



CONVEYAIR™
GRAIN VAC

MODELS *Ultima 5*
Ultima 5i *Ultima 6*

Thors

MANUFACTURING LTD.
Serving Over 50 Years

Owners Manual

Introduction

Congratulations, you have selected an Ultima Series Conveyair Grain Vac which is designed and engineered to help you make farming Easier, Healthier and Safer.

Our knowledgeable engineering and production staff have built both performance and durability into each Conveyair. Our grain vacs have been sold to farmers in Canada, Europe, the USA, Australia and the Middle East.

To get the maximum benefit from your CONVEYAIR please read the owners manual carefully.

How to use this manual

We recommend that you study this manual from beginning to end BEFORE operating your new Conveyair Grain Vac. We have tried to keep it brief and to the point. It is important that you pay special attention to the safety cautions in this book and on your equipment.



Safety Warnings and Symbols



As with all farm equipment, it is extremely important that you familiarize yourself with all the safety precautions and follow them wisely.

Words like CAUTION or DANGER will tell you about things that could hurt you if you were to ignore the warning!



This safety symbol means:

“Don’t”
“Don’t do this” or
“Don’t let it happen”



Manufacturing Ltd.

Conveyair™ Pneumatic Grain Handling Systems

77 Beghin Avenue, Winnipeg, MB Canada R2J 3S8 • 204-982-8350 • 204-663-8238 Fax • 1-800-582-3944 Toll-free

Customer Satisfaction Survey

PRODUCT: Conveyair™ Ultima Series Grain Vac

Name _____ Phone _____ Fax _____

Address _____

Model _____ Dealer Name _____

Purchase Date _____

Note: For each of the first four questions give us your rating between 1 and 10. One being the poorest and 10 being the best rating. Please fax, mail or call us with your reponses.

1 How would you rate our product quality? _____

2 How would you rate us on our on-time delivery? _____

3 How easy are we to deal with? _____

4 How would you rate our response time regarding returned calls and service? _____

5 Would you use our product again? _____

6 Would you recommend us to a friend? _____

Comments *(optional)* _____

CONVEYAIR GRAIN VAC™

WARRANTY REGISTRATION FORM AND INSPECTION REPORT

WARRANTY REGISTRATION

Failure to return this registration to Thor within 10 days of delivery will VOID warranty.

This form must be filled out by the dealer and signed.

Mail to: Thor Manufacturing, 77 Beghin Avenue, Winnipeg, MB Canada R2J 3S8

Customer Name _____	Dealer _____
Address _____	Address _____
City _____	City _____
Prov./State and Postal Code/Zip _____	Prov./State and Postal Code/Zip _____
Telephone _____	Sub Dealer _____
E-mail _____	Address _____
Conveyair Model # _____	City _____
Conveyair Serial # _____	Prov/State and Postal Code/Zip _____
Air Pump Serial # _____	Date Purchased _____
Airlock Serial # _____	Check one: <input type="checkbox"/> Commercial Use <input type="checkbox"/> Farm Use

WARRANTY REGISTRATION

- Belt Tension and Alignment
- Hydraulic Fittings
- Hydraulic Lines
- All Reflectors in Place
- Wheel Bolts Tight
- Tire Pressure (32psi)
- All Grease Fittings Greased
- Cam Lock Couplers Operate Freely
- PTO Shaft Installed Properly

Blower Reservoir Levels

- Front
- Rear

Self-contained Hydraulics

- Hydraulic oil Level
- Hydraulic Control Operation

Safety

- All safety procedures have been reviewed with customer
- All Warning Decals are in place, clean and legible
- Customer has been instructed to review safety and operating procedures with all operators annually
- All Shields in place

I have thoroughly inspected the machine and made adjustments and corrections as needed

Inspected by

Signature (inspector)

Date

I have thoroughly instructed the buyer on the above described equipment and included a review of the Operators Manual, Equipment Care, Adjustments, Safe Operations and Applicable Warranty Policy.

Date

Dealer's Rep Signature

The above Equipment and Operators Manual have been received by me and I have been thoroughly instructed as to Equipment Care, Adjustments, Safe operations and Applicable Warranty Policy

Date

Owner's Signature

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Serial Numbers

When you order parts or require service, provide your dealer with complete **PARTS, MODEL & SERIAL NUMBER(S)!**

You will find TWO serial numbers on your unit, we suggest you enter these in your manual now for quick reference later:



LOCATIONS

- 1. Machine Serial number -**
Look at rear of machine, right side
- 2. Blower Serial number -**
Look at front of machine at side of blower facing receiver tank

.....
Machine Serial Number

.....
Blower Serial Number

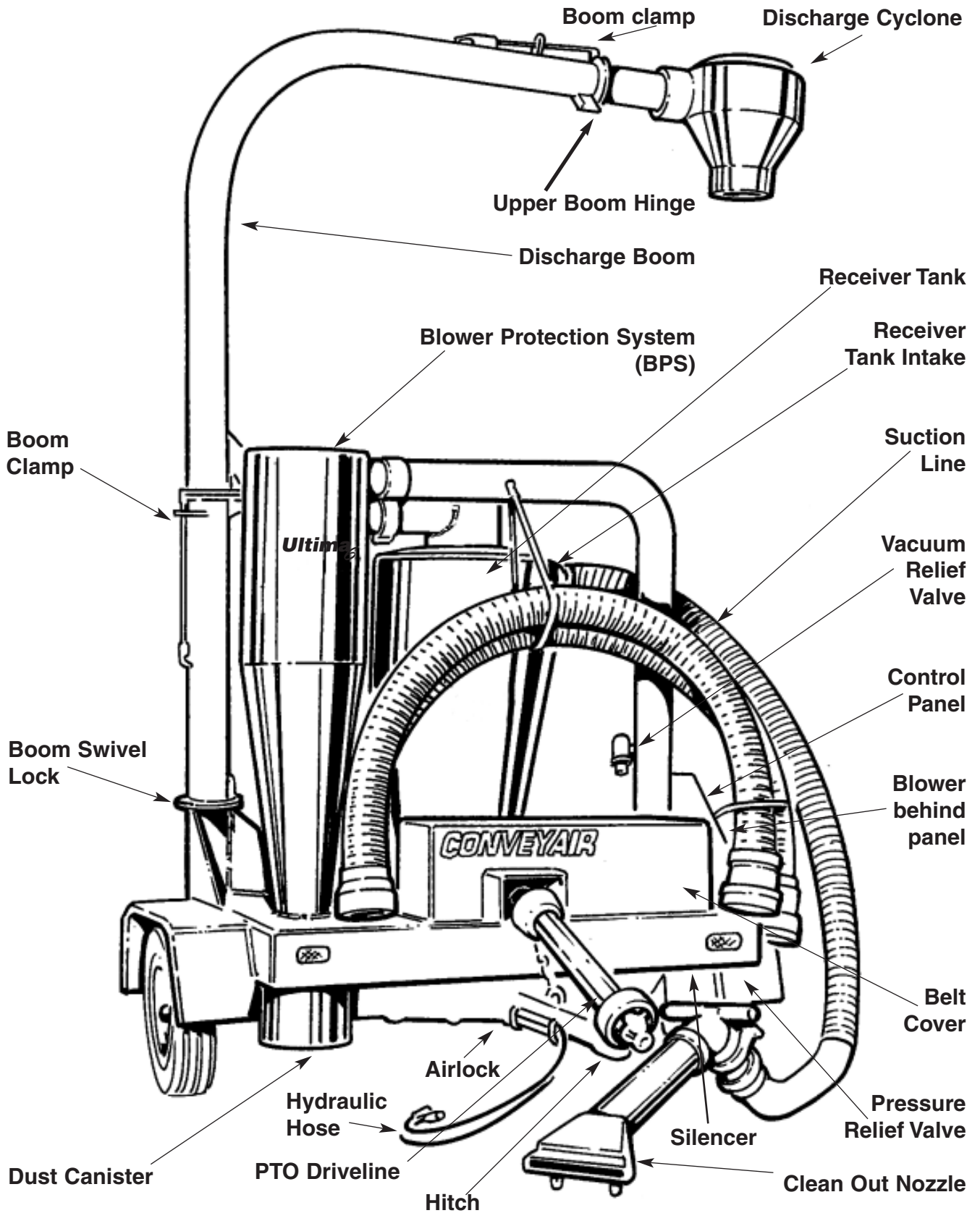
Specifications

	Ultima 5, 5i	Ultima 6
Minimum Horse Power (1000 PTO RPM)	80	110
Length	2.43 m (96")	2.43 m (96")
Width	2.36 m (93")	2.36 m (93")
Height (transport)	2.54 m (100")	2.54 m (100")
Clearance (under cyclone)	3.50 m (138")	3.50 m (138")
Weight (complete with accessories)	1106 Kg (2440lb)	1204 Kg (2650 lb)
Tire size	6.70 x 15 (8 ply)	6.70 x 15 (8 ply)
Tire Pressure	35 PSI	35 PSI

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE



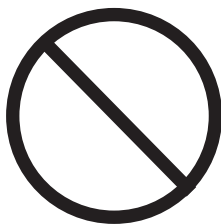
Read and understand the operation manual before operating the CONVEYAIR.
Always follow safety and operating instructions as outlined in this manual
Familiarize yourself with the terms shown on this page.



Safety Precautions

Thor Manufacturing is concerned about your safety and is committed to the prevention of accidents. SAFE AND CORRECT USE of this equipment will help prevent accidents.

Be sure anyone who operates the CONVEYAIR GRAIN VAC has read and understood this manual! BEFORE operating, maintaining, adjusting or unplugging the grain vac. Review at least annually as per OSHA (Occupational Safety and Health Administration) regulations 1928.57



Do not modify the equipment in any way. Unauthorized modifications may impair the function and/or safety and could affect the life of the equipment.

SAFETY WARNINGS AND SYMBOLS



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

**WATCH OUT FOR THIS SYMBOL ON
YOUR CONVEYAIR® GRAIN VAC AND
THROUGHOUT THE MANUAL.**

SIGNAL WORDS:

DANGER - An immediate and specific hazard which WILL result in severe personal injury or death if the proper precautions are not taken.

WARNING - A specific hazard or unsafe practice which COULD result in severe personal injury or death if proper precautions are not taken.

CAUTION - Unsafe practices COULD result in personal injury if proper practices are not taken, or as a reminder of good safety practices.



Operating Safety

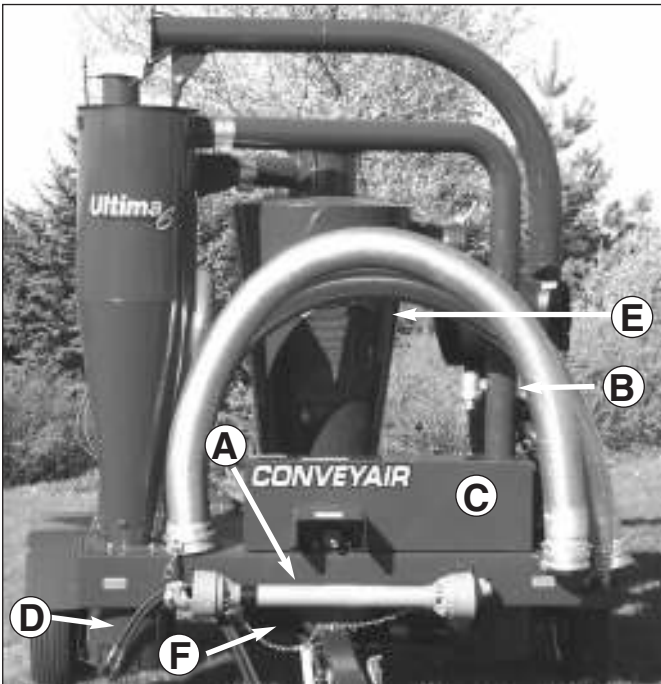


1. Wear appropriate ear protection.
2. Never wear ill-fitting, baggy or frayed clothing when working around or on any of the drive system components.
3. Always know where all overhead electrical wires are located and stay away from them.
4. Do not allow riders.
5. Install and secure all guards and shields before starting or operating.
6. Keep hands, feet, hair and clothing away from moving parts.
7. Place all controls in neutral, stop tractor engine, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
8. Place all tractor and machine controls in neutral before starting.
9. Never operate the Conveyair and power unit inside a closed building.
10. Clear area of bystanders, especially small children, before starting.
11. Stay away from PTO shaft, intake nozzle and discharge when engaging PTO.
12. Keep all hydraulic lines, fittings and couplers tight and free of leaks.
13. Clean reflector, SMV and lights before transporting.
14. Use proper lighting when transporting.
15. Use a retainer or drawbar pin, secure PTO shaft and install a safety chain when attaching to tractor.
16. Stay away from overhead electrical wires when operating boom or when moving.
17. Do not remove receiver inspection window while tractor is running.
18. Do not remove elbow from airlock outlet when tractor is running.
19. Stay clear of truck loading boom when folding it.
20. Review safety instructions with all operators annually.

Safety Precautions

SAFETY DECAL LOCATIONS

Decals with “CAUTION”, “ DANGER”, “WARNING”, and other information appear on your machine for your safety. Read the information carefully and replace the decals that are no longer legible.



DANGER

ROTATING DRIVELINE HAZARD

To prevent serious injury or death from rotating driveline:

- Keep all guards in place when operating.
- Operate only at 1000 RPM.
- Keep hands, feet, hair and clothing away from moving parts.

SW105

Shield & Shaft “ A”

CAUTION

- Read and understand the Operator's Manual before starting and operating.
- Never operate the machine inside a closed building.
- Install and secure all shields before operating.
- Clear the area of people, especially small children, and the machine of foreign objects before using.
- Keep hands, feet, clothing and hair away from moving parts and inlet nozzle.
- Place all controls in neutral, stop engine, remove key and wait for all moving parts to stop before servicing, lubricating, adjusting or unplugging.
- Watch for overhead electrical wires and obstructions. Electrocution can occur without direct contact.
- Never operate machine with hydraulic leaks.
- Secure hitch, fasten safety chain and connect lights before transporting.
- Wear suitable ear protection for prolonged exposure to excessive noise.
- Chock wheels and block hitch before operating.
- Review safety items with all operators annually.

68.040

DANGER

ELECTROCUTION HAZARD

To prevent serious injury from electrocution: Stay away from overhead electrical wires when operating the discharge boom. Electrocution can occur without direct contact.

68 056

Control Panel “B”

Safety Precautions

 WARNING	ROTATING PART HAZARD To prevent serious injury or death from rotating parts: 1. Close and secure guard before operating. 2. Shut-off engine and wait for moving parts to stop before opening to adjust, service, lubricate or unplug. 3. Keep hands, feet, clothing and hair away from moving parts.
	

Guard "C"



CAUTION

EMPTY DUST CANISTER FREQUENTLY AS PER OPERATORS MANUAL



Dust Canister "D"



Dust Canister "D"

 WARNING	ROTATING AIRLOCK HAZARD To prevent serious injury or death from airlock blades: 1. Do not place hands in tank when airlock is turning. 2. Shut-off engine and wait for moving parts to stop before opening door to adjust, service or unplug.
	


Receiver Tank "E"

 WARNING	ROTATING AIRLOCK HAZARD To prevent serious injury or death from airlock blades: 1. Do not place hands in tank when airlock is turning. 2. Shut-off engine and wait for moving parts to stop before opening door to adjust, service or unplug.
	

Back Frame "F"

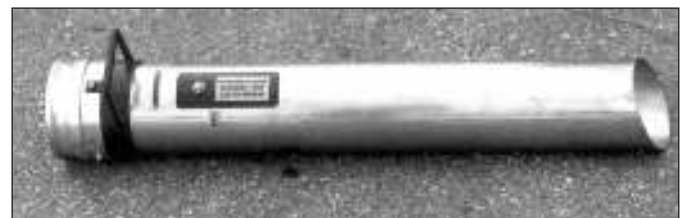


"F" Airlock behind frame

 **WARNING**

Do not place intake tube near feet when standing on top of grain. Sufficient material can be removed to draw the operator and intake tube into the grain. Submersion in grain can cause suffocation.

Bin Nozzle "G"



Bin Nozzle "G"

Transport

The conveyair grain vac is designed to be easily moved from location to location. When transporting, follow this procedure:



TRANSPORT SAFETY

1. Make sure you are in compliance with all local regulations regarding transporting equipment on public roads and highways.
2. Make sure the SMV(Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic.
3. Do not allow anyone to ride on the grain vac or tractor during transport.
4. Do not exceed 32 km/h (20 mph). Reduce speed on rough roads and surfaces.
5. Use a retainer on the drawbar pin and install a safety chain before transporting.
6. Always use proper lighting on the tractor when transporting.
7. Stay away from overhead electrical wires. Electrocutation can occur without direct contact.

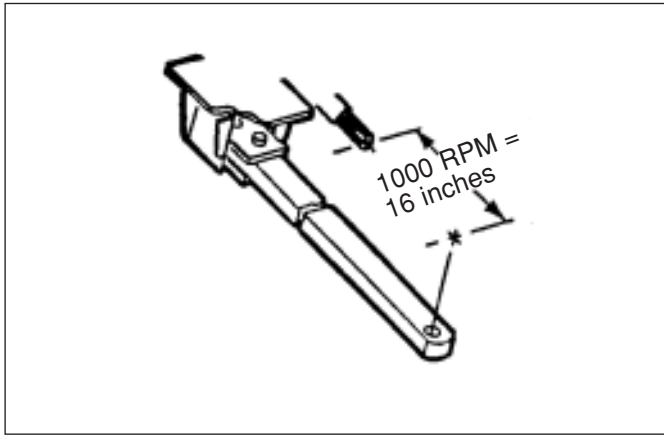
8. When using a ball and socket, make sure the locking jaws are pinned securely in position.

9. Make sure all components and accessories are retracted and securely stowed before moving.

Speed VS Weight Ratio

Road Speed	Weight of fully equipped or loaded implement(s) relative to weight of towing machine.
Up to 32 km/h (20 mph)	1 to 1, or less
Up to 16 km/h (10 mph)	2 to 1, or less
Do not tow	More than 2 to 1

EQUIPMENT MATCHING



Drawbar

To provide sufficient clearance for turning and to allow telescoping of the shaft, leave 16" between the end of the shaft and drawbar pin-hole centre. Consult your tractor manual for the drawbar adjustment procedure.


Tractor Horsepower (PTO RPM -1000)

Model	Minimum Horsepower
Ultima 5	80
Ultima 5i	80
Ultima 6	110

PTO Shaft

1000 RPM - 21 Spline. 1 3/8" dia.

Attach PTO shield safety chain to hitch.



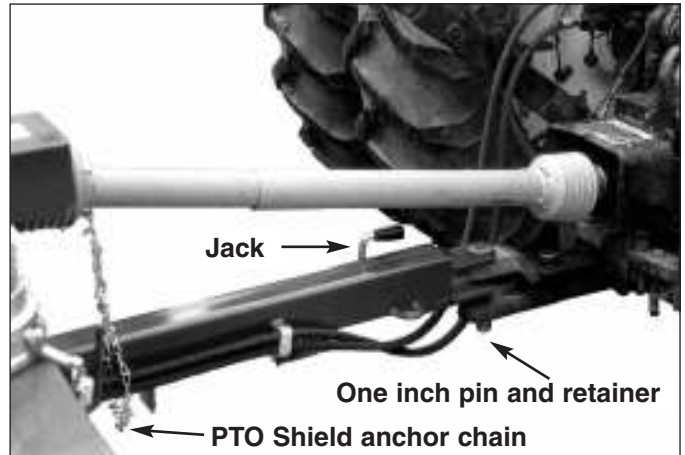
*To prevent operating at the wrong RPM Do Not use a shaft adapter on the tractor shaft .
Use extra care when using a tractor with a shiftable PTO speed.*

Hydraulic System

The power unit must have dual remote hydraulic outlets to operate the airlock motor and the boom lift circuit. The system must deliver at least 6 gpm (23 lpm) @ 1800 PSI.

Getting Ready

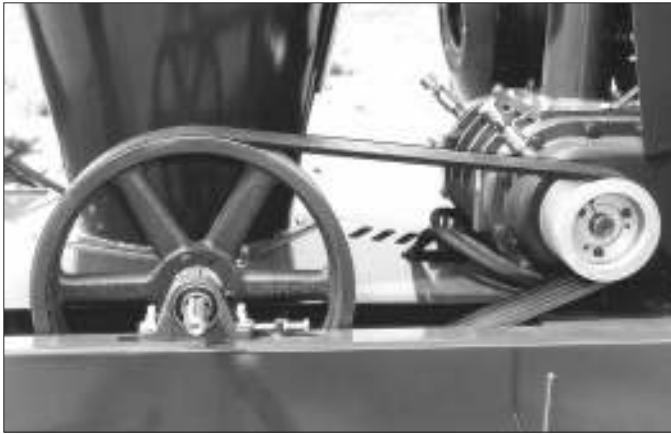
ATTACHING TRACTOR



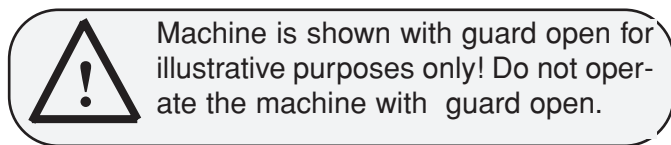
Drawbar

1. Clear area of bystanders.
2. Use the jack on the hitch to adjust the height of the hitch to the drawbar.
3. Slowly back up to the machine and align the drawbar with the hitch.
4. Place all controls in neutral, stop tractor engine, set the park brake, remove ignition key and wait for all moving parts to stop before dismounting.
5. Insert a 1 inch (25 mm) hardened drawbar pin and install a retainer such as a Klik pin.
6. Attach a safety chain between tractor and Grain Vac.

Getting Ready



7. Open the belt cover and rotate the large pulley by hand to be sure the air pump turns freely.



Machine is shown with guard open for illustrative purposes only! Do not operate the machine with guard open.

Attach PTO Shaft

1. Clean splined yokes on the driveshaft.
2. Check that the driveshaft telescopes easily and that the shield turns freely on the shaft. Lubricate or clean before attaching if it does not move freely.
3. Pull back locking collar on the yoke and slide the yoke over the splined shaft of the large pulley. Rotate the pulley by hand as needed to align the splines of the yoke and the shaft.
4. Be sure the locking pin clicks into its locking groove on the shaft.
5. Attach the shield anchor chain to the frame.
6. **Close and secure the belt cover.**

Attach Hydraulic Lines

1. Clean hydraulic couplers and male tips. (Thor factory supplied male tips are Standard 150 Tips).
2. Route the hydraulic hoses along the hitch and away from moving parts. Secure in position with clips or ties. (Be sure hoses are not pinched or crimped).

BPS and Receiver Tank Screens

Before moving grain or other materials ensure both BPS screen and main receiver tank screen are installed in machine properly at all times. (see: location on drawing, page 13)

Controls



Hydraulic controls are located on the control panel on the left hand side of the machine.

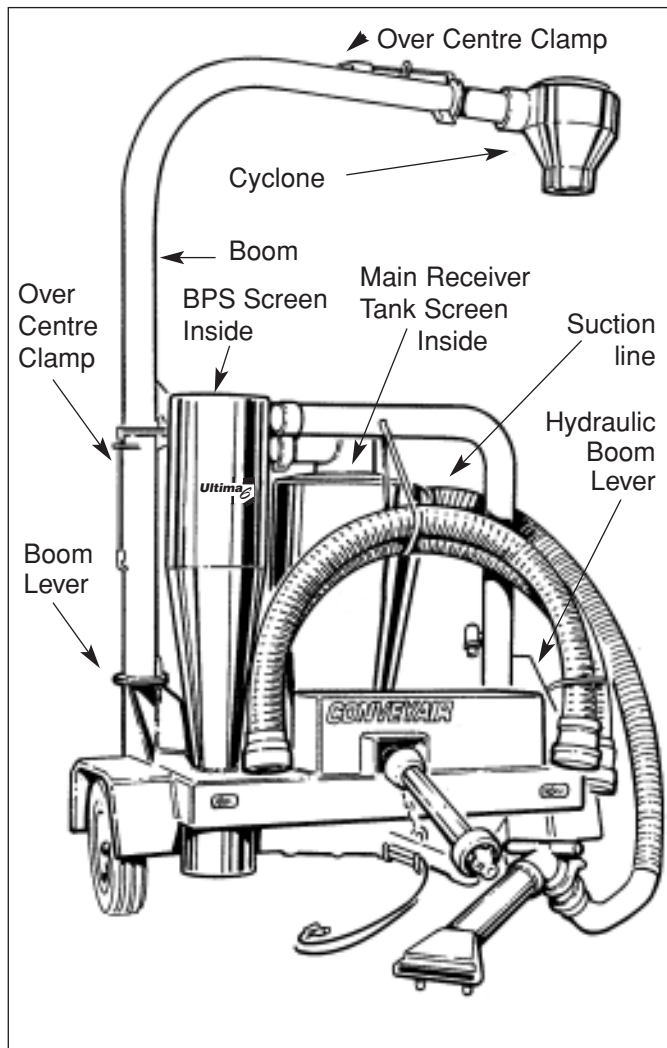
1. Airlock Speed.
 2. Hydraulic boom control.
- Note: Optional airlock control valve is located on reverse side of panel.

We suggest you thoroughly familiarize yourself with the function of each control before regular operation.

Oil Level

Check the oil level in the blower reservoir. Add correct oil as required.

Position Boom



Boom Swivel

Boom Swivel

1. Set the park brake and run the tractor at low idle engine RPM. Place all controls in neutral. Place chocks ahead and behind rear tires to prevent machine movement when operating.
2. Use the control lever in the cab to engage the remote hydraulic circuit.
3. Unlatch boom transport clamp, flip up the boom lock, and swing boom back until it clears the transport step.



All bystanders should stay well clear of boom when raising or lowering it!!

Getting Ready

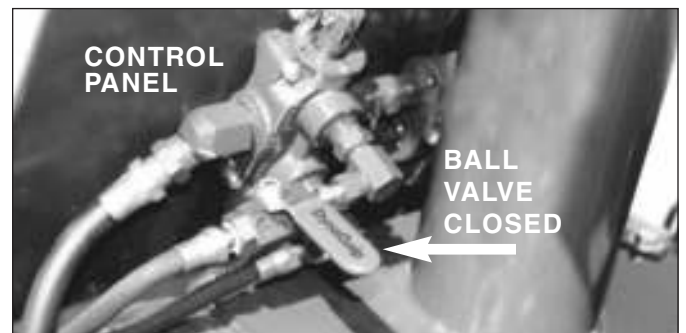


DANGER

Stay at least 15 feet (5 m) away from overhead power lines when moving the boom. Electrocutation can occur without direct contact.

4. Use hydraulic boom lever (Up to raise, down to lower). Carefully raise boom high enough to allow cyclone assembly (at end of boom) to swivel into position.
5. Secure cyclone into position, using over-center clamp.
6. Now lift boom all the way into working position.
7. Secure boom with Over Centre Clamp.

NOTE: Close Boom Hydraulic Lock!



8. When boom is fully up and locked, close ball valve at rear of control panel as shown above.
9. Attach suction line to the receiver tank intake coupler. Close camlock couplers.
10. Flip transport step up during operation of Conveyair.

Getting Ready

Airlock Rotation



Do not run the airlock in the reverse direction. Damage may occur to the hydraulic motor.



Check the rotation of the airlock. Coupler should turn as indicated by arrow.

If airlock rotates in wrong direction, stop and reverse direction of control lever on the tractor, or shut down the hydraulic system and reverse the order of the hoses plugged into the tractor couplers.

For Best Performance

1. Working area should be reasonably level and dry.
2. The tractor should be positioned to have the driveline angles at a minimum.
3. The Conveyair should be located so the intake line is as straight and as short as possible.
4. When using the Conveyair to load trucks, make sure there is adequate room for the receiving vehicle to get under the discharge cyclone.

Breaking In

Your machine has been operated for a short time at the factory to assure good performance. It can however not be considered broken in. It normally takes 5 to 10 hours of operation for all parts to be polished by the grain stream and for the machine to come up to full capacity.

We recommend the following checks during the break in period:

A. After operating for 1/2 hour -

1. Check for overheated bearing. Lubricate or adjust as required*.
2. Check for oil leaks. Tighten or replace part and oil as required*



WARNING

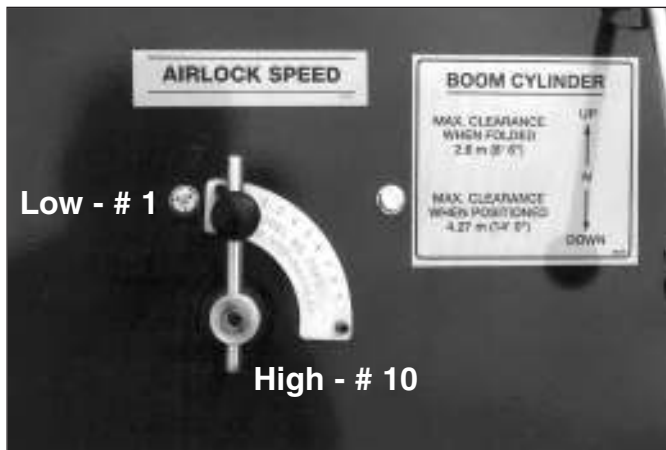
High pressure fluids can penetrate the skin and cause infection and toxic reaction.

3. Retorque all hardware - Wheel bolts and fasteners.
4. Check belt tension and adjust as required*.
5. Check the oil levels in the blower reservoirs. If low, add oil as required. Check for leaks and correct if problem persists*.

** Check maintenance section for proper procedures. (Also see page 27 for hydraulic safety)*

B. After operating for 2 to 10 hours -

1. Perform the same checks and inspections as done at 1/2 hour.
2. After the 10 hour inspection, go to normal service and maintenance procedures.



1. Set Airlock Speed

For maximum performance adjust speed most suitable for material moved.

Material	Airlock Speed (RPM)
Barley	50 - 60
Canola	45 - 60
Corn	45 - 60
Flax	35 - 55
Wheat	45 - 60
Oats	45 - 60

Material consistency varies widely in the field. Airlock speed is also affected by suction and discharge length. To obtain maximum performance, try different airlock speed, using above guide.

A rule of thumb is the larger and heavier the kernel, the faster the airlock should turn.

Tip - with light oats, or other light grains, slow PTO speed down to 900 or 950 RPM.

Adjusting Speed

Using a stop watch, the airlock can be set by counting the number of turns the coupler makes. Coupler is visible through the three slots in the deck of the machine. One turn per second equals 60 RPM.

Adjust airlock RPM by moving the airlock speed lever on your control panel towards # 10 to increase speed, toward # 1 to slow down. Move lever slowly, a small movement will make a significant change in airlock speed.

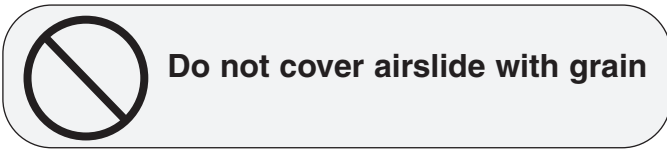
Operation

SHORT DISTANCE TRANSFER



Insert bin nozzle.

Connect hose from receiver intake to bin nozzle. Set the air slide on the full bin nozzle all the way open and push the nozzle into the material to be moved.



The line of the grain can be horizontal, angled or vertical depending on conditions.

Adjust the airslide on the full bin nozzle so that the material moves across the **sight glass window** of the receiver tank to approximately half way (no more than 2/3) up the window. If the machine starts to surge, slowly open slide till surging stops.

IMPORTANT

Note: Should the material stop moving and completely cover the sight glass window in the receiver tank, the machine will quickly plug. Immediately open the air slide fully, on the full bin nozzle, to allow the machine to clear itself.

If your machine is an Ultima Series grain vac, simply remove the nozzle from the grain and forward and reverse the airlock several times to empty the tank. Then ensure the airlock is turning counter clockwise and resume operation as normal.

16 Otherwise follow the next 6 steps:

IMPORTANT

If the machine still does not clear itself do the following:

- Stop machine** by slowly reducing tractor rpm to an idle, then disengage PTO. Remove dust pail which will allow any material in the bottom of Blower Protection Cyclone to run out.
- Remove nozzle from grain source
- Start the machine and allow the Receiver tank to empty itself. Then stop machine again
- Remove the top on the Blower Protection Cyclone and clean out any material in the top of the cyclone and in the pipe between the receiver tank and the Blower Protection Cyclone.
- Replace the Dust pail and the Top on the Blower Protection Cyclone.
- Start machine, (RECHECK AIRLOCK SPEED , page 15) and reset the air slide as per start up instructions.

Note: Airlock should not turn faster than 65 RPM or slower than 30 RPM.



LONG DISTANCE BLOWING



WARNING

Do not use P.V.C. or other plastic tubing for long distance application. The build-up of static electricity could lead to an explosion.



Auxiliary airslide. Located on the airline between the receiver tank and the air pump.

If discharge length is more than 40 ft. (12 m) or if blower gets too hot to the touch, open the airslide approximately 1/4" - 1/2" (6 - 12mm) for every 100 ft. (30 m) discharge. Open further if blower still gets hot.

Opening the airslide too far will affect capacity as adversely as not opening it at all.

TOP LOADING

(Push Only)

For top loading, remove top cover of large cyclone. **To avoid feed back be sure grain enters below opening to BPS (smaller) cyclone.**



LONG DISTANCE SUCTION

For sucking grain more than thirty feet, use straight piping where possible!

Remember: The straighter the suction line the greater the capacity of the Conveyair.

CLEAN UP

When machine need not be at full capacity, e.g. when cleaning bins, the tractor can be throttled down.



The rougher walls of the steel flex hose and the poly intake hose provide more resistance than smooth pipe. Capacity may be lowered by 20 to 40% compared to straight piping.

Use Poly hose for clean up only.



Do not dent, stretch or overbend steel flex line excessively.



Do not store poly hose in sunshine, avoid sharp obstructions that could cut or puncture the hose.

For regular cleanup use a combination of steel flex line, straight piping and poly hose. This will give you the needed flexibility to easily get into corners and around obstructions without sacrificing too much capacity.

SEED DRILL CLEAN OUT

When using the seed drill clean out kit, operate the tractor at idle only to reduce suction air flow. The receiver tank can be used as a holding tank by stopping the airlock until the seed can be discharged into a truck or storage.

Operation

CLEANUP OF SPILLS AND GROUND STORED GRAIN

Extreme caution should be exercised when cleaning spills or grain stored on dirt. Sand and dirt may cause excessive wear to blower, and life expectancy of the unit can be reduced significantly.

FILLING BINS AND TEMPORARY STORAGE



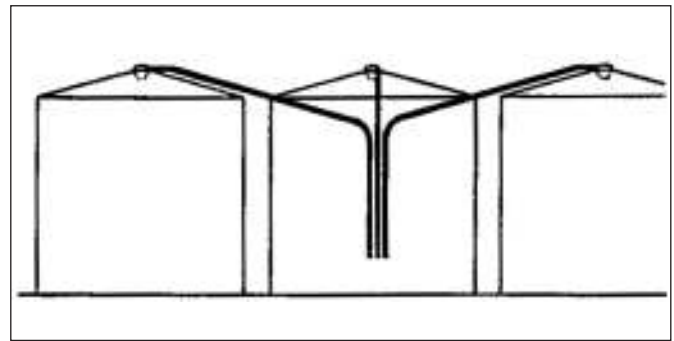
Rear discharge option required.

When discharging into bins, remove the airlock discharge elbow and couple the machine to stationary or movable piping.

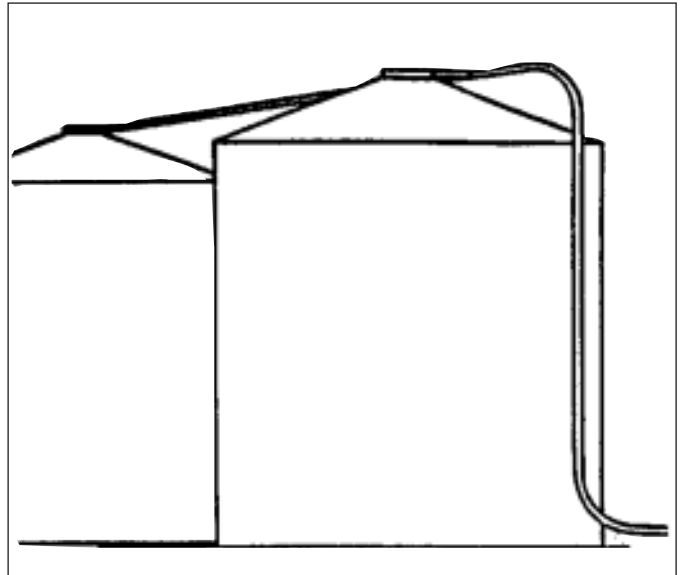
For best performance, review recommended installation schematics. Use Thor parts to insure good sealing and maximum performance.

Contact your dealer for more information.

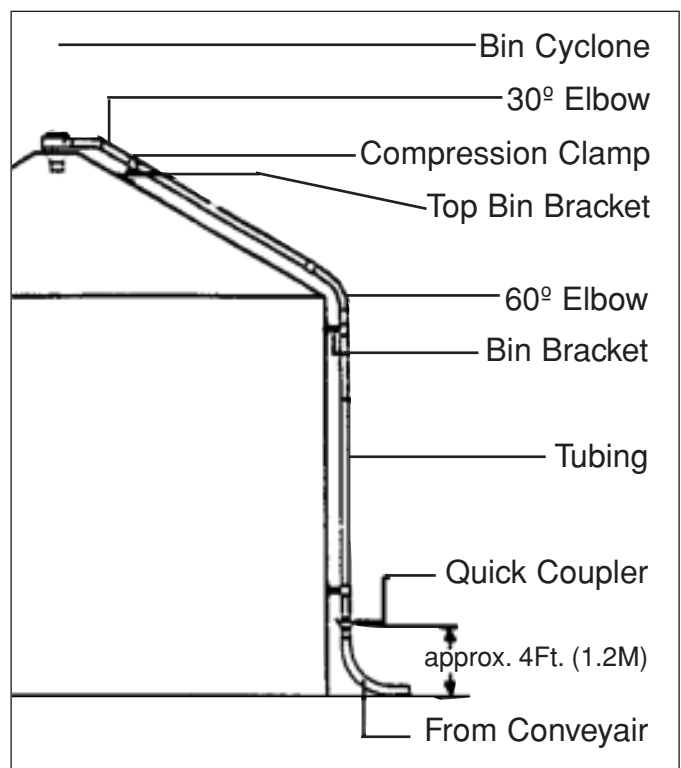
Silos over 100 feet tall can be filled with your CONVEYAIR!



Multiple Bins (Parallel)



Multiple bins (Series)



Bin Fill System

Accessories



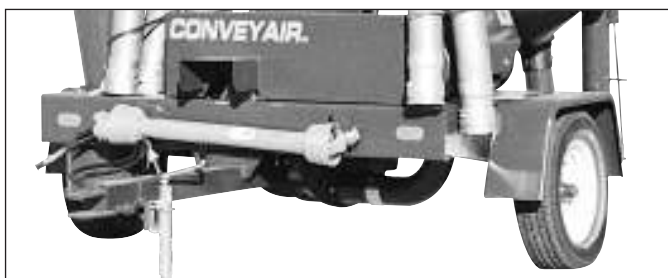
Cam Lock Couplers



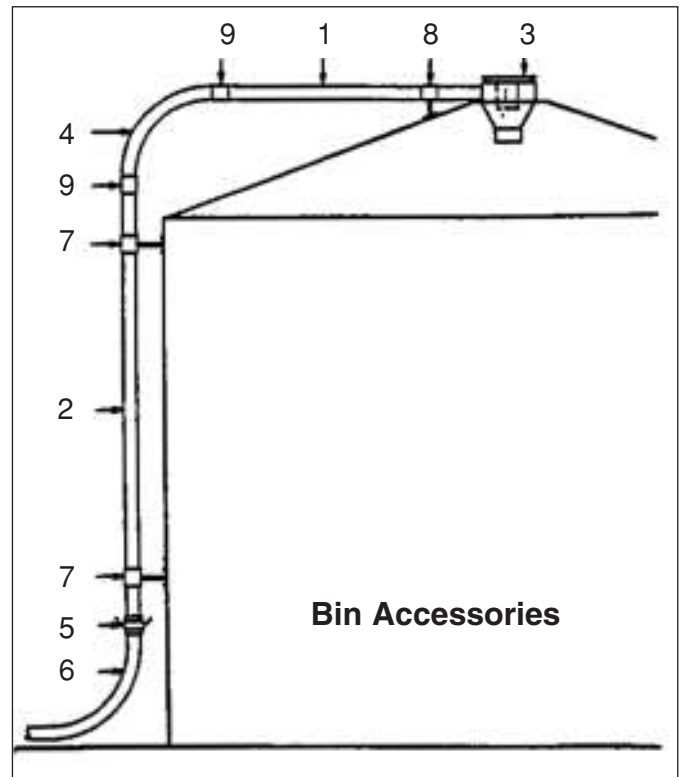
Cyclone sock for windy conditions



Seed Drill Cleanout Kit



Fenders



Bin Accessories

1. Horizontal Pipe Section.

Steel or aluminum. Matched to 5" or 6" Conveyair Grain Vac.

2. Vertical Pipe Section. Specs as above.

Sections may be welded or coupled together with 3-bolt clamp.

3. Bin Top Cyclone. Cyclones come equipped with a rain cap and can also double as aeration vents.

For temporary installations, use the lightweight poly cyclone and attach with quick couplers.

4. 90 Degree long radius elbow. Weld in place or secure with 3-bolt clamp.

5. 5" or 6" female quick couplers.

6. Delivery from CONVEYAIR to bin. Use a combination of short stainless lined steel flex and long radius 90 degree elbow.

7. Side wall bin brackets.

8. Angle top mount bracket.

9. 3 Bolt clamp.

10. SEE PARTS LIST FOR STANDARD HOSE AND OTHER PARTS.

Fluids and lubricants

Grease

Use any SAE multi -purpose high temperature grease with extreme pressure (EP) performances and containing at least 1.5% molybdenum disulfide or SAE Multi-Purpose Lithium Base Grease.

Oil

Blower: Grain Vacs Serial No. 3000 and later
USE SYNTHETIC GEAR OIL
Mobil SHC 630, or equivalent

Grain Vacs Serial No. 2999 and earlier
USE 15W40 MULTI GRADE OIL equal to or exceeding SAE "SF" specifications

Capacity drive end 850 ml / 28.7 fl. oz US
Capacity gear end 1000 ml / 33.8 fl oz US

Hydraulic Oil Reservoirs: Self Contained Hyd.

10W Hydraulic oil equal to or exceeding SAE "SF" specifications.
Capacity - (31 qt. US)

Cleaning agent

WD40 or equivalent.



CAUTION

1. Place all controls in neutral, stop tractor engine, set park brake, remove ignition key and wait for all moving parts to stop before servicing.
2. Before applying pressure to a hydraulic system, make sure all lines, fittings and couplers are tight and in good condition.
3. Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.

1. Use only a manual grease gun for all greasing. Air powered grease guns may damage the seal on bearings, leading to early bearing failure.

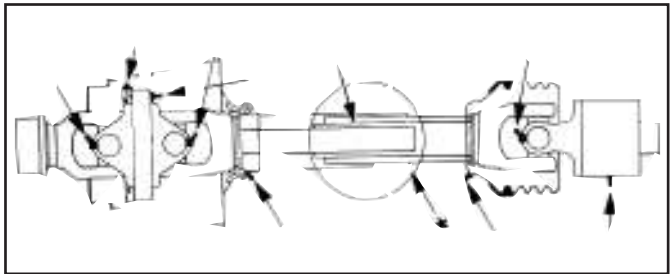


IMPORTANT

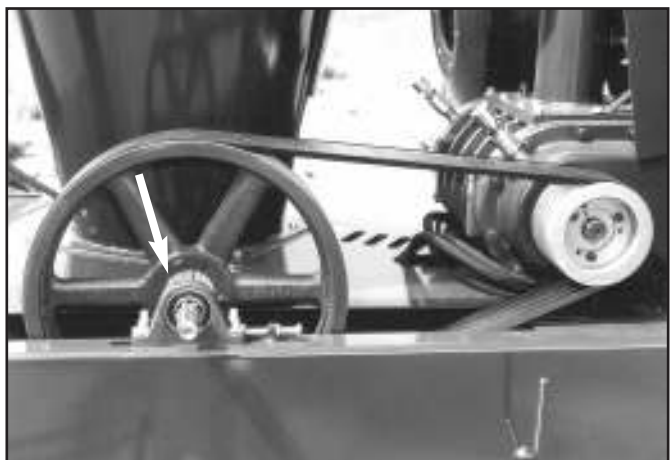
Do not over grease, it can damage bearing seals.

2. Wipe grease fitting with a clean cloth before greasing, to avoid injecting dirt and grit.
3. Replace and repair broken fittings immediately.

8 Hours or Daily



PTO SHAFT (9 Locations)



Input Pulley Shaft, front and rear



CAUTION

Machine is shown with guard open for illustrative purposes only. Do not operate machine with guard open.

Lubrication

8 Hours or Daily

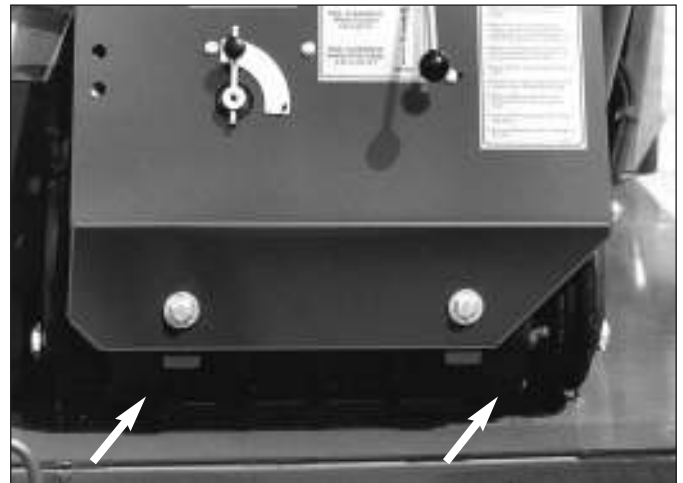


Check air pump oil level in reservoirs, front and rear (2 locations). Add as required.

NOTE

Check when the oil is cold and the machine is level.

100 Hours or 6 Months

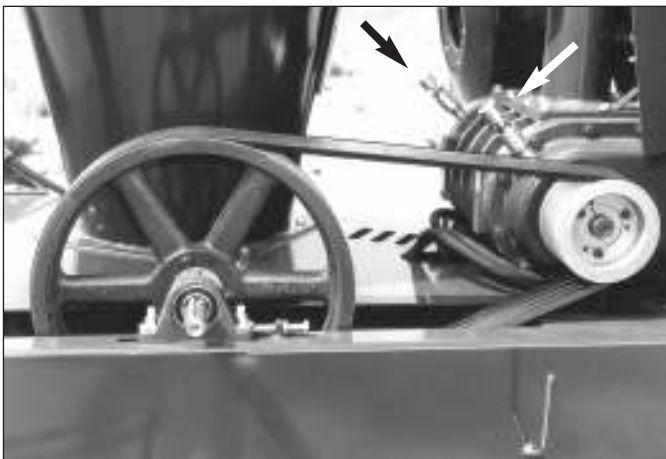


Change the oil in air pump reservoirs (front and rear).

NOTE

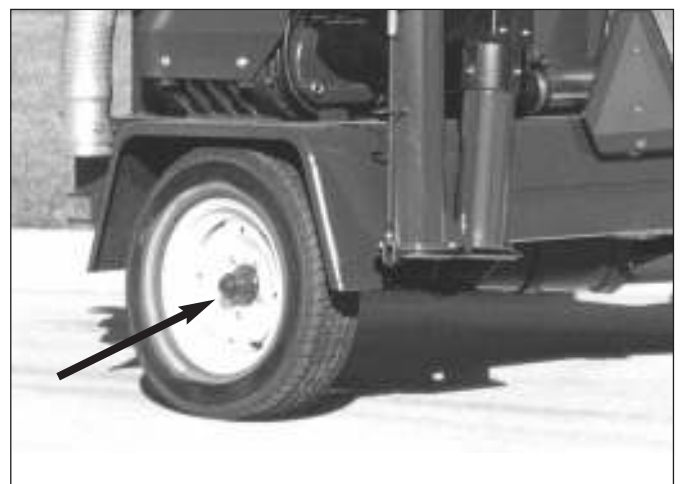
Change every 30 hours if operating in very dusty conditions.

50 Hours



Clean oil reservoir breather caps (2 locations).

200 Hours or Annually



Repack wheel bearings (2 locations).

