

Owner's and Parts Manual

**LORENZ
SNOW BLOWER
734, 738, 838**



LORENZ MFG. CO.

185 30TH AVENUE SE
BENSON MN 56215
1-888-843-3210
lorenzmfg.com

MAY 2010

Contents

Introduction	Page 3
Safety	Page 4
Specifications	Page 9
Unpacking and Pre-Assembly	Page 10
Installation and Initial Running	Page 11
Operating Instructions	Page 12
Removing From Tractor	Page 14
Troubleshooting Guide	Page 15
Maintenance and Lubrication Requirements	Page 16
Optional Equipment	Page 20
Drawings and Parts Manual	Page 21
Warranty	

Description

The Lorenz 734, 738, 838 snow blowers are designed for fitment to tractors rated 40 HP to a maximum of 100 HP. Attachment to a larger tractor will stress important components, mostly the PTO shaft. Warranty is void if installed on a tractor that is too large.

These snow blowers are the two-stage type. Two augers pull the snow to the center of the blower. The fan then blows the snow up through the chute, which can be directed to a desired location. The fan is directly driven by the PTO shaft that runs straight through a right angle drive gearbox. The gearbox also transmits power to the auger chain drive. The two augers are driven by a #60 heavy roller chain. The fan is protected with a shear pin assembly, built into the PTO shaft near the gearbox. The augers are made with paddles for better breakup of hard snow. They are very effective in hard drifts, windrows, and any other snow that has been moved one or more times.

The 734 has a cutting width of 7 feet and the 838 has a cutting width of 8 feet. The 738 and the 838 have taller housings than the 734.

The 734, 738, 834 come standard with a hydraulic drive for rotating the spout. For other options, see page 20.

VERY IMPORTANT! THIS SECTION CONTAINS VERY IMPORTANT SAFETY INFORMATION. FAILURE TO READ, UNDERSTAND AND FOLLOW THESE RULES CAN RESULT IN SERIOUS INJURY OR DEATH.



WHEN THIS SYMBOL IS PRESENT, THE ACCOMPANYING INFORMATION IS SERIOUS AND SHOULD BE FOLLOWED WITHOUT EXCEPTION. THE SAFETY OF YOU AND OTHERS DEPEND ON IT.

SIGNAL WORDS

There are three signal words used with safety messages:

DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.



WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



The safety decals affixed to this equipment indicate hazard areas and shall be kept clean and legible at all times. If a safety decal has been removed or damaged, contact the factory for a replacement at no cost.

Safety Precautions

1. **Read and understand this manual before operating the equipment.** A good understanding of the correct operating procedures can prevent serious injury to yourself and others.
2. It is the responsibility of the owner to ensure that the operator has read and understands this manual. Anyone who has not read or does not understand this manual, shall not be allowed to operate the equipment.
3. The equipment shall be operated in a safe and stable manner. Abusing or overloading the equipment in any way can cause serious injury or death. Do not allow riders. Do not operate the controls unless sitting on the tractor seat.
4. While operating, be alert to others in the area of operation.
5. When making repairs, adjustments, or performing maintenance on the equipment, shut the tractor off and remove the key.
6. Do not operate the equipment without all shields in place. If a shield needs to be removed for repairs or maintenance, replace the shield immediately.
7. Before removing hydraulic hoses, relieve the hydraulic pressure from the hoses. Hydraulic oil pressure can cause severe injury to your skin. Relieve all pressure when inspecting leaks.
8. Do not alter the design of the equipment. Altering the design may cause harm to the equipment and the operator or bystanders. Do not use the equipment for any other purpose other than what it was intended for.
9. Do not use the equipment for lifting or towing the tractor.

Safety Decals

Become familiar with the location of all safety decals and the present hazard associated with each. Important note – There are decals located under shields to warn the operator that the shield is missing or out of place and there is a danger present. Do not operate the equipment until the shield is replaced. If a safety decal becomes damaged or has been removed, replace it immediately. Replacement decals can be acquired at no charge by contacting Lorenz. Pictured on the next few pages are the locations and part numbers of all safety decals on the equipment.



Guards removed for informational purpose only.

Part #011225-1
 DANGER
 GUARD MISSING
 When this is visible
 DO NOT OPERATE
 ENTANGLEMENT HAZARD
 Can cause Serious Injury or Death



Part #011064
 WARNING
 MOVING PART HAZARD

- Close and secure guards and shields before starting.
- Keep hands, feet, hair and clothing away from moving parts.
- Disconnect and lockout power source before adjusting or servicing.
- Do not stand or climb on machine when operating.



Part #011054
 DANGER: ROTATING DRIVELINE HAZARD To prevent serious injury or death from rotating driveline:

- Keep all guards in place when operating.
- Operate only at 540 RPM.
- Keep hands, feet, hair, and clothing away from moving parts.

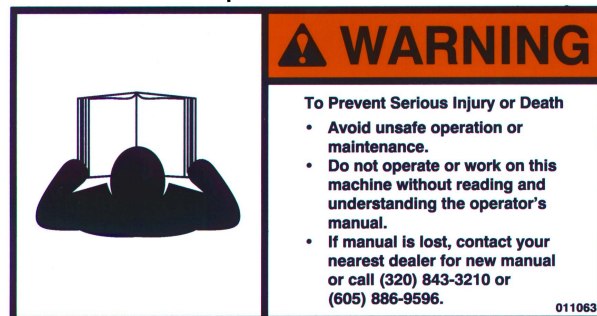


Part #011064

WARNING

MOVING PART HAZARD

- Close and secure guards and shields before starting.
- Keep hands, feet, hair and clothing away from moving parts.
- Disconnect and lockout power source before adjusting or servicing.
- Do not stand or climb on machine when operating.



Part #011063

WARNING

To Prevent Serious Injury or Death

- Avoid unsafe operation or maintenance.
- Do not operate or work on this machine without reading and understanding the operator's manual.
- If manual is lost, contact your nearest dealer for new manual or call (320) 843-3210 or (605) 886-9596.



Part #011225-1

DANGER
GUARD MISSING
When this is visible
DO NOT OPERATE
ENTANGLEMENT HAZARD
Can cause Serious Injury or Death

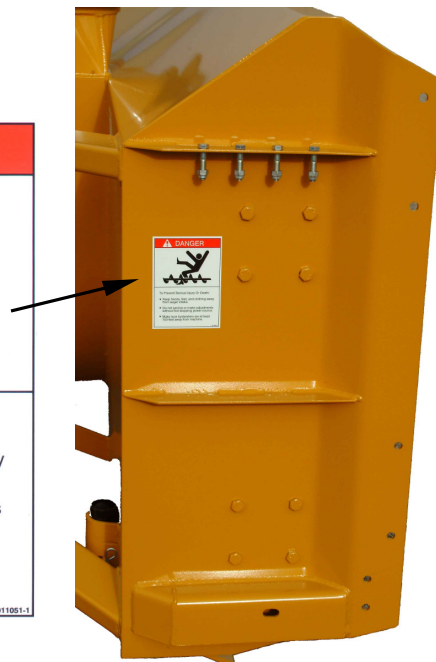
Shields are removed in this figure for display purpose only. Never operate without shields.

Part #011051-1

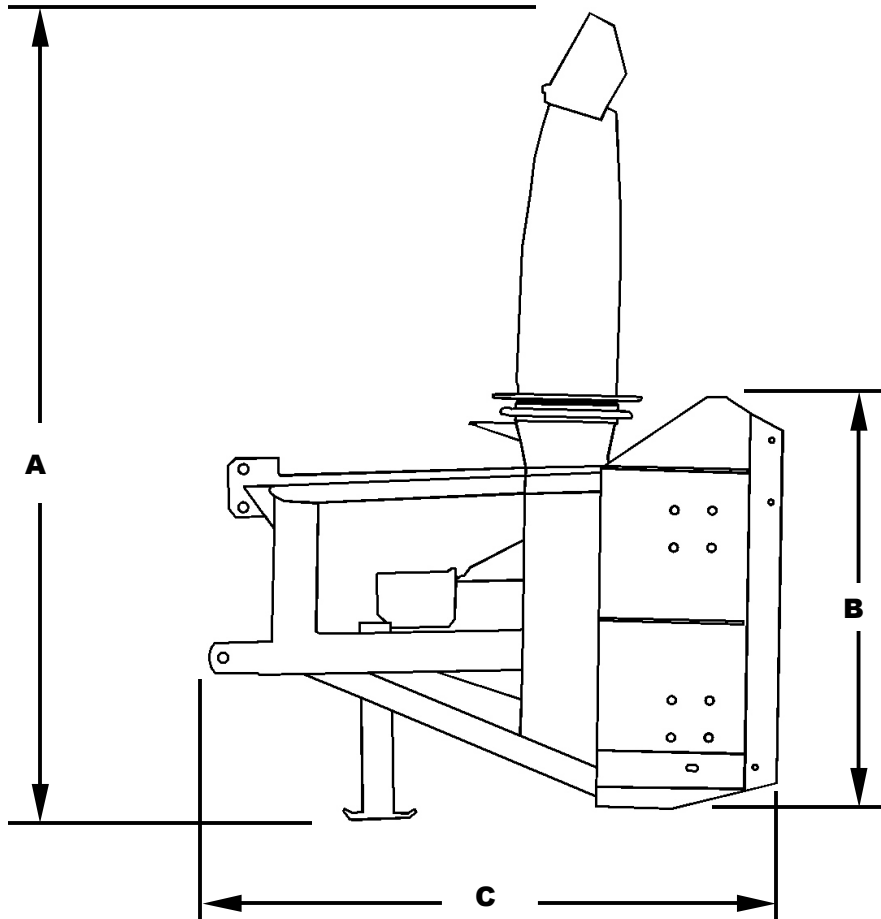
DANGER
To prevent Serious Injury Or Death:

- Keep hand, feet, and clothing away from auger intake.
- Do not service or make adjustments without first stopping power source.
- Make sure bystander are at least 100 feet away from machine.

Note – This safety decal is also used on the other end plate.



Specifications



Model	Width	A	B	C	Weight
734	84"	84"	36"	52"	1100 lbs.
738	84"	84"	41"	52"	1150 lbs.
838	96"	84"	41"	52"	1250 lbs.

Maximum input horsepower is 100 HP. Installing on a larger tractor with more than 100 HP will void the warranty.

Your snow blower is almost ready for use from the factory. However, depending on whether it was picked up or shipped, some preparation may be required. The gearbox has been filled with gear lube at the factory, but it is a good idea to double-check for the correct level. See the section on maintenance and lubrication, page 16 for correct lube type and quantity. The PTO shaft is included with the snow blower. The blower half is already installed onto the gearbox input shaft. The tractor half is usually packed in the spout chute for shipping. When assembling the PTO, remove any paint or dirt, etc. from the square shaft that could keep it from telescoping properly. Applying some grease to the shaft will make it easier to slide both halves together. If your blower was shipped by truck, the spout may have to be installed. Listed below is a recap of things to check before the initial running.

Remove any packing material like shrink wrap, cardboard, etc.

1. Remove the tractor PTO half from inside the fan spout chute.
2. Check the PTO shaft for paint or dirt and apply a thin layer of grease to shaft.
3. Slide both halves together and make sure they slide freely. **Note – The PTO shaft must be checked for proper length before operation.** See Step 3 in the next section.
4. Check level of lube in gearbox (see “Maintenance and Lubrication Requirements” section for proper type and level of lube).
5. Install spout on fan opening (see instructions below).
6. Install any optional hydraulic or electric kit according to instructions.
7. Visually inspect blower before attaching to tractor.

Installing spout onto blower

- Step 1. The retaining ring should be attached to the top of the fan output. Remove the two 3/8” bolts and lock nuts and remove the ring.
- Step 2. Apply some grease to the flat ring on the fan output. There should already be some grease protecting this ring.
- Step 3. Position the spout on top of the flat ring such that the retaining ring can be re-installed.
- Step 4. Re-install the retaining ring such that it holds both flat rings together (spout ring and fan output ring), using the two 3/8” bolts and lock nuts. Leave the bolts loose enough so that the spout still turns freely.
- Step 5. Manually rotate the spout and check for tightness/looseness. It should not bind, but be tight enough so it doesn’t wobble when turning. Adjust the 3/8” bolts for best fit.
- Step 6. The blower is shipped with the spout turning drive up side down. Remove the bracket and motor and re-install on the top side of the mount. Adjust the position of the bracket so the motor gear meshes with the spout gear with no binding when rotating. **Note!** The hydraulic motor has a restrictor plug installed for speed control. **Do not remove this plug.** The motor is shipped with solid plugs to keep foreign objects out of motor, so care must be taken when removing these plugs.

If installing an electric spout turning kit, refer to the installation instructions included with the kit.

Attaching Snow Blower to Tractor

Step 1. Position the blower PTO shaft such that when backing the tractor to the three point hitch, it does not interfere. Remove the tractor draw bar, if one is installed. Remove the three pins from the blower three-point. Back the tractor into the blower three-point such that the lower two arms align with the pin holes in the blower hitch. Re-insert the lower two pins and hair pins.

Step 2. Attach the upper link and adjust so the blower is level. Check the lower lift arm retaining chains for excess looseness. However, they should not be tight. Raise the blower jack stand into the upper position.

Step 3. IMPORTANT! Make sure the tractor is shut off and the key removed before handling the PTO shaft. The PTO shaft supplied with the blower must be checked for length. As the blower is raised with the 3-point, the shaft telescopes. The shaft needs to be about four inches shorter than the shortest position when raising the 3-point. Your dealer will be able to help you in making sure it is the correct length.

Step 4. When the PTO shaft length has been verified, slide the coupler onto the tractor spline until the retaining collar has latched. Verify the lock by attempting to slide the coupler back. A little grease on the splines will help when sliding the coupler onto the spline.

Step 5. Start the tractor and carefully raise the 3-point, watching for binding and re-checking the length of the PTO shaft. The blower should be level from side to side and front to back. Adjustment of the lower 3-point arms may be necessary. Do not tilt the blower back by extending the upper third link. If the blower mount is set too far back, the skid shoes will not be effective. Also, adjust the speed of raise/lower on your tractor so the 3-point raises and lowers slowly (a few seconds each way).

When all adjustments have been made and there is no interference between the tractor and blower while raising and lowering, then proceed to "Initial Running"

Initial Running

Rotate the spout so that it points away from the tractor. Make sure the blower is clear and all bystanders are at a safe distance away. Start the tractor and engage the PTO at idle speed. The blower should run smooth with no vibration, etc. Gently increase tractor RPM until the PTO has reached full speed (540 RPM). There should be no vibration and the blower should continue to run smooth. If not, reduce RPMs to idle speed, disengage the PTO, shut the tractor off, and remove the key. Check the PTO and blower for interference.

Check Spout Rotation

Normally, the hydraulic spout kit does not include hoses. Your Lorenz dealer can supply the hoses with the length needed and the correct ends. When threading the hoses into the motor, do not over tighten, because the motor housing may crack, causing an oil leak.

Install Deflector Kit

There are also options for actuating the deflector, either hydraulically or electrically. Install according to the instructions included with the kit.

It is very important to become familiar with and understand the correct procedure for operating this blower. This section will familiarize the operator with the blower and offer tips that will help the equipment function better and last longer.

First, the operator should be aware of all safety signs, shields, and protective devices installed on the blower.

Safety Signs - The safety signs are shown in the beginning of this book as a reference to the signs on the blower. For this reason, if a safety sign becomes damaged or lost, this book shall be referenced to understand the hazard involved and for ordering new decals. Safety decals will be provided at no cost. Refer to the parts section of this book for ordering information. **It is the responsibility of the operator to ensure the equipment is safe with all shields and that all safety decals are in place before operation.**

Shields & Guards – There are various removable shields on this equipment. Some shields need to be removed for maintenance requirements. Shear pin assemblies and PTO drives are shielded. **It is very important to replace these shields immediately after the maintenance is performed, before operating the equipment.** To indicate that a shield is missing, there are safety decals located under the shield that will be visible when the shield is missing, as shown to the right.



Protective Devices – There are devices installed on this blower that protect the drive train from overload or shock. The PTO contains a shear bolt assembly that protects both the fan and the augers. This shear assembly is located under the hinged shield bolted to the gearbox. Flip the shield up and replace the pin. **Flip the shield back down before operation.**

Tips on Blowing Snow

Your blower is now ready for blowing snow, however the information below will help you blow snow more efficiently and with less down time due to improper operation.

Blowing snow takes a certain amount of power at a certain speed. The blower is not to be used for “pushing” snow but rather given a chance to work on the snow. Too fast a forward speed will cause overload and will tend to shear the pins more often. It is easier to overload the blower with tractors that have front assist or four wheel drive capabilities. The operator must be very careful not to push the blower into more snow than it can handle effectively. The first pass is usually the biggest load because the blower is trying to handle the whole cutting width. After the first pass, the width of cut can be adjusted to the correct proportion of tractor speed at a given power setting. Also, light fluffy snow is easily blown and can be blown rather quickly. However heavy snow or snow that has been moved once already, takes much more power and adjustments to tractor speed should be made.

Here is a list of some do's and don'ts for a quick reference:

Do's –

- Understand and abide by all safety rules.
- Engage the PTO only at slow engine speeds.
- Be alert while blowing and watch for foreign objects that could damage the equipment.
- Disengage the PTO, shut off the tractor and remove the key before servicing or performing any type of maintenance.

Don'ts –

- Do not operate the equipment until all safety rules have been read and understood.
- Do not overload the blower by moving too fast into the snow.
- Do not raise and lower the blower when under a heavy load. This will put high stress on the PTO shaft and gearbox.
- Do not raise the blower to full height while the PTO is engaged. Only lift enough to clear the ground.
- Do not leave PTO engaged when traveling between jobs.

Step 1. Position the tractor/snow blower on level ground and clear of obstructions. Lower the jack stand and lower the blower to the ground. Unhook any controls between the tractor and the blower, for example any attachments like electric or hydraulic spout and or deflector actuators. **WARNING! Shut off tractor and remove the key before removing the PTO shaft.** Slide the PTO coupler from the tractor shaft and secure it so it does not become damaged during the removal of the blower from the tractor.

Step 2. Disconnect the upper link from the blower by pulling the top pin out. **Note!** There may be some binding in the top link arm, so care must be taken to relieve this binding so the pin may be removed easier. Adjust the length of the link until the top pin is loose. Remove the top pin and secure the top link arm to the tractor, or remove it completely. Replace the pins in the blower for next season's use.

Step 3. Remove the lower pins from the lower arms of the 3-point. Again, there may be some binding from the arms being set too high or from some down pressure. If you need to start the tractor and adjust the height of the arms, only make small adjustments. Over compensating may cause damage to the blower or tractor. **Always shut off the tractor and remove the key after making any adjustments to the 3-point.**

Step 4. When the pins are removed, start the tractor, carefully and slowly drive away from the blower. Replace the pins in the blower for next season's use.

Storage Tips – If the blower is to be stored outdoors, remove any electrical controls, like hand switches, etc. Store them indoors to prolong their life and resist corrosion. Also, refer to the lubrication requirements and the season checklists for post-season treatment.

Pre-Season Checklist – Note – Perform this check before attaching the blower to the tractor, or shut the tractor off and remove the key.

1. Visually inspect the condition of the blower and check for damage
2. Inspect the fan blades and auger paddles for excessive damage
3. Check lube in gearbox
4. Grease the PTO shaft
5. Lubricate the roller chain
6. Apply grease to the spout ring

After attaching the blower to the tractor –

7. Check for any vibration and verify smooth running
8. Re-attach any electrical controls removed at the end of the season.

Post Season Checklist – After removing from tractor

1. Replace the lube in the gearbox. (Refer to the lubrication requirements, page 16).
2. Grease the PTO shaft
3. Secure PTO shaft such that it won't rest on the ground
4. Apply a coat of grease to the spout ring
5. Oil the roller chain

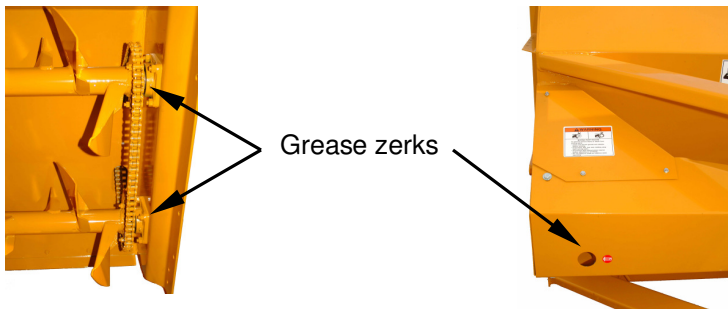
Troubleshooting Guide

The following guide contains several common operating problems, their causes, and their remedies. It is beneficial to read this section prior to operating the equipment to help prevent these problems from taking place. For problems or questions that do not appear on this guide, please call your dealer or Lorenz for further assistance.

Problem	Cause	Remedy
Shear pins shear often	<p>PTO is engaged at too high engine RPM</p> <p>PTO is engaged when full of snow</p> <p>Foreign material is entangled in fan or augers</p> <p>Wrong grade pins are used</p>	<p>Reduce engine RPM to idle speed.</p> <p>Clear snow before re-engaging.</p> <p>Clear the entanglement, replace shear pins, and re-engage.</p> <p>Use standard 3/8 x 1 1/4" Grade 5 bolt.</p>
Auger drive chain breaks often	<p>Chain set too tight</p> <p>Overload from moving too fast into the snow</p> <p>Sprockets are misaligned</p>	<p>When the chain is set too tight, it keeps stretching until it breaks. Refer to the bottom of page 18 for proper chain setting.</p> <p>Slow the tractor speed and do not overload the blower.</p> <p>All sprockets must be aligned with the idler sprocket. See page 19.</p>
Gearbox will not turn, or one shaft turns	<p>Either there are broken gears, or worn bearings, etc., inside the gearbox.</p>	<p>Call your Lorenz Dealer or Lorenz direct.</p>
Snow gets clogged in the spout	<p>Snow is very wet and/or the PTO speed not high enough</p> <p>Tractor speed is too high</p>	<p>Increase PTO speed, but do not exceed 540 RPM.</p> <p>Slow tractor speed to reduce the amount of snow entering the fan.</p>

This snow blower requires some routine maintenance to prolong its life. The gearbox is filled with lube at the factory, but before operating the equipment make sure the gearbox is filled with 80-90 weight lube. The lube is poured in through the vent plug hole on the top of the box. About 4.5 pints will be sufficient, filling it about half full. The lube in the gearbox must be replaced at the end of each season or every 50 hours of use. To drain the lube, remove the drain plug in the bottom of the gearbox and catch old lube in a drain pan. After draining, replace the plug and add new lube.

There are several grease zerks on this blower. All bearings (augers and drive shaft) are greaseable. See diagrams below. There is a grease zerk on each cross & bearing assembly and one on the shaft that lubricates the telescoping action, for a total of three zerks on the PTO. For detailed instructions on the care of the PTO shaft, see the next page.



Note - When adding grease, do not over fill. About two pumps with the grease gun is sufficient.

Care of Roller Chain

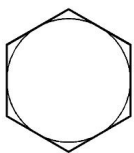
To prolong the life of the roller chain, apply some oil to the drive chain and coupler chain during the season and at the end of each season. Any 30 weight or motor oil is sufficient for roller chain lubrication.

After the first 5 hours of operation, check all set screws and gearbox mounting bolts, etc. for tightness. Check again after every 50 hours of operation.

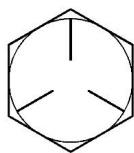
Grade 5 Bolts

All hex head bolts used on this blower are grade 5. When replacement bolts are needed, replace **only** with Grade 5. The table below helps to identify different grades of bolts, and lists torque specifications for grade 5 bolts.

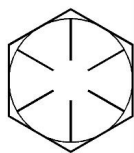
NO MARK



GRADE 2



GRADE 5

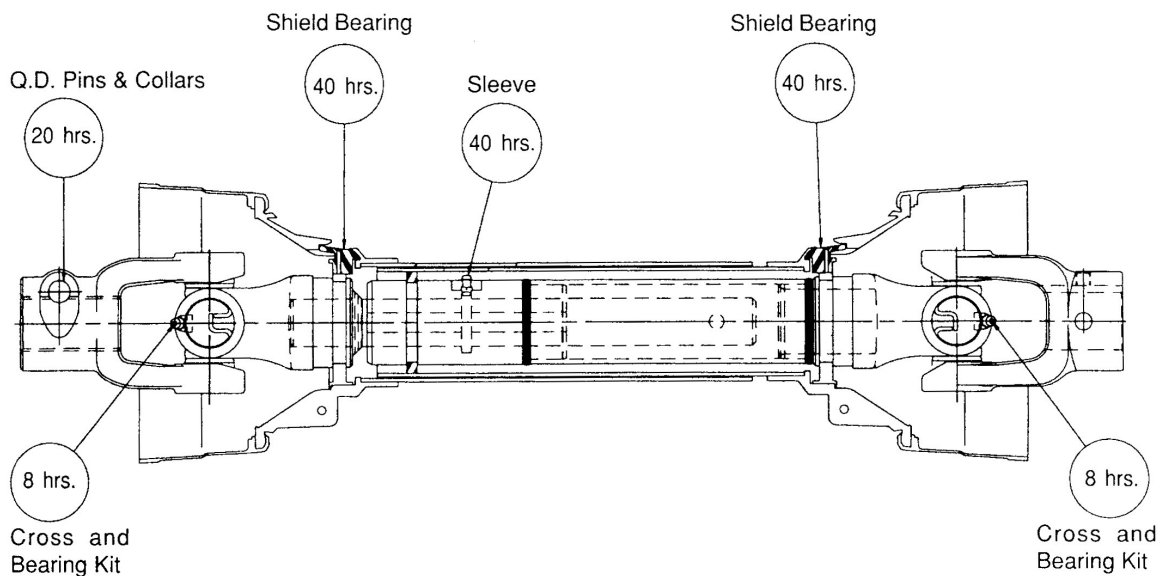


GRADE 8

Torque Specifications for Grade 5 Bolts

Bolt Dia.	Torque, lb-ft (N.m)
1/4	9 (12)
5/16	19 (25)
3/8	33 (45)
7/16	53 (72)
1/2	80 (110)

Maintenance and Lubrication Instructions for PTO Driveline



Minimum Recommended Lubrication Schedule

Lubricants for Universal Joints and Slip Sleeves

Use *only* a good quality lithium soap base E.P. grease meeting or exceeding N.L.G.I. grade 2 specifications. This same grease may also be used for shield bearing grooves and Q.D. pin lubrication.

*Maintenance

After prolonged periods of disuse such as off-season storage, inspect as follows.

1. Shielding for damage and freedom of rotation
2. Legibility of shield warning decal
3. Lubrication:
Carefully adhere to applicable lubrication instructions
4. PTO end connections:
Check that both the tractor and implement end connections have been made properly and are securely locked
5. Safety Precautions:
Use *only* shielded drivelines and make sure tractor master shield and implement PTO shield are in place and cover driveline end connections.
6. Insure shaft and shield labels are in place.

*It is recommended that this inspection be performed before each use of machine.

The next few pages contain instructions on how to make common repairs. Below is a list of what is covered.

- Replacement of shear pin in PTO shear assembly
- Removal and replacement of cutting edge
- Replacement and setting of auger drive chain
- Removal and replacement of augers and auger sprockets
- Removal and replacement of auger drive shaft and drive sprocket
- Removal and replacement of fan
- Removal and replacement of gearbox



Warning! When performing any maintenance to the snow blower, shut the tractor off, remove the key and chock the wheels to prevent serious personal injury and/or damage to the equipment.

Replacement of shear pin in PTO

First remove the problem that caused the pin to shear. After determining and removing the problem, to replace the pin:

- Flip the PTO shield up to access the shear assembly.
- Inspect the shear assembly for damage.
- Remove broken pin.
- Align the pin hole and insert the new pin (3/8 x 1 1/4" Grade 5 bolt).
- Tighten the lock nut.
- **Important!** Flip the shield back down before operating the equipment.



After replacing the shear pin, engage the PTO very carefully at idle speed. Verify that the blower is running normal before putting back in operation.

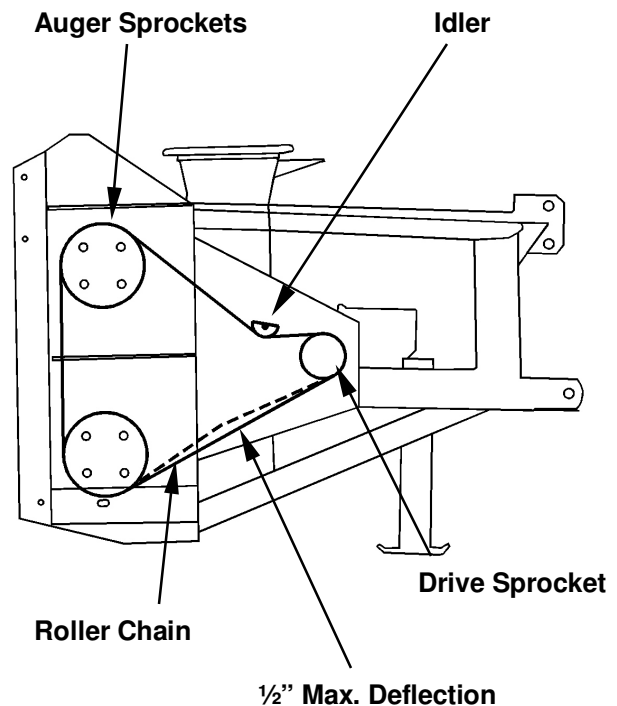
Changing the Cutting Edge

This blower has the feature of a replaceable cutting edge. This cutting edge is reversible and made from abrasion-resisting steel. To change or reverse the edge, raise the blower and block it so it cannot fall or settle, causing injury. Block the the blower high enough for ample clearance to work. Set the block behind the cutting edge or under the fan housing. Lower the blower onto the block. Remove the cutting edge bolts, then the cutting edge. Inspect the blower and the cutting edge for damage. Rotate or replace the cutting edge. Install and tighten all bolts. Raise the blower and remove the blocks. The blower is ready for use. If a new cutting edge is needed, refer to the parts section for ordering details.

Setting and Replacement of the Auger Chain

The auger chain may loosen a little after the initial running. It is recommended that the chain be left a little loose during normal operation. If there is excess looseness, the slack should be taken out by loosening the chain idler and sliding it against the chain until the deflection is within about $\frac{1}{2}$ " between the bottom auger sprocket and drive sprocket.

For chain replacement, loosen the chain idler and slide it away from the chain. Remove the chain connecting link and pull the chain from the sprockets. Inspect the sprockets for wear or damage. New sprockets can be ordered if needed. Install the new chain around all sprockets and under the chain idler. Install the chain connecting link. Slide the idler down onto the chain to take the slack out. After checking for the correct lash setting, tighten the idler. Check for proper alignment of all sprockets before operating. Do not over tighten.



Removal and Replacement of Augers

To remove the augers, first remove the drive chain according to the instructions above. These augers are very heavy, so help is needed to safely remove them. Either ask for help from others, or use a lifting device (hoist) to hold the auger. After the auger is supported, remove the four bolts from each bearing housing on each end of the auger. The auger can then be removed straight out the front of the blower. The bearings can be removed by sliding them from the shaft. Carefully inspect the drive sprockets for wear. If needed, replace the sprockets.

To install, reverse the the order and leave the set screws loose in the bearings. When the augers are installed with the bearing flanges tight, tighten the set screws in the bearings. There is very little adjustment left or right, however check for proper alignment with the idler sprocket. Replace the chain according the instructions above.

Removal and Replacement of Drive Shaft and Drive Sprocket

Remove the two shields on the left side of the blower over the drive shaft, and flip up the shield over the coupler sprocket. Remove the drive chain as described above. Remove the coupler chain near the gearbox. Again, secure the weight of the shaft before removing the bearing housing bolts. Remove the two bolts. The drive shaft, bearing and drive sprocket can now be removed from the blower. The drive sprocket can be removed by loosening the jam nuts and removing the square head bolts from the hub. Reverse the order for re-assembly, but leave the drive sprocket loose. Take care in aligning the drive sprocket with the idler sprocket before tightening the square head bolts and jam nuts. Put a straight edge along the side of the sprockets from the auger sprocket past the idler sprocket to the drive sprocket to assure accurate alignment. Check both auger sprockets. With proper alignment, longevity is assured.

Removal and Replacement of the Fan

Remove the drive chain and at least one auger (normally the top auger) according to the procedure described on page 19. Completely remove the two set screws in the fan hub. This is very important because the set screws have a 'dog point' that sets into the gearbox shaft. After both set screws have been removed, install a puller onto the shaft and fan. The fan should slide from the shaft unless there is an excess of corrosion between the fan hub and gearbox shaft. If it seems very difficult to remove, some heat may be applied to the fan hub. However, be very careful that the gearbox shaft does not become too hot, because the seal in the gearbox may become damaged and fail.

Removal and Replacement of the Gearbox

Removal of the gearbox does not require removal of the augers, but if a wheel puller is needed, one auger may have to be removed.

Remove the PTO shaft from the input of the gearbox. Remove the coupler chain. Remove the PTO shield from the gearbox. Remove all six gearbox bolts. As described in "Removal and Replacement of the Fan", both set screws need to be completely removed from the fan hub. As the fan is removed from the shaft, the gearbox will slide toward the back and away from the fan housing.

Reverse the order to replace the gearbox. When sliding the fan onto the gearbox shaft, apply some "anti-seize" to the shaft for ease of the next removal. The fan may need to be rotated to align the set screw with the hole in the shaft for correct locking. **IMPORTANT! REPLACE PTO SHIELD BEFORE OPERATING.**

Optional Equipment

The hydraulic kit for the spout is standard equipment. Both hydraulic and electric operated deflecting is available. For more information on optional equipment or for ordering, call your Lorenz dealer or Lorenz direct.



**Electric Deflector Kit
201737**



**Hydraulic Deflector Kit
201301**



**Truck Loading Spout
201041**

**Drift Buster
201784 & 201837**

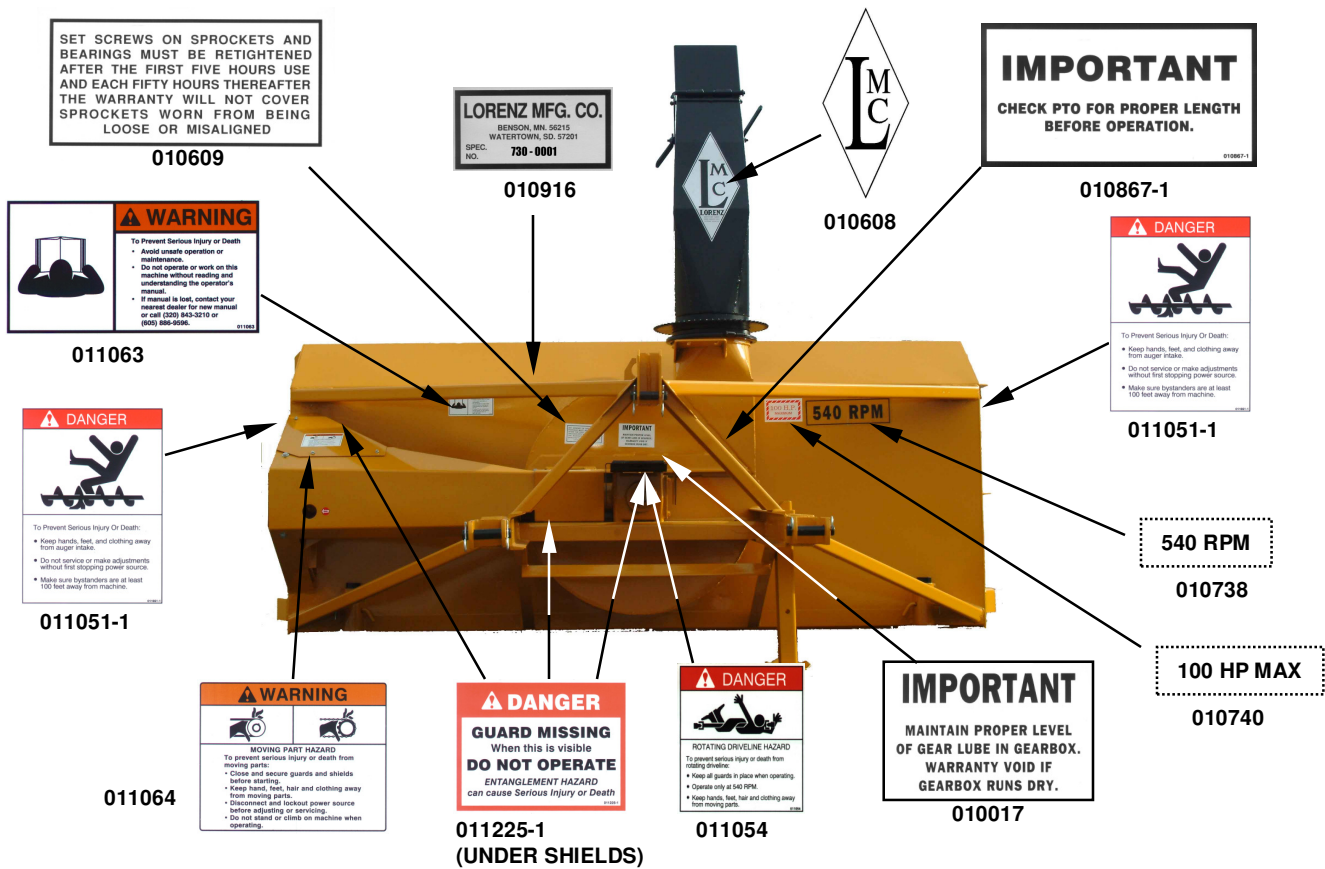
**Curb Wear Plate
201825**

Drawings and Parts

The following pages illustrate all parts of the snowblower. Use these parts numbers when ordering replacement parts or options. To order replacement parts or options, call your local Lorenz dealer or Lorenz direct at 1-888-843-3210 and have the part numbers and quantities ready.

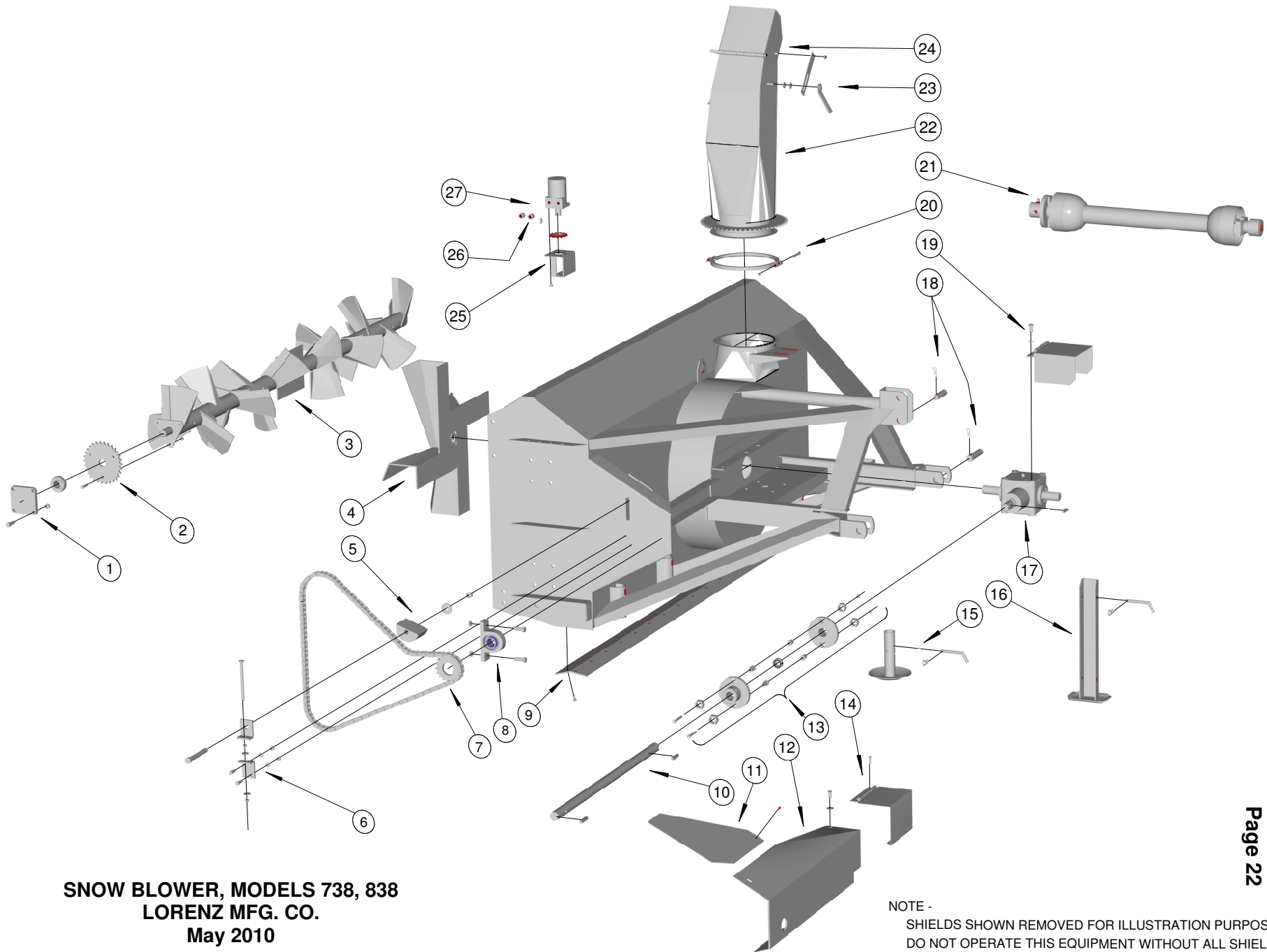
Decals

If a decal becomes damaged, missing, and/or unreadable, it must be replaced immediately, or serious injury could occur. It is the owner's/operator's responsibility to make sure all decals are clean and legible at all times. New safety decals can be acquired at no cost.



Part Number	Description	Quantity
011054	Danger – Driveline Hazard	1
011063	Warning – Read and Understand Operation Manual	1
011051-1	Danger – Auger Intake	2
011225-1	Danger – Guard Missing	3
011064	Warning – Moving Part Hazard (Located on shields)	2

Part Number	Description	Quantity
010017	Important – Proper Oil Level	1
010867-1	Important – PTO Length	2
010609	Set Screws	1
010740	100 HP MAX	1
010738	540 RPM	1
010916	Serial Number	1
010618	LMC Diamond	1



SNOW BLOWER, MODELS 738, 838
LORENZ MFG. CO.
May 2010

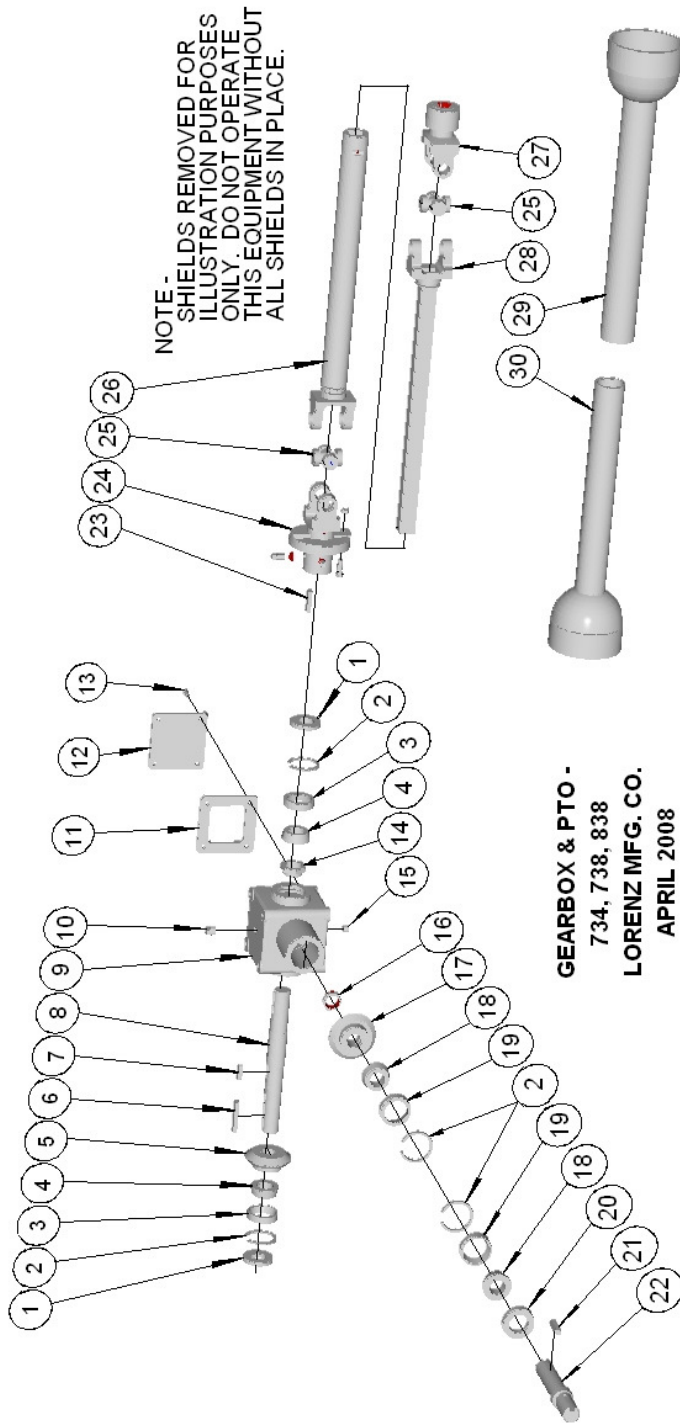
NOTE -
 SHIELDS SHOWN REMOVED FOR ILLUSTRATION PURPOSES ONLY
 DO NOT OPERATE THIS EQUIPMENT WITHOUT ALL SHIELDS ON PLACE

Drawings and Parts

Part Listing

Item No.	Part Number	Description	Qty.
1	060261	1/2 x 1 1/4 Gr. 5 Bolt	16
	060046	1/2" Locknut	16
	200022	1 1/4 Bearing, Complete	4
	200021	Housing Only	4
	010167	1 1/4 Bearing Only	4
2	060215	3/8 x 1 1/4 Gr. 5 Bolt Fine	6
	060039	3/8 Lock Nut Fine	6
	200455	#60-30 Drive Sprocket, Augers	2
3	200288	Auger - 734, 738	2
	200704	Auger - 838	2
	200516	Paddle, LH	9
	200517	Paddle, RH	9
4	201294	Fan, Complete	1
	060349	3/8" x 3/4 Square Head Bolt	1
	060350	3/8" x 1 Square Head Bolt	1
	060072	3/8" Jam Nut	2
5	060300	5/8 x 5 Gr. 5 Bolt	1
	202419	Idler - Auger Chain Drive	1
	060116	5/8 Flat Washer	1
	060052	5/8 Locknut	1
6	202723	Upper Chain Tightener	1
	202724	Lower Chain Tightener	1
	060671	3/8 x 6 Carriage Bolt	1
	060009	3/8 Nut	4
	060108	5/16 Flat Washer	2
	060206	3.8 x 1 Bolt	2
	060124	3/8 Lock Washer	2
7	011045	Drive Chain, #60H With Link -734	1
	011458	Drive Chain, #60H With Link -738, 838	1
	011243	Connector Link, #60H	1
	200119	Drive Sprocket, #60-21	1
	060339	5/16 x 3/4 Square Head Bolt	1
	060340	5/16 x 1 Square head Bolt	1
	060068	5/16 Jam Nut	2
	100651	3/8 x 2 Key	1
8	010332	1 3/8 Bearing, Drive	1
	010334	1 3/8 Bearing Only	1
	060266-5	1/2 x 1 3/4 Gr. 5 Bolt	2
	060114	1/2 Flat Washer	2
	060127	1/2 Lock Washer	2
	060018	1/2 Nut	2
9	202474	Replaceable Cutting Edge - 734, 738	1
	201588	Replaceable Cutting Edge - 838	1
	060202-1	3/8 x 1 Flange Bolt - 734, 738	14
	060202-1	3/8 x 1 Flange Bolt -838	16
	060101	3/8 Flange Nut -734, 738	14
	060101	3/8 Flange Nut -838	16
10	202272	Drive Shaft - 734, 738	1
	202273	Drive Shaft - 838	1
11	202319	Shield, Drive Chain	1
	060319	#14 x 1/2 Self Tapping Screw	3
12	202322	Shield, Drive Shaft - 734, 738	1
	202323	Shield, Drive Shaft - 838	1
	060167	5/16 x 3/4 Bolt	3
	060108	5/16 Flat washer	3
	060034	5/16 Lock Nut	1

Item No.	Part Number	Description	Qty.
13	202494	Complete Shear Assy	1
	060188ZP	5/16 x 2 1/2 Gr. 2 Bolt	2
	060055	5/8 -18 Lock Nut	4
	202495A	Shear Hub - Shaft side	1
	202498	Shear Button	4
	011466	Bearing	1
	202495	Shear Hub - Gearbox side	1
	060034	5/16 Lock Nut	2
	100651	3/8 x 2 Key	2
	14	202315	Coupler Shield
060167		5/16 x 3/4 Gr. 5 Bolt	2
060034		5/16 Lock Nut	2
15	200956	Skid Shoe	2
	201496	Skid Shoe after SER.# 2274	2
	200831	Pin, Skid Shoe	2
	060386	#8 (3/16) Hair Pin	2
16	201785	Jack Stand	1
	060386	#8 (3/16) Hair Pin	1
17	010876	Gearbox, Complete	1
	060199	3/8 x 3/4 Bolt (cover)	4
	060124	3/8 Lock Washer (cover)	4
	060254	1/2 x 3/4 Gr.5 Bolt	4
	060259	1/2 x 1 Gr. 5 Bolt	2
	060127	1/2 Lock Washer	6
18	060114	1/2 Flat Washer	2
	200034	Upper 3 Pt. Pin, 1 x 3 1/2	1
	060386	#8 (3/16) Hair Pin	2
	201863	Lower 3 Pt. Pin, 1 1/8 x 5 1/2	2
19	060386	#8 (3/16) Hair Pin	4
	202309	Shield, PTO	1
	060254	1/2 x 3/4 Gr. 5 Bolt	2
20	060127	1/2 Lock Washer	2
	200147	Retaining Ring, Spout	1
21	060232ZP	3/8 x 3 Bolt	2
	060038	3/8 Lock Nut	2
	011155	PTO, Complete	1
22	200445	Spout, Complete	1
23	200446	Tightener Handle, Deflector	2
	201129	Deflector Adjustment Arm	2
	060111	3/8 Flat Washer	4
	060038	3/8 Lock Nut, Deflector Adjustment Arm	2
	060199	3/8 x 3/4 Gr. 5 Bolt	2
24	200945	Spout deflector	1
25	201856	Bracket, Hydraulic Motor	1
	060206	3/8 x 1 Gr.5 Bolt	2
	060111	3/8 Flat Washer	2
	060124	3/8" Lock Washer	2
	060009	3/8 Nut	2
26	201857	Restrictor	1
27	010217	Hydraulic Motor, Spout Rotation	1
	060199	3/8 x 3/4 Gr. 5 Bolt	4
	060124	3/8" Lock Washer	4
	011413	Bushing, 1/2 - 3/8 Pipe	1
	201854	Gear	1
	060368	1/4-20 x 3/8 Socket Set Screw	2
	200995	1/4 x 1 Woodruff Key With Notch	1



GEARBOX & PTO -
734, 738, 838
LORENZ MFG. CO.
APRIL 2008

Complete Gearbox – 010876

Item #	Part #	Description	Qty
1	010274	Seal	2
2	010188	Snap Ring	4
3	010182	Bearing Race	2
4	010183	Bearing	2
5	010252	Gear	1
6	200442	Key, Fan	1
7	010272A	Key, Cross Shaft	1
8	201295	Cross Shaft	2
9	010276	Housing	1
10	011108	Plug, Vented	1
11	010903	Gasket, Cover	1
12	010904	Cover	1
13	060198	3/8 x 3/4 Bolt	4
14	060123	3/8 Lock Washer	4
15	010257	Stake Nut, Cross Shaft	1
16	010892	Drain Plug	1
17	010902	Stake Nut, Snout Shaft	1
18	101522	Gear	1
19	010363	Bearing	2
20	010364	Bearing Race	2
21	010362	Seal	1
22	010901	Key, Snout Shaft	2
	010893	Snout Shaft	1

Complete PTO Shaft – 011155 Tractor Half – 011184 Blower Half - 011185

Item #	Part #	Description	Qty
23	100651	Key	1
24	011176	Shear Yoke	1
	060349	3/8 x 3/4 Sq Head Set Screw	1
	060350	3/8 x 1 Sq Head Set Screw	1
	060072	38 Jam Nut	2
	060221ZP	3/8 x 1 3/4 Grade 5 Bolt	1
	060038	3/8 Lock Nut	1
25	010127	Cross & Bearing Kit	2
26	011195	Yoke & Tube	1
27	011169	1 3/8 x 6 Spline, Tractor Yoke	1
28	011157	Quick Collar Kit	1
29	011194	Yoke & Shaft	1
29	011174	Shield, Outer Tube	1
30	011173	Shield, Inner Tube	1
	010414	Shield Bearing Ring	2