SAFETY WARNING: Do not use or operate this equipment until this manual and assembly instructions (as applicable) have been read and understood.

Owner's & Operator's Manual

# KODIAK 🚳

## 8' & 10' Kodiak Rotary Cutters



Pull Type

3-Point Lift Type





This Safety Alert Symbol calls your attention to important safety messages in this manual.

Charleston, TN (423) 336-2390



ongratulations on your purchase of a KODIAK MFG., INC., Rotary Cutter. Your new cutter is a durable, efficient and effective piece of equipment you can use with pride. With proper care and use it will have a long and satisfying working life.

Please read this manual before using your KODIAK cutter, even if you have had considerable experience with cutters. We have worked hard to include helpful information about safety, setup, operation and maintenance, as well as how to order parts and repair your cutter when the time comes. Time spent now picking up tips from the manual will pay off later in a more trouble-free operation.

The information and illustrations in this manual were as correct and complete as possible at the time of printing. However, KODIAK continually makes minor changes and improvements, and your mower may have slight differences. KODIAK MFG., INC., reserves the right to change the design without notice.

 NOTE: Instructions or parts designated "left" or "right" are determined as if standing behind the cutter.



#### **SAFETY WARNINGS**



**NEVER operate rotary cutters near people, livestock or pets.** Warn children to stay away, and stop if onlookers appear. Objects thrown by rotating blades can strike with fatal effect.

**READ this manual before using cutter.** Do not let anyone operate this cutter without proper instructions.

**WHEN** mowing, always wear proper tight-fitting and belted clothing to avoid entanglement with moving parts. Do not mow in bare feet, sandals or lightweight footwear.

**STOP** the engine and disengage power to the cutter before making any adjustments.\*

**ALWAYS** keep the blade carrier and blade bolts tight. Loose blades can easily pierce a quarter-inch steel plate and/or cause fatal injury.

ALWAYS ensure that shields and IID (Implement Input Driveline) guards furnished with equipment are in place and in good working order. Failure to do so could put operator at risk of injury or death from fast rotating blades, thrown objects, or entanglement in spinning parts.

**ALWAYS** re-install all safety shields after servicing, and make sure shields are in proper place and in good condition before operating the cutter. Replace any damaged or worn parts before using cutter.

**ALWAYS stay clear of rotating parts.** Be especially careful when inspection covers are removed. Keep fingers out of inspection and lubrication openings!

**ALWAYS** inspect the area to be cut and **remove foreign objects or debris before cutting.** Failure to do this could put operator at risk of being hit by objects thrown by blades. Objects thrown by rotating blades can strike with killing force.

**ALWAYS** stop the engine and cutter when any obstruction is hit. When rotation stops, inspect cutter and repair or replace damaged or worn parts before resuming operation.

**NEVER** operate the cutter in transport position.

**NEVER** assume that blades are not rotating while tractor is running. Be sure you are familiar with your tractor controls and cutter controls, and **know how to stop in an emergency.** Only the operator should ride on the tractor and **NO ONE should ride on the cutter.** 

FAILURE to do this could result in death or serious injury.

Avoid slopes that are too steep for safe operation. Reduce speed on slopes. Avoid sharp turns. Be careful when changing direction on hills.

When cutter is in roadway for whatever reason, high-visibility safety devices should be used to give adequate warning to other motorists. Watch for traffic and give way when possible. Observe state and local markings and lighting requirements.

We recommend purchasing and properly installing chain guards with your rotary cutter.

Make sure front and rear safety chain shielding, for front and rear of your cutter is in place at all times!

#### SERVICE

## Both 3-Point Lift & Pull Type

Every 20 hours of operation – grease the telescoping surfaces of the PTO shaft.

Every 8 hours of operation – grease all universal joints (Coupling shafts and main PTO.)

Each gearbox should be filled with 90 wt. Gear oil to the check plug level. Oil is available from KODIAK MFG., INC., dealers and oil/fuel suppliers. \*Always replace blades IN PAIRS to maintain balance. NEVER try to straighten or weld blades. Unbalanced blades are dangerous. When installing stumpjumper, take care to time blades on each side 90 degrees apart to prevent centeet at blades.

degrees apart to prevent contact at blade overlap point. Remember that, looking from the rear, the right stumpjumper rotates clockwise, while the left stumpjumper rotates counter-clockwise.

## **SERVICE**, continued

Take care to reinstall blades and stumpjumper on the same side where they were removed. Installing them on the wrong side will result in the cutting edge being on the wrong side as well.

When the slip clutch begins to slip excessively, the friction disc may be worn and have to be replaced. See dealer for repair and parts.

#### **Pull Type Only**

**Every 8 hours** - Fill centering plate in the constant velocity U-joint at the tractor end of the PTO. It will take about 35 to 40 pumps of grease to fill the centering plate. PTO must be straight to do this. Inspect wheel hubs and re-pack with grease when needed.

## 3-Point Lift Type SET-UP

- 1. Loosen A-Frame and Lift Assembly to upright position.
- 2. Remove Bolt and Nut at top of A-frame.
- Back braces that were bolted to the outside of the upright arms should be moved to the inside of the upright arms and loosely tightened to the top of A-Frame. Attach back braces to the cutter deck. Tighten all bolts.
- 4. Remove check plug from each gear box, inspect for proper oil level.

  Add 90 weight gear oil if level is below check plug.
- 5. Grease both universal joints of PTO shaft. Grease the telescoping surfaces of the PTO shaft. Grease universal joints of coupling shafts between gearboxes.
- 6. Grease tailwheel forks.
- 7. Install gearbox end (slip clutch) of PTO shaft onto center gearbox.

## **Pull Type SET-UP**

- Make sure tailwheels are attached to tailwheel bar, with tubing extended from tailwheel attached underneath the tailwheel bar.
- 2. Remove the front tongue (1" x 3" bolt) from the cutter. Flip over and re-attach 1" x 3" bolt in the upper holes on A-Frame of the cutter.
- 3. Self-leveling bars; attach both bars to tailwheel tube ears.
  - a) Then attach them to the holes provided in the tongue.
  - b) Adjust leveling bars until tongue will attach to your tractor's pull bar.
  - c) Attach hydraulic cylinder, working end, to tailwheel bar. Attach hose support arm to (left side) of the outside front A-Frame.
  - d) Attach hydraulic hose to cylinder, run it through hose support arm, then attach to tractor hydraulics.
  - e) Adjust height of cutter with tractor. Re-adjust self-leveling bars to level your cutter.

4. Next attach PTO to tractor (constant velocity end goes to tractor). Grease PTO at each connection and fitting. It's very important that PTO shaft be straight from tractor to cutter when greasing the centering plate of the constant velocity U-joint.

Final inspection BOTH TYPES inspect ALL bolts for Proper tightness. Check to see that cotter key is installed on nut holding each stumpjumper.

## **OPERATION**

Before operating:

Make sure there is nothing under the cutter (tools, feet, hands, etc.) that should not be there. Check to make sure all parts are assembled correctly.

Set tractor lift control stop at a position that will prevent the drive shaft from contacting the front edge of the cutter when cutter is at full lift. (On some tractors, this won't be necessary.)

The cutter should only be engaged with the tractor PTO shaft when the tractor engine is at idle speed. Engaging the cutter at higher engine speeds will shorten the life of the cutter drive line. This may also damage the tractor.

For most cutting, ground speed of 3 to 5 MPH and a PTO speed of 540 RPM is recommended. However, you may wish to adjust ground speeds for specific conditions.

After using the cutter for a full day, check the stumpjumper to make sure it is tight on the output shaft. If loose, torque the nut holding it at 200 pounds (equivalent to 200 pounds of weight on a 12" wrench handle). Replace cotter key through output shaft to secure nut.

Check blade pivot bolts and blade carrier nuts frequently for looseness or wear. Loose blades can easily pierce a 1/4" steel plate, and cause serious injury or death.

We recommend purchasing and properly installing chain guards with your rotary cutter.

Make sure safety chain shielding is in place at all times.

#### **Outboard Gearbox Removal**

If gearboxes operate without gear oil, they will burn up and have to be replaced. Avoid this by checking gearbox oil levels periodically.

Squeeze the spring-loaded lock pin on the main PTO shaft, and then remove from center gearbox.

Disconnect the PTO from tractor, raise the cutter to an upright position and block for safety.

Next, it will be necessary to remove that gearbox's stumpjumper. Remove the cotter pin at the bottom of the gearbox output shaft. Next, remove the castle nut holding the stumpjumper, and then **re-install** castle nut upside down, flush with the end of the output shaft. (This is done to protect the threads on the output shaft.) Apply pressure to the back (top) of the stumpjumper. If stumpjumper does not come off, it will be necessary to tap with a hammer on the end of the output shaft and inverted castle nut while applying pressure to the stumpjumper. Continue tapping and applying pressure until stumpjumper comes loose, then remove castle nut and remove stumpjumper.

When stumpjumper has been removed, the next step is to remove the four bolts holding the gearbox shield and remove shield. Then remove all four bolts holding the outboard gearbox you wish to remove. This allows you to pivot the outboard gearbox away from the center gearbox. Now you may remove the gearbox.

## Re-installing Outboard Gearbox

To re-install the outboard gearbox, install the top outer bolt and nut to hold the gearbox in place. Pull the outboard gearbox away from the center, install the coupling shaft on the center gearbox shaft using the snap pin. Pivot the outer gearbox outward from center gearbox, twist the coupling shaft so it will line up with the center gearbox, pivot the outboard gearbox into position and install the remaining three bolts.

Tighten all bolts <u>securely</u>. Install gearbox shield. Install stumpjumper, taking care to time blades on each side 90 degrees apart to prevent contact at blade overlap point. Remember that, looking from the rear, the left stumpjumper rotates clockwise, while the right stumpjumper rotates counter-clockwise. When removing blades, take care to reinstall blades and stumpjumper on the same side where they were removed. Installing them on the wrong side will result in the cutting edge being on the wrong side as well. See blade rotation decal.

#### **Center Gearbox**

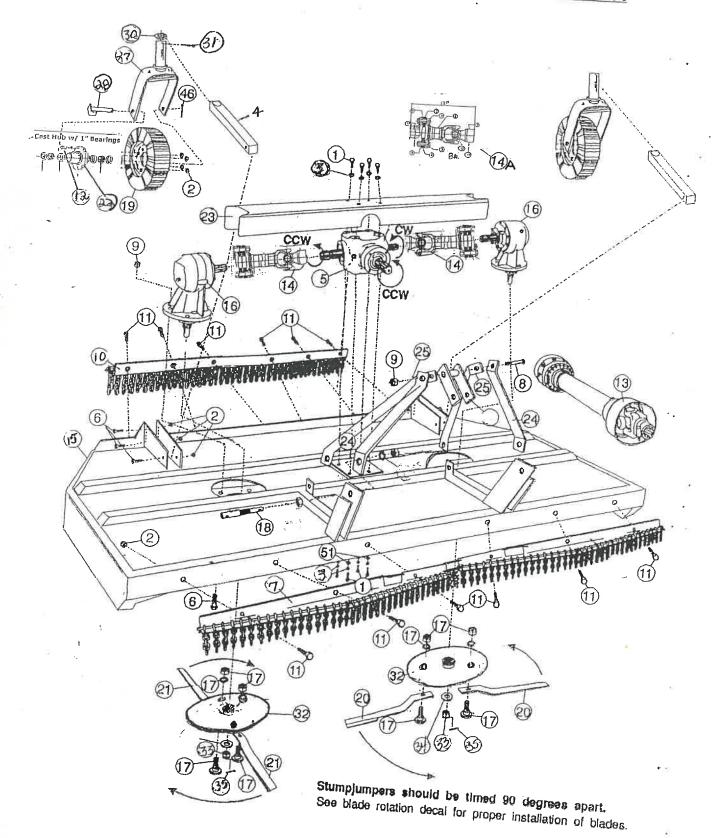
If center gearbox is removed, be sure to label "top" before removing. If center gearbox is re-installed upside down, blade rotation will be reversed. (See parts drawing for correct center gearbox rotation.)

Use Locktite #242 threadlocker to secure center gearbox bolts from premature loosening.

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# Specify for 8' or 10' Cutter Parts

## 8' & 10' 3-POINT LIFT TYPE ROTARY CUTTER

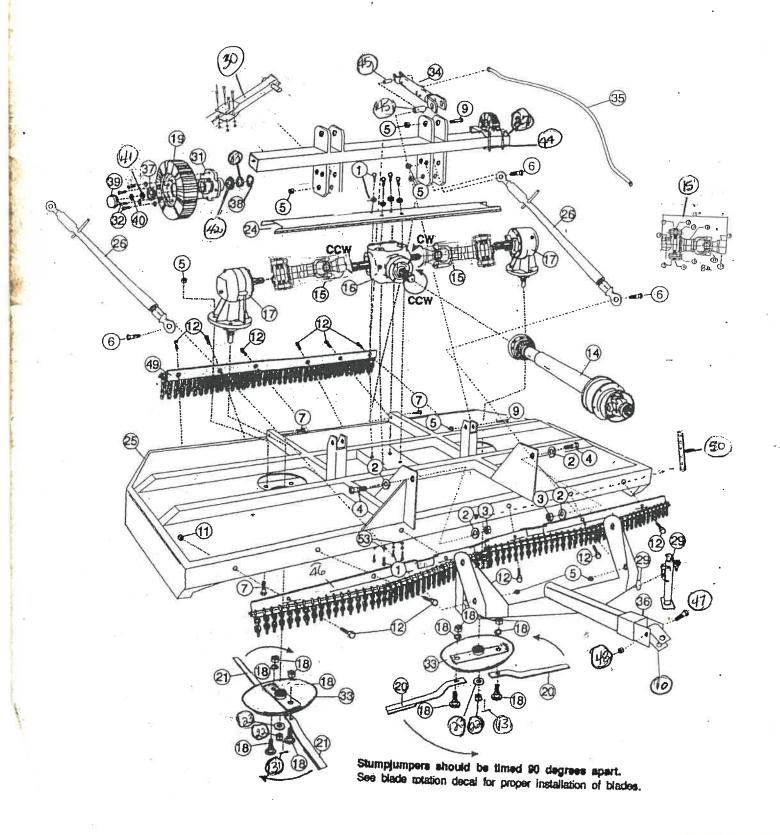


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## SPECIFY FOR 8' OR 10' CUTTER PARTS

RFF#	PART NUMBER	DESCRIPTION
1	1-HD	5/8 X 1-1/2" GRADE 5 HEXHEAD BOLT
2	LN-1/2	1/2 LOCK NUT
3	LW 5/8	5/8 LOCK WASHER
4	137-H	TAILWHEEL TUBE
5	103-HD-T	CENTER BOX TEE BOX
6	HB-5	1/2 X 1-1/2 BOLT
7	CG-120-F	FRONT CHAIN GUARD 10' CUTTER
7	CG-96-F	FRONT CHAIN GUARD 8' CUTTER
8	HB-6.5	3/4 X 6-1/2 GR 5 BOLT FOR OLD STYLE
9	LN-3/4	3/4" LOCK NUT
10	CG-120-R	REAR CHAIN GUARD 10' CUTTER
10	CG-96-R	REAR CHAIN GUARD 8' CUTTER
11		CHAIN GUARD BOLTS / SPACERS
12	HB-10	HUB BOLTS
13	111-60SC	5' PTO SERIES 5 WITH SLIP CLUTCH USED ON 10' & 8' 3PT
14	115-120S	SHOCK COUPLER / CONNECTOR 10' CUTTER SEE PAGE 10 BREAKDOWN
	115-96S	SHOCK COUPLER / CONNECTOR 8' CUTTER SEE PAGE 10 BREAKDOWN
	DECK	N/A
16	103-H	OUTBOARD GEAR BOX
17	124-SMH	BLADE BOLT, WASHER & NUT KIT
18	708	CATEGORY II LIFT PIN
19	127-SMH	4 X 8 SEGMENTED TAILWHEEL TIRE LAMINATED
20	K-214	5' CUTTER BLADE FOR 10' CUTTER
20	K-213	4' CUTTER BLADE FOR 8' CUTTER
	K-214-R	5' REVERSE BLADE FOR 10' CUTTER
21	K-213-R	4' REVERSE BLADE FOR 8' CUTTER .
22	133-H	WHEEL HUB FOR PARTS SEE BREAKDOWN PAGE 10
23	GBS	SPECIFY FOR 10' OR 8' WHEN ORDERING
24 25		A FRAME OLD STYLE SPECIFY OLD OR NEW SEE PAGE 10 FOR NEW STYLE
25 26	141-HD 156-H	BACK BRACES OLD STYLE SPECIFY OLD OR NEW SEE PAGE 10 FOR NEW STYLE
		TOPLINK KNUCKLE AND SPACER OLD STYLE SEE PAGE 10 FOR NEW STYLE
		3 PT. TAILWHEEL FORK 1" AXLE 1" X 8" AXLE BOLT
		WHEEL SPACER NOT PICTURED FLAT WASHER FOR FORK
		BOLT & NUT FOR WHEEL FORK 1/2" X 2"
		10' BLADE CARRIER
		CASTLE NUT FOR GEAR BOX
		THICK WASHER FOR GEAR BOX NUT
		COTTER PIN
	0	OOTTERT IN

## PULL-TYPE ROTARY CUTTER



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## SPECIFY FOR 8' OR 10' CUTTER PARTS

		10 & 8' PULL CUTTERS			
REF	PART NUMBER	DESCRIPTION			
1	HB-1	9/16 X 1 GRADE 5 BOLT W/9/16 WASHER			
2	SP-1	SPACER 2-1/4"			
3	1-LN	1" LOCK NUT			
4	1 X3 N	X3 GRADE 5 BOLT			
5	3/4 " LN				
6	HB-2	LOCKNUT  X 4 HEX BOLT			
7	1-7 HB	X 4 HEX BOLT 7 HEX BOLT			
8	6.5-HB	3/4 X 6-1/2 HEX BOLT			
9	1-6 HB	1 X 6 HEX BOLT			
10	PT-KNUCKLE	PULL TYPE KNUCKLE			
11	1/2-N	1/2 NUT			
12	2.5 HB	1/2 X 2-1/2 HEX BOLT			
13	117-SMH	COTTER PIN			
14	117-3WH 113-120 H-P	10' PULL PTO CONST.VEL. SERIES #6			
14		8' PULL PTO SERIES #6			
15	115-04-FI				
19		10' SHOCK COUPLER SEE PAGE FOR BREAKDOWN			
4.0	115-96S	8' SHOCK COUPLER SEE PAGE FOR BREAKDOWN			
16	103-HD-T	CENTER TEE BOX			
17	103-H	UT BOARD GEAR BOX SEE PAGE FOR BREAKDOWN			
18		BLADE BOLT, NUT, & WASHER			
19		6 X 9 SEGMENTED TAILWHEEL (LAMINATED)			
20 K-214 5' CUTTER BLADE FOR 10' CUTTER					
		4' CUTTER BLADE FOR 8' CUTTER .			
21		5' REVERSE CUTTER BLADE FOR 10' CUTTER			
		4' REVERSE CUTTER BLADE FOR 8' CUTTER			
22		EAR BOX CASTLE NUT			
23		THICK WASHER GEAR BOX			
24		10' GEAR BOX SHIELD			
		8' GEAR BOX SHIELD			
25		DECK			
26		10" SELF LEVELING ROD			
27		TAIL WHEEL BAR SPECIFY 8' OR 10'			
28		PULL SPINDLE & HUB			
29		JACK			
30		PULL-TYPE SPINDLE ARM TUBE			
31		N25-5 HUB W/CUP & STUDS 281019			
32		/2 X 1 GRADE 5 BOLT FINE THREAD			
33		BLADE CARRIER ROUND			
34	HYD CLY	X 8 HYDRAULIC CYLINDER			
35		1/2 X 14" HYD HOSE			
36	PT-TO	PULL TYPE TONGUE			
	K-910259	OUTER BEARING CONE			
38	K-906295	NNER SEAL			
39	K-909905	CAP SEAL OUTER			
40		NUT .			
41	K-910257	OUTER CUP / RACE			
42		NNER BEARING			
43		NNER CUP / RACE			
44		J BOLTS & NUTS			

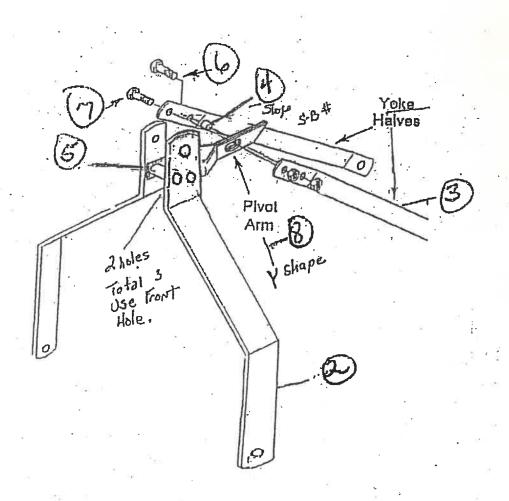
## SPECIFY FOR 8' OR 10' CUTTER PARTS

	1	10 & 8' PULL CUTTERS		
REF	PART NUMBER	DESCRIPTION		
45	K-59626	CYLINDER PINS		
46 CG-120F 10' FRONT CHAIN GUARD		10' FRONT CHAIN GUARD		
	CG-96F	8' FRONT CHAIN GUARD		
47	75-HB	1-1/4 X 7 BOLT		
48	75-LN	1-1/4 LOCKNUT		
49	CG-120R	10' REAR CHAIN GUARD		
	CG-96R	8' REAR CHAIN GUARD		
50	8'ADJ-B	8' ADJUSTMENT BAR		

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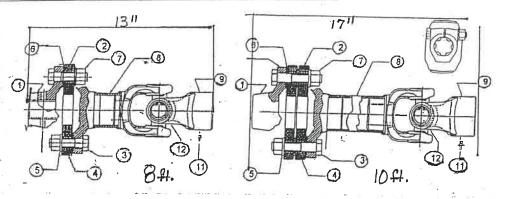
## 8' & 10' ROTARY CUTTER FLEX HITCH

REF#	PART#	RT # DESCRIPTION	
2	145-HD	-FRAME - NEW STYLE	
3	141-HD	-FRAME BACKBRACE (LEFT OR RIGHT) - NEW STYLE	
4	S-B	STOP BUSHING - NEW STYLE	
5	P-B	PIVOT BUSHING	
6		%" X 2½" CAP SCREW BOLT AND LOCKNUT	
7		½" X 3" CAP SCREW BOLT AND LOCKNUT	
8	P-ARM	PIVOT ARM Y SHAPE - NEW STYLE	



## GEAR BOX CONNECTOR SHAFT ASSEMBLIES COMPLETE WITH FLEX COUPLER

REE NO	PART NUMBER	DESCRIPTION	QTY REQ'D	USED
	K-33899	SPLINED FLANGE 1 3/8-6 SPLINE	1	ALL
	115-120P	PADS 2 FOR 10' -1 FOR 8'		ALL
	K-33997	16X60 BOLT (SINGLE PAD)		8'
	K-33900	16 X 80 BOLT (DOUBLE Pad)	. 6	10'
4	K-33901	bushing	6 or 12	8'-10'
5	K-33902	16mm FLAT WASHER	6 OR 12	8'-10'
6	K-33903	SHAPED WASHERS	6	ALL
7	K-33904	SELF LOCKING NUT 16mm	6	ALL
8	K-34253	TUBE FLANGE YOKE	1	8'
	K-49283	TUBE AND FLANGED YOKE	1 1	10'
9	K-49286	YOKE (1 3/8-8 INTERFERRING BOLT)	2	10'
	K-33905	YOKE SMOOTH	2	8'
11		GREASE FITTING	1	ALL
12	K-5117	31371 CROSS KIT	1	ALL
	115-120S	COMPLETE COUPLER	2	10'
		COMPLETE COUPLER	2	8'



REF	PART NUMBER	DESCRIPTION
1	154-H	GREASE SEAL USED INNER AND OUTER
2	155-H	BEARING AND RACES USED INNER AND OUTER
3	133-H	4 BOLT CAST 1" BEARING HUB
	!	

# 4-BOLT ROTARY CUTTER TAILWHEEL HUBS Cast Hub w/ 1" Bearings Heavy Duty

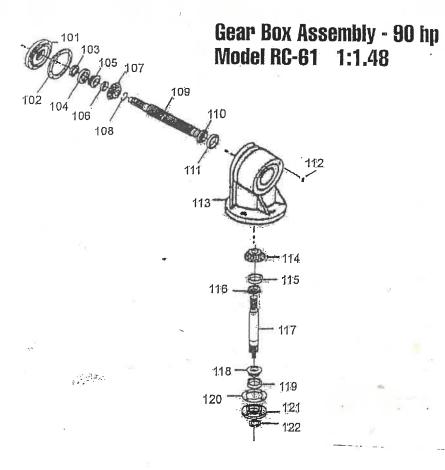
grease rate bearing 2 3

PART NO. DESCRIPTION

WEIGHT COST

4 bolt cast hub with bearings

7#



KĘY NO.	PART NO.	DESCRIPTION	SIZE
101	20162	FACE PLATE	
102	A/R	SHIM	
103	60005	OMNI INPUT SEAL	34.93-60.45-9.53
	60005-C	INPUT SEAL SMOOTH BACK	35 - 60-15
104	50013	CUP LM603014	
105	50012	BEARING, LM603049	
106	90055	SPACER	
107	30039	INPUT GEAR 19T	
108	200003	RETAINING RING	
109	40135	INPUT SHAFT	
110	50012	BEARING	
111	50013	CUP	
112	140033		VENT PLUG
113	10112	HOUSING	VENTI LOG
114	30038	OUTPUT GEAR 13T	
115	50014	CUP 362A	
116	8000	BEARING 368	
117	40112	OUTPUT SHAFT	
118	50008	BEARING 368	
119	50015	CUP 362	
120	A/R	SHIM	
121	20005	BOTTOM CAP	
122	60004	OMNI OUTPUT SEAL	50.80-68.38-11.12
	60004-C S	MOOTH BACK OUTPUT SEAL	50.84 - 68.5 - 11

#### LIMITED WARRANTY

KODIAK MFG., INC. (the "Manufacturer") warrants, only to the original Purchaser, this equipment will be free from defects in material and workmanship, under normal use and service, for one (1) year from date of purchase providing this equipment is purchased for individual use only. Commercial use of this equipment is not covered under any warranty. This warranty does not apply to any equipment which has been damaged or which has been subjected to change, misuse, negligence, abnormal wear and tear, alterations, tampering, or failure to follow operating instructions. This warranty does not cover any product or parts not manufactured by Kodiak Mfg., Inc.

A five (5) year **Limited Warranty\*** on gearbox components provided they have been properly maintained\*\* and have not been subjected to abuse or misuse except as limited below.

#### \*Gearbox Warranty limitations:

- i. Warranty is one (1) year for seals unless seals are damaged from debris wrapped around output shaft of gearbox. After one year, seals are considered to be wearing parts and the replacement is the owner's responsibility.
- Gearboxes that are subject to warranty may be replaced with new or rebuilt gearboxes at the discretion of Kodiak Mfg., Inc.
- iii. Shear bolts must be approved Grade 2 shear bolts.

#### \*\* NOTE: "properly maintained" specifically includes, but is not limited to:

- i. Running gearboxes with the proper amount of the correct lubricant.
- ii. Adjusting slip clutches correctly to provide proper protection for gearbox components and drive line.

Under this warranty, the Manufacturer will repair or replace any part which the Manufacturer determines has failed during the period of the warranty due to defects in material or workmanship. After written approval by the manufacturer, the equipment or defective part must be returned to Kodiak Mfg., Inc.

Warranty coverage and performance is expressly conditioned upon the return of the completed registration form to KODIAK MFG., INC., 8849 CANDIES CREEK RIDGE ROAD NW, CHARLESTON, TENNESSEE 37310

Kodiak Mfg., Inc. reserves the right to make improvements and changes in specifications without notice or obligation to modify previously sold units.

The Owner's Manual describes the proper assembly procedures for your implement and furnishes operating and maintenance recommendations to help you obtain long and satisfactory service.

PURCHASER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY, OTHER DEFECT, OR CONDUCT GIVING RISE TO LIABILITY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT SOLD, AND THE MANUFACTURER UNDER NO CIRCUMSTANCES SHALL BE LIABLE FOR ECONOMIC LOSS OR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE MANUFACTURER DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PURPOSE.

Purchaser and Kodiak Mfg., Inc. hereby (a) submit to the non-exclusive jurisdiction of the courts of competent jurisdiction in Bradley County, Tennessee, and the United State District Court for the Eastern District of Tennessee for resolution of any dispute concerning this Limited Warranty or the rights or obligations of Purchaser and/or Kodiak Mfg., Inc.; (b) agree that any litigation commenced in Tennessee in connection with this Limited Warranty shall be venued in either the Bradley County, Tennessee District Court, or the United States District Court, Eastern District of Tennessee, Southern Division, and (c) waive any objection it may have as to any such action or proceeding brought in such court that such court is an inconvenient forum. Nothing herein shall limit the right of Purchaser or Kodiak Mfg., Inc. (or the right of any permitted successor or assign of either) to bring proceedings against the other in the courts of any other jurisdiction wherein any assets of such other party may be located.