

BUFFALO TURBINE

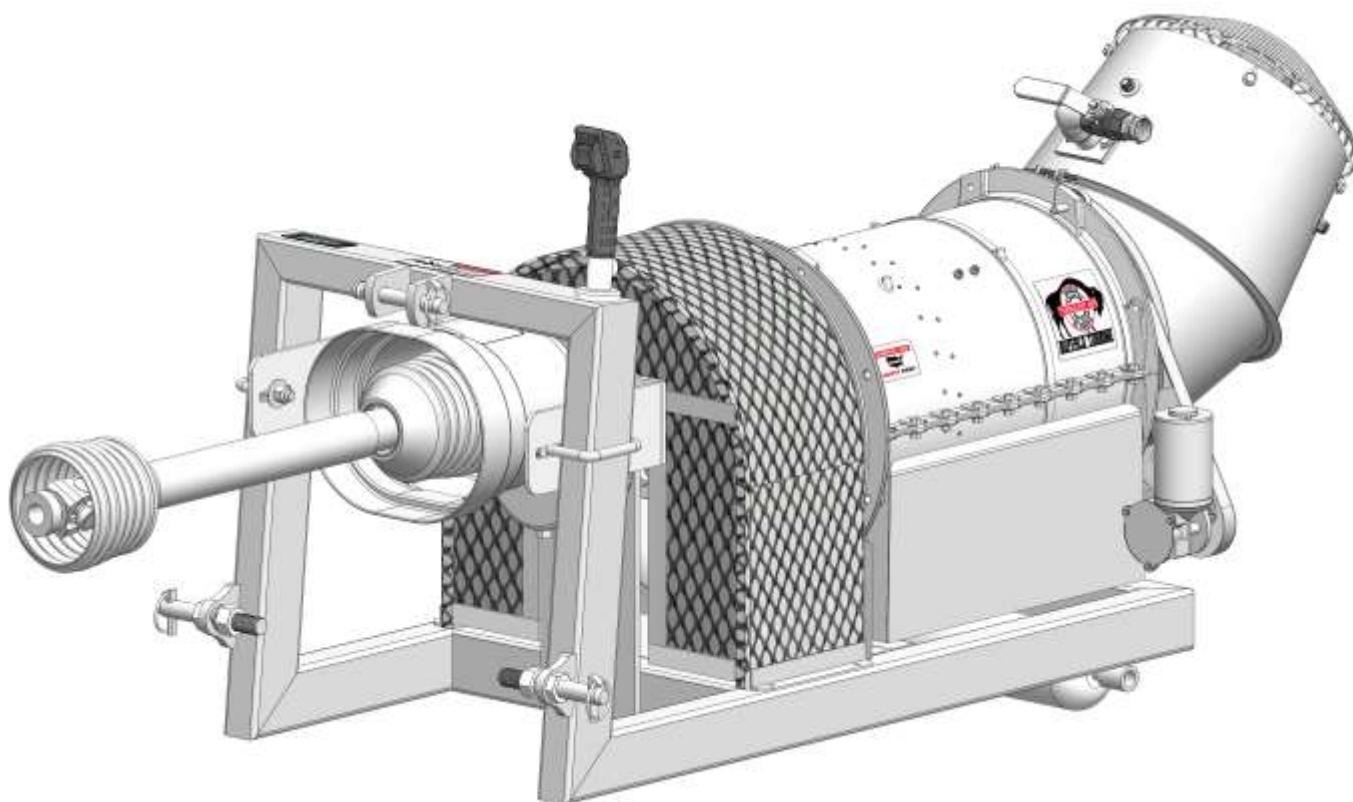
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BUFFALO TURBINE'S BT-CPTOM ORIGINAL INSTRUCTIONS AND PARTS MANUAL

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1.0 INTRODUCTION

Congratulations on your choice of a Buffalo Turbine Monsoon. This equipment has been designed and manufactured to meet the needs of the construction/demolition industry.

Safe, efficient and trouble-free operation of your Buffalo Turbine Monsoon 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.

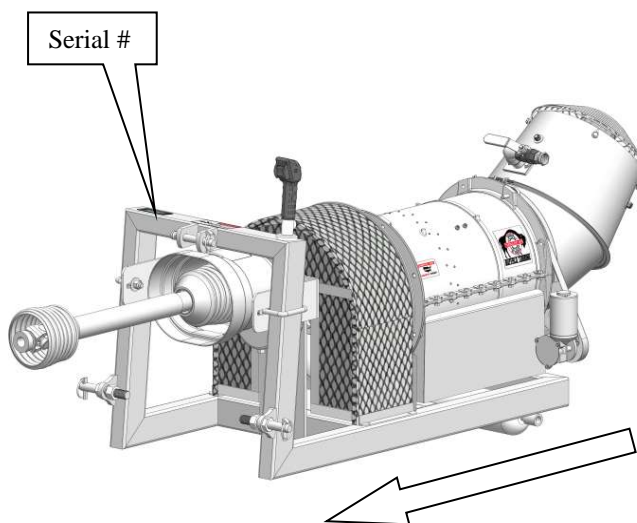
This Manual covers the BT-CPTOM Turbine Monsoon.

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 Monsoon 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-CPTOM TOP SURFACE OF FRAME

Serial Number: _____

2.0 SAFETY

YOU are responsible for the **SAFE** operation and maintenance of your Buffalo Turbine Monsoon. **YOU** must ensure that you and anyone else, who is going to operate, maintain or work around the Buffalo Turbine Monsoon 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 Monsoon.

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.

- Monsoon 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 Monsoon 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.

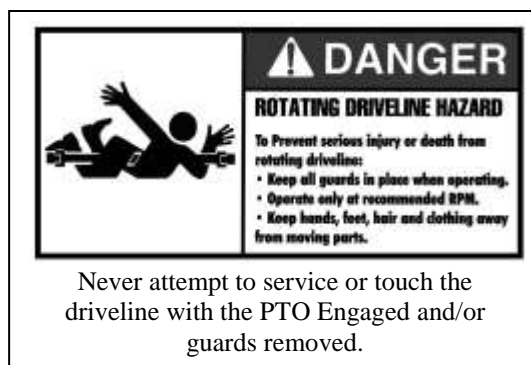
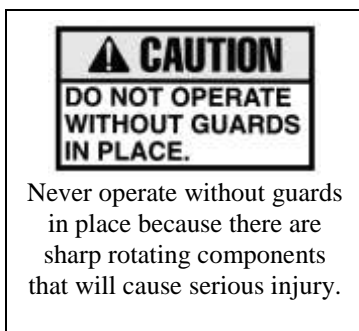
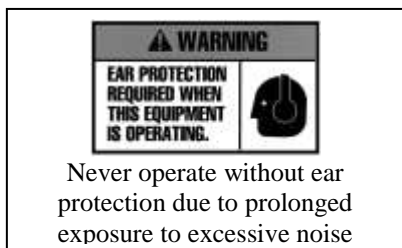
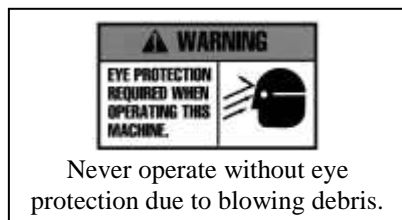
The Safety Alert symbol identifies important safety messages on the Buffalo Turbine Monsoon and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

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.**



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 Monsoon 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 Monsoon.

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 Monsoon 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 Monsoon 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 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

_____ Guards in Place

_____ Lubricate Machine

_____ Trailer assembly bolts properly installed and tightened

_____ Fasteners Tight

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

4.0 OPERATIONS

4.1 TO THE NEW OPERATOR OR OWNER

Buffalo Turbine Monsoon are designed to spray a fine mist of water particles to control dust. The material is conveyed on a stream of high volume and velocity of air and water to remove it from the area of concern.

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 Monsoon will provide many years of trouble-free service.

Potential Mechanical Hazards while operating your machine:

Never operate the monsoon or tractor around others to prevent the possibility of being run over by equipment.

Never ride on your monsoon or tractor 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



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 Monsoon 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 other fasteners and hardware.
2. Check that the driveline turns freely and that it can easily telescope without bottoming out.
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.

C. Operating for first 50 hours

1. Change gearbox oil (SEE PG. 20)

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 pins of the blower unit to match the tractor mounting brackets of the 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. 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. (wiring schematic on PG. 19)
6. 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 Monsoon 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 Monsoon unit:** Gradually slow the tractor RPM down to a lower speed using the throttle.
5. Disengage PTO and allow the monsoon 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 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 Monsoon 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.

4.7 Storage

At the end of the working season or before storing the Monsoon 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 Monsoon 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 monsoon 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 Monsoon uses a high volume and velocity of air and water 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 Monsoon 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 MONSOON 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	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 CPTOM Series

Length: 63" With nozzle
44" Without nozzle

Width: 22"
Height: 24"
Weight: 245 lbs

Electrical System: 12 Volt
Input Power: PTO
Input RPM: Up to 3780 RPM
Outlet Size: Approximately 12"
Gearbox: Use Oil that covers SAE 90 EP **ONLY.**

7.0

MAINTENANCE SECTION

7.1 Maintenance Safety

1. Set Monsoon 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

Gearbox requires Oil that covers SAE 90 with EP additive

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

7.3 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

(L) Nozzle base slides (Teflon or Silicone spray)

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

(*) 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.

(*) Check condition of coupling (center section # 1256) connecting bolts and nuts during each oil change or when experiencing vibration or unusual noises

200hrs or annually

(CL) Machine

(CL) & (L) Driveline shield

(*) PTO Shaft U-Joints

500hrs

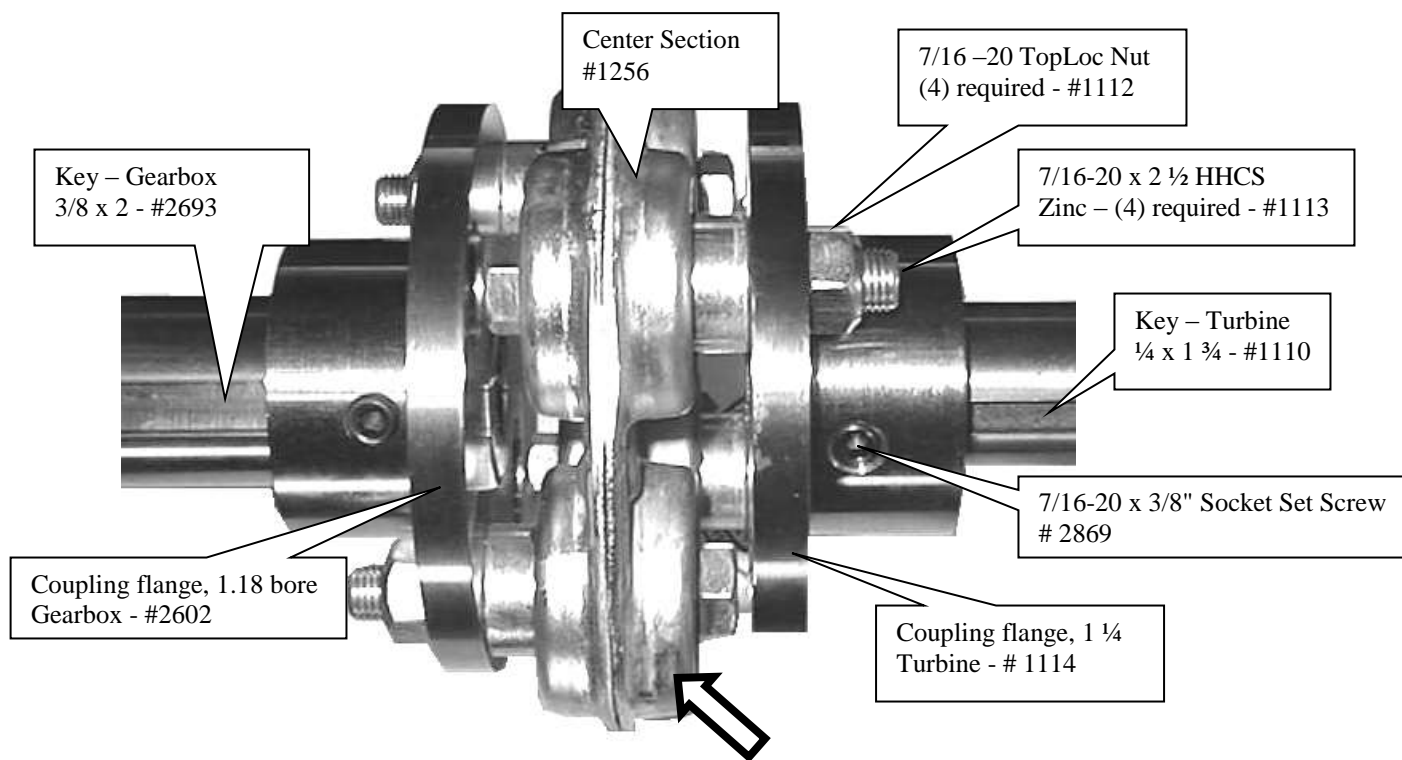
(C) Change gearbox oil (See PG. 21)

DO NOT OPERATE BLOWER UNIT WITHOUT GUARDS SECURELY ATTACHED

INSTALLATION INSTRUCTIONS & PARTS FOR THE MOREFLEX COUPLING

ALIGNMENT OF TURBINE SHAFT WITH SHAFT OF ENGINE IS CRITICAL

1. Install keys in both shafts.
2. Slide coupling flanges on both shafts (engine and turbine shafts)
3. Place Moreflex coupling CENTER SECTION between coupling flanges and secure with 4 bolts and TOPLOC nuts. The bolt heads are positioned against the coupling in alternating directions. Tighten all 4 bolts. DO NOT TIGHTEN SET SCREWS AT THIS TIME.
4. Check key for proper position under the set screw hole on both shafts.
5. Place several drops of Loctite 271 into these two holes only. Set screws and tapped screw holes must be free of dirt and oil for Loctite to work properly.
6. Install the set screws over the keys and tighten firmly.
7. Using a drill point, dimple each shaft through the other 2 set screw holes. Clean drill chips, oil and dirt before applying Loctite.
8. Place several drops of Loctite 271 in these 2 holes.
9. Install and tighten set screws in these 2 holes.
10. Check and retighten the 4 bolts that hold the coupling center section in place.
11. Visually inspect the unit and replace the guard. DO NOT OPERATE WITHOUT THE GUARDS IN PLACE.

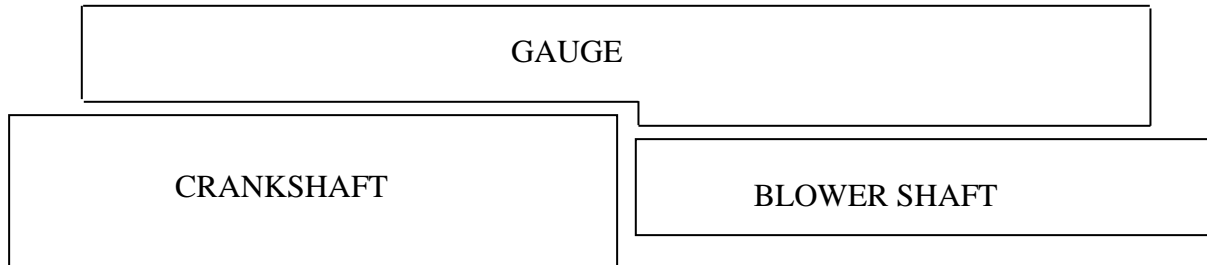


Part # 1256 (center section) is a **“WEAR”** item that should be visually checked each time the engine oil is changed. This coupling is equipped with special lock nuts. Occasionally check that all 4 nuts are securely fastened. **LOOK FOR CRACKS IN THE RUBBER COMPOSITION THAT SURROUNDS THE 4 BUSHINGS. Replace the center section when the rubber composition begins to show ANY signs of cracking OR an increase in vibration OR unusual sounds. When in doubt, call our Service Department.**

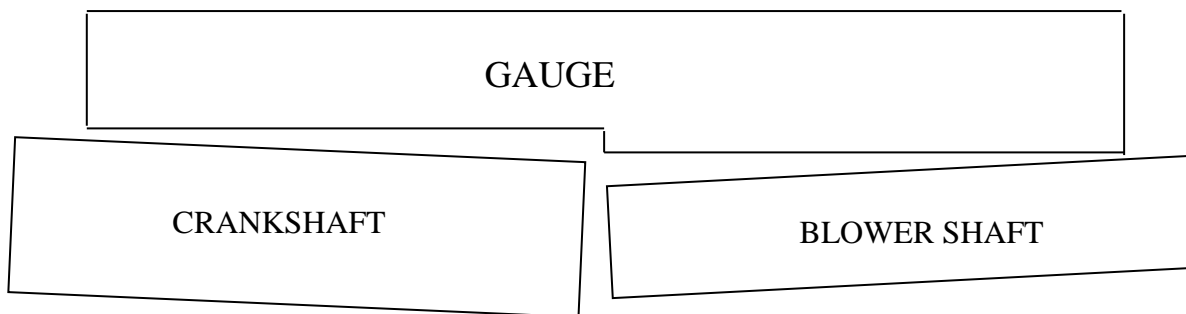
MOUNTING BLOWER ASSEMBLY ONTO FRAME **AND ALIGNMENT RECOMMENDATIONS**

1. Install blower assembly onto frame and tighten all of the bolts.
2. Remove all burrs and oil from the shafts and keyways (engine and blower shafts).
3. Using the supplied gauge, align the shafts parallel to each other (very important).
4. Check in four places around the shafts at 90° to each other.
5. When properly aligned, gauge should have little to no gap between itself and the shafts at any point along the gauge.
6. To adjust, move the engine. The 2 mounting brackets have tapped holes in each corner to help support and adjust the position of the engine. The 4 roll pins may need to be repositioned after alignment is completed and bolts are tightened.
7. Tighten all engine bolts and recheck alignment. Drill and install 4 roll pins in new position.

ACCEPTABLE

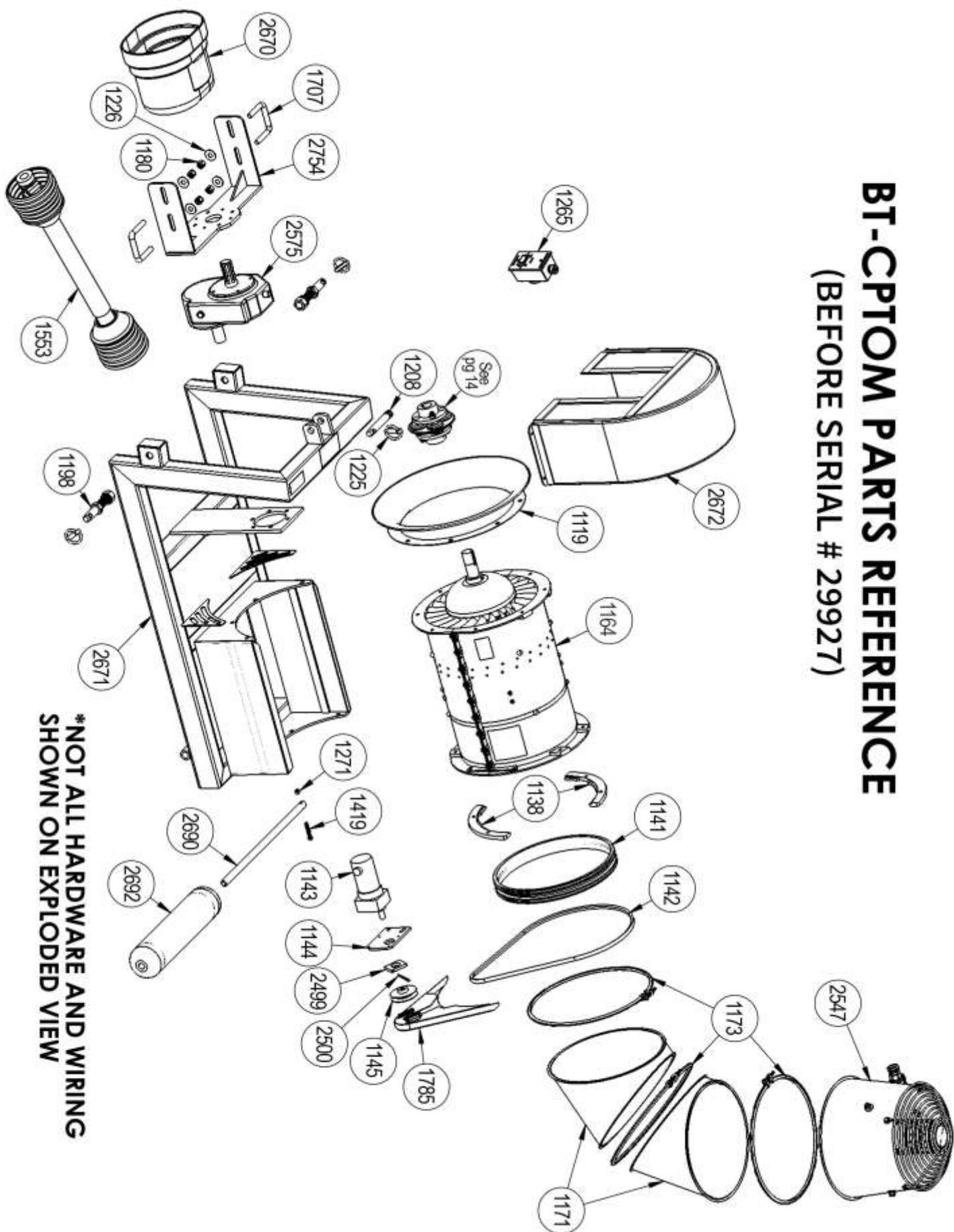


NOT ACCEPTABLE



SECURELY ATTACH GUARDS BEFORE OPERATING BLOWER UNITS

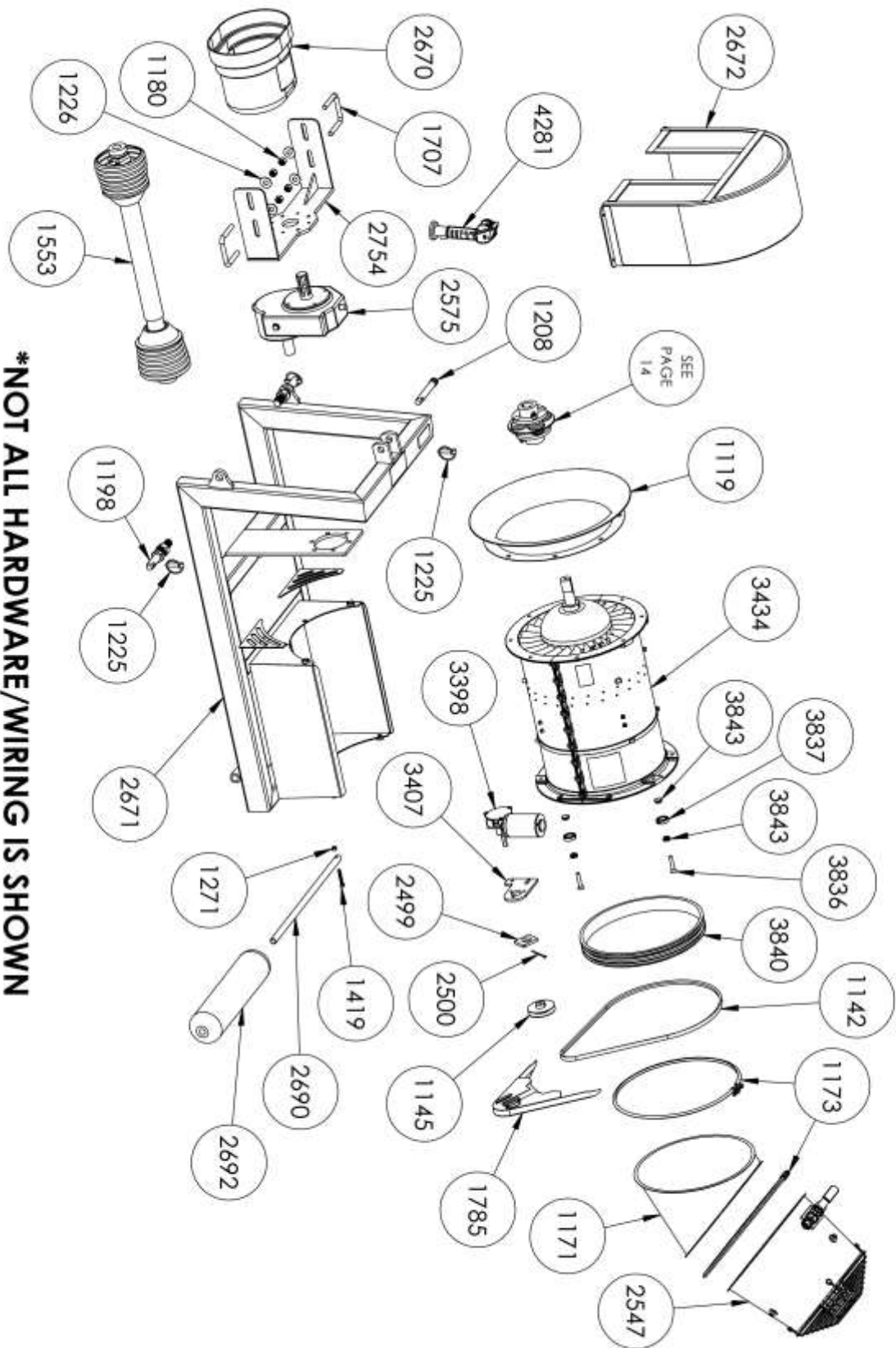
BT-CPTOM PARTS REFERENCE (BEFORE SERIAL # 29927)



***NOT ALL HARDWARE AND WIRING
SHOWN ON EXPLODED VIEW**

BT-CPTOM PARTS REFERENCE

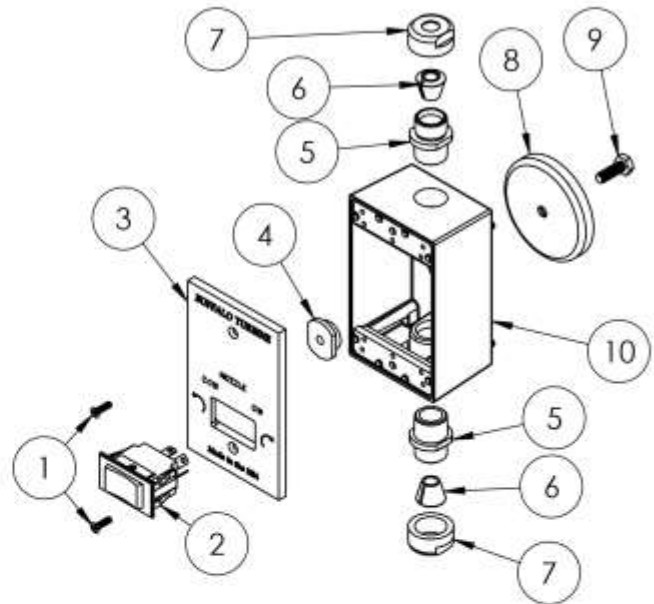
(BEGINNING WITH SERIAL #29927)



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

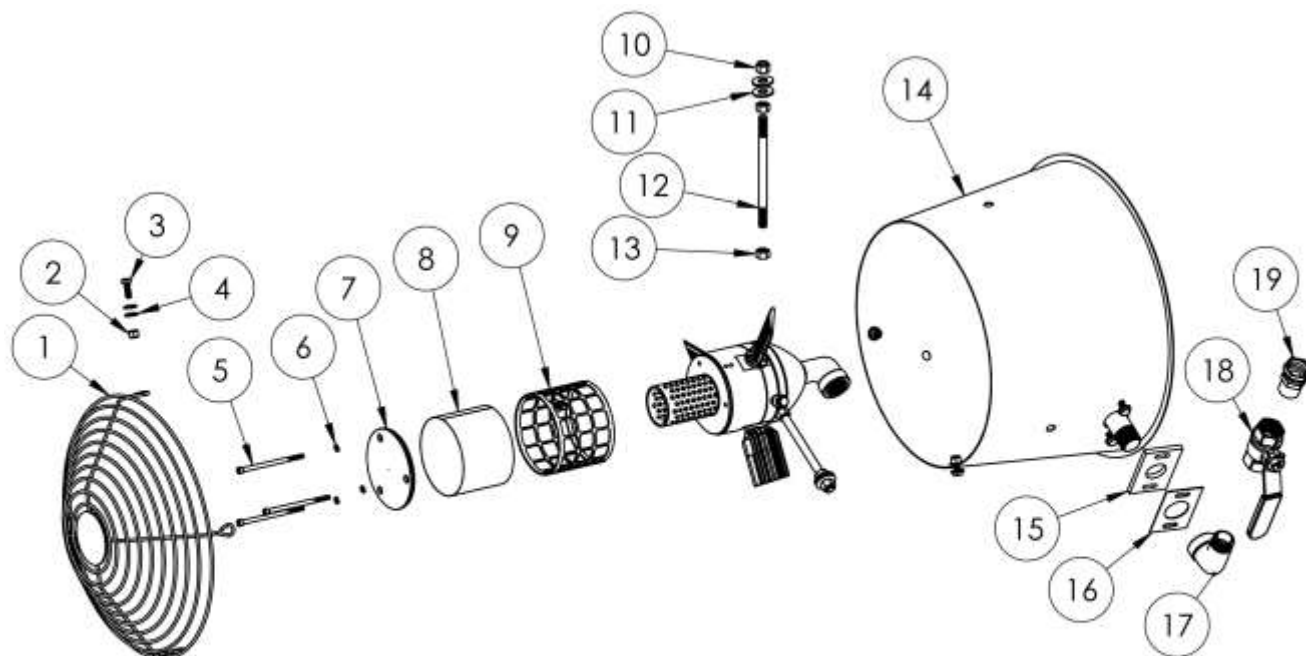
BT-CPTOM SUB ASSEMBLIES PARTS REFERENCE

PART # 1265 : WIRING HARNESS			
Ref #	Qty.	Description	Part #
1	2	6-32 PHILLIPS FLAT HEAD SCREW	1279
2	1	ROCKER SWITCH	1769
3	1	NOZZLE CONTROL BOX COVER	1304
4	1	1/4-20 NUT PLATE	1302
5	2	BOX FITTING	1295
6	2	2 WIRE BUSHING	1287
7	2	2 AND 4 WIRE NUT	1286
8	1	MAGNET	1300
9	1	1/4-20 X 3/4 HHCS	1258
10	1	CONTROL BOX HOUSING	1281



NOTE: NOT SHOWN BUT INCLUDED WITH PART #1265

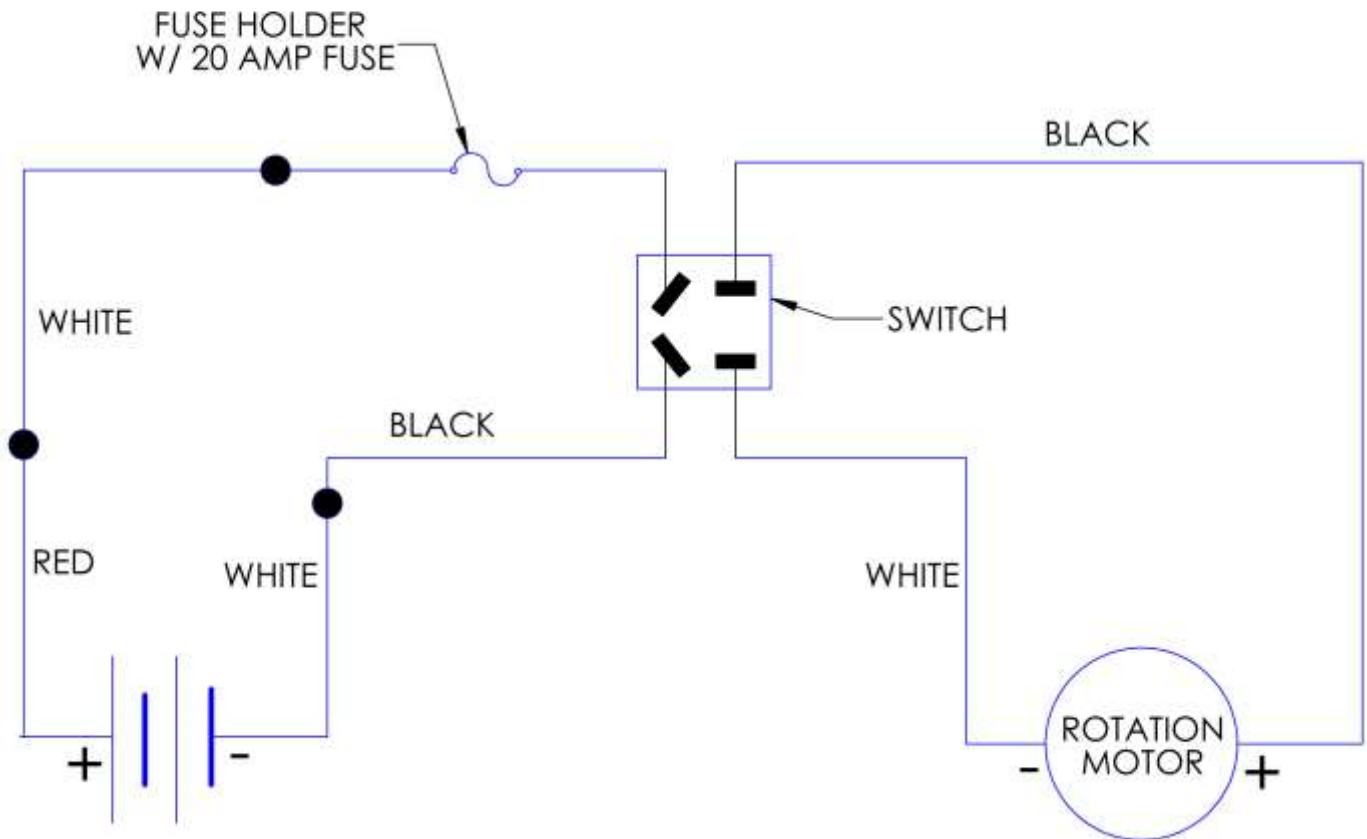
Part #	Description	Qty.
1177	1/4 BLACK HEAT SHRINK	4
1178	3/8 BLACK HEAT SHRINK	8
1282	QUICK CONNECT FLAG TERMINAL	4
1283	BUTT CONNECTOR	3
1293	FUSE HOLDER	1
1294	20 AMP FUSE	1
1537	16-2 SJOOW CORD	156 in.
2023	16/14 FULLY INSULATED MALE QUICK DISCONNECT	2
2084	11172-03, CONNECTER PLUG, 2 POLE	1
2085	11172-02, CONNECTER PLUG, 2 POLE	1



Gyratory Atomizing Nozzle (Part #2547) Parts Reference			
Ref #	Part #	Description	Qty.
1	2881	MONSOON NOZZLE GUARD	1
2	1258	1/4-20 X 3/4 HHCS GR5 ZINC	4
3	1415	1/4" FLAT WASHER	12
4	1125	1/4-20 NYLOC NUT ZINC	6
5	2663	10-32 X 3 1/2" LONG STAINLESS STEEL SHCS	3
6	2664	10-32 STAINLESS STEEL SPLIT LOCK WASHER	3
7	2574	CAGE END CAP, MONSOON	1
8	2711	SCREEN, STAINLESS MONSOON	1
9	2605	SCREEN CAGE, MONSOON ATOMIZER	1
10	1935	3/8-24 NYLOC NUT	3
11	1108	3/8 FLAT WASHER ZINC PLATED	6
12	2592	3/8" X 5.7" LONG SUPPORT ROD, MONSOON	3
13	1105	3/8-24 HEX NUT ZINC PLATED GRADE 5	6
14	2665	MONSOON NOZZLE	1
15	2678	RUBBER RETAINING GASKET, MONSOON	1
16	2679	GASKET RETAINER STAINLESS, MONSOON	1
17	2675	3/4" STREET "L" 304 STAINLESS 150 LB	2
18	1525	3/4" BRASS BALL VALVE	1
19	2677	3/4" BRASS HOSE ADAPTER	1

**PLEASE CONTACT BUFFALO TURBINE AT 716-592-2700
BEFORE ATTEMPTING TO SERVICE GYRATORY ATOMIZING NOZZLE.**

WIRING SCHEMATIC CONTROL BOX



BILL OF MATERIALS FOR BT-CPTOM			
REF PAGE #	PN	DESCRIPTION	QTY
	1100	3/8-24 X 1-1/4 HHCS ZINC GR 5	6
	1101	3/8-24 X 1-1/2 HHCS ZINC GRADE 5	3
	1102	3/8-24 X 1-3/4 HHCS ZINC	3
	1105	3/8-24 HEX NUT ZINC PLATED GRADE 5	14
	1106	SPACER-3/8 X 3/16 THICK WASHER	4
	1107	3/8 LOCK WASHER ZINC PLATED	16
	1108	3/8 FLAT WASHER ZINC PLATED	10
	1110	KEY, 1/4 X 1-1/2	1
	1112	7/16-20 TOPLOC NUT ZINC GRADE 5	4
	1113	7/16-20 X 2-1/2 HHCS ZINC GRADE 5	4
	1114	COUPLING FLANGE 1-1/4 BORE	1
	1116	¼-14 X 1 HEX HEAD WASHER SELF DRILLING SCREW	1
15	1119	14-221-D1 BELLMOUTH	1
	1123	M8 X 1.25 X ¾ HHCS PLATED	4
	1130	5/16-18 X 3/8 SET SCREW	1
15	1142	A-54 V-BELT	1
15	1145	SHEAVE AK32 X 1/2	1
	1156	SERIAL TAG	1
	1169	¼-20 X 1 HHCS ZINC	4
15	1171	ELBOW SEGMENT	1
15	1173	CLAMP BAND W/ BOLT & NUT	2
15	1180	½-13 NYLOC NUT ZINC	4
15	1198	LIFT PINS WITH NUTS AND LOCKWASHERS	2
15	1208	TOP PIN, UPPER	1
15	1225	7/16" LYNCH PIN	3
15	1226	½ FLAT WASHER	4
	1228	ROTATING DRIVE HAZARD DECAL	1
	1256	MOREFLEX CENTER SECTION	1
	1259	¼ LOCKWASHER	7
15	1271	5/16-18 HEX NYLOC NUT	1
15	1419	5/16-18 X 2 HHCS GR5 ZINC	1
	1540	5/16 LOCKWASHER ZINC	8
	1541	5/16 FLAT WASHER	4
15	1553	PTO SHAFT	1
	1669	¼-20 X .055 HEAD INSERT	4
15	1707	U-BOLT	2
	1783	CE LABEL	1
15	1785	GUARD ROTATION MOTOR BELT	1
	1819	BLACK CABLE TIES	1
	1820	5/16-18 X ¾" LONG HHCS ZINC GRADE 5	4
	2076	16/14 FULLY INSULATED FEMALE QUICK DISCONNECT	2
15	2499	PLASTIC BELT GUARD MOUNT	1
15	2500	1/8" X 2 ½" LONG COTTER PIN	1
15	2547	GYRATORY ATOMIZING NOZZLE	1
15	2575	CPTO GEARBOX	1
	2602	COUPLING FLANGE 1.18 BORE (GEARBOX)	1
15	2670	PLASTIC END BELL, IIC SHIELD	1
15	2671	FRAME, BT-CPTO	1
15	2672	GUARD, BT-CPTO	1
	2680	10MM-1.5 X 25MM LONG HHCS ZINC GRADE 5	6
15	2690	MOUNTING SHAFT 21 3/8" FOR REAR ROLLER, CPTO	1
15	2692	REAR ROLLER ASSEMBLY	1
	2693	KEY, 5/16 X 1 ½"	1
	2694	GEAR OIL	.6875 QT
15	2754	CPTO, RETRO-FIT SUPPORT BRACKET	1
	2869	7/16-20 x 3/8" SOCKET SET SCREW	4
	3152	¼-28 X 1" LONG HHCS GRADE 5 ZINC PLATED	3
	3181	MONSOON DECAL	2
	3221	CE PTO LABEL KIT	1
	3380	M10 SPLIT LOCK WASHER, ZINC PLATED	6
	3384	NYLON SELF-RETAINING WASHERS	4
15	3398	ROTATION MOTOR, RIGHT ANGLE, 12V, BI DIRECTIONAL	1
15	3407	ROTATION MOTOR BRACKET	1
15	3434	RH BLOWER ASSEMBLY, NOT NIPPED	1
15	3836	3/8"-24 X 2" LONG FLAT HEAD SOCKET CAP SCREW ZINC PLATED	4
15	3837	ELBOW BASE RING BEARING	4
15	3840	V-GROOVE BASE RING	1
15	3843	BEARING BUSHING	8
	4246	3/16" VINYL COATED LOOP CLAMP	2
15	4281	JOYSTICK CONTROLLER, 12' CORD	1

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.

