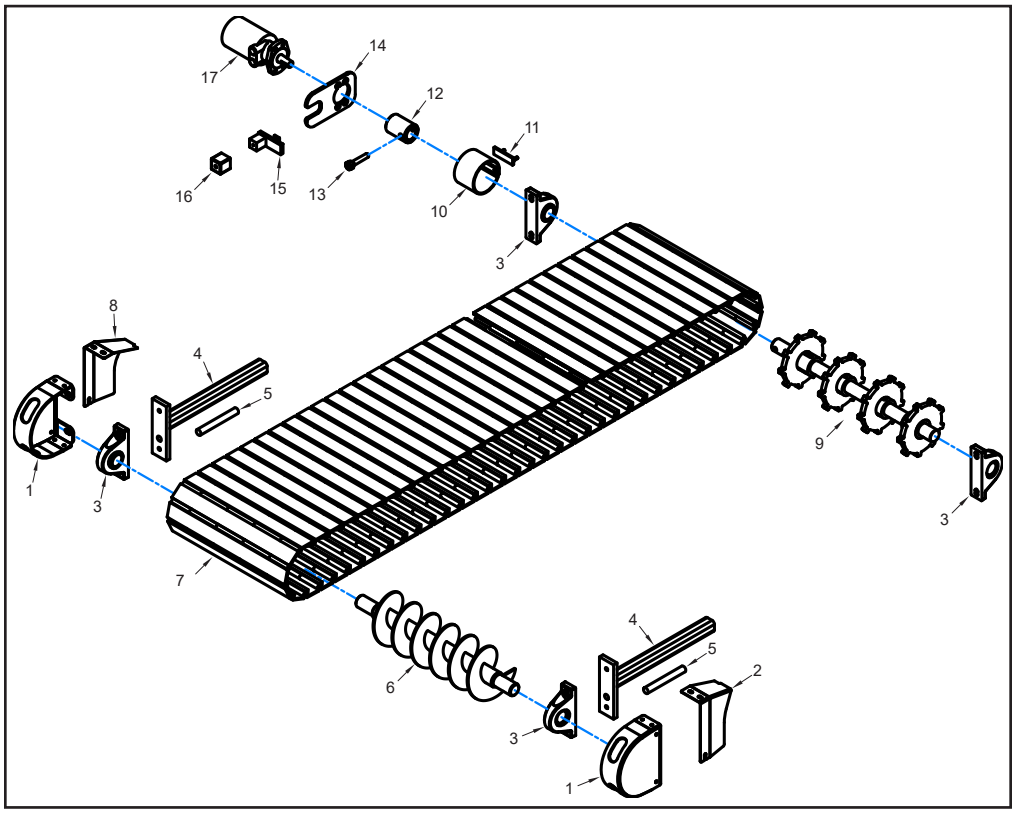
#	Part Number	Description
10	931-2000-41	Infeed Conveyor Guard - Drive Side
11	900-2935-24	Emergency Stop Button Assembly
12	931-1000-78	Actuation Cable Kit
	900-4927-12	Actuation Cable Adjuster
13	900-4904-28	Actuation Cable Pulley
14	900-4927-13	Actuation Cable
15	931-2000-89	Infeed Deflector Assembly - Radiator Side
16	931-2001-42	Infeed Conveyor Guard - Radiator Side
17	931-3003-04	Infeed Conveyor Slide Plate

NOTICE **Nuts, bolts, washers, and other hardware can be ordered by physical description.**



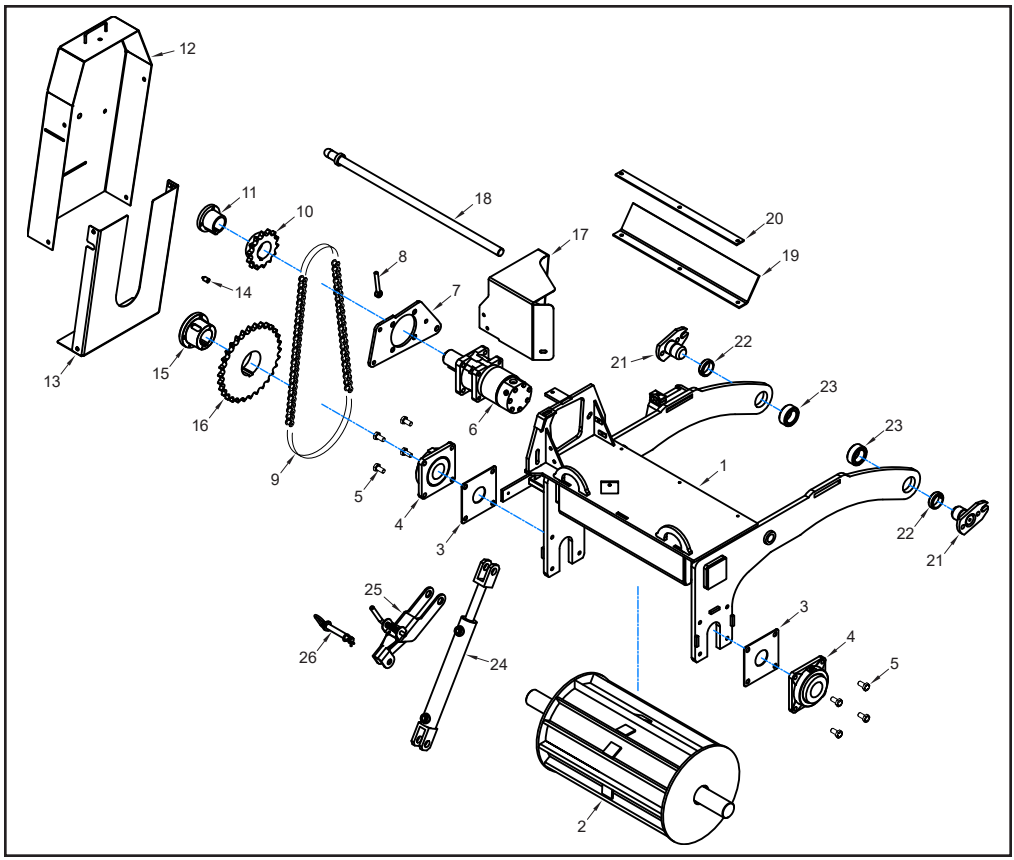
#	Part Number	Description
1	931-2001-25	Idler Bearing Cover
2	931-3006-04	Infeed Tail Shaft Cover - Drive Side
3	900-1905-10	Infeed Conveyor Idler & Drive Bearing
4	931-2001-07	Infeed Conveyor Adjuster
5	983-300102	Infeed Conveyor Adjuster Bolt
	900-4900-44	1”-8NC Jam Nut
	900-4900-79	1” Flat Washer
	900-4906-20	1”-8NC Nut
6	931-1000-56	Infeed Conveyor Idler Roller Assembly
	900-1926-49	Infeed Conveyor Roller
7	900-1926-67	Infeed Conveyor Belt
8	931-3004-49	Infeed Conveyor Idler Roller Shaft
9	977-300950	Key for Infeed Conveyor Idler Roller Shaft

#	Part Number	Description
10	931-3006-03	Infeed Tail Shaft Cover - Radiator Side
11	931-1000-80	Infeed Conveyor Drive Roller Assembly
	900-4927-16	Infeed Conveyor Drive Roller
12	931-3000-60	Infeed Conveyor Drive Roller Shaft
13	001-3007-21	Key for Infeed Conveyor Drive Roller Shaft
14	900-7901-23	Rubber Coupler Guard
15	980-0508-57	Coupler Guard Mount
16	981-1006-45	Coupler
17	900-4909-54	Taper Pin
	900-4903-41	Taper Pin Nut
18	931-3002-97	Torque Arm
19	931-1000-55	Torque Arm Stop
20	937-900009	Torque Arm Cushion
21	900-3973-17	Hydraulic Motor
22	931-3001-69	Lower Chip Deflector



#	Part Number	Description
1	931-2001-74	Idler Bearing Cover
2	931-3006-04	Infeed Tail Shaft Cover - Drive Side
3	900-1905-10	Infeed Conveyor Idler & Drive Bearing
4	931-2001-07	Infeed Conveyor Adjuster
5	983-300102	Infeed Conveyor Adjuster Bolt
	900-4900-44	1”-8NC Jam Nut
	900-4900-79	1” Flat Washer
	900-4906-20	1”-8NC Nut
6	931-2001-51	Infeed Conveyor Idler Assembly
7	900-1000-82	Infeed Conveyor Chain Slat (71 Required)

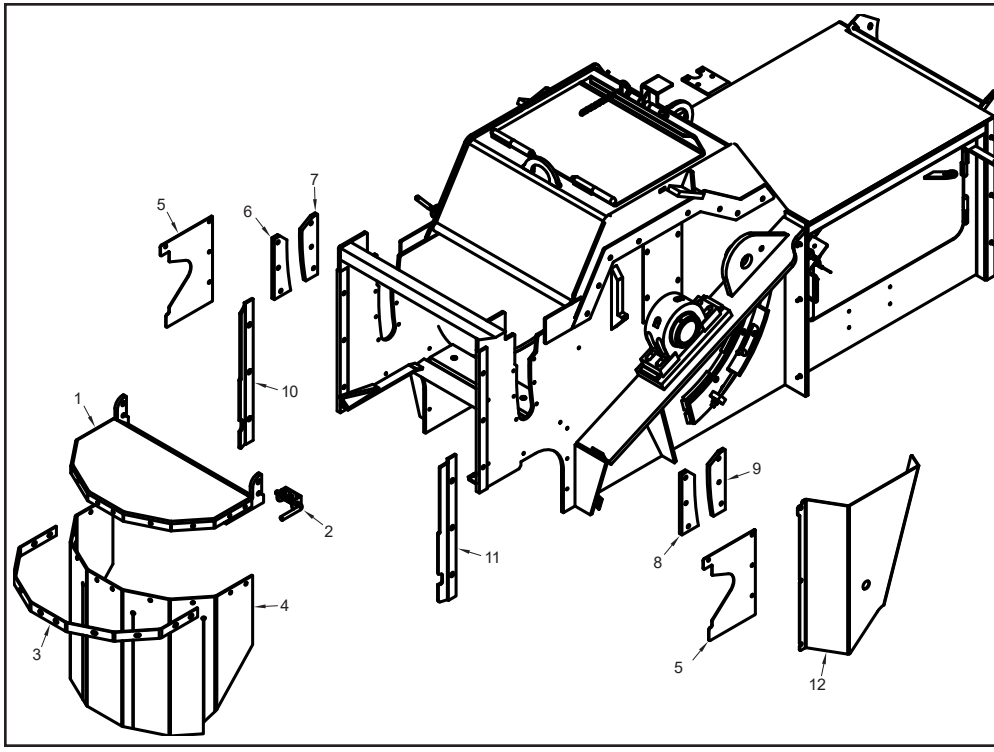
#	Part Number	Description
8	931-3006-03	Infeed Tail Shaft Cover - Radiator Side
9	931-2001-81	Infeed Conveyor Drive Head Assembly
10	900-7901-23	Rubber Coupler Guard
11	980-0508-57	Coupler Guard Mount
12	981-1006-45	Coupler
13	900-4909-54	Taper Pin
	900-4903-41	Taper Pin Nut
14	931-3002-97	Torque Arm
15	931-1000-55	Torque Arm Stop
16	937-900009	Torque Arm Cushion
17	900-3973-17	Hydraulic Motor



#	Part Number	Description
1	931-1000-36	Pivoting Yoke Assembly
	931-2000-83	Pivoting Yoke Weldment
2	931-2000-82	Feedwheel Assembly
	931-3003-26	Feedwheel Tooth
	931-3003-24	Feedwheel Shaft
3	931-3003-65	Bearing Backer
4	900-1904-07	Feedwheel Bearing
5	900-4906-92	Feedwheel Bearing Bolt
6	900-3906-29	Hydraulic Motor
7	931-3003-32	Pivoting Hydraulic Motor Mount
8	900-4907-91	Adjuster Eye Bolt for Pivoting Hydraulic Motor Mount
9	900-1926-68	Feedwheel Chain
	900-1910-16	Master Link
	900-1910-15	Half Link
10	900-1907-97	Feedwheel Motor Sprocket
11	900-1903-43	Feedwheel Motor Sprocket Bushing

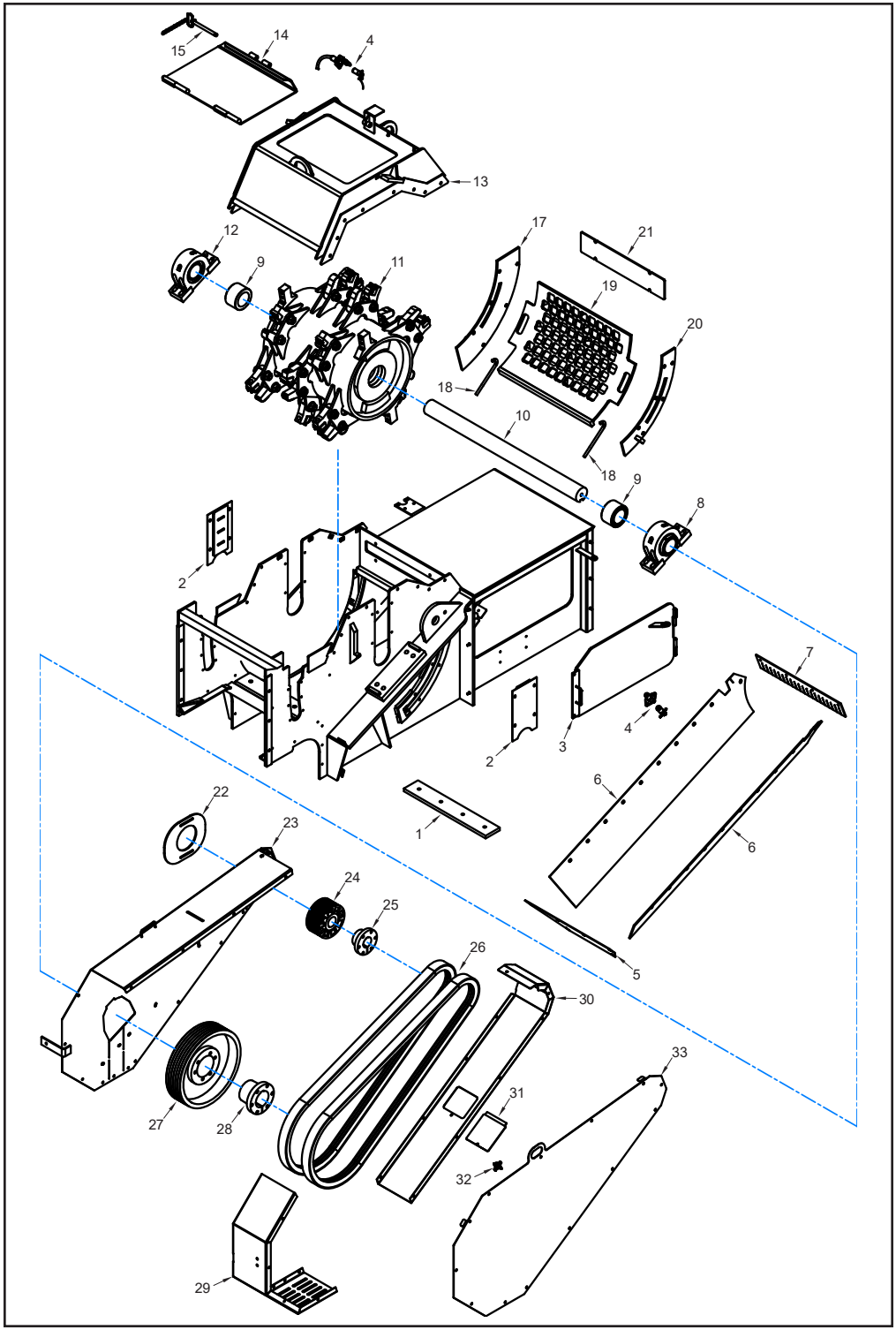
#	Part Number	Description
12	931-2001-46	Feedwheel Chain Guard
13	931-3005-77	Feedwheel Chain Guard Bottom
14	900-4911-86	Grease Zerk for Feedwheel Bearing
15	900-1900-08	Feedwheel Sprocket Bushing
16	900-1926-63	Feedwheel Sprocket
17	931-3003-71	Feedwheel Motor Guard
18	931-2001-50	Yoke Lock Pin
19	931-3004-07	Yoke Guard
20	931-3004-13	Yoke Guard Strap
21	902-2000-14	Pivot Pin
22	900-1926-65	Bushing - 2 1/2” OD x 2” ID x 3/4”
23	931-3003-81	Pivoting Yoke Pin Spacer
24	900-3925-04	Yoke Lift Cylinder
25	931-2000-99	Pivoting Yoke Lock Assembly
26	900-4926-85	Lock Pin for Yoke Lock Assembly

NOTICE Parts may not be exactly as shown.



#	Part Number	Description
1	931-2000-47	Infeed Curtain Mount Assembly
2	900-4901-83	Infeed Curtain Spring Lock
3	931-3002-61	Infeed Curtain Strap
4	931-3003-93	Infeed Curtain
5	931-3004-50	Infeed Base Cover
6	931-3004-74	Rubber Pivot Slot Cover - Infeed End, Radiator Side
7	931-3004-75	Rubber Pivot Slot Cover - Discharge End, Radiator Side

#	Part Number	Description
8	931-3004-76	Rubber Pivot Slot Cover - Infeed End, Drive Side
9	931-3004-77	Rubber Pivot Slot Cover - Discharge End, Drive Side
10	931-3004-23	Infeed Side Extension - Radiator Side
11	931-3003-49	Infeed Side Extension - Drive Side
12	931-3003-39	Pivot Yoke Cover



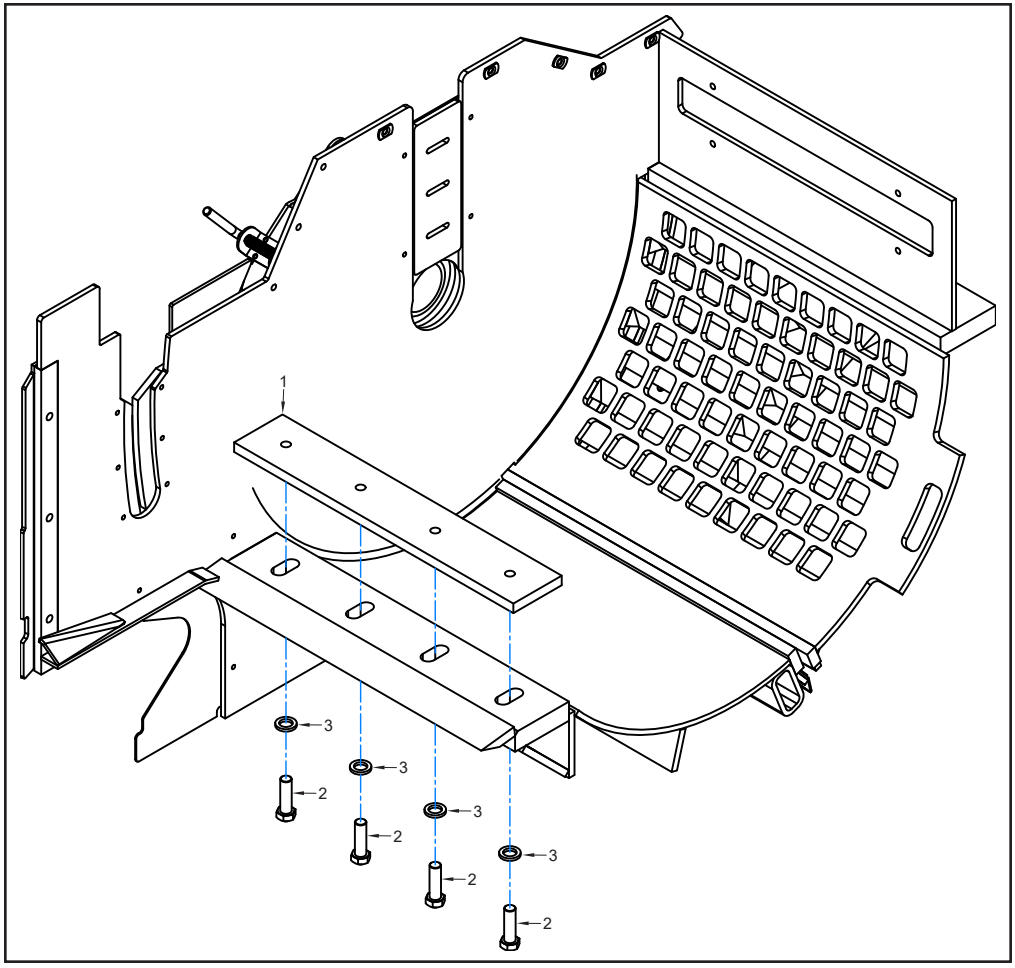
NOTICE Parts may not be exactly as shown.

#	Part Number	Description
1	See Page 66	Anvil
2	931-3000-31	Base Slot Cover
3	- -	Discharge Access Door
	900-4913-96	Hinge for Discharge Access Door
4	909-1000-01	Engine Disable Plug Assembly Kit
	900-2904-13	6-Prong Female Plug Only
	980-100083	6-Prong Male Plug with Wire Loop & Crimp Sleeves
5	931-3001-36	Lower Discharge Deflector
6	931-3003-94	Side Discharge Deflector
7	931-3002-57	Discharge Curtain
8	900-1927-50	Cutterhead Bearing - Drive Side (Start 4/20)
	931-1000-46	Cutterhead Bearing - Drive Side (Pre 4/20)
9	900-1916-78	Cutterhead Bushing (Start 4/20)
	982-900001	Cutterhead Bushing (Pre 4/20)
10	931-3005-15	Cutterhead Shaft (Start 4/20)
	931-3002-39	Cutterhead Shaft (Pre 4/20)
11	931-1000-72	Cutterhead Assembly (Start 4/20)
	931-1000-01	Cutterhead Assembly (Pre 4/20)
12	900-1927-51	Cutterhead Bearing - Radiator Side (Start 4/20)
	931-1000-45	Cutterhead Bearing - Radiator Side (Pre 4/20)

#	Part Number	Description
13	931-2001-61	Base Top & Hood Door Assembly
14	931-2001-60	Hood Door Assembly Only
15	911-100000	Hood Pin with Attaching Chain
16	900-4902-20	Padlock for Hood Pin
	900-4917-20	Key for Padlock
17	982-300850	Screen Retainer Plate - Radiator Side
18	982-301317	Screen Latch Hook
19	See Page 67	Screen
20	931-3004-38	Screen Retainer Plate - Drive Side
21	931-3004-30	Color Spray Cover
22	905-3005-44	Clutch Backer
23	931-3004-69	Beltshield Backer
24	**	Engine Sheave
25	**	Engine Sheave Bushing
26	**	Cutterhead Belts
27	**	Cutterhead Sheave
28	**	Cutterhead Sheave Bushing
29	931-3004-70	Beltshield End Cap - Infeed End
30	931-3004-71	Beltshield Bottom & End Cap - Discharge End
31	977-300223	Beltshield Clean-Out Door
	001-3004-02	Hinge for Clean-Out Door
32	900-4908-29	Plastic Knob for Clean-Out Door
33	931-2001-12	Beltshield Assembly
	931-3004-72	Beltshield Face

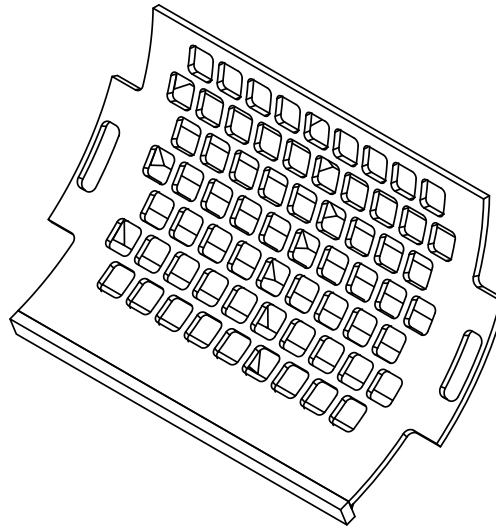
** Refer to check sheet or machine S/N when ordering parts

NOTICE **Nuts, bolts, washers, and other hardware can be ordered by physical description.**



#	Part Number	Description
1	931-3002-46	Anvil Only
2	900-4902-78	3/4”-10NC x 2 1/2” Hex Head Bolt

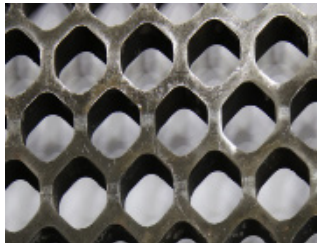
#	Part Number	Description
3	900-4905-91	3/4” Washer
4	931-2001-01	Anvil Assembly



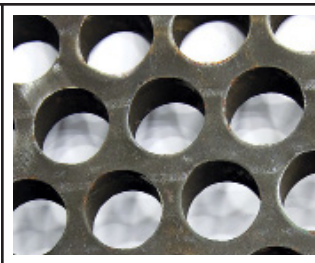
#	Part Number	Description
1	931-2000-66	5/8” Modified Diamond Screen
2	931-2000-67	3/4” Modified Diamond Screen
3	931-2000-62	1” Modified Diamond Screen
4	931-2000-63	1 1/2” Modified Diamond Screen
5	931-2000-64	2” Modified Diamond Screen
6	931-2000-65	3” Modified Diamond Screen
7	931-2001-65	4” Modified Diamond Screen
8	931-2001-66	5” Modified Diamond Screen
9	931-2001-23	6” Modified Diamond Screen
10	931-2001-22	7” Modified Diamond Screen

#	Part Number	Description
11	931-2001-21	8” Modified Diamond Screen
12	931-2000-61	1” Round Screen
13	931-2000-60	1 1/2” Round Screen
14	931-2000-58	2” Round Screen
15	931-2000-59	3” Round Screen
16	931-2001-26	1” Square Screen
17	931-2001-27	1 1/2” Square Screen
18	931-2001-28	1” Square Baffle Screen
19	931-2001-29	1 1/2” Square Baffle Screen
20	931-2000-03	2” Square Baffle Screen

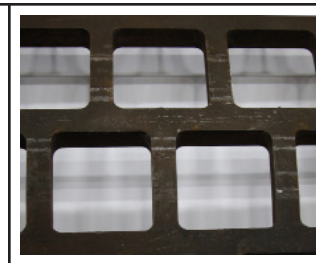
** Check with dealer or Bandit Industries for other screen options



Modified Diamond

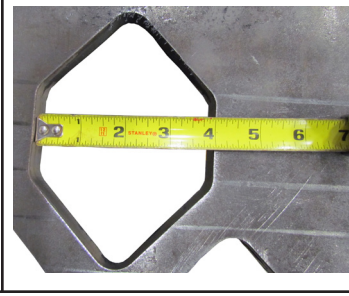


Round



Square

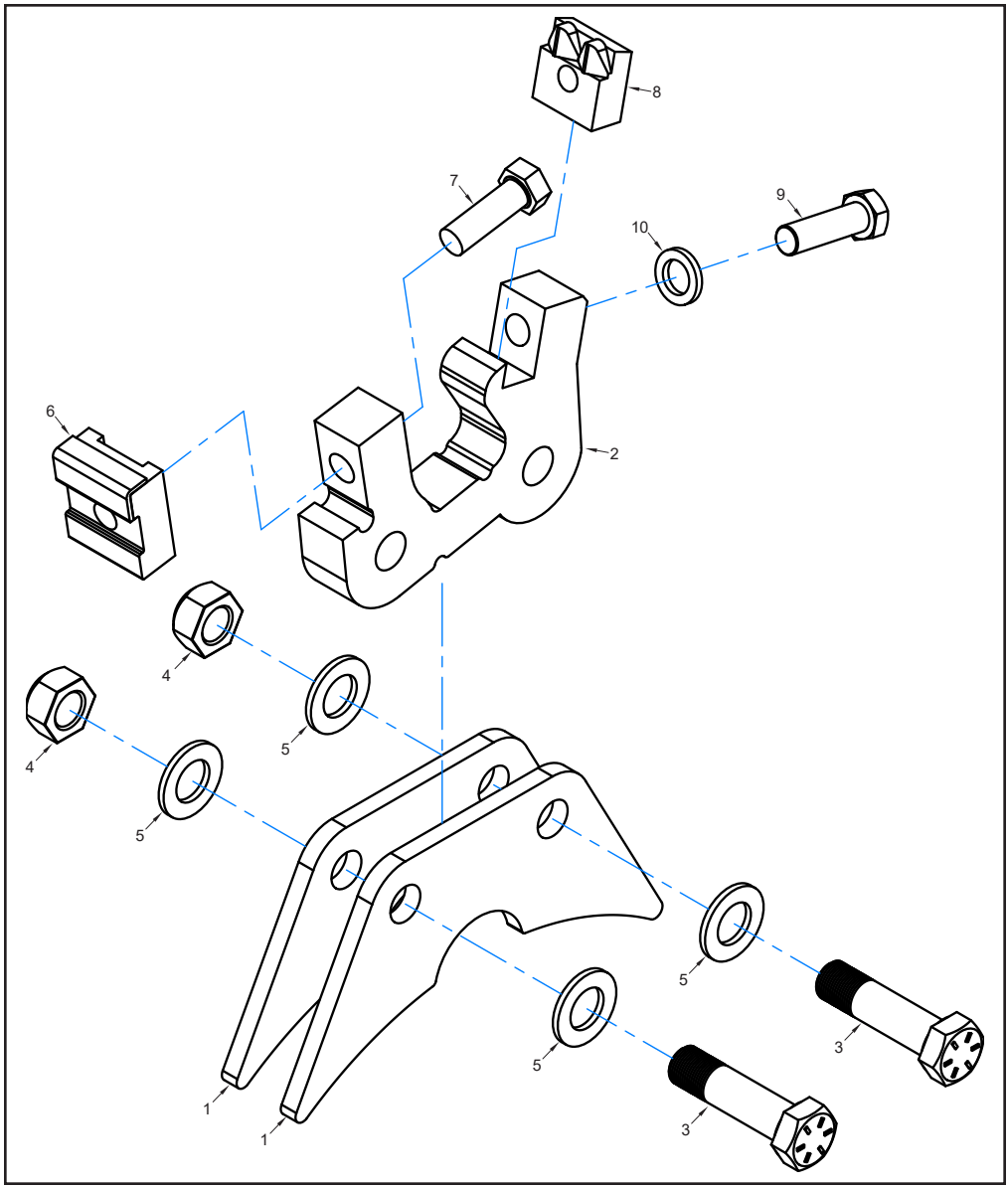
Baffled



How to measure Modified Diamond Screen

NOTICE Parts may not be exactly as shown.

RAKER STYLE CUTTERBODY



#	Part Number	Description
1	982-300044	Support Arm
2	982-3019-12	Cutterbody
3	900-4908-78	Cutterbody Bolt
4	900-4904-92	Cutterbody Nut
5	900-6907-68	Washer

#	Part Number	Description
6	See Page 69	Raker
7	900-4918-11	Raker Bolt
8	See Page 69	Cutter Tooth
9	900-4902-78	Tooth Bolt
10	900-4905-91	Nord-Lock Washer

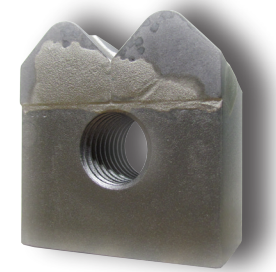
Torque Cutter Tooth Nut to 375 Ft.-Lbs. (508 Nm)
Torque Cutterbody Nuts to 700 Ft.-Lbs. (949 Nm)
Torque Raker Bolt to 375 Ft.-Lbs. (508 Nm)

NOTICE Parts may not be exactly as shown.

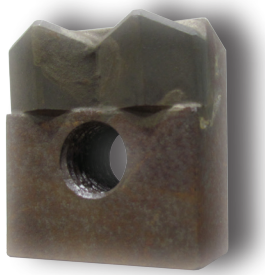
CUTTER TEETH

Double Splitter
900-9915-15

Double Blunt Nose Splitter
900-9915-16

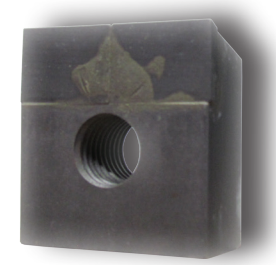


Double Short Shingle
900-9915-17



Double NR26 Carbide
900-9915-18

2” W 55-G Carbide
900-9915-19



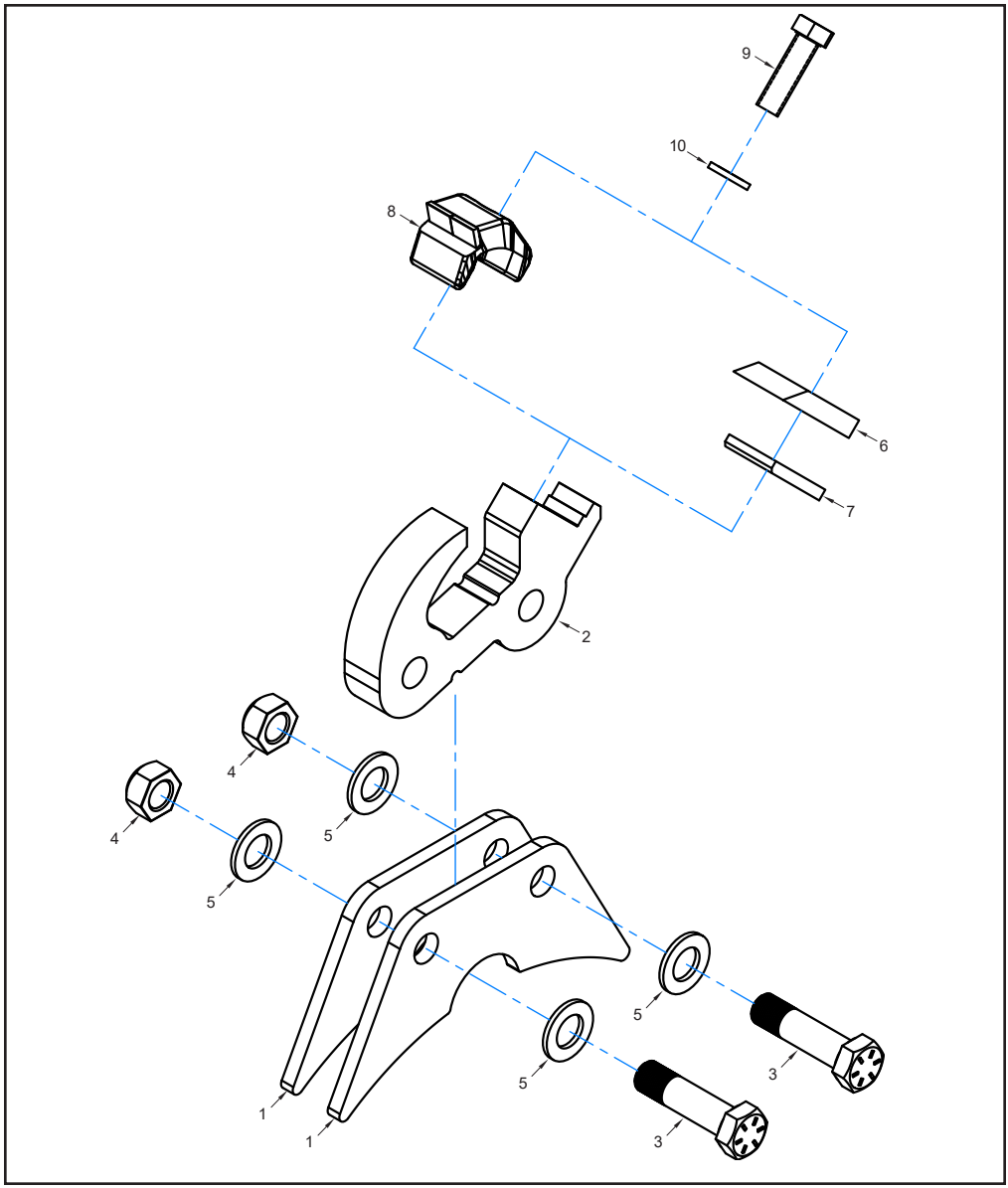
Double 1” Flat Carbide Cutter
900-9915-50

RAKERS

Raker - Standard Forged
977-2011-99

Raker - HD Forged
977-2012-00

KNIFE STYLE CUTTERBODY



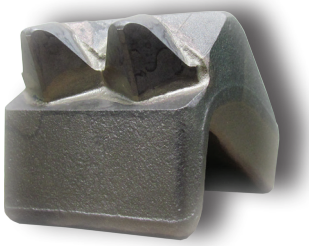
#	Part Number	Description
1	982-300044	Support Arm
2	982-3019-12	Cutterbody
3	900-4908-78	Cutterbody Bolt
4	900-4904-92	Cutterbody Nut
5	900-6907-68	Washer
6	900-9915-23	Beast Knife

#	Part Number	Description
7	900-9915-25	Counter Knife
	900-9915-24	Wear Block
8	See Page 71	Cutter Tooth
9	900-4916-55	Beast Knife Bolt
10	900-4905-91	Nord-Lock Washer

Torque Beast Knife Bolt to 420 Ft.-Lbs. (569 Nm)
Torque Cutterbody Nuts to 700 Ft.-Lbs. (949 Nm)

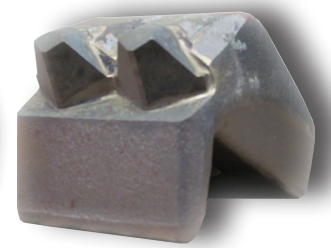
NOTICE Parts may not be exactly as shown.

TEETH & BEAST KNIVES FOR KNIFE STYLE CUTTERBODIES (KSCB)



Double Splitter
900-9914-96

Double Carbide Cutter
900-9914-97



Double Blunt Nose Splitter
900-9914-98

Double NR26
900-9914-99

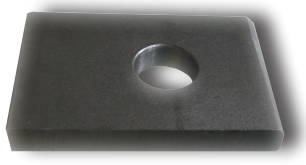
55-G Sprinkle Carbide Impregnated
900-9915-00

Double Shingle
900-9916-07

Triple Splitter
900-9918-86

Beast Knife
900-9915-23

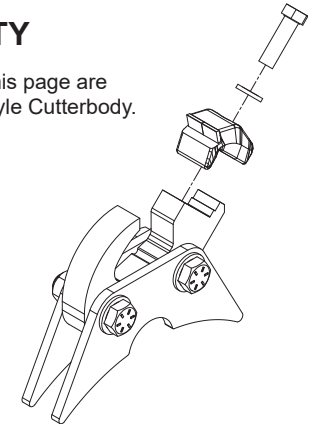
Counter Knife
900-9915-25



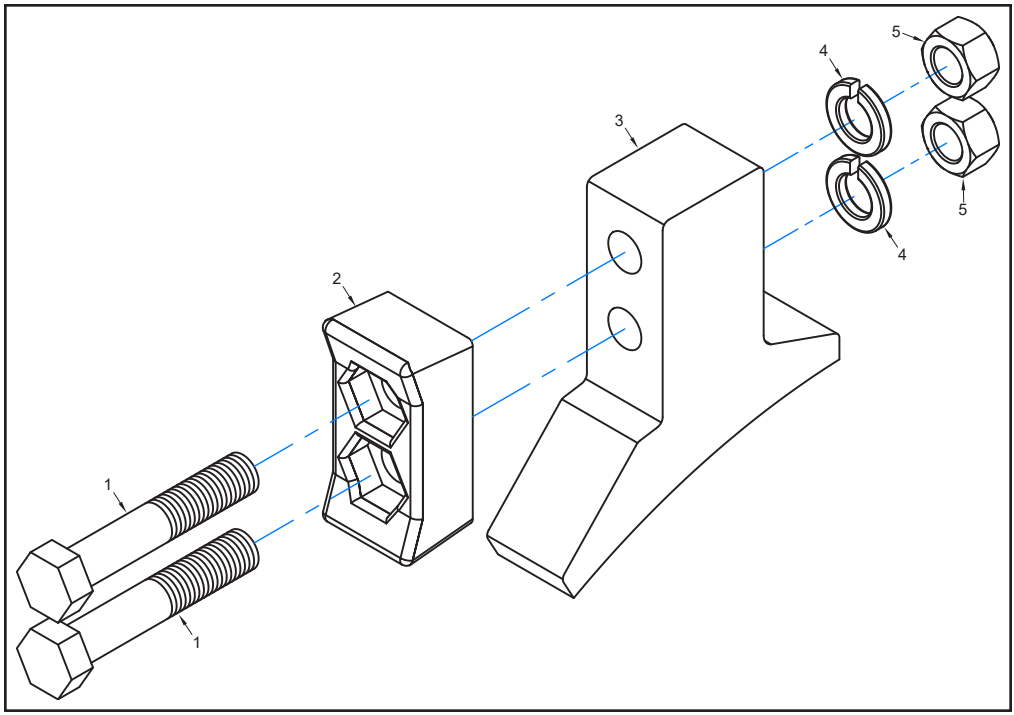
Wear Block
900-9915-24

COMPATIBILITY

All Beast teeth and knives on this page are designed to work with the Knife Style Cutterbody.



WIPERS



#	Part Number	Description
1	900-4906-98	Wiper Insert Hex Head Bolt
2	See Below	Wiper Insert
3	977-300085	Wiper Insert Mount

#	Part Number	Description
4	900-4906-87	5/8” Lock Washer
5	900-4907-04	5/8”-11NC Hex Nut

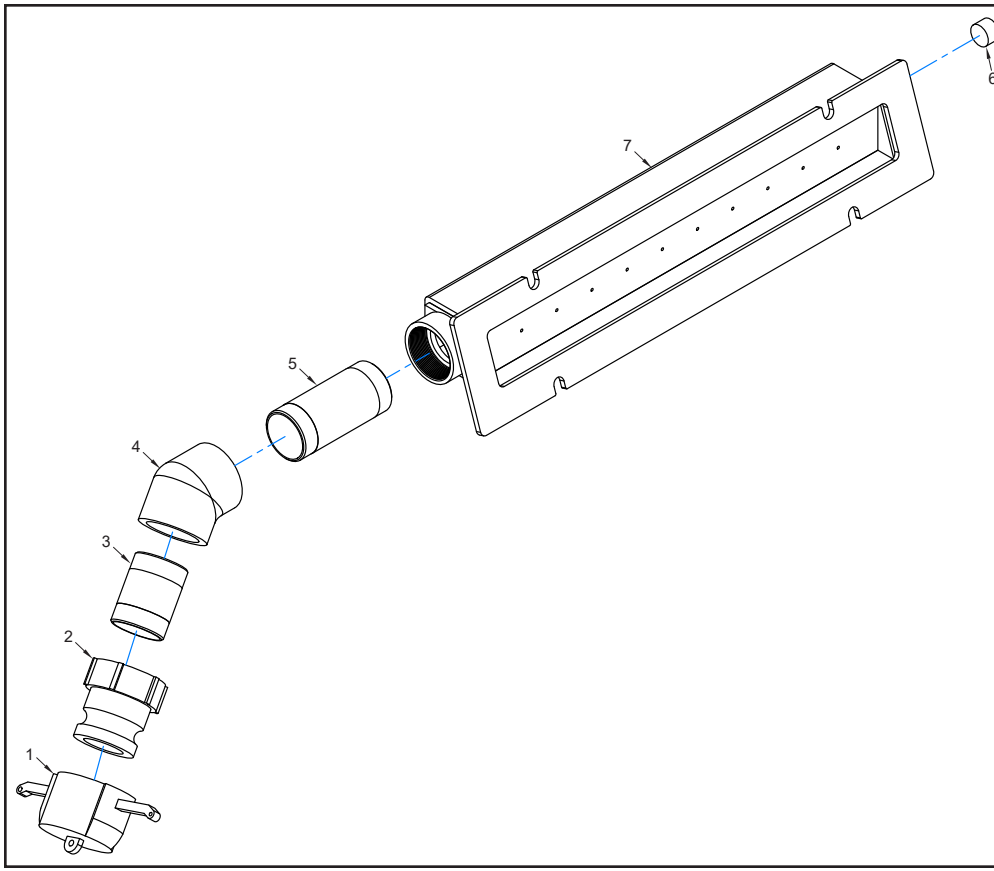
Torque Wiper Insert Bolt to 160 ft.-lbs (217 Nm)

Wiper Insert, Hard Facing
900-9915-20

Wiper Insert, Carbide Sprinkle
900-9915-21

NOTICE Parts may not be exactly as shown.

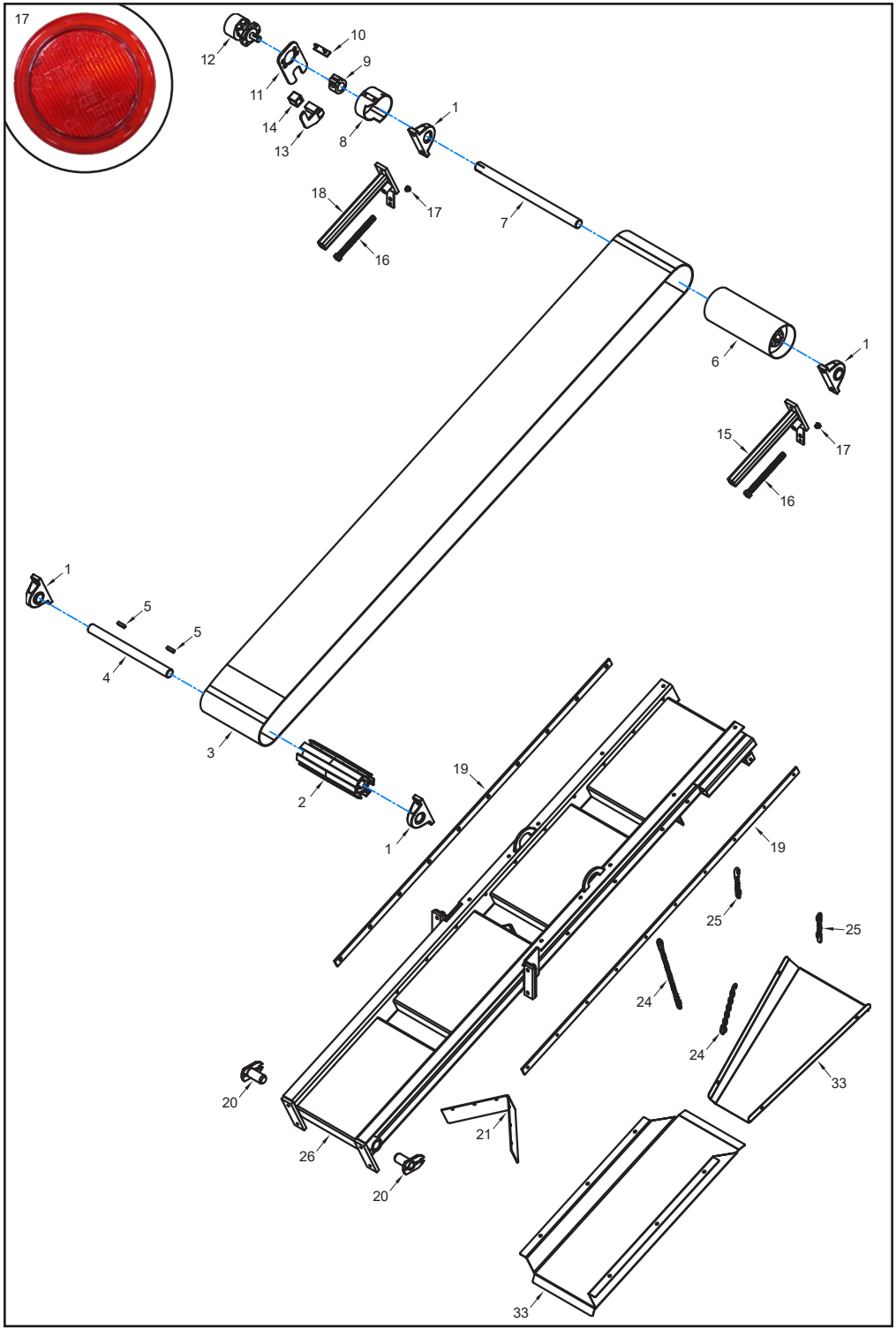
OPTIONAL COLORANT MANIFOLD



#	Part Number	Description
1	900-9940-69	Banjo Cap 2”
2	900-9912-47	2” Male Threaded Banjo Cover
3	900-4908-79	2” x 3” Black Pipe Nipple
4	900-3988-18	45° Black Pipe Elbow

#	Part Number	Description
5	900-3992-64	2” x 5” Black Pipe Nipple
6	900-3985-50	3/4” Pipe Plug Socket
7	931-2000-22	Colorant Manifold Assembly (Includes 1 - 6)

NOTICE Parts may not be exactly as shown.

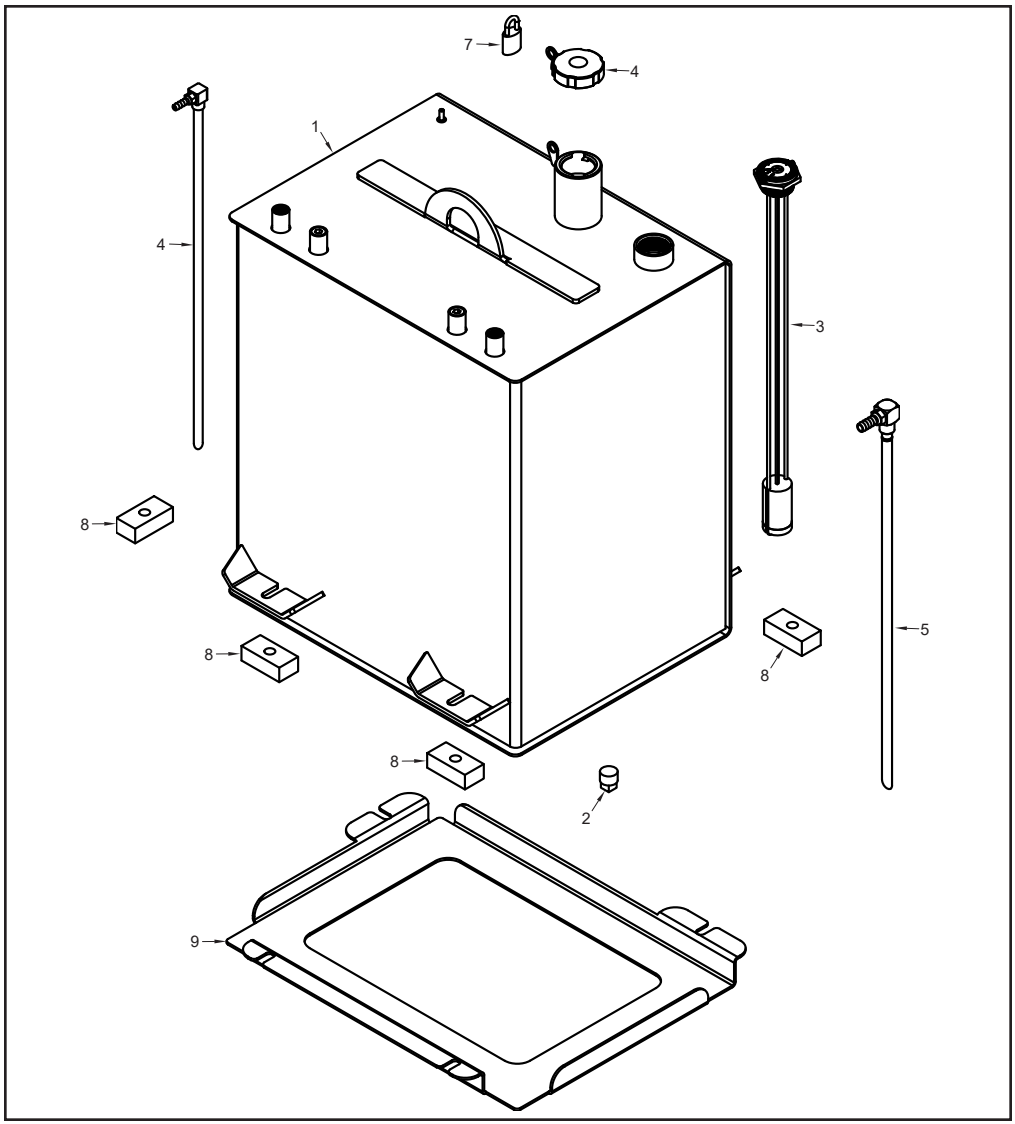


NOTICE Parts may not be exactly as shown.

#	Part Number	Description
1	900-1905-10	Discharge Conveyor Idler & Drive Bearing
2	931-1000-79	Discharge Conveyor Idler Roller Assembly
	900-4927-14	Discharge Conveyor Idler Roller Only
3	900-1927-44	Discharge Conveyor Belt
4	931-3001-06	Discharge Conveyor Idler Roller Shaft
5	001-3007-21	Key for Idler Shaft
6	900-1925-85	Discharge Conveyor Drive Roller Only
7	931-3000-76	Discharge Conveyor Drive Roller Shaft
8	931-3005-10	Rubber Coupler Guard
9	977-301338	Coupler
10	980-0508-57	Coupler Guard Mount
11	931-3002-97	Torque Arm
12	900-3993-17	Hydraulic Motor

#	Part Number	Description
13	931-3000-78	Torque Arm Stop
14	937-900009	Torque Arm Cushion
15	931-2000-17	Discharge Conveyor Adjuster - Drive Side
16	900-4919-32	Adjuster Bolt
17	900-2927-85	LED Marker Light - Red
18	931-2001-08	Discharge Conveyor Adjuster - Radiator Side
19	931-3002-78	Side Belt Guide
20	931-2001-33	Discharge Pin
21	931-3001-71	Lower Chip Deflector
22	931-3004-37	Discharge Conveyor Bottom
23	931-3000-52	Optional Debris Chute
24	931-1000-70	Chain for Optional Debris Chute - Long
25	931-1000-71	Chain for Optional Debris Chute - Short
26	931-1000-53	Discharge Conveyor Assembly

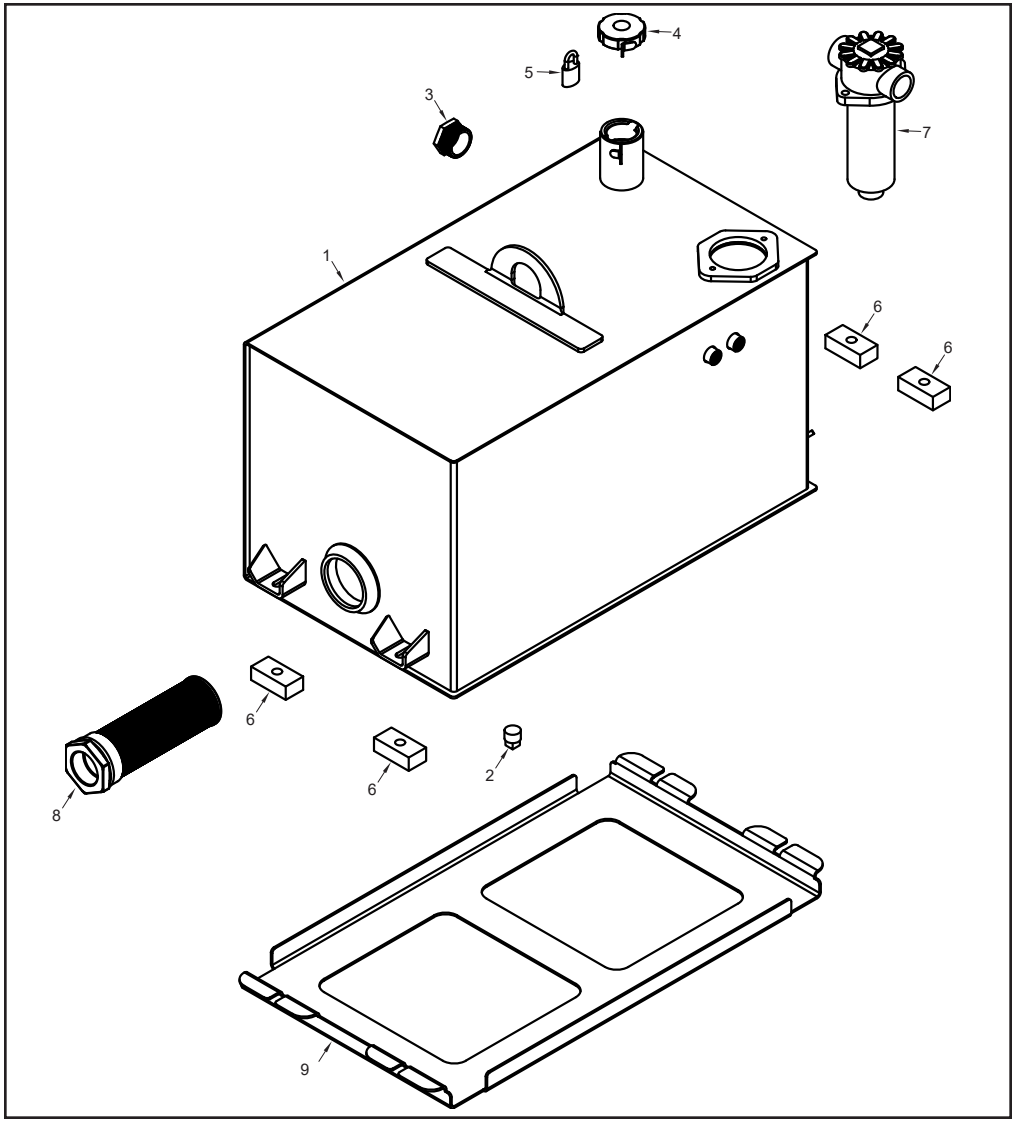
NOTICE **Nuts, bolts, washers, and other hardware can be ordered by physical description.**



#	Part Number	Description
1	931-1000-16	40 Gallon Fuel Tank Assembly
2	900-3922-60	Magnetic Drain Plug
3	900-2903-95	Rochester Sight Gauge for 40 Gallon Fuel Tank
4	900-3909-00	Return Drop Pipe Assembly Without Hose Barb (3/8" NPTF Male x 1/4" NPTF Female)
	900-3925-48	1/4" NPTF to 3/8" Hose Barb
	900-3909-01	1/4" NPTF to 5/16" Hose Barb
	900-3909-02	1/4" NPTF to 1/4" Hose Barb
	900-3943-22	3/16" NPTF to 3/16" Hose Barb
	900-3943-21	1/4" NPTF to 3/16" Hose Barb

#	Part Number	Description
5	900-3926-84	Suction Drop Pipe Assembly Without Hose Barb (1/2" NPTF Male x 3/8" NPTF Female)
	900-3926-83	3/8" NPTF to 1/2" Hose Barb
	900-3926-82	3/8" NPTF to 3/8" Hose Barb
	900-3931-53	3/8" NPTF to 1/4" Hose Barb
6	900-3988-07	Locking Fill Cap
7	900-4912-40	Padlock for Locking Fill Cap
8	900-7900-14	Tank Mounting Pad
9	931-3000-44	Tank Tray

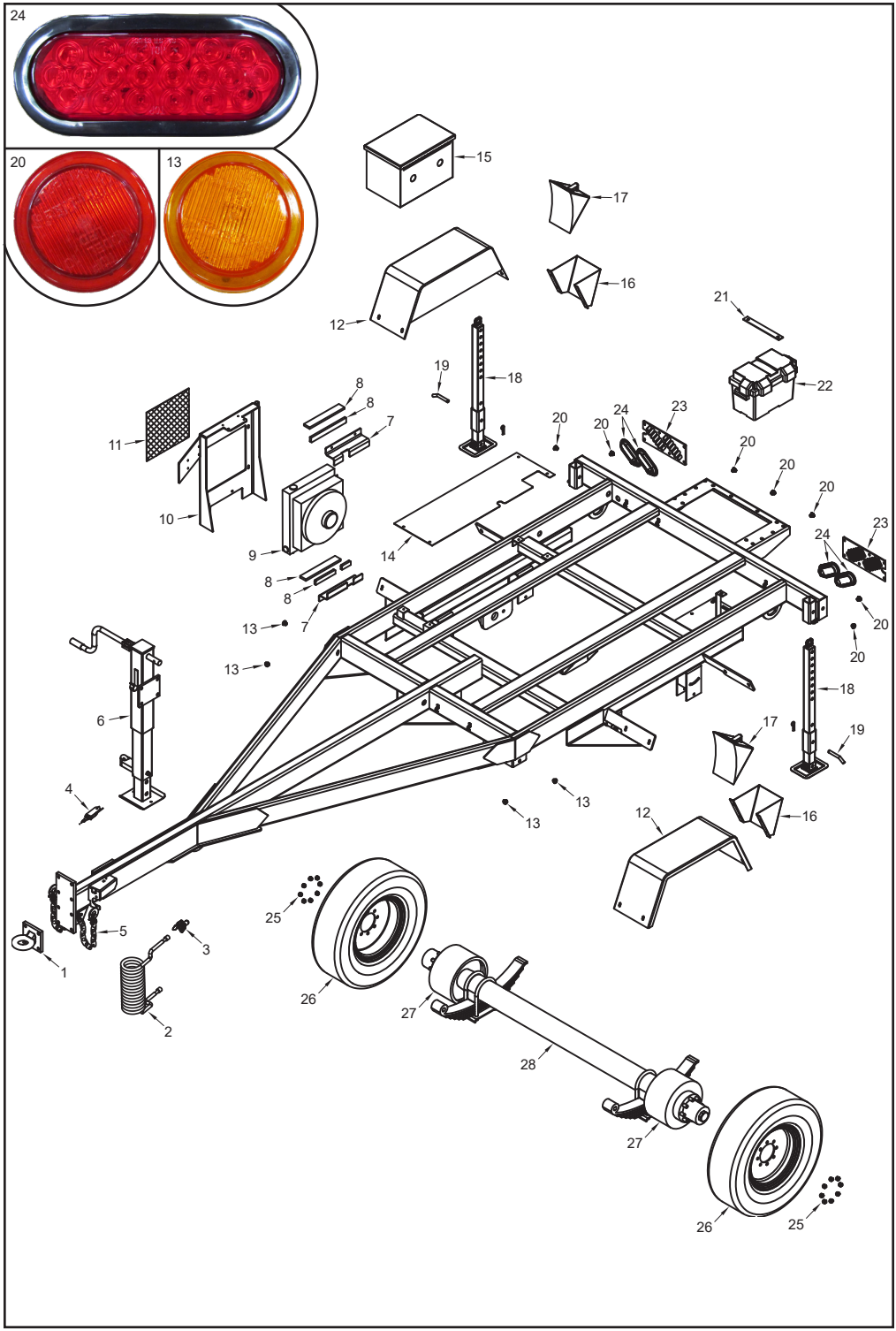
NOTICE Parts may not be exactly as shown.



#	Part Number	Description
1	931-1000-77	40 Gallon Hydraulic Tank Assembly (Start W/O 200569)
	931-2001-32	Hydraulic Tank Assembly (Pre W/O 200569)
	931-1000-15	Hydraulic Tank Weldment (Start W/O 200569
	931-2000-09	Hydraulic Tank Weldment (Pre W/O 200569
2	900-3922-60	Magnetic Drain Plug
3	900-3975-03	Sight Gauge

#	Part Number	Description
4	900-3988-07	Locking Fill Cap
5	900-4912-40	Padlock for Locking Fill Cap
6	900-7900-14	Tank Mounting Pad
7	900-3950-56	Filter Assembly
	900-3950-58	Filter Element Only
	900-3950-57	Filter Down Tube
8	900-3912-51	Suction Screen
9	931-3005-38	Tank Tray (Start W/O 200569)
	931-3000-45	Tank Tray (Pre W/O 200569)

NOTICE Parts may not be exactly as shown.

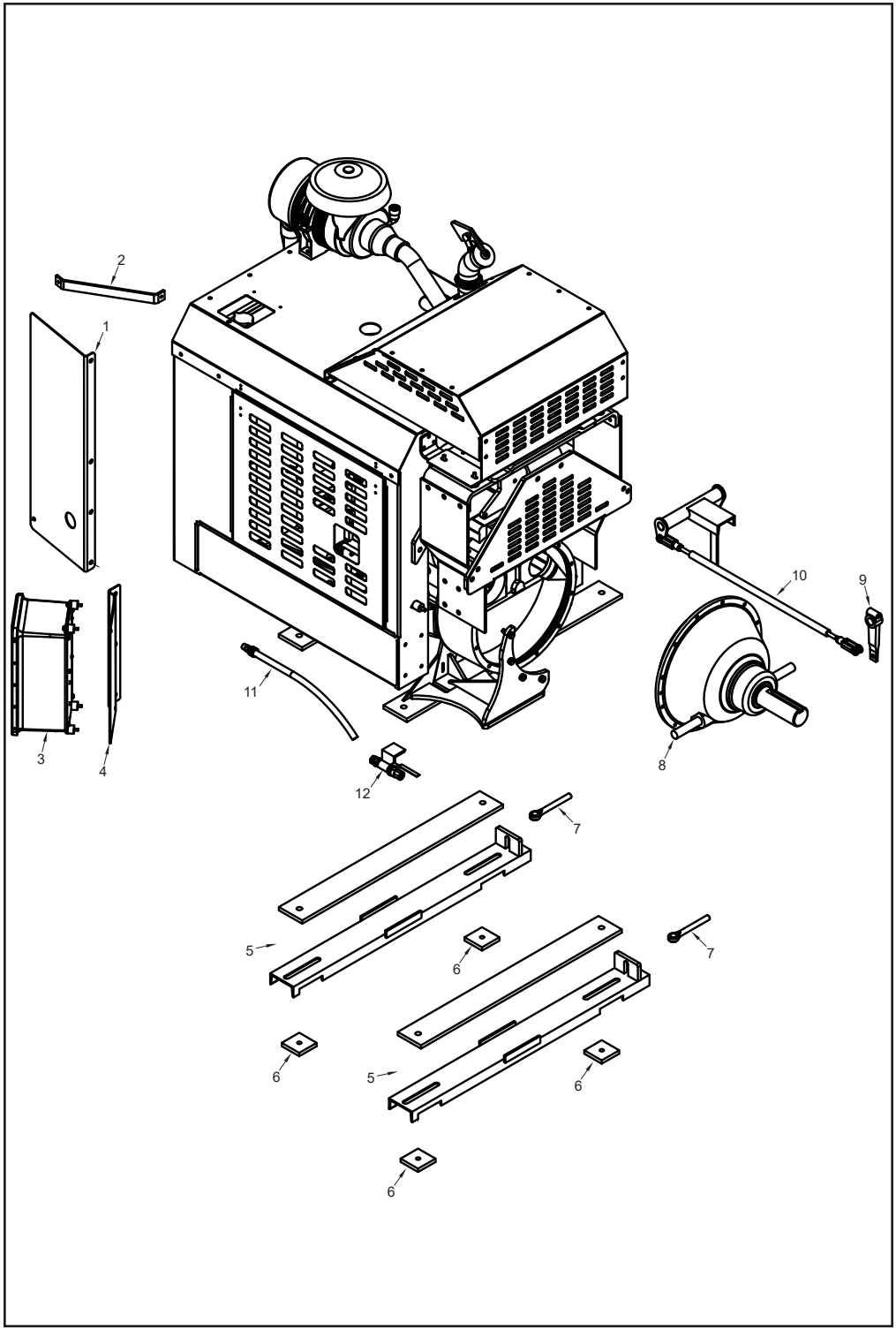


NOTICE Parts may not be exactly as shown.

#	Part Number	Description
1	900-5900-13	2 1/2” Heavy Duty Pintle Ring Hitch
2	900-2916-63	Coil Cable Assembly With 6-Prong Plugs 15’
	900-2904-12	6-Prong Trailer Male Plug Only
3	900-2904-13	6-Prong Trailer Female Plug Only
4	900-5900-09	Electric Breakaway Switch
5	900-4912-71	Safety Chain With Hooks & Spring Latches
	900-4905-77	Hook for Safety Chain
6	931-1000-29	Tongue Jack
	901-2000-47	Tongue Jack Handle
7	203-3004-79	Hydraulic Oil Cooler Support
8	900-7900-35	Vibration Isolator
9	900-3952-11	Hydraulic Oil Cooler
10	931-1000-30	Hydraulic Oil Cooler Assembly
	937-2005-92	Hydraulic Oil Cooler Mount
11	992-3001-63	Hydraulic Oil Cooler Screen
12	931-2000-98	Fender
13	900-2927-86	LED Marker Light - Amber

#	Part Number	Description
14	931-3002-02	Tread Plate
15	900-7900-78	Tool Box
16	980-0129-09	Wheel Chock Holder
17	900-5902-32	Wheel Chock
18	980-1004-16	Stabilizer Assembly
19	900-4908-00	Pin for Stabilizer
20	900-2927-85	LED Marker Light - Red
21	931-3004-96	Battery Box Strap (Start 6/19)
	905-3000-74	Battery Box Strap (Pre 6/19)
22	900-7900-08	Battery Box
23	911-3006-73	Tail Light Cover
24	900-2910-43	Tail Light Kit
25	900-5904-59	5/8”-18NF Wheel Flange Nut
26	900-5904-76	235/75R -17.5” Tire & Solid Gray Rim
	900-5904-48	235/75R-17.5” Tire Only
	900-5904-49	17.5” x 6.75” Solid Gray, 8-Bolt Rim Only
27	900-5910-75	Brake Hub & Drum Assembly
28	900-5905-31	12,000 Lb. Leaf Spring Axle Assembly - Electric Brake

NOTICE **Nuts, bolts, washers, and other hardware can be ordered by physical description.**



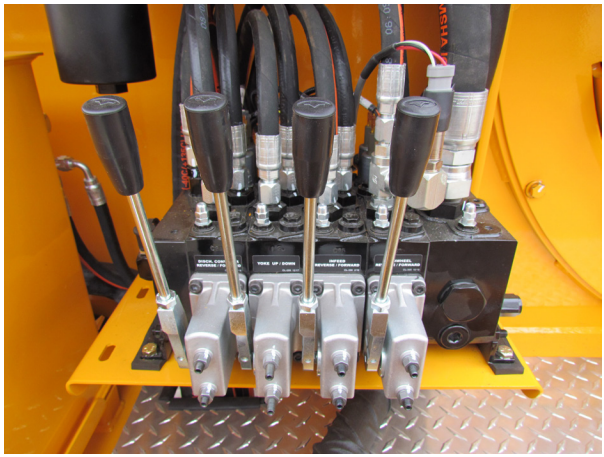
NOTICE Parts may not be exactly as shown.

#	Part Number	Description
1	931-3002-62	Engine Air Deflector
2	931-3002-63	Air Deflector Support
3	300-8006-64	Control Box Assembly
4	999-3000-71	Control Box Mounting Plate
5	931-1000-49	Engine Rail Assembly
6	980-0101-33	Engine Mount Pad
7	900-4905-11	Engine Adjuster - 5/8"-11NC x 6"
8	**	Clutch
9	911-3004-91	Clutch Handle

#	Part Number	Description
10	931-1000-50	Clutch Engage Linkage - CAT 120 Hp
	931-1000-42	Clutch Engage Linkage - CAT 114 Hp
	900-9906-75	Vinyl Clutch Handle Cap
11	931-1000-52	Oil Drain Hose - CAT 120 Hp
	931-1000-68	Oil Drain Hose - CAT 114 Hp
12	931-1000-51	Oil Drain Valve - CAT 120 Hp

** Refer to check sheet or machine S/N when ordering parts

NOTICE **Nuts, bolts, washers, and other hardware can be ordered by physical description.**

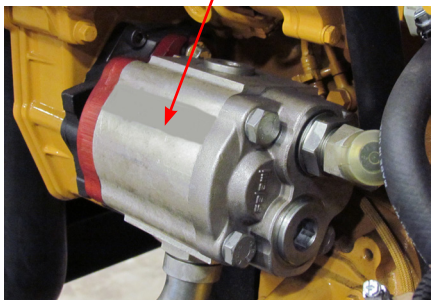


Valve Bank
900-3991-09

High Pressure Filter Ass'y
900-3935-45

Filter Only
900-3931-99

Hydraulic Pump
Refer to Check Sheet



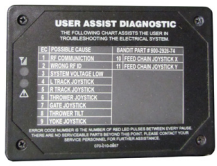
Pressure Gauge
900-3906-90

Quick Coupler
900-3929-34

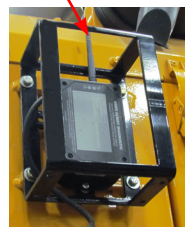
NOTICE Parts may not be exactly as shown.

1.

2.



Antenna



3.

a.

b.

c.

LOCATION	PART NUMBER	DESCRIPTION
1. a.	**	Panel
b.	900-2930-26	Ignition & Key
2. a.	**	Receiver
b.	900-2926-60	Antenna
3. a.	**	Transmitter - Trailer
b.	900-2925-31	Power Port Charger
c.	900-2925-32	Wall USB Charger

** Components vary with machine options, order by machine serial number or refer to check sheet

NOTICE Parts may not be exactly as shown.

SERVICE RECORD

DATE	DESCRIPTION	AMOUNT