

LITTER PULVERIZER

MODEL 7600





ASSOCIATION

76-SERIES

OPERATOR'S MANUAL

THIS MANUAL TO ACCOMPANY MACHINE

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WARRANTY POLICY

KELLEY MANUFACTURING COMPANY (KMC) warrants that all goods sold to the original purchaser of any KMC product shall be free of any defects in material and workmanship if used under normal operating conditions. The warranty period begins on the date of purchase by the retail customer and ends twelve (12) months thereafter. KMC's sole responsibility is to repair and/or replace the defective part(s) at no cost to the purchaser. This remedy is the **SOLE AND EXCLUSIVE REMEDY** of the purchaser.

The purchaser must fill out and return the warranty registration form found in the front of the operator's manual. Failure to return the warranty registration form within 30 days shall result in the goods being sold "As Is", and all warranties shall be excluded.

This warranty shall not apply to those items that are by nature worn in normal service, including but not limited to belts, springs, teeth, chains, etc. Items such as tires, tubes, gearboxes, and all other items warranted by the original manufacturer are warranted only to the extent of their individual manufacturer warranty, as KMC is not warranting any of said items. All warranty claims must be made through a KMC licensed dealer, and a warranty form request must be submitted to KMC with 30 days of failure, or the warranty provision shall be unenforceable against KMC.

No agent or person has authority to change or add to this warranty as written.

THE ABOVE IS THE ONLY WARRANTY MADE BY KMC AND IS MADE EXPLICITLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. KMC MAKES NO WARRANTY OF MERCHANTABILITY AS TO ANY GOODS MANUFACTURED BY KMC; FURTHERMORE, KMC DOES NOT WARRANT ANY SUCH GOODS AS SUITABLE FOR ANY PARTICULAR PURPOSE TO THE RETAIL CUSTOMER. THE SUITABILITY OF GOODS FOR ANY PURPOSE PARTICULAR TO THE CUSTOMER IS FOR THE CUSTOMER, IN HIS OR HER SOLE JUDGEMENT, TO DETERMINE. KMC MAKES NO FURTHER WARRANTIES WITH RESPECT TO ITS MANUFACTURED GOODS THAT WOULD NORMALLY BE DISCLOSED BY AN EXAMINATION. THIS IS THE FULL AND FINAL EXPRESSION OF ALL WARRANTY LIABILITY OF KMC. NO OTHER WARRANTY, EXPRESSED OR IMPLIED, SHALL BE ENFORCEABLE AGAINST KMC.

Kelley Manufacturing Co. 80 Vernon Drive, Tifton, GA. 31794

Kelley Manufacturing Co. P.O. Box 1467, Tifton, GA. 31793

RETAIL CUSTOMER'S RESPONSIBILITY UNDER KMC WARRANTY

The retail customer's responsibilities are:

- 1. To read the Operator's Manual and operate the KMC Product in accordance with the instructions given in this manual.
- 2. To inspect the KMC Product daily, lubricate as specified and repair or replace parts as needed, especially when continued use would cause damage or excessive wear to other parts.
- 3. To maintain and keep in place all safety shields and devices.
- 4. When warranty service is necessary, it is the customer's responsibility to deliver the machine to the KMC dealer from which it was purchased. Warranty repairs should be submitted to the dealer within thirty (30) days of failure.
- 5. Dealer travel to the machine or hauling the machine to his/her preferred shop for the purpose of performing warranty service is not allowed under KMC warranty. It is a cost to be paid for by the retail customer. Any arrangement whereby the dealer agrees to absorb all or part of this cost is strictly between the dealer and the retail customer.

SAFETY SYMBOL INFORMATION



This safety alert symbol is used throughout this manual to identify safety messages. When you see this symbol, read the message which follows as it will advise you of possible injury.



This symbol indicates a hazardous situation that, if not avoided, will result in death or serious injury.



This symbol indicates a hazardous situation that, if not avoided, could result in death or serious injury.



This symbol indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

!IMPORTANT!

This symbol is used for instruction on operating, adjusting, or servicing a machine.

SAFETY PROCEDURES

Safety and performance are the primary objective of the designers of KMC equipment. Safety features have been incorporated into this machine where possible and warnings given in other areas. For your safety, **PLEASE** read and observe the following safety procedures.

- 1. All persons operating this piece of equipment should READ the Owner's Manual.
- 2. Do not permit anyone to ride on the machine at any time.
- 3. Before starting or operating the machine, make a walk-around inspection and check for obvious defects such as loose mounting bolts and damaged components. Correct any deficiencies before starting. (The equipment must be properly maintained and guarded and must be suitable to performing its task.)
- 4. Keep all persons a safe distance away from the rear and sides of the machines while it is in operation.
- 5. Do not allow children to operate the KMC Product. Only experienced tractor operators should operate the tractor when using the KMC Product.
- 6. Drive safely during transport; excessive speed while turning or on rough ground could cause damage to the KMC Product and/or cause the tractor to tip over. (Maximum speed of implement should never exceed 20 MPH on highway and 10 MPH off-highway.)
- 7. Make sure hitch components are attached securely before operating or transporting.
- 8. Use flashing warning lights when on highways, except where prohibited by law.
- 9. Apply parking brake, and stop tractor engine before dismounting tractor. Allow mechanisms to stop completely before cleaning, working, or adjusting on machine. Even when the tractor is stationary, you should make sure it is properly secured and made safe by following the Safe Stop Procedure:
 - 1. Handbrake/Footbrake on
 - 2. Controls in neutral/park
 - 3. Engine off
 - 4. Key out
- 10. Keep hands, feet and clothing away from moving parts.
- 11. Make sure everyone is clear of machine before starting tractor or operating machine.
- 12. Observe all safety decals located on machine. Replace them if they become damaged.
- 13. Keep all shields and covers in place.
- 14. Observe all safety decals located on machine.

HIGH VOLTAGE SAFETY ACT

Georgia Law requires that anyone operating equipment within 10 feet of an overhead high voltage line of more than 750 volts, must contact the **Utilities Protection Center (UPC)** by telephone at least **72 hours** before commencing the work.

For more information call **(811)**, or toll free **(1-800-282-7411)**, or visit on the web: https://www.georgia811.com/index.php/overhead-protection-act/

Please contact your local power company about laws before operating near high voltage lines.

BOLT TORQUE CHART

Before set-up and assembly can be completed, ensure that all hardware is in place and fully tightened. Refer to the **Bolt Torque Chart** below for proper torque values.

SAE GRADE 5					
DIAMETER & THREAD PITCH	TENSILE STRENGTH MIN (PSI)	PROOF LOAD(LBS)	CLAMP LOAD (LBS)	DRY TORQUE (FT LBS)	LUBRICATED TORQUE(FT LBS)
1/4-20	120,000	2,700	2,020	8	6
1/4-28	120,000	3,100	2,320	10	7
5/16-18	120,000	4,450	3,340	17	13
5/16-24	120,000	4,900	3,700	19	14
3/8-16	120,000	6,600	4,950	30	23
3/8-24	120,000	7,450	5,600	35	25
7/16-14	120,000	9,050	6,780	50	35
7/16-20	120,000	10,100	7,570	55	40
1/2-13	120,000	12,100	9,050	75	55
1/2-20	120,000	13,600	10,200	85	65
9/16-12	120,000	15,500	11,600	110	80
9/16-18	120,000	17,300	12,950	120	90
5/8-11	120,000	19,200	14,400	150	110
5/8-18	120,000	21,800	16,350	170	130
3/4-10	120,000	28,400	21,300	260	200
3/4-16	120,000	31,700	23,780	300	220
7/8-9	120,000	39,300	29,450	430	320
7/8-14	120,000	43,300	32,450	470	350
1-8	120,000	51,500	38,600	640	480
1-14	120,000	57,700	43,300	720	540

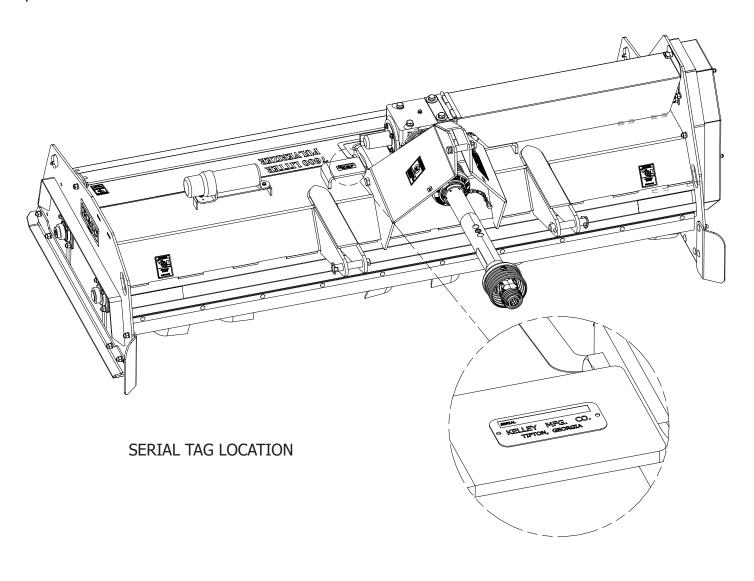
		SAE GRA	DE 8		
DIAMETER & THREAD PITCH	TENSILE STRENGTH MIN (PSI)	PROOF LOAD(LBS)	CLAMP LOAD (LBS)	DRY TORQUE (FT LBS)	LUBRICATED TORQUE(FT LBS)
1/4-20	150,000	3,800	2,850	12	9
1/4-28	150,000	4,350	3,250	14	10
5/16-18	150,000	6,300	4,700	24	18
5/16-24	150,000	6,950	5,200	27	20
3/8-16	150,000	9,300	6,980	45	35
3/8-24	150,000	10,500	7,900	50	35
7/16-14	150,000	12,800	9,550	70	50
7/16-20	150,000	14,200	10,650	80	60
1/2-13	150,000	17,000	12,750	110	80
1/2-20	150,000	19,200	14,400	120	90
9/16-12	150,000	21,800	16,350	150	110
9/16-18	150,000	24,400	18,250	170	130
5/8-11	150,000	27,100	20,350	210	160
5/8-18	150,000	30,700	23,000	240	180
3/4-10	150,000	40,100	30,100	380	280
3/4-16	150,000	44,800	33,500	420	310
7/8-9	150,000	55,400	41,600	600	450
7/8-14	150,000	61,100	45,800	670	500
1-8	150,000	72,700	54,500	910	680
1-14	150,000	81,500	61,100	1,020	760

TO THE PURCHASER

This KMC Litter Pulverizer has been carefully designed and manufactured to give years of dependable service. In order to operate it efficiently and maintain it properly, please read the instructions within this manual thoroughly.

After reading this Operator's Manual, please keep it for reference each season.

To ensure procurement of the proper repair parts, please record your machine's serial number and purchase date as shown below.



MODEL NO.	
SERIAL NO.	
PURCHASE DATE.	

SPECIFICATIONS

The KMC Litter Pulverizer is built for use inside poultry houses to break up compacted litter and help reduce ammonia buildup, creating a healthier environment for the birds. It's dual-shaft design easily pulverizes even the heaviest caked material into fine particles in only a single pass, eliminating the need for multiple machines or repeated trips, while also working the full depth of the litter for a more thorough and efficient result.

Width: 104"Length: 55"Height: 41"

Weight: ~1,580 lbs.

• PTO Horsepower Requirements: Between 65-85 HP depending on working conditions.

• Recommended Ground Speed: 1.0-1.4 MPH

Max Ground Speed: 1.8 MPH

PTO Speed: 540 RPM

• **Gearbox Oil Type:** SAE 90EP Gear Oil

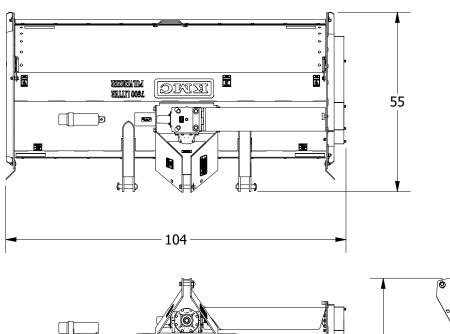
• **Gearbox Oil Capacity:** 2.5L

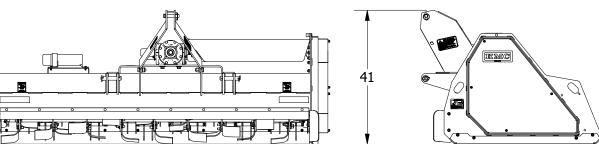
• Chain Grease Type: 5% Moly #2 Grease

Chain Grease Capacity: 8 lbs.

Bearing Grease Type: GC-LB or HPM Grease
 Driveline Grease Type: GC-LB or HPM Grease

• Shearbolt Specification: 5/16-18" x 2" Grade 8 Capscrew with a 5/16-18" distorted locknut.





PRE-OPERATIONAL CHECKLIST

☐ Warranty Information reviewed
\square All safety and operating procedures reviewed
☐ All hardware checked for tightness
\square Adjustment procedures and Hitch connection information reviewed
☐ Lubrication information reviewed, and machine fully lubricated

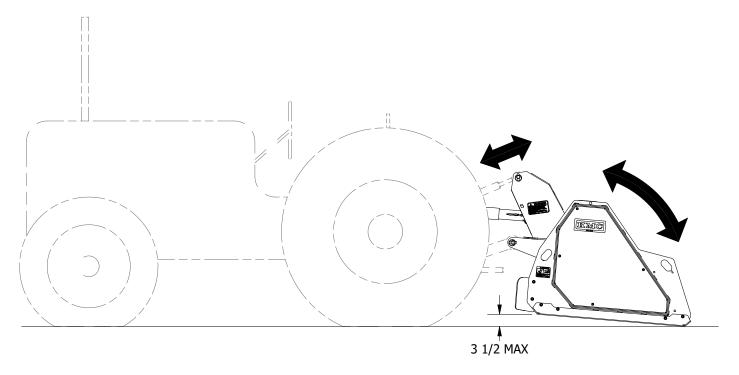
OPERATION

Hitching to the Implement

- 1. Turn off tractor.
- 2. Attach lower links.
- 3. Connect top link.
- 4. Ensure pin clips are installed.
- 5. Attach driveline to implement's gear box and then attach to tractor's PTO.
- 6. Attach the chain connected to the driveline cover to the mast so that the cover does not rotate when in operation.

Operating the machine

- Using firm, level ground as a reference, adjust the top link so that the machine is level and skids are on the ground.
- Ensure PTO speed is at 540 RPM
- If the tractor is binding up or experiencing too high of a loading condition, adjust the top link so
 that the implement is tilted backwards as shown below. (Keep front of machine less than 3 1/2"
 off the ground)



- If the machine is experiencing a build up of material, briefly lift and then lower the tractor arms a small amount.
- For best performance, recommended ground speed is between 1.0 MPH and 1.4 MPH.

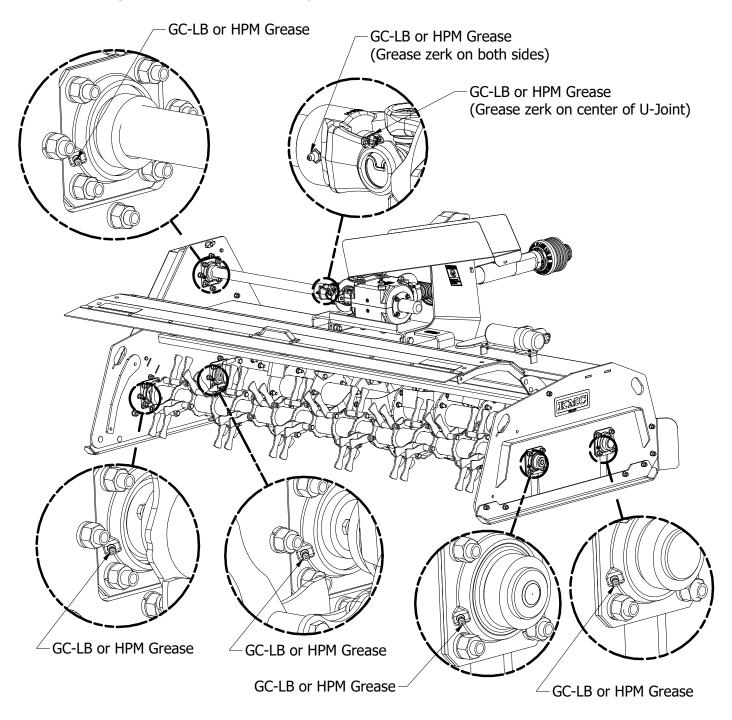
MAINTENANCE

Lubrication

KMC recommends using GC-LB or HPM Grease on all bearings. **Do NOT** use Moly grease in bearings. Grease all bearings before each use.

The driveline should also be lubricated using GC-LB or HPM Grease before each use period and every 50 operating hours.

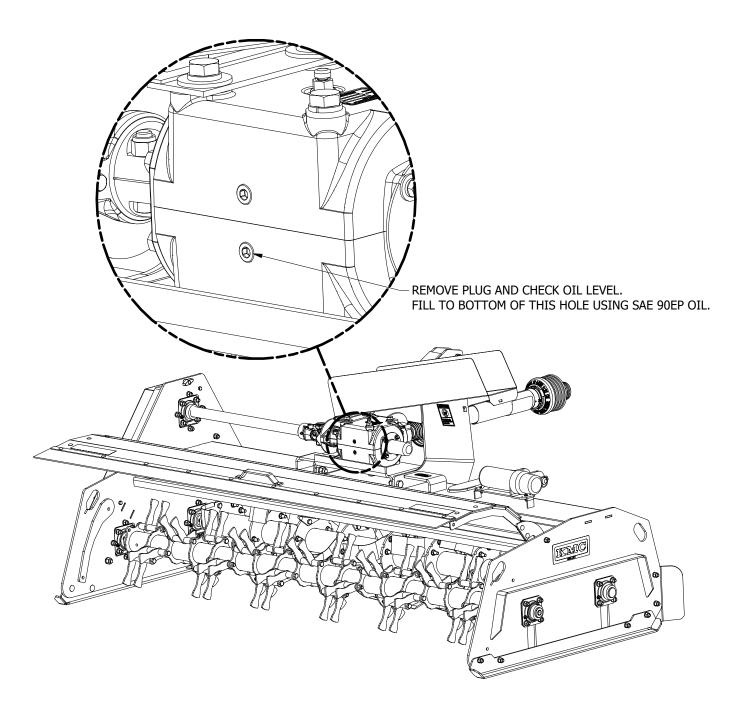
See diagram below for lubrication points.



Gearbox Maintenance

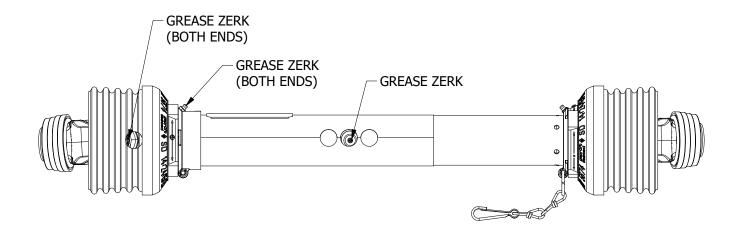
The gearbox on the Litter Pulverizer uses SAE.90EP gear oil. (KMC part # 03-050-080). The oil level should be checked before the machine is used for the first time. The oil should then be changed after the first 30 to 50 hours of operation and then every 500 hours or annually.

To check the oil level, park the machine on level ground and fill the gearbox to the bottom plug on the rear of the gearbox.



Driveline Lubrication

Grease driveline every 50 operating hours.



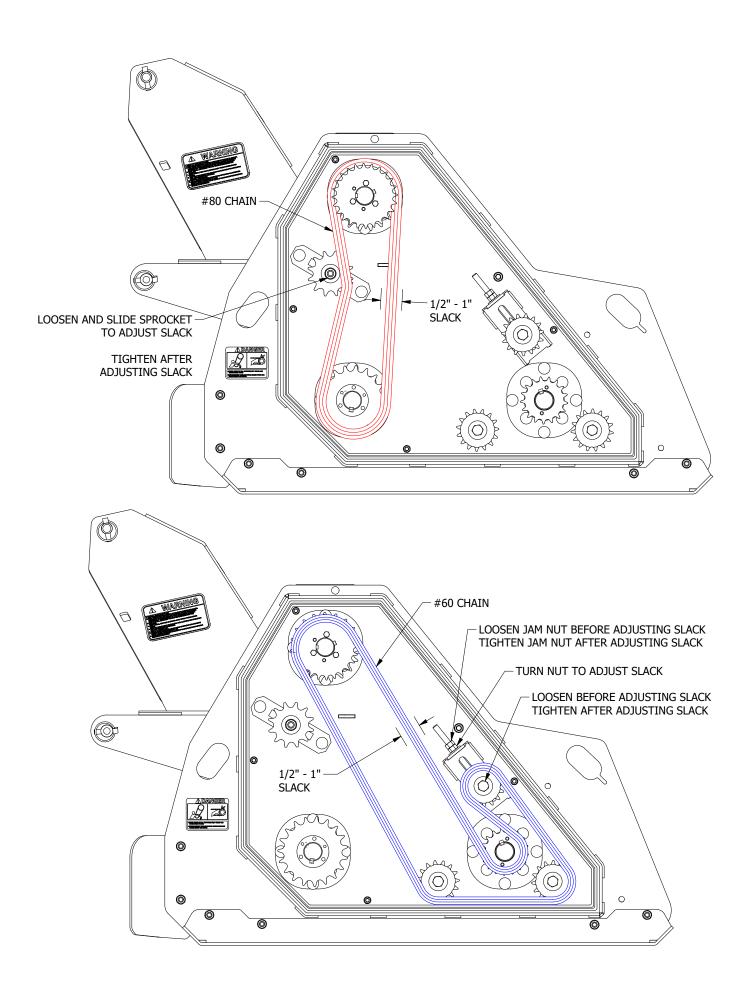
Chain Maintenance and Routing

Before each use, the chain should be inspected for wear and checked for proper tension. The Litter Pulverizer uses a #80 heavy chain to transmit power from the gearbox to the front shaft. Before each use, the chain should be inspected for wear. Slack in the chain should be 1/2" - 1" measured at the location shown below. To adjust the tension sprocket loosen the 5/8" nut (15/16" wrench) and slide the tension sprocket to adjust slack. Re-tighten nut and check chain slack.

The KMC Litter Pulverizer uses a #60 heavy chain to transmit power from the gearbox to the rear shaft. Proper slack in the chain should be 1/2" - 1" measured at the location shown below. To adjust the slack, first loosen the 5/8" bolt(15/16" wrench) on the sprocket, then turn the 1/2" nut (3/4 wrench) on the draw bolt to tighten or loosen slack. Re-tighten the 5/8" bolt(15/16" wrench) on the sprocket once slack is adjusted.

The chain cover is packed with moly grease to lubricate the chain (KMC part number 02-050-138). Before use, remove cover and ensure chains are running through moly grease to minimize overheating. Add moly grease as needed. Total grease capacity is 8 lbs.

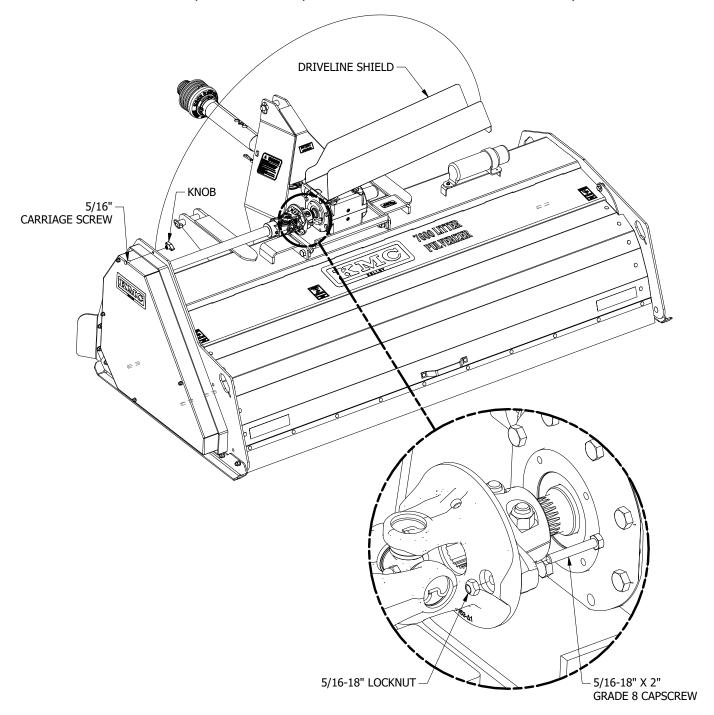
Chain routing is shown below. #60 chain route shown in blue. #80 chain route shown in red.



Shear Bolt Replacement

To replace the shearbolt on the KMC Litter Pulverizer, turn off the tractor and disconnect the PTO. Inspect machine for obstacles that may be wedged in the rotors and ensure front and rear shafts rotate freely. Inspect blades to ensure no damage has occurred.

Remove the 5/16" carriage screw holding down the driveline shield, by unscrewing the plastic knob. The shield can then be flipped up out of the way exposing the shear plates. Spin the front shaft until the bolt hole in the first shear plate on the chain side of the shaft aligns with the bolt hole in the second shear plate on the gearbox side of the shaft. Place a 5/16 x 2 grade 8 capscrew into the aligned holes. Secure in place with a 5/16 distorted locknut. Note: A replacement shearbolt and locknut are placed in the Operator's Manual canister at the factory.

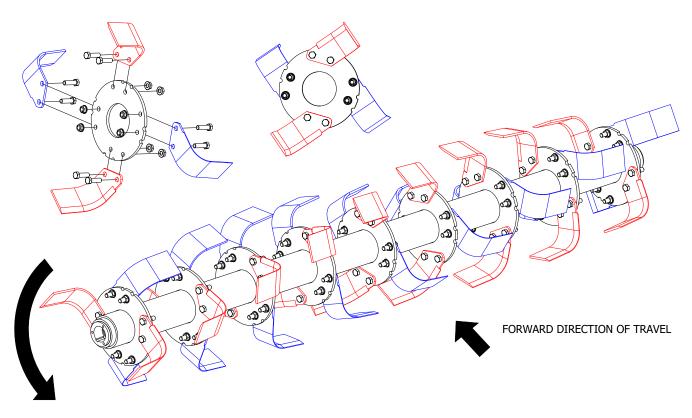


Blade Replacement

The blades of this machine are labeled **left** or **right**. The notations are determined by standing behind the implement and facing the direction of forward travel.

Determine if the blade is a left hand or right hand blade. Left hand blades are mounted on the left side of the mounting flange, and right hand blades are mounted on the right side of the mounting flange. Left handed blade can be replaced by KMC Part number 76-150-00000 and right handed blades can be replaced by KMC part number 76-150-00001.

Replace blades as needed. Excessive wear on blades can cause loss of performance of the machine and increase risk of malfunction. Rotors are dynamically balanced at the factory. To maintain balance and reduce vibrations, blades should be replaced in pairs 180° opposite on the rotors.

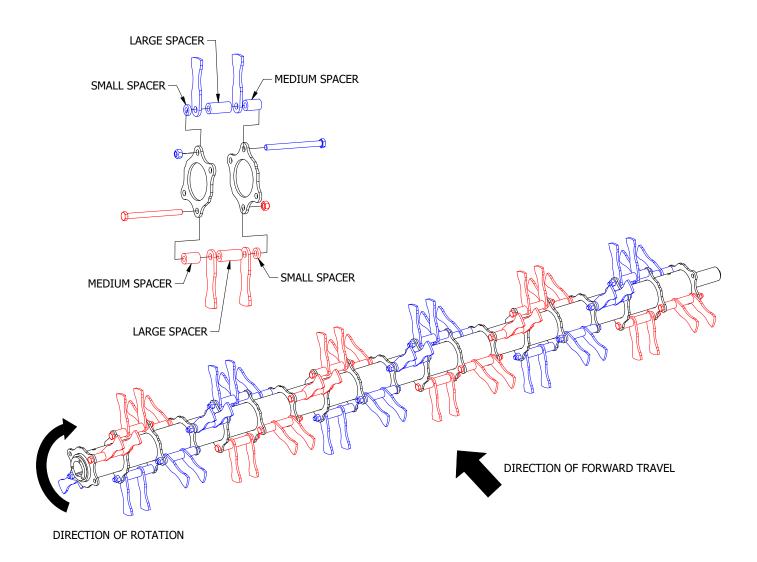


DIRECTION OF ROTATION

Flail Replacement

To replace flails on the rear rotor it is recommended to do them one section at a time. This helps to maintain the intended pattern. Take note of the position of the spacers between blades prior to the removal of the bolts. Replacement bundles can be ordered using 76-181-00020 and include 2 flails and the necessary mounting hardware.

To maintain balance and reduce vibrations, flails should be replaced in pairs 180° opposite on the rotors.



STORAGE

The Litter Pulverizer should be washed thoroughly. After washing, treatment with a disinfectant is recommended to kill any remaining bacteria. Treat the metal components of the machine with a soluble oil to protect from rust and corrosion. One product which meets these requirements is called "Film Fluid" manufactured by Eureka Chemical Co., San Francisco, CA. It is sold in some tractor dealerships and farm supply dealers. All bearings and the driveline should be greased before storing the machine.



DEPENDABLE EQUIPMENT FOR PROGRESSIVE FARMING



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