

SCL 7100 HD

SCL 8100 HD

ROTARY CUTTER

OWNERS MANUAL

SAFETY PRECAUTIONS

DUE TO THE 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.

1. IMPORTANT READ AND BECOME FAMILIAR WITH THE INSTRUCTIONS ON THE ROTARY CUTTER DECALS. THESE DECALS HAVE BEEN PLACED AT VARIOUS PLACES ON THE MACHINE TO REMIND YOU TO BE CAUTIOUS FOR YOUR PROTECTION, AS WELL AS OTHERS.
2. 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.
3. CHECK THE MACHINE FREQUENTLY TO BE SURE THERE ARE NO LOOSE BOLTS, AND THAT SNAP RINGS ARE IN PLACE.
4. ALWAYS USE, AND MAINTAIN IN PLACE. ALL PTO GUARDS FURNISHED WITH THE ROTARY CUTTER, AS WELL AS THE GUARDS FURNISHED WITH THE TRACTOR.
5. DISENGAGE THE PTO, AND CUT OFF THE TRACTOR ENGINE BEFORE LEAVING THE TRACTOR SEAT.
6. IT IS RECOMMENDED THAT THE TRACTOR BE EQUIPPED WITH A ROLLBAR, AND A SEAT BELT. THIS IS THE OPERATOR'S OWN RESPONSIBILITY FOR HIS OWN SAFETY.
7. 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. (YOUR DEALER HAS FREE-WHEEL, OVER-RUNNING COUPLERS, TO CURTAIL THE CENTRIFUGAL FORCE- THE COUPLERS SERVE AS AN ADDED SAFETY DEVICE).
8. 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.
9. NEVER CRAWL UNDER THE MACHINE FOR ANY REASON. IT COULD FALL ON YOU. NEVER MANUALLY FEED THE MACHINE FOR ANY REASON. NEVER REACH 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.
10. 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 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.
11. NEVER ALLOW RIDERS ON MACHINE, OR TRACTOR.
12. TRANSPORT MACHINE AT SAFE SPEED.

ASSEMBLY AND SET-UP INSTRUCTIONS

- A. SET UP A-FRAME AND POSITION HITCH PINS IN PROPER POSITION. BE SURE TO USE LOCK WASHERS AND TIGHTEN BOLTS SECURELY, ATTACH 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 GEAR BOX, 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 GEAR BOX 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 GEAR BOX, TAIL WHEEL HUB, TAIL WHEEL SPINDLE, PTO U-JOINTS.
- F. ATTACH ROTARY CUTTER TO THE TRACTOR.

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 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 IT'S 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, RE-ADJUST THE TOP-LINK ON YOUR TRACTOR, TO CORRECT THIS PROBLEM. YOU MAY WANT TO SET THE STOP ON YOUR HYGRAULIC CONTROL LEVER, SO THAT THE CUTTER WILL NOT ACCIDENTLY 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 GEAR BOX 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 LENGHTS. THIS IS NOT A FREQUENT PROBLEM, HOWEVER, THE CORRECT SHAFT LENGTH SHOULD BE CHECKED TO AVOID DAMAGE TO THE PTO SHAFT, OR OTHER COMPONENTS.

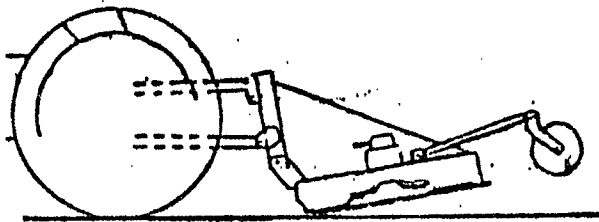
OPERATION

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

ADJUSTING LEVEL OF CUTTER ON YOUR TRACTOR

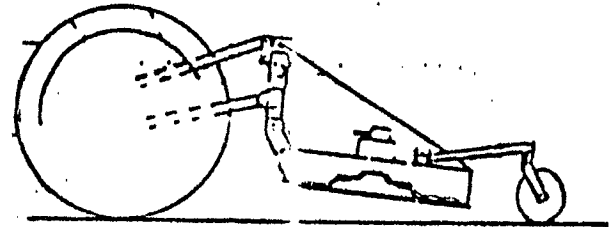
Cutter Too Low In Front



INCORRECT

Blade too high on sides causing skipping and uneven cutting. Blades become badly worn. Blade striking ground causing slip clutch to slip excessively.

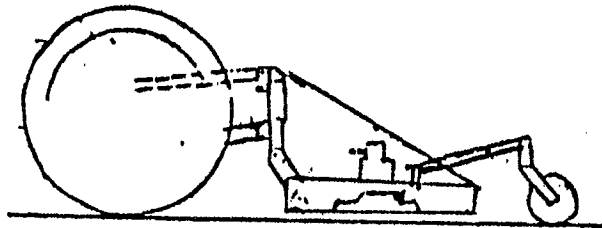
Cutter Too Low In Rear



INCORRECT

Excessive wear and tear on tail-wheel, rear skirt dragging causing balling up problems. Blades too high on sides causing skipping and uneven cutting.

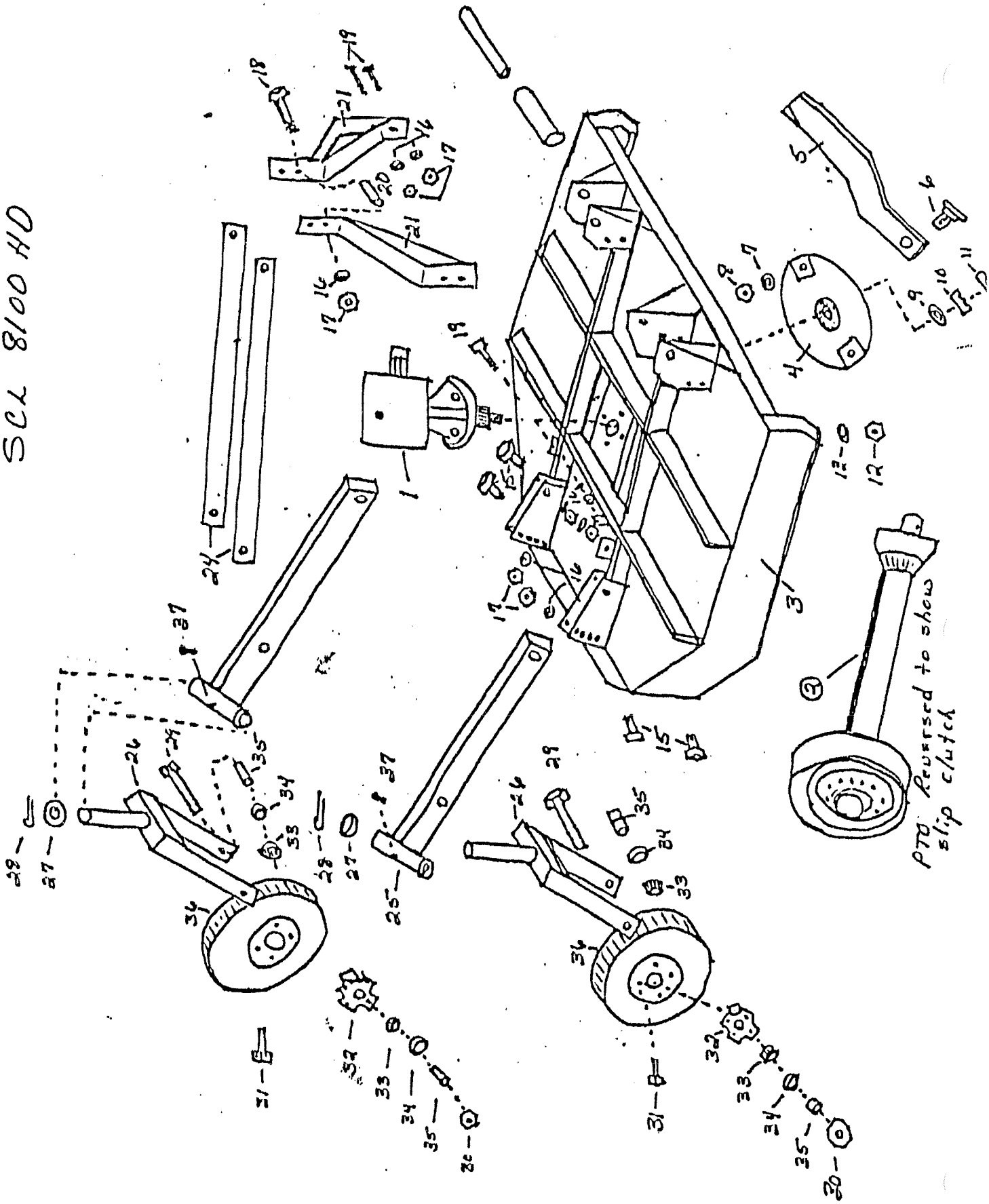
Cutter Level



CORRECT

Blade cutting evenly with grass being spread evenly

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PARTS BREAKDOWN FOR SCL 7100 HD & SCL 8100 HD

<u>REF.#</u>	<u>PART#</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	250090	MAIN GEARBOX	1
2	14332	DRIVE LINE (PTO SHAFT)	1
3	7684-71	MAIN DECK SCL7100HD	1
3	7684-81	MAIN DECK SCL8100HD	1
4	7621	STUMP JUMPER SCL7100 HD	1
4	8621-8	STUMP JUMPER SCL8100 HD	1
5	7636-7	BLADE	2
6	7632	BLADE BOLT	2
7	633	BLADE BOLT NUT	2
8	HW633A	BLADE BOLT LOCK WASHER	2
9	HW1057-1	GEARBOX FLAT WASHER	1
10	7634-1	GEARBOX CASTLE NUT	1
11	HW634B-1	GEARBOX COTTER KEY	1
12	*****	3/4 SAE NUT	4
13	*****	3/4 LOCK WASHER	4
14	*****	3/4 X 2 1/2 GRADE 5 BOLT	4
15	*****	5/8 X 3 1/2 NC GRADE 2 PLATED NUT	4
16	*****	5/8 LOCK WASHER PLATED	11
17	*****	5/8 NC NUT PLATED	11
18	*****	5/8 X 4 1/2 NC GRADE 2 PLATED	1
19	*****	5/8 X 2 NC GRADE 2 PLATED	6
20	89891	A-FRAME SPACER SCL8100HD	1
21	7677	WELDED A-FRAME ASS. SCL7100HD	1
21	86741-1	FRONT A-FRAME HITCH SCL8100HD	2
22	7628	CAT.II DRAW PIN SCL7100HD	2
22	8628-1	CAT.II DRAW PINS SCL8100HD	2
23	8628-B	CAT.II/CAT.III BUSHING SCL8100HD	2
24	7695	SIDE BRACES SCL7100HD	2
24	8695-1	SIDE BRACES SCL8100HD	2
25	7181-2	TAIL WHEEL TUBE	2
26	7646	TAIL WHEEL FORK	2
27	7647	TAIL WHEEL FORK WASHER	2
28	HW648	TAIL WHEEL FORK COTTER KEY	2
29	663	TAIL WHEEL AXLE BOLT	2
30	663B	TAIL WHEEL AXLE BOLT NUT	2
31	*****	1/2 X 1 SAE GRADE 2 PLATED	8
32	658	ROUND CAST HUB W/RACES	2
33	659	TAIL WHEEL BEARING	4
34	661	TAIL WHEEL SEAL	4
35	662	TAIL WHEEL SPACER	4
36	655	TAIL WHEEL TIRE & RIM	2
37	HW1012	GREASE FITTING	2
38	P791	CAT.I FORGED LYNCH PIN	2

DET.	PART #	QTY	DESCRIPTION
34	070142	VAR	GASKET 0.10
33	070145	VAR	GASKET 0.10
32	190000	1	I.D. TAG
31	240001	2	RIVETS
30	140017	1	1/8" SQ. HD. PIPE PLUG
29	100001	1	COTTER PIN
28	120000	1	HEX NUT
27	130001	1	FLAT WASHER
26	270001	1	BLADE HUB
25	060004	1	OUTPUT SEAL
24	110002	4	CAP SCREW 1/2-13x1 1/2"
23	130003	4	LOCKWASHERS
22	020005	1	OUTPUT CAP
21	070141	VAR	GASKET 0.15
20	070140	VAR	GASKET 0.30
19	050015	1	BEARING CUP 362
18	110001	8	CAP SCREW 3/8-18x1 1/4"
17	130002	8	LOCKWASHER
16	020006	1	INPUT CAP
15	060005	1	INPUT SEAL
14	140000	2	1/2" SQ. HD. PIPE PLUG
13	070144	VAR	GASKET 0.15
12	070143	VAR	GASKET 0.30
11	090003	2	SPACER
10	030040	1	GEAR 17 T
9	200003	1	RETAINING RING
8	050013	2	BEARING CUP LM603014
7	050012	2	BEARING CONE LM603049
6	040006	1	INPUT SHAFT
5	030041	1	PINION 14 T
4	050014	1	BEARING CUP 362A
3	050008	2	BEARING CONE 368
2	040034	1	OUTPUT SHAFT
1	010006	1	HOUSING

GENERAL MAINTENANCE

1. Check oil level in gear box 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 of 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.

WARRANTY

We warranty each new rotary cutter against defect in material or workmanship for a period of 90 days or a reasonable period of time dependant 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
Warranty Department
P.O. Box 140
Golden Road
Red Bay, AL. 35582

Neither manufacturer or 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 you rotary cutter to be covered by our warranty policy, the equipment registration form 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.

PROCEDURE FOR REMOVING BLADES FROM ROTARY CUTTERS

There are two (2) ways to remove blades from the rotary cutter 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 proper location for hole placement, measure seven(7) inches from 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(3) inches in diameter. This hole will allow you to utilize a socket for 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 is completed you need only to remove the blades from the jumper to shapen 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.

OWNER REGISTRATION

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: _____
