




TABLE OF CONTENTS

| | PAGES |
|---------------------------------|-------|
| INTRODUCTION & WARRANTY | 2 |
| SERIAL NUMBER LOCATIONS | 6 |
| SAFETY PROCEDURES | 7 |
| EQUIPMENT SPECIFICATIONS | 11 |
| DECALS | 12 |
| CONTROLS | 15 |
| MACHINE OPERATION | 19 |
| TRANSPORTATION PROCEDURES | 21 |
| MAINTENANCE | 23 |
| HYDRAULIC SECTION | 31 |
| CUTTER WHEEL SECTION | 40 |
| LUBRICATION & COOLANT | 41 |
| ELECTRICAL SECTION | 42 |
| REPLACEMENT PARTS SECTION | 43 |
| UPPER FRAME COMPONENTS | 44 |
| CUTTERWHEEL COMPONENTS | 46 |
| FRAME COMPONENTS | 48 |
| CHIP PAN COMPONENTS | 50 |
| ROLL BAR COMPONENTS | 51 |
| GRADING BLADE COMPONENTS | 52 |
| REMOTE CONTROL COMPONENTS | 53 |
| HYDRAULIC COMPONENTS | 54 |
| SERVICE RECORD | 56 |

NOTE- 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 preceded 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.

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 insure 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!!!

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.

NOTE - 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.

EXPLANATION OF LIMITED WARRANTY

The manufacturer will not reimburse the customer or dealer labor costs incurred for installing “bolt-on” or “slip-on” items, such as hydraulic pumps and motors, control valves, flow dividers, belts, sheaves, etc. The manufacturer will provide replacement parts to the customer for defective parts during the warranty period. **Defective parts must be returned to Bandit Industries, Inc.** It will be the customer’s responsibility to install the replacement parts unless arrangements are made with the selling dealer.

The manufacturer will not reimburse travel costs to servicing dealer unless prior approval has been obtained from the manufacturer. It is the customer’s responsibility to deliver the machine to dealer’s service facility, unless other arrangements have been agreed to between selling dealer and customer.

The manufacturer may elect, at its discretion, to reimburse reasonable labor costs to customer or dealer for major defect repairs. Diagnostic labor and overtime labor will not be covered under warranty. Prior approval must be obtained from Bandit Industries, Inc.

There are several forms that must be completely filled out and returned to us in reference to our portion of warranty. Read and understand the Bandit Limited Warranty responsibilities. Some components on your machine are covered by their respective manufacturers and cannot be handled through Bandit Industries as stated in Warranty Section of this manual.

Use this manual to help you resolve what and where your problem is, in most cases you can fix it easily. If you still have problems, work through the dealer you purchased the machine through, or contact Bandit Industries direct if needed.

Make sure the following forms are used, for us as well as you, to keep track of service and pending warranty request. It is our company policy that all parts shipped out will be invoiced until the possible warranty parts are returned with a Warranty Claim Form completed for consideration.

Make sure the Warranty Validation Form is completed and sent in to us as soon as you receive the Bandit. This will activate our warranty responsibilities.

If Warranty Validation Form is not on file, all Warranty consideration is null and void.

BANDIT INDUSTRIES INC. LIMITED WARRANTY (989) 561-2270

Bandit Industries Inc., also referred to as “Manufacturer” warrants this new product to be free of defects in workmanship and material for a period of 1 year.

This warranty takes effect upon delivery to the original retail purchaser. The manufacturer at it's option will replace or repair at a point designated by the manufacturer, any parts which appear to have been defective in material or workmanship. The manufacturer is not responsible for labor, consequential damages, traveling or down time expenses.

This warranty and any possible liability of Bandit Industries Inc., is expressly in lieu of any other warranties, expressed or implied, including but not limited to, any implied warranty or merchantability of fitness for a particular purpose and of any noncontractual liabilities including product liabilities based upon negligence or strict liability. Bandit Industries Inc., will not be liable for consequential damages resulting from breach of warranty.

All parties involved agree that the Owner's Sole and Exclusive Remedy against the Manufacturer, whether in contract or arising out of this warranty, instructions, representations, or defects shall only be for the replacement or repair of defective parts as provided herein. In no event or circumstances shall the Manufacturer's liability exceed the purchase price of the machine. The buyer also agrees that no other remedy (including but not limited to consequential or incidental loss) shall be available to him or her.

It is absolutely necessary to return the Warranty Validation Form, completely and accurately filled out, and notify Bandit Industries Inc., in writing within ten (10) days from the date of purchase to validate this warranty. If Warranty Validation Form is not on file, all Warranty Consideration is NULL AND VOID.

This warranty will not apply if the Bandit product is not operated with replacement parts or equipment not manufactured or recommended by Bandit Industries, Inc.

This warranty will not apply if the Bandit product is not operated in a manner recommended by the manufacturer. The following examples would void the warranty:

1. The completed Warranty Validation Form is not on file.
2. The Bandit product has been abused, or not serviced properly.
3. Repairs or attempted repairs made without prior written authorization.
4. Repairs made due to normal wear are not warrantable.
5. The Bandit product was involved in, or damaged by an accident.
6. The Bandit product was damaged from any type of foreign material.

The owner is responsible for all scheduled maintenance as explained in the Operators Manuals. Negligence of proper maintenance or any other negligence, accident or fire; nor with failure to adjust, tighten, or replace wear items included but not limited to items such as teeth, teeth holders, belts, lubrication fluids, bearings, filters, hydraulic components, loose nuts or bolts, etc. may void warranty.

All components and parts being returned to Bandit Industries for warranty consideration must be complete and assembled when delivered. Hydraulic components and parts must be returned assembled with all fluid ports capped or plugged and free of foreign contamination, or warranty will not be considered.

INTRODUCTION & WARRANTY

BANDIT INDUSTRIES, INC. LIMITED WARRANTY (989) 561-2270

NOTE: This warranty applies only to new and unused equipment or parts thereof manufactured by Bandit Industries Inc. and is void if the machine is operated with replacement parts or equipment not manufactured or recommended by Bandit Industries Inc.

All other components are warranted by their respective manufacturers (i.e. engines, axles, hydraulic pumps and motors, clutches, tires, batteries, etc.) Any machines used for lease or rental purposes warranty is limited to 90 days from the first day of initial service.

CONTINENTAL U.S. INFORMATION PHONE NUMBERS FOR ACCESSORIES (NOT COVERED UNDER PRODUCT WARRANTY PROGRAM)

| | | | |
|----------------------------------|----------------|------------------------|----------------|
| Briggs & Stratton Engines | 1-414-259-5333 | Interstate Batteries | 1-800-331-2000 |
| Caterpillar Engines (Thru 275Hp) | 1-800-551-2938 | PGL Auto Clutch | 1-800-551-2938 |
| Caterpillar Engines (300Hp & Up) | 1-866-228-2111 | PT Tech Clutch | 1-330-414-3172 |
| Continental Engines | 1-800-726-8870 | Rockford Clutch | 1-800-383-9204 |
| Cummins Engines | 1-248-573-1592 | Twin Disc Clutch | 1-440-951-5111 |
| Deutz, Lombardini Engines | 1-800-445-5273 | Electronic Solutions | 1-866-736-6839 |
| Ford, Hatz Engines | 1-800-726-8870 | E.S.I. | 1-815-985-0383 |
| GM, Perkins Engines | 1-800-551-2938 | L.O.R. MFG. | 1-866-644-8622 |
| Honda Engines | 1-734-453-6258 | Miratron Inc. | 1-866-285-0132 |
| John Deere Engines | 1-888-803-9175 | Dexter Axles | 1-574-295-7888 |
| Kohler Engines | 1-800-854-9273 | Tires | 1-989-463-4088 |
| Kubota Engines | 1-800-832-7670 | Caterpillar Tracks | 1-309-636-1100 |
| Robin Engines | 1-248-399-0002 | Chermack Tracks | 1-715-458-2655 |
| Wisconsin Engines | 1-800-726-8870 | Petro-Canada Hydrex XV | 1-888-284-4572 |

(Phone numbers for outside the continental U.S. can be supplied from your phone directory or local Bandit dealer.)

In order to process any warranty claims, it is the owner's responsibility to report the claims promptly to the Manufacturer, or our authorized dealer from whom the equipment was purchased.

It is necessary to include the following information on any and all requests for warranty:

- 1) Warranty Claim Form, obtained from Bandit Industries or it's dealers, completely and accurately filled out.
- 2) Dealer from whom purchased.
- 3) Date of delivery.
- 4) Serial number of unit.
- 5) Model number of unit.
- 6) Engine make and serial number.
- 7) Length of time in use (hours on machine).
- 8) Date of Failure.
- 9) Nature of Failure.

Bandit Industries Inc., reserves the right to alter, improve, revise or modify any parts or products with the altered, improved, revised or modified parts or products. They also may change design, specifications, or part prices without advance notice.

Bandit Industries Inc., is NOT responsible for updating or upgrading completed machines with design changes that are made after it's production.

Bandit Industries Inc., expects the Customer/Owner to bring their machine to the Dealer/Manufacturer for Warranty Repairs. The Manufacturer DOES NOT pay Dealers or Customers for bringing their machine in for repair. Nor does the Manufacturer furnish loaner machines while the unit is being repaired.

Bandit

TYPICAL GRINDER SERIAL NUMBER AND/OR WORK ORDER NUMBER LOCATIONS






- 1. Work Order Number
- 2. Serial Number

NOTE: 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.

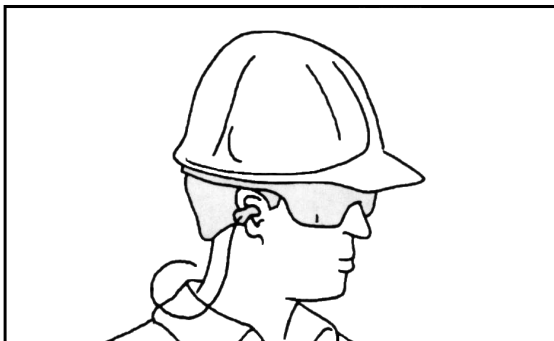
Read and follow all the instructions in your manual thoroughly. Your safety is dependent on your knowledge of how to operate and maintain this machine. You may obtain additional copies of this manual from your Bandit Dealer.

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. It is also recommended that someone else is present while operating or servicing 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 grinder should be in an area restricted from people passing by. This area around the grinder must be free of all objects that can obstruct movement when working with the grinder. The machine should be checked for loose tools or foreign objects, especially in the grinding 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. 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 and follow all safety standards per ANSI and OSHA instructions. Examples of equipment: hard hat, face shield, safety glasses, gloves, ear protection, etc. Always keep a fully charged fire extinguisher with the machine while operating and 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.

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. **DO NOT** use fingers or skin to check for leaks. Lower load or relieve hydraulic pressure before loosening fittings. Use a piece of cardboard to find leaks. Never use your bare hands.

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 must be checked periodically such as cutter teeth bolts, etc. for torque and fit.

Most of the nuts used on the Bandit Grinder are self locking. After a nut or bolt has been removed five times, it should be replaced to insure proper tightness. This is especially critical on the cutter tooth bolts!

After the engine is started, let the cutter wheel 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.

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

DANGER

Do not go near or in-line with the debris field of the stump grinder while in operation. While grinding stumps, the chips and portions of the stump fly from the cutterhead and can cause severe 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" (12.7 mm) 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

Never use jumper cables during freezing temperatures. Haul 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. Never use jumper cables in a confined or unventilated area. Battery acid fumes are explosive. Never expose an open flame or spark near the battery.

DANGER

Before attempting any type of maintenance disengage clutch, turn off engine, wait for the cutter wheel to come to a complete stop, install the cutter wheel lock pin, disconnect battery, and make sure the ignition key is in your possession.

ALWAYS install the lock pin into the cutter lock tube before working on the grinder.

Simply slide the lock pin into the cutter wheel lock tube. This is to insure that the cutter wheel cannot be started while you are working on the grinder. If for some reason the cutter wheel would start to turn, it would simply hit the lock pin.

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!

Bandit

SAFETY PROCEDURES

DANGER

Never grind any materials that might contain wires, stones, nails, or other metal objects which may damage the teeth and become dangerous projectiles. Remove all rocks and stones from stump grinding area.

DANGER

Your machine may or may not be equipped with a clutch. Depending on the options ordered, some machines are direct drive.

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 should always be below 1000 RPM. When the engine has sufficiently warmed up, bump the clutch handle against engagement to start the cutter wheel turning. This will have to be repeated until the cutter wheel is turning at proper ratio with engine RPM. Then push the handle all the way in gear 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.

NOTICE

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

DANGER

Do **Not** start to grind a stump unless you are completely sure there are not any power lines, water lines, sewer lines, phone lines, etc. in the area above or below ground level where you are grinding.

DANGER

Never go near cutter wheel or teeth while engine is running or cutter wheel is coasting to a stop.

DANGER



- Use **EXTREME CAUTION** when traveling over non-level surface! Not designed to be used on non-level surface.



- This machine can tip over or tip backwards on non-level surface. You will cause engine damage, machine damage and possible personal injury!
- Use caution when transporting to avoid a roll over because of narrow wheel base!

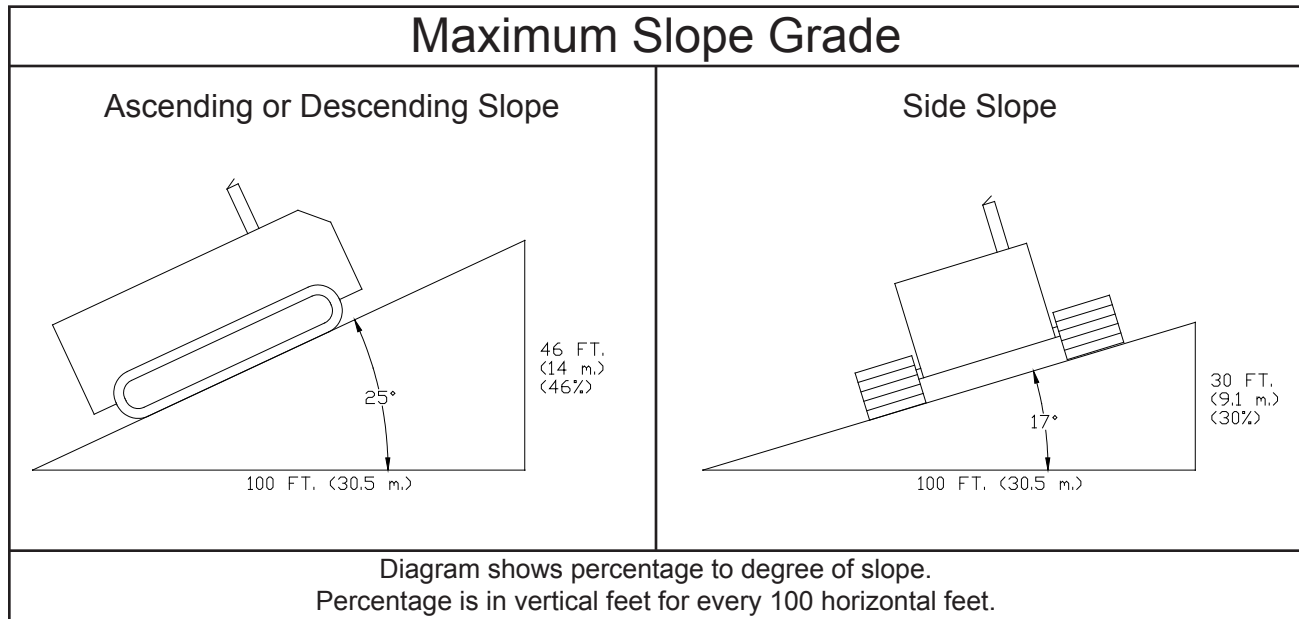
SAFETY PROCEDURES

IF MACHINE IS EQUIPPED WITH UNDERCARRIAGE TRACK

Machines equipped with undercarriage tracks are shipped with a manual from the track manufacturer. Refer to it for service, operation, and safety information.

⚠ WARNING

Do not attempt to operate the track machine on an ascending or descending slope of more than 25° or 46% or a side slope of more than 17° or 30%, it is Dangerous and could be Fatal. This is the maximum slope grade the machine can be operated on if the hydraulics, tracks, and engine are running at maximum performance and the tracks sustain good traction.



⚠ WARNING

Any increase from the specified maximum operating angles may cause loss of lubrication function and damage the engine.

⚠ DANGER

The track machine should never be parked on a slope at any time. The machine can coast or creep causing equipment and/or personal injury.

⚠ DANGER

Make sure everyone is clear of machine before moving the track machine. Stay clear of tracks when the machine is moving.

⚠ DANGER

DO NOT entangle feet or hands in undercarriage travel system.

⚠ DANGER

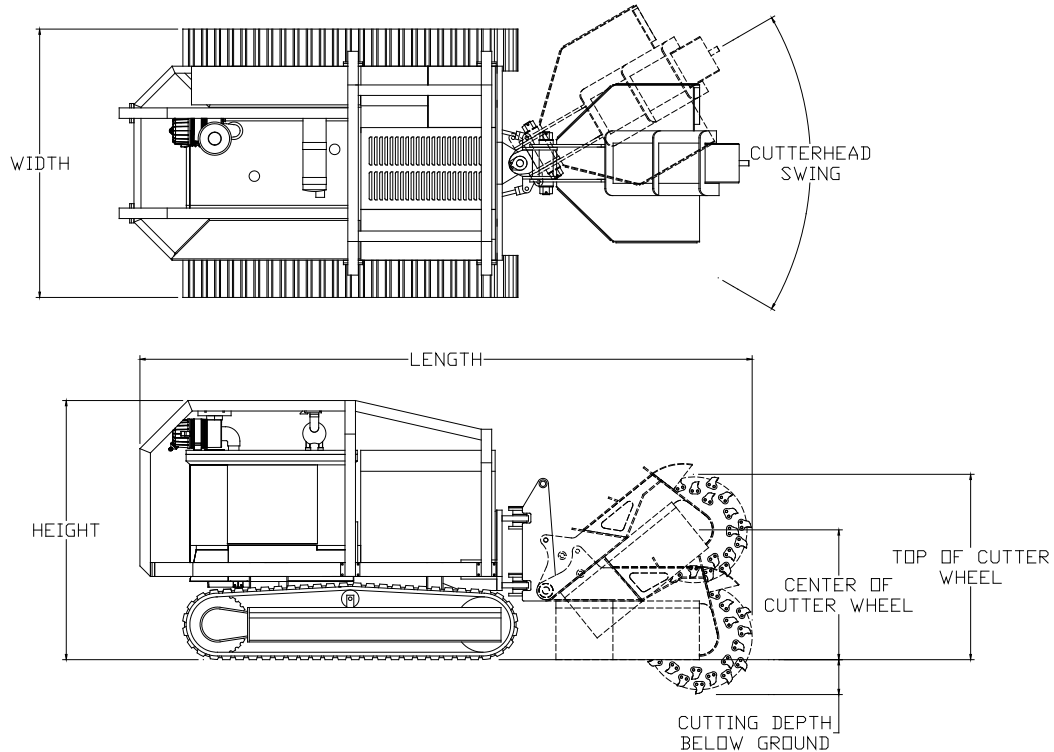
Use **EXTREME CAUTION** when traveling over non-level surface! This machine can tip over or tip backwards on non-level surface. You will cause engine damage, machine damage and possible personal injury!

⚠ DANGER

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

Bandit

EQUIPMENT SPECIFICATIONS



Approximate Dimensions & Weights

(Dimensions & weights will vary depending on optional equipment)

Approx.
Weight: 9800 to 11,000 Lbs. (4445 to 4990 kg)

(Approximate weights depending on engine and equipment options.)

Overall
Dimension: Height: 77" (2.0 m), Length: 174" (4.4 m), Width: 81" (2.1 m)

Cutter Wheel: Top of: 55" (1.4 m) Center of: 38" (1 m) Cutting Depth Below Ground: 28 1/2" (0.7 m)
Cutterhead
Swing: Arc: 109" (2.8 m)

Number of Teeth
on Cutter Wheel: 48

Cutter Wheel
Diameter with Teeth: 34" (863.4 mm)

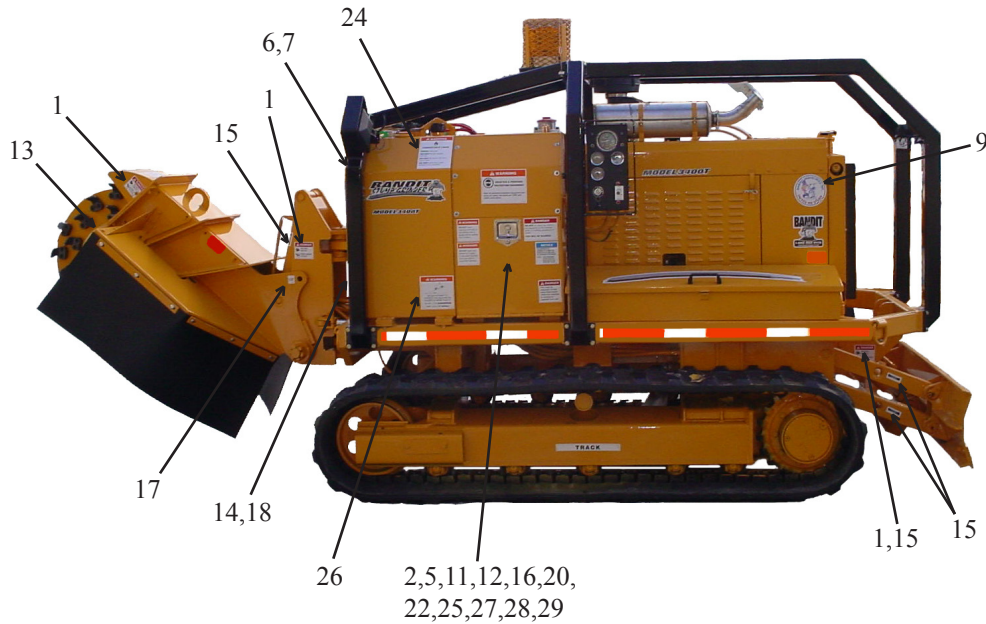
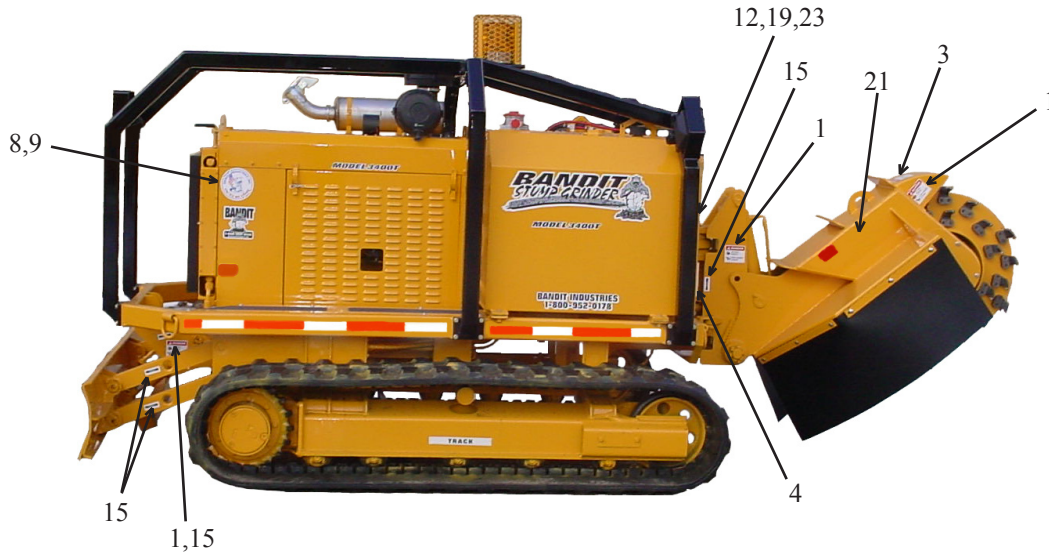
Fuel Tank Capacity: 42 Gallons (159 Liters)

Hydraulic Tank Capacity: 69 Gallons (261 Liters)

(Approximate dimension depending on equipment options.)

DECAL LOCATIONS

Decal locations may vary, these are general locations.



DECAL LOCATIONS

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

| LOCATION | NUMBER | DESCRIPTION |
|----------|----------|--|
| 1. | SPD-02 | Moving Parts Keep Hands... |
| 2. | SPD-19 | ...Minimum 10 Feet Away From Tracks... |
| 3. | SPD-20 | Flying Objects Stand Clear... |
| 4. | SPD-28 | ...Belts Inside This Hole Stopped... |
| 5. | SPD-30 | Do Not Sit, Stand, Lay, Climb or... |
| 6. | SPD-35 | Extreme Caution...Non-Level Surface... |
| 7. | SPD-36 | ...Debris Field... |
| 8. | ID-35 | Track |
| 9. | ID-42 | Bandit Industries Inc...USA |
| 10. | INST-12 | Grease Daily (Arrow) |
| 11. | INST-44 | Proposition 65 |
| 12. | INST-53 | Hydraulic Oil...Hydrex XV... |
| 13. | INST-73 | Cutter Head Lock Hole |
| 14. | INST-74 | Cutter Head Lock Pin |
| 15. | INST-86 | Grease Daily (Double Arrows) |
| 16. | INST-101 | Canada Engine Decal |
| 17. | INST-111 | Frame Lock Hole |
| 18. | INST-112 | Frame Lock Pin |
| 19. | N-02 | Maintain Lubrication... |
| 20. | SPN-06 | Decal Maintenance.. |
| 21. | N-31 | Keep Cutter Wheel...Bolt Torqued... |
| 22. | N-33 | Engine Oil Lubriacation...Break-In... |
| 23. | SPW-01 | Do Not Go Near Oil Leaks... |
| 24. | SPW-02 | Diesel Fuel Only... |
| 25. | SPW-04 | Frozen Battery Will Explode... |
| 26. | SPW-06 | Do Not Attempt...Slope Of More Than... |
| 27. | SPW-07 | Do Not Move Machine...Horn Is Blown... |
| 28. | SPW-08 | Wear Eye & Personal Protection... |
| 29. | SPW-11 | Do Not Leave Unit Parked On A Slope... |
| 30. | | Bandit Model 3400T Vinyl Decals |

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

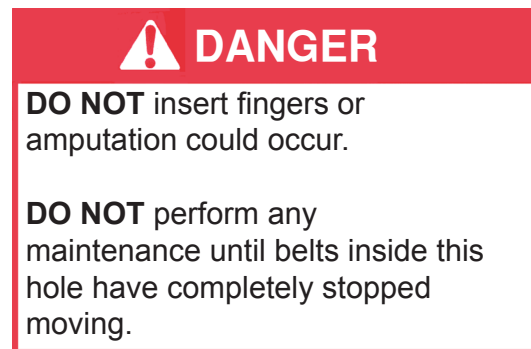
DECALS

Decals located on your Bandit equipment contain useful information to assist you in operating your equipment safely. Some of the decals on your machine and their location are shown in this section.

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) Replace immediately 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) Other language decals may be purchased. Spanish and other foreign language decals are available. Mail translated decals required to Bandit Industries, Inc.

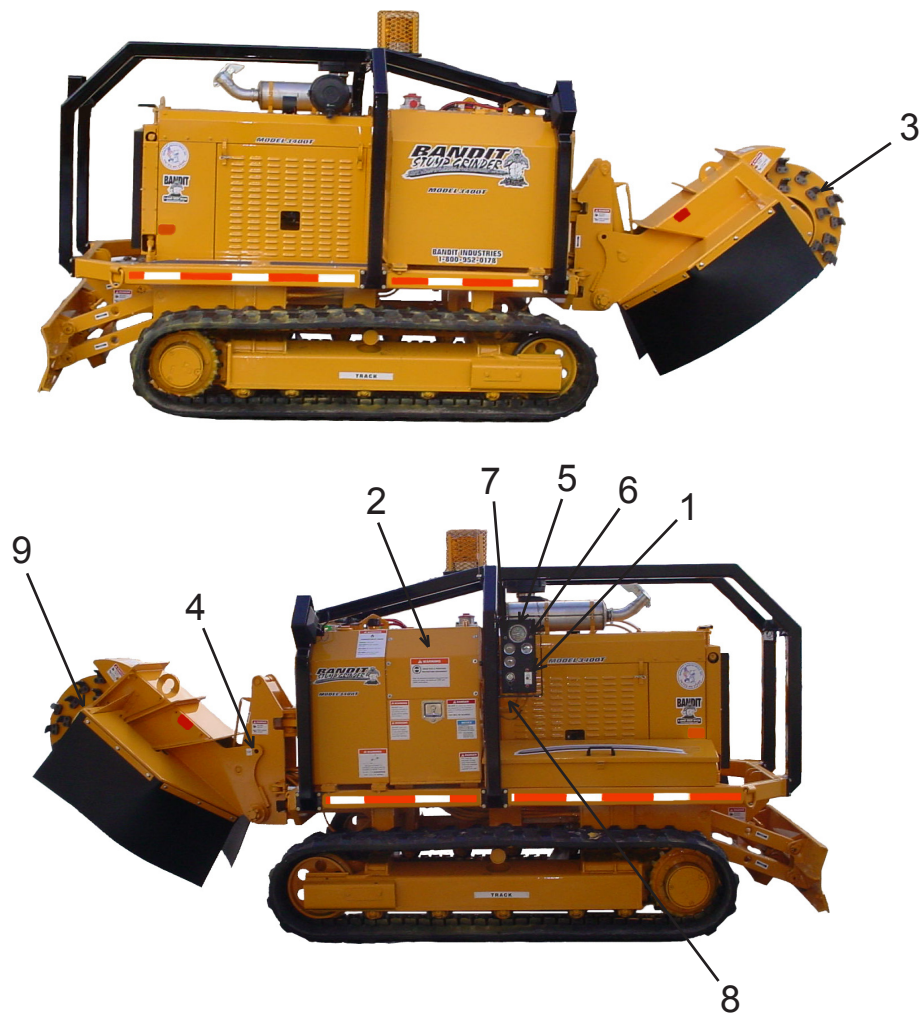
EXAMPLES:



Basic Location of Controls and Adjustments

LOCATION SHOWN

1. Engine Throttle Adjuster
2. Hydraulic Control Valve
3. Grinder Teeth
4. Upper Frame Lock Pin Hole
5. Tachometer, Hour Meter
6. Switch For Rotating Warning Light (If Equipped)
7. Switch For Flood Lights (If Equipped)
8. Tether Plug
9. Cutter Wheel Lock

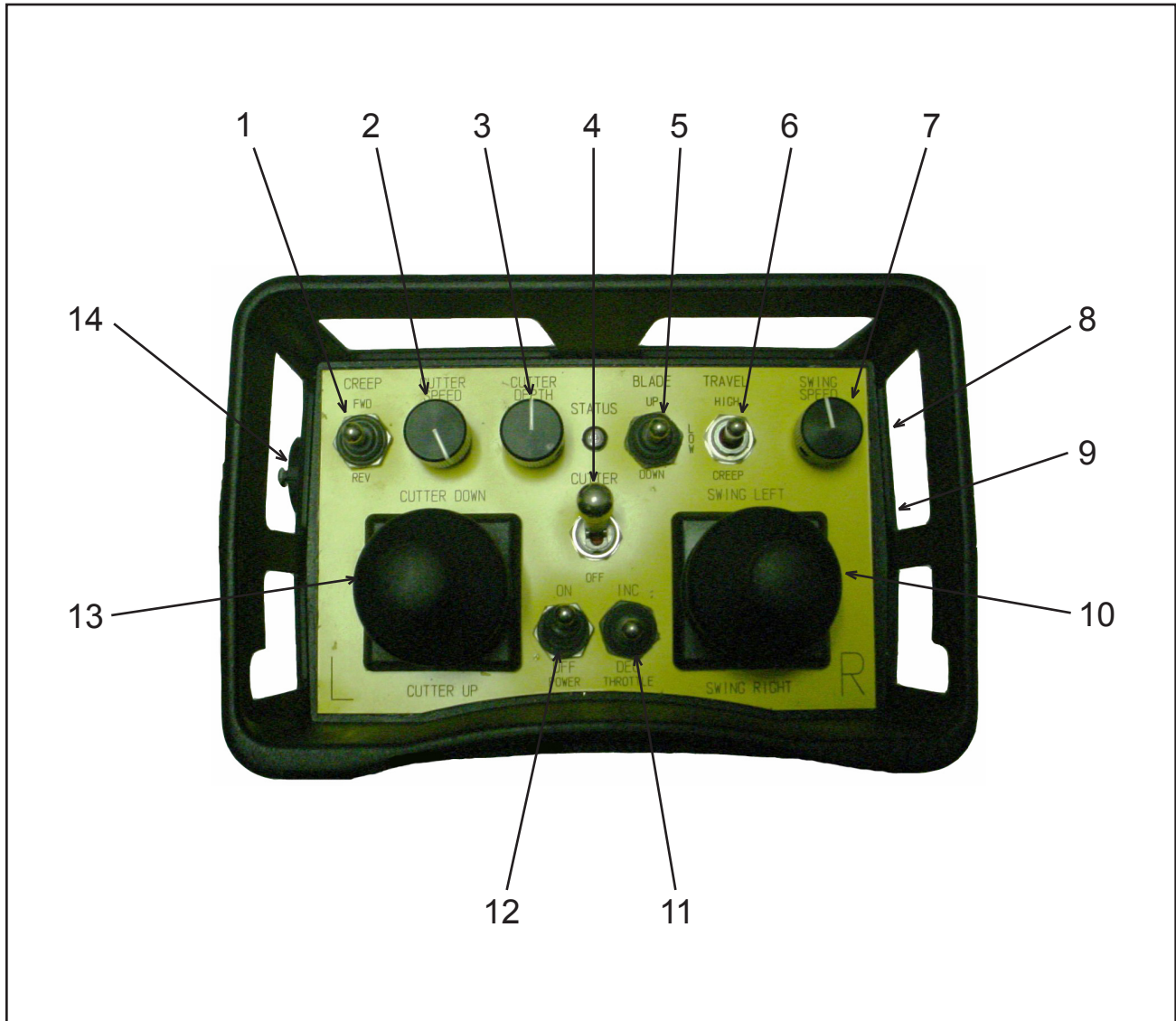


CONTROLS

Basic Location of Controls and Adjustments

LOCATION SHOWN

- 1. Creep
- 2. Cutter Speed
- 3. Cutter Depth
- 4. Cutter Wheel
- 5. Blade
- 6. Travel Mode
- 7. Swing Speed Control
- 8. Engine Kill Switch
- 9. Batteries
- 10. Right Track / Swing Control
- 11. Throttle
- 12. Power
- 13. Left Track / Cutter Wheel Lift Control
- 14. Tether Plug



CONTROL OPERATING PROCEDURES

1. Creep:

If the travel mode is in creep, this switch will allow you to move the machine closer or further to the stump, while the machine is cutting the stump.

2. Cutter Speed:

Turn the knob clockwise to increase cutter wheel speed and counter-clockwise to decrease cutter wheel speed.

3. Cutter Depth:

Turn the knob clockwise to increase the distance the cutter wheel drops when you activate the cutter wheel lift control and counter-clockwise to decrease distance the cutter wheel drops.

4. Cutter Wheel:

The cutter wheel switch engages and disengages the cutter wheel. Machine will not start if the cutter wheel switch is on.

5. Blade:

The blade switch operates the blade cylinder. To lift the blade, push the switch, away from the operator. To lower the blade, pull the switch, towards the operator. The blade is stationary when the switch is in the center location.

6. Travel Mode:

High, low, and creep. High and low are used to move and position the machine. Creep is used to move the machine a little while cutting the stump.

7. Swing Speed Control:

The swing speed controls the rate the cutter wheel passes through the stump. To increase the swing speed control turn the knob clockwise. To decrease the swing speed control turn the knob counter clockwise.

8. Engine Kill Switch:

Shuts off the power to the engine and to the hydraulic valve. Kill switch must be pulled out for the engine to start.

9. Batteries:

Requires (2) D batteries (if batteries are dead, engine will shut down).

10. Right Track / Swing Control:

When the Travel Mode is in high or low the joystick operates the right track. To move the right track forward, push the joystick away from the operator. To reverse the right track, pull the joystick towards the operator. When the Travel Mode is in creep, the joystick operates the swing cylinder. To make the cutter wheel swing to the left, push the joystick away from the operator. To make the cutter wheel swing to the right, pull the joystick towards the operator. The track and cutter wheel swing is stationary when the joystick is in the center location.

11. Throttle:

To increase the rpm, push the switch away from the operator. To decrease the rpm, pull the switch towards the operator.

12. Power:

The power switch must be flipped to the on position before the machine is started.

13. Left Track / Cutter Wheel Lift Control:

When the Travel Mode is in high or low the joystick operates the left side track. To move the left track forward, push the joystick away from the operator. To reverse the left track, pull the joystick towards the operator. When the Travel Mode is in creep, the joystick operates the cutter wheel lift. To lower the cutter wheel, push the joystick away from the operator. To lift the cutter wheel, pull the joystick towards the operator. The track and cutter wheel lift is stationary when the joystick is in the center location.

14. Tether Plug:

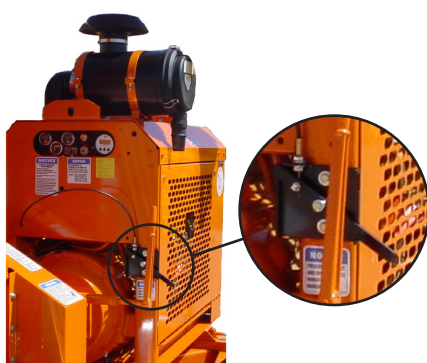
Plug the tether cord in here to control the machine if the batteries in your remote control run out of power.

Bandit

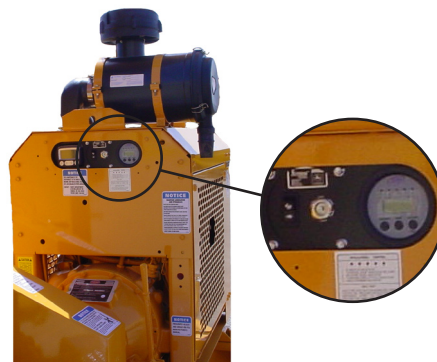
CONSULT THE ENGINE MANUFACTURER'S MANUAL FOR SPECIFIC CONTROLS, OPERATION, & MAINTENANCE FOR TYPICAL ENGINES

- 1) **Ignition Switch:**
Turn the ignition switch key clockwise one stop (on position) to turn the electrical system on. The key should remain in the on position while the engine is running. Turn the key fully clockwise (start position) this will start the engine. To shut off the engine, return the key to the off position.
- 2) **On/Off Switch - Push Button Start:**
Some gasoline engines may have a Toggle Switch or an On/Off Switch combined with a push button to start the engine. First turn the On/Off Switch or Toggle Switch to the on position, then depress and hold the Push Button Start until the engine starts, then release the button. To shut off the engine, return the On/Off Switch or Toggle Switch to the off position.
- 3) **Ignition Switch With Preheat:**
The typical diesel engine may have a preheat system to assist in starting the engine during cold weather. To activate the preheat system, continue to hold the ignition key in the preheat position for 15 to 20 seconds, then attempt to start the engine. If the engine fails to start within 15 seconds, return the key to the preheat position, hold 10 seconds, and try starting again.
- 4) **Choke Adjustment (if equipped):**
Some gasoline engines may have a choke adjustment, pull the choke lever out to choke the engine. Push the choke lever in for normal engine operations.
- 5) **Throttle Adjustment (if equipped):**
Some engines may have a knob or a handle for the throttle adjustment. Typically you would pull the knob out, or turn the handle to increase the engine R.P.M.'s. To decrease you would push in the knob or turn the handle the opposite way.
- 6) **"Bandit" Lever Lock Cable Throttle System (if equipped):**
The Bandit throttle system has (2) positions, HIGH and LOW. Engine R.P.M. is controlled by moving the lever from one position to the other.
- 8) **Push Button Or Electric Throttle System (if equipped):**
Some engines may have a push button or electric throttle adjustment. Engine R.P.M. is controlled by pushing a button or switch to raise or lower the R.P.M.
- 9) **Alternator Warning Light:**
This light will glow when the alternator is not charging, or when the ignition switch is turned on and the engine is not running.
- 10) **Oil Pressure Warning Light:**
This light will glow when the oil pressure is to low, or when the ignition switch is turned on and the engine is not running.
- 11) **Engine Temperature Warning Light:**
This light will glow when the engine, or engine coolant, is above normal operating temperature. If this occurs allow the engine temperature to cool down. If the engine is overheating because of a loss of coolant, or a broken fan belt, shut the engine off immediately.

TYPICAL DIESEL ENGINES



BANDIT THROTTLE SYSTEM

PUSH BUTTON OR ELECTRIC
THROTTLE SYSTEMTYPICAL GASOLINE
ENGINE

Bandit

MACHINE OPERATION

- Check all fluids before starting the machine.
- Make sure to go through the daily start-up and maintenance procedures before operating the machine. See pages 23 - 25.
- Drive belts (if equipped) must be disengaged before starting.
- Make sure the cutter wheel switch is in the "off" position on the remote control.
- Flip the remote control power switch to the "on" position.
- Start engine at idle speed and allow for sufficient time for oil to circulate before proceeding.
- Test all controls for proper operation.
- Avoid transversing slopes.

DANGER

DO NOT OPERATE AROUND WATER, GAS, POWER OR PHONE LINES. IF IN DOUBT, CHECK BEFORE GRINDING.

DANGER

WEAR ALL PERSONAL PROTECTIVE EQUIPMENT PER ANSI, OSHA AND MANUALS.

DANGER

KEEP CLEAR OF CUTTING WHEEL, MOVING MACHINE PARTS AND GRINDER DEBRIS FIELD

Position machine at stump with cutter wheel a slight distance away from stump.

Reduce engine RPM to idle.

Remove the upper frame lock pin.

Raise cutter wheel clear of stump.

Engage the cutter wheel.

Increase engine RPM to full.

Test controls for proper operation, speed, and unobstructed movement.

Cutter wheel swing speed should be adjusted to a rate that will allow cutter wheel to pass through stump smoothly. If jerking, bouncing or significant drops in engine speed occur, swing rate is too rapid and must be decreased.

Swing speed should be determined and adjusted with the controls in the full open position.

A swing speed control is located on the remote control to adjust this speed. Turning the dial counterclockwise will slow the swing action. Turning the dial clockwise will increase swing action.

Lower spinning cutter wheel to stump and make a few light passes at stump to get a feel for the cutting action.

Gradually increase cutting action and work away at stump by swinging cutter wheel left-to-right-to-left through stump in a sideways motion. Smooth, effortless cutting lengthens machine life, minimizes down time and is more profitable in the long run.

Continue cutting stump by adjusting cutting wheel progressively lower until stump is cut well below ground level.

Swing cutter wheel clear of stump and position machine closer to stump for next series of passes and continue cutting.

Continue in this manner until stump has been removed.

Larger stumps may require repositioning machine to remove complete stump.

Raise cutter wheel clear of stump and return to center position.

Reduce engine speed to idle and disengage cutter wheel. **DO NOT TURN OFF MOTOR.** Engine should be allowed to cool slowly at idle for 3-5 minutes to avoid damage.

MACHINE OPERATION (cont.)

DO NOT ENGAGE OR DISENGAGE DRIVE BELTS AT A HIGH ENGINE SPEED. Damage to belts and machine will occur.

At low engine RPM cutter wheel swing speed control needs to be closed for cutter head to swing. Turn clockwise to close.

Turn off engine.

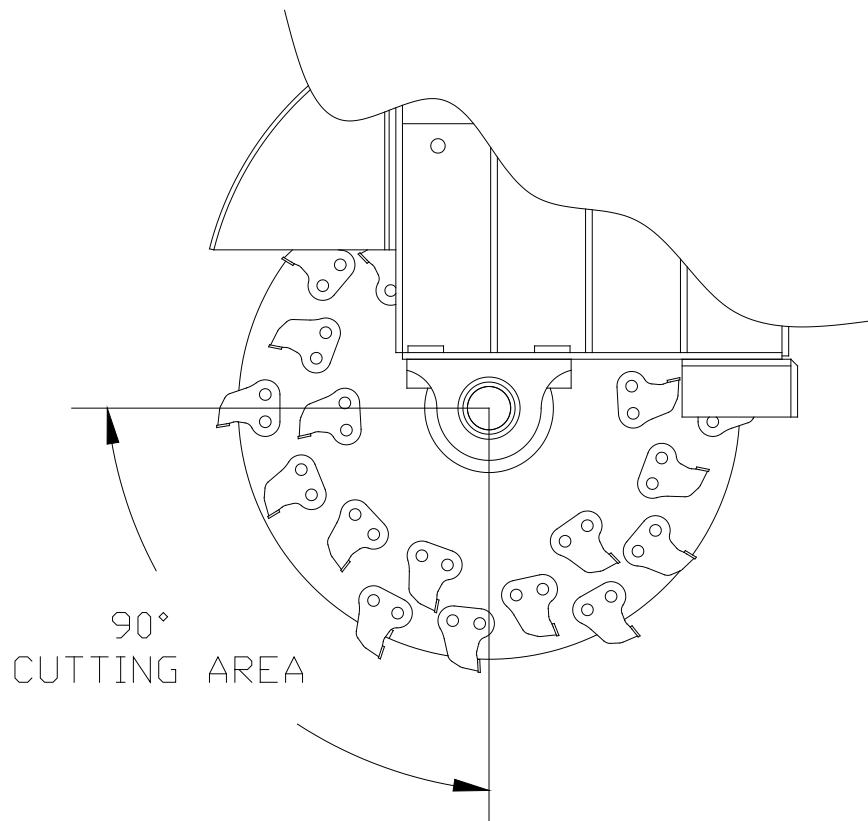
Allow cutter wheel to come to a complete stop before inspecting.

Before hauling, install the upper frame lock pin.

CUTTING AREA

⚠ DANGER

For optimum performance, the stump should be cut with the portion of the cutter wheel shown below. **NEVER UNDERCUT THE STUMP.** Undercutting the stump may cause severe kickback, vibration and component damage. **NEVER CUT THE STUMP FROM THE TOP.** The cutter wheel will throw debris up and toward the operator, instead of down and under the machine.



Transportation Procedures

WARNING

BEFORE TRANSPORTING THE MACHINE INSPECT AND CONFIRM THE FOLLOWING STEPS:

- 1) The trailer has a cargo weight rating capacity for the weight of the stump grinder. The combined weight of the trailer and the stump grinder can not exceed the load capacity of the tires, axles, hitch coupler system or the GVWR (Gross Vehicle Weight Rating) of the trailer.
- 2) The towing vehicle is rated for and has the towing capabilities to haul the stump grinder package (includes the stump grinder and a trailer). The towing vehicle must be mechanically sound and capable of handling the towing job.
- 3) The hitch on the towing vehicle and the coupler on the trailer is a perfect match in size, type, and needed capacity.
- 4) Both the towing hitch and the coupler are in good mechanical and wear condition, that they are joined together securely, and the coupler/hitch is locked in place.
- 5) The safety chains have the correct capacity for the equipment being towed.
- 6) The safety chains are crossed under the coupler/hitch then securely attached to the towing vehicle. The safety chains are long enough to not restrict the turning movement, but short enough to not drag on the road.
- 7) The electrical plug-in on the towing vehicle and the trailer are wired for the same functions and they fit securely together. The plug-in wire is long enough to not restrict the turning movement, but short enough to not drag on the road. The trailer must have a lighting system and braking system to match and perform correctly off the towing vehicles system. You must meet the Federal and your States' Department of Transportation Code of Regulations concerning lights, brakes, and highway transit.
- 8) The break-away actuator (if equipped) that is installed on the trailer correctly works and is appropriately attached to the towing vehicle.
- 9) All lights and brakes on the trailer correctly functions when activated by the systems in the towing vehicle.
- 10) The tires have been checked for cuts or damaged rims, air pressure is correct, and the axle lug nuts have been checked for correct torque (refer to trailer manual).
- 11) When the stump grinder is on the trailer, the trailer has the right load capacity, the stump grinder is positioned on the trailer for the correct weight distribution (there should be about 15% of the total stump grinder package weight on the tongue or hitch), the stump grinder brakes are locked, the cutterwheel is resting on the trailer bed, and the stump grinder is securely bound down to the trailer bed per your States binding requirements.
- 12) Any loose debris, tools or parts have been cleared off or are put away.
- 13) 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, vise, and etc.
- 14) Make sure the load ramps are securely stored for transport.
- 15) Make sure the stump grinder's engine is not running, the ignition key is in your possession, and all controls are stored correctly and locked in place for transport.
- 16) The stump grinder package must be hauled level and the towing vehicle must be sized to handle hitch weight and towing weight. The towing vehicle or the combination of towing vehicle and towing package must have enough braking capacity to meet the Federal and your State Department of Transportation requirements.
- 17) The stump grinder package is now ready for transport. Make sure to obey all local regulation and laws regarding the transporting of this type of machine.
- 18) Do not drive too fast for road conditions or exceed speed regulations for equipment towing.

Loading & Unloading

WARNING

BEFORE LOADING OR UNLOADING THE MACHINE INSPECT AND CONFIRM THE FOLLOWING STEPS: When loading or unloading the self-propelled stump grinder on the trailer, use care and caution. The maneuvering of the equipment must be slow, smooth, and intentional, not fast and jerky.

- 1) Make sure the trailer and towing vehicle are parked on a flat surface. They must be stable on the surface with the brakes locked and/or the wheels chocked to avoid unwanted movement
- 2) Position the loading ramps or loading gate securely between the trailer and the ground level. Have them located so that they are in line with the tires or tracks of the stump grinder when it moves.
- 3) Remove and store the chains and binders used for transporting.
- 4) Confirm that there are not any obstacles on the trailer bed, around the trailer that may cause restricted movement of the stump grinder or the operator.
- 5) The only person in the area should be the one that is operating the stump grinder controls, and he/she should be very experienced with the controls on this stump grinder
- 6) If you are on streets, roads or public areas, position the warning cones etc, per your company's safety policies.
- 7) Follow all pre-startup instructions for the machine.
- 8) Once the engine is running at as low a speed as possible, carefully raise the cutterwheel slightly up off the ground or trailer bed. While loading or unloading the stump grinder, the cutterwheel should not be raised any higher than necessary to just clear whatever is under it. You need to keep the weight center of gravity as low as possible to avoid tipping the machine while it is moving.
- 9) The cutterwheel end of the stump grinder should always be positioned so that it is toward the rear of the trailer, not the tongue, during transport.
- 10) When the stump grinder is positioned on the trailer bed, there should be about 15% of the stump grinder package weight on the tongue or hitch.
- 11) Align the stump grinder with the trailer bed, and the loading ramps. The only equipment movement should be slowly, straight on or straight off the trailer.
- 12) With the engine and the stump grinder at as low a speed as possible, move the machine toward the ramp system. Make sure the alignment is correct throughout the travel, and carefully readjust the cutter wheel height so that it barely clears obstacles as it is going up or down the ramp system.
- 13) Properly secure the equipment and the area to avoid any possible accidents or dangers.
- 14) The trailer should be constructed with appropriate chain down positions for the specific sized stump grinder. You must have binders that will withstand the strain of the machine trying to move while it is being transported.
- 15) The loading ramps or loading gate of the trailer must be constructed to withstand the weight and forces involved in loading and unloading the stump grinder.

MAINTENANCE SECTION

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, turn off engine, wait for the cutterwheel to come to a complete stop, install the cutter wheel lock pin, place cutter wheel on the ground, disconnect battery, and make sure the ignition key is in your possession.

⚠ 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.

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 will 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 entire machine for loose bolts, nuts, parts, or components:
Check entire machine for any loose parts or components. Check for loose nuts or bolts. Torque, tighten, or replace any of the loose components. See page 28 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 the cutter wheel and pockets for wear:
Check for elongated bolt holes, secure welds, torqued bolts, excessive wear and impact cracks. If a problem is found contact the grinder manufacturer or an authorized Bandit dealer.

6) Check condition of cutter teeth and hardware:
Grind or replace your cutter teeth to keep them sharp. Check the condition of your teeth hardware. Replace if necessary.

DAILY START UP & MAINTENANCE cont.**7) Check cutter teeth bolts:**

All cutter teeth bolts must be factory approved. Bolts must be replaced after a maximum of 4-5 rotations/changes to insure safe clamping ability.

Torque to 150 ft.-lbs. (203 Nm) AT ALL TIMES.

8) Grease bottom pivot bushings:

Grease bottom pivot bushing with 1 to 2 shots of EP-2 Lithium type grease. Wipe off excess grease.

Excessive grease will attract dirt.

9) 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.

10) Check for any fluid leaks:

Inspect for any oil, fuel, or hydraulic oil. 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.

11) 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.

12) Inspect, adjust, and lubricate tracks:

Inspect, adjust, and lubricate tracks as needed per track MFG. manual.

13) Check engine oil and coolant levels:

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.

14) Check radiator, debris screen:

Thoroughly clean radiator fins at least once a day and twice in excessive condition. Make sure debris is not packed between fins. Use pressurized water spray to clean. Do not rely on air pressure. The radiator will only appear to be clean. A partially plugged radiator will not allow the engine to cool properly. 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 engine failure.

15) Check oil cooler:

Thoroughly clean cooler fins at least once a day and twice in excessive condition. Make sure debris is not packed between fins. Use pressurized water spray to clean. Do not rely on air pressure. The oil cooler will only appear to be clean. Clean cooling fan and make sure operating correctly.

16) Check air cleaner or precleaner:

Clean or replace element following engine manual recommendations.

17) 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.

18) Review all safety procedures on decals, from manual, and from video.**19) 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.

20) Remember to check EVERYTHING on the checklist.

WEEKLY MAINTENANCE**1) Grease cylinder lug pins:**

Grease cylinder lug pins with 1 to 2 shots of EP-2 Lithium type grease. Wipe off excessive grease.

Excessive grease will attract dirt.

2) Grease upper frame pivot bushings:

Grease upper frame pivot bushings with 1 to 2 shots of EP-2 Lithium type grease. Wipe off excessive grease.

Excessive grease will attract dirt.

3) Check and retighten tank mount bolts:

Check the fuel tank and hydraulic tank mount bolts and retighten.

4) Check alternator and fan belts on engine (as applicable):

Adjust and maintain per the engine manufacturer's manual.

MONTHLY MAINTENANCE

1) Check torque on the hydrostatic motor to upper frame bolts:

Check torque on the hydrostatic motor to the upper frame bolts after first 20 hours and every 100 hours thereafter. Use a criss-cross pattern when tightening these bolts.

2) Check torque on the cutter wheel to hydrostatic motor bolts:

Check torque on the cutter wheel to hydrostatic motor bolts after first 20 hours and every 100 hours thereafter. Use a criss-cross pattern when tightening these bolts.

3) Lubricate “Bandit” lever throttle cable (if equipped):

If the machine is equipped with a “Bandit” lever throttle system, lubricate inner throttle cable and cable ends with a cable lube or SAE 10W/30 oil. Replace throttle cable if it doesn't operate smoothly.

4) Check hydraulic pressures:

Check, reset and maintain all hydraulic pressure settings to the specified maximum, see page 34. This will give you the best performance from the hydraulic system.

5) Grease grading blade pivot bushings (if equipped):

Grease grading blade pivot bushings with 1 to 2 shots of EP-2 Lithium type grease. Wipe off excess grease. **Excessive grease will attract dirt.**

3 MONTH MAINTENANCE

1) Hydraulic oil filter:

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.

2) High pressure filter:

Must be replaced after FIRST 50 HOURS OF OPERATION. After first change replace high pressure filter every 3 months or 500 hours. Located on the hydrostatic pump.

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.

DAILY START UP & MAINTENANCE CHECK LIST

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

| | O.K. | Repaired |
|--|--------------------------|--------------------------|
| 1) Check the safety decals and engine gauges, replace if damaged. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) Check, maintain, and service all safety equipment for proper operation: | <input type="checkbox"/> | <input type="checkbox"/> |
| 3) Check entire machine for loose nuts, bolts, and components. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4) Check all guards to make sure they are tight and securely in place. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5) Check the condition of the cutter wheel and teeth pockets. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6) Check the condition of the cutter teeth and hardware. | <input type="checkbox"/> | <input type="checkbox"/> |
| 7) Properly torque cutter teeth bolts. | <input type="checkbox"/> | <input type="checkbox"/> |
| 8) Grease bottom pivot bushings with 1 to 2 shots. | <input type="checkbox"/> | <input type="checkbox"/> |
| 9) Check and always maintain hydraulic oil level at 7/8 full. | <input type="checkbox"/> | <input type="checkbox"/> |
| 10) Check all hoses, fittings, lines, and tanks for damage and fluid leaks. | <input type="checkbox"/> | <input type="checkbox"/> |
| 11) Check fuel level. (Running out and repriming is time consuming). | <input type="checkbox"/> | <input type="checkbox"/> |
| 12) Inspect, adjust, and lubricate tracks per manufacturer's manual recommendations. | <input type="checkbox"/> | <input type="checkbox"/> |
| 13) Check engine oil, coolant levels, and correct engine speed. Follow ENGINE MANUFACTURER'S manual specs. Engine Must Be Level To Check Fluids. | <input type="checkbox"/> | <input type="checkbox"/> |
| 14) Check radiator and debris screen. Clean as necessary. Clean cooling fan and shroud on air cooled engines. | <input type="checkbox"/> | <input type="checkbox"/> |
| 15) Check oil cooler and fan. Clean as necessary. | <input type="checkbox"/> | <input type="checkbox"/> |
| 16) Check air cleaner and precleaner. Clean as necessary. | <input type="checkbox"/> | <input type="checkbox"/> |
| 17) Check around the entire machine for any foreign objects, tools, cans, saws, etc. | <input type="checkbox"/> | <input type="checkbox"/> |
| 18) Review all safety procedures on decals, from manual, and from video. | <input type="checkbox"/> | <input type="checkbox"/> |
| 19) Wear all applicable safety equipment: hard hat, gloves, eye protection, ear protection, etc. | <input type="checkbox"/> | <input type="checkbox"/> |
| 20) Remember to check EVERYTHING on the checklist. | <input type="checkbox"/> | <input type="checkbox"/> |


WARNING



WEAR EYE & PERSONAL PROTECTION EQUIPMENT

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

WEEKLY CHECK LIST

| | O.K. | Repaired |
|--|--------------------------|--------------------------|
| 1) Grease cylinder lug pins with 1 to 2 shots. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) Grease upper frame pivot bushings with 1 to 2 shots. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3) Check and retighten fuel tank and hydraulic tank mount bolts. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4) Check alternator and fan belts on engine. | <input type="checkbox"/> | <input type="checkbox"/> |

MONTHLY CHECK LIST

| | O.K. | Repaired |
|--|--------------------------|--------------------------|
| 1) Check torque on the hydrostatic motor to upper frame bolts after the first 20 hours and 100 hours thereafter. Use a criss-cross pattern when tightening. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) Check torque on the cutter wheel to hydrostatic motor bolts after the first 20 hours and 100 hours thereafter. Use a criss-cross pattern when tightening. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3) Lubricate "Bandit" lever throttle cable (if equipped). | <input type="checkbox"/> | <input type="checkbox"/> |
| 4) Check hydraulic pressure. Set to specified PSI (bar). | <input type="checkbox"/> | <input type="checkbox"/> |
| 5) Grease grading blade pivot bushings with 1 to 2 shots (if equipped). | <input type="checkbox"/> | <input type="checkbox"/> |

3 MONTH CHECK LIST

| | O.K. | Repaired |
|--|--------------------------|--------------------------|
| 1) Replace hydraulic oil filter after first 10 hours, then quarterly or every 400 hours. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) Replace high pressure filter after first 50 hours, then quarterly or every 400 hours. Located on hydrostatic pump. | <input type="checkbox"/> | <input type="checkbox"/> |

YEARLY CHECK LIST

| | O.K. | Repaired |
|--|--------------------------|--------------------------|
| 1) Change hydraulic oil and flush the hydraulic tank. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2) Replace the hydraulic suction screen(s) annually or every 2000 hours. | <input type="checkbox"/> | <input type="checkbox"/> |

MAINTENANCE SECTION

BOLT TORQUE CHART

(THESE TORQUES ARE BASED ON DRY, CLEAN THREADS)

| DESCRIPTION | BOLT SIZE | TORQUE (FT.-LBS.) | TORQUE (Nm) |
|---|------------|-------------------|-------------|
| Cutter Wheel To Hydrostatic Motor Bolts | M30 - 3.5 | 630 | 854 |
| Hydrostatic Motor To Upper Frame Bolts | M12 - 1.75 | 75 - 80 | 102 - 108 |
| Engine Hold Downs | 1/2"-13 NC | 95 | 129 |
| Cutter Wheel Teeth Bolts | 5/8"-18 NF | 150 | 203 |

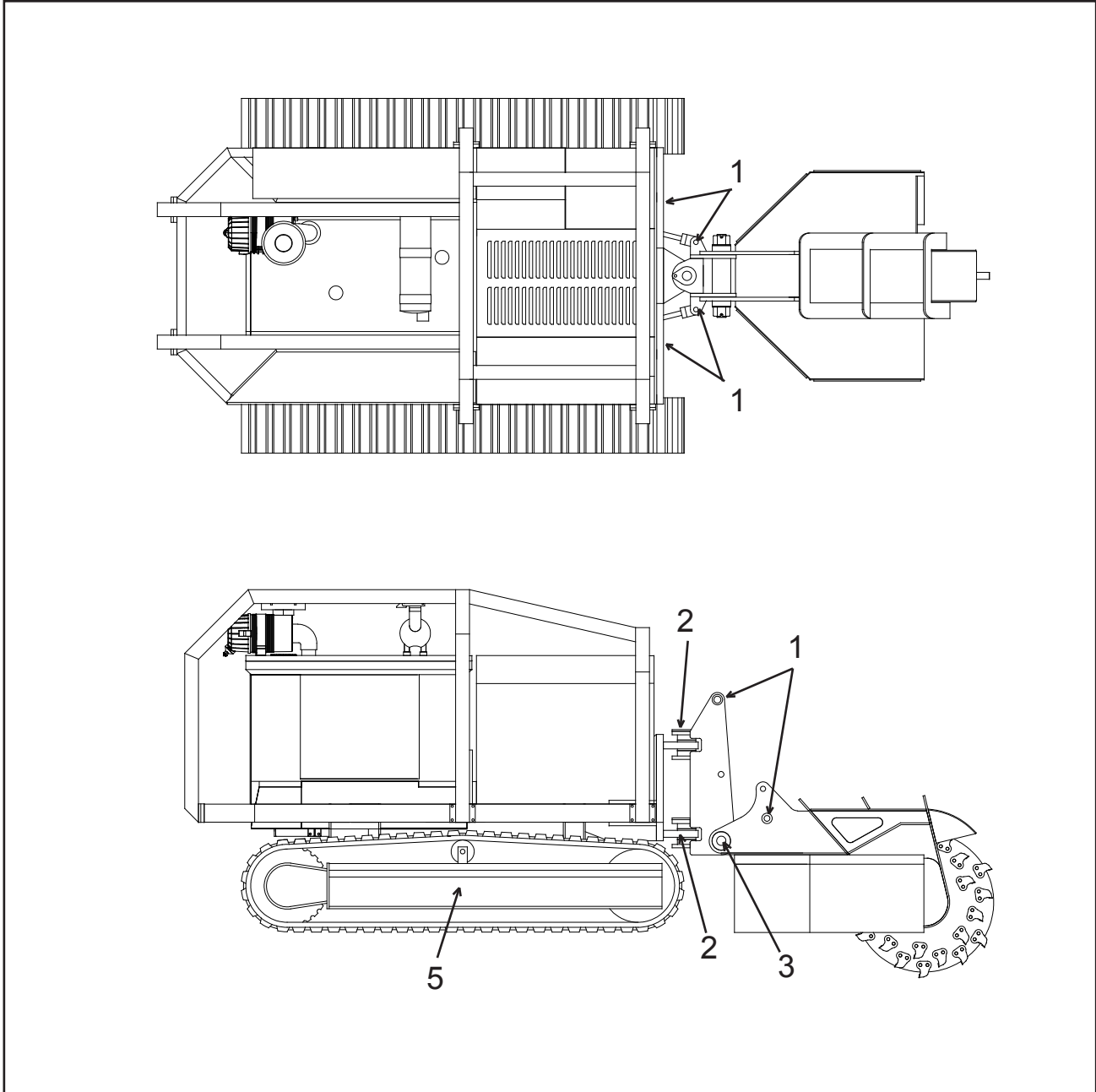
Before tightening bolts be sure you have the correct size bolt for the correct amount of torque.
Use only factory approved bolts and hardware.

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, 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 surface. This will help 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.



| # | DESCRIPTION | CHECK | | | PROCEDURE |
|---|------------------------------|-------|------|-------|--|
| | | DAY | WEEK | MONTH | |
| 1 | Cylinder Lug Pins | | X | | 1 to 2 shots of grease - wipe off excess |
| 2 | Upper Frame Pivot Bushings | | X | | 1 to 2 shots of grease - wipe off excess |
| 3 | Bottom Pivot Bushings | X | | | 1 to 2 shots of grease - wipe off excess |
| 4 | Grading Blade Pivot Bushings | | | X | 1 to 2 shots of grease - wipe off excess |
| 5 | Tracks | X | | | See manufacturer's specs |

TROUBLE SHOOTING

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|---|--|
| Engine will not start. (See Engine MFG. manual for further information.) | <ol style="list-style-type: none"> 1. Loose ground cable. 2. Loose hot cable. 3. Dead battery. 4. Cutter wheel was engaged before the machine engine was started. 5. Batteries in remote are dead. 6. Kill switch on remote is activated. | <ol style="list-style-type: none"> 1. Clean and tighten. 2. Clean and tighten. 3. Recharge or replace. 4. Switch cutter wheel to off, make sure key switch is off, and then restart the machine. 5. Replace. 6. Twist and pull out. |
| Cutter wheel vibration. | <ol style="list-style-type: none"> 1. Tooth missing. 2. Pocket out of balance. 3. Improper tooth arrangement. 4. Loose hydrostatic motor bolts. 5. Bad hydrostatic motor. | <ol style="list-style-type: none"> 1. Replace missing teeth. 2. Always replace pockets in pairs across from each other. 3. Install correctly with like pairs of teeth directly across from each other. 4. Tighten and retorqued. 5. Replace. |
| Cutter wheel throwing teeth. | <ol style="list-style-type: none"> 1. Bad pocket. 2. Dirt in pocket. | <ol style="list-style-type: none"> 1. Replace pocket. 2. Clean pocket and replace missing teeth. |
| Cutter wheel breaking teeth. | <ol style="list-style-type: none"> 1. Operator hitting rocks. | <ol style="list-style-type: none"> 1. Avoid rocks, stone, etc. |
| Cutter wheel stops turning. | <ol style="list-style-type: none"> 1. Bad hydrostatic motor. 2. Bad hydrostatic pump. 3. Low hydraulic pressure. 4. Debris wedged around cutter wheel. | <ol style="list-style-type: none"> 1. Replace. 2. Replace. 3. Reset pressure. 4. Clean out debris. |
| Bearing will not take grease. | <ol style="list-style-type: none"> 1. Grease fitting clogged. | <ol style="list-style-type: none"> 1. Replace. |
| Machine will not respond to remote. | <ol style="list-style-type: none"> 1. Weak or dead batteries in remote. 2. Remote not turned on before starting the machine engine. 3. Machine is out of range of the remote. 4. Broken or damaged antenna 5. Remote power switch was turned off. | <ol style="list-style-type: none"> 1. Replace. 2. Turn off engine, turn remote power on, and then start engine. 3. Move closer to the machine and make sure there are no obstructions between operator and machine. 4. Replace. 5. Shut down and restart the machine. |

HYDRAULIC SECTION

WARNING

DO NOT GO NEAR HYDRAULIC LEAKS!

High pressure oil easily punctures skin causing serious injury, gangrene, or death. If injured, seek emergency medical help. Immediate surgery is required to remove oil. DO NOT use fingers or skin to check for leaks. Lower load or relieve hydraulic pressure before loosening fittings.

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!

Hydraulic Fluid Requirements

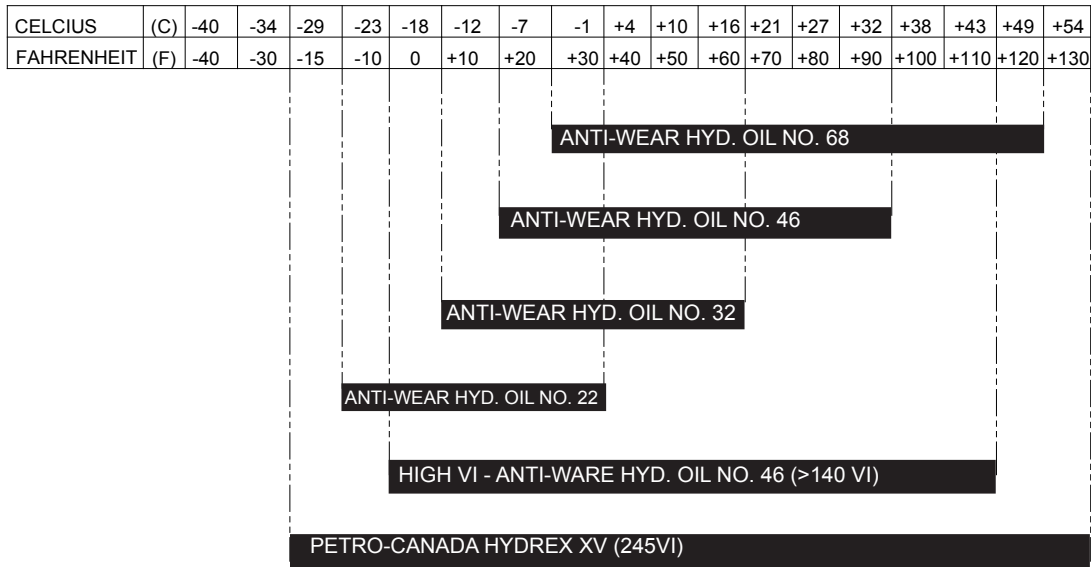
This machine is equipped with “Petro-Canada Hydrex XV” hydraulic fluid. It is recommended to replace with the same. “Petro-Canada Hydrex XV” is an all season hydraulic fluid. This is a premium performance, long life anti-wear, hydraulic fluid, designed for all season use in heavy duty hydraulic systems. “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. To find the closest “Petro-Canada Hydrex XV” dealer call 1-888-284-4572.

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 oxidations inhibitors should be used. This viscosity grade depends on the oil temperature in service, based on the climate and operating conditions.

| | Hydrex XV | ISO 22, AW | ISO 32, AW | ISO 46, AW | ISO 68, AW | ISO 100, AW |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Viscosity Index | >235 | >95 | >95 | >95 | >95 | >95 |
| Flash Point | >240°C /464°F | >200°C /395°F | >210°C /410°F | >220°C /430°F | >220°C /430°F | >240°C /464°F |
| Oxidations Stability (ASTM D0943) | >9,000 Hours | >3,000 Hours | >3,000 Hours | >3,000 Hours | >3,000 Hours | >3,000 Hours |
| Cold Start-up, No Load, Max | -40°C/-40°F | -34°C/-29°F | -26°C/-14°F | -19°C/-3°F | -9°C/16°F | -4°C/24°F |

HYDRAULIC SECTION

Alternate 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.



Note: 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 below to verify compliance.

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

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.

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.

Contact Petro Canada at (888) 284-4572 to find a dealer near you.

Note: Some equipment and components such as fluid engagement clutch’s (PTO’s) have their own lubrication requirements. Consult their manufactures manual for that information.

HYDRAULIC SECTION

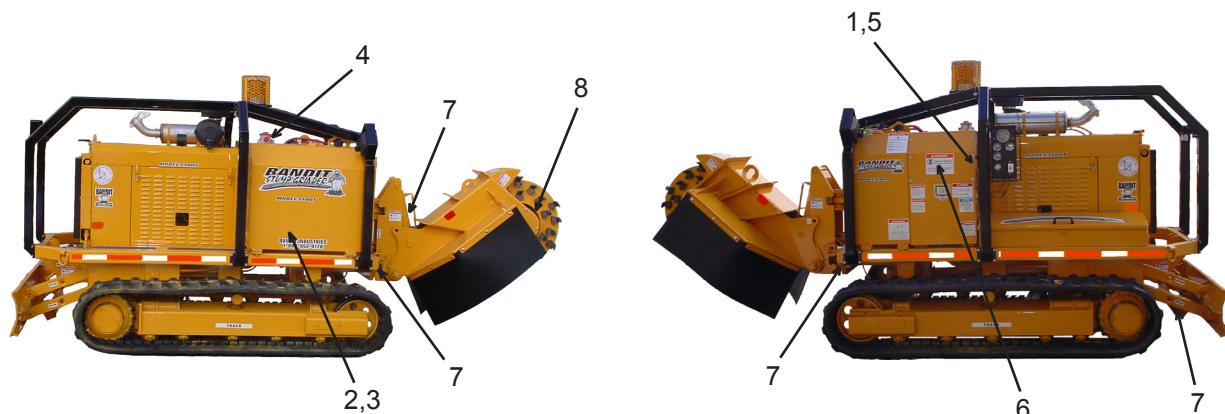
THE BANDIT HYDRAULIC SYSTEM

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:

- After you have operated a new machine for approximately an hour shut down the machine and recheck all hydraulic fittings for tightness and leaks.
- 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) 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”.
- 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.



HYDRAULIC COMPONENTS

1) HYDROSTATIC PUMP:

The hydrostatic pump is bolted directly to the engine.

2) SUCTION STRAINER:

The strainer(s) stops contaminants from reaching the hydrostatic pump. The suction strainer should be replaced every 2000 hours or yearly.

3) HYDRAULIC TANK:

This tank must be kept clean and filled minimum 7/8 full. Clean tank yearly.

4) FILTER:

The filter cartridge is mounted inside the tank and must be replaced per maintenance schedule.

5) HIGH PRESSURE FILTER:

The spin-on cartridge filter is located on the hydrostatic pump and must be replaced per maintenance schedule.

6) HYDRAULIC VALVE:

These valves are actuated by the control levers or the optional remote control. The valves actuate the hydraulic components to be used.

7) HYDRAULIC CYLINDER

Attaches to the upper frame allowing adjustment up and down and left to right or to the grading blade (if equipped) allowing up and down adjustment.

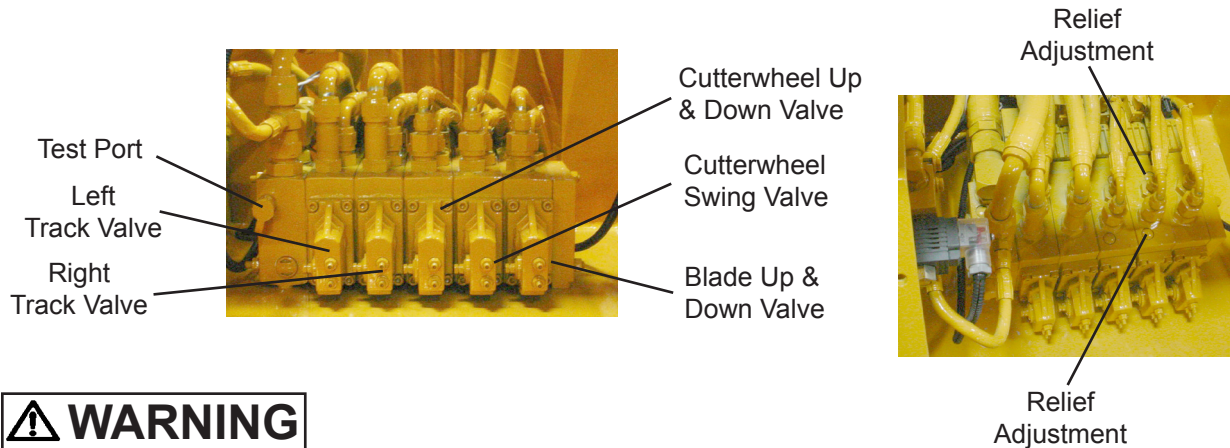
8) HYDROSTATIC MOTOR

Bolted to the upper frame and to the cutterwheel to run the cutterwheel.

Bandit

The relief valve is typically located internally in the valve bank. Do not adjust the relief valves above the specified psi (bar). The relief valve system is a simple spring tension design but small pieces of debris can stick the valve partially open which weakens the hydraulic power. The relief as well as hydraulic oil, and screen must be kept clean.

CHECKING SYSTEM PRESSURE



⚠ WARNING

Before attempting to check any pressures, make sure engine is shut off, ignition key is removed and in your possession, hydraulic oil is clean, hydraulic tank is 7/8 full, and the machine has been pre-run to warm the hydraulic oil. To correctly check relief valve pressure, the pressure gauge MUST be installed correctly.

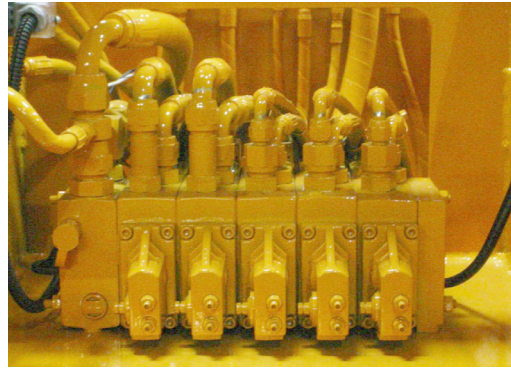
1. First lower cutter wheel boom and put all controls in neutral position.
2. Put pressure gauge into test port.
3. Leave all hydraulic hoses connected.
4. Start engine and adjust engine to full throttle.
5. Operate controls of what component pressure is to be checked.
6. Adjust relief if necessary.

NOTICE

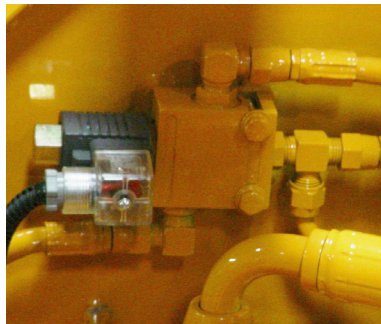
DO NOT UNDER ANY CIRCUMSTANCES OVER-SET THESE RELIEF PRESSURES, BECAUSE IT WILL CAUSE DAMAGE TO COMPONENT PARTS AS WELL AS HYDRAULIC PARTS.

NOTE: These Typical Hydraulic Flows And Relief Pressure Settings Are With The Engine At Full RPM. All Settings Are Subject To Change!

| | |
|----------------------|--------------------|
| Equipment Model | 3400T |
| Cutterwheel Pump | 62 GPM |
| Pump | 18 GPM (68.1 LPM) |
| Main Relief Pressure | 2900 PSI (200 bar) |
| Cutterwheel Up | 1300 PSI (90 bar) |
| Cutterwheel Down | 1500 PSI (103 bar) |
| Swing Left / Right | 1000 PSI (69 bar) |
| Blade Up | 1000 PSI (69 bar) |
| Blade Down | 1400 PSI (69 bar) |
| Tracks | 2900 PSI (200 bar) |
| Cutterwheel Motor | 6000 PSI (414 bar) |



Valve Bank

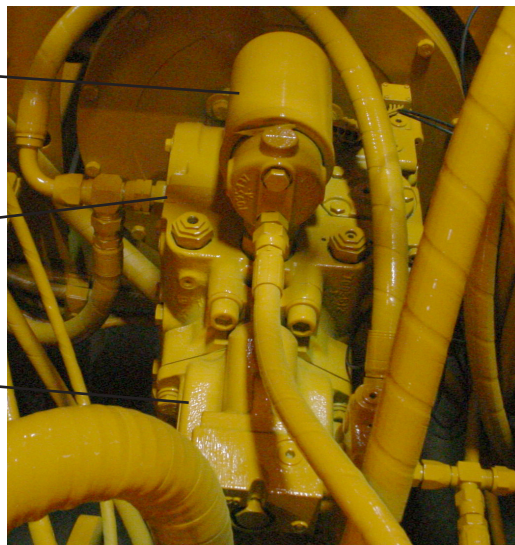


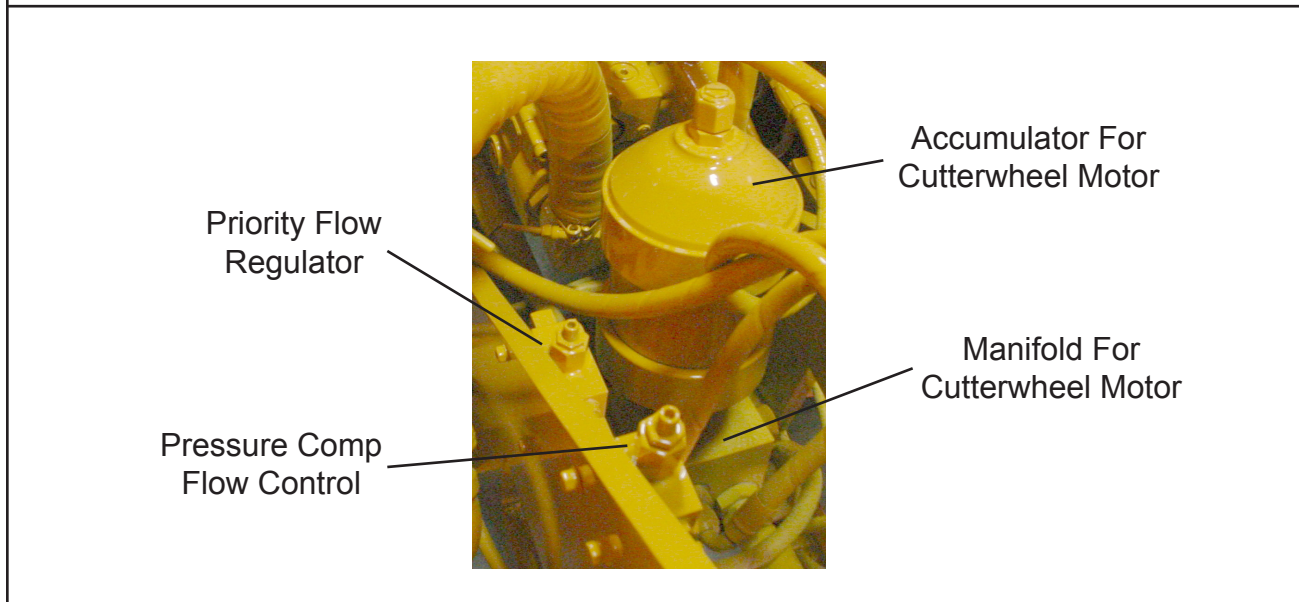
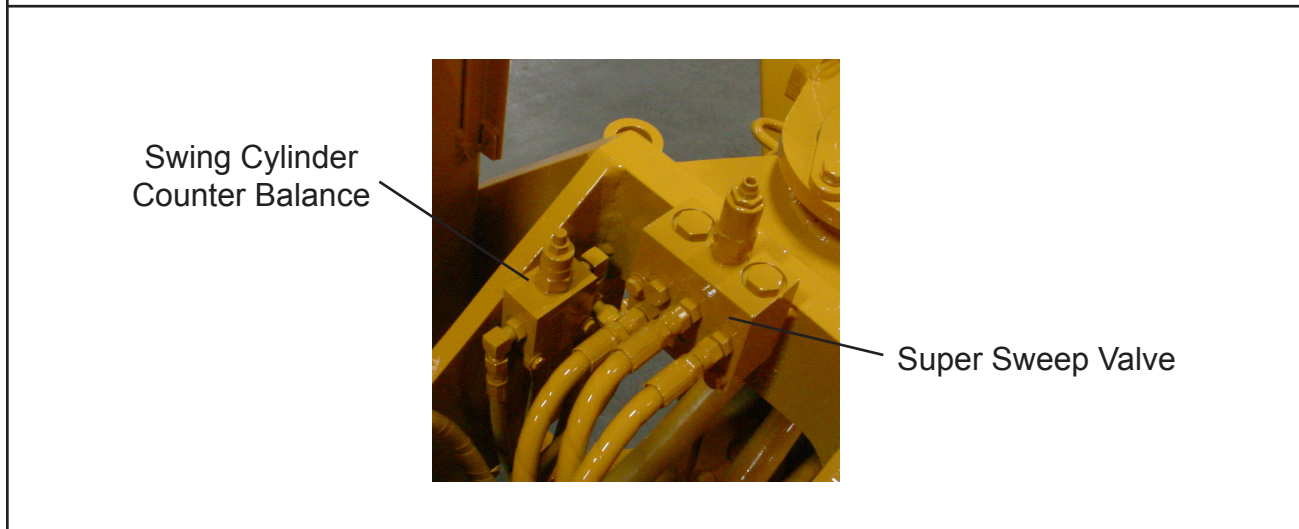
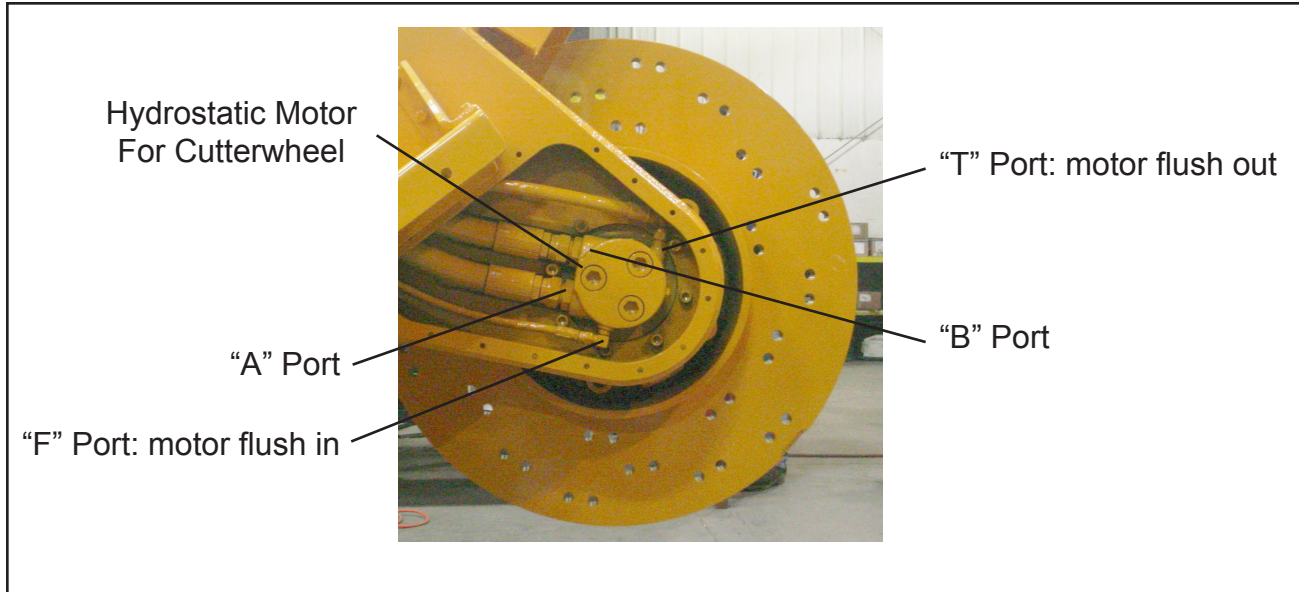
Track Two
Speed Valve

High Pressure Filter

Hydrostatic Pump

Auxiliary Pump





TROUBLE SHOOTING

BEFORE ATTEMPTING ANY TYPE OF MAINTENANCE DISENGAGE CLUTCH, TURN OFF ENGINE, WAIT FOR THE CUTTER WHEEL TO COME TO A COMPLETE STOP, INSTALL THE CUTTER WHEEL LOCK PIN, DISCONNECT BATTERY, AND MAKE SURE THE IGNITION KEY IS IN YOUR POSSESSION.

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| Hydraulic oil very hot, causing system to operate slowly | <ol style="list-style-type: none"> 1. Dull teeth. 2. Low oil level. 3. Worn pump, poor oil quality. 4. Damaged hose. 5. Oil suction screen or filter plugged. 6. Oil cooler plugged. 7. Binding. | <ol style="list-style-type: none"> 1. Replace teeth. 2. Fill 7/8 full minimum. 3. Replace. 4. Replace. 5. Clean or replace. 6. Clean. 7. Repair. |
| Hydraulic system loss of power. | <ol style="list-style-type: none"> 1. Low oil level. 2. Poor oil quality. 3. Bad cylinder. 4. Bad pump. | <ol style="list-style-type: none"> 1. Fill 7/8 full minimum. 2. Replace. 3. Replace or repair. 4. Replace. |
| Hydrostatic motor is leaking. | <ol style="list-style-type: none"> 1. Bad shaft seal. 2. Loose or cracked fitting. | <ol style="list-style-type: none"> 1. Replace and check for back pressure. 2. Tighten or replace. |
| Swing cylinder loss of power. | <ol style="list-style-type: none"> 1. Cutterhead speed adjustment screw turned wide open. 2. Bad cylinder. | <ol style="list-style-type: none"> 1. Screw in speed adjustment screw to close bypass. Readjust for "no bounce" cutting. 2. Replace or repair. |
| Cutter head swings faster one way than the other. | <ol style="list-style-type: none"> 1. Counter balance valve is out of adjustment. 2. Bad cylinder. | <ol style="list-style-type: none"> 1. Adjust counter balance valve to equalize swing speed. 2. Replace or repair. |
| Cutter head does not stay in up position, creeps down | <ol style="list-style-type: none"> 1. Counter balance out of adjustment. 2. Bad cylinder. | <ol style="list-style-type: none"> 1. Adjust counter balance valve or replace counter balance cartridge. 2. Replace or repair. |
| Cutter wheel turns while disengaged | <ol style="list-style-type: none"> 1. ECM out of adjustment. | <ol style="list-style-type: none"> 1. Adjust or replace. |

NOTE: In cold weather situations let the hydraulic system idle for approximately 15 minutes to allow the system to warm up to operating temperature. Running cold oil through the hydrostatic motor can raise case drain pressures and damage shaft seals.

NOTE: 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.

CORRECTING HYDRAULIC PROBLEMS

BEFORE ATTEMPTING ANY TYPE OF MAINTENANCE DISENGAGE CLUTCH, TURN OFF ENGINE, WAIT FOR THE CUTTER WHEEL TO COME TO A COMPLETE STOP, INSTALL THE CUTTER WHEEL LOCK PIN, DISCONNECT BATTERY, AND MAKE SURE THE IGNITION KEY IS IN YOUR POSSESSION.

| COMPONENT | PROCEDURE |
|------------------------------|---|
| Checking for defective pump | 1. Do not attempt to check your hydraulic pump without first consulting your local dealer or Bandit Industries. |
| Checking for defective motor | 1. If everything checks out as correct, it may be time to check the hydraulic motor. 2. Do not attempt to check your hydraulic pump without first consulting your local dealer or Bandit Industries. |

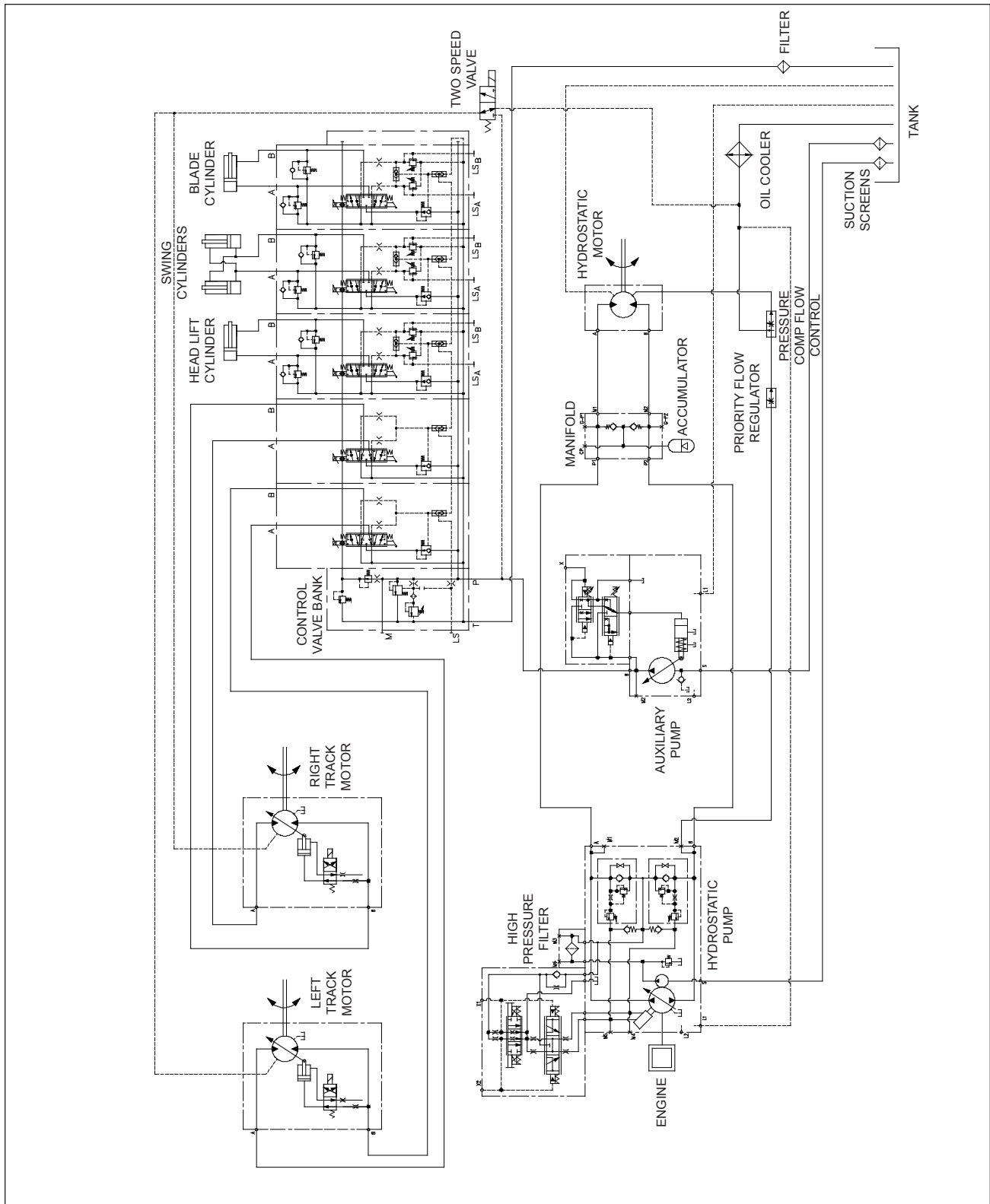
NOTE: In cold weather situations let the hydraulic system idle for approximately 15 minutes to allow the system to warm up to operating temperature. Running cold oil through the hydrostatic motor can raise case drain pressures and damage shaft seals.

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HYDRAULIC SCHEMATIC

SPECIFIC SCHEMATIC FUNCTION MAY VARY
DEPENDING ON OPTIONS OR COMPONENT MANUFACTURER.



CUTTER WHEEL SECTION

DO NOT OPERATE MACHINE WITHOUT A FULL SET OF TEETH. OPERATING MACHINE WITHOUT A FULL SET OF TEETH CAN CAUSE EXCESSIVE VIBRATION AND PREMATURE BEARING FAILURE.

Use only original equipment manufacturer's teeth. The use of any other aftermarket teeth may cause damage or premature failure to the drive train.

There are forty-eight (48) teeth to a complete set on a model 3400T. Two (2) straight teeth, twenty-three (23) left 45° teeth, and twenty-three (23) right 45° teeth.

Do Not operate machine with extremely worn or broken teeth.

A locking pin is provided to hold the cutter wheel in position during tooth removal and reinstallation. Locking pin will only lock on outer teeth. **NEVER USE HAND ON CUTTER WHEEL TO HOLD IN PLACE WHILE CHANGING TEETH. BE SURE TO REMOVE LOCKING PIN BEFORE OPERATING THE MACHINE.**

TOOTH ARRANGEMENT

Inspect pockets, teeth and bolts for damage and replace as required.

When replacing pockets, always replace new pockets across from each other (180°) in order to prevent vibration.

Replacement teeth must be carbide tipped and of like design as provided with the machine.

Use anti-seize on threads to help prevent bolts from "freezing up" in cutter wheel pockets.

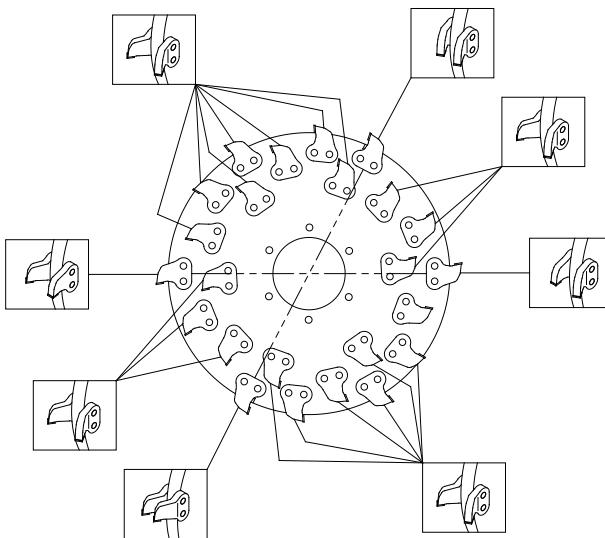
When replacing complete set of teeth, be sure to duplicate original factory tooth arrangement. Torque bolts to 150 ft.-lbs. (203 Nm).

Straight teeth are mounted in **TWO OPPOSING POCKETS** (180°).

A straight tooth must have a 45° tooth accompanying it in the same pocket set. The opposite pocket sets should have this same combination of straight and 45° teeth, except with positions reversed. Mounting these teeth opposite each other on the cutter wheel reduces damaging vibration.

Two Remaining Outside Pockets require 45° teeth overlapping the center line of the cutter wheel to make plunge cuts possible. Mount two left 45° teeth opposite two right 45° teeth.

All Inside Pockets require 45° teeth mounted away from the cutter wheel.



MODEL 3400T

| | |
|--------------------------|-------------|
| Straight Tooth: | 900-9903-82 |
| Left Tooth 45°: | 900-9903-83 |
| Right Tooth 45°: | 900-9903-84 |
| C'Bored Mounting Block: | 900-9903-85 |
| Threaded Mounting Block: | 900-9903-86 |
| Bolt: | 900-9903-81 |
| Tooth Kit: | 900-9903-89 |

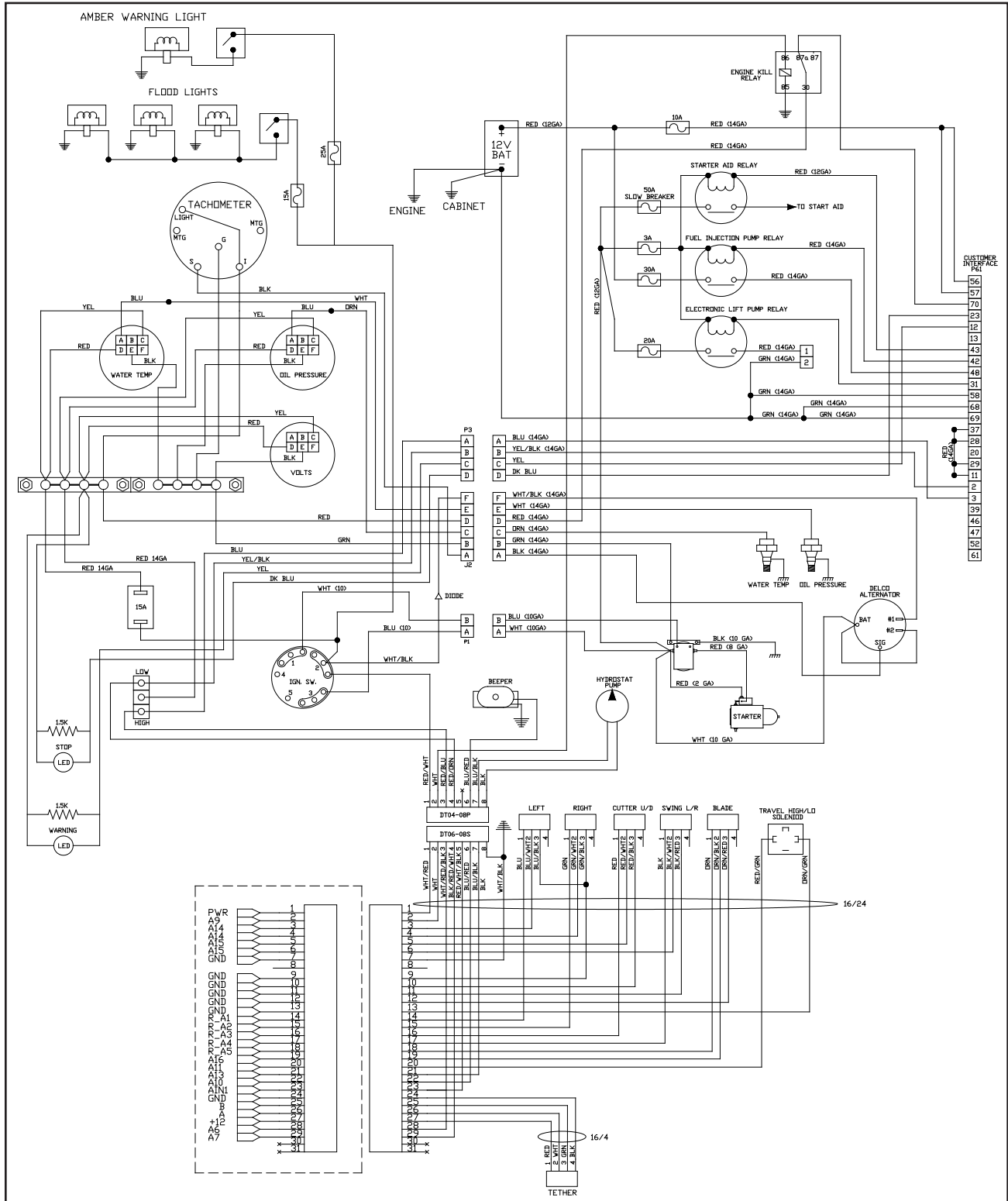
LUBRICATION & COOLANT

- 1) **Engine:** Follow original equipment manufacturers requirements for both changing oils and filters, refer to engine manual specifications.
- 2) **Engine Coolant:** Refer to engine manufacturers manual specifications.
- 3) **Tracks:** Follow track manufacturer's requirements for specific track lubricating procedures.
- 4) **Hydraulic Reservoir Tank:** Completely change hydraulic oil, suction screen(s), and flush the tank annually. Change hydraulic oil filter AFTER FIRST 10 HOURS OF OPERATION. Then change hydraulic oil filter(s) every 400 hours or 3 months thereafter. Maintain hydraulic oil level 7/8 full. See hydraulic oil requirements below. Check hydraulic oil level in tank daily.
- 5) **Hydraulic Fluid Requirements:** See pages 31 - 32 for hydraulic fluid requirements.
- 6) **Hydrostatic Pump:** Change high pressure filter AFTER FIRST 50 HOURS OF OPERATION. Then change high pressure filter every 500 hours or 3 months thereafter.
- 7) **Bottom Pivot Bushings:** Grease bottom pivot bushings daily. Use one (1) or two (2) shots of EP-2 Lithium type grease. Wipe off excess grease. **Excessive grease will attract dirt.**
- 8) **Upper Frame Pivot Bushings:** Grease upper frame pivot bushings weekly. Use one (1) or two (2) shots of EP-2 Lithium type grease. Wipe off excess grease. **Excessive grease will attract dirt.**
- 9) **Cylinder Lug Pins:** Grease cylinder lug pins weekly. Use one (1) or two (2) shots of EP-2 Lithium type grease. Wipe off excess grease. **Excessive grease will attract dirt.**
- 10) **"Bandit" Lever Throttle Cable (if equipped):** If the machine is equipped with a "Bandit" lever throttle system, lubricate inner throttle cable and cable ends with a cable lube or SAE 10W/30 type oil every month. Replace throttle cable if it doesn't operate smoothly.
- 11) **Grading Blade Pivot Bushings (if equipped):** Grease Grading blade pivot bushings monthly. Use one (1) or two (2) shots of EP-2 Lithium type grease. Wipe off excess grease. **Excessive grease will attract dirt.**



ELECTRICAL SCHEMATIC CAT 140 Hp

SPECIFIC SCHEMATIC FUNCTION MAY VARY DEPENDING
ON OPTIONS OR COMPONENT MANUFACTURER.



REPLACEMENT PARTS SECTION

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

GRINDER COMPONENTS

Serial Number
Model Number of Grinder

ENGINE COMPONENTS

Brand
Engine Serial Number
Engine Spec. Number

CLUTCH COMPONENTS

Brand
Serial Number
Assembly Number of Clutch

NOTE

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

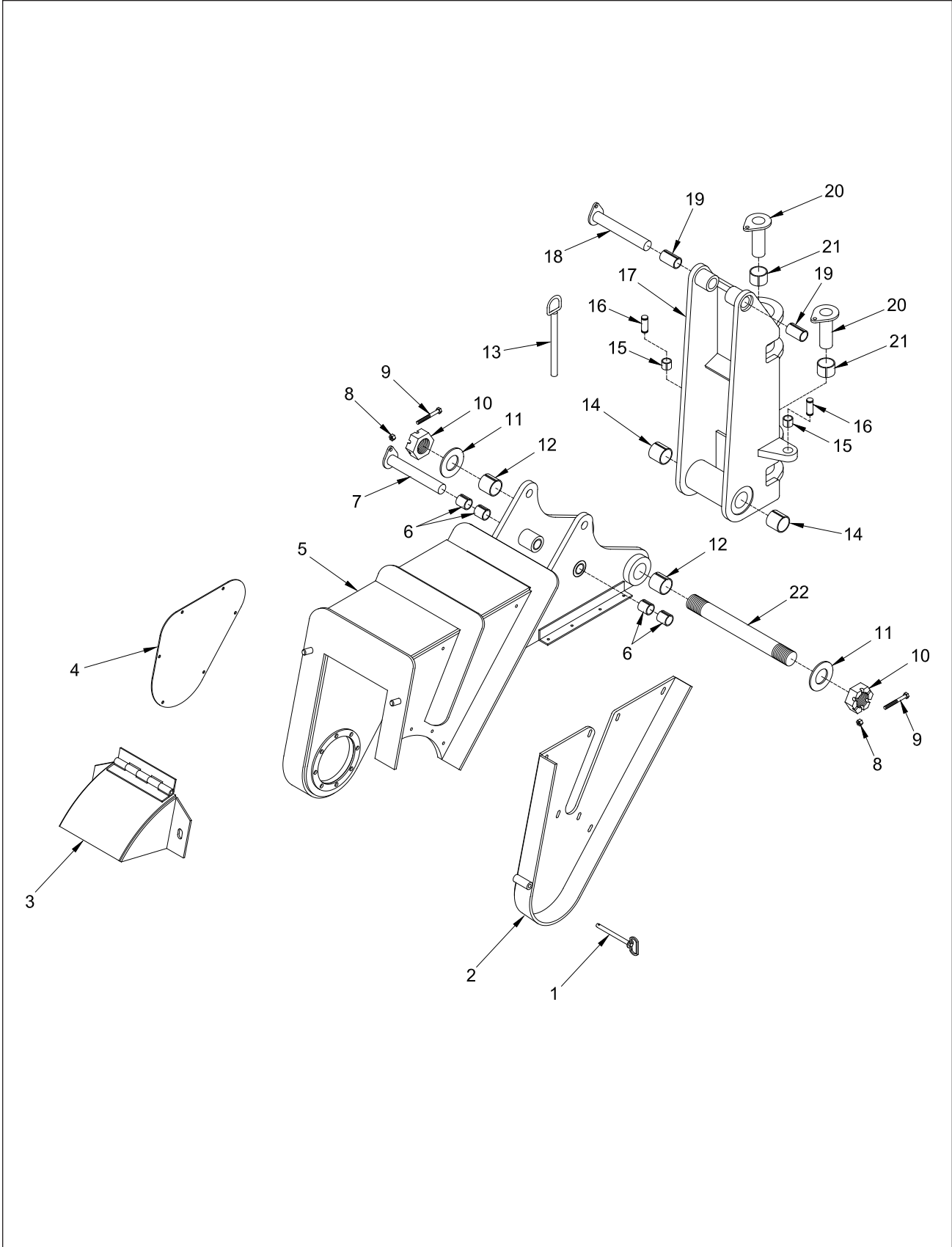
NOTE

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

NOTE

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

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

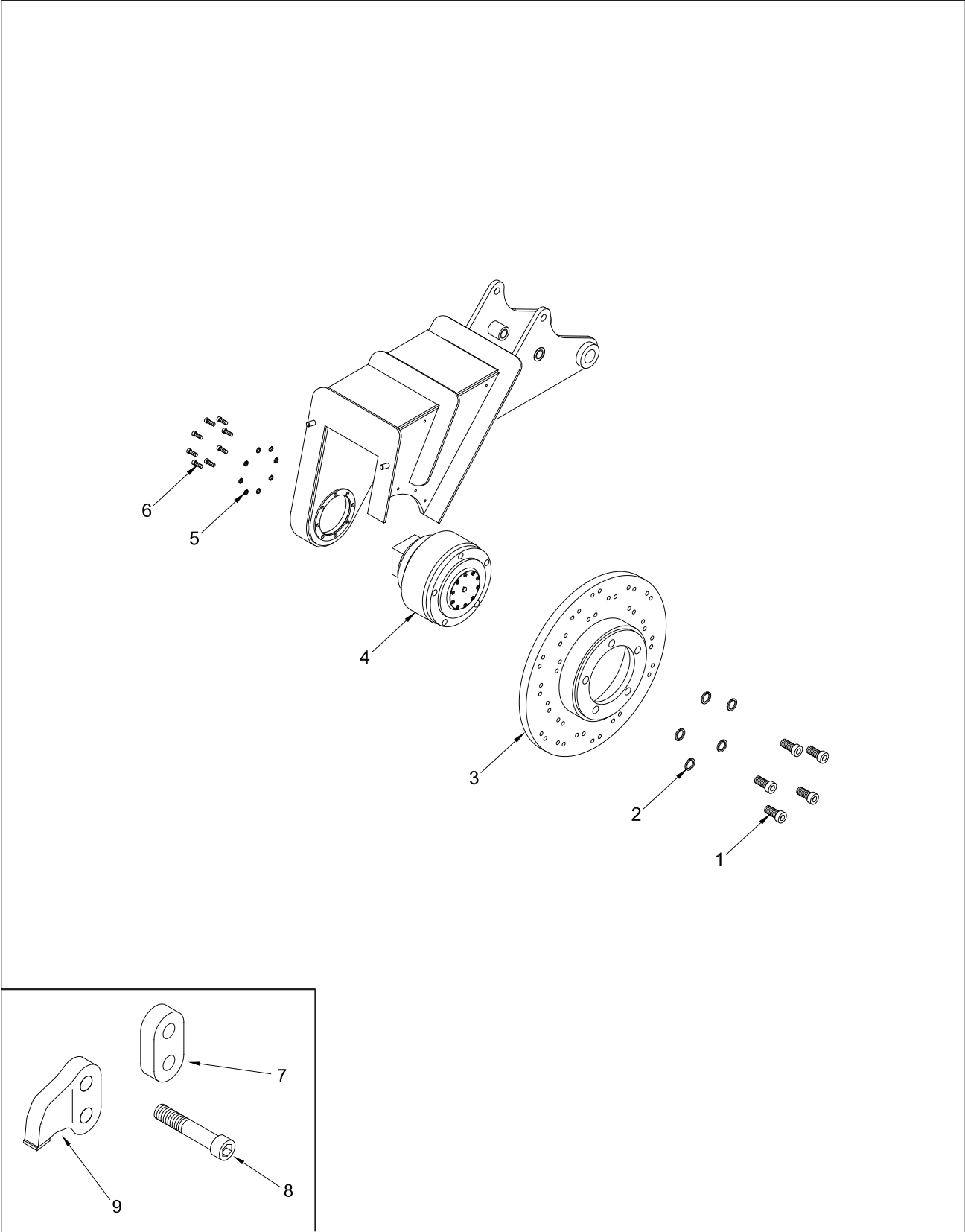


NOTE: Parts may not be exactly as shown.

Bandit

| LOCATION | PART NUMBER | DESCRIPTION |
|----------|-------------|--|
| 1. | 900-4907-44 | Cutter Head Lock Pin |
| 2. | 994-200004 | Upper Frame Hydraulic Motor Guard |
| 3. | 994-200005 | Cutter Wheel Guard |
| 4. | 994-300021 | Upper Frame Hydrostatic Motor Access Cover |
| 5. | 994-200003 | Upper Frame Assembly |
| 6. | 900-1912-58 | Split Bushing |
| 7. | 994-200013 | Upper frame Cylinder Pin |
| 8. | 900-4910-61 | 3/8"-16NC x 3 1/2" Bolt |
| 9. | 900-4903-69 | 3/8"-16NC Nylon Lock Nut |
| 10. | 900-4912-95 | Slotted Hex Nut |
| 11. | 900-4912-96 | Washer |
| 12. | 900-4912-97 | Split Bushing |
| 13. | 994-100018 | Upper Frame Lock Pin |
| 14. | 900-4912-97 | Split Bushing |
| 15. | 900-1911-59 | Split Bushing |
| 16. | 900-3935-08 | Swing Cylinder Pin |
| 17. | 994-100002 | Pivot Assembly |
| 18. | 994-200025 | Pivot Cylinder Pin Assembly |
| 19. | 900-4912-97 | Split Bushing |
| 20. | 994-200026 | Pivot Swing Pin Assembly |
| 21. | 900-4912-98 | Split Bushing |
| 22. | 994-300039 | Up & Down Pivot Pin |

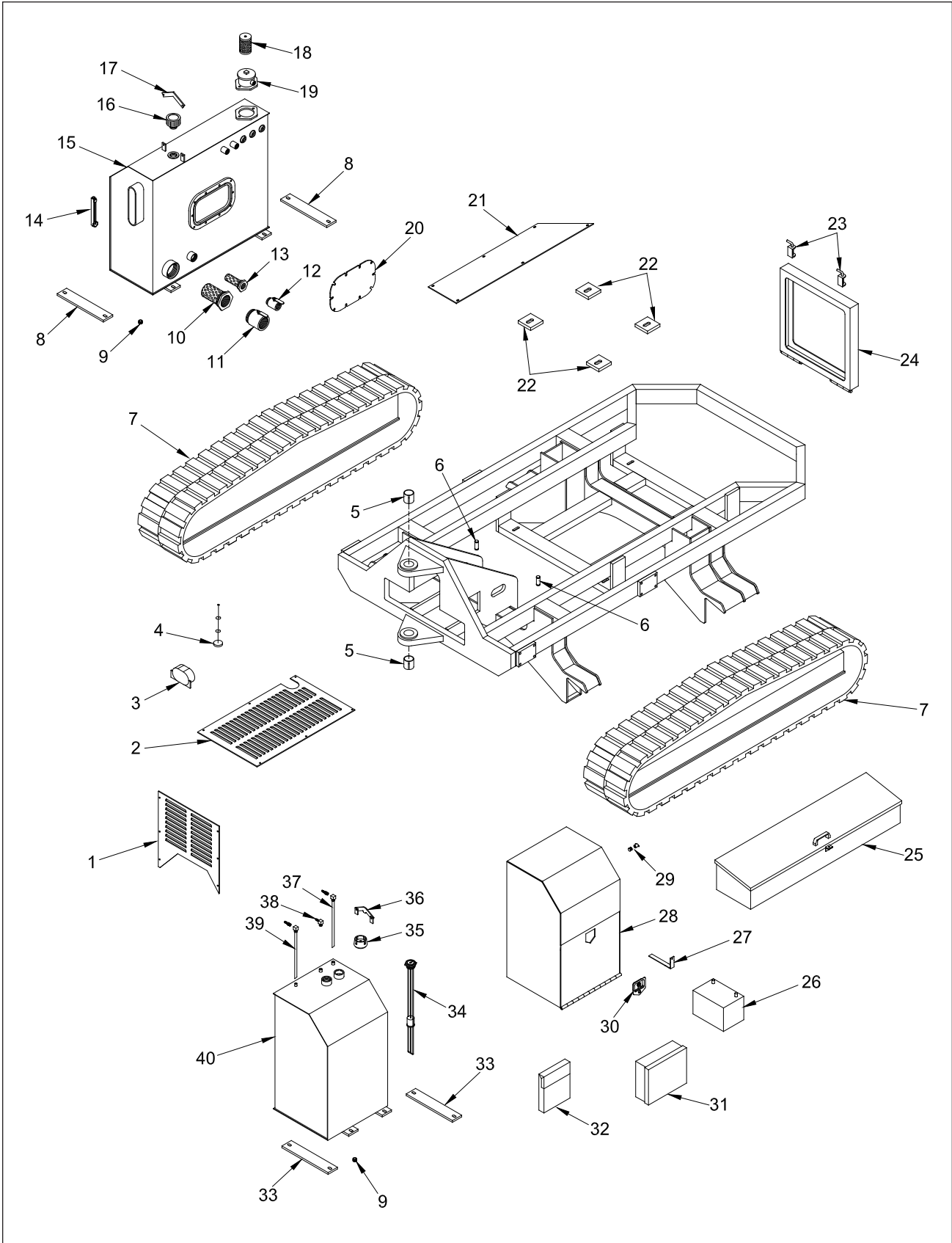
**NOTE: Nuts, bolts, washers, and all other components
can be ordered by physical description.**



NOTE: Parts may not be exactly as shown.

| LOCATION | PART NUMBER | DESCRIPTION |
|----------|-------------|---|
| 1. | 900-4912-88 | M30 - 3.5 Bolt - Cutter Wheel To Hydrostatic Motor |
| 2. | 900-4912-90 | M30 Lock Washer |
| 3. | 994-100014 | Cutter Wheel Assembly |
| 4. | 900-3933-58 | Hydrostatic Motor |
| 5. | 900-4912-91 | M12 Lock Washer |
| 6. | 900-4912-89 | M12 - 1.75 Bolt - Hydrostatic Motor To Upper Frame |
| 7 a. | 900-9903-85 | Counter Bored Mounting Block |
| b. | 900-9903-86 | Threaded Mounting Block |
| 8. | 900-9903-81 | Tooth Bolt |
| 9 a. | 900-9903-82 | Straight Tooth |
| b. | 900-9903-83 | Left Tooth 45° |
| c. | 900-9903-84 | Right Tooth 45° |
| 10. | 900-9903-89 | Tooth Kit - Full Set of Teeth, Bolts, and Pockets (Not Shown) |

**NOTE: Nuts, bolts, washers, and all other components
can be ordered by physical description.**

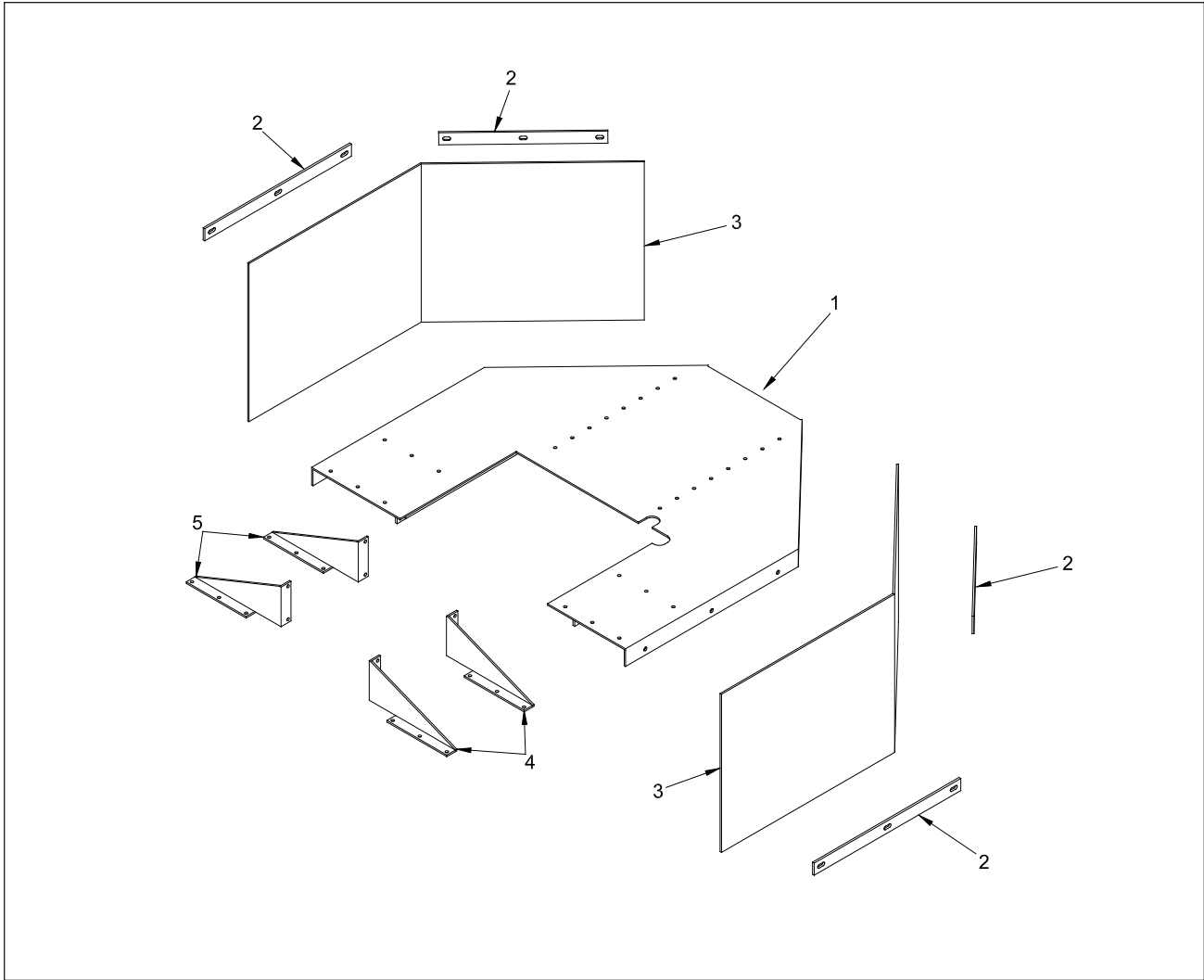


NOTE: Parts may not be exactly as shown.

Bandit

| LOCATION | PART NUMBER | DESCRIPTION |
|----------|-------------|--|
| 1. | 994-300116 | Front Inspection Cover |
| 2. | 994-300115 | Top Inspection Cover |
| 3. | 900-2907-52 | Back-Up Beeper |
| 4. | See Page 53 | Remote Control Antenna |
| 5. | 900-4912-97 | Split Bushing |
| 6. | 900-3935-07 | Swing Cylinder Pin |
| 7 a. | ** | Right & Left Track Assembly (Set) |
| b. | ** | Replacement Track Only |
| 8. | 994-300221 | Rubber Mounting Pad For Hydraulic Tank |
| 9. | 900-3922-60 | Magnetic Drain Plug |
| 10. | 900-3912-51 | 1 1/2" Suction Screen |
| 11. | 900-3920-14 | 1 1/2" Shut-Off Valve |
| 12. | 900-3907-77 | 1" Shut-Off Valve |
| 13. | 900-3901-44 | 1" Suction Screen |
| 14. | 900-3901-78 | Temperature/Sight Gauge |
| 15. | 994-200020 | Hydraulic Tank Assembly |
| 16. | 900-3925-91 | Fill Cap - Hydraulic Tank |
| 17 a. | 993-300399 | Fill Cap Lock Assembly - Hydraulic Tank |
| b. | 900-4912-40 | Padlock With Short Shackle For Tank With Locking Cap (Not Shown) |
| c. | P812 | Key For Padlock (Not Shown) |
| 18. | 900-3925-97 | Return Filter |
| 19. | 900-3927-42 | Filter Head |
| 20. | 989-300911 | Clean Out Door |
| 21. | 994-300133 | Deck Plate |
| 22. | 994-300146 | Rubber Engine Isolator |
| 23 a. | 900-4901-83 | Spring Lock - 1/2" Diameter Pin |
| b. | 900-7900-93 | Rubber Cap (Not Shown) |
| 24. | 994-200027 | Oil Cooler Mount Assembly |
| 25 a. | 994-200035 | Tool Box Assembly (Start W/O 36836) |
| b. | 994-100016 | Tool Box Assembly (Pre W/O 36429) |
| c. | 900-9904-33 | Tool Box Handle Only |
| 26. | 900-6900-02 | 660 CCA Battery |
| 27. | 994-200028 | Battery Hold Down Strap |
| 28. | 994-100011 | Control Box Assembly |
| 29 a. | 900-2911-54 | Tether Jack |
| b. | 900-2911-55 | Cap For Tether Jack |
| 30 a. | 900-4904-58 | "T" Latch Handle |
| b. | CH545 | Key |
| 31. | See Page 53 | Receiver Circuit Board Box |
| 32. | 900-9902-07 | Manual Holder |
| 33. | 994-300225 | Rubber Mounting Pad For Fuel Tank |
| 34. | 900-2904-14 | Rochester Sight Gauge |
| 35. | 900-3917-71 | Fill Cap - Fuel Tank |
| 36 a. | 980-0506-86 | Fill Cap Lock Assembly - Fuel Tank |
| b. | 900-4912-40 | Padlock With Short Shackle For Tank With Locking Cap (Not Shown) |
| c. | P812 | Key For Padlock (Not Shown) |
| 37 a. | 900-3926-86 | Drop Pipe Assembly For Suction Line |
| b. | 900-3931-53 | Hose Barb For Suction Line |
| 38. | 900-3931-36 | Vent Elbow With Hose Barb |
| 39 a. | 900-3910-42 | Drop Pipe Assembly For Return Line |
| b. | 900-3909-02 | Hose Barb For Return Line |
| 40. | 994-100010 | Fuel Tank Assembly |

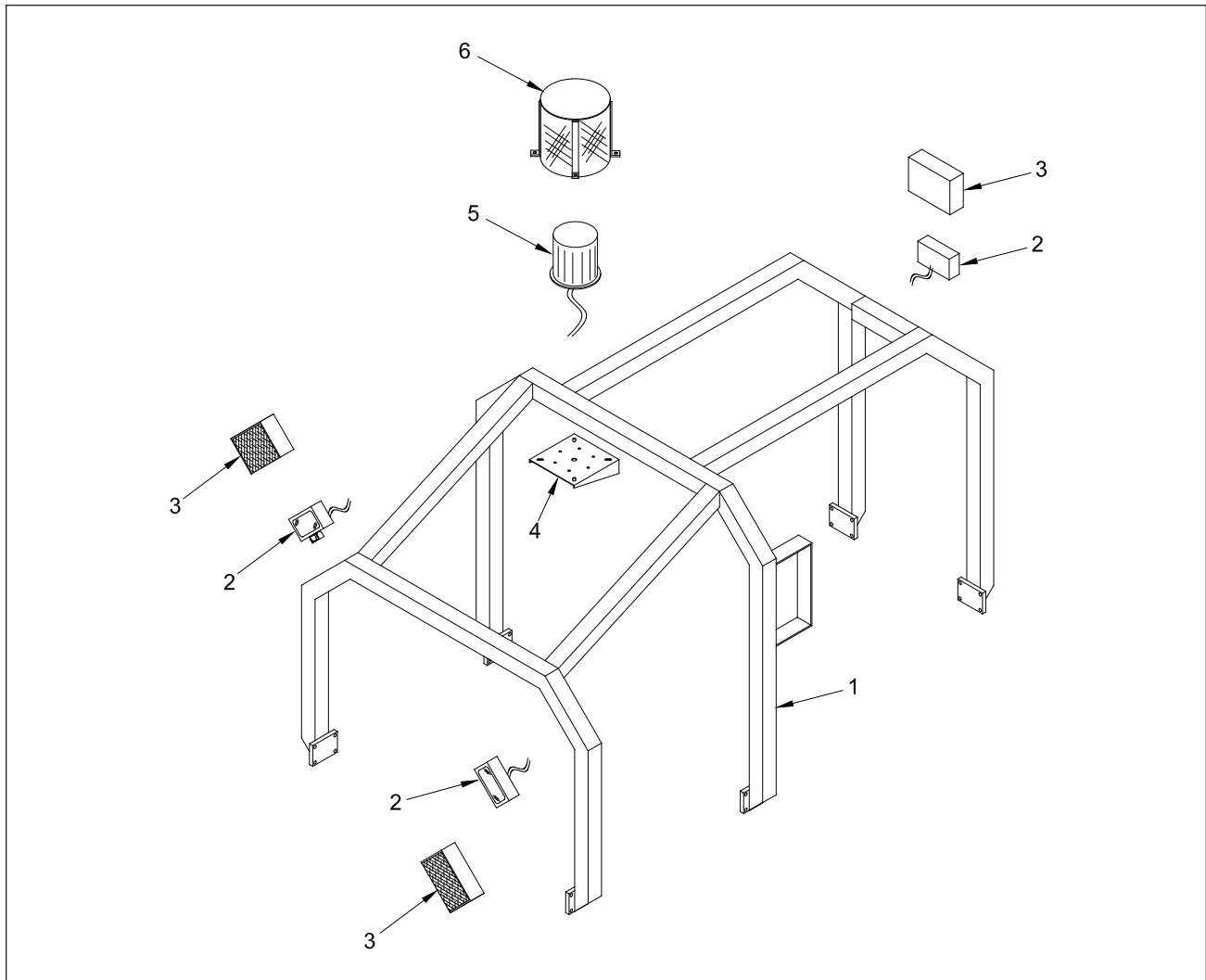
NOTE: ** Components need to be ordered by serial number of machine.



| LOCATION | PART NUMBER | DESCRIPTION |
|----------|-------------|------------------|
| 1. | 994-300035 | Rear Chip Pan |
| 2. | 994-300038 | Curtain Mount |
| 3. | 994-300127 | Chip Curtain |
| 4. | 994-300177 | Chip Pan Support |
| 5. | 994-300209 | Chip Pan Support |

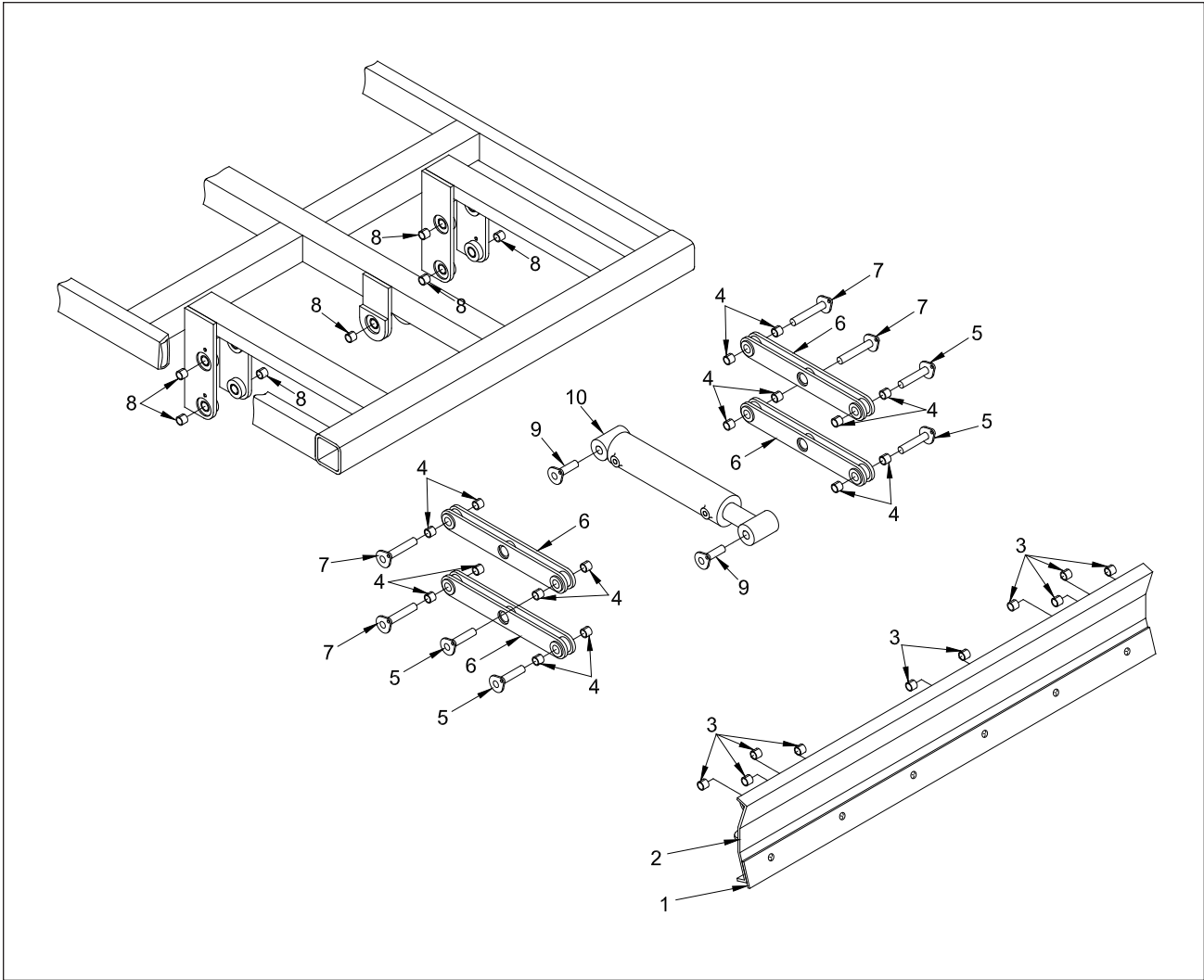
NOTE: Nuts, bolts, washers, and all other components can be ordered by physical description.

NOTE: Parts may not be exactly as shown.



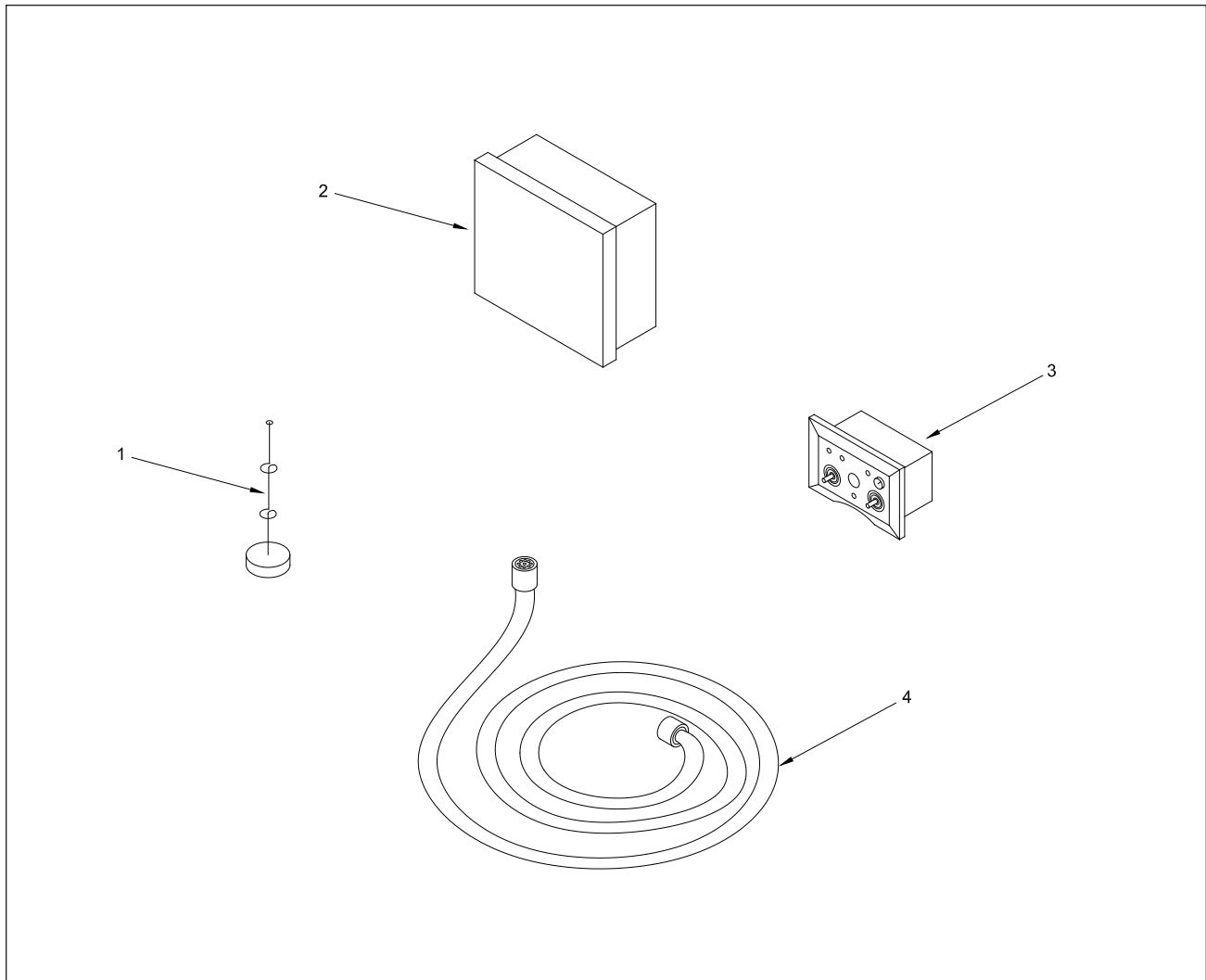
| LOCATION | PART NUMBER | DESCRIPTION |
|----------|-------------|---------------------------------------|
| 1 a. | 994-200024 | Roll Bar Assembly - CAT 140 Hp |
| 1 b. | 994-200031 | Roll Bar Assembly - John Deere 200 Hp |
| 2 a. | 900-2907-49 | Flood Light |
| 2 b. | 900-2910-46 | Flood Light Switch (Not Shown) |
| 2 c. | 900-2909-81 | Light Switch Seal (Not Shown) |
| 3. | 994-200029 | Flood Light Cover |
| 4. | 996-300367 | Rotating Light Mount |
| 5 a. | 900-2909-10 | Rotating Warning Light |
| 5 b. | 900-2910-46 | Rotating Light Switch (Not Shown) |
| 5 c. | 900-2909-81 | Light Switch Seal (Not Shown) |
| 6. | 996-100049 | Rotating Light Cover |

NOTE: Parts may not be exactly as shown.



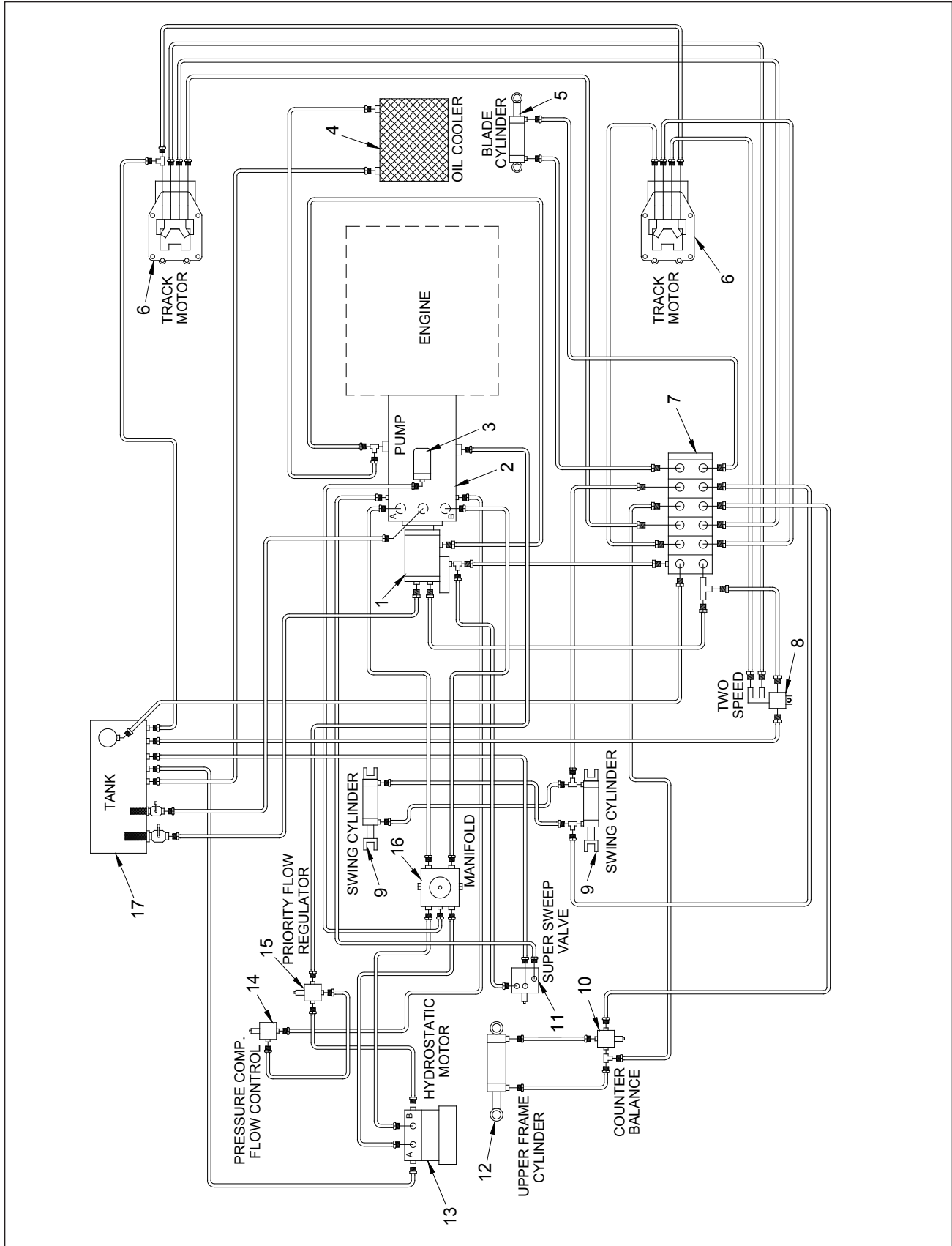
| LOCATION | PART NUMBER | DESCRIPTION |
|----------|-------------|---|
| 1. | 994-30069 | Wear Bar - Grading Blade |
| 2. | 994-10019 | Grading Blade Assembly |
| 3. | 900-1909-26 | Split Bushing |
| 4. | 900-1909-26 | Split Bushing |
| 5. | 996-100069 | Mounting Pin |
| 6. | 996-100067 | Grading Blade Arm |
| 7. | 996-100129 | Mounting Pin |
| 8. | 900-1909-26 | Split Bushing |
| 9. | 996-100128 | Grading Blade Cylinder Pin |
| 10. | 900-3928-23 | Grading Blade Cylinder |
| 11 a. | 900-4906-37 | 5/16"-18NC x 1" Bolt For Pins (Not Shown) |
| b. | 900-4906-47 | 5/16" Lock Washer (Not Shown) |
| c. | 900-4906-48 | 5/16" Washer (Not Shown) |

NOTE: Parts may not be exactly as shown.



| LOCATION | PART NUMBER | DESCRIPTION |
|----------|----------------|--|
| 1 a. | 900-2913-55ANT | Antenna Kit - Antenna, Nut, Gasket, and Cable |
| b. | 900-2909-82 | Antenna Whip And Nut Only |
| 2. | 900-2913-55REC | Receiver Circuit Board Box |
| 3. | 900-2913-55TX | Radio Remote Control With Throttle Control & Blade |
| 4 a. | 900-2909-85 | Tether Cord - 25' |
| b. | 900-2911-54 | Tether Jack - On Machine (Not Shown) |
| c. | 900-2911-55 | Cap For Tether Jack (Not Shown) |

NOTE: Parts may not be exactly as shown.



NOTE: Parts may not be exactly as shown.

Bandit

| LOCATION | PART NUMBER | DESCRIPTION |
|----------|-----------------|--|
| 1. | 900-3936-00 | Auxiliary Pump |
| 2. | 900-3933-51 | Hydrostatic Pump - Cat/John Deere Engines |
| 3. | 900-3934-89 | High Pressure Filter |
| 4. | 900-3934-04 | Oil Cooler |
| 5. | 900-3928-23 | Grading Blade Cylinder |
| 6. | *_* | Track Motor |
| 7 a. | 900-3927-37 | Valve Bank Without Blade |
| b. | 900-3929-01 | Valve Bank With Blade |
| 8 a. | 900-3926-02 | Valve Cartridge For Track Two Speed - High / Low |
| b. | 900-3926-01 | Electric Solenoid For Track Two Speed |
| c. | 900-3926-03 | Valve Body For Track Two Speed |
| 9. | 900-3927-47 | Swing Cylinder |
| 10 a. | 900-3923-03 | Single Counter Balance |
| b. | 900-3929-09 | Counter Balance Relief Only |
| 11. | 900-3933-98 | Super Sweep Valve With Cartridge |
| 12. | 900-3933-11 | Upper Frame Pivot Cylinder |
| 13. | 900-3933-58 | Hydrostatic Motor - Cutterwheel |
| 14 a. | 900-3933-55 | Pressure Comp Flow Control - Body Only |
| b. | 900-3933-54 | Pressure Comp Flow Control - Cartridge Only |
| 15 a. | 900-3933-57 | Priority Flow Regulator - Body Only |
| b. | 900-3933-56 | Priority Flow Regulator - Cartridge Only |
| 16 a. | 900-3934-05 | Manifold For Cutter Wheel Motor |
| b. | 900-3933-53 | Accumulator For Cutter Wheel Motor |
| 17. | See Pages 48-49 | Hydraulic Tank |

NOTE: Make sure to order components according to fitting type, fittings may vary on all components.

***_* Track motors need to be ordered by physical description and serial number of machine.**

Hydraulic components, fittings, hoses will very depending on optional equipment. Order by physical description.

