

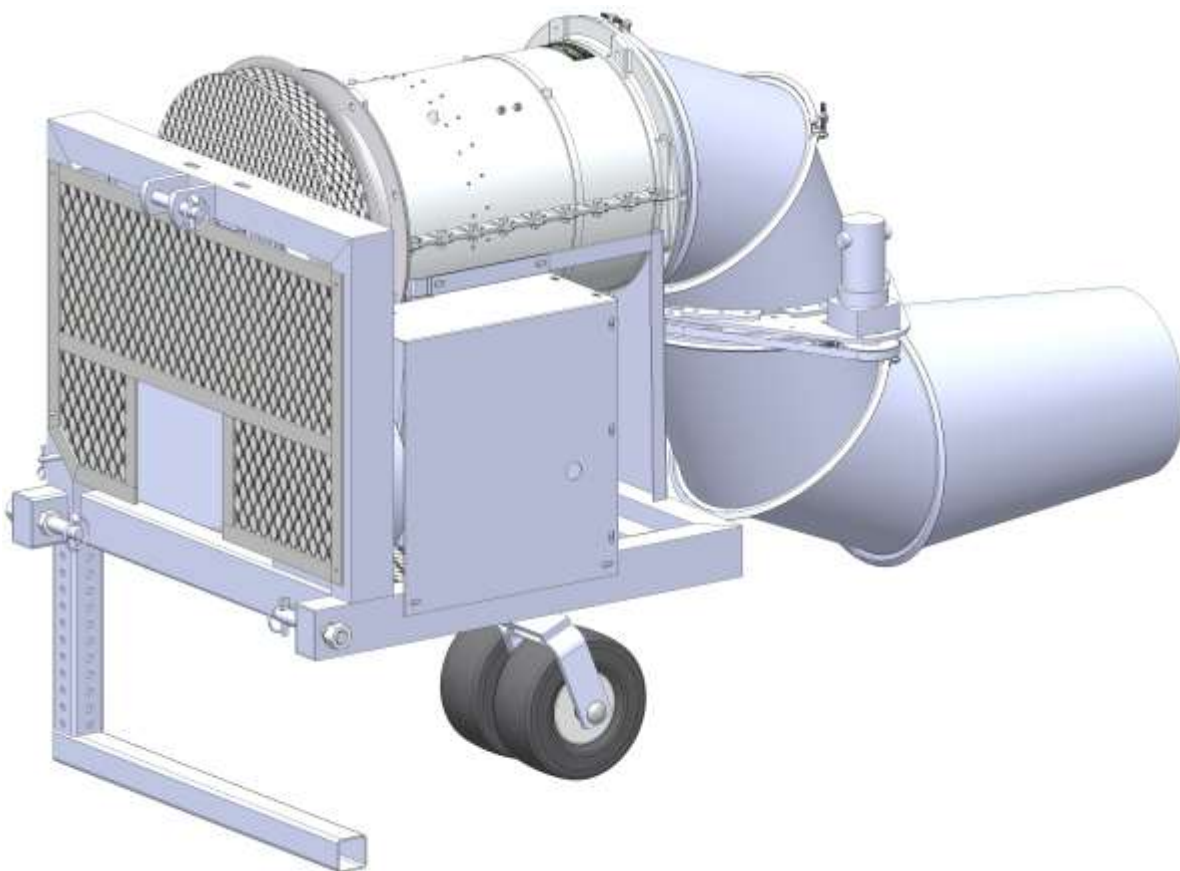
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BUFFALO TURBINE'S BT-RMPTO10J3 ORIGINAL INSTRUCTIONS AND PARTS MANUAL

12/19 -BT MAN

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1.0 INTRODUCTION

Congratulations on your choice of a Buffalo Turbine Debris Blower. This equipment has been designed and manufactured to meet the needs of the Turf Care Industry.

Safe, efficient and trouble-free operation of your Buffalo Turbine Blower requires that you and anyone else, who will be operating or maintaining the Blower, read and understand all of the safety, operation, maintenance and troubleshooting information contained within this Operator's manual.

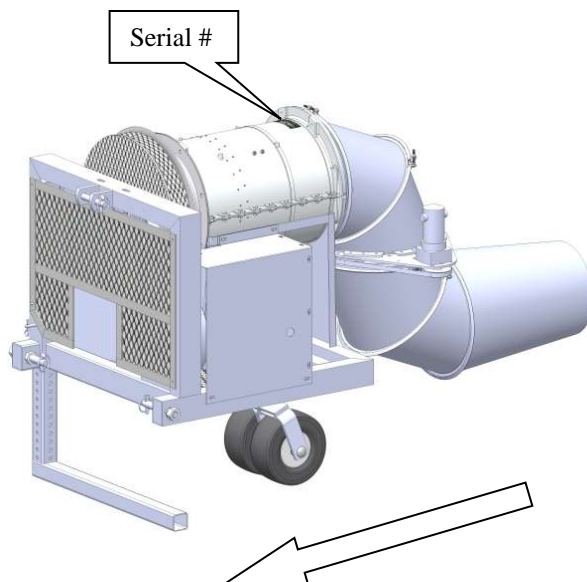
This Manual covers the BT-RMPTO10J3 Turbine Blower.

Keep this manual handy for frequent reference and to pass on to new operators or owners. Call your Buffalo Turbine dealer or distributor if you need assistance, information, or additional copies of the manuals.

SERIAL NUMBER LOCATION

Always give your dealer the serial number of your Debris Blower when ordering parts or requesting service or other information.

The serial number plate(s) is located where indicated in the pictures below. Please document the number in the space provided for easy reference.



OPERATOR ORIENTATION – The directions left, right, front and rear, as mentioned throughout the manual, are as seen from the driver's seat and facing in the direction of travel.

MODEL BT-RMPTO10J3 TOP SURFACE OF TURBINE ASSEMBLY

Serial Number: _____

2.0 SAFETY

YOU are responsible for the **SAFE** operation and maintenance of your Buffalo Turbine Debris Blower. **YOU** must ensure that you and anyone else, who is going to operate, maintain or work around the Buffalo Turbine Blower be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alerts you to all good safety practice while operating the Blower.

Remember **YOU** are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this machine is familiar with the procedures recommended and follows safety precautions. Remember most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- Blower owners must give operating instructions to operators or employees before allowing them to operate the Blower, and at least annually thereafter.
- The most important safety device on this equipment is a **SAFE** operator. It is the operator's responsibility to read and understand **ALL** Safety and Operating instructions in the manual and to follow these. All accidents can be avoided.
- A person who has not read and understood all operating instructions is not qualified to operate the machine. An untrained operator exposes themselves and bystanders to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety which could affect the life of the equipment.
- Think **SAFETY!** Work **SAFELY!**

This Safety Alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

The Safety Alert symbol identifies important safety messages on the Buffalo Turbine Blower and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

Why is **SAFETY** important to you?



3 Big Reasons: Accidents Disable and Kill

Accidents Cost

Accidents Can Be Avoided

SIGNAL WORDS: Note the use of the signal words **DANGER**, **WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guidelines

1. **DANGER** –injury or death if the proper precautions are not taken.
2. **WARNING** -- A specific hazard or unsafe practice that **COULD** result in severe personal injury or death if proper precautions are not taken.
3. **CAUTION** – Unsafe practices that **COULD** result in personal injury if proper practices are not taken, or as a reminder of good safety.

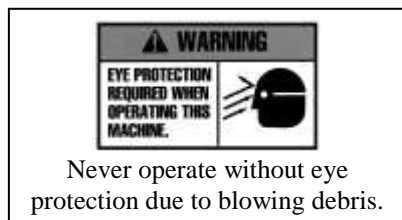
The Safety Alert symbol identifies important safety messages on the Buffalo Turbine Blower and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

2.1 SAFETY DECALS

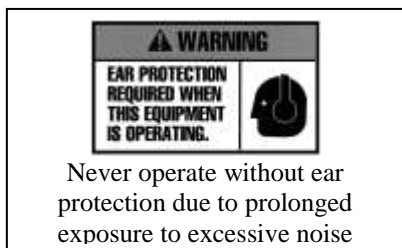
The types of decals on the blower unit are shown below. Good safety requires that you familiarize yourself with the various Safety Decals, the type of warning and the area, or particular function related to that area that requires your **SAFETY AWARENESS.* THINK SAFETY! WORK SAFELY!**

!ATTENTION!

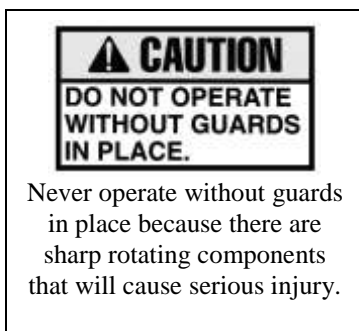
1. **KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER DRIVEN PARTS.**
2. **STOP ENGINE AND REMOVE KEY BEFORE LEAVING OPERATOR'S POSITION.**
3. **MACHINE MUST COME TO A COMPLETE STOP BEFORE ANY MAINTENANCE, TO INCLUDE ADJUSTING, LUBRICATING OR CLEANING, IS PERFORMED.**
4. **KEEP PEOPLE AND PETS AT SAFE DISTANCE FROM MACHINE.**
5. **KEEP ALL GUARDS AND SHIELDS IN PLACE.**



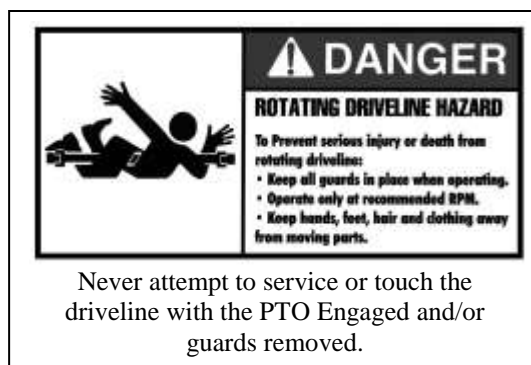
Never operate without eye protection due to blowing debris.



Never operate without ear protection due to prolonged exposure to excessive noise



Never operate without guards in place because there are sharp rotating components that will cause serious injury.



Never attempt to service or touch the driveline with the PTO Engaged and/or guards removed.

REMEMBER – If safety decals have been damaged, removed, become illegible or parts replaced without decals, new decals must be applied. New decals are available from your authorized dealer.

2.2 GENERAL SAFETY

1. Read and understand the Operator's Manual and all safety signs before operating, maintaining, and adjusting.
2. Provide a first-aid kit for use in case of an accident. Store in a highly visible place.
3. Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.
4. Wear appropriate protective gear. This list includes but is not limited to:
 - A hard hat
 - Protective shoes with slip resistant soles
 - Protective glasses or goggles
 - Heavy gloves
 - Wet weather gear
 - Hearing protection
5. Do not operate without guards or shields properly installed.
6. Do not allow riders.
7. **Wear appropriate ear protection for prolonged exposure to excessive noise.**
8. **(All Models) Set Blower on the ground, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before dismounting to service or adjust.**
9. Clear the area of people, especially small children, before starting the unit.
10. Review all safety related items annually with all personnel who will be operating or maintaining the Blower.
11. Keep hands, feet, hair and clothing away from moving parts. Operate equipment only while seated in the operator's seat.

2.3 OPERATING SAFETY

1. Read and understand the Operator's Manual and all safety signs before operating, servicing or adjusting.
2. Before servicing or repairing, **Set blower on the ground, disengage PTO, stop engine, set park brake, Turn Off Tractor Engine, remove key, and wait for all moving parts to stop.**

2.4 MAINTENANCE SAFETY

1. Read and follow ALL general, operating, maintenance and safety information in this manual.
2. Support the machine with blocks or safety stands when changing tires or working beneath it.
3. Set Blower on the ground, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before operating, servicing or adjusting.
4. Do not adjust the drive belt when it is rotating.
5. Make sure all guards are in place and properly secured when operating or maintaining the Blower.

2.5 TRANSPORT SAFETY

1. Make sure you are in compliant with all local DOT regulations regarding transporting Buffalo Turbine equipment on public roads and highways.

2.6 STORAGE SAFETY

1. Store the Blower on a firm, level surface.
2. Store away from areas of human activity. Do not permit children to play on or around the stored machine.
3. Make sure the unit is sitting, or blocked up firm and solid and will not tip or sink into a soft area.
4. Cover with a weatherproof tarpaulin and tie down securely.

2.7 SIGN-OFF FORM

- Buffalo Turbine recommends that anyone who will be operating and/or maintaining the Buffalo Turbine Blower must read and clearly understand ALL Safety, Operating and Maintenance information presented in this manual.
- Do not operate or allow anyone else to operate this equipment until such information has been reviewed. Annually review this information before the season start-up.
- Make these periodic reviews of SAFETY and OPERATION a standard practice for all of your equipment. We feel that an untrained operator is unqualified to operate this machine.

A sign-off sheet is provided for your record keeping to show that all personnel who will be working with the equipment have read and understand the information in the Operator's Manual and have been instructed in the operation of the equipment.

SIGN-OFF FORM

DATE	EMPLOYEES SIGNATURE	EMPLOYERS SIGNATURE

Buffalo Turbine Warranty Policy

3.0 MACHINE WARRANTY INFORMATION

Buffalo Turbine warrants the DEBRIS BLOWER, to the original owner, to be free from defects in material and workmanship, under normal use and service. **All machines must have a completed registration form sent to Buffalo Turbine within 30 days of purchase for warranty to apply.** Obligation under this warranty shall extend for a period of 10 years from date of purchase and, at the option of Buffalo Turbine, replacement of any parts found, upon inspection by Buffalo Turbine, to be defective. Any parts replaced under warranty will have the remainder of the warranty from the original date of purchase.

Warranty parts during first 2 years will be shipped free of charge via standard ground shipping

If expedited shipping is required charges will be paid by the end user

Year 1: parts and labor

Year 2: parts only

Customer will be required to pay shipping charges for years 3-10

Year 3: Engine, per engine manufacturer's standard / Turbine Assembly / Frame (parts only)

Year 4-10: Turbine Assembly / Frame (parts will be prorated)

Buffalo Turbine reserves the right to incorporate improvements in material and design of its products without notice and is not obligated to make the same improvements to equipment previously manufactured.

ALL WARRANTY REPAIRS NEED PRE-APPROVAL BY A FACTORY PERSON (FROM BUFFALO TURBINE) PRIOR TO COMMENCING WITH A WARRANTY REPAIR TO INCLUDE SERIAL NUMBER AND HOURS FROM HOUR METER (IF EQUIPPED). PRE-APPROVAL WILL BE REQUIRED BY THE END USER AND DEALER/DISTRIBUTOR LEVEL.

Factory ordered Buffalo Turbine parts must be used when filing a warranty claim.

LIMITATIONS OF LIABILITY

This warranty is expressly in lieu of all other warranties expressed or implied and all other obligations or liabilities on our part of any kind or character, including liabilities for alleged representations or negligence. We neither assume nor authorize any other person to assume on our behalf, any liability in connection with the subsequent sale of the **DEBRIS BLOWER**. This warranty shall not apply to any DEBRIS BLOWER, which has been altered outside the factory in any way so as, in the judgment of Buffalo Turbine, to affect its operation or reliability, or which has been subject to misuse, neglect, or accident. This warranty does not cover parts and accessories, which are under separate guarantee from the manufacturers and service can be, obtained from their service facilities. No warranty is extended to regular service items such as lubricants, belts, paint and the like.

Original Instruction Manual

The Purchaser acknowledges having receiving training in the safe operation of the DEBRIS BLOWER and further acknowledges that Buffalo Turbine does not assume any liability resulting from the operation of the DEBRIS BLOWER in any manner other than described in the Operator's Manual supplied at the time of purchase.

WARRANTY VOID IF NOT REGISTERED (see Page 2 for warranty registration form)

DO NOT SPLIT THE TURBINE HOUSING FOR ANY REASON.

DO NOT ATTEMPT TO SERVICE OR DISASSEMBLE THE TURBINE BLOWER.

DO NOT USE THE TOP OF THE TURBINE HOUSING TO STRAP OR TIE DOWN BLOWER UNITS.

Unauthorized service work on the Turbine Blower will null and void all warranties.

If there are any questions regarding any of our products call Buffalo Turbine at 716 592 2700.

3.1 Warranty Registration Form

BUFFALO TURBINE

WARRANTY REGISTRATION FORM & INSPECTION REPORT

Any units not registered with Buffalo Turbine are not eligible for warranty claims

This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery

Customer's Name _____ Dealer's Name _____

Address _____ Address _____

City, State, Zip, Country _____ City, State, Zip, Country _____

Email Address (important) _____ Email Address _____

Telephone Number _____

Blower Model _____

Circle one:

Serial Number _____

Commercial Use

Delivery Date _____

Private Use

DEALER INSPECTION REPORT

SAFETY CHECKS

_____ Tire Pressure Check -- Model KB

_____ All Decals Installed

_____ Wheel Bolts

_____ Review Operating and Safety Instructions

_____ Belt Tension

_____ Lubricate Machine

_____ Guards in Place

_____ Fasteners Tight

_____ Trailer assembly bolts properly installed and tightened

ALL 3 POINT HITCH MODELS: PTO SHAFTS MUST TELESCOPE IN EVERY POSITION

I have thoroughly instructed the buyer on the above described equipment which reviews the included Operator's Manual content, equipment care, adjustments, safe operation and applicable warranty policy.

Date _____

Dealer's Rep. Signature _____

The above equipment and Operator's Manual has been received by me and I have been thoroughly instructed as to the care, adjustments, safe operation and applicable warranty policy.

Date _____

Owner's Signature _____

PLEASE EMAIL TO BUFFALO TURBINE AT - service@buffaloturbine.com

Or fax to 716 592 2460

4.1 TO THE NEW OPERATOR OR OWNER

Buffalo Turbine Debris Blowers are designed to quickly and efficiently, blow away leaves, cuttings and other debris. The material is conveyed on a stream of high volume and velocity of air to remove it from the area of concern. When the material is removed, it gives a neat, professional look to the working area.

Many of the features incorporated into the machine are the result of suggestions made by customers like you. Read the manual carefully to learn to operate the machine safely and how to set it to provide maximum efficiency. The manual will take you step-by-step through your working day. By following the operating instructions in conjunction with a good maintenance program, your Blower will provide many years of trouble-free service.

Potential Mechanical Hazards while operating your machine:

Never operate the debris blower around others to prevent the possibility of being run over by equipment.

Never ride on your debris blower to prevent the possibility of being thrown off the machine or hurt severely.

Potential Crushing Hazards while operating your machine:

Between tractor arms and blower frame arms

Between tractor deck and blower guard shroud

Between tractor deck and tractor arms

Between Pin at the end of the mounting arms

Between caster wheels and the ground



WARNING:

This Product can expose you to chemicals which are known to the State of California to cause cancer and birth defects or

Other reproductive harm.

For more information go to www.P65Warnings.ca.gov.

4.2 BREAK-IN

Although there are no operational restrictions on the Blower when it is used for the first time, it is recommended that the following mechanical items be checked:

A. Operating for first ½ hour

1. Re-torque all wheel bolts, axle nuts and trailer mounting bolts and nuts.
2. Re-torque all other fasteners and hardware.
3. Check set screw (nozzle pulley) to ensure it tightened.

B. Operating for first 5 hours

1. Re-torque all hardware and fasteners.
2. Check set screw (nozzle pulley) to ensure it tightened.
3. Go to the normal servicing and maintenance schedule as defined in the Maintenance Section of the manual.

4.3 PRE-OPERATION CHECKS

Efficient and safe operation of the Buffalo Turbine Blower requires that each operator reads and understands the operating procedures and all related safety precautions outlined in this section. A pre-operation checklist is provided for the operator. It is important for both personal safety and maintaining the good mechanical condition of the machine that this checklist is followed.

Before Operating the Blower and each time thereafter, the following areas should be checked off.

1. Make sure all guards and shields are in place, secured and functioning as designed.
2. Lubricate machine per maintenance schedule.
3. Ensure that the machine is properly attached to the (appropriate) power unit attaching arms and that the mounting pins are secured in position.
4. Ensure the PTO driveline is securely attached and can telescope easily.
5. Check that all clamp bands are secure.
6. Check the belts and pulleys for proper tension and alignment.

4.4 Attaching Blower to Tractor

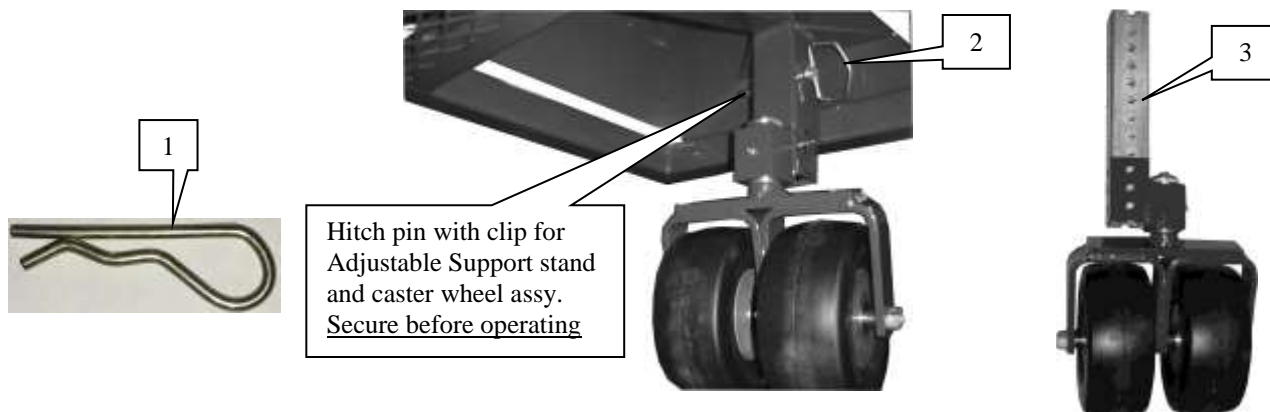
1. Make sure the tractor has proper HP and is in good working order, including mounting brackets, PTO output shaft, and safety equipment.
2. Make sure there is enough room to safely drive up to the blower. Align mounting arms of the blower unit to match the tractor mounting brackets of the tractor (underside of tractor). Engage into the mounting brackets and secure pins. (See Tractor attachment installation instructions)
3. Connect PTO shaft. **NEVER attempt to maintain or attach PTO shaft while tractor is running!**
4. Check Upper and lower limits.
5. Check that the caster wheels turn and roll freely.
6. Connect the remote nozzle control to a 12 volt system only. Red wire needs to be connected to positive terminal of battery. White wire needs to be connected to negative terminal of battery.
7. To unhook the blower unit from the tractor, reverse the above procedures. Always park the Blower unit and tractor in a dry, level area.

4.5 FIELD OPERATION

1. Do not direct debris blower towards people, pets, autos, windows, etc.
 2. **Starting blower unit:** Always engage the tractor PTO control at a lower engine speed with nozzle pointed down or away.
 3. The air stream direction is changed (in either direction) by moving the rocker switch located on the hand control box. The nozzle will stop turning by releasing the rocker switch. **ALWAYS CHECK THE GROUND CLEARANCE WHEN OPERATING THE NOZZLE IN THE DOWN VERTICAL POSITION.**
 4. **Stopping blower unit:** Gradually slow the tractor RPM down to a lower speed using the throttle.
 5. Disengage PTO and allow the blower fan speed to come to a stop.
- NOTE: Make sure the control box wire harness is clear of all moving parts including the PTO shaft.

4.6 DUAL CASTER WHEEL ADJUSTABLE HEIGHT

Use this feature to protect the lower nozzle assembly from coming into contact with the ground and to adjust for better efficiency. When adjusting the caster wheel (see photo #3) height, raise the blower assembly to the desired height using the tractor's lift (**ALL GUARDS MUST BE IN PLACE BEFORE OPERATING THIS OR ANY OTHER IMPLEMENT**). Pull lynch pin out of the 3/8" locating pin (see photo #1 & 2) Then position the caster wheel assembly to the desired height. Insert the 3/8" locating pin through the location holes of the fixed housing and adjustable arms section. **THE LYNCH PIN (LOCK PIN) MUST BE INSERTED INTO THE HOLE PROVIDED AT THE END OF THE 3/8" LOCATING PIN BEFORE OPERATING UNIT.**



4.7 Operating RPM (All Models)

The manufacturer's tractor section normally recommends the unit be run at a RPM that will insure efficient attachment operation and hydrostatic drive functioning. The Blower can operate at a slower RPM if it can effectively move the debris. Vary ground speed with the hydrostatic transmission. Increase engine RPM to improve tractor efficiency.

Moving light material, such as dry leaves, requires much less wind than wet or heavier material.

Always try to blow with the wind. The Blower can be used for a wide variety of applications to move leaves, grass clippings, aeration plugs and debris. Drying wet areas has been another use with these powerful Debris Blowers.

The BT-RMPTO10J3 has a Tilt Nozzle Rotation (Vertical) and Lower Nozzle Rotation (Horizontal) for the nozzle assembly.

AVOID OPERATING THE NOZZLE IN THE DOWN POSITION DUE TO MINIMAL GROUND CLEARANCE
AVOID OPERATING THE TILT (VERTICAL) CONTROL AT HIGHER RPM'S

On hilly Terrain, raise the blower unit high enough to avoid dragging the frame or nozzle assembly on the ground. Adjusting the height of the caster wheel will help to minimize any damage to the turf. Adjust the nozzle to achieve maximum efficiency.

4.8 Storage

At the end of the working season or before storing the blower unit, prepare the machine by following this procedure:

1. Select a storage area that is dry, level and free of debris.
2. Thoroughly wash the machine with a water hose to remove all debris and residue.
3. Run the machine at low RPM to dry the Blower Components.
4. Touch up all paint chips and scratches to prevent rusting.
5. Inspect for worn or failed components. Order the replacement parts and repair the blower unit when time allows. This will eliminate unnecessary down time at the start of next season.
6. Store in an enclosed building. If space is not available, cover with a waterproof tarpaulin and tie it down securely.
7. Store the machine away from areas of human activity.
8. Do not allow children to play around the stored unit.

5.0 TROUBLE SHOOTING

The Buffalo Turbine Debris Blower uses a high volume and velocity of air to move material from one place to another. The system is simple and reliable requiring minimal maintenance.

If you encounter a problem that is difficult to solve, even after reading through this trouble shooting section, please call your local dealer or distributor. **Before calling, please have this Operator's Manual and the serial number from your Blower ready.**

In the following section, we have listed causes and solutions to the problems that you may have encountered.

TURN OFF ENGINE, REMOVE KEY, AND DISCONNECT BATTERY BEFORE SERVICING BLOWER UNITS.
INSTALL GUARDS BEFORE OPERATING.

PROBLEM	CAUSE	SOLUTION
No air flow	Buildup of debris inside turbine	Remove nozzle and clean debris from inside turbine
	Broken coupling (KB Series)	Replace coupling
No air flow	Blower fan not turning	See solutions above
Reduced or no air flow	Blower fan turns	Air intake or exhaust restricted Shut off engine Blower or tractor – remove restrictions Debris cannot be allowed to build up between the blower fan and stationary vanes
Machine vibrates or Unusual sounds	Bearing or coupling failure Out-of-balance	Replace bearings or coupling Have your dealer check blower for damaged blades. Wash and clean blower fan blades

6.0 Machine Specifications

Model BT-RMPTO10J3 Series

Length:	71" With nozzle 31" Without nozzle
Width:	32"
Height:	31" With Caster wheels
Weight:	400 lbs
Electrical System:	12 Volt
Input Power:	PTO (recommended 16hp at PTO)
Input RPM:	Up to 540 RPM
Outlet Size:	Approximately 10"

7.0 MAINTENANCE SECTION

7.1 Maintenance Safety

1. Set Blower on a level surface, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before dismounting to service, adjust or repair.
2. Reinstall and secure all guards removed for servicing before starting to use machine again. *We recommend wearing gloves when removing or installing the guard to avoid getting cut*
3. Securely support machine with blocks or safety stands when changing tires or working beneath it.

7.2 Fluids

Pillow Block Bearings & Drive Line require NLGI2 grease

A Teflon spray type lubricant on the nozzle base and slides provides for freer rotation.

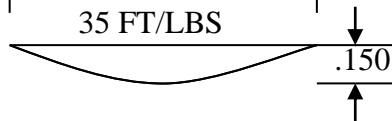
7.3 Belt Tension

Efficient machine operation requires that the belt be properly tensioned. To adjust the belt tension, follow this procedure:

1. Remove guards after tractor is shut off, PTO is disengaged and PTO shaft is disconnected.
2. To adjust the tension of the blower belt (#6): Loosen (#2) and (#3) flange bearings (4 bolts each). Maintain a very slight tension on the bolts.
3. Adjust drive screws (located at the top of the flange bearings) equally on each flange bearing to achieve proper tension (see specs below). Check and maintain the alignment of the jackshaft (#7). Be sure to loosen the lock nut on the adjustment screw before making any adjustments. When the proper tension is achieved, securely tighten the flanged bearings and recheck the belt tension, pulley and blower shaft alignment. Tighten adjustment screw lock nuts when completed.
4. To adjust the tension of the input belt (#8): Loosen (#4) and (#5) pillow block bearings (2 bolts each). Maintain a very slight tension on the bolts.
5. Adjust the drive screws (located on the side of each pillow block) equally on each of the pillow blocks to achieve proper tension (see specs below). Check and maintain the alignment of the pulleys and input shaft (#9). Be sure to loosen the lock nut on the adjustment screw before making any adjustments. When the proper belt tension is achieved, securely tighten the pillow block bearing bolts, recheck belt tension, check pulley alignment (with a straight edge) and input shaft alignment. Tighten adjustment screw lock nuts when completed.
6. Attach all safety guards, properly connect PTO shaft to tractor then start the tractor. At a low RPM, engage the PTO and visually check for any belt slippage or misalignment.

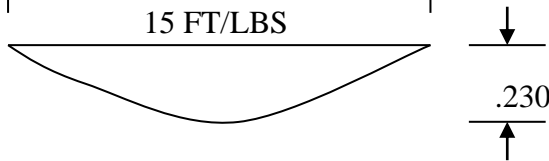
TENSION SPECS FOR BELT # 3/5VX500

| PTO TO INPUT SHAFT |
35 FT/LBS



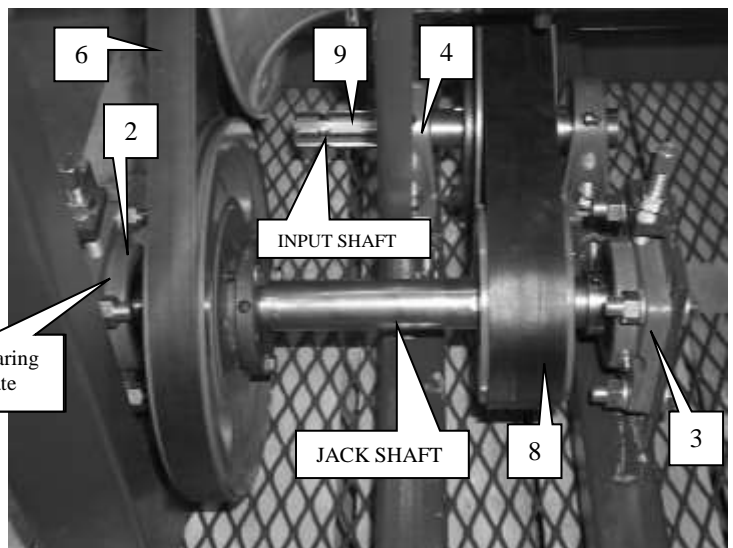
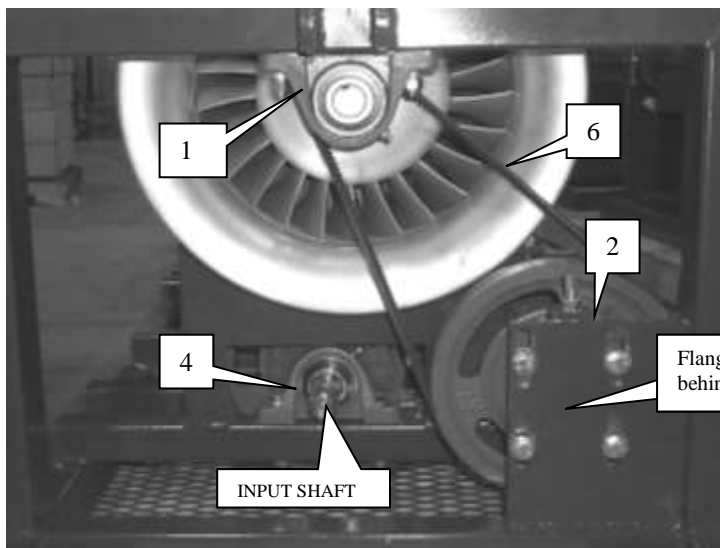
TENSION SPECS FOR BELT # 3/3VX530

| JACKSHAFT TO BLOWER SHAFT |
15 FT/LBS



INPUT END VIEW (guards removed)

SIDE VIEW (guards removed for clarity)



Caution: A loose belt will cause premature wear an inhibit performance.

Pillow Block Bearings and Flange bearing require 2-3 shots of grease every 40HRS.

Make sure hands are clear of belt and pulley at all times

7.4 Changing Belts

After using the Blower unit for a long period of time, the belts will stretch and wear. To change the belts, follow this procedure: Use the pictures below for a guide.

1. Lower machine on to a secure stand or blocks, shut off the tractor, disengage the PTO clutch, and then disconnect the PTO shaft. Remove guards
2. Loosen the 4 bolts on the flange mount bearings (#2 and #3). Then loosen the lock nuts on the adjustment screws (top of bearings #2 and #3). Now back off adjustment screw until belts are loose.
3. Changing the blower shaft belt (#6). Unbolt pillow block #1 (2 bolts) and loosen set screws on the inside of the pillow block bearing. The shafts have been recessed to accommodate the setscrews. Note that bearing (# 1) is pinned into position with roll pins. Remove the roll pins.
4. Slide bearing (# 1) off the blower shaft and remove belt (# 6) off of pulley. Slide new belt onto blower shaft. Reinstall bearing (# 1) to include lining up setscrew holes with recesses in shaft. Tighten setscrews and pillow block bearing securely. **ROLL PIN THE BEARING INTO EXISTING HOLES.**
5. Remove (#2) and (#3) flange bearings. Note: use the lock nuts on the adjustment screws as a guide for reinstalling the flange bearings. This will get you close. Final adjustments will be necessary. Remove old belt (#6) and install new belt around both pulleys. Bolt on both flange bearings, rough check alignment and begin belt adjustment procedures. **FOLLOW SECTION 7.3 (belt tension).**
6. Changing the input belt (# 8).
7. Loosen bearings (#2, #3 and #5). Loosen lock nuts on adjustment screws on the same bearings. Loosen adjustment screws until belts are loose. The input shaft pulley, tapered bushing, must be removed to provide clearance to remove the belt. Mark the position of the bushing before removing to aid in the reinstallation. Loosen the setscrews on pillow block bearing (# 5). Slide input shaft toward the front of the machine. Remove the bolts on the flange bearings (#2 and #3). Work the old belt off the pulleys and install the new belt onto the pulleys. Because of the limited clearance the belt must be installed into the pulley grooves at this time.
8. Slide the input shaft back into position; tighten the setscrews on the pillow block bearing (# 5). Be sure to line up the recesses in the shaft with the setscrews. Position the tapered bearing into the pulley on the input shaft and tighten. It is critical that the input shaft pulley is lined up with the jackshaft pulley.
ANY PAINT DIRT, OIL, OR GREASE MUST BE REMOVED BEFORE REINSTALLING THE TAPERED BUSHING. WITH THE DRIVE PULLEY PROPERLY ALIGNED, TIGHTEN ALL CAP SCREWS EVENLY AND PROGRESSIVELY IN ROTATION TO THE TORQUE VALUE OF 60 FT. LBS.
9. Install all the bearings in their proper locations, lightly tighten all the bolts and check for alignment. **PULLEY ALIGNMENT CAN BE CHECKED WITH A STRAIGHT EDGE. REFERENCE SECTION 7.3 TO COMPLETE ALIGNMENT AND PROPER BELT TENSION. CHECK ALL SETSCREWS AND FASTENERS BEFORE OPERATING MACHINE. INSTALL ALL GUARDS BEFORE OPERATION.**

REFERENCE PICTURES FROM BELT TENSION SECTION – 7.3

7.4 SERVICE CHECKLIST

See Lubrication and Maintenance sections for details of service. Copy this page to continue record.

TURN OFF TRACTOR, REMOVE KEY & DISCONNECT WIRE HARNESS BEFORE SERVICING BLOWER UNIT

CODE: LUBRICATE-(L) / CHECK-(*) / CHANGE-(C) / REPLACE-(B) / CLEAN-(CL)

SCHEDULED MAINTENANCE HOURS _____

SERVICED BY _____

MAINTENANCE

8 hrs or daily

(*) Remove all debris that has settled between the blower wheel fan and the stationary vanes.

Helps maintain peak performance.

(L) PTO Driveline

(*) Check Clamp Band Bolt for tightness

40 hours or weekly

(*) Check condition of belts and tension

(L) Nozzle base slides (Teflon spray)

(*) Check set screw (nozzle pulley) to ensure it is tightened

(L) Pillow Block and Flange Bearing (2-3 shots of grease)

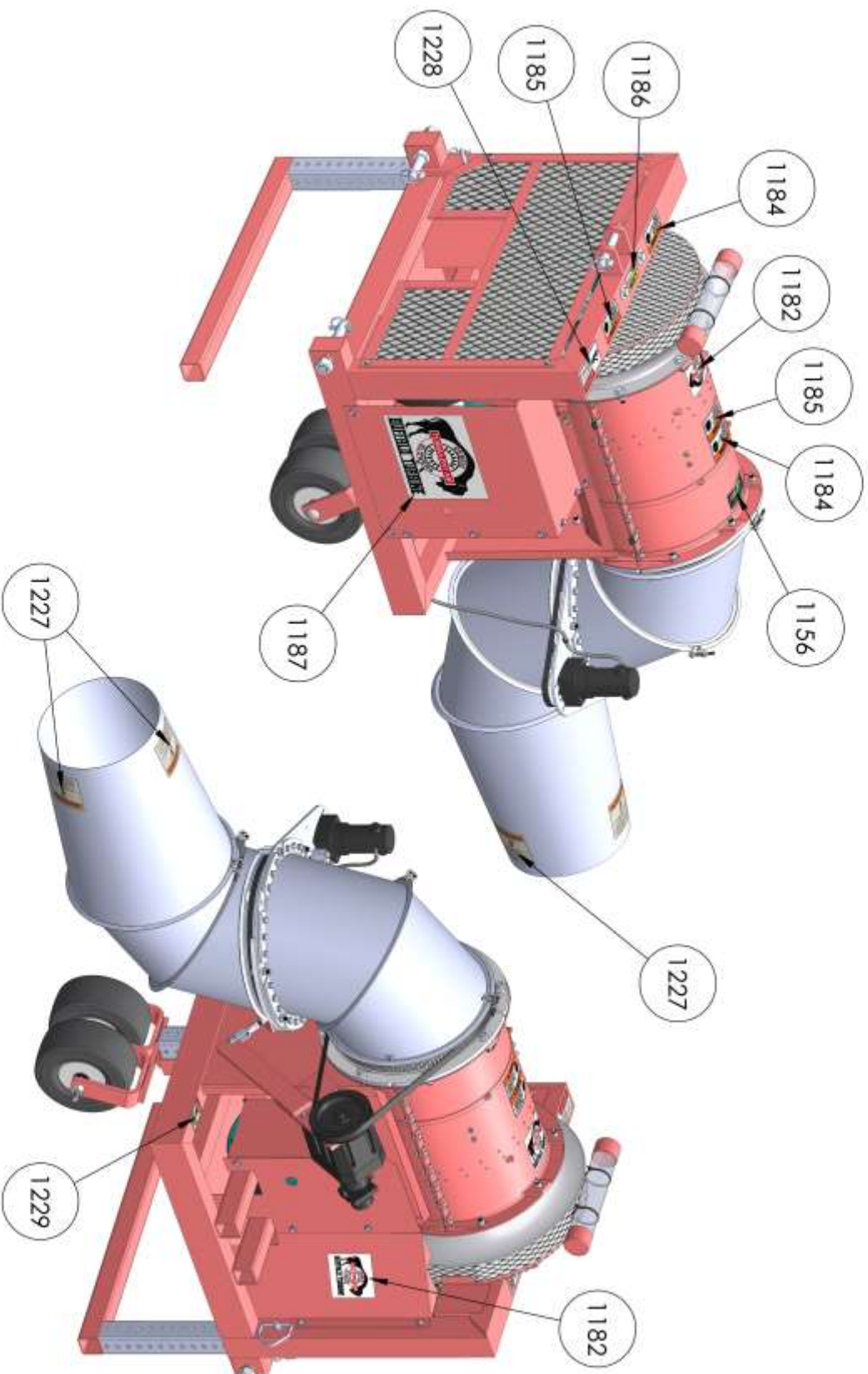
(*) Wash and Clean any dirt or grime build up that has accumulated on blower wheel fan blades. Helps to minimize vibration balance and maintain peak performance.

200hrs or annually

(CL) Machine

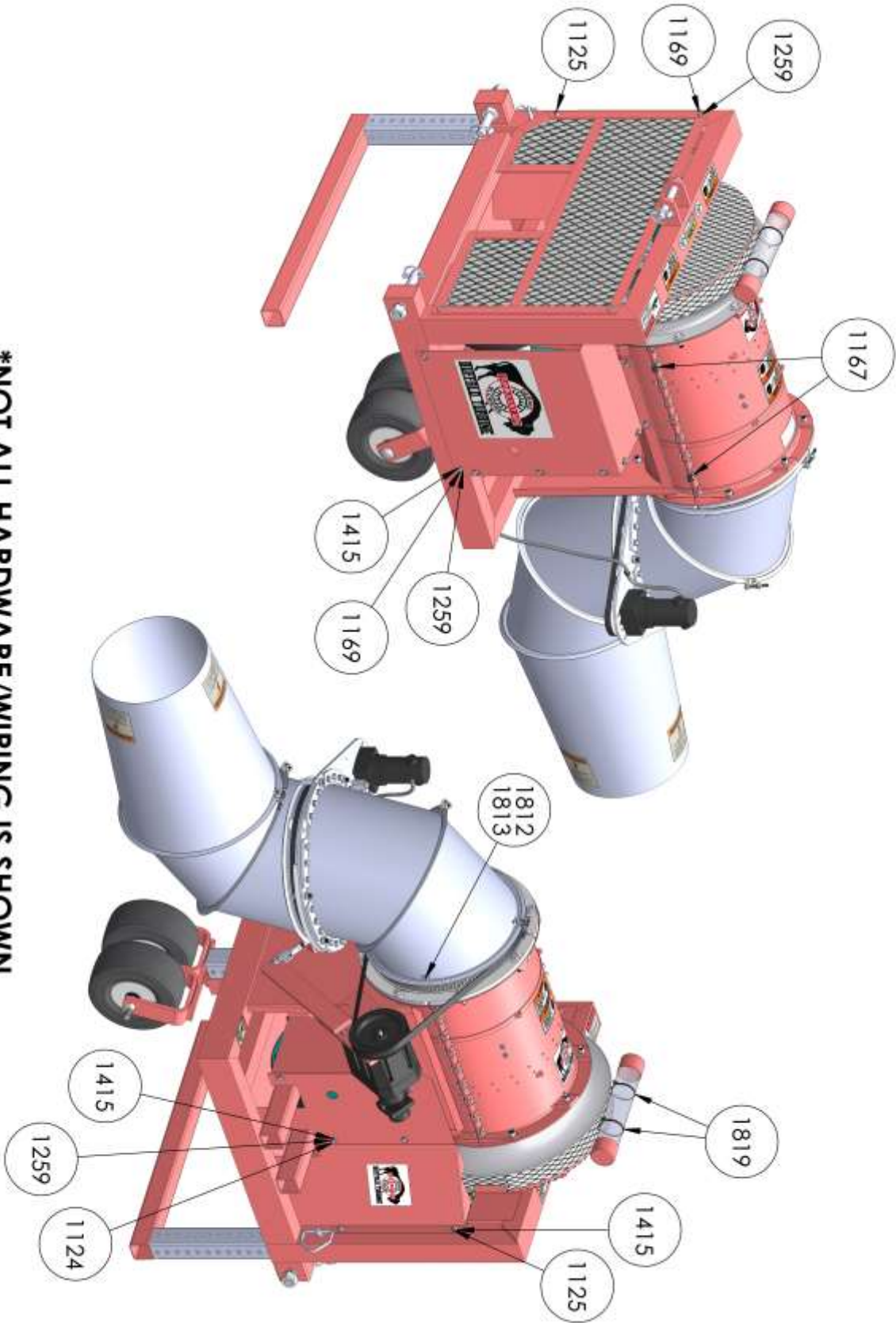
DO NOT OPERATE BLOWER UNIT WITHOUT GUARDS SECURELY ATTACHED

BT-RMPTO10J3 PARTS REFERENCE



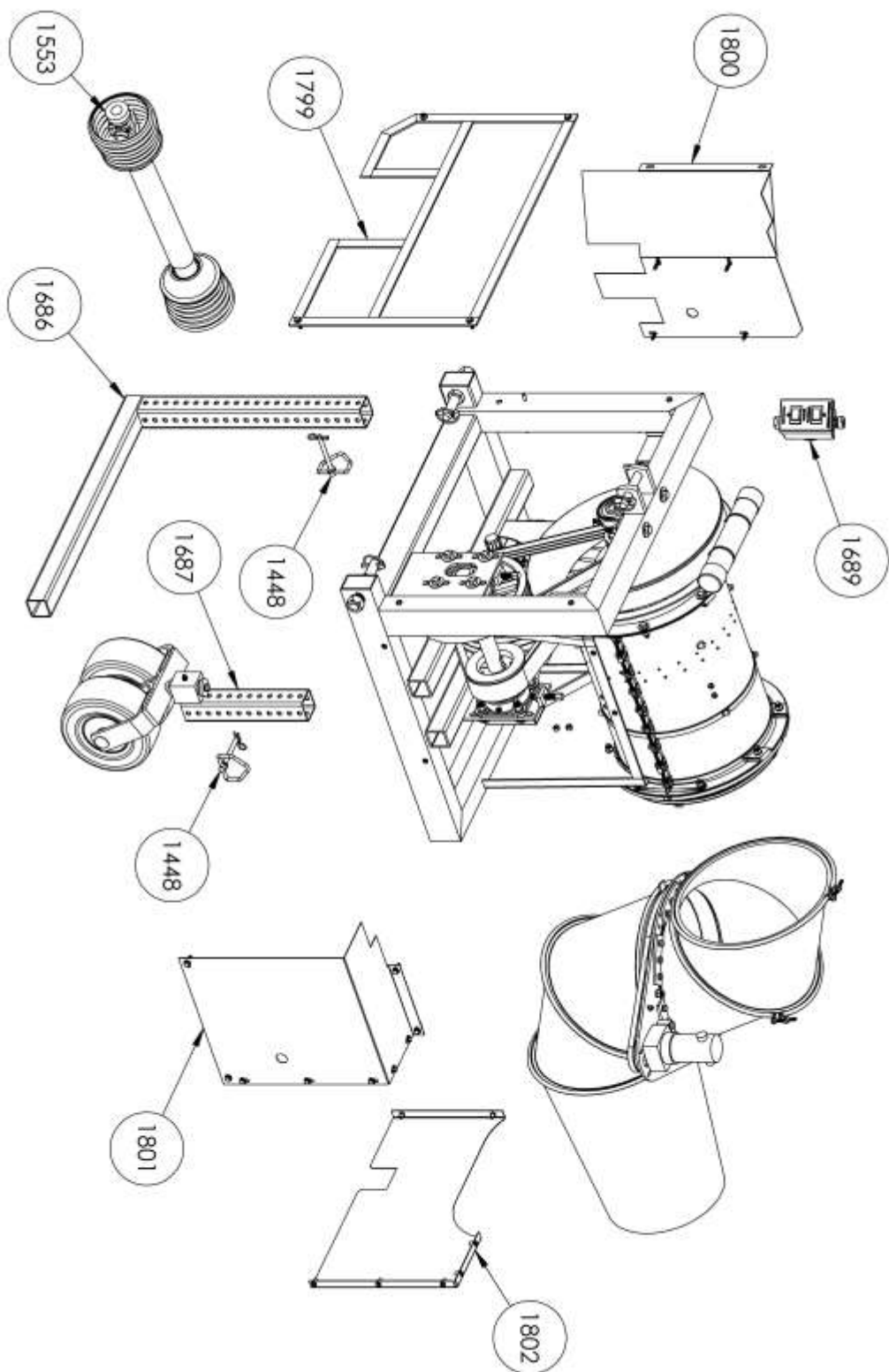
***NOT ALL HARDWARE/WIRING IS SHOWN**

BT-RMPTO10J3 PARTS REFERENCE CONTINUED



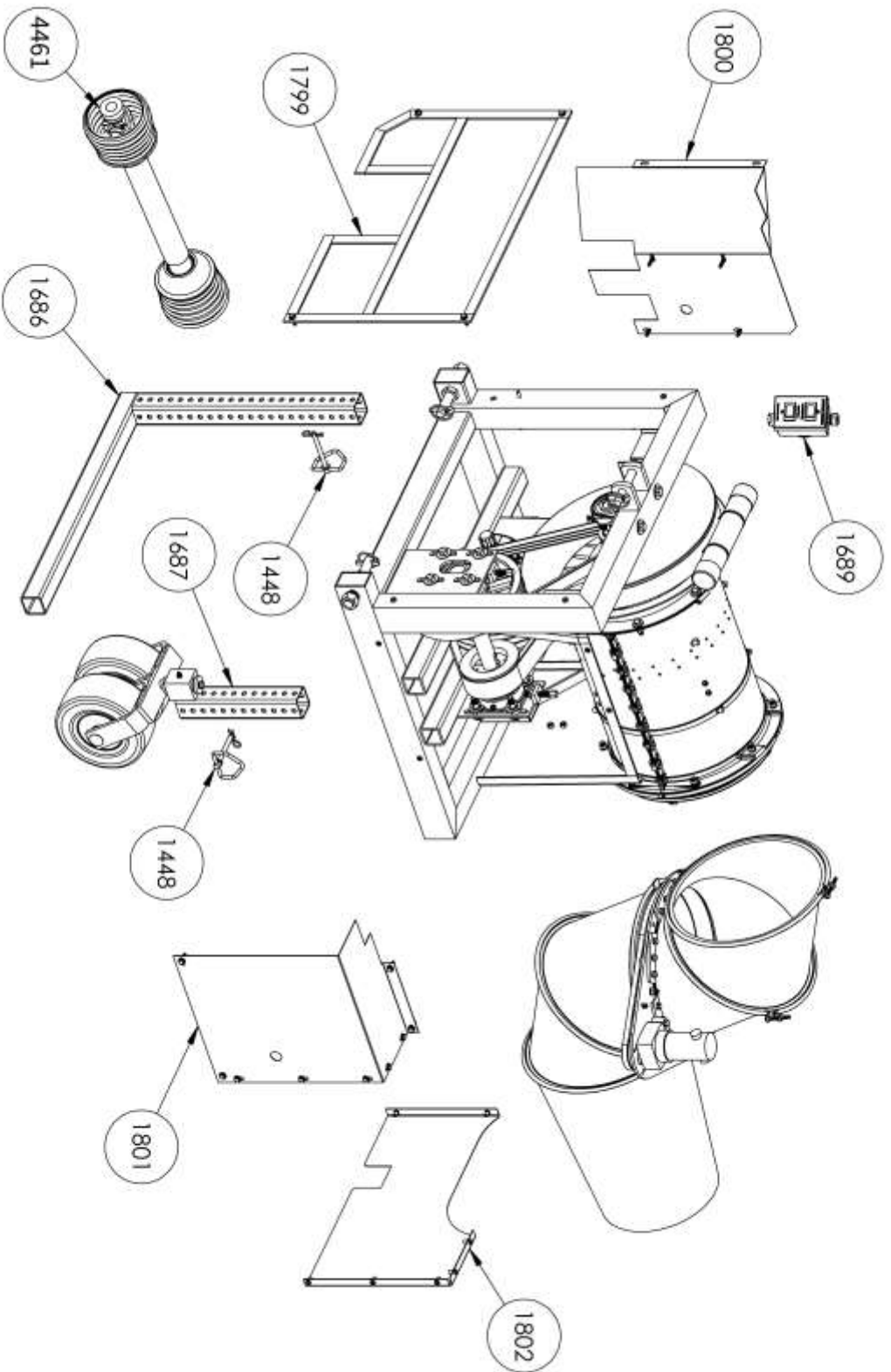
***NOT ALL HARDWARE/WIRING IS SHOWN**

BT-RMPTO10J3 PARTS REFERENCE CONTINUED **(BEFORE SERIAL NUMBER 31025)**



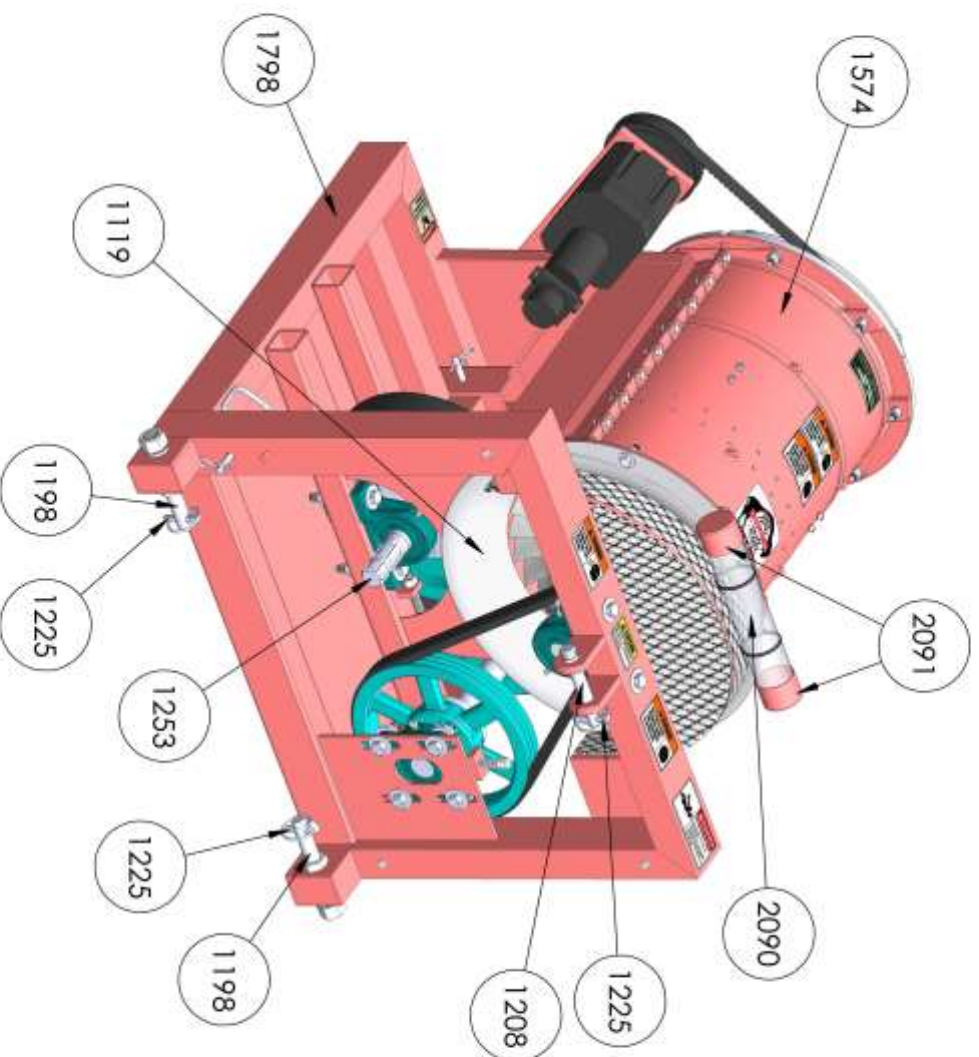
***NOT ALL HARDWARE/WIRING IS SHOWN**

BT-RMPTO10J3 PARTS REFERENCE CONTINUED (AFTER SERIAL NUMBER 31025)



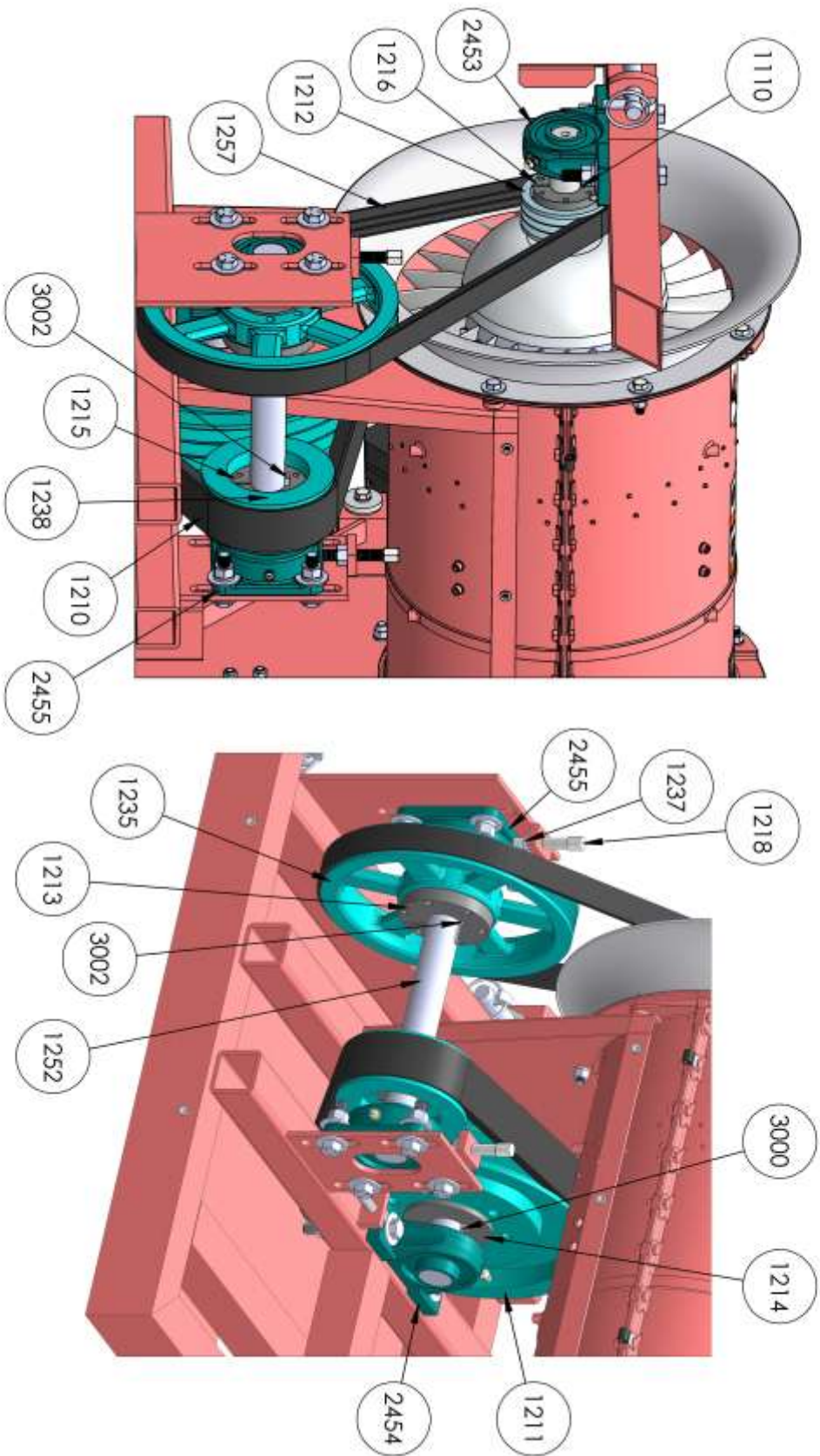
***NOT ALL HARDWARE/WIRING IS SHOWN**

BT-RMP10J3 PARTS REFERENCE CONTINUED



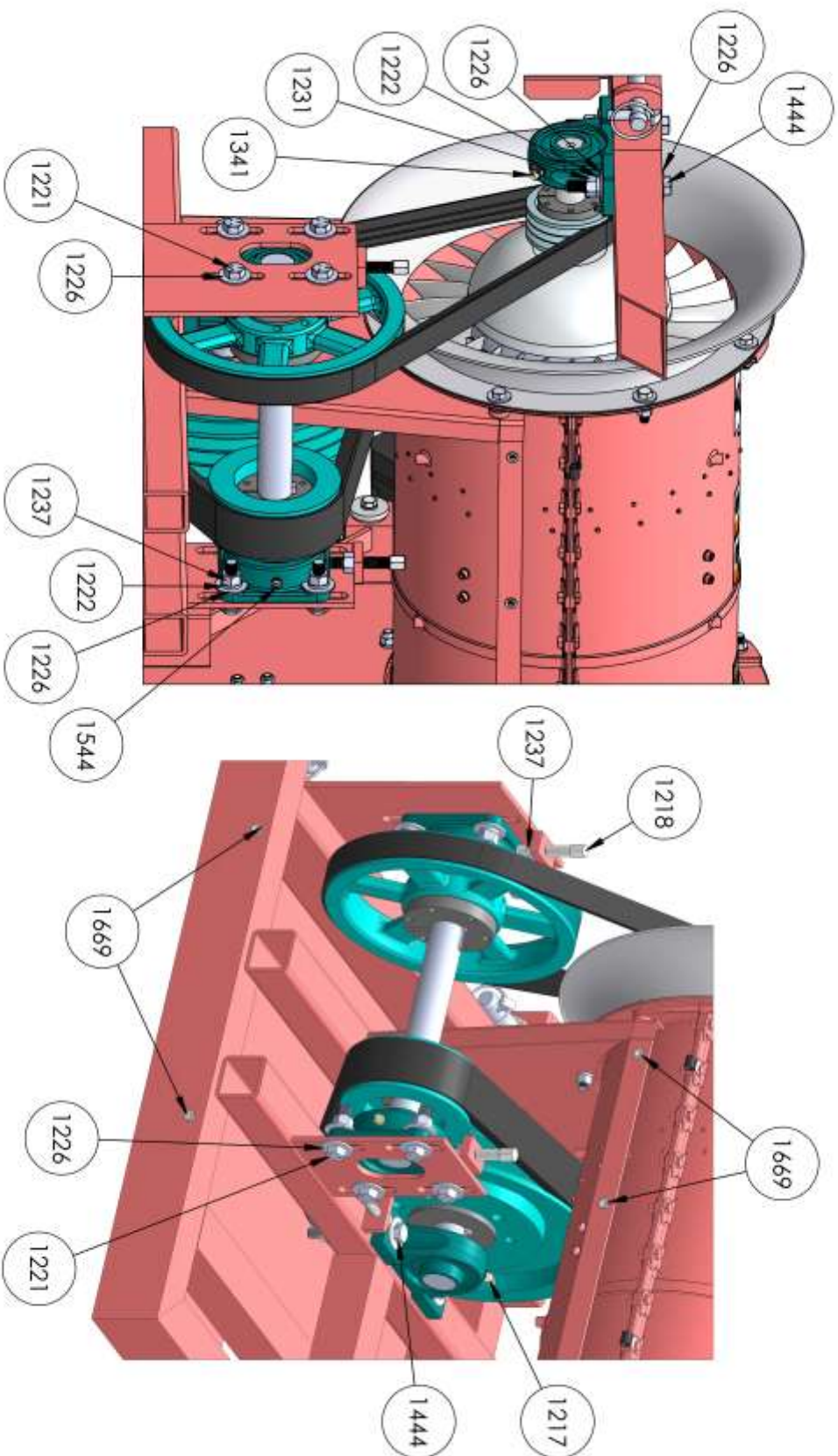
***NOT ALL HARDWARE/WIRING IS SHOWN**

BT-RMPT010J3 PARTS REFERENCE CONTINUED



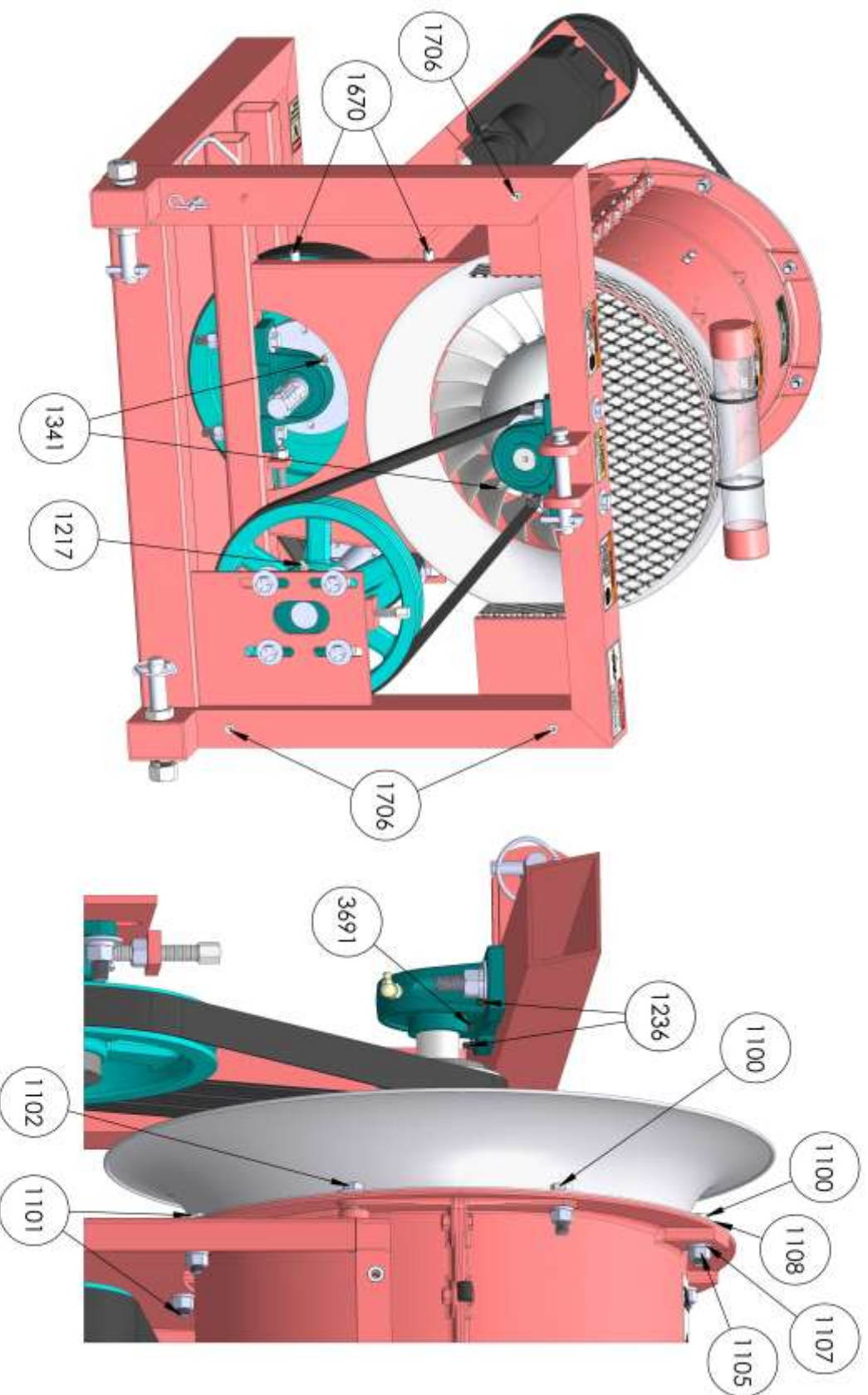
***SOME FRAME MEMBERS HAVE BEEN REMOVED FOR CLARITY
NOT ALL HARDWARE/WIRING IS SHOWN**

BT-RMPTO10J3 PARTS REFERENCE CONTINUED



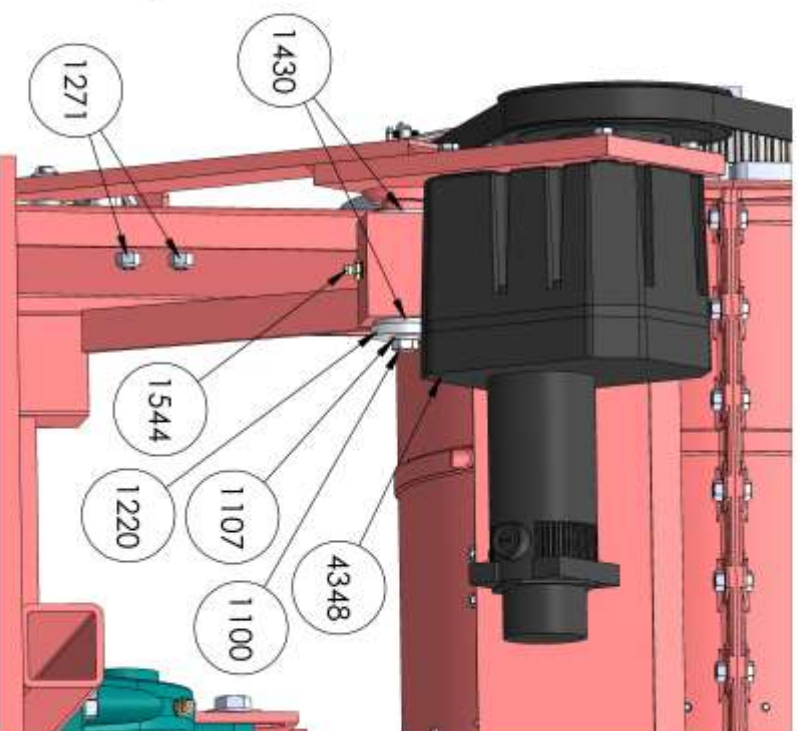
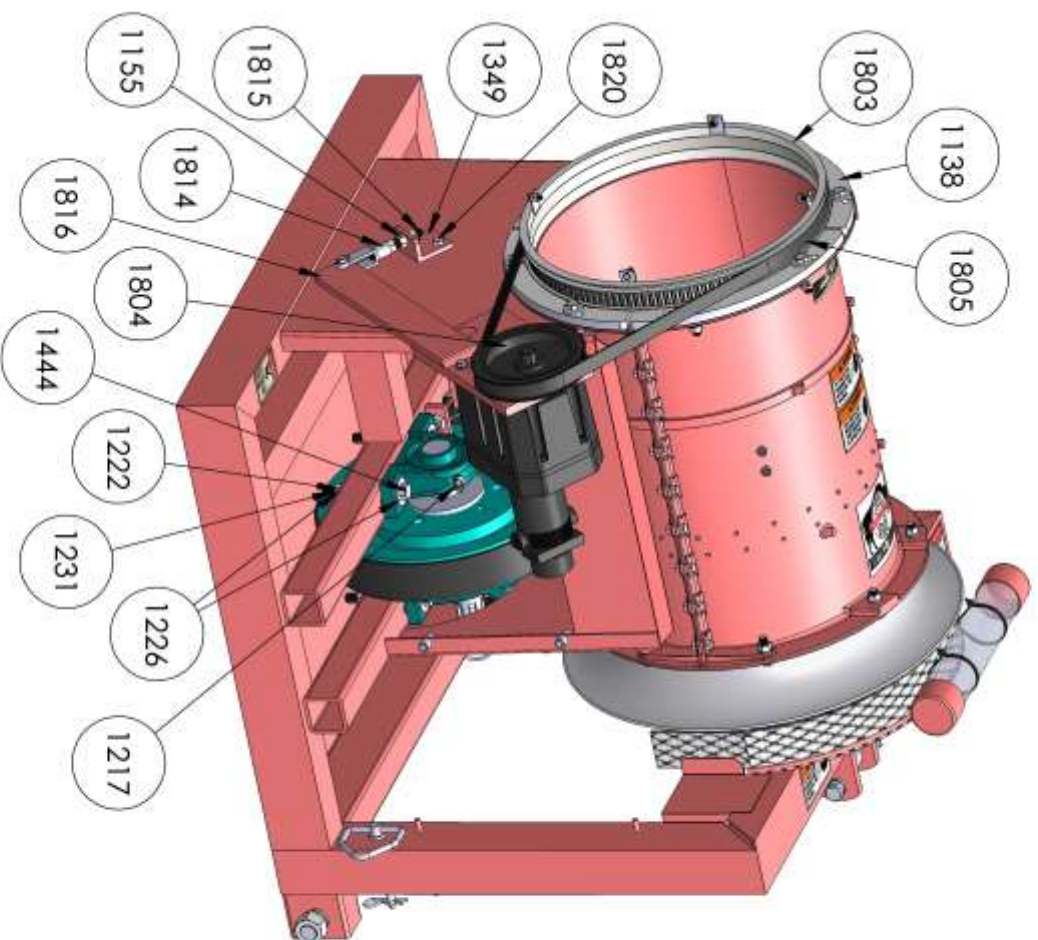
***SOME FRAME MEMBERS HAVE BEEN REMOVED FOR CLARITY
NOT ALL HARDWARE/WIRING IS SHOWN**

BT-RMPTO10J3 PARTS REFERENCE CONTINUED



***SOME FRAME MEMBERS HAVE BEEN REMOVED FOR CLARITY
NOT ALL HARDWARE/WIRING IS SHOWN**

BT-RMPTO10J3 PARTS REFERENCE CONTINUED

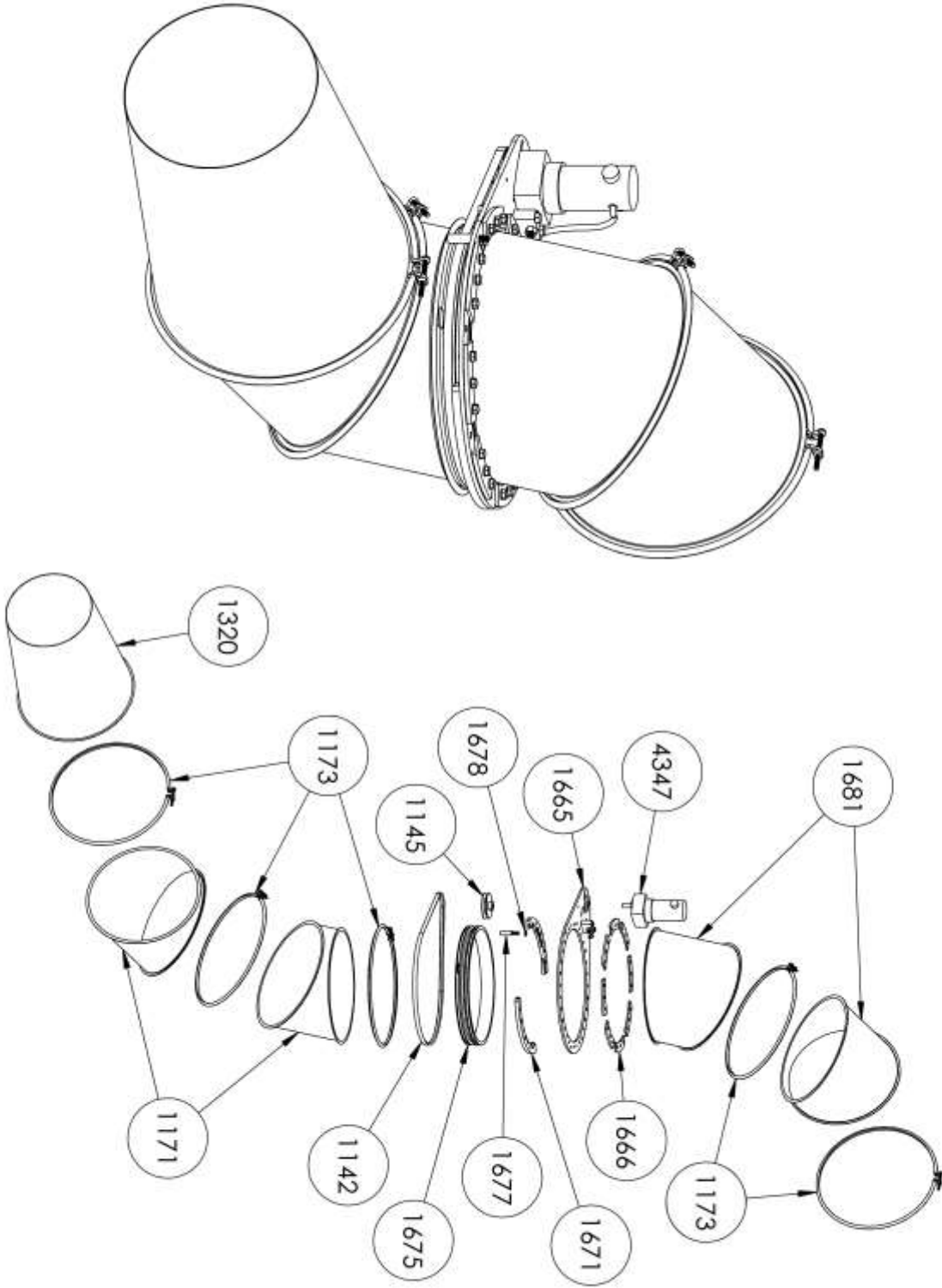


***NOT ALL HARDWARE/WIRING IS SHOWN**

This diagram shows an exploded view of a mechanical assembly. The main component is a large, red, cylindrical housing with a flange. A green wheel is mounted on a shaft inside the housing. A black pulley is mounted on a shaft at the bottom. A chain drive system is shown, including a chain and a small black pulley. A red and white cylindrical component is shown to the right. Various parts are labeled with numbers in circles: 1101, 1102, 1139, 3521, 1104, 2035, 1415, 1259, 1169, 1103, 1104, and 1101.

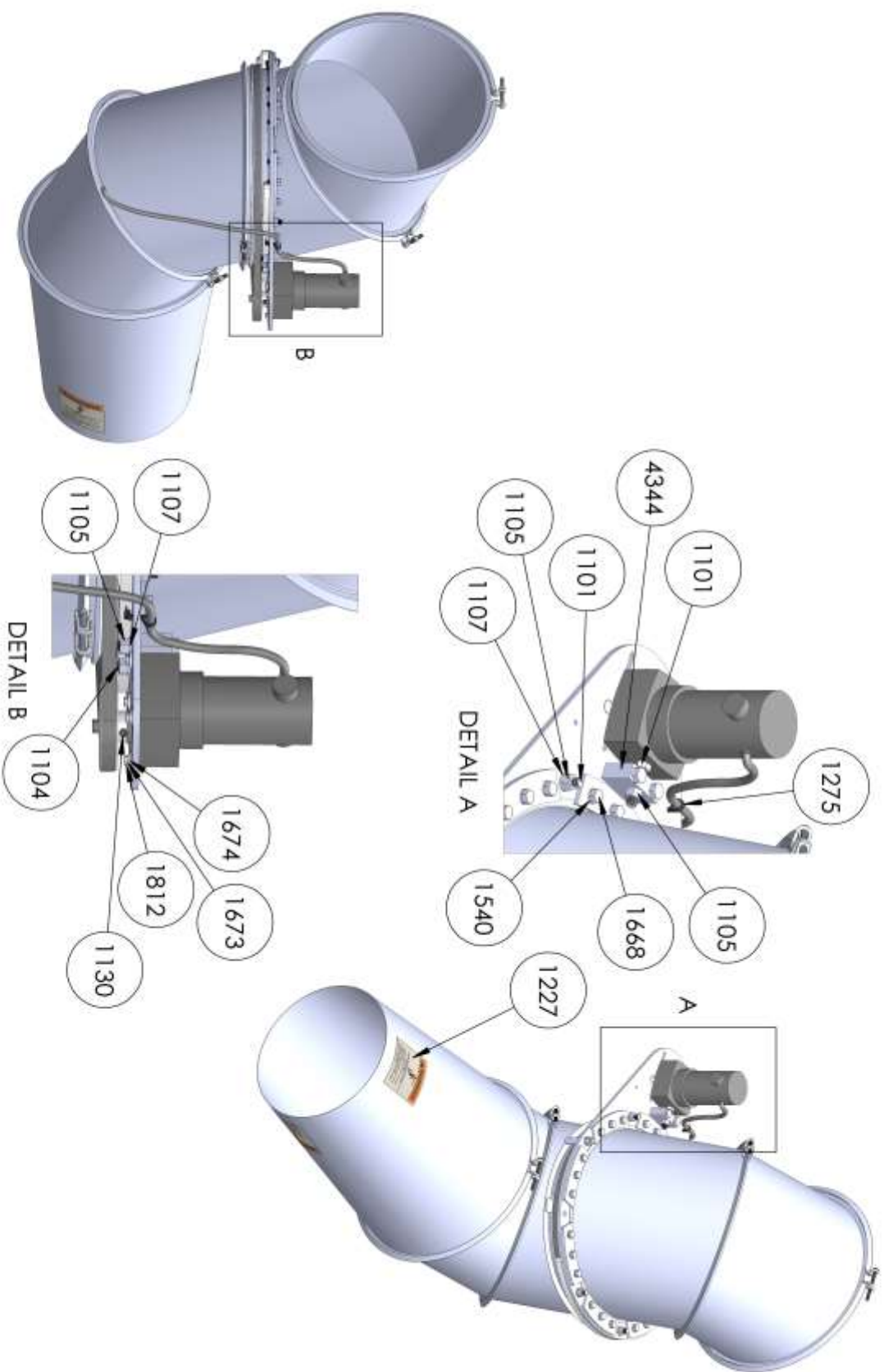
24

BT-RMPTO10J3 PARTS REFERENCE CONTINUED



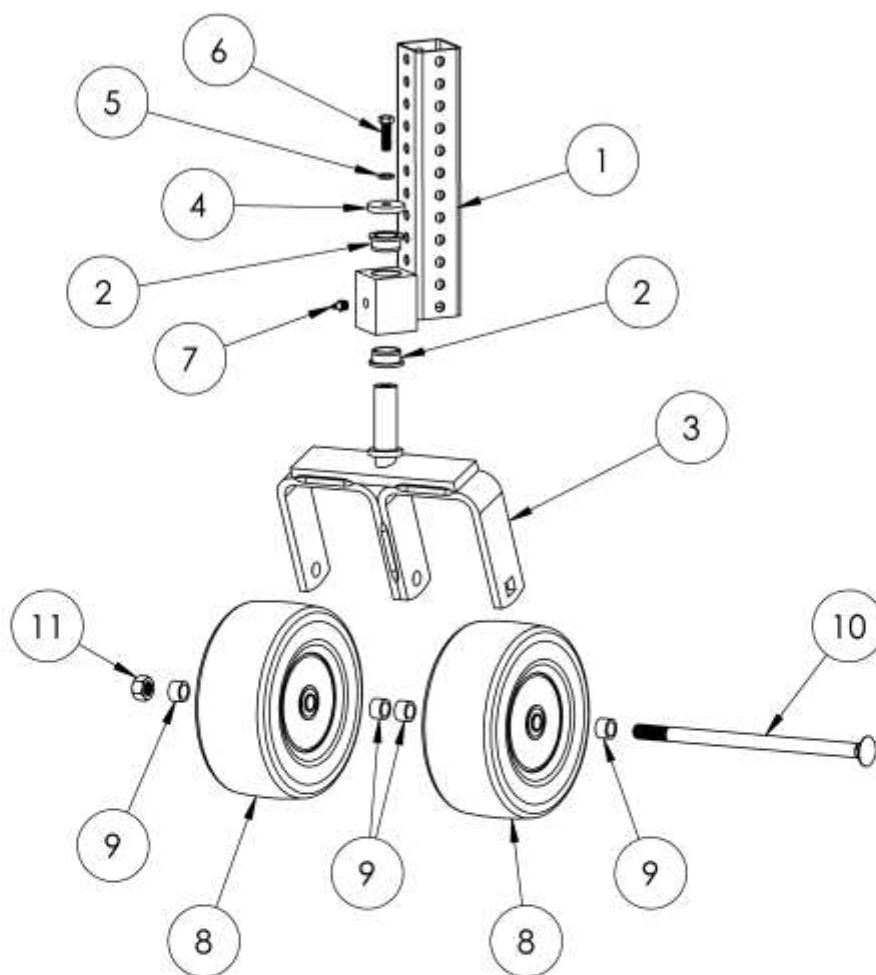
***NOT ALL HARDWARE/WIRING IS SHOWN
1173 INCLUDES BOLT (1174) AND NUT (1175)**

BT-RMPTO10J3 PARTS REFERENCE CONTINUED



*NOT ALL HARDWARE/WIRING IS SHOWN

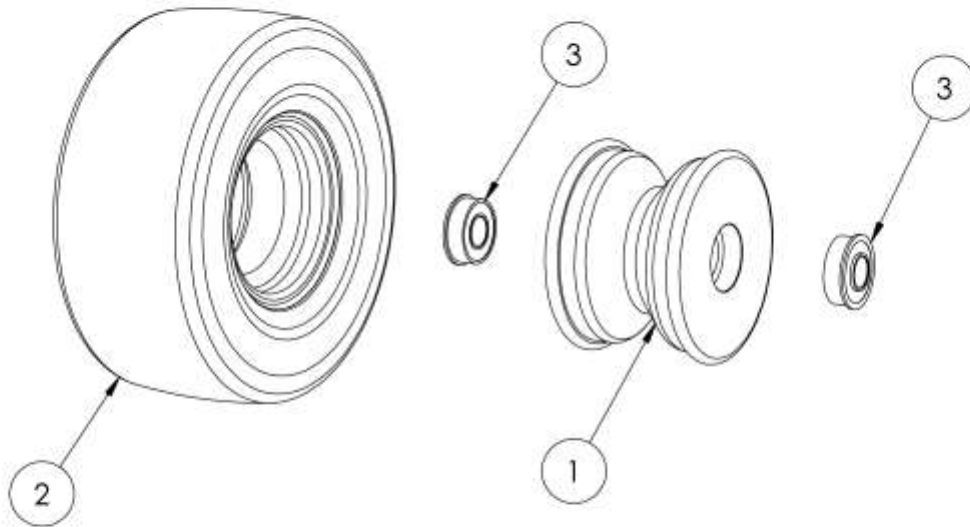
MACHINE SUB ASSEMBLIES PARTS REFERENCE



PART #1687 : DUAL WHEEL ASSEMBLY

REF. #	QTY.	DESCRIPTION	PART #
1	1	CASTER WHEEL BRACKET EXTENSION	1793
2	2	CASTER BUSHING	1430
3	1	YOKE WELDMENT, DUAL WHEEL	1792
4	1	RETAINER WASHER, 3/8" X 1-5/8"	1220
5	1	3/8" LOCK WASHER	1107
6	1	3/8-24 X 1-1/4" LONG HEX HEAD BOLT	1100
7	1	1/8" GREASE FITTING	1544
8	2	WHEEL/TIRE ASSEMBLY (SEE BREAKDOWN ON NEXT PAGE)	3183
9	4	BUSHING, 5/8" LONG	1431
10	1	5/8-11 X 11" LONG CARRIAGE BOLT	1642
11	1	5/8-11 CENTERLOCK NUT	1546

PART #3183 : CASTER WHEEL ASSEMBLY

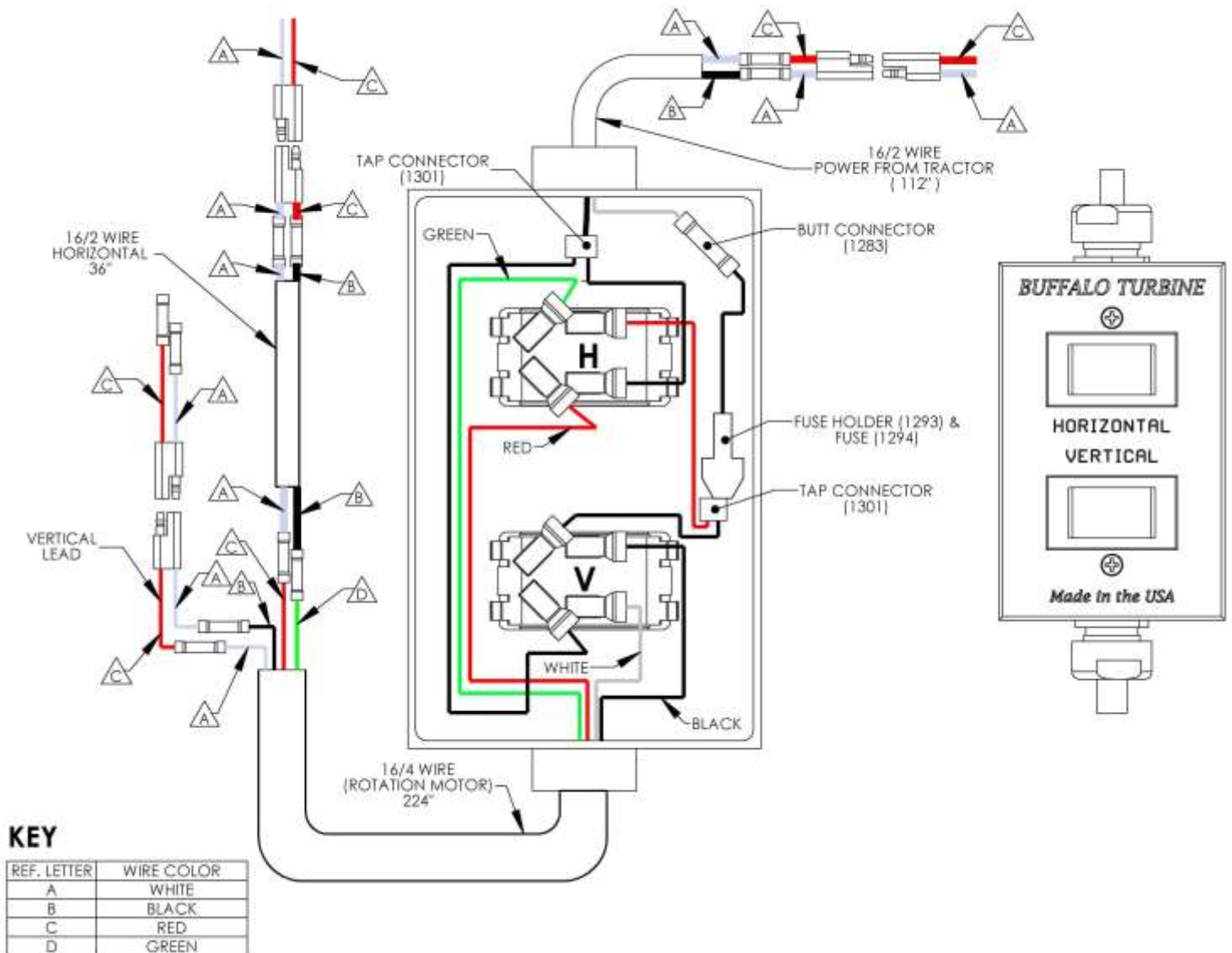


REF #	QTY.	DESCRIPTION	PART #
1	1	WHEEL HUB, ALUMINUM	1764
2	1	TIRE	1753
3	2	FLANGE BEARING (5/8" BORE, 1-3/8" O.D.)	1754

BILL OF MATERIALS FOR BT-RMPTO10J3			
REF PAGE #	PN	DESCRIPTION	QTY
22,23	1100	3/8-24 X 1-1/4 HHCS ZINC GR 5	5
22,24,26	1101	3/8-24 X 1-1/2 HHCS ZINC GRADE 5	10
22,24	1102	3/8-24 X 1-3/4 HHCS ZINC	2
24	1103	3/8-24 X 2 FACED HEAD SCREW	2
24,26	1104	3/8-24 X 2 HHCS ZINC GRADE 5	2
22,26	1105	3/8-24 HEX NUT ZINC PLATED GRADE 5	21
22,23,26	1107	3/8 LOCK WASHER ZINC PLATED	22
22	1108	3/8 FLAT WASHER ZINC PLATED	8
20	1110	KEY, 1/4 X 1-1/2	1
19	1119	14-221-D1 BELLMOUTH	1
16	1124	¼-20 X 1-1/4 HHCS GR 5	2
16	1125	¼-20 NYLOC NUT ZINC	3
26	1130	5/16-18 X 3/8 SET SCREW	2
23	1138	PLASTIC SLIDE	4
24	1139	3/8 NOTCHED WASHER	12
25	1142	A-54 V-BELT	1
25	1145	SHEAVE AK32 X 1/2	1
23	1155	3/8-16 HEX NUT ZINC GR.5	3
15	1156	SERIAL TAG	1
16	1167	COV 5/16 X 1/4 WIRE CLAMP	3
16,24	1169	¼-20 X 1 HHCS ZINC GR 5	10
25	1171	ELBOW SEGMENT	2
25	1173	CLAMP BAND W/ BOLT & NUT	5
15	1182	4 X 4 BT Decal	2
15	1184	WARNING – EYE PROTECTION DECAL	2
15	1185	WARNING – EAR PROTECTION DECAL	2
15	1186	CAUTION DO NOT OPERATE DECAL	1
15	1187	8 X 10 BT DECAL	1
19	1198	LIFT PINS WITH NUTS AND LOCK WASHERS	2
20	2453	1-1/4 PILLOW BLOCK BEARING W/ SET SCREWS	1
20	2454	1-7/16 PILLOW BLOCK BEARING W/SET SCREWS	2
20	2455	1-7/16 FLANGE BEARING W/SET SCREWS	2
19	1208	TOP PIN, UPPER	1
20	1210	3/5VX500 POWERBAND BELT	1
20	1211	SHEAVE, 3GR5V12.5	1
20	1212	SHEAVE, 3GR3V3.65	1
20	1213	BUSHING, SK 1-7/16	1
20	1214	BUSHING, E 1-7/16	1
20	1215	BUSHING, SDS 1-7/16	1
20	1216	BUSHING, SH 1-1/4	1
21,22,23	1217	45 DEGREE GREASE FITTING	2
20,21	1218	BOLT, ½ PUSHOVER	4
23	1220	RETAINER WASHER, 3/8 X 1-5/8	1
21	1221	1/2-20 X 2 HHCS ZINC GR 5	8
21,23	1222	1/2 LOCK WASHER, ZINC	14
19	1225	7/16" LYNCH PIN	3
21,23	1226	1/2 FLAT WASHER	28
15,26	1227	THROWN OBJECT DECAL	3
15	1228	ROTATING DRIVE HAZARD DECAL	1
15	1229	KEEP HANDS CLEAR DECAL	1
21,23	1231	½-13 HEX NUT	6
20	1235	SHEAVE, 3/3V10.60 SK	1
22	1236	3/16 X 1 ROLL PIN	2
20,21	1237	½-20 HEX NUT	12
20	1238	SHEAVE, 3/5V5.5 SDS	1
20	1252	JACKSHAFT, 15' LONG	1
19	1253	INPUT SHAFT, SPLINED	1
20	1257	3/3VX530 POWERBAND BELT	1
16,24	1259	¼ LOCKWASHER	23
23	1271	5/16-18 HEX NYLOC	2
26	1275	BLACK CABLE TIES 8" LONG	1

BILL OF MATERIALS FOR BT-RMPTO10J3 CONTINUED			
REF PAGE #	PN	DESCRIPTION	QTY
25	1320	LONG ROUND NOZZLE	1
21,22	1341	90 DEGREE GREASE FITTING	2
23	1349	THREADED ROD ADJUSTING MOUNT	1
16,24	1415	1/4" FLAT WASHER	12
23	1430	CASTER BUSHING	2
21,23	1444	½-13 X 4" HHCS GR5 ZINC	6
17,18	1448	3/8 X 3-1/2 HITCH PIN	2
26	1540	5/16 LOCK WASHER	24
21,23	1544	STRAIGHT GREASE FITTING	1
17	1553	PTO SHAFT, 1-3/8- 6 SPLINE BOTH ENDS	1
19	1574	BLOWER ASSEMBLY, RMPTO10J3	1
25	1665	ROTATION BRACKET	1
25	1666	CLAMP FOR PN 1665	8
26	1668	5/16-24 X ¾ HHCS ZINC GR 5	24
21	1669	¼-20 X .055 HEAD INSERT	6
22	1670	¼-20 X .500 HEAD INSERT	2
25	1671	SPECIAL PLASTIC SLIDE	2
26	1673	#10 LOCK WASHER	4
26	1674	#10 FLAT WASHER	4
25	1675	ELBOW BASE W/2 TABS WELDED	1
25	1677	SS 3/8-24 THREADED BASE STOP	1
25	1678	ALUM. WASHER FOR STOP	1
25	1681	HEAVY DUTY ELBOW SEGMENT	2
17,18	1686	STAND FOR PTO10JE	1
17,18	1687	DUAL WHEEL ASSY, W/EXTENSION	1
17,18	1689	WIRING HARNESS FOR BT-RMPTO10J3	1
22	1706	¼-20 X .150 HEAD INSERT	3
19	1798	FRAME, REAR MOUNT JAPAN	1
17,18	1799	FRONT GUARD, REAR MOUNT	1
17,18	1800	LEFT GUARD, REAR MOUNT	1
17,18	1801	RIGHT GUARD, REAR MOUNT	1
17,18	1802	CENTER GUARD, REAR MOUNT	1
23	1803	ELBOW BASE RING	1
23	1804	3/8" X ¾" 44 TOOTH TIMING BELT PULLEY	1
23	1805	3/8" X ¾" TIMING BELT	1
16,26	1812	10-32 X .625 HHCS ZINC GR 5	4
16	1813	10-32 NYLOC NUT ZINC GR 5	4
23	1814	3/8-16 FORGED STEEL CLEVIS	1
23	1815	3/8-16 X 4" FULLY THREADED ROD	1
23	1816	SUPPORT BRACKET FOR ROTATION MOTOR	1
16	1819	BLACK CABLE TIES, 12" LONG	2
23	1820	5/16-18 X ¾" LONG HHCS ZINC GR5	2
24	2035	KEY, ROTATION MOTOR 4348	1
19	2090	TUBE, CEAR POLYETHYLENE	1
19	2091	RUBBER END CAPS	2
20	3000	3/8" KEY 2-3/4" LONG	1
20	3002	3/8" KEY 1-7/8" LONG	1
24	3521	3/8-24 X 1-3/4 FACED HHCS	1
22	3691	5/16"-24 X ½" LG KEYWAY SCREW	1
26	4344	PUSH OVER BLOCK	1
25	4347	1143 ROTATION MOTOR, RUBBER DIPPED W/2 POLE CONNECTOR	1
23	4348	1821 ROTATION MOTOR, RUBBER DIPPED W/2POLE CONNECTOR	1
18	4461	PTO DRIVELINE W/ ONE WAY CLUTCH FOR RMPTO	1

PN 1689 WIRING SCHEMATIC



OPTIONS PTO, HYDRAULIC, FRONT MOUNT, ELECTRIC

NOZZLES



Aerospace Polymer Nozzle - Part# 2851
Standard Clamp Band - Part# 1173



Flexible Nozzle Assembly - Part# 3345
Various lengths available.
Ideal for rough terrain.

Gyratory Atomizing Nozzle - Part# 2547
(Safety guard removed for clarity)



ALUMINUM NOZZLES

Optional aluminum nozzles **will not** connect to the standard Aerospace Polymer Nozzle (Part# 2851).
Requires: Two 45° elbow segments (Part# 1171) and two additional clamp bands (Part# 1173).

- 12" Nozzle Extension - Part# 1468
- 15" Nozzle Extension - Part# 1842
- 20" Nozzle Extension - Part# 1845

10" Round Nozzle - Part# 1417
12" Round Nozzle - Part# 1172
Improves air velocity with lower horsepower and hydraulic blower units



12" Rectangular Nozzle - Part# 1469
19" Rectangular Nozzle - Part# 1425
5.5"x15" opening - extra length/more concentrated air flow. Uses - heavy wet debris, plugs, top dressing. No ground clearance in the vertical down position.



Fishtail Nozzle - Part# 1743
5"x30" (wide angle) opening. Distributes a large volume of air at a lower velocity over a wide area. Easily converts blower into a "Greens Fan". Adaptable to all models. Not as effective at moving debris.



1" HYRAULIC HOSES

Part# 3922

For hydraulic machines with flow rates over 25gmp.
Quantity needed : 2



FORK POCKET

Part# 3894

Great for moving blowers around jobsites and bed mount / skid mount applications.



ROTATION BEARING KIT

Part# 3838

Increases rotation speed and reduces load on rotation motor.



BUFFALO TURBINE PRODUCTS

CYCLONE 8000

The Cyclone 8000 Debris Blower is strategically priced to fit most budgets. This little powerhouse is already proving its worthiness in saving Time and Labor.



MEGA

The word "MEGA" is defined as Impressive, Extreme and Mammoth. The NEW Buffalo Turbine MEGA lives up to its name!



CYCLONE PTO

The Cyclone PTO incorporates an "Advanced" direct drive gearbox which significantly reduces routine maintenance. At 238lbs, it's the lightest, meanest turbine style PTO blower available!



CYCLONE SQUARED

The Cyclone Squared with its "Twin Turbines", and wireless controlled dual independent nozzles, in most cases can handle twice the work in half the time. This versatile powerhouse is already a favorite on Golf courses, Racetracks, and the Paving Industry.



CYCLONE KB4

The Cyclone KB4 with its "More Powerful" CH740 Kohler Engine and a "State of the Art" Wireless Remote System is the most powerful KB unit to date.



HYDRAULIC

The Hydraulic debris blower features our built in "flow and pressure" control system and easily attaches to most skid steers. This handy attachment comes complete with mounting plate and hoses.

