

CONVEYAIR™
GRAIN VAC
MODELS 5005 & 6006



Thor

MANUFACTURING LTD.

**OWNERS
MANUAL**

INTRODUCTION

Congratulations, you have selected a 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.



Conveyair ready for transportation

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"

CONVEYAIR GRAIN VAC™

WARRANTY REGISTRATION FORM & INSPECTION REPORT

WARRANTY REGISTRATION

Failure to return completed 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 Ave., Winnipeg, MB Canada R2J 3S8

Customer Name _____

Dealer _____

Address _____

Address _____

City _____

City/State/ Zip _____

State/Zip _____

Sub Dealer

Phone No. _____

Address _____

Conveyair Model # _____

City/State/ Zip _____

Conveyair Serial # _____

Date Purchased _____

Air Pump Serial # _____

Check one ☐ Commercial Use ☐ Farm

INSPECTION REPORT

- ☐ Belt tension & Alignment
- ☐ Hydraulic Fittings
- ☐ Hydraulic Lines
- ☐ All Reflectors in place
- ☐ Wheel Bolts Tight
- ☐ Tire Air Pressure (32 PSI)
- ☐ 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 care, adjustments, safe operation and applicable warranty policy.

Date _____

Owner's Signature _____

WHITE - THOR MFG. • YELLOW - DEALER • PINK - CUSTOMER • GOLDENROD - SUB DEALER

SIGN-OFF FORM

CONVEYAIR™ Grain Mover

Do not operate or allow anyone else to operate the Conveyair Grain Vac until he/she has carefully reviewed and understands the safety instructions outlined in the Conveyair manual. Annually review this information before season start-up.

Be sure that all personnel who will be operating the Conveyair sign this form after they have read and understand the Conveyair Operators Manual.

Thor Manufacturing follows the general Safety Standards specified by the American society of Agricultural Engineers (ASAE) and the Occupational Safety and Health Administration (OSHA). Anyone who will be operating and/or maintaining the Grain Vac must read and clearly understand ALL Safety, Operating and Maintenance information presented in the manual.

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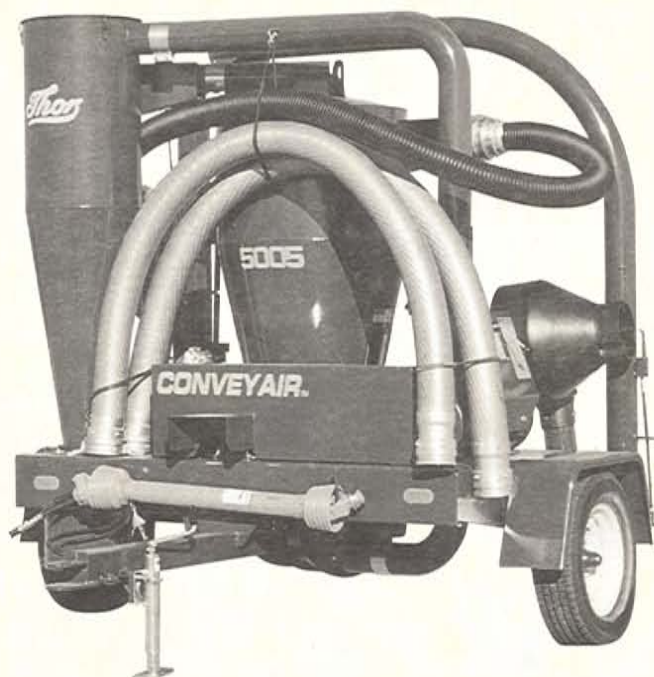
SERIAL NUMBERS

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

.....
Airlock Serial Number

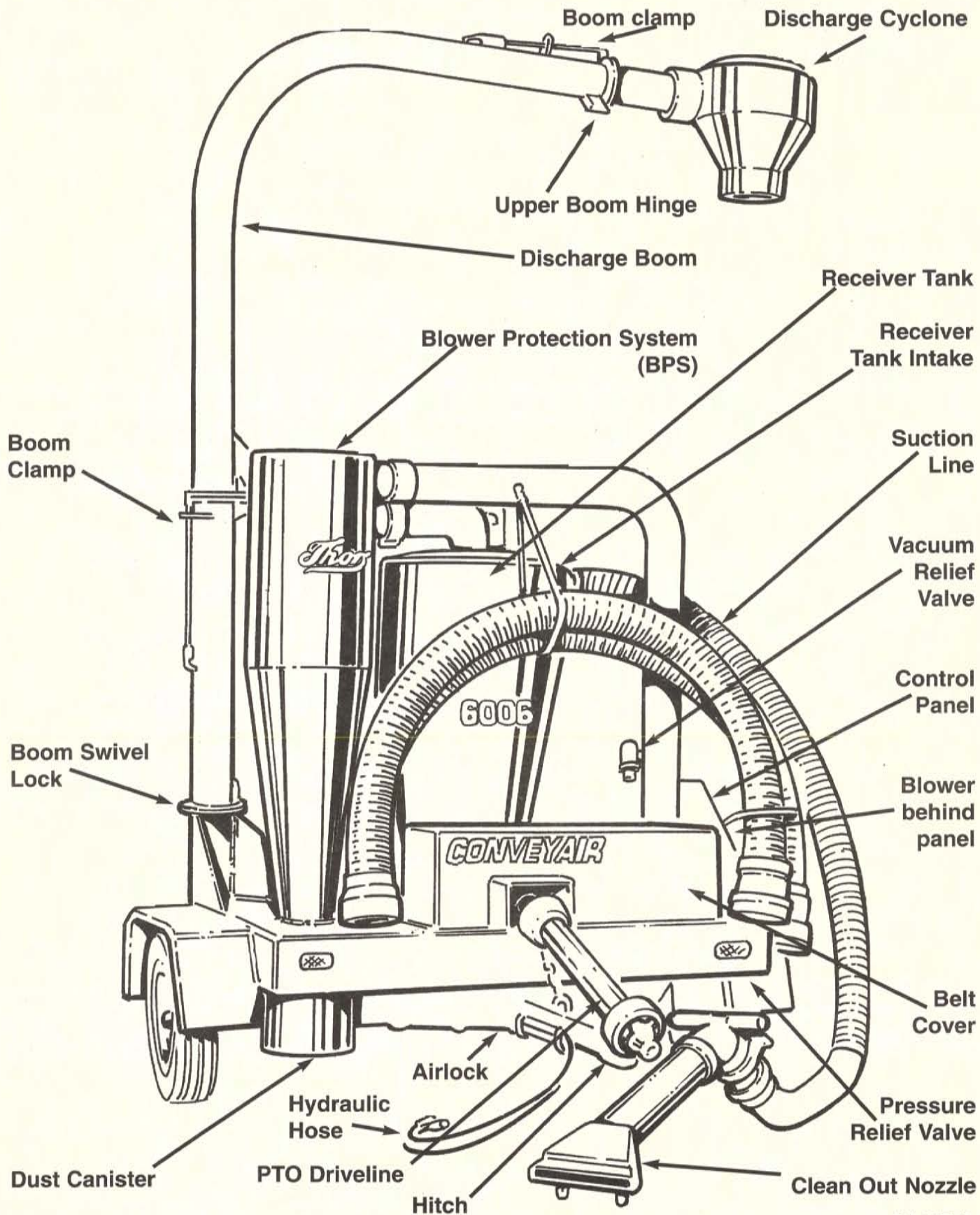
SPECIFICATIONS

	5005	6006
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 GAIN VAC AND THROUGH-
OUT 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

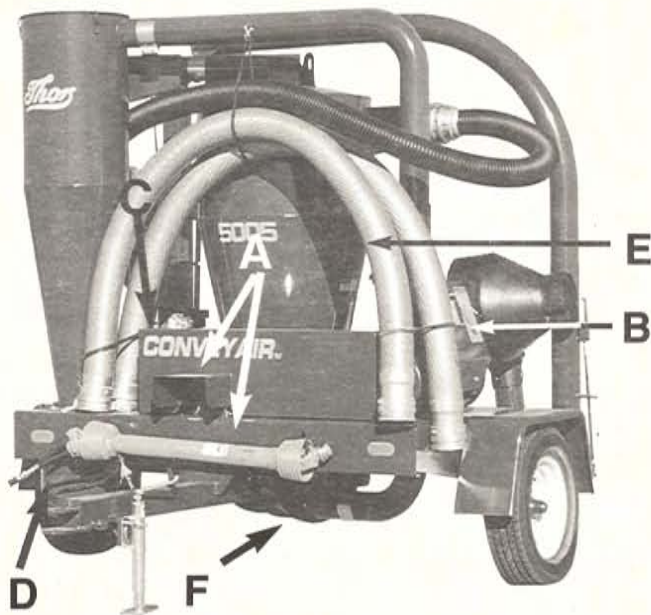


1. Wear appropriate ear protection.
2. Never wear ill-fitting, baggy or frayed clothing when working around or on any of the drive system components.
3. Always know where all overhead electrical wires are located and stay away from them.
4. Do not allow riders.
5. Install and secure all guards and shield 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 hazard flashers on tractor 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 CANNISTER
FREQUENTLY
AS PER OPERATORS MANUAL**

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"

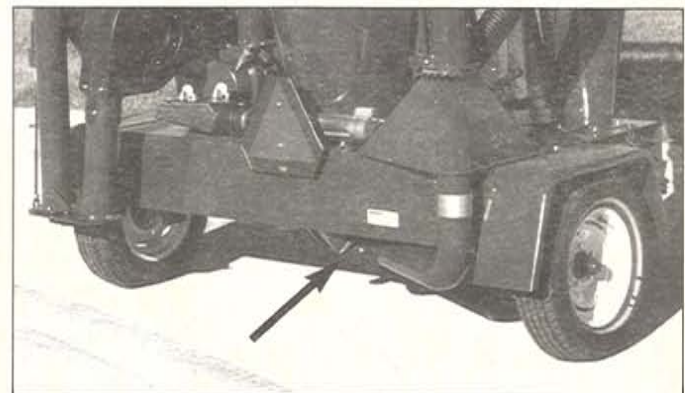
! WARNING

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"



Dust Canister "D"



"F" Airlock behind frame



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 hazard flashers on the tractor when transporting.
7. Stay away from overhead electrical wires. Electrocutation can occur without direct contact.

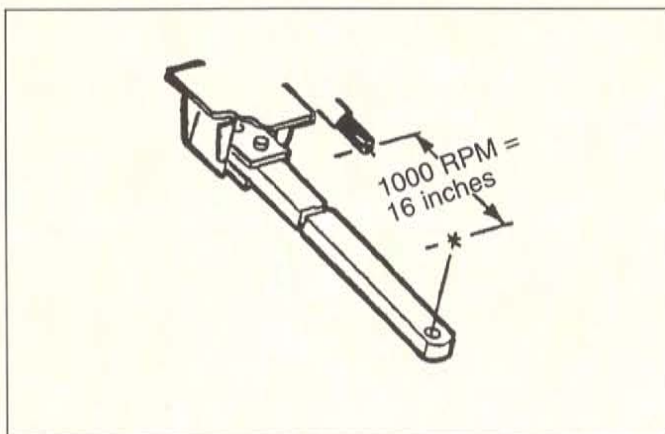
8. When using a ball and socket, make sure the locking jaws are pinned securely in position.

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
5005	80
6006	110

PTO Shaft

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

Attach PTO shield safety chain to hitch.



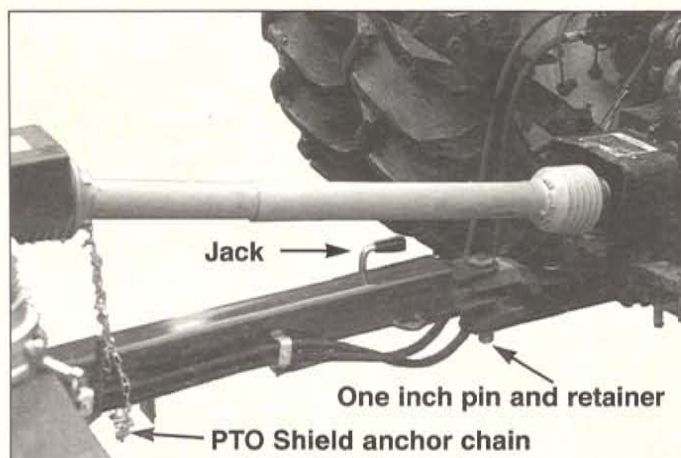
To prevent operating at the wrong RPM Do Not use a shaft adapter on the tractor shaft.

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

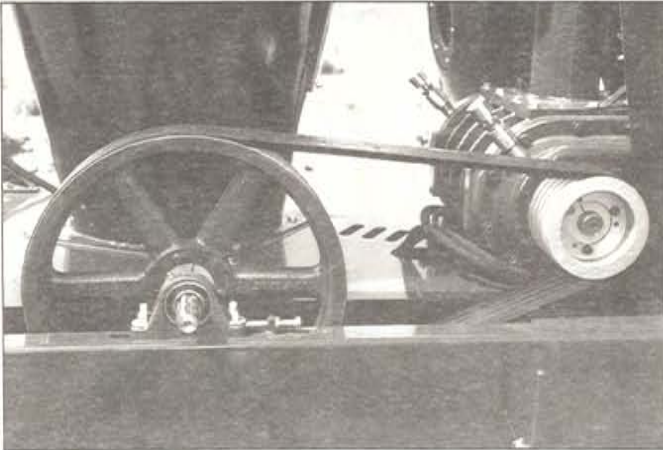


ATTACHING TRACTOR

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).

Controls



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

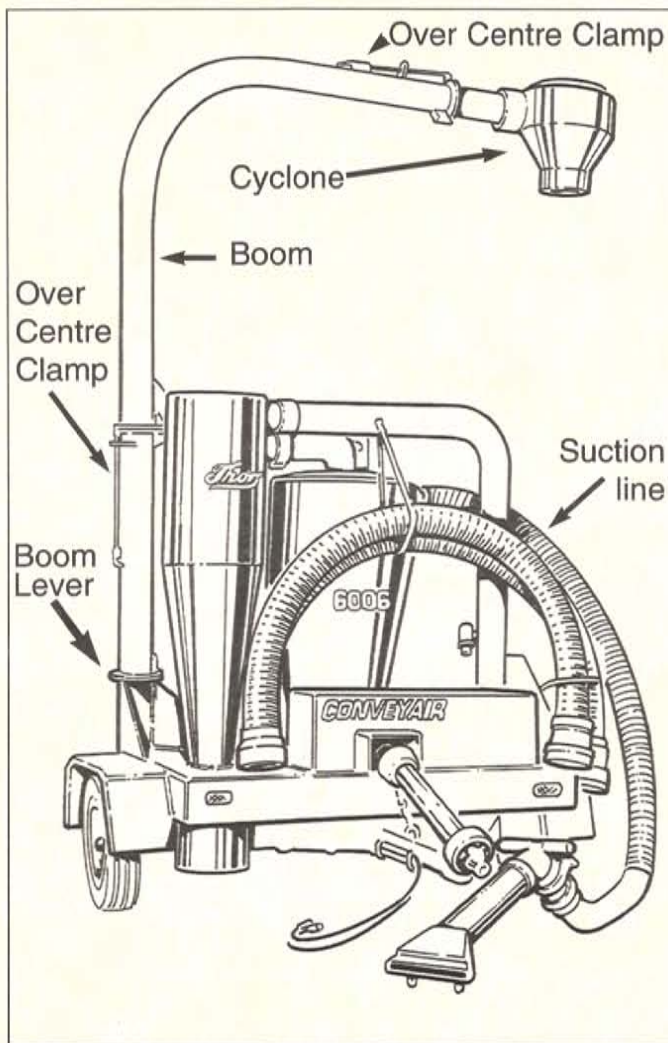
1. Airlock Speed. 2. Hydraulic boom control.
Note: Optional airlock control valve is located on reverse side of panel.

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 oil as required.

Position Boom



Boom Swivel



DANGER

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

GETTING READY

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.
4. Flip the boom lock up. Pull lever out of clip and swing into horizontal position. Turn boom to desired position. Fold lever back and flip boom lock down to lock boom in position.



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

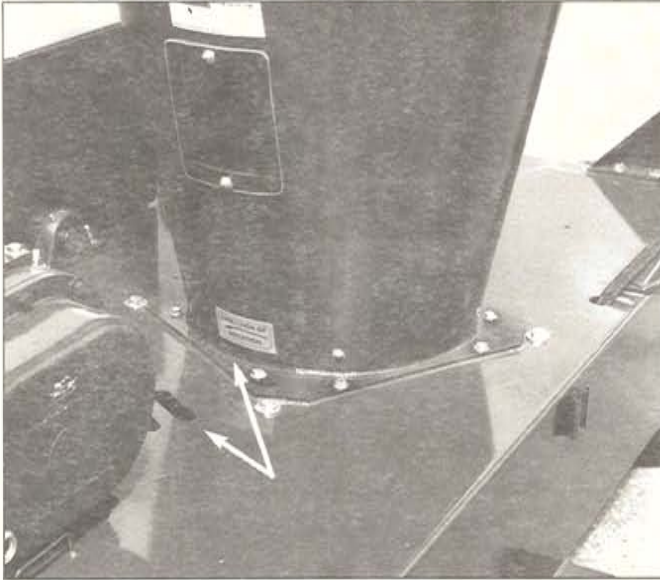
5. Use hydraulic boom lever (Up to raise, down to lower). Carefully raise boom high enough to allow cyclone assembly (at end of boom) to swivel into position.
7. Secure cyclone into position, using over-center clamp.
8. Now lift boom all the way into working position.
9. Secure boom with Over Centre Clamp.
10. Attach suction line to the receiver tank intake coupler. Close camlock couplers.
11. 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

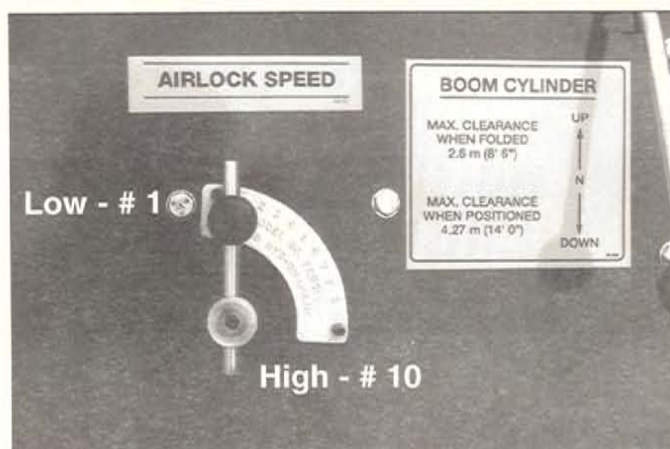
High pressure fluids can penetrate the skin and cause infection and toxic reaction.

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 exist*.

** 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

Adjusting Speed

Using a stop watch, the airlock can be set by counting the number of turns the yellow 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.

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 to 950 RPM.

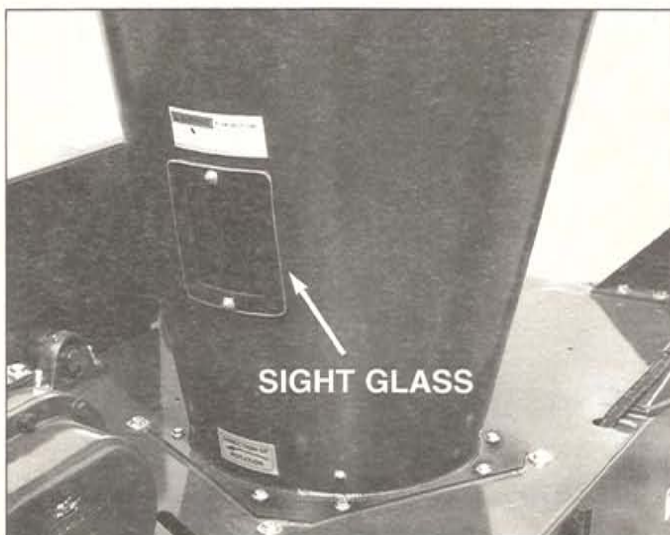
OPERATION

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.

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.

IMPORTANT

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

- Stop machine** and remove dust pail. This will allow any grain in the Blower Protection Cyclone to run out.
- Start the machine and allow the Receiver tank to empty itself.
- 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.



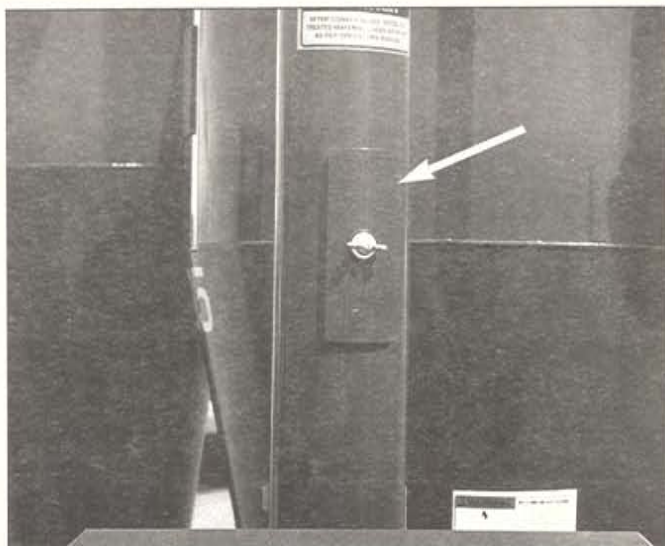
OPERATION

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.

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.

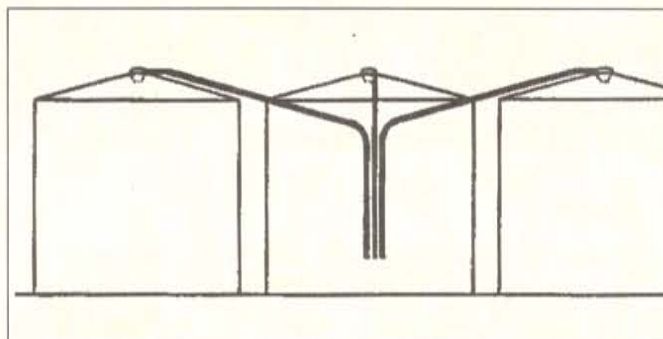
For regular cleanup use a combination of steel flex line, straight piping and poly hose. This will give you the needed flexibility to easily get into corners and around obstructions without sacrificing too much capacity.

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.

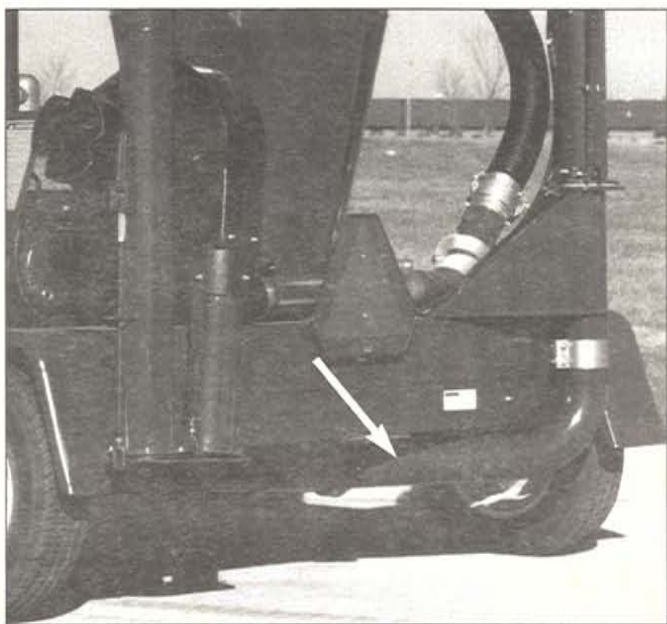
CLEAN UP OF SPILLS AND GROUND STORED GRAIN

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.



Multiple Bins (Parallel)

FILLING BINS AND TEMPORARY STORAGE

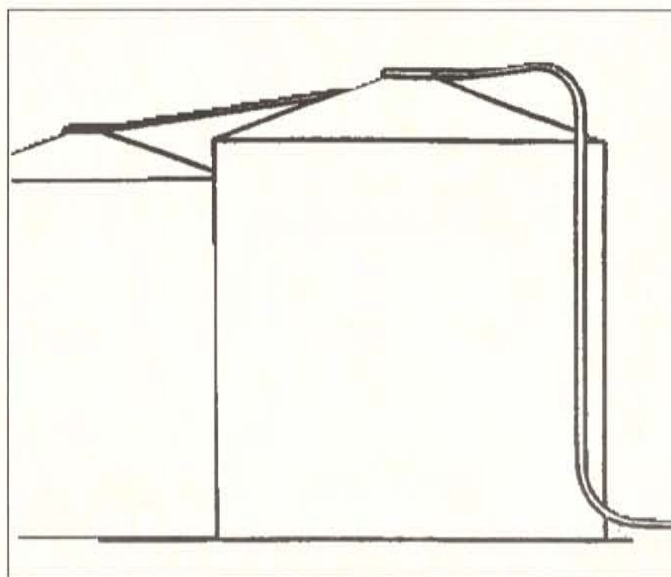


Rear discharge option required.

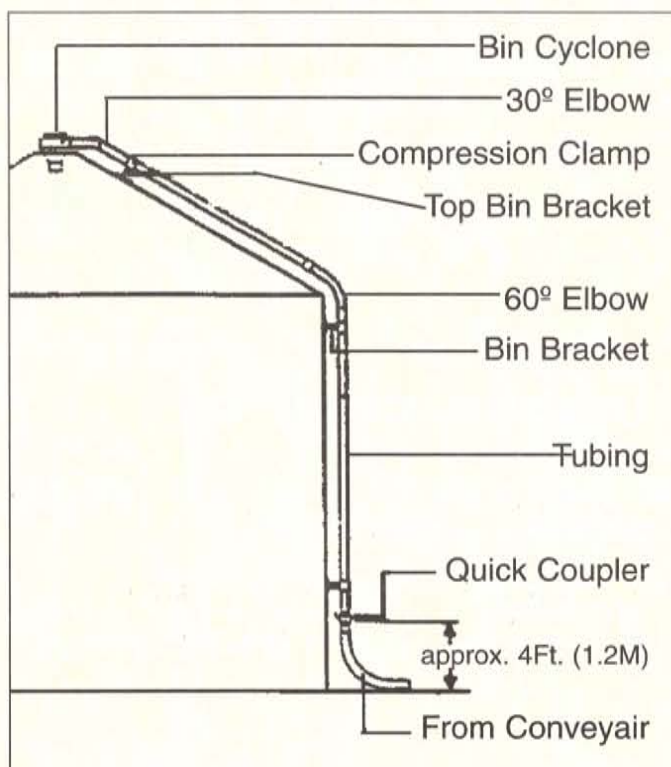
When discharging into bins, remove the airlock discharge elbow and couple the machine to stationary or movable piping.

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

Contact your dealer for more information.



Multiple bins (Series)



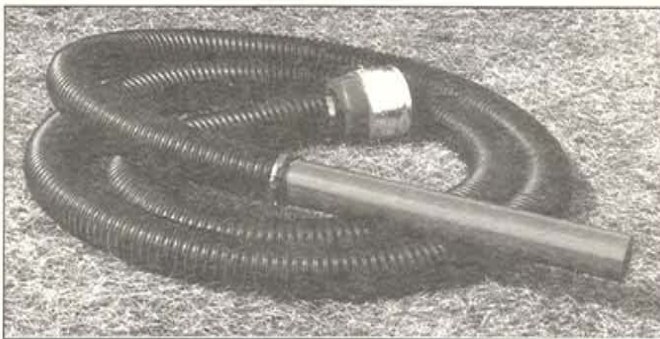
Bin Fill System



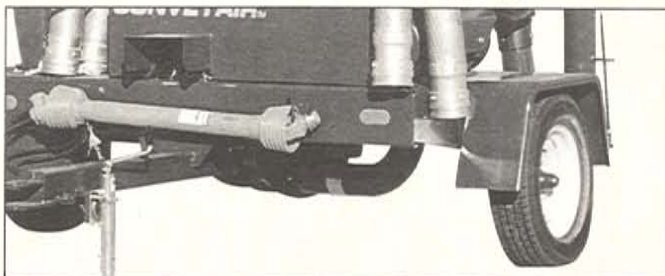
Cam Lock Coupler



Cyclone Sock for windy conditions

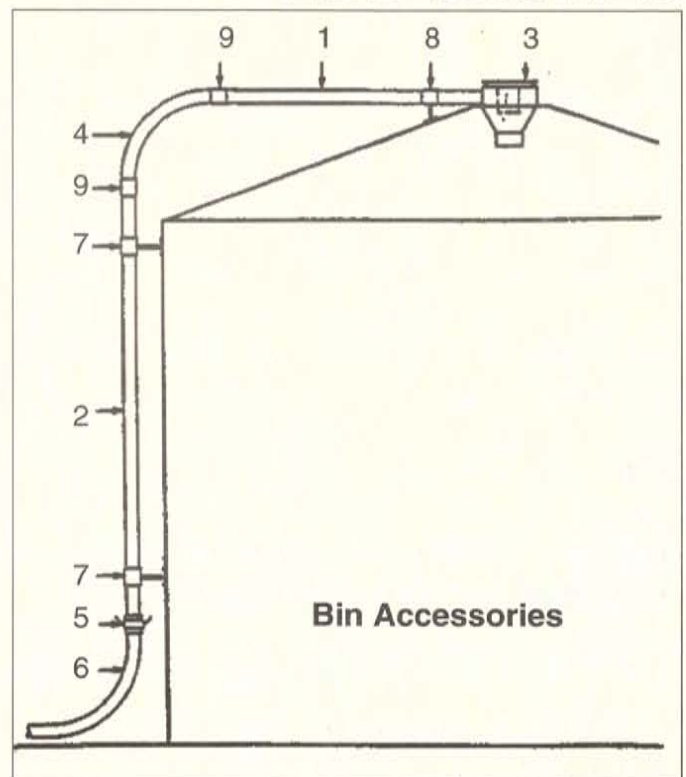


Seed Drill Clean Out Kit



Fenders

ACCESSORIES



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 line from your CONVEYAIR. Use steel flex only or a combination 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

LUBRICATION

GREASING

Fluids and lubricants

Grease

Use and 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:

Use only 15W40 multi-grade oil equal to or exceeding SAE "SF" specifications.

Capacity - Front and Rear, 800cc (.87 qt. US)

Hydraulic Oil Reservoirs - Self Contained Hydraulics:

10W Hydraulic oil equal to or exceeding SAE "SF" specifications.

Capacity - (31 qt. US)

Cleaning agent

WD40 or equivalent

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.

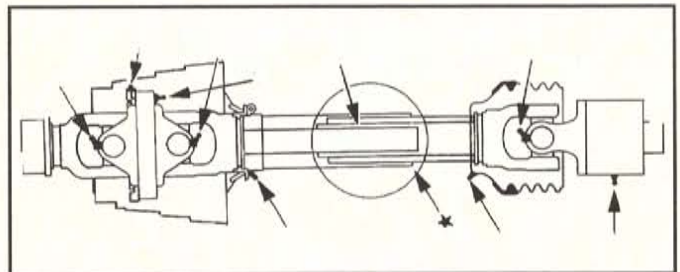


IMPORTANT

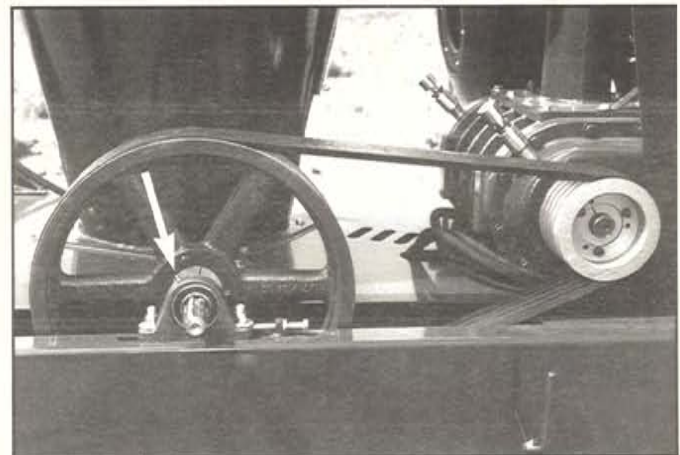
Do not over grease, it can damage bearing seals.

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

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

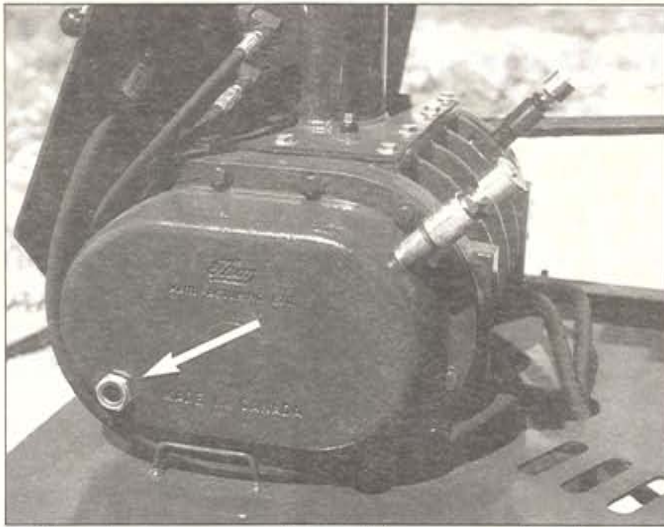


CAUTION

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

LUBRICATION

8 Hours or Daily

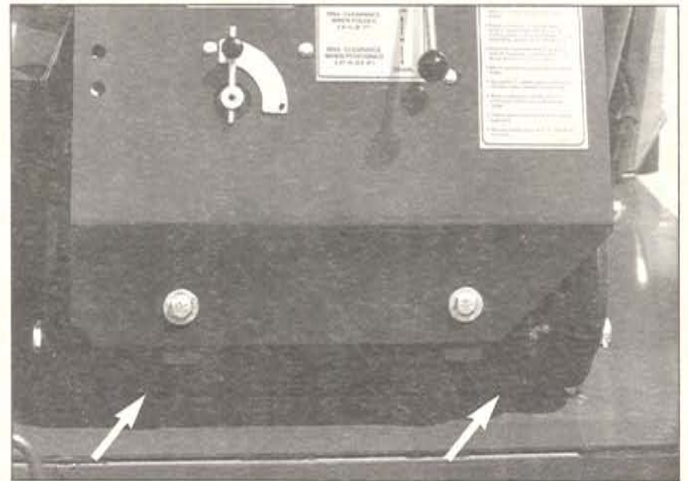


Check air pump oil level in reservoirs, front and rear (2 locations). Add as required.

NOTE

Check when the oil is cold and the machine is level

100 Hours or 6 Months

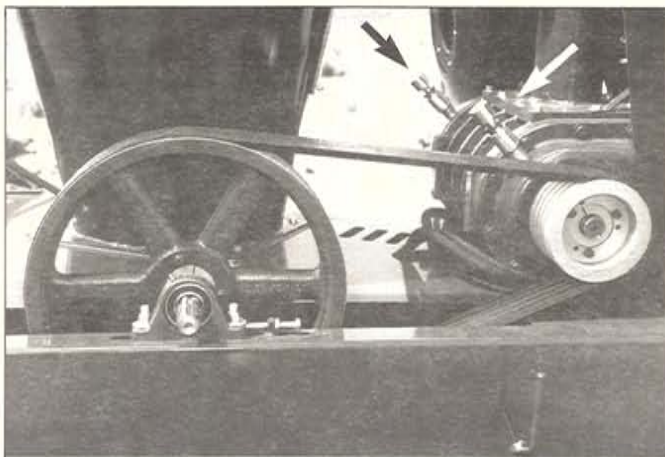


Change the oil in air pump reservoirs (front and rear)

NOTE

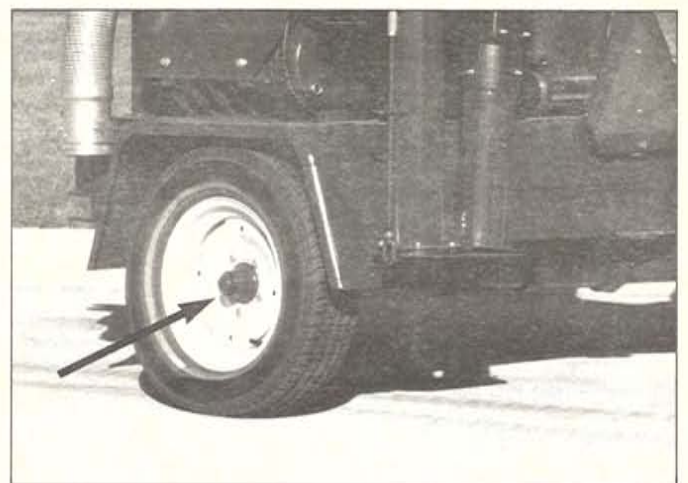
Change every 30 hours if operating in very dusty conditions.

50 Hours



Clean oil reservoir breather caps (2 locations).

200 Hours or Annually



Repack wheel bearings (2 locations)

SERVICE RECORD

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

ACTION:

✓ CHECK
L LUBRICATE

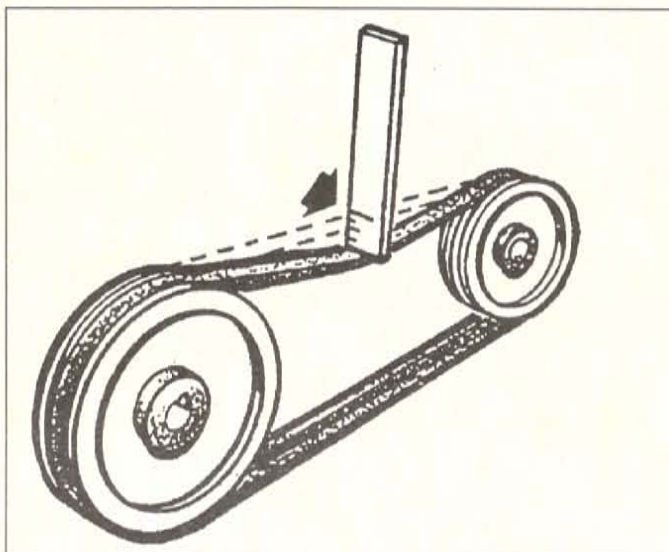
C CHANGE
R REPACK

CL CLEAN

MAINTENANCE	HOURS												
	SERVICED BY												
8 Hours or Daily													
L PTO Shaft (7)													
L Input Pulley Shaft Front. & Rr. (2)													
✓ V Belt Tension													
✓ Air Pump Oil Level. in Reservoir (2)													
✓ + CL System Filter													
50 Hours													
CL Oil Reservoir. Breather Caps (2)													
100 Hours or 6 Month													
C Oil in Air Pump Reservoir Front. & R													
Annually													
R Wheel Bearings (2)													
CL Machine													

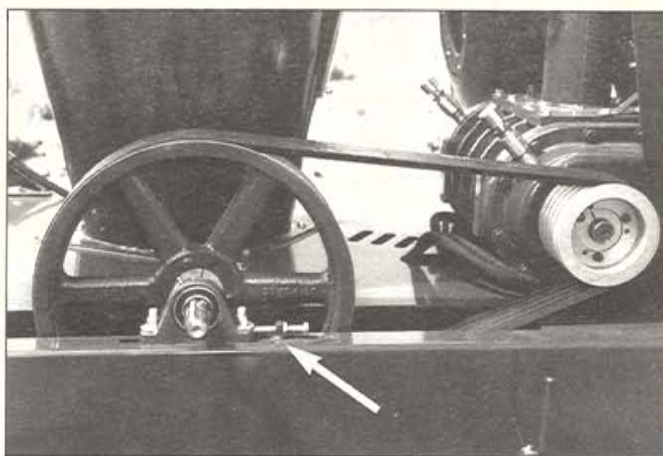
**OBSERVE ALL SAFETY
PRECAUTIONS!**

V-BELT TENSION



The V-belts on the input drive should always be adjusted to have approximately 1 inch (25mm) deflection in the center. If the belts are loose they will start to slip which will cause heat build up and excessive wear of the belts. If the belts are too tight they will cause the bearings to overload which will result in premature failure of the main shaft and the lower bearings.

1. Place PTO and hydraulic controls in neutral and shut-off engine. Disconnect the PTO shaft from the tractor.
2. Unlatch belt shield cover and open cover.



3. Loosen jam nut on adjuster bolts and loosen the bearing mounting bolts.

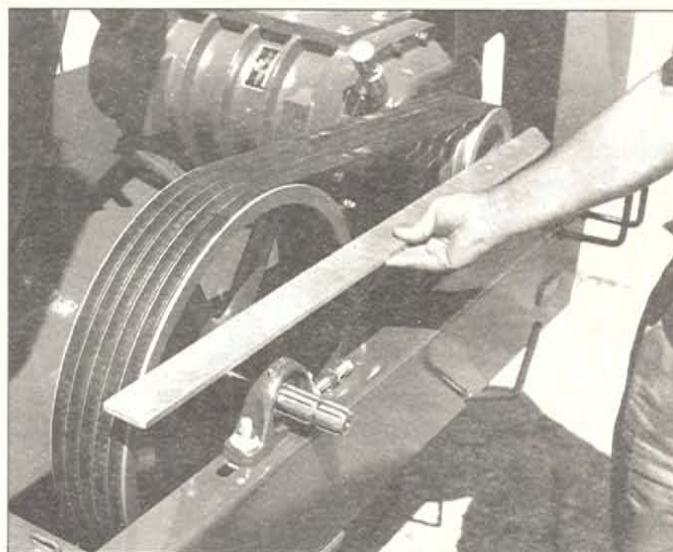
MAINTENANCE

4. Use the adjusting bolts to move the pulley assembly to apply the proper tension to the belts and also to align the pulleys with each other.



CAUTION

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



5. Place a straight edge across the faces of the two pulleys. Maximum allowable misalignment is 1/16" (2mm) on any of the pulley edges. Adjust as required.
6. Be sure the belt tension is correct.
7. Tighten the bearing mount bolts and the jam nuts.
8. Close and latch belt cover.

MAINTENANCE

AIRLOCK TIPS

Check Airlock Tips clearance when there is a noticeable drop in capacity of the Conveyor.

If clearance exceeds 0.38 mm (0.015") adjust as shown below.

a. Checking clearance:

Disengage PTO and hydraulic power and shut of engine. Wait for all moving parts to stop.

2. Relieve the pressure on the hydraulic lines and disconnect from tractor.

3. Remove hydraulic lines from the airlock drive motor to allow rotation of the airlock.



CAUTION

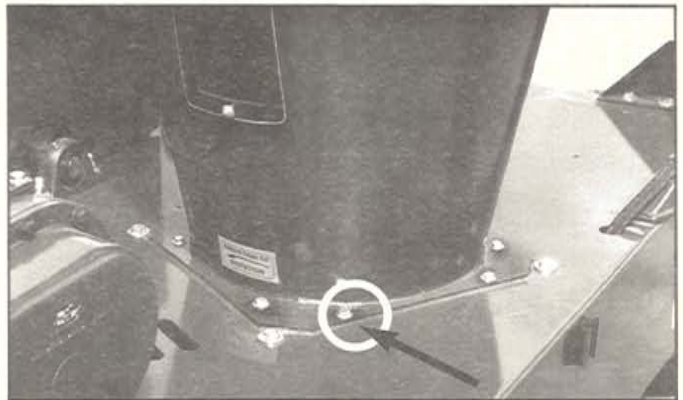
High pressure fluids can penetrate the skin and cause infection and toxic reaction

4. Open the inspection door on the receiver tank. Use a feeler gauge to check the clearance between the tips and the shell.

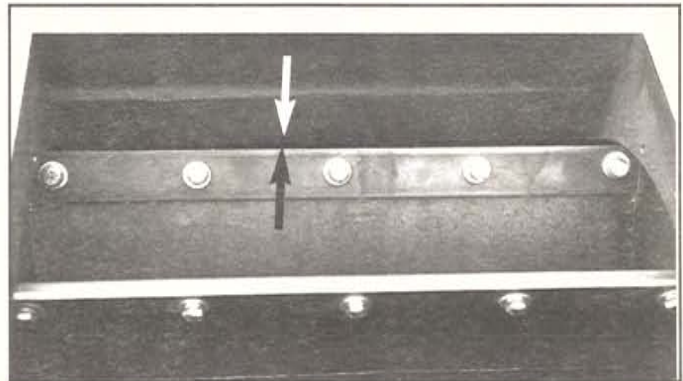
b. Airlock Tip Adjustment

1. Remove the connector on the air line between the BPS and the receiver tank.

2. Attach an overhead hoist to the receiver tank.



3. Remove the eight bolts securing the receiver tank to the airlock mount plate. Remove the receiver tank from the frame.



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.

4. Position tip next to top of shell.

5. Loosen the 5 bolts attaching the tip to the blade of the airlock slightly.

6. Move the tip until you have 0.006" (0.15 mm) clearance between tip end and shell.

7. Tighten the bolts and torque to 34-40 Nm (20-25 ft. lbs.)

8. Rotate the rotor to ensure that there is no contact between the tip and the shell. Adjust if there is contact.

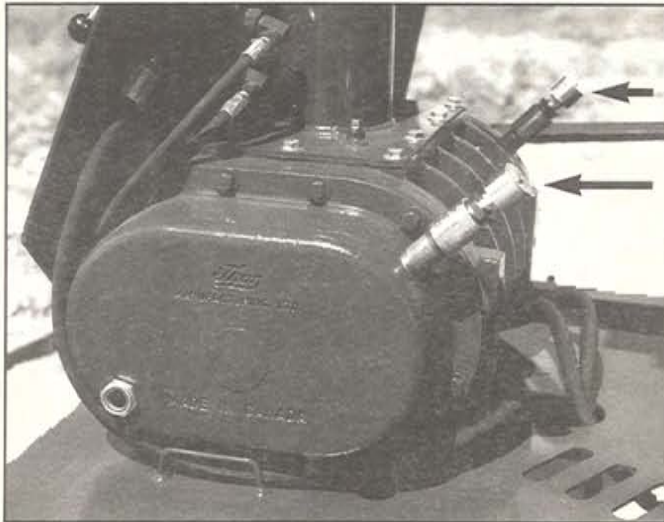
9. Mark the tip with a felt pen as done and proceed with remaining tips till all have been adjusted.

10. Replace receiver tank and check that all connections are airtight.

MAINTENANCE

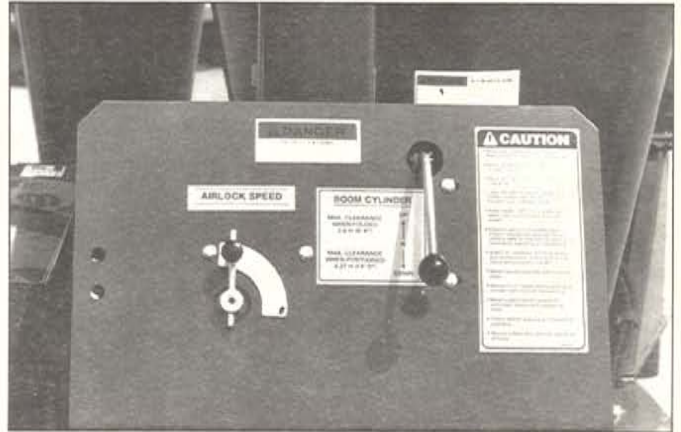
RESERVOIR BREATHER (Clean every 50 hours)

Clean breathers allow the pressure in the oil reservoir to equalize with the outside as the temperature changes.

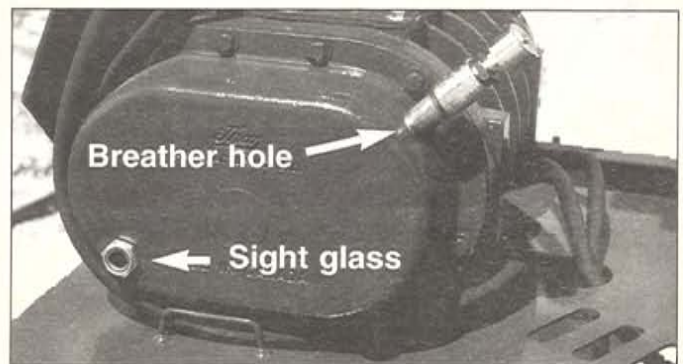


1. Remove breather from the top of the reservoirs.
2. Soak/Wash in a good grade of solvent.
3. Dry with an airhose and re-install.

AIR PUMP OIL RESERVOIR (Change oil every 100 hours, more often if conditions are very dusty.)



1. Place small pan under the drain plug and remove plug. Drain for 10 minutes.
2. Re-install and tighten the drain plug.



3. Remove breather and add oil through the breather hole. **Fill to center of the sight glass** and re-install breather.



IMPORTANT

- Overfilling causes heating from the oil churning.
- Underfilling causes heating from lack of lubrication.

4. Repeat on other reservoir.

MAINTENANCE

BPS (Blower Protection System)

The air which is sucked from the receiver tank and drawn toward the air-pump contains dust which is harmful to the pump. This dust is trapped by the BPS system and collected in the dust canister. The amount of dust collected depends on the amount of dust and fines in the grain being moved.



Remove and empty dust canister regularly. Do not allow to overfill, three quarters full should be considered full!



NOTE

If machine is allowed to overfill (plug) -

a. Remove screen on top of BPS and clean if required and reinstall.

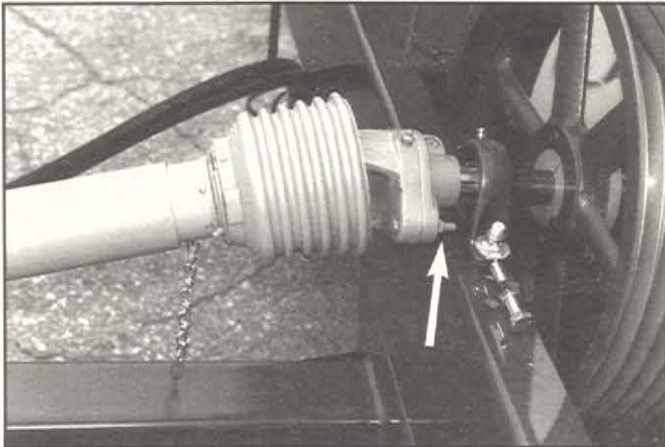


DO NOT strike the screen with any hard object as damage to the screen will diminish its effectiveness.

b. Empty canister and also allow any grain which may have accumulated in BPS to run out.

Refer to unplugging instructions under OPERATION on page 16.

SHEAR PIN



A shear pin is provided in the PTO shaft to protect the drive system during an overload.

Changing the Shear Pin

1. Place all controls in neutral, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before dismounting.
2. Disconnect the PTO shaft from the tractor and lay to the side to provide maximum clearance for the shear bolt.
3. Carefully remove remaining shear bolt using a hammer and punch if necessary. Do not enlarge the holes.
4. Install the new shear bolt and tighten.



IMPORTANT

These shear bolts are specially designed to provide protection for the drive system. Do not install just any bolt, use genuine Thor parts.

HYDRAULIC SAFETY

1. Make sure that all components in the hydraulic system are kept in good condition.
2. Replace any worn, cut, abraded, flattened or crimped hoses and metal lines.
3. Before applying pressure to the system, make sure all components are tight and that lines, hoses and couplings are not damaged.



Do not use tape, clamps or cement to repair hydraulic lines. The hydraulic system operates under high pressure, creating a hazardous unsafe condition when such repairs fail suddenly.

4. Wear proper hand and eye protection when searching for a high pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify leak.



5. If injured by a concentrated high pressure stream of hydraulic fluid, seek attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid piercing the skin surface.



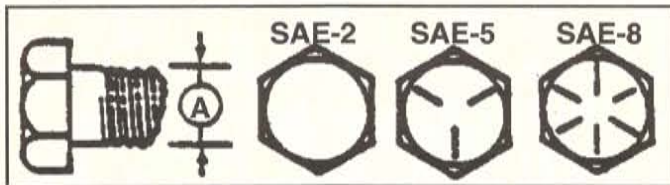
WARNING

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

BOLT TORQUE

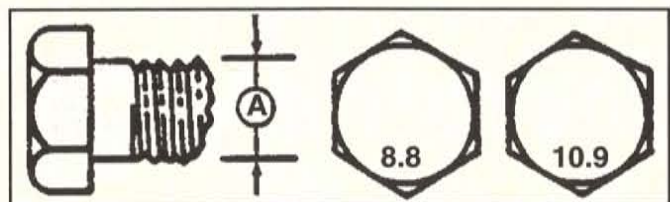
Check tightness of bolts periodically, using bolt torque chart as a guide. Always replace hardware with the same strength bolt.

English Torque Specifications



Bolt Dia. "A"	Bolt Torque*					
	SAE 2		SAE 5		SAE 8	
	N.m	(lb-ft)	N.m	(lb-ft)	N.m	(lb-ft)
1/4"	8	(6)	12	(9)	17	(12)
5/16"	13	(10)	25	(19)	36	(27)
3/8"	27	(20)	45	(33)	63	(45)
7/16"	41	(30)	72	(53)	100	(75)
1/2"	61	(45)	110	(80)	155	(115)
9/16"	95	(70)	155	(115)	220	(165)
5/8"	128	(95)	215	(160)	305	(220)
3/4"	225	(165)	390	(290)	540	(400)
7/8"	230	(170)	570	(420)	880	(650)
1"	345	(225)	850	(630)	1320	(920)

Metric Torque Specifications



Bolt Diameter "A"	Bolt Torque*			
	8.8		10.9	
	N.m	(lb-ft)	N.m	(lb-ft)
M3	.5	(.4)	1.8	(1.3)
M4	3	(2.2)	4.5	(3.3)
M5	6	(4)	9	(7)
M6	10	(7)	15	(11)
M8	25	(18)	35	(26)
M10	50	(37)	70	(52)
M12	90	(66)	125	(92)
M14	140	(103)	200	(148)
M15	225	(166)	310	(228)
M20	435	(321)	610	(450)
M24	750	(553)	1050	(774)

* Torque value for bolts and capscrews are identified by their head markings.

Torque values indicated above are valid for non-greased or non oiled threads and heads unless otherwise specified. Do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

HYDRAULIC FITTING TORQUE

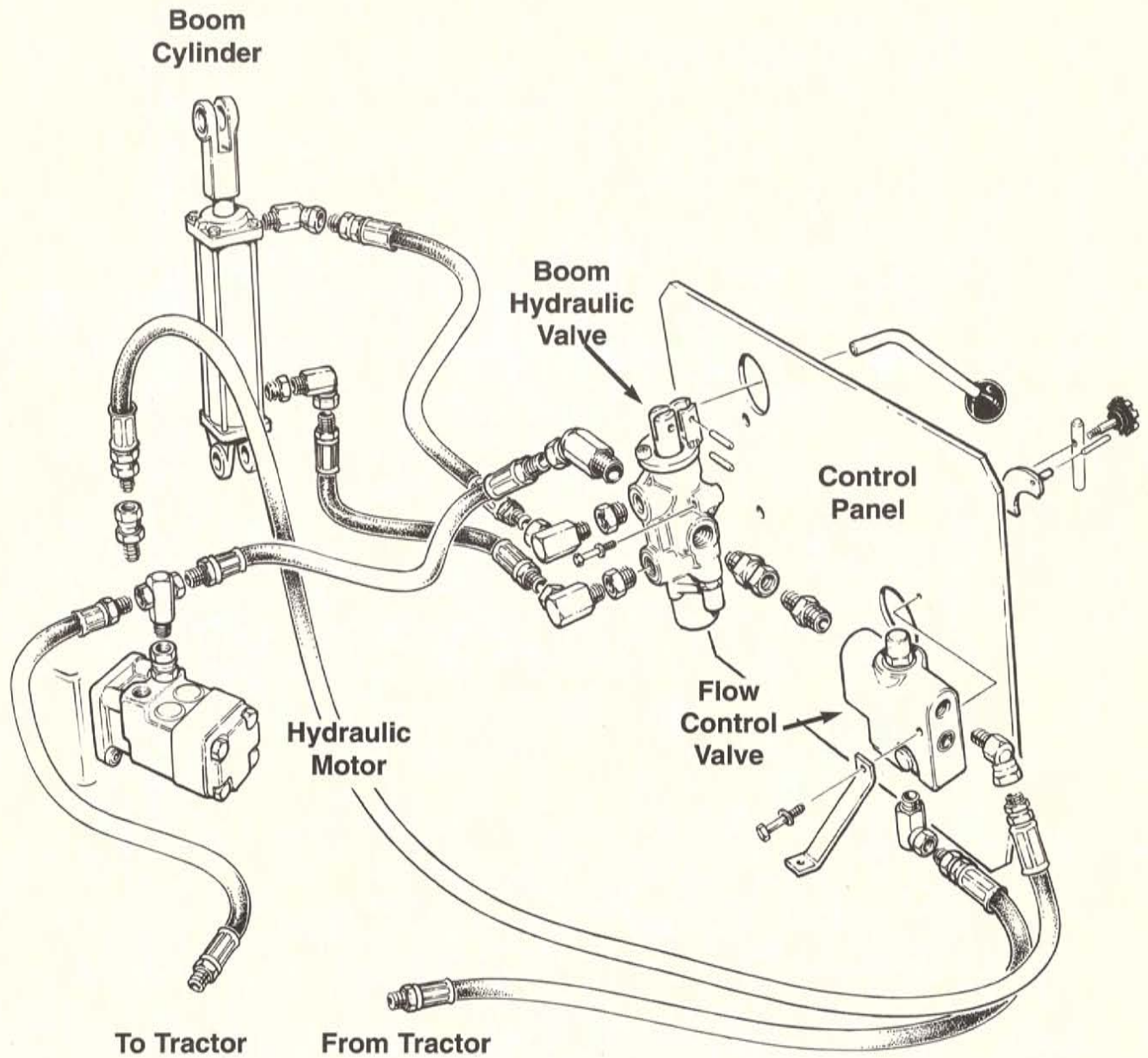
Tighten Flare Tube Fittings*

1. Check flare and flare seat for defects that might cause leakage.
2. Align tube with fitting before tightening.
3. Lubricate connection and hand tighten swivel nut
4. To prevent twisting the tube(s), use two wrenches. Place one wrench on the connector body and with the second tighten the swivel nut to the torque shown.

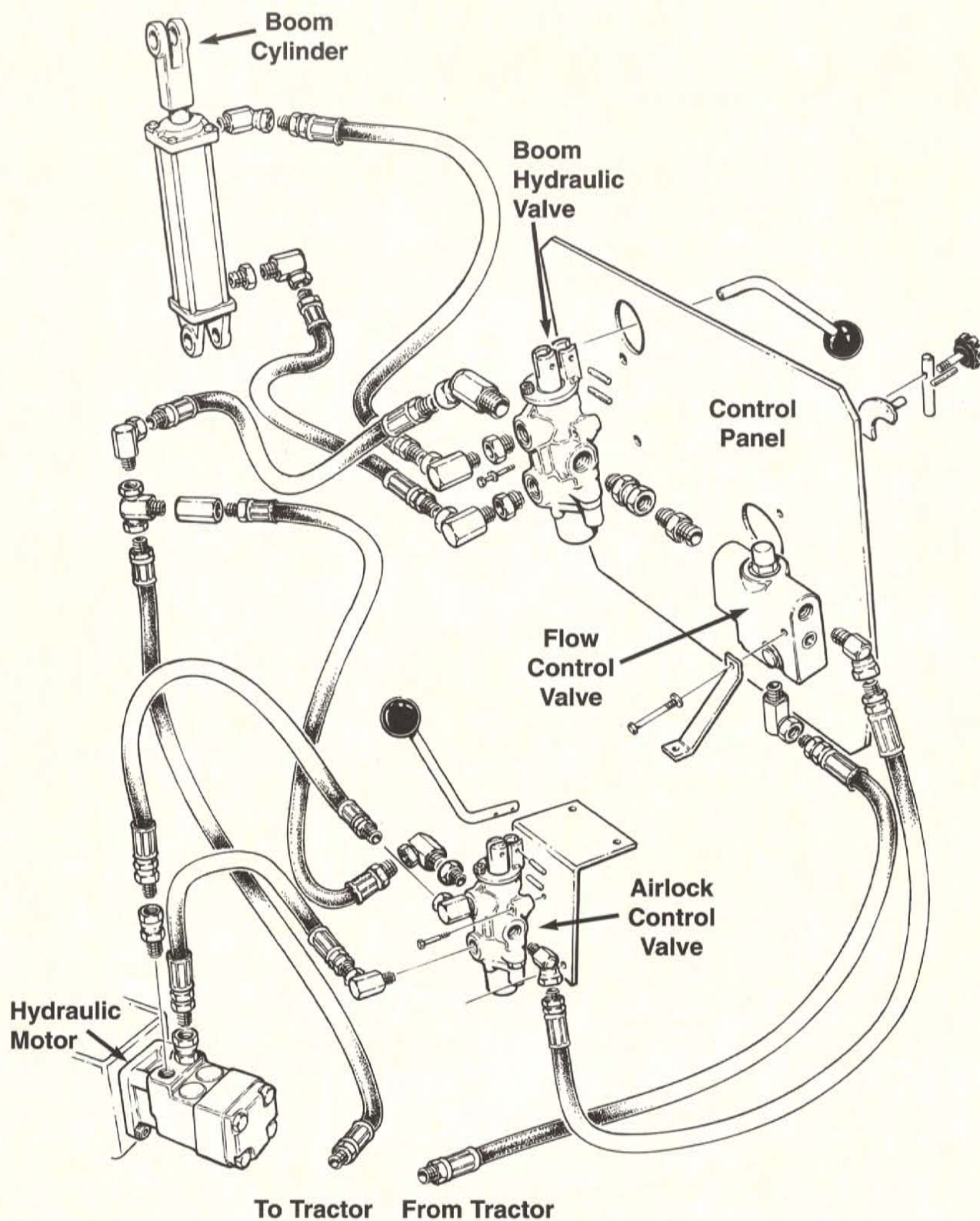
Tube Size OD	Nut size Across Flats	Torque Value*		Recommended Turns to Tighten (After finger Tightening)	
		N.m (lb-ft)		Flats	Turns
3/16	7/16	8	(6)	1	1/6
1/4	9/16	12	(9)	1	1/6
5/16	5/8	16	(12)	1	1/6
3/8	11/16	24	(18)	1	1/6
1/2	7/8	46	(34)	1	1/6
5/8	1	62	(46)	1	1/6
3/4	1 1/4	102	(75)	3/4	1/8
7/8	1 3/8	122	(90)	3/4	1/8

* The torque values shown are based on lubricated connections as in reassembly.

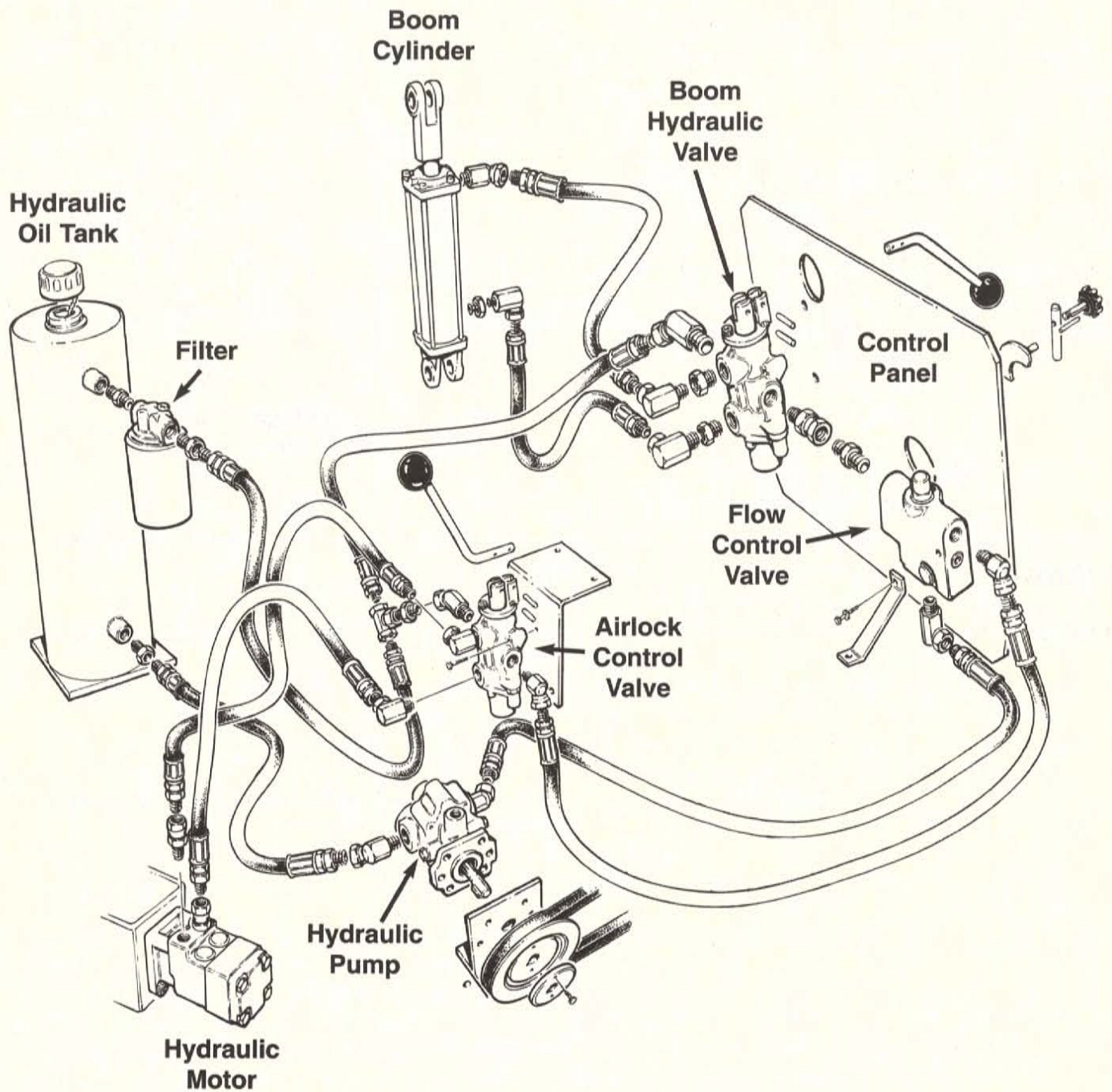
HYDRAULIC SCHEMATIC STANDARD



HYDRAULIC SCHEMATIC WITH REVERSE OPTIONS



HYDRAULIC SCHEMATIC SELF CONTAINED WITH REVERSE OPTION



TROUBLESHOOTING

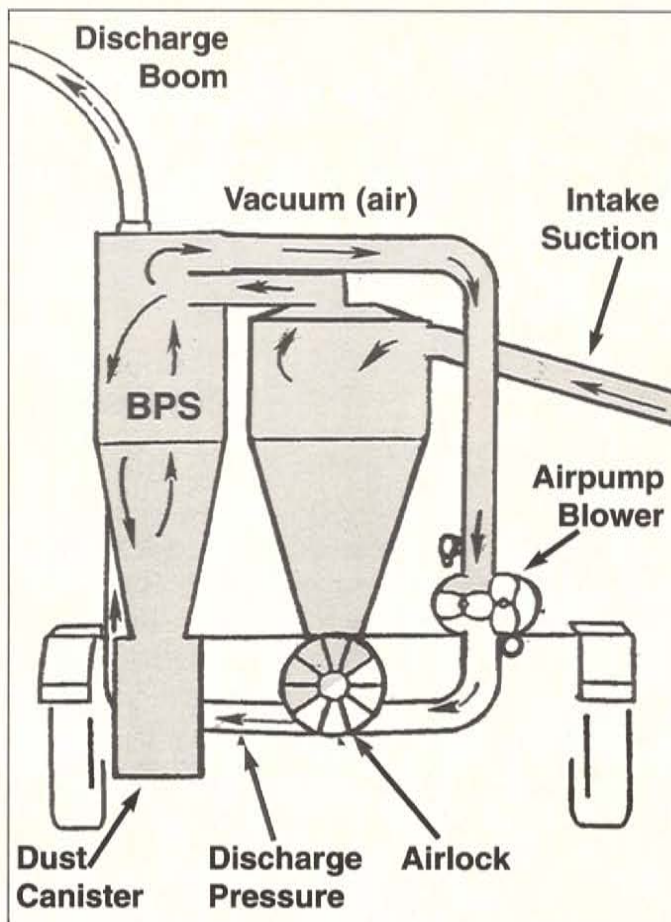
The heart of the Conveyair Grain Vac is the blower (air pump) and the air lock. Both components must be operating at their recommended speed to obtain maximum efficiency from the machine.

The airlock is driven by a belt and pulley system from the PTO on a tractor. The airlock is driven by a hydraulic motor powered by the hydraulic system on the tractor or by a self contained hydraulic system.

If you encounter a problem that is difficult to solve, even after having read through this trouble shooting section, please call your local dealer or the factory. **Before you call, please have this Operators Manual and the serial numbers from your Grain Vac ready.**

In North America call
1-800-582-3944

Other parts of the world
1-204-982-8356



PROBLEM	CAUSE	SOLUTION
Low capacity	Tractor PTO runs slow	Speed up tractor PTO to rated RPM for the model
	540 Instead of 1000 RPM	Change tractor or PTO speed shaft.
	Belts are slipping	Tighten belts.
	Airlock runs too fast.	Slow down airlock speed until grain builds up to the level of inspection door.
	Improper air intake.	Adjust air intake.
	Improper use of nozzle.	Use full bin nozzle for larger piles and full bins. Use cleanup nozzle with flair for cleanup only. Do not submerge airslide in grain.
	Air leaks - Intake	Check for worn coupler levers or missing coupler gaskets.
	Air leaks - Machine	Check BPS, receiver section, and airlock gaskets.
		Check pressure and vacuum relief valve.
		Check clamps on airline between receiver tank and BPS and between BPS and blower.

TROUBLE SHOOTING

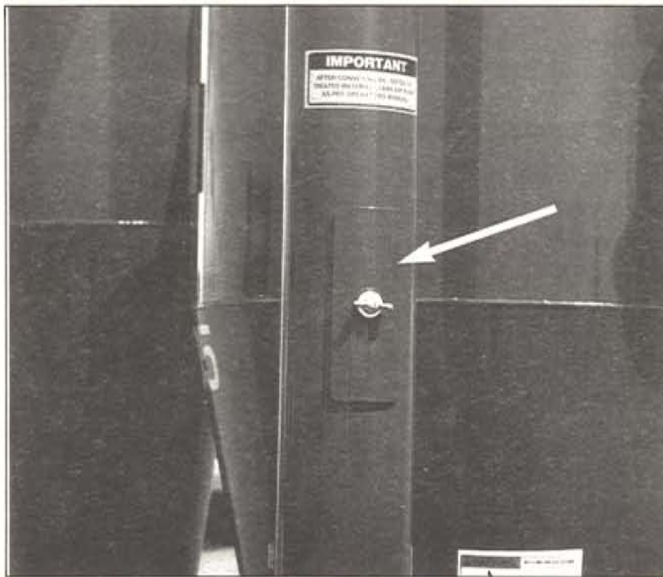
PROBLEM	CAUSE	SOLUTION
Low capacity.	Improper piping.	Keep suction lines as short as possible. Minimize bends. Use straight length of pipe wherever possible. Use the poly hose for clean up only!
	Airlock tip clearance high.	Adjust airlock tips. (See PAGE 24)
	Airlock end plate clearance.	If rotor to end plate clearance is more than 0.015" consult the dealer or factory
Excessive grain damage.	Too much air intake.	Adjust air intake nozzle.
	PTO running too fast.	Throttle down tractor.
	Damaged tubing or flexline.	Repair or replace
	Insufficient grain supply.	Reposition nozzle.
Pulsation	Insufficient air at intake.	Open slide until grain flow becomes even.
	Airlock turning too fast.	Adjust airlock speed until grain is at level of the inspection door.
	Improper piping.	Replace steel flex or poly hose with rigid tubing wherever possible.
	Suction line too small.	Use proper line size
	PTO running too slow .	Increase PTO RPM.
	Belts are slipping.	Tighten belts.
	Excessive airlock tip clearance.	Adjust airlock tips.
	Airlock turning too slow	Adjust airlock speed until grain is at the proper level on the inspection door.
	Obstruction in suction.	Shut down machine and clear line obstruction.
BPS plugs	Airlock turning too slowly	Increase airlock speed until grain is at the proper level on the inspection window.
	Airlock turning too fast.	Decrease airlock speed until the grain is at the proper level on the inspection door.
	Airlock not turning.	Check for proper hydraulic hook-up. Check for and remove obstruction airlock.

TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTION
Airlock not turning at all.	Flow control valve wrong.	Reset flow control.
	Tractor hydraulic not properly engaged.	Reset tractor hydraulics.
	Obstruction in airlock.	Shift tractor hydraulic lever from FORWARD to RESERVE and back TO FORWARD. Repeat if obstruction does not clear up. If obstruction does not clear up, shut of tractor and grain vac, open inspection door and remove cause of obstruction.
Hydraulic oil heating up excessively.	Faulty tractor hydraulics.	Use different tractor.
	Low oil level.	Add oil.
Excessive wear on air lines.	Improper piping.	Minimize bends.
	Too much air flow.	Adjust airslides and airlock speed.
	Insufficient grain supply.	Reposition intake nozzle. Open grain supply doors.
	Excessive PTO speed.	Operate at proper recommended PTO speed.

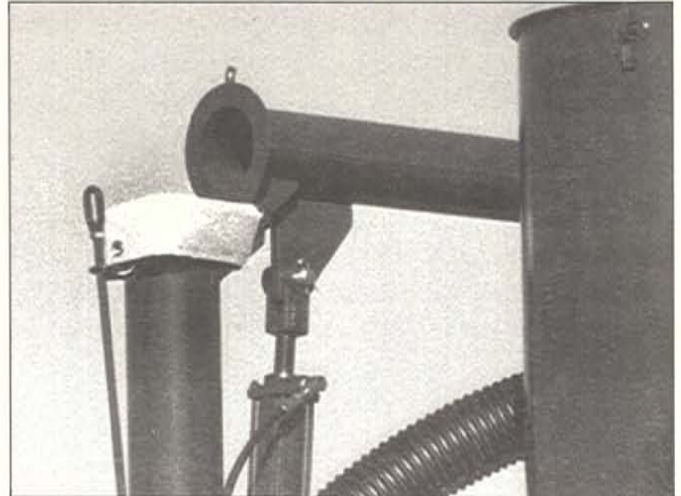
Prior to storage we recommend that you thoroughly inspect your Conveyor.

1. Replace any worn or damaged components.
2. Wash and clean the machine. **After cleaning, run machine at low idle for 2 -3 minutes to dry the internal components.**



3. While machine is running, open the cleaning port and inject a cleaning agent such as WD40 for 45 - 60 seconds. This will coat the inside of the air pump to help prevent rusting.

4. Lubricate all grease points. Make sure all grease cavities have been filled with grease to remove any water residue.



5. Retract and stow all components and accessories and install cover over the boom pivot. (keeps out dirt and small animals)

6. Inspect all hydraulic hoses, couplers, fittings and lines. Tighten any loose fittings. Replace any hose that is badly cut, nicked, abraded or is separating from the fitting.

7. Inspect, clean or empty the BPS.

8. Check the fluid level in the air pump oil reservoirs. Add oil as required.

9. Touch up all paint nicks and scratches to help prevent rusting.

10. For storage, select an area which is dry and level. Make sure unit is firmly blocked and will not tip or sink into a soft area. Place a plank under jack for added support.

ASSEMBLY

PARTS PAGE NO.

FRAME & WHEEL ASSEMBLY	1
RECCEIVER TANK & DUST COLLECTOR	2
AIRLOCK & BLOWER ASSEMBLIES	3
BOOM & CYCLONE	4
BELT DRIVE	5
STEEL FLEX HOSE & COUPLERS	6
CLEAN UP HOSE & COUPLERS	7
CLEAN UP & BIN NOZZLES	8
DRIVESHAFT	9
STANDARD HYDRAULIC SYSTEM	10 & 11
HYDRAULIC SYSTEM WITH REVERSE OPTION	12 & 13
SELF CONTAINED HYDRAULIC SYSTEM	14 & 15

When ordering parts specify: model, size, serial number and ordering number

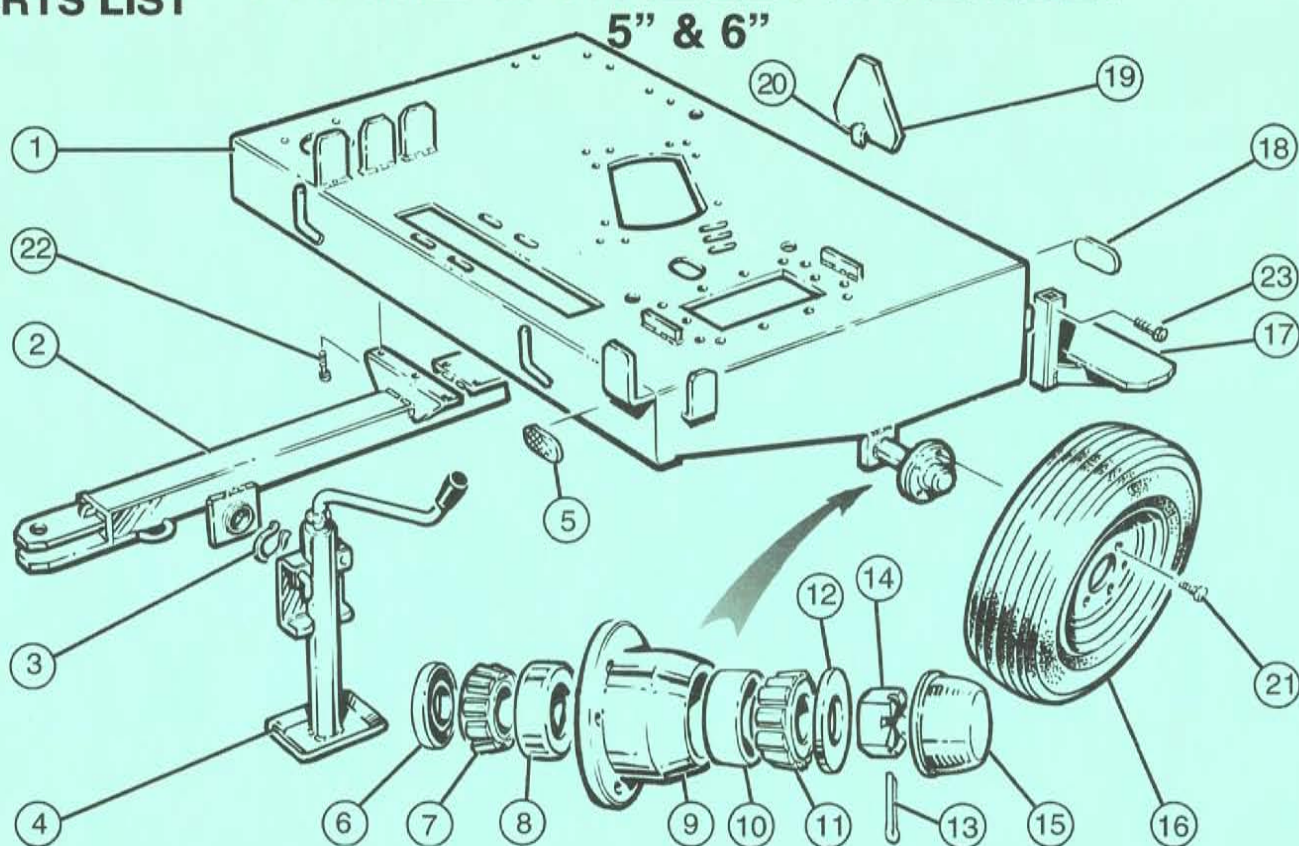


Manufacturing Ltd.

REPAIR PARTS LIST

FRAME & WHEEL ASSEMBLY

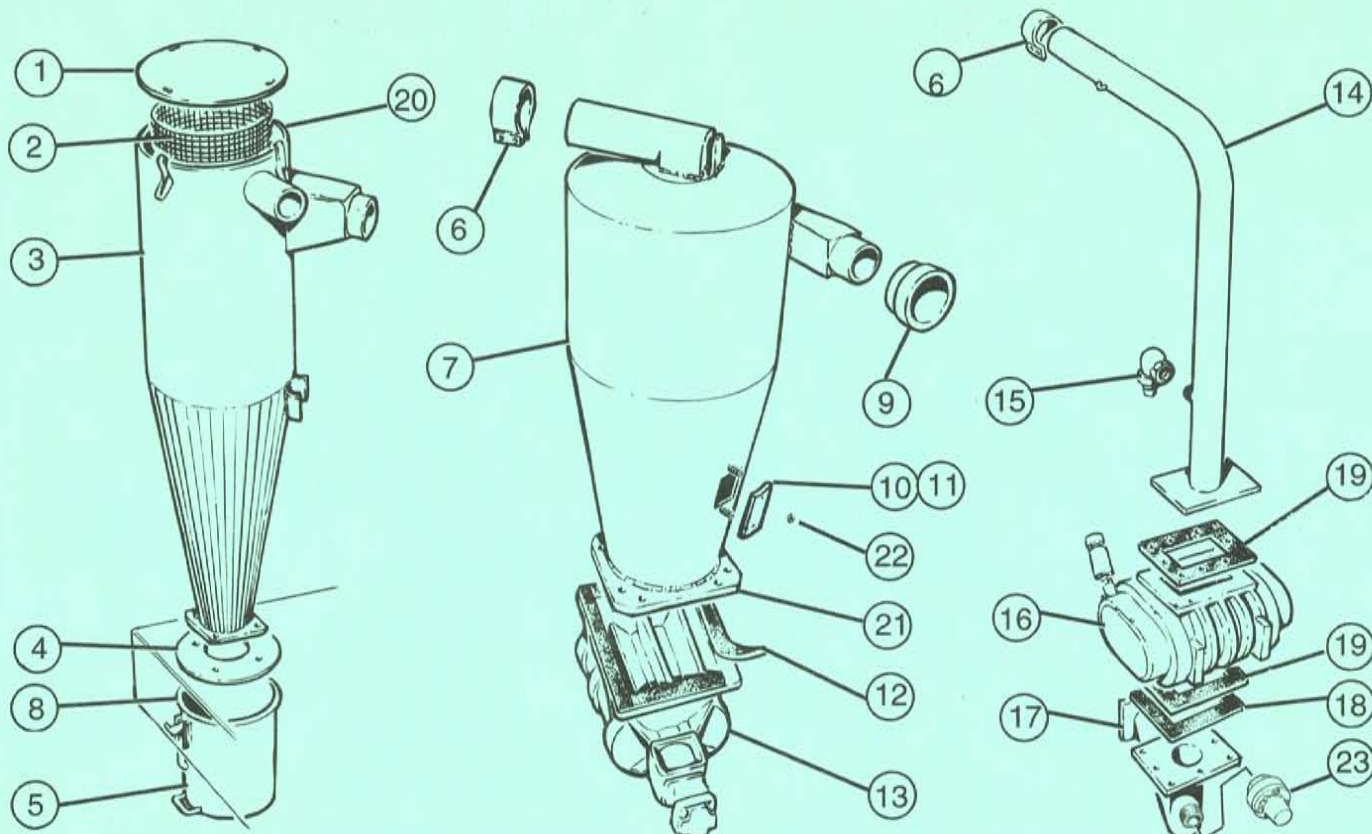
ISSUE 01-9603



Item No.	Ordering No.		No. Req.d	Description
	5"	6"		
1	11600	11600	1	Main frame
2	30500	30500	1	Hitch assembly
3	30023	30023	1	Snap ring
4	30001	30001	1	Jack
5	60014	60014	2	Amber reflector
6	20024	20024	2	Wheel seal
7	20025	20025	2	Bearing cone inner
8	20026	20026	2	Bearing cup inner
9	30026	30026	2	Wheel hub
10	20027	20027	2	Bearing cone outer
11	20028	20028	2	Bearing cup outer
12	56046	56046	2	Flat washer 3/4"
13	60012	60012	2	Cotter key
14	30027	30027	2	Castle nut
15	30029	30029	2	Dust cap
16	30512	30512	2	Tire/rim assembly, P205 x 15
17	11540	11620	1	Boom support
18	60015	60015	2	Red reflector
19	68503	68503	1	Slow Moving Vehicle sign
20	11529	11529	1	Slow Moving Vehicle spade 112409
21	30028	30028	10	Wheel bolt
22	-	-	7	3/8" x 1 1/4" Gap screw, flat washer & lock nut
23	-	-	6	1/2" x 3" Gap screw, flat washer & lock nut

RECEIVER TANK & DUST COLLECTOR

REPAIR PARTS LIST

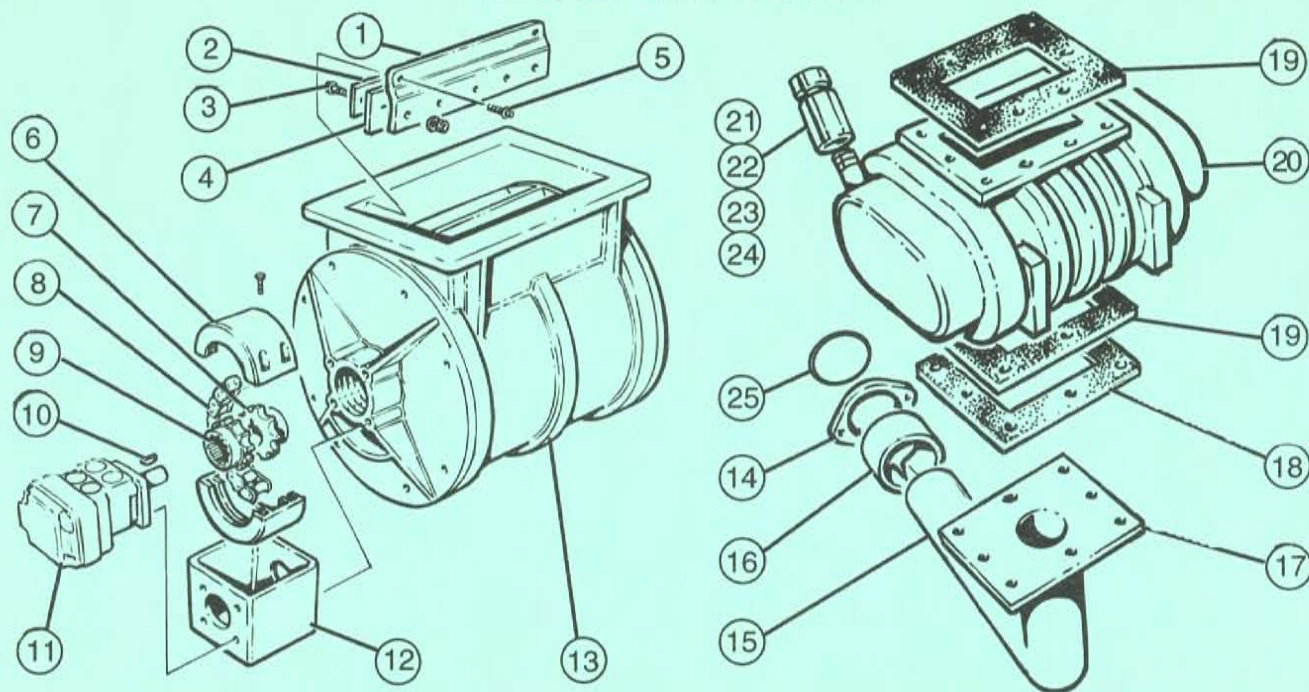


Item No	Ordering No.		No. Req'd	Description
	5"	6"		
1	19504	19504	1	Dust cyclone top plate
2	19514	19514	1	Screen, anti-plugging
3	19500	19500	1	Dust cyclone
4	15525	15525	1	Ring, pail seal
5	19512	19512	1	Dust cyclone pail
6	26011	26011	2	5" Seal clamp
7	15625	15626	1	Receiver tank
8	64505	64505	1	Pail gasket, C52 Channel -30 inches
9	26007	26052	1	Female coupler
10	64503	64503	1	Foam gasket - 28 inches
11	15520	15520	1	Window receiver
12	64504	64504	1	Foam gasket - 70 inches
13	10525	10625	1	Airlock - see page 4
14	45505	45505	1	Airline blower inlet
15	26119	26119	1	Vacuum relief valve
16	14400	14400	1	Blower complete with Oil filter - see page 4
17	45630	45630	1	2 Piece airline blower output - see page 4
18	64030	64030	1	Gasket Blower, 5.3 1/8
19	64501	64501	2	Blower Gasket, 1/16 rubber
20	64500	64500	1	Rubber channel, 1/4 x 3/8 - 57 inches
21	64503	64503	1	Foam gasket, 60 inches
22	-	-	2	1/4" Flat washer & lock nut
23	26013	26013	1	Pressure Relief Valve

When ordering parts specify:
model, size, serial number and ordering number



AIRLOCK & BLOWER ASSEMBLIES



Item No	Ordering No.		No. Req.d	Description
	5"	6"		
0	10525	10625	1	AIRLOCK ASSEMBLY, COMPLETE WITH MOTOR
1	10630	10630	1	Wiper Airlock
2	10631	10631	1	Retainer wiper airlock
3	-	-	3	Bolt, 1/4" x 1 1/2" complete with flat/L washer & nut
4	10632	10632	1	Flex tip wiper airlock
5	-	-	2	Bolt, 1/4" x 1 1/2" complete with flat/L washer & nut
6	20011	20011	1	Cover chain coupler
7	20007	20007	1	Chain coupler sprocket
8	20010	20010	1	Chain - chain coupler
9	10021	10021	1	Chain coupler sprocket - splined
10	20006	20006	1	Woodruff key
11	22228	22228	1	Hydraulic motor - White
12	10017	10017	1	Bracket for mounting airlock motor
13	10535	10635	1	Airlock, less motor and coupler
00	14400	14400	1	BLOWER COMPLETE WITH BREATHER VENTS
14	45503	45503	1	Flange airlock inlet
15	45629	45629	1	Extension blower output tube
16	26011	26011	1	Seal clamp, 5"
17	45630	45630	1	Airline output
18	64030	64030	1	Gasket 5" x 3 1/8"
19	64501	64501	2	Gasket, 1/16" rubber
20	14400A	14400A	1	Blower less breathers
21	22136	22136	2	Galvanized steel nipple, 3/4" x 2 1/2"
22	22044	22044	2	Galvanized coupler nipple, 3/4"
23	22149	22149	2	Galvanized hexagon bushing, 3/4" x 3/8"
24	14431	14431	2	Breather vent



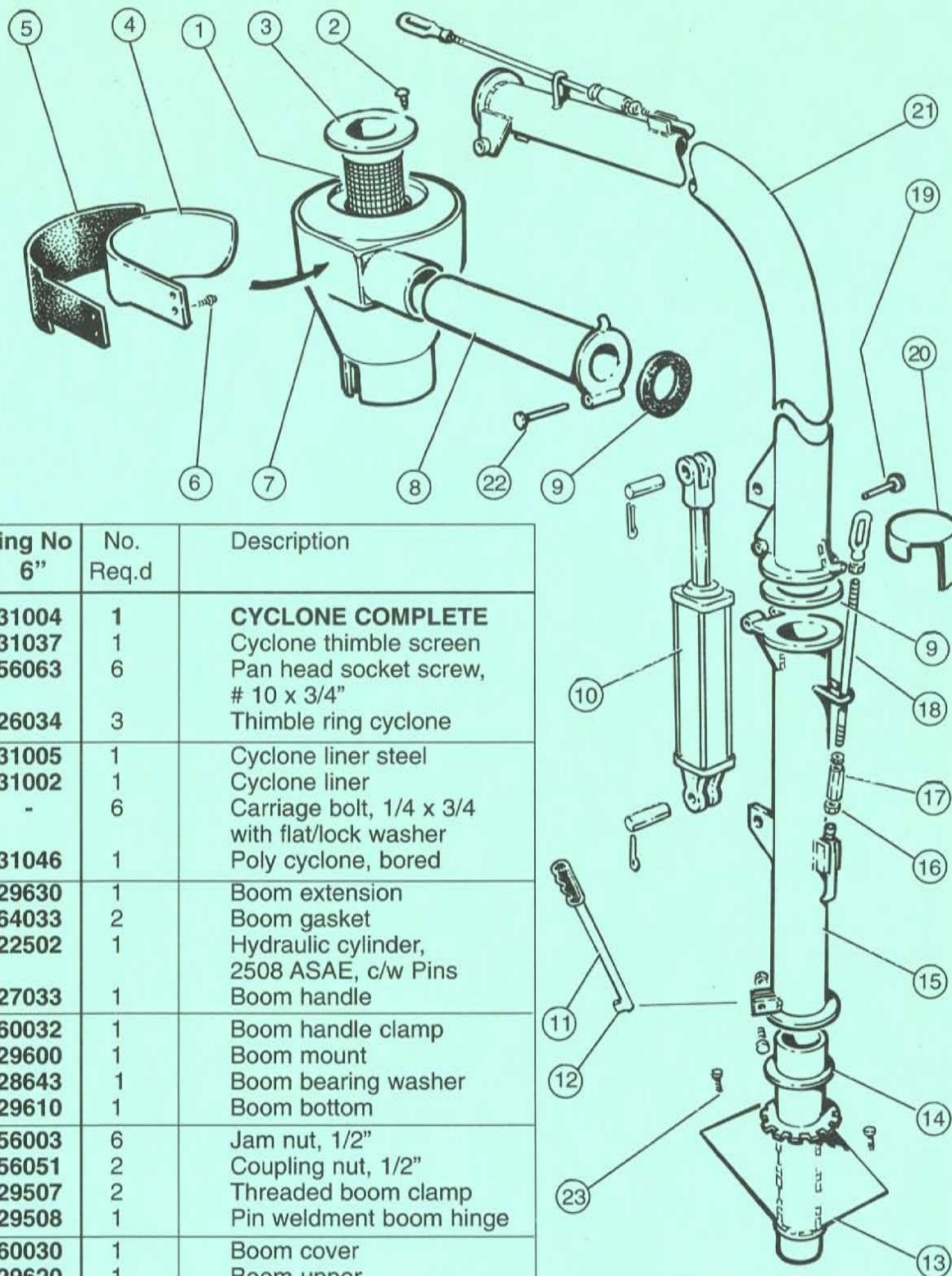
Manufacturing Ltd.

**When ordering parts specify:
model, size, serial number and ordering number**

BOOM & CYCLONE

5" & 6"

REPAIR PARTS LIST



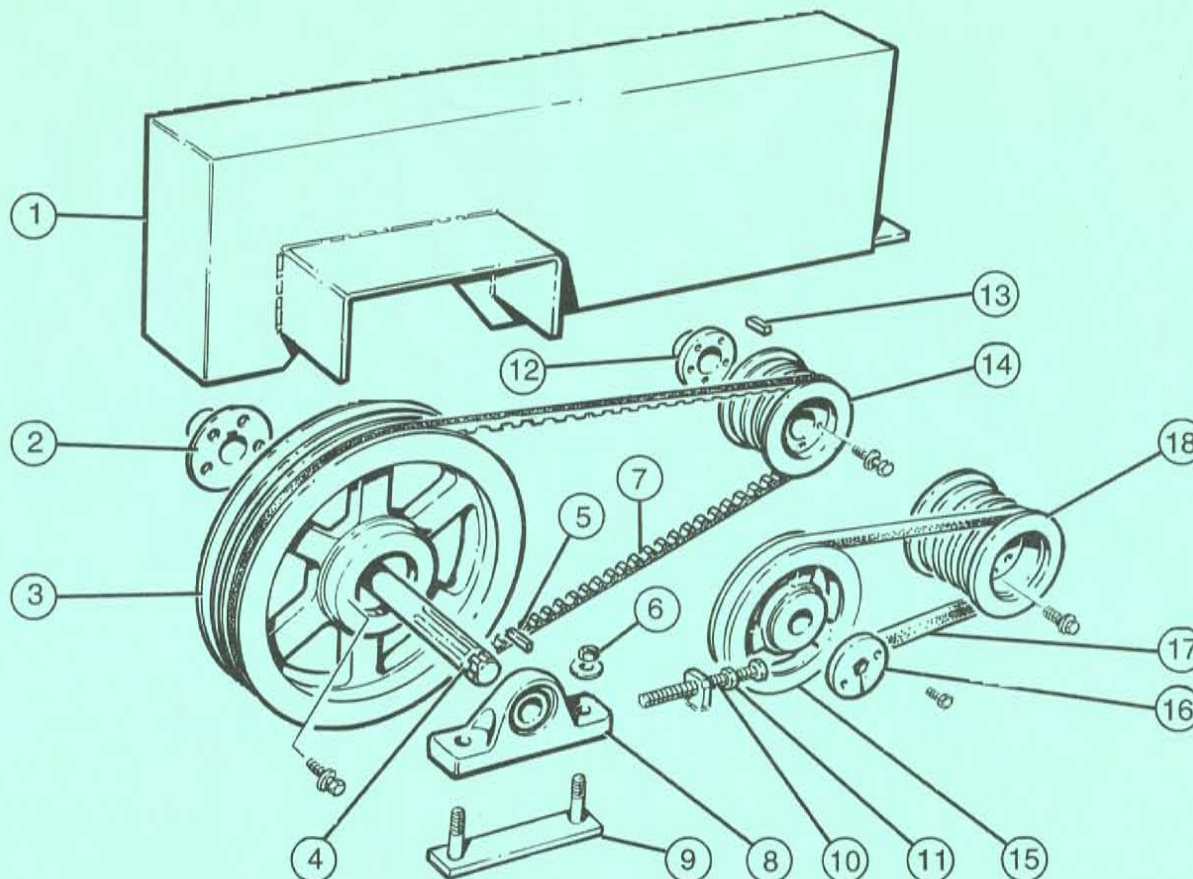
Item No.	Ordering No		No. Req.d	Description
	5"	6"		
0	31003	31004	1	CYCLONE COMPLETE
1	31037	31037	1	Cyclone thimble screen
2	56063	56063	6	Pan head socket screw, # 10 x 3/4"
3	26034	26034	3	Thimble ring cyclone
4	31005	31005	1	Cyclone liner steel
5	31002	31002	1	Cyclone liner
6	-	-	6	Carriage bolt, 1/4 x 3/4 with flat/lock washer
7	31045	31046	1	Poly cyclone, bored
8	29530	29630	1	Boom extension
9	64032	64033	2	Boom gasket
10	22502	22502	1	Hydraulic cylinder, 2508 ASAE, c/w Pins
11	27033	27033	1	Boom handle
12	60032	60032	1	Boom handle clamp
13	29500	29600	1	Boom mount
14	29543	28643	1	Boom bearing washer
15	29510	29610	1	Boom bottom
16	56003	56003	6	Jam nut, 1/2"
17	56051	56051	2	Coupling nut, 1/2"
18	29507	29507	2	Threaded boom clamp
19	29508	29508	1	Pin weldment boom hinge
20	60030	60030	1	Boom cover
21	29520	29620	1	Boom upper
22	29535	29535	1	Pin weldment boom extension hinge
23	-	-	4	1/2 x 1 1/2 Flat/lock washer

When ordering parts specify:
model, size, serial number and ordering number



BELT DRIVE

(for standard and self contained)

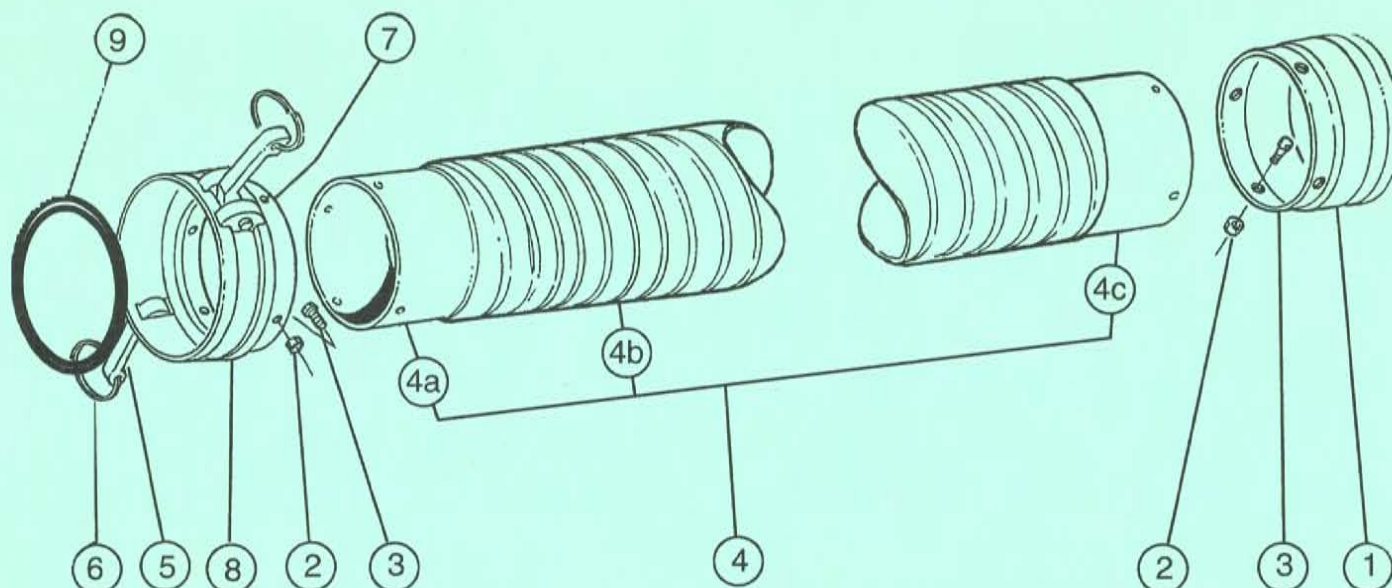


Item No.	Ordering No.		No Req.d	Description
	5"	6"		
1	11520	11520	1	Belt Cover
2	18503	18504	1	Bushing, 1 3/8 complete with bolts
3	18004	18050	1	Sheave
4	18502	18502	1	Spline shaft, 1 3/8, 6 spline
5	20502	20502	1	Key, 5/16 x 2
6	-	-	2	Flat washer and nylon nut, 1/2 inch
7	18501	18505	5	V-Belt
8	20501	20501	2	Pillow block bearing, 1 3/8
9	11503	11503	2	Bolt weldment - bearing
10	56026	56026	2	Tap bolt, 1/2 x 3 3/4
11	56003	56003	2	Jam Nut, 1/2"
12	18038	18010	1	Bushing, 1 7/16 complete with bolts
13	20018	20018	1	Key, 3/8 x 2
14	18011	18052	1	Sheave
SELF CONTAINED HYDRAULICS - OPTIONAL				
15	18510	18510	1	Sheave, 6.4 QT
16	18511	18511	1	Bushing, 9/16 QT complete with bolts
17	18513	18513	1	Belt, B38
18	18514	-	1	Sheave B6, 6.0, replaces 18011
18	-	18512	1	Sheave 5V, 5.2, replaces 16052

REPAIR PARTS LIST

ISSUE 05-9611
Replaces 05-9603

STEEL FLEX HOSE & COUPLERS 5" & 6"



Item No.	Ordering No.		No Req.d	Description
	5"	6"		
0	43032	43047	1	Steel Flex Hose Assembly - includes 1-9
1	26006	26051	1	Male Coupler
2	56030	56030	8	Lock Nut, 1/4" NC x 3/4"
3	56027	56027	8	Carriage Bolt, 1/4" NC x 3/4."
4	43033	43048	1	Steel Flex Hose, 10 ft.
4a	43029	43050	1	Tubing
4b	26003	26073	1	Steel Flex Poly Lock, 10 ft.
4c	26040	26047	1	Hose end reducer
5	26083	26086	2	Cam Lever
6	26085	26085	2	Finger Ring
7	26081	26082	2	Cam Lever Pin
8	26007	26052	1	Fem Coupler Assembly-includes 5 - 7
9	64028	64029	1	Coupler Gasket

When ordering parts specify:
model, size, serial number and ordering number

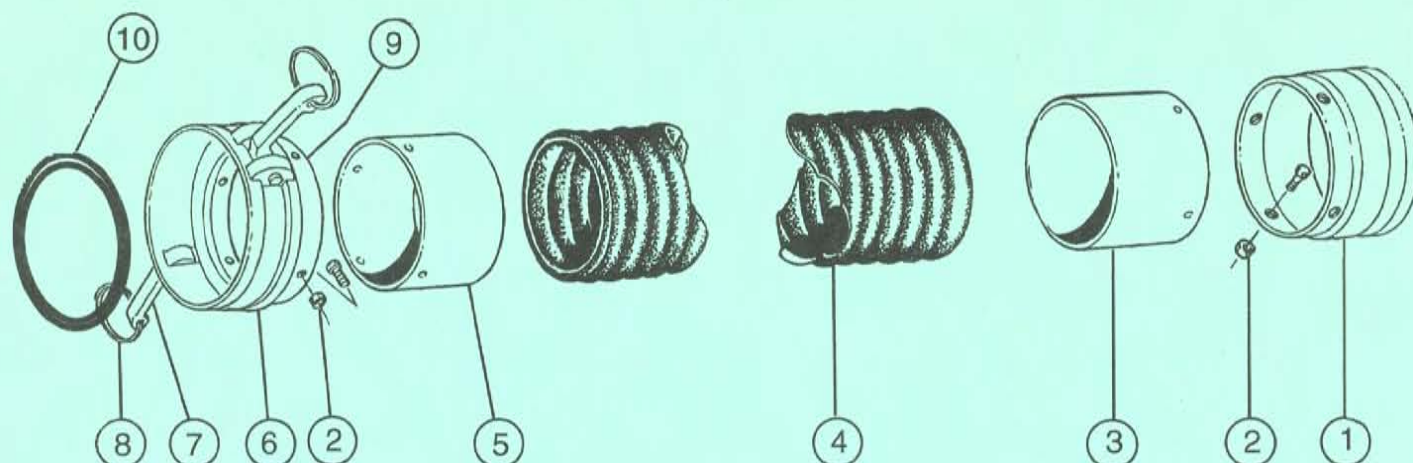


Manufacturing Ltd.

REPAIR PARTS LIST

CLEAN UP HOSE & COUPLERS 5" & 6"

ISSUE 07-9603



Item No.	Ordering No.	Description	Number Required
0	43034	Complete Hose Assembly - 4" x 14', 4 "Fem x 5" male	1
1	26006	Male Coupler, 5 "	1
2	56027	Carriage Bolt, 1/4" NC x 3/4", Lock Nut & Washer	8
3	26028	Reducer, 5" - 4"	1
4	26112	Poly Hose, 4" x 14'	14 feet
5	43035	Tube	1
6	26005	Female Coupler, 4" - includes 7 - 9	1
0	43056	Complete Hose Assembly - 5" x 14', 5" Fem x 6" male	1
1	26051	Male Coupler, 6 "	1
2	56027	Carriage Bolt, 1/4" NC x 3/4", Lock Nut & Washer	8
3	26044	Reducer, 6" - 5"	1
4	26113	Poly Hose, 5" x 14'	14 feet
5	43029	Tube	1
6	26007	Female Coupler, 5" - includes 7 - 9	1
0	43019	Complete Hose Assembly - 6" x 14', 6" Fem x 6" male	1
1	26051	Male Coupler, 6 "	1
2	56027	Carriage Bolt, 1/4" NC x 3/4", Lock Nut & Washer	8
4	26120	Poly Hose, 6" x 14'	14 feet
5	43029	Tube	2
6	26052	Female Coupler, 6" - includes 7 - 9	1
0	43079	Complete Hose Assembly - 5" x 14', 5" Fem x 5" male	1
1	26006	Male Coupler, 5 "	1
2	56027	Carriage Bolt, 1/4" NC x 3/4", Lock Nut & Washer	8
4	26113	Poly Hose, 5" x 14'	14 feet
5	43029	Tube	2
6	26007	Female Coupler, 5" - includes 7 - 9	1
Coupler parts			
7	26083	Cam Lever, for 4" & 5"	2
7	26086	Cam Lever, for 6"	2
8	26085	Finger Ring	2
9	26058	Pin Cam Lever, for 4" & 5"	2
9	26059	Pin Cam Lever, for 6"	2
10	64027	Coupler Gasket, for 4"	2
10	64028	Coupler Gasket, for 5"	2
10	64029	Coupler Gasket, for 6"	2



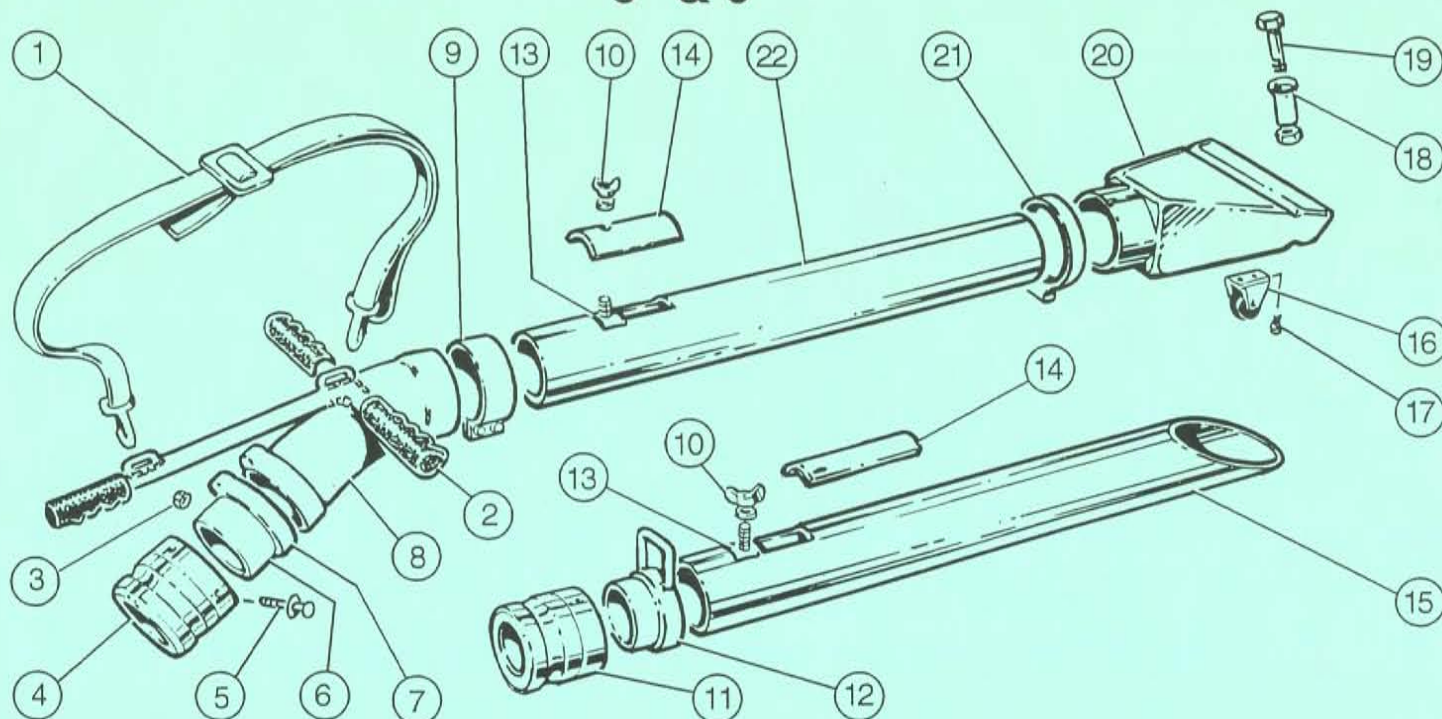
Manufacturing Ltd.

When ordering parts specify:
model, size, serial number and ordering number

CLEAN UP & BIN NOZZLES

5" & 6"

REPAIR PARTS LIST



Item No.	Ordering Number		No. Req'd	Description
	5005	6006		
0	43036*	43030 **	1	Cleanup assembly complete
1	60021	60021	1	Shoulder strap
2	60008	60008	1	Handle grip
3	-	-	2	Nylon nut 3/8"
4	26004	26006	1	Male coupler
5	-	-	4	Carriage bolt, 1/4" x 3/4" complete with flat washer
6	43006	43009	1	Rotary male machined
7	43020	43023	1	Retainer weldment
8	43018	43021	1	Rotary elbow weldment
9	26010	26011	1	Seal clamp
10	-	-	2	Wing nut and flat washer, 3/8"
13	43004	43004	2	Bottom slide assembly
14	43003	43003	2	Top slide
16	60009	60009	2	Rigid Caster
17	-	-	1	Carriage bolt, 1/4" x 3/4". complete with washer and nut
18	43060	43060	1	Spacer pipe intake flare
19	-	-	1	Machine bolt, 1/4" x 3", flat lock washer and nut
20	43130	43129	1	Bored intake flare
21	26062	26063	1	Quick release T-bolt clamp
22	43037*	43031**	1	Aluminum tube
00	43510	43610	1	Full bin nozzle assembly
10	-	-	2	Wing nut and flat washer, 3/8"
11	26006	26051	11	Male coupler
12	43508	43608	1	Handle
13	43004	43004	2	Bottom slide assembly
14	43003	43003	2	Top slide
15	43509	43609	1	Tube

Note:

* For 5005 units, tube and clamp are 4"

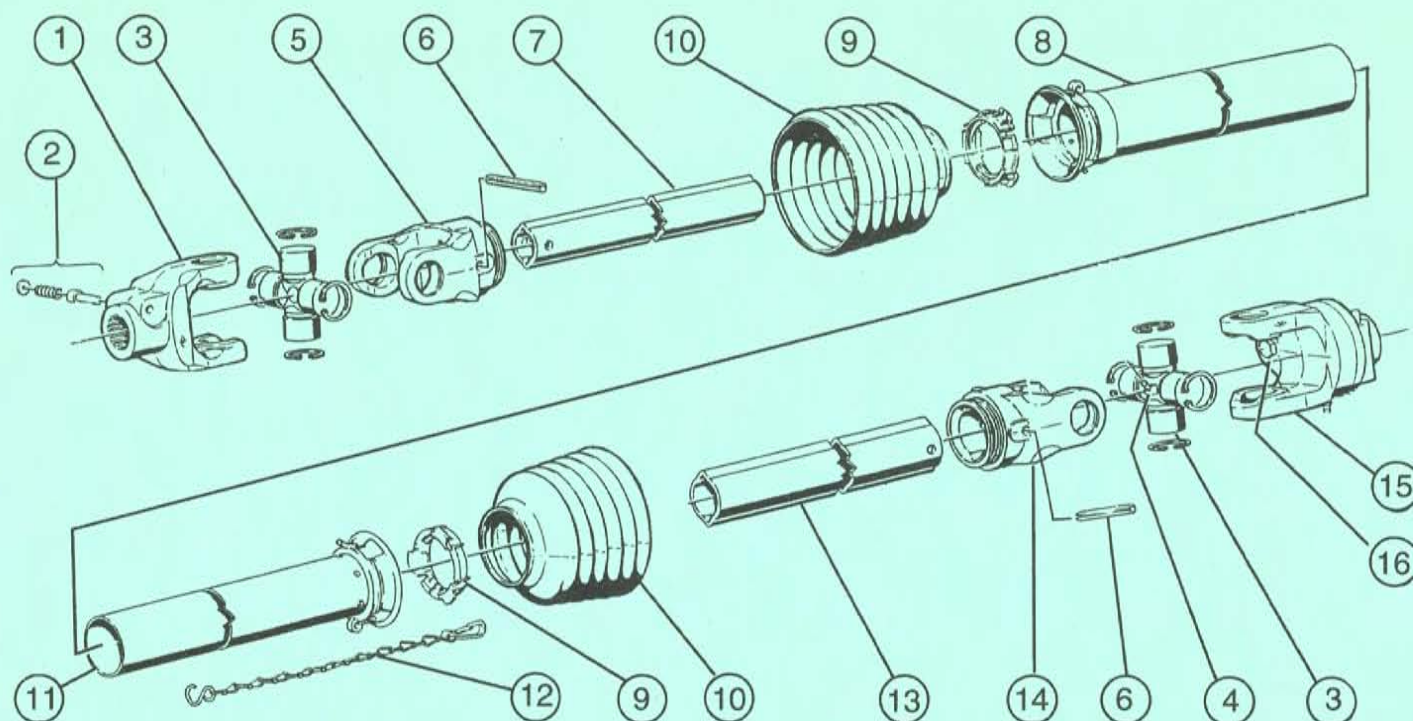
** For 6006 units, tube and clamps are 5"

When ordering parts specify:
model, size, serial number and ordering number

REPAIR PARTS LIST

DRIVESHAFT (WALTERSHEID - 1000RPM)

ISSUE 09-9611
Replaces 09-9603



Item No.	Ordering No.	No. Req'd	Description
0	16100	1	Drive shaft complete for 5" and 6" units
1	16105	1	End yoke, 1 3/8" - 21 spline
2	16106	2	Pin Kit
3	16109	2	Cross and bearing kit
4	16110	2	Grease nipple
5	16111	1	Yoke, Inner profile
6	16112	2	Spring pin
7	16113	1	Inner profile
8	16118	1	Outer shield tube
9	16117	2	Shield bearing
10	16116	2	Shield cone
11	16119	1	Inner shield tube
12	16112	1	Safety Chain
13	16114	1	Outer profile
14	16115	1	Yoke, outer profile
15	16107	1	Shear bolt clutch yoke
16	16108	1	Shear bolt, 5/16" NC x 2 1/2", grade 5

printed in Canada NDJH96

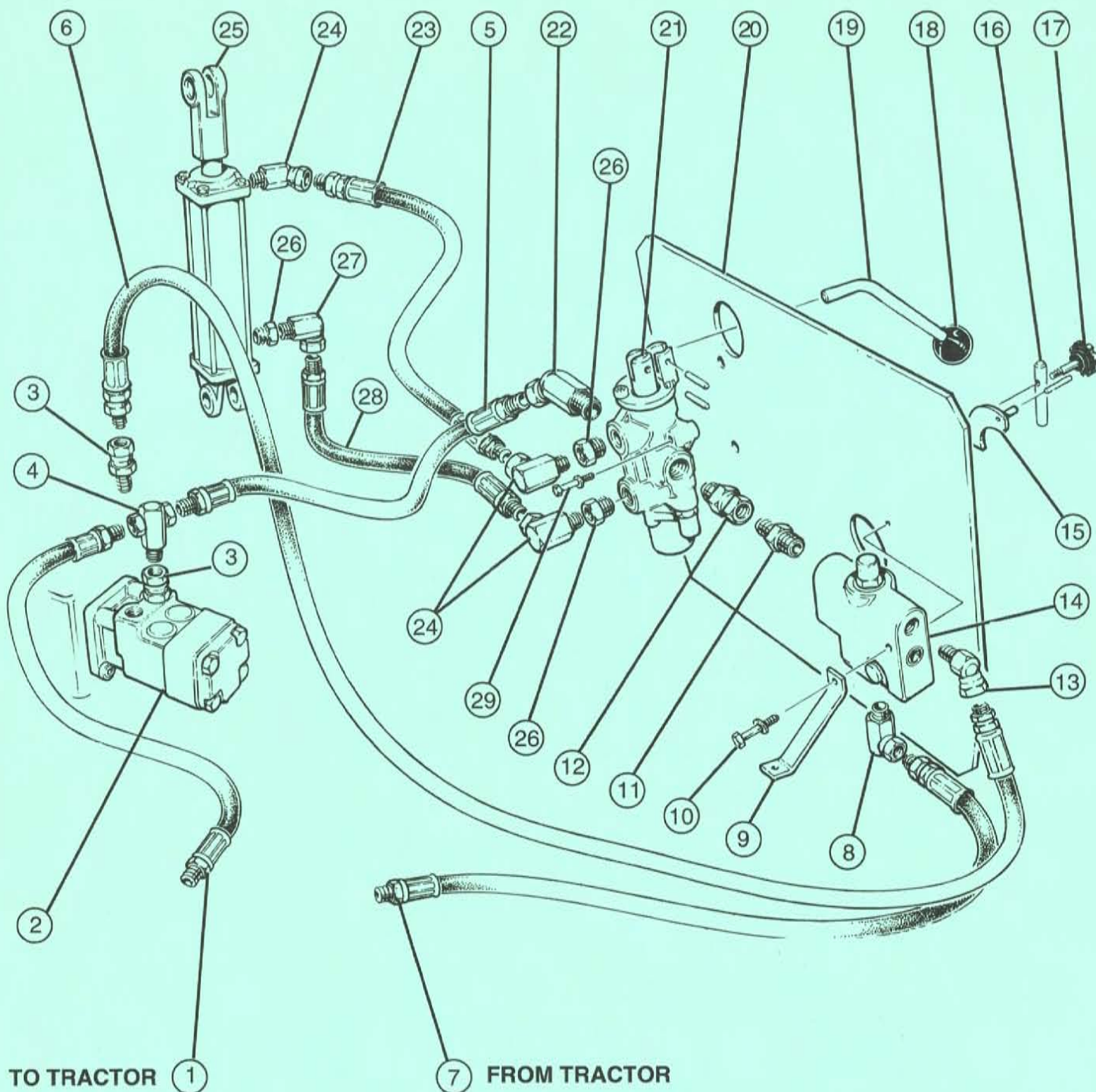


Manufacturing Ltd.

When ordering parts specify:
model, size, serial number and ordering number

STANDARD HYDRAULIC SYSTEM

REPAIR PARTS LIST



When ordering parts specify:
model, size, serial number and ordering number

**REPAIR
PARTS LIST****STANDARD
HYDRAULIC SYSTEM**
(for 5" & 6" models)

ISSUE 11-9603

Item No.	Ordering Number	No. Req.d	Description
1	22514	1	Hose, 1/2" x 114"
2	22228	1	Hydraulic motor, White
3	22131	2	Adapter orb to pipe thread
4	22508	1	Swivel Tee
5	22524	1	Hose, 1/2" x 42"
6	22513	1	Hose, 1/2" x 48"
7	22515	1	Hose, 1/2" x 156"
8	22507	1	90 degree swivel elbow, 1/2"
9	22511	1	Brace, hydraulic mount
10	-	2	Bolt complete with washer and nut, 1/4" x 2 1/2"
11	22506	1	Pipe nipple, 1/2"
12	22503	1	Straight swivel, 3/4" x 1/2"
13	22505	1	Elbow swivel, 45 degree - 1/2"
14	22501	1	Flow control
15	26168	1	Indicator plate - for flow control
16	22166	1	Handle - for flow control
17	22165	1	Knob - for flow control handle
18	22536	1	Knob - for control valve
19	22525	1	Handle - for control valve
20	22510	1	Hydraulic valve mount
21	22203	1	Boom valve
22	22520	1	Swivel elbow , 3/4" x 1/2"
23	22517	1	Hose, 1/4" x 160"
24	22519	3	Swivel elbow, 3/8" x 1/4"
25	22502	1	Hydraulic cylinder, 2508 ASAE
26	22521	3	Reducer, 3/8" x 1/4"
27	22533	1	Swivel orifice, .04
28	22516	1	Hose, 1/4" x 150"
29	-	2	Bolt complete with washer and nut, 1/4" x 1 1/2"

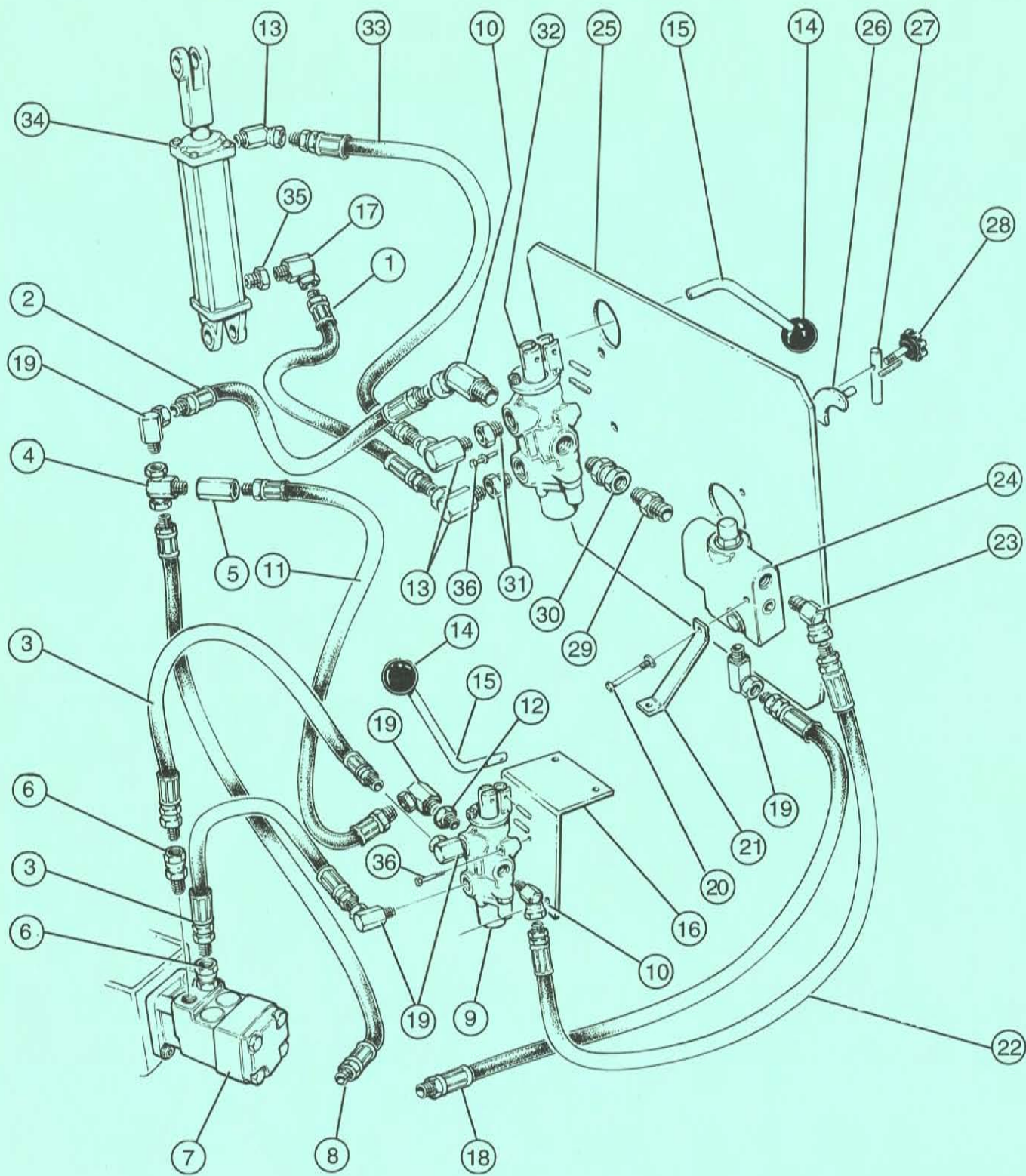


Manufacturing Ltd.

**When ordering parts specify:
model, size, serial number and ordering number**

HYDRAULIC SYSTEM (WITH REVERSE OPTION)

REPAIR PARTS LIST



When ordering parts specify:
model, size, serial number and ordering number

**REPAIR
PARTS LIST****HYDRAULIC SYSTEM
(WITH REVERSE OPTION)**

ISSUE13-9603

Item No.	Ordering Number	Number Required	Description
1	22516	1	Hose, 1/4" x 150"
2	22524	1	Hose, 1/2" x 42"
3	22575	2	Hose, 1/2" x 21"
4	22508	1	Swivel Tee
5	22525	1	Pipe coupler
6	22131	2	Adapter, ORB to pipe thread
7	22228	1	Hydraulic motor, White
8	22514	1	Hose, 1/2" x 114"
9	22017	1	Control valve airlock
10	22520	2	Swivel elbow, 45°, 3/4" x 1/2"
11	22578	1	Hose, 1/2" x 1/2"
12	22215	1	Reducer, 3/4" x 12"
13	22519	3	Swivel elbow, 3/8" x 1/4"
14	22536	2	Knob - for control valve
15	22535	2	Handle - for control valve
16	22572	1	Mount - for hydraulic valve
17	22533	1	Swivel elbow, .040 orifice
18	22515	1	Hose, 1/2" x 156"
19	22507	5	90° swivel elbow, 1/2"
20	-	2	Bolt, complete with flat washer and nut, 1/4" x 2 1/2"
21	22511	1	Brace - for hydraulic mount
22	22568	1	Hose, 1/2" x 36"
23	22505	1	45° Swivel elbow, 1/2"
24	22501	1	Flow control
25	22510	1	Mount - for hydraulic valve
26	22168	1	Indicator plate - for flow control valve
27	22166	1	Handle - for flow control valve
28	22165	1	Knob - for flow control valve
29	22506	1	Pipe nipple, 1/2"
30	22503	1	Straight swivel, 3/4" x 1/2"
31	22521	2	Reducer, 1/2" to 3/8"
32	22203	1	Boom valve
33	22517	1	Hose, 1/4" x 160"
34	22502	1	Hydraulic cylinder, 2508 ASAE
35	22521	1	Reducer, 3/8" x 1/4"
36	-	2	Bolt, complete with flat washer and nut, 1/4" x 1 1/2"

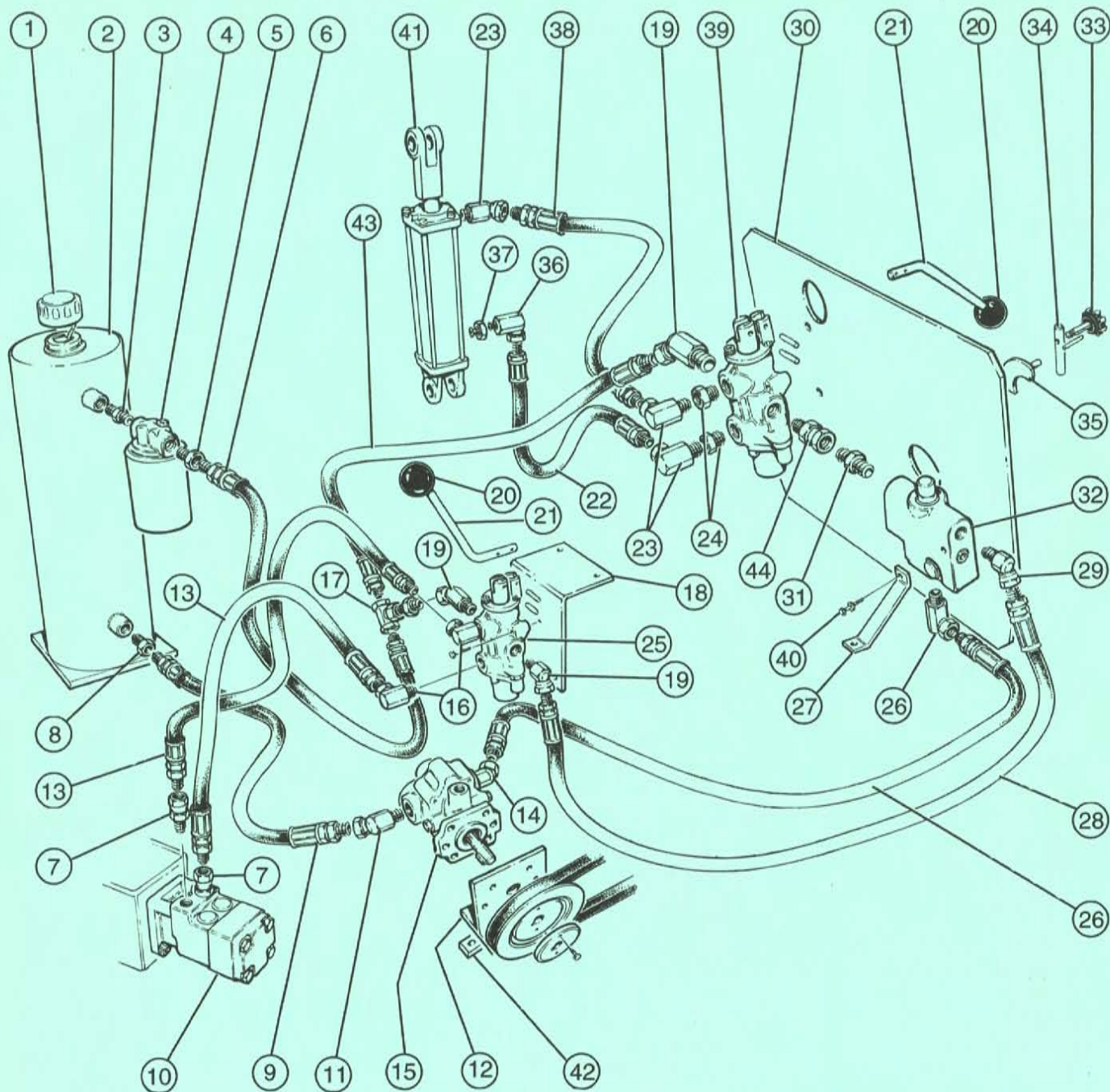


Manufacturing Ltd.

**When ordering parts specify:
model, size, serial number and ordering number**

SELF CONTAINED HYDRAULIC SYSTEM (WITH REVERSE OPTION)

REPAIR PARTS LIST



When ordering parts specify:
model, size, serial number and ordering number

REPAIR PARTS LIST

SELF CONTAINED HYDRAULIC SYSTEM (WITH REVERSE OPTION)

ISSUE 15-9603

Item No.	Ordering Number	Number Required	Description
1	22066	1	Filler breather
2	22550	1	Tank - for self contained hydraulics
3	22136	1	Pipe nipple, 3/4" x 2 1/2"
4	22067	1	Filter
5	22518	1	Reducer, 3/4" x 1/2"
6	22570	1	Hose, 1/2" x 54"
7	22131	2	Adapter, ORB to pipe thread
8	22518	3	Reducer, 1/2" x 3/8"
9	22085	1	Hose, 1/2" x 42"
10	22228	1	Hydraulic motor, white
11	22505	2	Swivel elbow, 45°, 1/2"
12	22564	1	Mount - for hydraulic pump
13	22575	2	Hose, 1/2" x 21"
14	22573	1	90° Swivel elbow, 3/8"
15	22540	1	Hydraulic pump
16	22507	3	90° Swivel elbow, 1/2"
17	22508	1	Swivel Tee, 1/2"
18	22572	1	Mount - for hydraulic valve
19	22520	2	45° Swivel elbow, 3/4" x 1/2"
20	22536	1	Knob for control valve
21	22535	1	Handle hydraulic valve
22	22516	1	Hose, 1/4" x 150"
23	22519	3	90° Swivel elbow, 3/8"
24	22521	2	Reducer, 1/2" x 3/8"
25	22017	1	Control valve - airlock
26	22567	1	Hose, 3/8" x 40"
27	22511	1	Brace, hydraulic mount
28	22568	1	Hose, 1/2" x 36"
29	22505	1	Elbow swivel, 45°, 1/2"
30	22510	1	Mount for hydraulic valve
31	22506	1	Pipe nipple, 1/2"
32	22501	1	Flow control
33	22165	1	Knob - for flow control
34	22166	1	Handle - for flow control
35	22168	1	Indicator plate - for flow control
36	25533	2	Swivel elbow, .040 orifice
37	22521	1	Reducer, 3/8" x 1/4"
38	22517	1	Hose, 1/4" x 160"
39	22203	1	Hydraulic valve
40	-	2	Bolt, complete with flat washer and nut, 1/4" 2 1/2"
41	22502	1	Hydraulic cylinder, 2508 ASAE
42	22563	1	Clamp - for hydraulic pump mount
43	22569	1	Hose, 1/2" x 26"
44	22503	1	Swivel straight, 3/4" x 1/2"



Manufacturing Ltd.

When ordering parts specify:
model, size, serial number and ordering number

LIMITED WARRANTY

Thor Manufacturing Ltd. (hereafter referred to as "Thor") products are warranted for a period of twelve (12) month from the date of delivery to the original purchaser, to be free from defects in material and workmanship when used under correct, normal agricultural use and proper applications.

Thor's obligation under the warranty shall be limited to the repair or exchange (at Thor's option) of any part which proves to be defective as provided.

The buyer shall be responsible for all expenses incurred as a result of repairs, labor, parts, transportation or any other work unless a Thor dealer has authorized such expenses in advance. It is the responsibility of the dealer to get approval from Thor before authorizing warranty work being done. Thor reserves the right to either inspect the product at the buyer's location or have the defective part returned to the factory for inspection.

The above warranty does not extend to goods damaged or subject to accidents, abuse or misuse after shipment from Thor's factory, nor to goods altered or repaired without authorization of Thor.

Thor makes no Express Warranty other than those which are specifically described. Any description of goods, including any reference to specifications in catalogues, circulaires, and other written material published, is for the sole purpose of identifying goods and shall conform to such descriptions. Any sample or model is for illustra-

tion purposes only, and does not create and Express Warranty that the goods conform to the sample or model.

The dealer is solely responsible for determining the suitability of goods sold.

THOR MAKES NO WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE.

This warranty is expressly in lieu of all other warranties expressed or implied. Thor will in no event, be liable for any incidental or consequential damages, nor for any sum in excess of the price received for the goods for which liability is claimed.

Claims for warranty must be made on Thor Warranty Claim Forms within 10 days of the failure occurrence. Warranty Authorization numbers are available from the factory and must be indicated on the Warranty Claim Form for all claims over a total dollar value of \$ 100.00.

The labor rate for warranty work where applicable will be credited at a rate determined by Thor.

IMPORTANT: The blower and airlock carry NO warranty for wear and/or damage due to foreign matter such as metal objects or stones passing through them due to using the machine to convey materials other than cereal grains, grass seeds or pulse crops.

THOR MANUFACTURING LTD.



MANUFACTURING LTD.

77 Beghin Ave., Winnipeg, Manitoba, Canada R2J 3S8

Phone: in N. America 1-800-582-3944 in other parts of the world 1 - 204-982-8356

Fax 1-204-663-8238

Issue date November 1996

Part Number 90.500

Cost \$ 25.00 plus \$ 2.50 postage