

**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**

## **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**

**C**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 Drive) 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.

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 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.
3. 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**

1. 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.

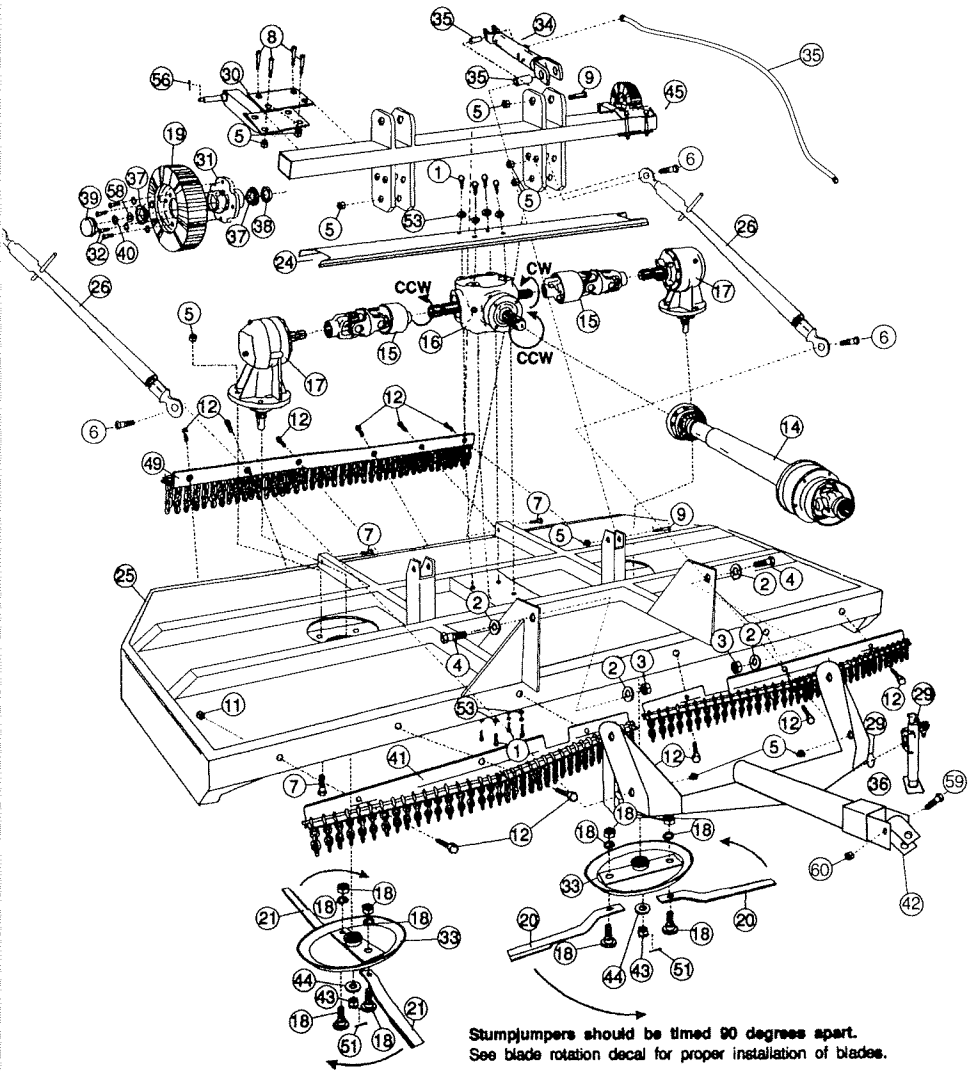
Check blade pivot bolts and blade carrier nuts frequently for looseness or wear. Loose blades can easily pierce a 1/4" steel plate, and cause serious injury or death.

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

## 10' PULL-TYPE ROTARY CUTTER

REF#	PART NUMBER	DESCRIPTION
1	HB-1	9/16 X 1 GRADE 5 HEXHEAD BOLT
2	SP-1	SPACER 2-1/4"
3	1 LN	1" LOCKNUT
4	1X3 N	1 X 3 GRADE 5 HEXHEAD BOLT
5	3/4" LN	3/4" LOCKNUT
6	HB-2	3/4 X 4 HEX BOLT
7	1-7 HB	1" X 7" HEX BOLT
8	6.5 - HB	3/4 X 6-112 HEX BOLT
9	1-6 HB	1 X 6 HEX BOLT
11	1/2" N	1/2" NUT
12	2.5 HB	1/2 X 2-1/2 HEX BOLT
14	PT-10	10' 3PT. PULL TYPE PTO CONST.VEL. SIZE 6
15	1 15-120S	SHOCK COUPLER SHAFT
16	RC-61 T	10' CENTER GEARBOX
17	103-H	10' OUTBOARD GEARBOX (CHECK MODEL # & SERIAL #)
18	124-SMH	BLADE BOLT COMPLETE
19	TW-21	6 X 9 SEGMENTED TAILWHEEL
20	K-214	5' CUTTER BLADE
21	K-214-R	5' CUTTER BLADE - REVERSE
24	10 GBS	10' GEARBOX SHIELD
25	DK	10' DECK
26	10' PT-SLB	10' PULL-TYPE SELF LEVELING BAR
29	PT-TJ	PULL-TYPE TONGUE JACK
30	PT-SAT	PULL-TYPE SPINDLE ARM TUBE
31	PT-TWCH	PULL-TYPE TAILWHEEL CAST IRON HUB
32	HB-3	1/2 X 1 GRADE 5 HEXHEAD BOLT (FINE THREADED)
33	121-MH	10' STUMPJUMPER - 5/8 ROUND DISC
34	HDC	3 X 8 HYDRAULIC CYLINDER
35	HD-H	1/2" X 14' HYD. HOSE
36	PT-TO	PULL-TYPE TONGUE
37	PT-CHB	PULL-TYPE CAST HUB BEARING
38	PT-CHIS	PULL-TYPE CAST HUB INNER SEAL
39	PT-OS	PULL-TYPE CAST HUB OUTER SEAL (CAP)
40	PT-CN	PULL-TYPE CAST HUB CASTLE NUT
41	10' FS	10' FRONT SAFETY SHIELD
42	10' PT-N	10' PULL-TYPE NUCKLE
43	CSTL-N	CASTLE NUT
45	TWB	10' PULL TYPE TAILWHEEL BAR
49	10' RSS	10' REAR SAFETY SHIELD
51	CP-1	3/16 X 2 COTTER PIN
53	LW-1	9/16 LOCKWASHER
56	CP-2	1/8 X 1-1/2" COTTER PIN
58	FW-1	3/4 FLATWASHER
59	75-HB	1-1/4 X 7 BOLT
60	75-LN	1-1/4 LOCKNUT

# 10' PULL-TYPE ROTARY CUTTER

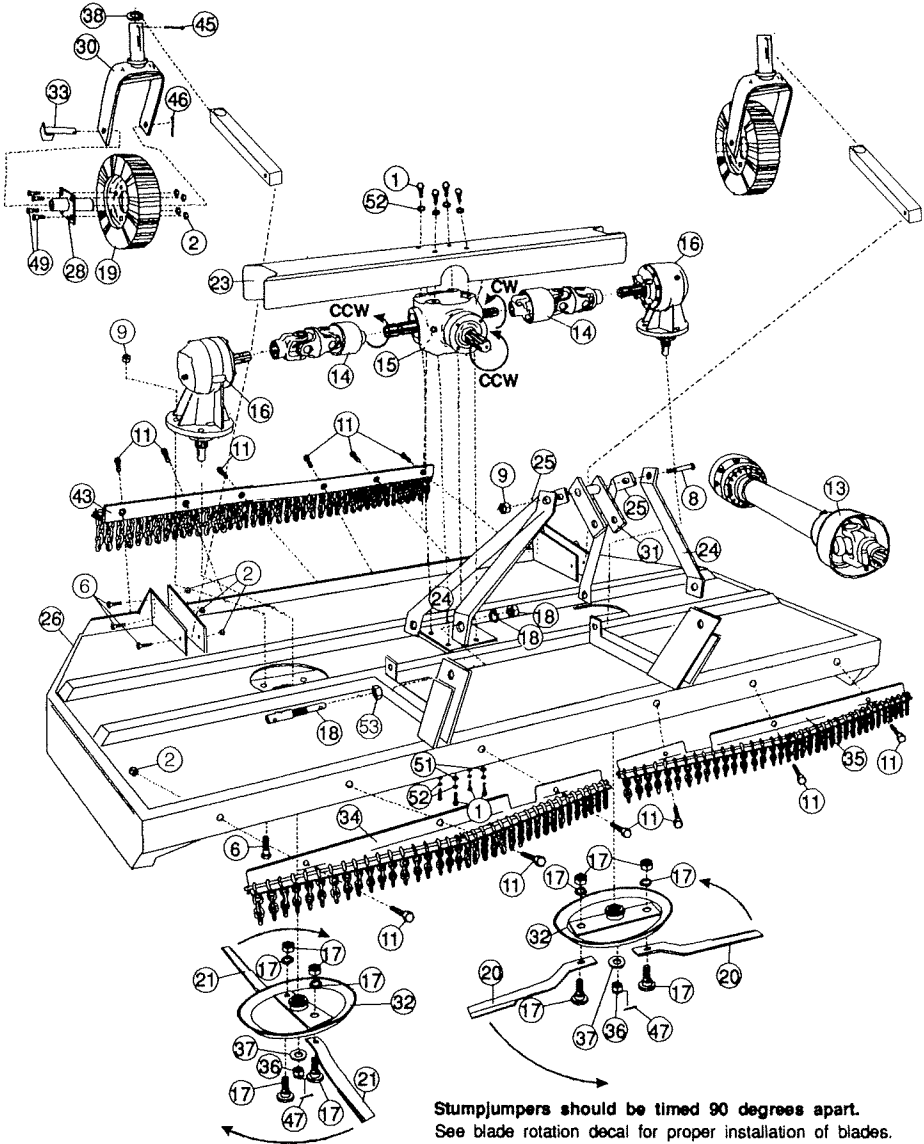


## 10' 3-POINT LIFT TYPE ROTARY CUTTER

REF#	PART NUMBER	DESCRIPTION
1	1-HB	5/8" X 1-1/2" GRADE 5 HEXHEAD BOLT
2	LN-1/2	1/2 LOCKNUT
4	LN-5/8	5/8 LOCKNUT
5	HB-4	3/4 X 2-1/2 GRADE 5 HEXHEAD BOLT
6	HB-5	1/2 X 4-1/2 GRADE 5 HEXHEAD BOLT
7	HB-6	3/4 x 4-1/2 GRADE 5 HEXHEAD BOLT
8	HB-6.5	3/4 x 6-1/2 GRADE 5 HEXHEAD BOLT
9	LN-3/4	3/4 LOCKNUT
11	HB-7	1/2 X 2-1/2 GRADE 5 HEXHEAD BOLT
12	HB-2.5	3/4 X 2-1/2 GRADE 5 HEXHEAD BOLT
13	111-60S	5' SERIES 5 PTO
14	115-120S	SHOCK COUPLER SHAFT
15	RC61-T	10' CENTER GEARBOX
16	103-H	10' OUTBOARD GEARBOX
17	124-SMH	BLADE BOLT COMPLETE
18	CAT 2-P	CATEGORY 2 LIFT PIN
19	127-SMH	4 X 8 SEGMENTED TAILWHEEL
20	K-214	5' CUTTER BLADE
21	K-214-R	5' CUTTER BLADE - REVERSE
23	10' GBS	10' GEARBOX SHIELD
24	10' AF	A-FRAME - LEFT OR RIGHT
25	10' AFB	A-FRAME BRACE - LEFT OR RIGHT
26	TD	10' DECK
28	133-H	3 PT. TAILWHEEL HUB, BEARING
29	137-HD10	3 PT. LIFT TAILWHEEL TUBE
30	134-HD	3 PT. LIFT TAILWHEEL FORK
31	140-H	TOPLINK NUCKLE, SPACER
32	121-MH	10' STUMPJUMPER 5/8 DISC
33	128-H	TAILWHEEL AXLE
34	10' FSS	10' FRONT SAFETY SHIELD
36	CSTL	CASTLE NUT
38	FW	TAILWHEEL FLATWASHER
43	10' RSS	10' REAR SAFETY SHIELD
45	3/8 BN	1/2 X 1-1/2 BOLT & NUT
49	HB-10	1/2 X 1-1/2 GRADE 5 HEXHEAD BOLT
52	LW-1	5/8" LOCKWASHER
53		CLIP PIN



# 10' 3-POINT LIFT TYPE ROTARY CUTTER



## 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 securely. 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 right stumpjumper rotates clockwise, while the left 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 Loctite #242 threadlocker to secure center gearbox bolts from premature loosening.

## **Farm Equipment Limited Warranty**

KODIAK MFG., INC., hereby warrants to the original Purchaser that each item of new farm equipment shall be free from defects in material and workmanship under normal use and service for a period of twelve (12) months after delivery of the product to the original Purchaser.

The obligation of KODIAK MFG., INC. is hereby expressly limited to the repair and/or replacement of defects in workmanship or materials, which occur during the warranty period. This warranty does not cover damages or defects which result from alteration, accident, misuse, abuse, neglect, improper maintenance or installation of attachments or equipment, or the use of any part or component not manufactured or provided with the product by KODIAK MFG., INC.

Expendable replacement items such as blades, clutch facings, points, cross and bearings, etc., used in connection with normal service maintenance, are not covered by this warranty. Charges for pick up, delivery and/or shipment are also not covered by this warranty.

THIS WARRANTY AND THE OBLIGATION OF KODIAK MFG., INC., AS DESCRIBED HEREIN, IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND IN NO EVENT WILL KODIAK MFG., INC., BE LIABLE FOR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF CROPS, LOSS OF PROFITS, RENTAL OR SUBSTITUTE EQUIPMENT OR ANY OTHER COMMERCIAL LOSS.

If a problem develops with the product during the warranty period, contact the KODIAK MFG., INC., dealer from whom you purchased this product.

Warranty claims are completely at the discretion of KODIAK MFG., INC. Any work performed on mowers prior to notification to KODIAK Warranty Department will be VOID of warranty.