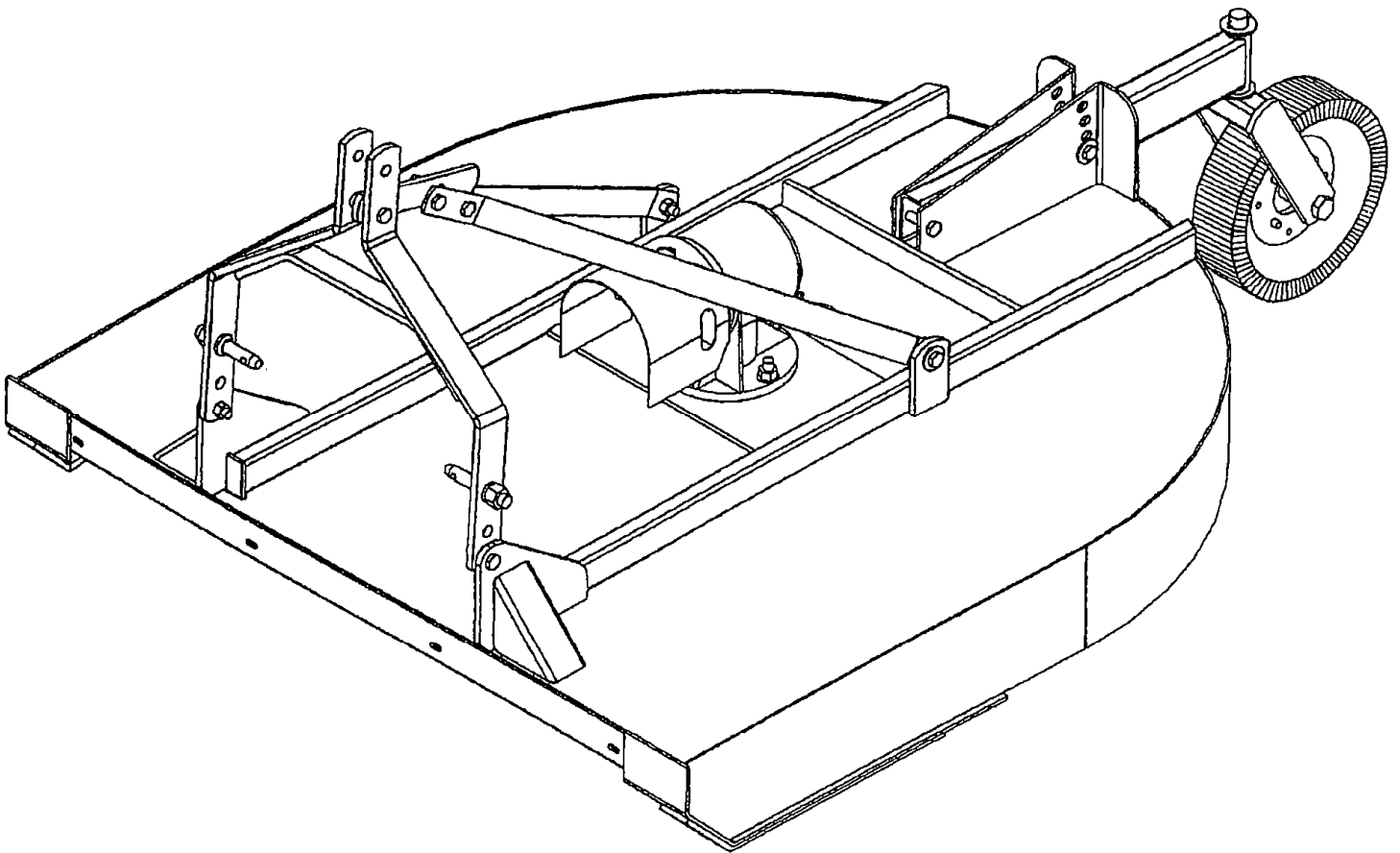


SERIES 245 & 246 ROTARY CUTTER



TO THE PURCHASER

This manual contains valuable information about your new King Kutter Cutter. It has been carefully prepared to give you helpful suggestions for operating, adjusting, servicing and ordering repair parts.

Keep this manual in a convenient place for quick and easy reference. Study it carefully. You have purchased a dependable and sturdy cutter, but only by proper care and operation can you expect to receive the service and long life designed and built into it.

Sometime in the future your cutter may need new parts to replace those that are worn or broken. If so, go to your dealer and provide him with the model and part number.

Customer Information

Name _____

Purchased From _____

Date Purchased _____

Model No. _____

Serial No. _____

It is the purchaser and/or operator's responsibility to....

- I Read and understand the information contained in this manual.**

- I Operate, lubricate, assemble and maintain the equipment in accordance with all instructions and safety procedures in this manual.**

- I Inspect the equipment and replace or repair any parts that are damaged or worn which under continued operation would cause damage, wear to other parts, or cause a safety hazard.**

- I Return the equipment or parts to the authorized King Kutter dealer, from where it was purchased, for service or replacement of defective parts that are covered by warranty. (The King Kutter Factory may inspect equipment or parts before warranty claims are honored.)**

- I Payment of all costs incurred by the dealer for traveling to or transporting the equipment for warranty inspection and or claims.**

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SAFETY

READ AND FOLLOW THE INSTRUCTIONS IN THIS MANUAL AND ESPECIALLY IN THE SAFETY SECTION. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH.

TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS.



THIS SYMBOL MEANS
ATTENTION!
BECOME ALERT!

SIGNAL WORDS:

The signal words **DANGER**, **WARNING** and **CAUTION** are used with the safety messages in this manual and with each safety signs. They are defined as follows:

DANGER: Indicates an immediate hazardous situation that, if not avoided, could result in serious injury or death. This signal word is to be limited to the most extreme situations typically for machine components that, for functional purposes, cannot be guarded.

WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in serious injury or death, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practice.

If you have any questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or King Kutter, Inc. P.O. Box 1200 Winfield, AL 35594 (205) 487-3202 or www.kingkutter.com



- I Safety of the operator and by standards is one of the main concerns in designing and developing a cutter. However, every year accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions and insist those working with you, or for you, follow them.
- I In order to provide a better view, certain photographs or illustrations in this manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.
- I Replace any safety sign that is not readable or is missing. Location of such safety signs is indicated in this manual.
- I Never use alcoholic beverages or drugs that can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription medications.
- I **Under no circumstances should children under the age of 18 be allowed to work with this equipment. Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works. Review the safety instructions with all users annually.**
- I This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible, properly trained and physically able person familiar with farm machinery and trained in this equipment's operations. If the elderly are assisting with farm work, their physical limitations need to be recognized and accommodated.
- I Use a tractor equipped with a Roll Over Protective System and seat belts. (ROPS)
- I Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question- **DON'T TRY IT.**
- I Do not modify the equipment in any way. Unauthorized modification could result in serious injury or death and may impair the function and life of the equipment.
- I In addition to the design and the confirmation of this implement, including safety signs and safety equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer also to safety messages and operation instruction in each of the appropriate sections of the tractor and cutter manuals. Pay close attention to the safety signs affixed to the tractor and the rotary cutter.

SPECIFICATIONS

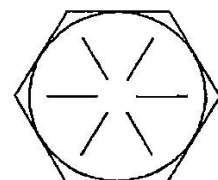
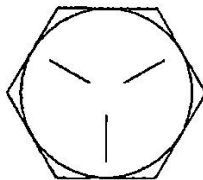
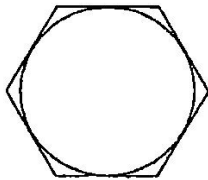
MODEL	245	246
CUTTING WIDTH - in. (mm)	60 (1524)	60 (1524)
GEAR BOX	40 HP	40 HP
P.T.O. RPM	540	540
BLADE TIP SPEED (FPM)	12,440	12,440
BLADES - in. (mm)	1/2" X 3" (12.7 X 76.2)	1/2" X 3" (12.7 X 76.2)
STUMP JUMPER	ROUND STD.	ROUND STD.
CUT HEIGHT RANGE -in. (mm)	2" TO 10" (50.8 X 254)	2" TO 10" (50.8 X 254)
CUTTING CAPACITY	BRUSH UP TO 1" (25.4)	BRUSH UP TO 1" (25.4)
SLIP CLUTCH	OPTIONAL	OPTIONAL
DECK THICKNESS	11 GA. (3.03)	11 GA. (3.03)
SIDE SKIRT THICKNESS - in. (mm)	10 GA. (3.41)	10 GA. (3.41)
SIDE SKIRT DEPTH - in. (mm)	7 (177.8)	7 (177.8)
TIRE - LAMINATED - in. (mm)	16 (406.4)	16 (406.4)
HITCH	CAT. 1	CAT. 1
DRIVE LINE	ASAE CAT 3	ASAE CAT 3
WEIGHT - LBS. (kg)	611 (277)	688 (312)

BOLT TORQUE CHART

GRADE 2

GRADE 5

GRADE 8



TORQUE IN FOOT POUNDS (NEWTON METERS)

BOLT SIZE		3/8	1/2	5/8	3/4	7/8	1
HEX HEAD		9/16	3/4	15/16	1-1/8	1-15/16	1-1/2
GRADE	2	18 (24.4)	45 (61.0)	89 (120.7)	160 (216.9)	252 (341.6)	320 (433.9)
	5	30 (40.6)	68 (62.2)	140 (189.8)	240 (325.4)	360 (488.1)	544 (737.5)
	8	40 (54.2)	100 (135.6)	196 (265.7)	340 (460.9)	528 (715.1)	792 (1073.8)

SAFETY TRAINING



- I Safety is a primary concern in the design and manufacture of our product. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator or bystander.

- I In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of this equipment.

- I It has been said, “ The best safety device is an informed, careful operator.” We ask you to be that kind of operator. It is the operator’s responsibility to read and understand all safety and operating instructions in the manual and to follow them. Accidents can be avoided.

- I Working with unfamiliar equipment can lead to careless injuries. Read this manual, and the manual for your tractor, before assembly or operating, to acquaint yourself with the machines. If this machine is used by any person other than you, or is loaned or rented, it is the rotary cutter owner’s responsibility to make certain that owner's manual be available to the operator prior to operating:
 - 1- Reads and understands the operator’s manuals.
 - 2- Is instructed in safe and proper use.

- I Know your controls and how to stop tractor, engine, and the cutter quickly in an emergency. Read this manual and the one provided with your tractor.

- I Train all new personnel and review instructions frequently with existing workers. Be certain only a properly trained and physically able person will operate the machinery. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death. If the elderly are assisting with farm work, their physical limitations need to be recognized and accommodated.

PREPARATION



- I Never operate the tractor and cutter until you have read and completely understand this manual, the Tractor Operator's Manual, and each of the safety messages found on the safety signs on the tractor and cutter.
- I Personal protection equipment including hardhat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintenance, repairing, removal, or moving the implement. Do not allow long hair, loose fitting clothing, or jewelry to be around equipment.
- I **PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS!** Tractors with or without cutters attached can often be noisy enough to cause permanent, partial hearing loss. We recommend that you wear hearing protection on a full-time basis if the noise in the operator's position exceeds 80 db. Noise over 80 db. on a long-term basis can cause severe hearing loss. Noise over 90 db. adjacent to the operator over a long-term basis may cause permanent, total hearing loss. **NOTE:** Hearing loss from loud noise (from tractors, chain saws, radios, and other such sources close to the ear) is cumulative over a lifetime without hope of natural recovery.
- I Operate the cutter only with a tractor equipped with an approved Roll-Over-Protective System (ROPS). Always wear your seat belt. Serious injury or even death could result from falling off the tractor — particularly during a turnover when the operator could be pinned under the ROPS or the tractor.
- I Clear area to be cut of stones, branches or other debris that might be thrown, causing injury or damage.
- I Operate only in daylight or good artificial light.
- I Ensure cutter is properly mounted, adjusted and in good operating condition.
- I Ensure that all safety shielding and safety signs are properly installed and in good condition.

STARTING AND STOPPING SAFETY



- I Check the tractor master shield over the PTO stub shaft. Make sure it is in good condition and fastened securely to the tractor. Purchase a new shield if old shield is damaged or missing.
- I All tractors that are not equipped with a "live" power takeoff (PTO) need to be equipped with an over-running PTO clutch. These are available through most farm equipment stores. **NOTE:** The addition of an over-running PTO clutch may change the length of the PTO driveline required. Pay extra attention to the instructions on the PTO driveline Installation. Be sure that the driveline system guarding is adequate.
- I Cutter operating power is supplied from tractor PTO. Refer to your tractor manual for PTO engagement and disengagement instructions. Know how to stop tractor and cutter quickly in case of an emergency.
- I When engaging PTO, the engine RPM should always be at idle speed. Once engaged and ready to start cutting, raise PTO speed to 540 RPM and maintain throughout cutting operation.



- I The use of this equipment is subject to certain hazards that cannot be protected against by the mechanical means or product design. All operators of this equipment must read and understand this entire manual, paying particular attention to safety and operating instructions, prior to using. If there is something in this manual you do not understand, ask your supervisor, or your dealer, to explain it to you.
- I Most accidents occur because of neglect or carelessness. Keep all helpers and bystanders at least several hundred feet from an operating rotary cutter. Only properly trained people should operate this machine.
- I When machine is operated in populated areas where thrown objects could injure persons or property, **operation must be stopped when anyone comes within several hundred feet.**
- I The majority of the accidents involve entanglement on the driveline, injury of bystanders by the objects thrown by the rotating blades, and operators being knocked off the tractor by low hanging limbs and then being run over by the cutter. Accidents are most likely to occur with machines that are loaned or rented to someone who has not read the owner's manual and is not familiar with a rotary cutter.
- I The rotary cutter is designed for use only on tractors with **540-RPM** power take off.
- I Install and secure all guards and shields before starting or operating. The discharge chute, bands, flaps, driveline guards and tractor, shields should be used and maintained in good working condition. They should be inspected carefully, at least daily, for missing or broken cable, chain links, shields, or guards. (Worn items must be replaced at once to reduce possibility of injury)
- I Disengage power takeoff (PTO) and place transmission in neutral before attempting to start engine.
- I Many varied objects, such as wire, cable, rope, or chains, can become entangled in the operating parts of the cutter. These items could then swing outside the housing at greater velocities than the blades. Such a situation is extremely hazardous. Inspect the cutting area for such objects before mowing. Remove any like objects from the site.



- I Never allow the cutting blade to contact such items. Cut material higher at first, allowing rotary cutter to clear hidden objects. Never assume an area is clear.
Always Check!
- I Always stop the tractor, disengage PTO, set brake, shut off the tractor engine, remove the ignition key, lower implement to the ground and allow cutter blades to come to a complete stop before dismounting tractor. Never leave equipment unattended with the tractor running.
- I Never place hands or feet under cutter with tractor engine running or before you are sure all motion has stopped. Stay clear of all moving parts.
- I Do not reach or place any part of your body under equipment until it is blocked securely.
- I Do not allow riders on the rotary cutter or tractor at anytime. There is no safe place for any riders.
- I Do not operate unless all personnel, livestock, and pets are several hundred feet away to prevent injury by thrown objects.
- I Never operate tractor and rotary cutter under trees with low hanging limbs. Operators can be knocked off the tractor and then run over by the rotating blades.
- I The rotating parts of this machine have been designed and tested for rugged use. However, they could fail upon impact with heavy, solid objects such as steel guardrails and concrete abutment. Such impact could cause the broken objects to be thrown outward at very high velocities. To reduce the possibility of property damage, serious injury, or even death, never allow the cutting blades to contact such obstacles.
- I Stop cutter and tractor immediately upon striking an obstruction. Turn engine off, remove key, inspect and repair any damage before resuming operation.
- I Stay alert for uneven terrain, holes, rocks, and roots and other hidden hazards. Keep away from drop-offs and hazards that could cause roll over.
- I Use extreme care and maintain minimum ground speed when transporting or operating on hillsides, over rough ground and when operating close to ditches or fences. Be careful and slow down when turning sharp corners and changing direction on slopes. Do not start or stop suddenly on slopes. Avoid operation on steep slopes. In extremely uneven terrain, rear wheels weights, front tractor weight, and/or tire ballast should be used to improve stability.



- I Pass rotary cutter diagonally through sharp dips and avoid sharp drops to prevent “hanging up” tractor and rotary cutter. Practice will improve your skills in maneuvering on rough terrain. Always cut down slopes, never across the face. Always check tractor manual for proper use on slopes.
- I When using a unit, a minimum 20% of tractor and equipment weight must be on tractor front wheels. Without this weight, tractor could tip over, causing personal injury or death. The weight may be attained with a front- end loader, front wheel weights, ballast in the tires or front tractor weights. When attaining a minimum 20% of tractor and equipment weight on the front wheels, you must not exceed the ROPS weight certification. Weigh the tractor and equipment. **Do not guess or estimate!**

TRANSPORT SAFETY

- I Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
- I The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all lighting and marking requirements.
- I At all times, when driving the tractor and equipment on the road or highway under 20 mph (32 kph) use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem. Do not exceed 20 mph (32 kph). Reduce speed on rough roads and surfaces.
- I Plan your route to avoid heavy traffic.
- I Always install transport locks, pins or brackets before transporting.
- I Do not drink and drive.
- I Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc. Watch for traffic when operating near or crossing roadways.
- I Turn curves or go up or down hills only at a low speed and at a gradual steering angle. Make certain that a least 20% of the tractor’s weight is on the front wheels to maintain safe steerage. Slow down on rough or uneven surface. Always check tractor manual for proper use on slopes.
- I Use extreme care and maintain minimum ground and when operating close to ditches or fences. Be careful when turning sharp corners.
- I Never allow riders on either tractor or cutter.

ATTACHING TO TRACTOR

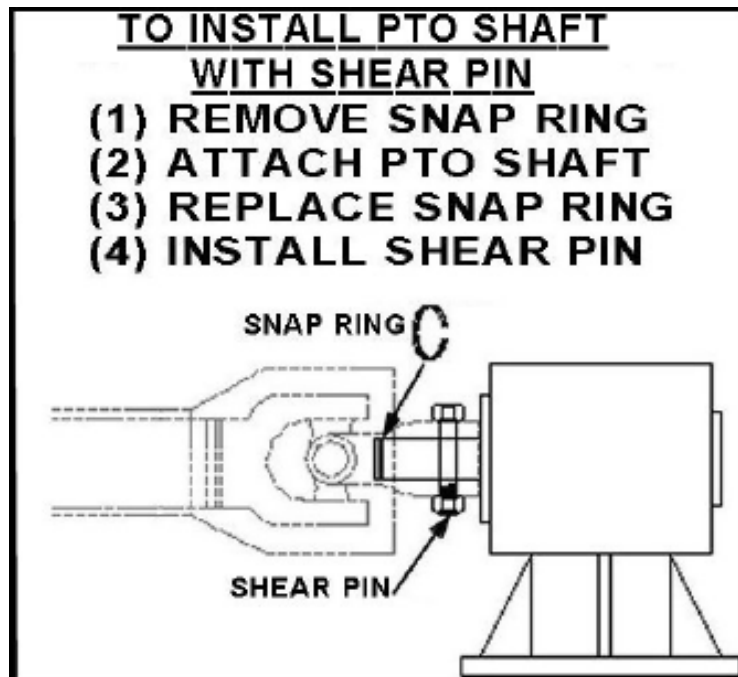


WARNING



Never stand between tractor and rotary cutter while backing up tractor to the hitch.

STEP 1 Attach to tractor's category 1, three point hitch as described in the Tractor's Operator's Manual.



WARNING



Failure to install retaining clip on gearbox input shaft would allow driveline to swing freely if bolt is sheared causing possible injury or death.

STEP 2 Determine if the PTO shaft needs to be shortened.

NOTE: Due to the many variations in the tractor hitch points and distances between equipment gearbox input shaft and tractor PTO output shafts, some combinations may require PTO shafts to be shortened as described by the following steps.

STEP 3 Raise and lower rotary cutter in order to locate the shortest distance between equipment gearbox input shaft and tractor PTO output shaft. With the rotary cutter in the shortest distance position shut down the tractor and **SECURELY BLOCK ROTARY CUTTER IN POSITION.**

STEP 4 Pull apart PTO shaft and attach outer section to tractor PTO output shaft.
NOTE: Be sure to pull on PTO shaft section to ensure yoke has locked into place.

ATTACHING TO TRACTOR *continued....*

STEP 5 Place and hold inner PTO shaft section next to outer section and check if PTO shaft is too long. Each section should end approximately 3 inches short of reaching u-joint shield on the opposite section. If the shaft is too long measure 3 inches back from each u-joint shield and mark the other shaft section. Be sure to do this for both PTO shaft halves.

NOTE: Do not cut PTO shaft sections at this time.

STEP 6 Raise rotary cutter and remove blocking. Raise and lower rotary cutter in order to locate the longest distance between equipment input shaft and the tractor PTO output shaft. With the rotary cutter in the longest distance position, shut down the tractor and **SECURELY BLOCK THE ROTARY CUTTER IN POSITION.**

STEP 7 As in step 5 hold PTO shaft sections together and check for a minimum of 6 inches of overlap. If PTO shaft has been marked for cutting the overlap is the distance measured between the two marks. If the PTO shaft has less than a 6 inch overlap, **DO NOT USE.** Contact your authorized King Kutter Dealer.

NOTE: If the PTO shaft length is too long go to **SIZING PTO SHAFT (page 16)**

STEP 8 Apply any multi-purpose grease to the outside of the male (inner) PTO shaft section. Assemble PTO shaft and install on rotary cutter and tractor.

NOTE: If you shear the bolt that attaches the PTO shaft to the gear box replace with a grade 2 bolt only. Replacement with another grade of bolt will void your warranty and may cause terminal damage to the PTO shaft, gearbox, or tractor. (King Kutter shear pin 5 pack part #500101)

WARNING - Failure to install retaining clip on gearbox input shaft would allow driveline to swing freely if bolt is sheared causing possible injury or death.

STEP 9 Pull on tractor side of PTO shaft yoke to be sure it has locked in place. Make certain PTO shaft shielding is in place and good working condition.

STEP 10 The PTO shaft shield is a non-rotating design and must be secured prior to equipment use. Using the chain on each yoke shield attach to a fixed object on the tractor and equipment ends that will not allow the PTO shaft shield to rotate during operation.

SIZING PTO SHAFT

STEP 1

Cutting the PTO shaft to length. **NOTE:** Be sure to cut equal lengths of each PTO shaft section. Clamp end of PTO shaft in a vice and cut off shield where marked. **(Figure 1-A & 1-B)**



Figure 1-A

STEP 2

Using cut section of the shield as a guide cut shaft off the same amount. **(Figure 2)**



Figure 1-B

STEP 3

Repeat steps 1 and 2 for other PTO shaft section.

STEP 4

Use a file to deburr PTO shafts. Clean up all chips, burrs and filings from both ends of the PTO shaft.

Note: If you shear the bolt that attaches the PTO shaft to the gearbox replace with a grade 2 bolt only. Replacement with another grade of bolt will void your warranty and may cause terminal damage to the PTO shaft, gearbox, or tractor.



Figure 2

INTRODUCTION

This manual covers the assembly, operation, and maintenance of your Series 245 & 246 Cutter. Studying and following these instructions will ensure optimum product performance and longevity. Be sure to read all instructions carefully. Read all safety precautions prior to operation.

Maintain your rotary cutter with original repair parts to ensure optimum performance.

MODIFICATIONS

It is the policy manufacturer to improve its products whenever possible and practical. We reserve the right to make changes, improvements and modifications at any time without incurring the obligation to make such changes., improvements, and modifications on any implement sold previously.

ASSEMBLY

General

Your Series 245/246 is shipped with 3-point hitch components knocked down and the deflector shield in a separate bundle. Remove all wiring from bundles as they are called for. Choose a level area to arrange the parts conveniently. Assemble parts for each step loosely to ensure fit. Use flat washers with slotted holes. Always use lock washers unless a locknut is called for. Tighten hardware after parts are installed according to the torque chart. Unless otherwise stated, all hardware is Grade 5. The following assembly steps are given to minimize the need for adjustment after assembly. Remember the Left and Right are determined by standing at the rear of the cutter and facing it.

WARNING



It is strongly recommended that the deflector shields or the chain guards be installed. A rotary cutter without deflector shields can discharge large objects at high speeds which could seriously injure bystanders or the operator.

Deflector Shields or Chain Guards

- 1) Install shield to front of cutter using 3/8" x 1-1/2" carriage bolts, flat washers, lock washer, and hex nuts. Tighten nuts after all hardware is installed.

A-Frame and Braces (Refer to Figure 3 next page)

On some cutters, the A-Frame is shipped already bolted to the deck while others it is wired to the stump jumper. If the A-Frame is already bolted to the deck, proceed to Step 2.

- 1) Secure A-frame to inside of deck uprights using 5/8" x 2" bolt with lock washers and hex nuts. Be sure the A-frame legs are on the inside of the deck uprights. Stand A-frame in vertical position and tighten hardware so A-frame stands freely.
- 2) Remove hardware from brace bundle. Bolt braces to deck lugs using 5/8" x 2" bolt, lock washer, and hex nut.
- 3) Attach top end of brace to A-frame bars, spacer tube, and swinging link with 5/8" x 5-1/2" bolt, lock washer and hex nut.
- 4) Check and tighten all hardware.

INSTALLING DRIVELINE (Slip Clutch Model)

- 1) Depress button on yoke of driveline while sliding it onto the splined input shaft of the gearbox.
- 2) With the driveline fed onto the input shaft, release the push button. Slide the driveline further onto the shaft until the push button releases, locking the driveline onto the shaft.
- 3) Push and pull the driveline to ensure it is locked in place.
- 4) Attach shield retaining chain included with driveline to shield and A-frame. The chain keeps the driveline from rotating when the PTO is engaged. Make sure the chain is installed properly at all times to prevent rotation of shield.

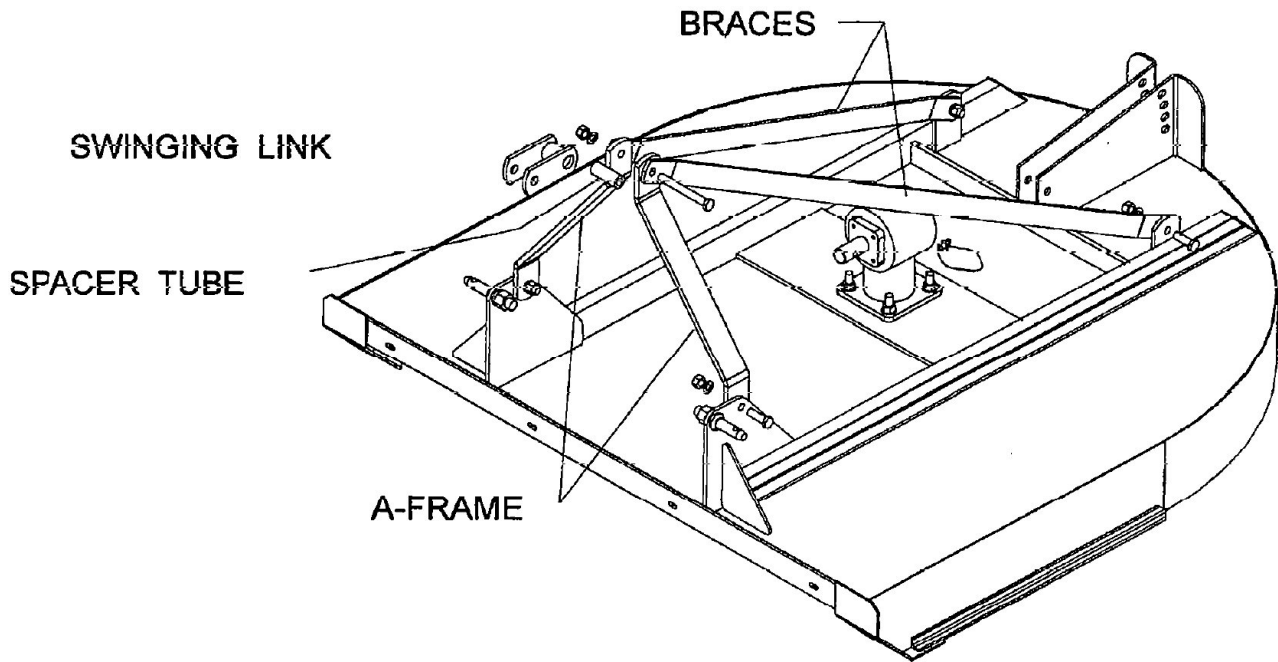


FIGURE 3 - A-FRAME AND BRACES

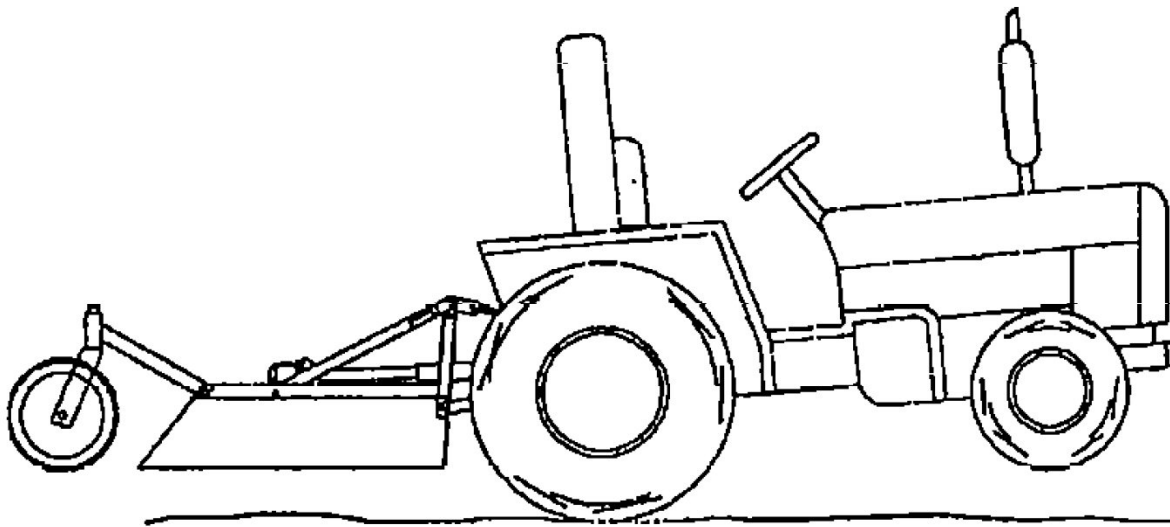
BEFORE OPERATION

- 1) Tighten all loose hardware using the torque chart. Replace any missing hardware. On new machines, all hardware must be rechecked after first few hours of operation.
- 2) Replace any bent or broken parts.
- 3) Perform lubrication on cutter as recommended.
- 4) Refer to your tractor's owners manual for recommended adjustments and weight distribution.
- 5) Check the cutter's gearbox level, unscrew pipe plug on side. Oil should run out. Add oil using SAE 90EP gear oil in top hole as required. **DO NOT OVERFILL!**
- 6) Check gearbox mount bolts to see that they are tight.
- 7) Check all shields and make sure they are in place.
- 8) Check blades for signs of wear or damage. Sharpen dull blades and replace bent or broken blades.
- 9) Read the safety section of this manual to be sure of all precautions.

TRACTOR STABILITY

WARNING

A minimum 20% of combined tractor and cutter weight must be on tractor front wheels with attachment in transport position. Without this weight, tractor could tip over causing personal injury or death. See tractor operator's manual for information regarding adding weights.



TRACTOR STABILITY

OPERATION

- 1) With the tractor at a slow idle, engage the PTO slowly and let the cutter run for several seconds.
- 2) Gradually increase throttle speed until operating speed is obtained. Listen for unusual noises or vibration. Shut the tractor off immediately if excessive noise or vibration occurs. Allow all moving parts to come to a complete stop and investigate cause.
- 3) A new gearbox will sound noisy in the first few hours of operation until the gears mesh.
- 4) Get to know the feel of your new cutter on familiar ground that is free of obstacles.

ADJUSTMENTS

WARNING

Do not make any adjustments while the cutter is in motion or when PTO is engaged.

Side To Side Leveling

- 1) Your cutter should be level from side to side. With the cutter and tractor on level ground, use the tractor's link arm crank to adjust the lower link arm up or down as needed to level the cutter.

Front To Rear Leveling

- 1) Adjust rear tailwheel to desired cutting height. Using the tractor's three point lift, position the front of the cutter 1" lower than the rear. At this slight angle the cutter does not require as much power. Fuel efficiency and cutter are thereby improved.

- 2) Adjust the top link in or out so the top swinging link is nearly below A-frame upper pivot.
- 3) Check the tailwheel to see that it contacts the ground. If it does not, reposition the rear tailwheel arm bolt to lower the tailwheel as needed to contact the ground.
- 4) If the tailwheel is too low causing too much front to rear tilt, adjust the tailwheel up by moving the rear bolt to the next hole. Readjust the top link to properly position the deck with slight tilt forward.

TRANSPORTING

- 1) Disengage PTO and allow all moving parts to completely stop.
- 2) Raise cutter to highest position for transport.
- 3) Transport at no more than 20 mph (30KPH).
- 4) Use care when transporting on rough terrain.
- 5) When traveling on public roads, always have a slow moving vehicle (SMV) emblem mounted to the tractor such that it is visible from the rear.
- 6) Avoid travel on public roads at night. Check local laws governing lighting requirements in addition to (SMV) emblem.

MAINTENANCE



Do not perform any maintenance while tractor is running or when cutter is in motion.

GEARBOX:

- 1) Check oil level by unscrewing side plug in gearbox about every 40 hours of use. Fill to side port using only SAE 90EP gear oil.
- 2) Check mount bolts before each use to be sure they are tight.

BLADE INSPECTION AND REPLACEMENT

Inspect blades before each use. Sharpen worn blades and replace in pairs if blades are damaged. To replace blades, follow the steps below:

- 1) Support cutter from below from all sides. **DO NOT** rely on tractor's hydraulic lift alone to support cutter. Be sure cutter is stable before proceeding.
- 2) Remove each blade nut and lock washer through the hole in the cutter deck behind the gearbox.
- 3) Using a punch, drive the blade bolts out of the blade holder.
- 4) Insert blade bolts in new blades so that flare in blade tip is up. Insert bolt with blade holder by aligning notch in hole with shoulder on bolt.
- 5) Replace lock washers and nuts on bolts and tighten. Torque to 650 ft-lbs. (881 N.m.)

SHEAR BOLT REPLACEMENT

On cutters with a shear bolt driveline, replace broken shear bolts with a Grade 2 - 1/2" x 3 - 1/2" shear bolt and lock nut. **Replacement of shear bolt with a bolt higher than Grade 2 may cause serious damage to the cutter and voids the manufacturer warranty!**

SLIP CLUTCH

Operational Check

On a new unit or one that has been stored between seasons, perform the following check.

- 1) Loosen all spring retaining nuts until springs can be turned with fingers.
- 2) With tractor at idle speed, engage PTO for 2-3 seconds. Clutch should slip without turning blades. If not contact your dealer.
- 3) Retighten nuts to compress springs according to diagram. Dim "A" = 1.28" (32.5mm) for Comer clutches.

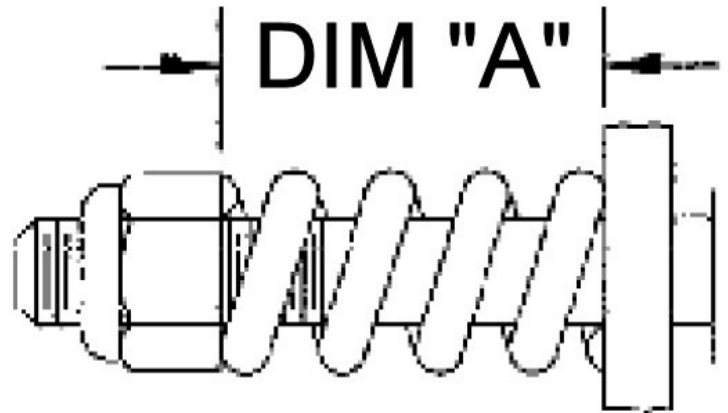
IMPORTANT

Failure to retighten nuts can cause damage to implement and/or tractor due to improper slip clutch torque settings.

ADJUSTMENT:

The slip clutch is designed to slip when blades encounter heavy brush or solid permanent solid objects. If this is not occurring or if the clutch slips too much (i.e. the clutch begins to smoke), adjustment should be made as follows.

- 1) Check to be sure all springs are compressed to the correct length. Adjust spring length by tightening or loosening retaining nut.
- 2) If clutch still performs improperly, tighten or loosen all nuts in 1/32" (0.81 mm) increments until clutch performs properly.
- 3) If excessive adjustment is necessary, consult dealer.



LUBRICATION SCHEDULE

Clean grease fittings before applying grease. Use multi-purpose lithium base grease.

Before Each Use

Tailwheel - Apply grease at arm fitting and hub fitting.

Driveline - Lubricate universal joints at fittings and shield fittings.

EVERY 8 HOURS

Driveline - Lubricate universal joints at fittings and shield fittings.

EVERY 16 HOURS

Lubricate push buttons with oil.

Disconnect driveline and separate sections. Apply a thin coat of grease to outside of male shaft. Reassemble driveline and install. Be sure driveline is locked in place and shield retaining chain is properly attached.

Gearboxes use SAE 90EP Gear oil if needed.

STORAGE

- 1) Clean all debris from cutter deck and driveline.
- 2) Store cutter on a level surface sheltered from the weather.
- 3) Lower cutter to ground for storage and block to prevent rolling.
- 4) Store cutter supported on blocks to allow air circulation beneath cutter.
- 5) Support tractor end of driveline to keep off the ground.
- 6) Keep playing children and bystanders away from storage area.

SAFETY DECALS

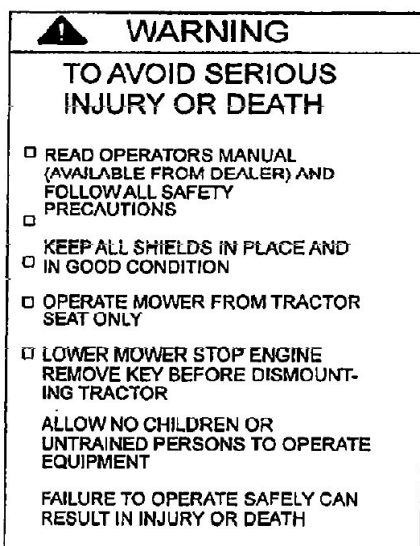
ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED

REPLACE IMMEDIATELY IF DAMAGED!

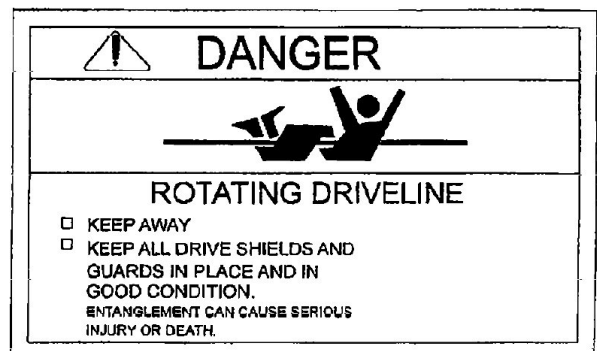
The following safety decals are located on your cutter. Read them and follow their instructions. Keep all decals in place and legible. Replace worn or missing decals. Replacement safety decals are available through your dealer. Order by number listed. **Complete Decal Set #815997**



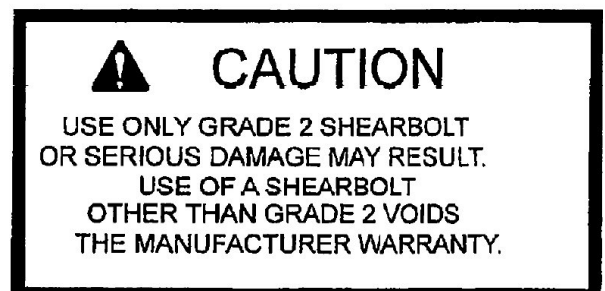
ON RIGHT FRONT OUTER CORNER OF DECK



ON LEFT FRONT OF DECK



ON FRONT CENTER OF DECK

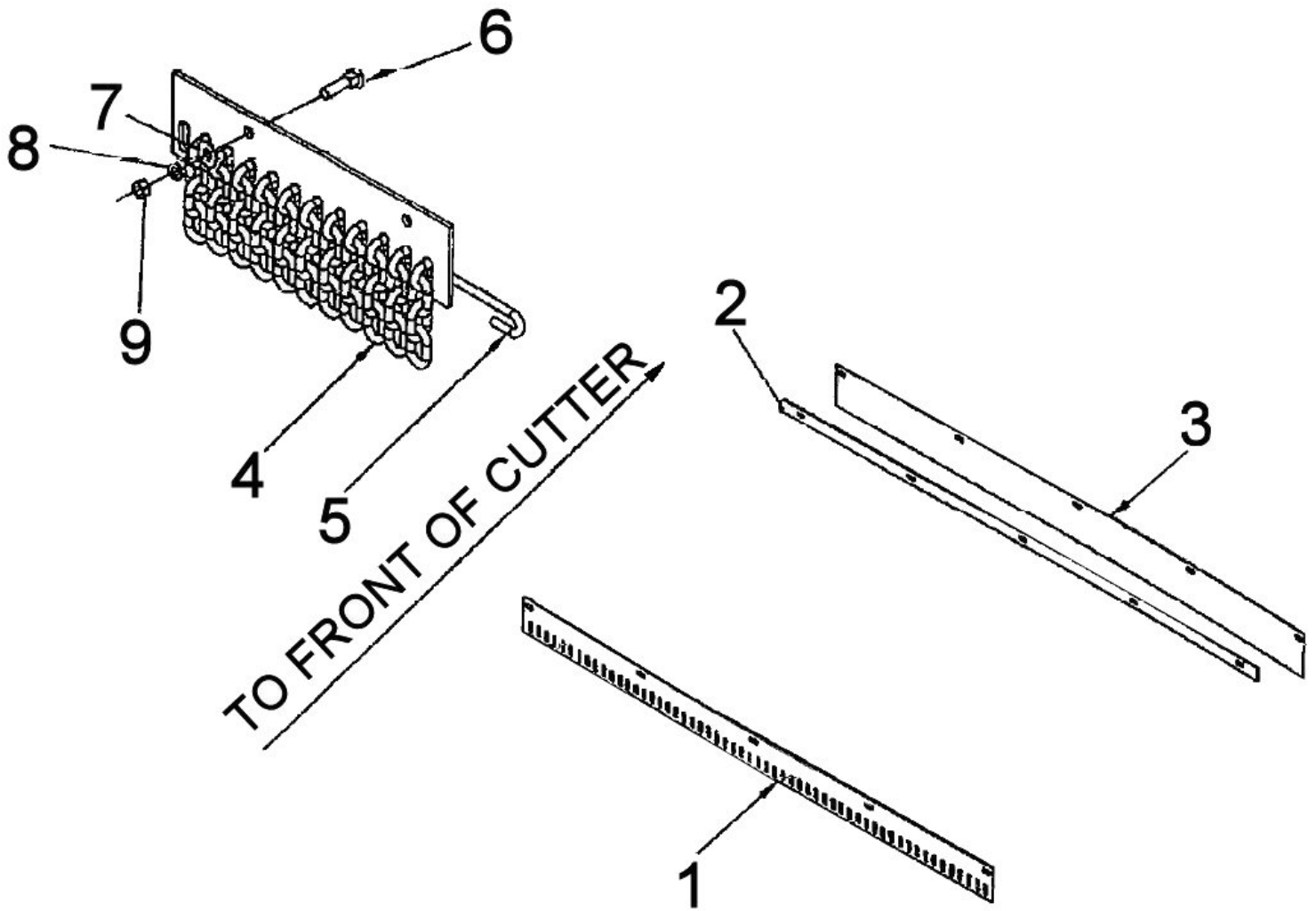


NEXT TO GEARBOX - SHEARBOLT MODELS ONLY



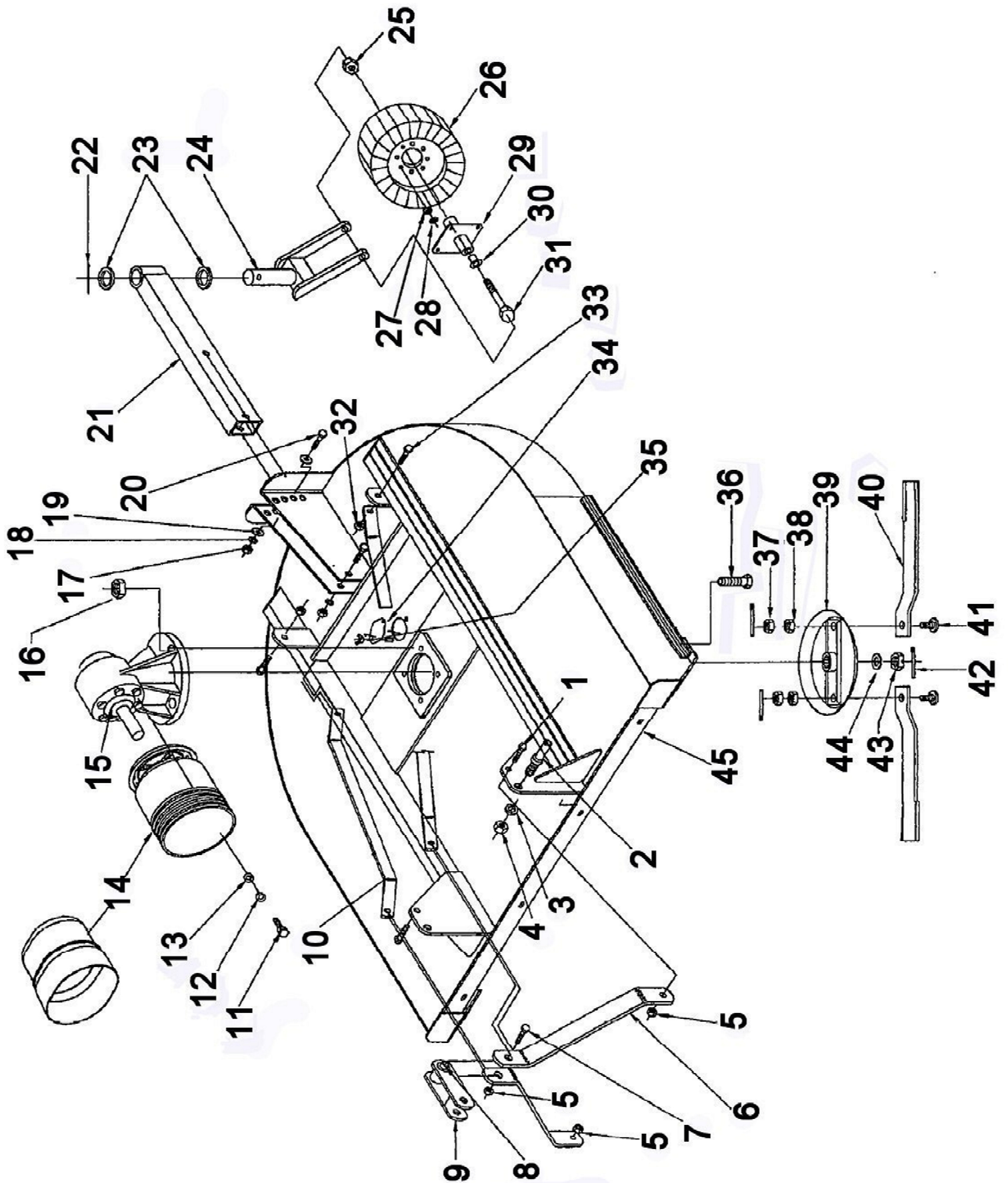
ON FRONT OF DECK NEAR LEFT DECK RAIL

SAFETY SHIELDING



Ref No.	DESCRIPTION	Part #
1	CHAIN PLATE FOR 5' CUTTER (Optional) CHAIN PLATE FOR 6' CUTTER (Optional)	811754 811759
2	HOLD DOWN BELT FOR 5' CUTTER HOLD DOWN PLATE FOR 6' CUTTER	815533 815536
3	FRONT BELT FOR 5' CUTTER (Optional) FRONT BELT FOR 6' CUTTER (Optional)	815532 815535
4	CHAIN SEGMENT 5/16" X 4-LINK	805325
5	CHAIN ROD FOR 5' CUTTER CHAIN ROD FOR 6' CUTTER	806728 806731
6	CARRIAGE BOLT 3/8" X 1-1/2" - NC GR. 5	303839
7	FLATWASHER 3/8"	303969
8	LOCKWASHER 3/8"	303953
9	HEX NUT 3/8" - NC	304005
	COMPLETE CHAIN KIT FOR 5' CUTTER	815558
	COMPLETE CHAIN KIT FOR 6' CUTTER	815561
	COMPLETE BELT KIT FOR 5' CUTTER	815581
	COMPLETE BELT KIT FOR 6' CUTTER	815582

CUTTER PARTS DIAGRAM

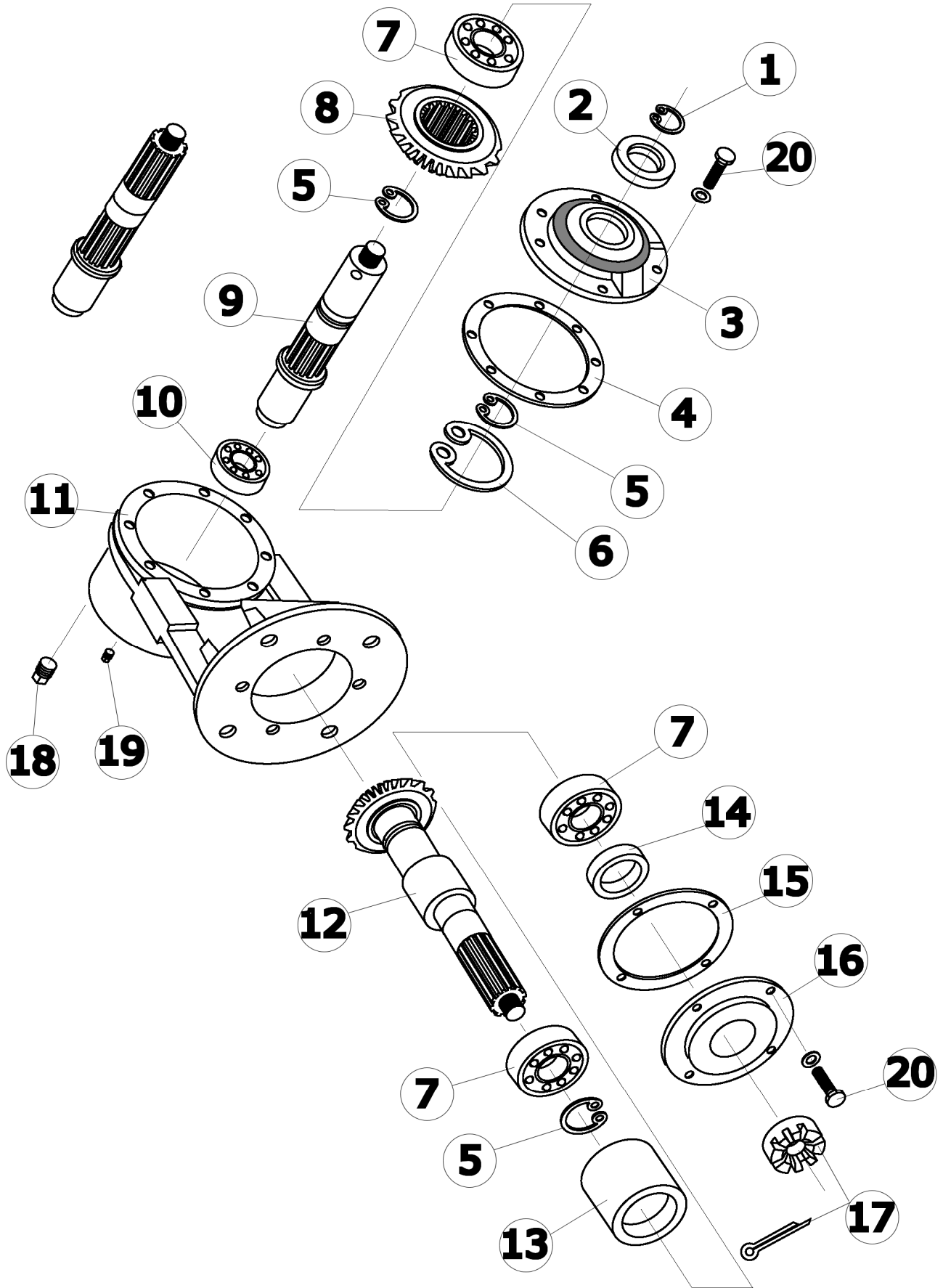


CUTTER PARTS

Ref No.	DESCRIPTION	Part #
1	HHCS 5/8" X 2" GR. 5	303676
2	CAT 1 LIFT PINS (PK. 2)	203266
3	LOCKWASHER 7/8"	303958
4	HEX NUT 7/8" NF	304082
5	HEX LOCK NUT 5/8" NC	304021
6	A-FRAME	815456
7	HHCS 5/8" X 5-1/2" GR. 5	303685
8	SPACER	505772
9	SWINGING LINK	505771
10	A-FRAME BRACE	814674
11	HHCS M8 X 16	305202
12	LOCK WASHER 5/16"	303952
13	FLAT WASHER 5/16"	303968
14	GEARBOX SHIELD W/METAL ADAPTER GEARBOX SHIELD ALL PLASTIC	814595
15	GEARBOX SHEARBOLT GEARBOX SLIPCLUTCH	184005 184010
16	HEX FLANGES 5/8" NC SERRATED	304073
17	HEX NUT 5/8" NC	304008
18	LOCK WASHER 5/8"	303956
19	FLAT WASHER 5/8"	505140
20	HHCS 5/8" X 3-1/2" GR. 5	303681
21	TAILWHEEL ARM GREASE FITTING	500642 304194
22	ROLL PIN 3/8" X 2"	304260

Ref No.	DESCRIPTION	Part #
23	FLAT WASHER 1-1/4" SAE	303977
24	TAILWHEEL FORK	505245
25	HEX LOCKNUT 1" NC	304024
26	LA+MINATED TAILWHEEL	505138
27	LOCKWASHER 1/2"	303955
28	HEX NUT 1/2" NF	304083
29	HUB	191100
30	METAL BUSHING FOR HUB	505140
31	HHCS 1" X 7-1/2" NC GR. 5	303766
32	HEX LOCKNUT 5/8"	304021
33	HHCS 5/8" X 2" NC GR. 5	303676
34	ACCES HOLE COVER	811650
35	WING NUT 3/8"	304214
36	HHCS 5/8" X 2-1/2" NC GR. 5	303678
37	CASTLE NUT 1-1/8" NF GR. 8 COTTER PIN	304765 304111
38	LOCK WASHER 1-1/8" GR. 8	303960
39	STUMP JUMPER	812315
40	BLADE FOR 5' CUTTER BLADE FOR 6' CUTTER	810069 810071
41	BLADE BOLT KIT (Comes with Nut, Washer & Cotter Pin)	50514501
42	COTTER PIN B5 X 50	505129
43	CASTLE NUT	809318
44	FLAT WASHER	809288
45	DECK WELDMENT 5' DECK WELDMENT 6"	815440 815470

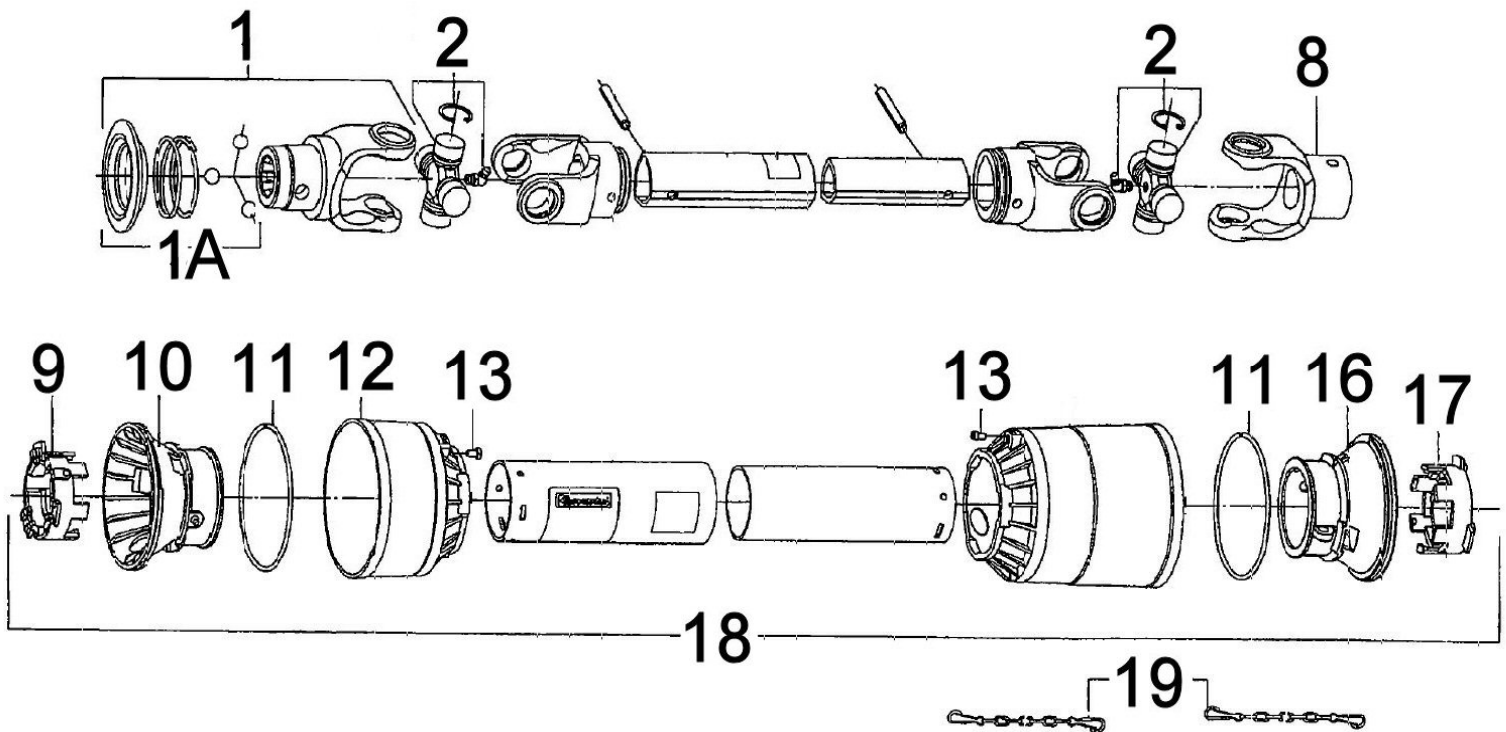
40 HP GEARBOX



GEARBOX PARTS

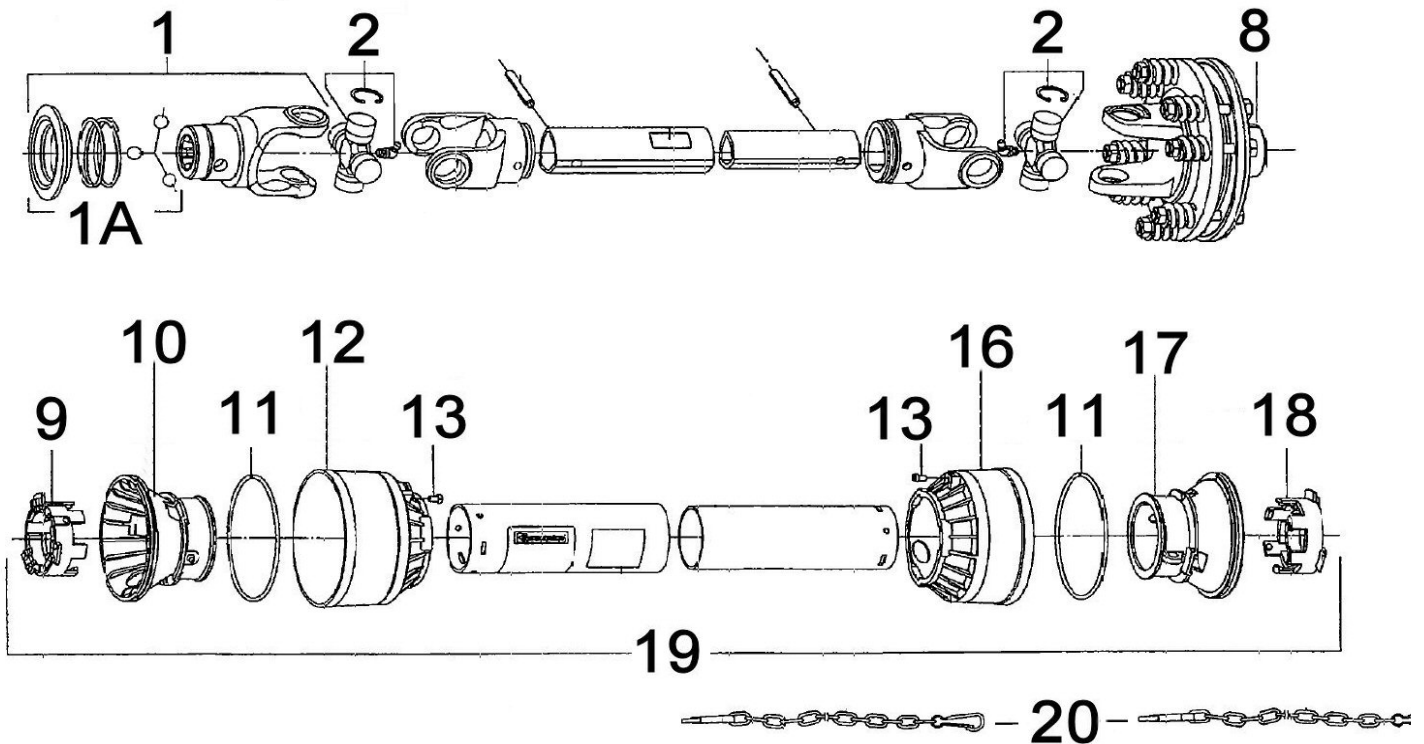
Ref. No.	Part Name	Gearbox 184005	Gearbox 184010
1	SNAP RING	106138	106138
2	INPUT SEAL (NAK 35 x 54 x 10)	156010	156010
3	FRONT CAP	129015	129015
4	FRONT CAP GASKET	124130	124130
5	SNAP RING	131031	131031
6	SNAP RING	131030	131030
7	BEARING (Hoover 208)	155005	155005
8	INPUT GEAR	185010	185010
9	INPUT SHAFT	186010	186005
10	BEARING (NSK 6207)	155010	155010
11	HOUSING	129010	129010
12	OUTPUT SHAFT	185006	185006
13	SPACER	131045	131045
14	OUTPUT SEAL (NAK 40 x 54 x 7)	156005	156005
15	BOTTOM CAP GASKET	124131	124131
16	BOTTOM CAP	129005	129005
17	1" CASTLE NUT /w WASHER & COTTER PIN	501110	501110
18	1/2" PIPE PLUG	131035	131035
19	1/8" PIPE PLUG	131040	131040
20	3/8" x 1" BOLT & LOCK WASHER	-	-

SHEAR BOLT PTO COMPONENTS



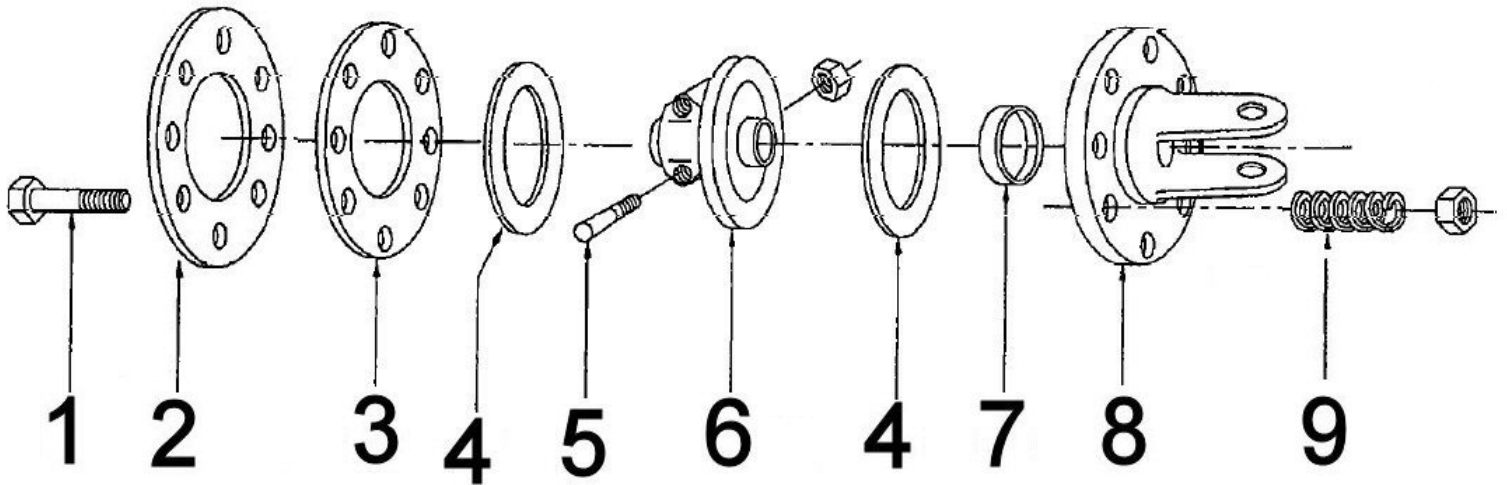
Ref. No.	Part Name	Part #
1	TRACTOR YOKE WITH LOCK COLLAR	505059
1A	TRACTOR LOCK COLLAR KIT	699526
2	CROSS & BEARING KIT	505062
3	NA	NA
4	NA	NA
5	NA	NA
6	NA	NA
7	NA	NA
8	IMPLEMENT YOKE -SHEARBOLT	505071
9	BEARING SHIELD OUTER - 40	699561
10	RIGID CONE OUTER TUBE	699547
11	RING/CONE STIFFNER	699569
12	STANDARD SOFT CONE	699552
13	PLASTIC BEARING RETAINER PIN	699567
14	NA	NA
15	NA	NA
16	CONE/RIGID - INNER TUBE	699544
17	BEARING SHIELD - INNER - 40	699556
18	SHIELD COMPLETE	699586
19	ANTI ROTATION CHAIN	505103
	COMPLETE SHEAR BOLT DRIVELINE	814593

SLIP CLUTCH PTO COMPONENTS



Ref. No.	Part Name	Part #
1	TRACTOR YOKE WITH LOCK COLLAR	505059
1A	TRACTOR LOCK COLLAR KIT	699526
2	CROSS & BEARING KIT	505062
3	NA	NA
4	NA	NA
5	NA	NA
6	NA	NA
7	NA	NA
8	SLIP CLUTCH ASSEMBLY	699500
9	BEARING SHIELD OUTER - 40	699561
10	RIGID CONE OUTER TUBE	699547
11	RING/CONE STIFFNER	699569
12	STANDARD SOFT CONE	699552
13	PLASTIC BEARING RETAINER PIN	699567
14	NA	NA
15	NA	NA
16	CONE/SHORT SOFT	699549
17	CONE/RIGID - INNER TUBE	699544
18	BEARING SHIELD - INNER - 40	699556
19	SHIELD COMPLETE	699578
20	ANTI ROTATION CHAIN	505103
	COMPLETE SLIP CLUTCH DRIVELINE	810323

SLIP CLUTCH COMPONENTS



Ref. No.	Part Name	Part #
1	HHCS M10 X 80 & NUT	505455
2	PRESSURE PLATE	699515
3	INNER PLATE - FD1	699513
4	CLUTCH LINING - 140 MM DIA - FD1	699519
5	LOCK BOLT KIT M12 1-3/8"	699530
6	CLUTCH/HUB WWITH FLANGE	699505
7	SLEEVE	699592
8	FLANGED YOKE	699507
9	SPRING	699517
	COMPLETE SLIPCLUTCH	699500



1. Limited Warranty.

King Kutter, Inc. (“King Kutter”), P.O. Box 1200, Winfield, Alabama 35594, warrants to the original retail purchaser (“Purchaser”) that the product that is the subject of this sale is free from defects in material and workmanship at the time of sale.

Under this warranty, King Kutter will repair the defective product free of charge to the Purchaser, with either new or used and reconditioned replacement parts. All warranty service will be performed at service centers designated by King Kutter. If King Kutter is unable to repair the product to conform to the warranty after a reasonable number of attempts, King Kutter will provide, at its option, one of the following: (a) a replacement for the product or, (b) a full refund of the purchase price. Repair, replacement, or refunds are the Purchaser’s EXCLUSIVE remedies against King Kutter under this limited warranty. King Kutter will not be liable for any special, incidental or consequential damages based upon breach or warranty, breach of contract, negligence, strict tort liability, or any other legal theory. Such damages include, but are not limited to, loss of profits, loss of savings or revenue, loss of use of the product or any associated equipment, cost of capital, cost of any substitute equipment, facilities or services, down time, the claims of third parties including customers, and injury to property. These limitations also apply, to the extent allowed by law, to personal injury.

The purchaser must notify the Seller in writing of any defect in material or workmanship within one (1) year following the date of purchase. If the equipment is used for commercial purposes, the Purchaser must notify the Seller in writing of any defect in material or workmanship within ninety (90) days following the date of purchase. In no event will King Kutter be liable under this warranty unless written notice is received by the Seller within one (1) year from the date of original retail sale.

2. Warranty of Title.

King Kutter warrants that it transfers a good title to the product free of any encumbrances, and free of the rightful claim of any third party for infringement of patent or copyright.

3. What is Not Covered by This Limited Warranty.

King Kutter will not be responsible for damage to or failure in the product which results from accident, misuse, abuse, neglect, installation of attachments not provided by King Kutter, modifications to the product, or damage caused by use of the product for purposes other than those for which it was designed.

4. No Other Warranties.

Unless modified in writing and signed by both parties, this agreement is understood to be the complete and exclusive agreement and warranty between King Kutter and Purchaser, superseding all prior agreements, oral and written, and all other communication between King Kutter and Purchaser related to the subject matter of this agreement.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. No employee of King Kutter nor anyone else is authorized to make any warranty or representation in addition to or different from those made in this agreement.

5. Allocation of Risk.

This agreement allocates the risk of product failure between King Kutter and the Purchaser. This Allocation is recognized by both parties as reflected in the price of the goods. The Purchaser acknowledges that he or she has read this agreement, understands it, and is bound by its terms.