

L Series

Big Bee

Rotary Cutter

Owners Manual

Safety Precautions

Due to type of performance for which this machine was designed, the operator should be very careful and practice all safety precautions during operation. Being of basic design throughout the farm equipment industry, rotary cutters have fast moving blades that can throw objects that the operator runs over. It is possible to do serious injury to yourself or to others, if you fail to read and practice the foregoing safety rules. Only experienced and trained operators with a thorough understanding of the responsibilities and limitations of this machine should operate it.

- Important: Read and become familiar with the instructions on the rotary cutter decals have been places at various places on the machine to remind you to be cautious for your protection, as well as others.
- Before operating the rotary cutter, carefully inspect the area on which the rotary cutter will be used. Be sure to remove all objects that might be thrown by the rotating blades. Also, note any gullies, ditches, or rough terrain when you are inspecting the area.

Check the machine frequently to be sure there are no loose bolts, and that snap rings are in place.

- Always use, and maintain in place, all PTO guards furnished with the rotary cutter, as well as the guards furnished with the tractor.
- Disengage the PTO, and cut off the tractor engine before leaving the tractor.
- It is recommended that the tractor be equipped with a roll-bar, and a seat belt. This is the operator's own responsibility for his safety.
- It is noted that on tractors without "live" PTO, the centrifugal force of the rotating blades will tend to force the tractor in the direction of travel. This can result in an accident, or injury, if the operator does not reduce his speed before turning, or allowing adequate distance between the tractor and turning point, or obstacle. (You dealer has free-wheel, over-running couplers, to curtail the centrifugal force, the couplers serve as an added safety device.)
- The blades, and PTO shaft will continue to rotate for a short time after the tractor PTO power is cut off. Be sure all rotation has stopped before attempting to service the machine, or approach it for any reason.
- Never crawl under the machine for any reason. It could fall on you! Never manually feed the machine for any reason your hands, or feet under the deck of the cutter, without first being sure that the blades have ceased all movement, and all power is cut off.
- Chain guards (optional equipment) should be added to the machine when it is used in areas where people, animals, or property may be hit, or endangered by thrown objects. The rapidly rotating blades may strike, and throw wire, sticks, loose rocks, or trash with considerable force. Even with chain guards, it is recommended that the operator be sure to keep all persons, and animals far enough away from the operating area, to be completely clear of thrown objects.
 1. Never allow riders on machine or tractor!
 2. Transport machine at safe speed.

Assembly and Set-Up Instructions

- A. Set A-Frame and position hitch pins in proper position. Be sure to use lock washers and tighten bolts securely, attached flex chain brace to A-Frame, the fasten chain end on tail wheel adjustment bracket.
- B. Remove the snap ring from in-put shaft on gearbox, attach the PTO shaft and install shear bolt. Be sure to replace the snap ring to gear box in-put shaft. The snap ring will hold the PTO shaft in place if the shear bolt is sheared.
- C. Check all bolts including gearbox mounting bolts, blade bolts and blade carrier bolt.
- D. Adjust the tail wheel bracket to level the rotary cutter or obtain desired cutting position.
- E. Lubricate gearbox, tail wheel hub, tail wheel spindle, PTO U-joints.
- F. Attached rotary cutter to the tractor.

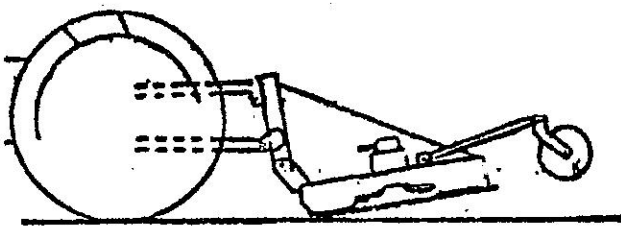
Operation

Cutters are designed for tractors ranging from 16 hp. Be sure to match the size and model of cutter to your tractor for safety and reliability.

1. Check gearbox for lubricant.
2. Check all lubricant points on PTO shaft and tail wheel.
3. Be sure all bolts are tight and snap rings are in place.
4. Be sure that rotary cutter is properly mounted on tractor.
5. Adjust and level rotary cutter for desired cutting height.

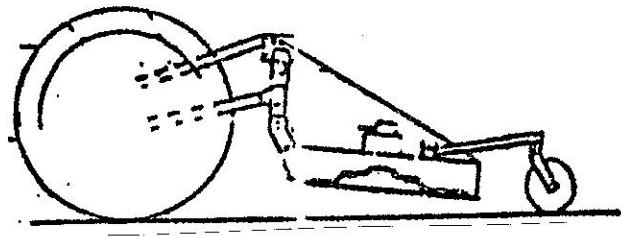
Adjusting Level of Cutter on Your Tractor

Cutter Too Low in Front



Incorrect

Cutter Too Low in Rear

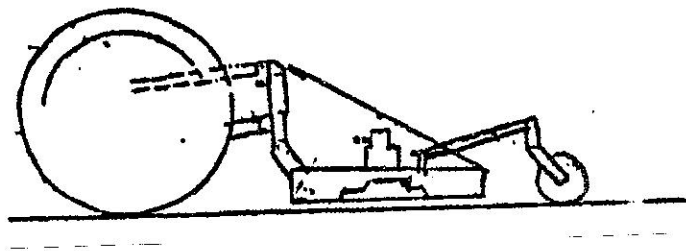


Incorrect

Blade too high on sides causes skipping and uneven cutting. Blades become badly worn. Blade striking ground causing slip clutch to slip excessively.	
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	Excessive wear and tear on tailwheel, rear skirt dragging causing balling up problems. Blade too high on sides causing skip ping and uneven cutting.
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Cutter Level



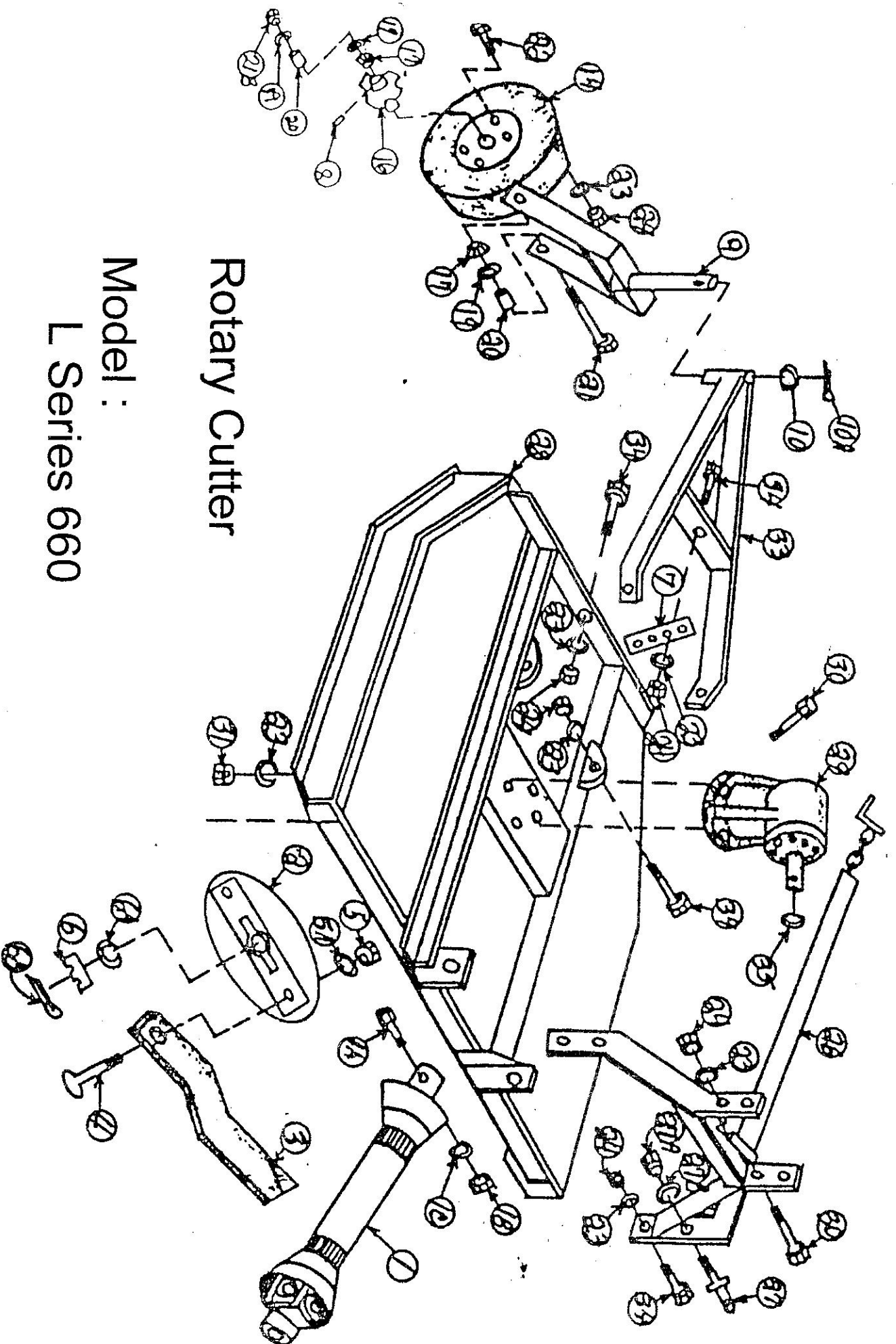
Correct

Blade cutting evenly with grass being spread evenly.

Starting for the First Time

1. If everything is in place, and the rotary cutter is properly connected to the tractor, start the tractor, and raise the rotary cutter slowly, watching the PTO shaft, raise and lower the rotary cutter until you have positioned the PTO shaft to the shortest telescoping point. This position will check the PTO shaft to make sure it is not too long. With the shaft positioned at it's shortest length, the two telescoping shafts should lack two (2) inches meeting. Now, check the PTO shaft to be sure the PTO shaft is not too short. Position the rotary cutter so that the PTO shaft will be at its longest position. At this position, the two telescoping shafts should engage at least six (6) inches. Be sure the PTO clears the front of the cutter deck, when cutter is raised. If it does not clear, readjust the toplink n your tractor, to correct this problem. You may want to set the stop on your hydraulic control level, so that the cutter will not accidentally be raised too high. Now, engage the PTO, slowly, let the rotary cutter run slowly for several seconds and gradually increase throttle to operating speed. Watch carefully for signs of excessive vibration, or unusual noises. If any are noticed, disengage PTO, cut off tractor immediately. Wait for complete stop of all moving parts, and investigate cause. A new gearbox may be noisy at first, but usually a few hours use will mesh the gears, and create a quieter, smoother operation.
2. We suggested that you get the feel of your rotary cutter on open familiar ground. Remember that the centrifugal force of the rotary blades and carrier can keep pushing you forward, even after you have disengaged your clutch, unless your tractor is equipped with live PTO or an over-runner. Therefore, approach obstacles with caution.

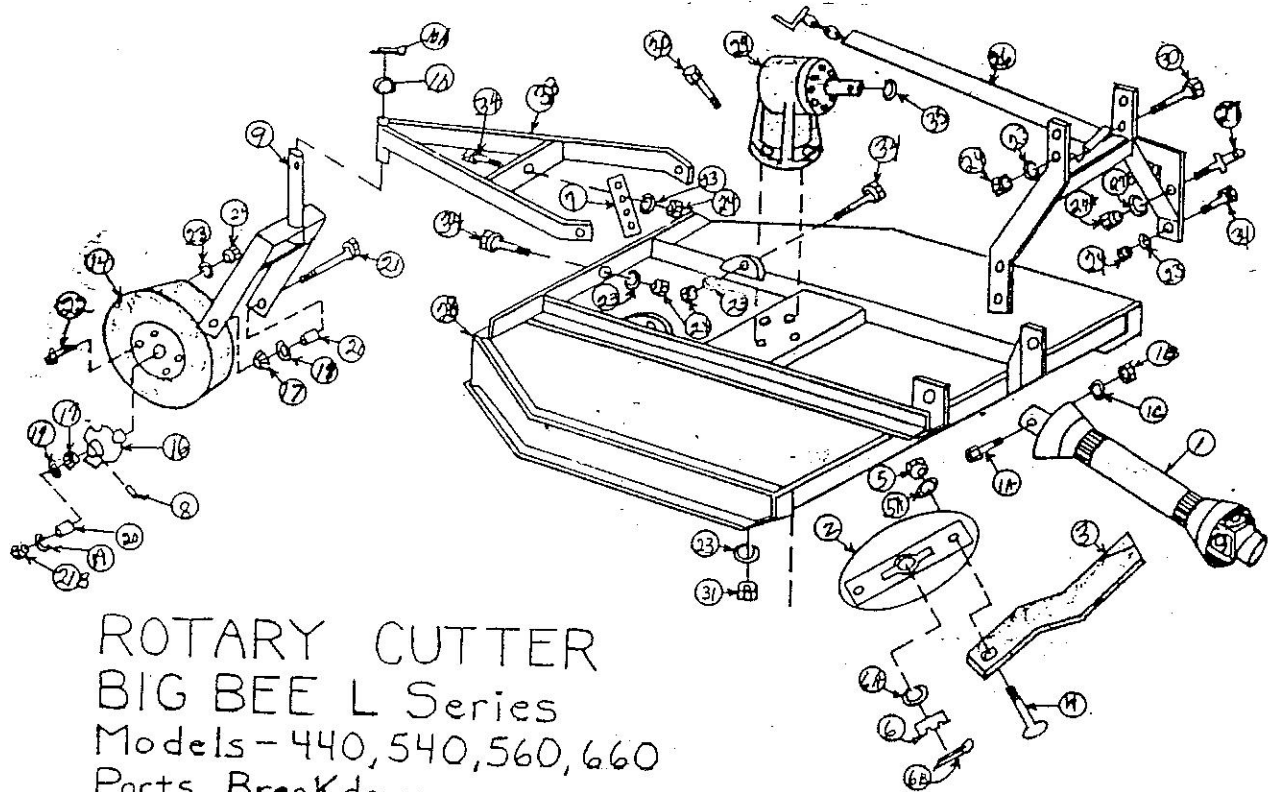
***If it is determined that the PTO shaft is either too long or too short, for your tractor, see your dealer for correct shaft lengths. This is not a frequent problem, however, the correct shaft length should be checked to avoid damage to the PTO shaft, or other components.



Rotary Cutter

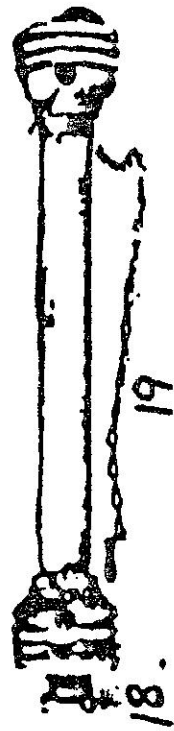
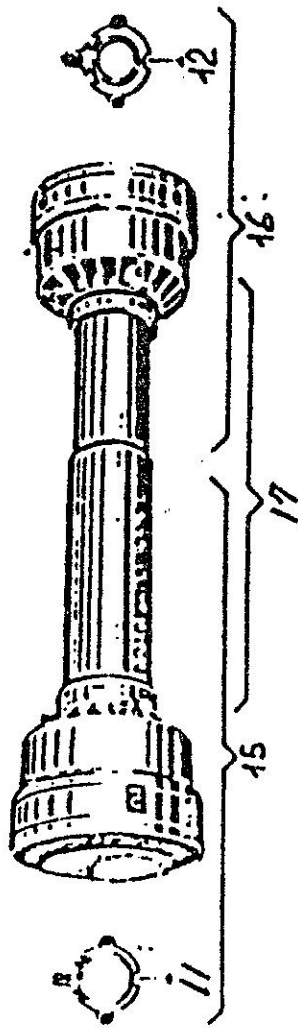
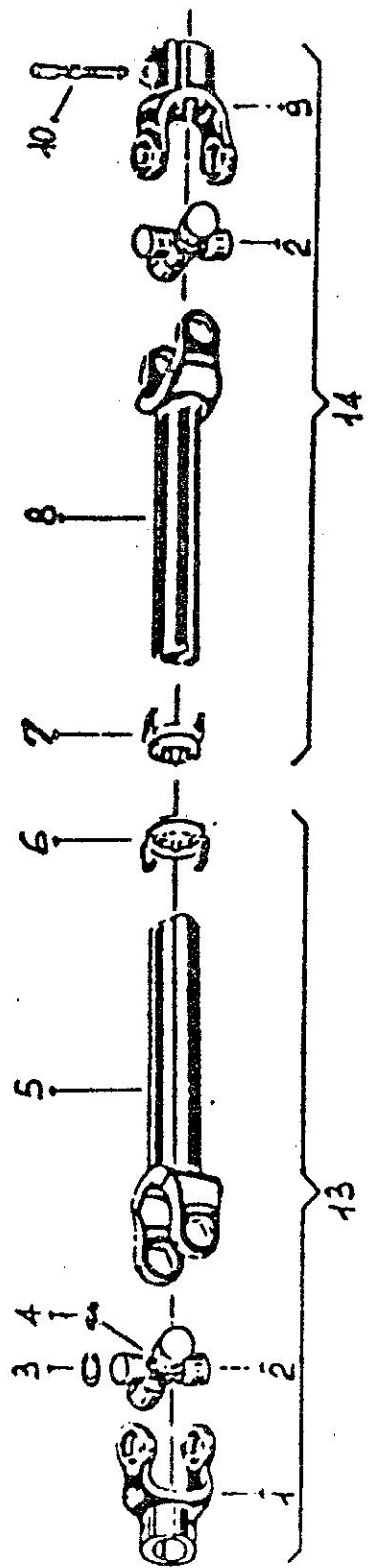
Model :
L Series 660

Parts Breakdown

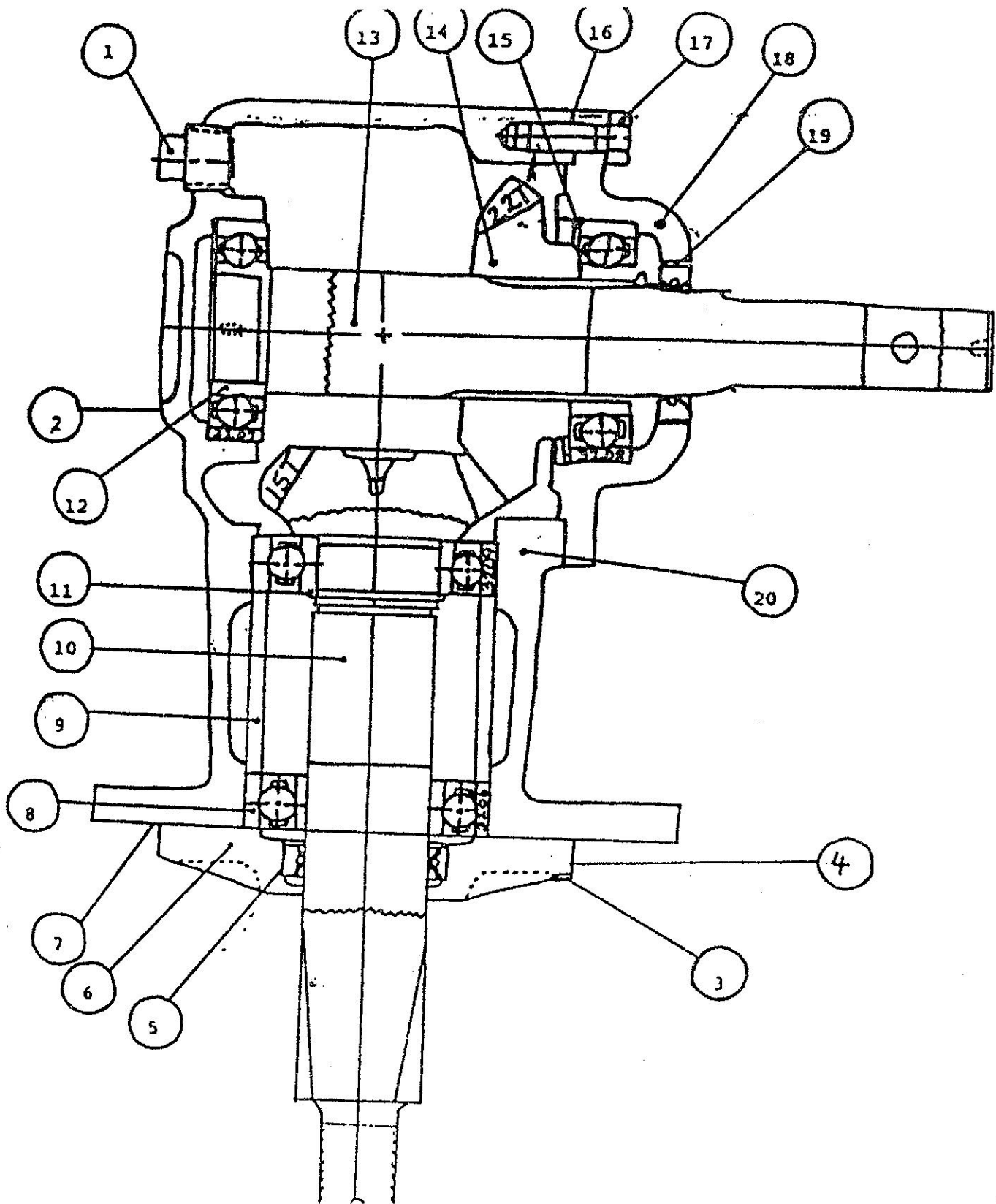


ROTARY CUTTER
 BIG BEE L Series
 Models - 440, 540, 560, 660
 Parts Breakdown

Ref	Part #	Description	Qty	Ref	Part #	Description	Qty.
1	805M10130A	Complete PTO L440	1	20	662	Tail Wheel Spacer	2
1	807M7453B	Complete PTO L540 / 560	1	21	663	Tail Wheel Axle	1
1	812M7451B	Complete PTO L660	1	21B	663B	Tail Wheel Nut	1
1A	HW8077	1/2 x 3" Shear Bolt -2-	1	22	HW1056	5/8 x 1" Bolt NC -2-	4
1B	HW1003	1/2 USS Nut	1	23	HW1057	5/8 Lock Washer	11
1C	HW1002	1/2" Washer	1	24	HW1058	5/8" Nut NC	11
2	621	Blade Carrier 440/540	1	25	673	A Frame Welded Assy.	1
2	626	Blade Carrier 560 / 660	1	26	6784	Chain Brace L440	1
3	629	Blade L440	2	26	6795	Chain Brace L540 / L560	1
3	630	Blade L540 / L560	2	26	6806	Chain Brace L660	1
3	631	Blade L660	2	27	HW1007	Draw Pin	2
4	632	Blade Bolt	2	27A	HW1009	7/8" NF Nut	2
5	633	1 1/8 SAE Nut	2	27B	HW1008	7/8" Lockwasher	2
5A	HW633A	Lockwasher	2	28	687H	Main Body L440	1
6	634	Castle Nut	1	28	688H	Main Body L540 / L560	1
6A	HW634A	Washer, Bottom Shaft	1	28	689H	Main Body L660	1
6B	HW634B	Cotter Key	1	29		Gearbox L440 / L540	1
7	643L	Tail Wheel Adj. Bracket	1	29		Gearbox L560 / L660	1
8	HW1012	Grease Zerk	1	30	HW6882 A	5/8 x 2" SAE 440/ 540	4
9	646L	Tail Wheel Fork	1	30	HW6882 L	3/4 x 2" SAE 560 / 660	4
10	647	Tail Wheel Washer	1	31	HW6882 B	5/8 SAE Nut	4
10A	HW648	Cotter Key Tail Wheel	1	31		3/4 SAE Nut	4
14	655	Tire / Rim Tail Wheel	1	32	HW6884	5/8 x 4 1/2" NC Bolt -2-	1
16	658	Cast Hub w/races	1	33	642L	Tail Wheel Yoke	1
17	659	Tail Wheel Bearing	2	34	HW6883	5/8 x 2" NC Bolt -2-	6
18	660	Tail Wheel Race	2	35	HW1061	PTO Retainer Snap ring	1
19	661	Tail Wheel Seal	2				



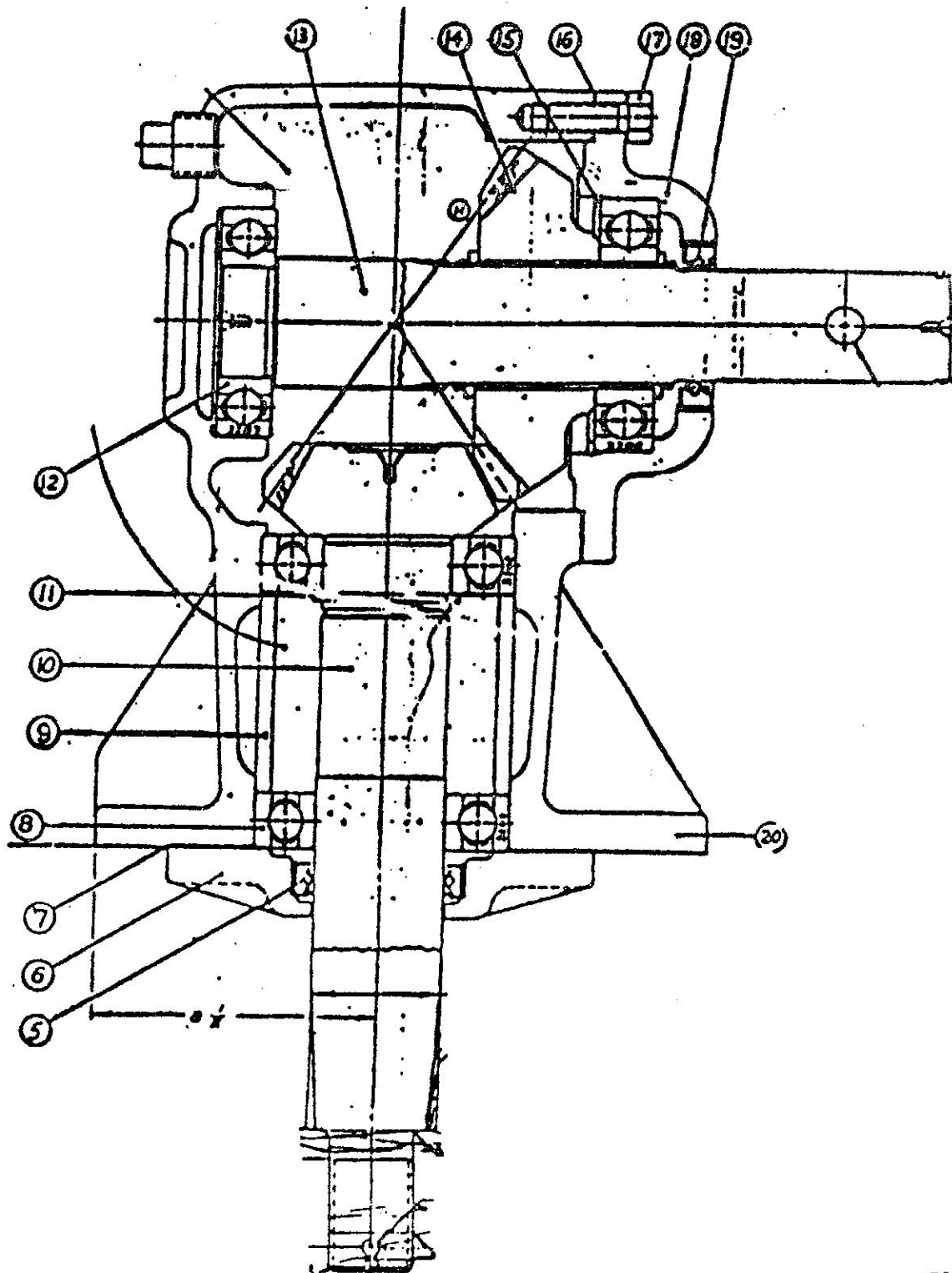
40 HP Gearbox (Smooth Input Shaft)



40 HP Gearbox Breakdown

<u>Reference</u>	<u>Part Number</u>	<u>Description</u>	<u>Number Required</u>
1	03-04-101-12	Pipe Plug (fill) (1/2 – 14)	1
2	03-01-101-09	Pipe Plug (check) (1/8 – 27)	1
3	03-02-103-05	Capscrew 3/8" x 1"	6
4	03-03-102-08	Lockwashers	10
5	05-04-105-33	Bottom Oil Seal	1
6	10-30-104-11	Bottom Cap, Bearing Retainer	1
7	WA-48-12	Gasket	1
8	04-03-104-03	Bearing (3208)	3
9	10-30-107-01	Spacer	1
10	WA50-SE	Output Pinion	1
11	03-05-101-09	Retaining Ring	1
12	04-03-104-02	Bearing (3207)	1
13	10-30-103-02	Input Shaft Shear Pin	1
14	10-0-106-11	Input Gear	1
15	10-40-143-01	Retainer Ring	1
16	WA50-10-10A	Shim (.004)	As Reg.
17	03-002-103-04	Capscrew 3/8" x 1 1/4"	4
18	10-30-105-11	Side Housing (Front Cap)	1
19	05-02-106-06	Oil Seal (Top) (N450135)	1
20	10-30-102-11	Housing	1

60 HP Gearbox (Smooth Input Shaft)



60 HP Gearbox Breakdown

Reference	Part Number	Description	Number Required
1		Main Housing	1
2	10-50-105-11	Gear Input	1
3	10-50-122-11	Pinion Output	1
4	10-50-123-01	Shaft Input	1
5	10-50-124-01	Spacer	1
6	10-50-104-12	Bottom Cap (Brg. Retainer)	1
7	05-02-112-12	Oil Seal (Top)	1
8	05-04-133-34	Oil Seal (Bottom)	1
9	04-01-102-18	Cup, Bearing	1
10	04-01-101-23	Cone, Bearing	1
11	04-01-102-17	Cup, Bearing	1
12	04-01-101-22	Cone, Bearing	1
19	04-01-101-13	Cone, Bearing	1
20	04-01-102-09	Cup, Bearing	2
21	03-05-101-11	Retaining Ring	1
22		3/8" Lock Washer	8
23	03-04-101-09	Pipe Plug	
26	10-50-102-12	Side housing Top Plate	1
92		Washer	1
93		1" Castle Nut	1

Procedures for Removing Blades from Rotary Cutter

There are two (2) ways to remove blades from the rotary cutters for replacement and/or sharpening. One procedure is accomplished by cutting a hole in the top deck of the rotary cutter either directly behind or in front of the gearbox. The preferred position would be in the front but either place is permissible. To find the center of the gearbox —this point will be the center of the hole to be drilled. The location of this hole will also be approximately two (2) inches from the gearbox mounting plate. The hole you cut (drill) should be at least three inches in diameter. This hole will allow you to utilize a socket fast and easy removal of the blades from the stump jumper.

The second method of removal is by taking the key and castle nut off of the gearbox output shaft. This allows you to remove the complete stump jumper. Alternating blows to the head of the blade bolts allows you to “walk” the entire jumper from the shaft. When removal of the jumper from the shaft is completed you need only to remove the blades from the jumper to sharpen or replace.

Caution: ALWAYS BE SURE TO WEAR PROTECTIVE EYE GEAR TO AVOID INJURY WHILE CUTTING OR HAMMERING.

Caution: BE SURE BLADES ARE NOT IN MOTION BEFORE ATTEMPTING TO REMOVE BLADES FROM MACHINE.

General Maintenance

1. Check oil level in gearbox periodically. Keep level up to check plug. Use SAE 90 or SAE 140 transmission oil. Use caution not to over fill.
 2. Lubricate universal joint on PTO shaft every few hours or use. Keep PTO shaft free of dirt and foreign materials so that it will telescope freely to avoid damage to your tractor or rotary cutter.
 3. Lubricate tail wheel.
 4. Keep blades sharp. When replacing worn blades, be sure to replace in pairs to maintain rotary balance.
 5. Keep all bolts tightened properly.
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Warranty

We warranty each new rotary cutter against defect in materials or workmanship for a period of ninety (90) days or a reasonable period of time dependent upon the type of use of the machine.

In the event it is necessary to replace or repair any part(s) during the warranty period go to your dealer with the defective part(s) and he will assist you in securing the needed replacement, or return the defective part(s) to:

Darrell Harp Enterprises, Inc.
Attention: Warranty Division
PO Box 140
Red Bay, AL 35582

Neither manufacturer nor the dealer shall be held responsible for loss of use of the machine, loss of time, inconvenience, commercial loss or consequential damages.

In order for your rotary cutter to be covered by our warranty policy, the equipment registration from on the back cover must be completed and returned within ten (10) days after the purchase date.

The warranty policy is not effective unless the equipment registration is recorded in our office.

Owner Registration

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Owners Name: _____

Street Address: _____

City: _____ County: _____ State: _____ Zip: _____

.....

Purchased From: _____

Street Address: _____

City: _____ County: _____ State: _____ Zip: _____

Date Purchased: _____

.....

Date: _____ Owner's Signature: _____

Model: _____

Equipment Name: _____

Size: _____

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