



# Operation, Parts and Service Manual

## Rotary Tiller

**Cammond Industries**

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# Thank you for choosing CAMMOND!

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Safe, trouble free operation of your implement requires that you and anyone else who will be operating or maintaining it, read and understand the safety and operating instructions.

Keep this manual handy for future reference. Contact your dealer if you need assistance, information or additional copies of this manual.

## General Safety Information

Note the use of the signal words Danger, Warning and Caution with the safety messages. The appropriate signal word each has been selected using the following guidelines:



### **Danger!**

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

### **Warning!**

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, 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 practices.

Safety of the operator is one of the main concerns when designing and developing a new piece of equipment. You, the operator, can avoid many accidents by observing the following precautions in this section.

- Replace any CAUTION, WARNING, DANGER or instruction safety decal that is not readable or is missing.
- Do not attempt to operate this equipment under the influence of drugs or alcohol.
- Review the safety instructions with all users.

This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with the equipment and its operation. Do not allow persons to operate this unit until they have developed understanding of the safety precautions and of how it works.

To prevent injury or death, use a tractor equipped with a Roll Over Protective System (ROPS). Do not paint over, remove or deface any safety signs or warning decals on your equipment, Observe all safety signs and practice instructions on them.

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.

Remember - Your best assurance against accidents is a careful and responsible operator. If there is any portion of this manual or function you do not understand, contact your local dealer or manufacturer.

If you have questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or Cammond Industries.



## **SAFETY TRAINING**

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

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.

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.

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 tiller owner’s responsibility to make certain that the owner’s manual be available to the operator prior to operating:

- Reads and understands the operator’s manuals.
- Is instructed in safe and proper use.

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

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.

## EQUIPMENT SAFETY GUIDELINES

Safety of the operator and bystanders is one of the main concerns in designing and developing a tiller. 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.

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.

- Replace any safety sign that is not readable or missing. Locations of such safety signs are indicated in this manual.
- 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.
- 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 how it works. Review the safety instructions with all users annually.
- 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.
- Use a tractor equipped with a Roll Over protective System and seat belts. (ROPS)
- 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.
- 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.
- 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 tiller manuals. Pay close attention to the safety signs affixed to the tractor and the tiller.

# ROTARY TILLER ASSEMBLY INSTRUCTIONS

## STEP 1

If rotary tiller still is in crate, lay flat on a level surface. Cut banding straps on the two (2) upright crate posts.

## STEP 2

Remove the top & upper side sections of the crate, leaving the rotary tiller resting on the bottom section.

## STEP 3

Remove tie wire holding the PTO shaft and set aside PTO.

## STEP 4

Attach tiller according to your tractors manual and using the instructions

## STEP 5

Install tail back plate chain.

## STEP 6

Install PTO shaft as outlined in the Attaching to Tractor Section

**Note:** The safety chains on the PTO shaft should be attached to the tractor and tiller to prevent the plastic safety shield from rotating. BEFORE PUTTING ROTARY TILLER INTO SERVICE (IMPORTANT-INSTRUCTIONS PRIOR TO START UP) SHIPPED WITHOUT OIL IN GEAR BOXES AND WITHOUT GREASE IN GREASE FITTINGS. UNIT MUST BE SERVICED BEFORE USING.

- Fill gearbox using gear oil (type GL5-85W 140 or Triple Zero Grease; which can be poured, and has "EP" i.e. "Extreme pressure" additives.)
- For all Grease Fittings use TYPE/grade II tube grease.

## STEP 1

Place rotary tiller so that the deck is secure and level.

## STEP 2

Remove 1/2" Pipe Plug (Located at top of transmission gearbox).

## STEP 3

Fill gearbox using gear oil until gearbox is approximately 1/2 full.

## STEP 4

Replace and tighten the 1/2" pipe plug and clean away any excess oil.

## STEP 5

Remove 1/2" Pipe Plug (Located at top of side gearbox) and the 1/8" check plug (Located in side of the side gearbox).

## STEP 6

Fill side gearbox using gear oil until the oil begins to overflow from the checkplug hole.

## STEP 7

Replace and tighten the 1/2" vent plug and the 1/8" check plug. Clean away any excess oil.

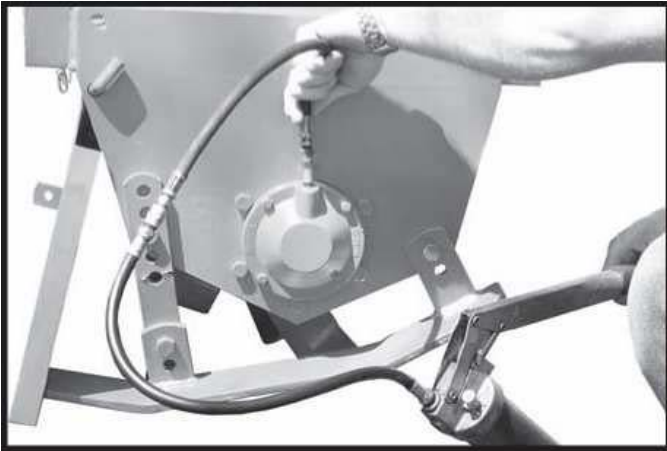
**STEP 8**

Grease the grease fitting on the "out-board hub," the two (2) grease fittings on the PTO universal joints, the two (2) grease fittings on the PTO safety shield and the inner surface portion of the PTO shaft. See Figures G,H and I.

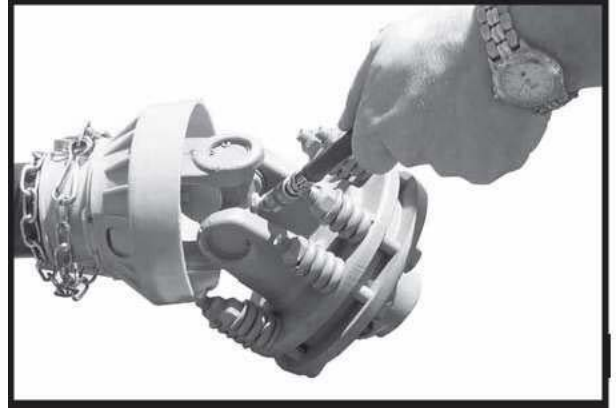


**CAUTION:** DO NOT overfill gearbox. This could cause damage to oil seals and can cause permanent damage to the gearbox. This issue will not be covered under warranty.

*FIGURE G*



*FIGURE H*



*FIGURE I*



## PREPARATION

- Never operate the tractor and tiller 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 tiller.
- Personal protection equipment including hardhat, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustment, maintenance, re-pairing, removal, or moving the implement. Do not allow long hair, loose fitting clothing, or jewelry to be around equipment.
- **PROLONGED EXPOSURE TO LOUD NOISE** may cause **PERMANENT HEARING LOSS!** Tractors with or without tillers 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 80db. Noise over 80db 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.

- Operate the tiller 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.
- Clear area to be tilled of stones, ranches or other debris that might be thrown or entangled in the tiller, causing injury or damage.
- Operate only in daylight or good artificial light.
- Ensure tiller is properly mounted, adjusted and in good operating condition.
- Ensure that all safety shielding and safety signs are properly installed and in good condition.

## STARTING AND STOPPING SAFETY

- 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.
- All tractors that are not equipped with live power take off (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.

- Tiller operating power is supplied from the tractor PTO. Refer to your tractor manual for PTO engagement and disengagement instructions. Know how to stop tractor and tiller quickly in case of an emergency.
- When engaging PTO, the engine RPM should always be at idle speed. Once engaged and ready to start tilling, raise PTO speed to 540-RPM and maintain throughout tilling operation.

## OPERATIONAL SAFETY

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, contact Cammond or your dealer, to explain it to you.

Most accidents occur because of neglect or carelessness. Keep all helpers and bystanders at least several hundred feet from an operating rotary tiller. Only properly trained people should operate this machine.

The majority of the accidents involve entanglement on the driveline, injury of bystanders by the objects thrown by the rotating tines, and operators being knocked off the tractor. 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 tiller.

- The rotary tiller is designed for use only on tractors with the power take-off (PTO) turning at 540-RPM.
- Install and secure all guards and shields before starting or operating. The tiller tines, 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 chain links, shields, or guards. (Worn items must be replaced at once to reduce possibility of injury.)
- Disengage power takeoff (PTO) and place transmission in neutral before attempting to start engine.
- Many varied objects, such as wire, cable, rope, or chains, can become entangled in the operating parts of the tiller. These items could then swing outside the housing at greater velocities than the tines. Such a situation is extremely hazardous. Inspect the cutting area for such objects before tilling. Remove any like objects from the site.
- Never allow the tilling tines to contact such items. Never assume an area is clear. Always Check!
- Always stop the tractor, disengage PTO, set brake, shut off the tractor engine, remove the ignition key, lower implement to the ground and allow rotating pieces to come to a complete stop before dismounting tractor. Never leave equipment unattended with the tractor running.
- Never place hands or feet under tiller with tractor engine running or before you are sure all motion has stopped. Stay clear of all moving parts.
- Do not reach or place any part of your body under equipment until it is blocked securely.
- Do not allow riders on the rotary tiller or tractor at anytime. There is no safe place for any riders.
- Do not operate unless all personnel, livestock, and pets are several hundred feet away to prevent injury by thrown objects.
- Never operate tractor and rotary tiller under trees with low hanging limbs. Operators can be knocked off the tractor and then run over by the rotating tines.
- 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 tilling tines to contact such obstacles.

- Stop rotary tiller and tractor immediately upon striking an obstruction. Turn engine off, remove key, inspect and repair any damage before resuming operation.
- 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. 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 wheel weights, front tractor weight, and/or tire ballast should be used to improve stability.
- Pass rotary tiller diagonally through sharp dips and avoid sharp drops to prevent “hanging up” tractor and rotary tiller. Practice will improve your skills in maneuvering on rough terrain. Always cut down slopes, never across. Always check tractor manual for proper use on slopes.
- 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**

Comply with state and local laws governing highway safety and movement of farm machinery on public roads.

- 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
- At all times, when driving the tractor and equipment on the road or high-way under 20mph (32kph) 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.
- Plan your route to avoid heavy traffic.
- Always install transport locks, pins or brackets before transporting.
- Do not drink and drive.
- 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.
- 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 steering. Slow down on rough or uneven surface. Always check tractor manual for proper use on slopes.
- Use extreme care and maintain minimum ground clearance and when operating close to ditches or fences. Be careful when turning sharp corners.
- Never allow riders on either tractor or tiller.

## ATTACHING TO TRACTOR



**WARNING:** Never stand between tractor and rotary tiller 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.

### 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 tiller in order to locate the shortest distance between equipment gearbox input shaft and tractor PTO output shaft. With the rotary tiller in the shortest distance position shut down the tractor and **SECURELY BLOCK ROTARY TILLER 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.

### 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 point 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 tiller and remove blocking. Raise and lower rotary tiller in order to locate the longest distance between equipment input shaft and the tractor PTO output shaft. With the rotary tiller in the longest distance position shut down the tractor and **SECURELY BLOCK THE ROTARY TILLER 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 Dealer.

**NOTE:** If the PTO shaft length is too long go to **SIZING PTO SHAFT**

### STEP 8

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

### 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 & -B)

### STEP 2

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

### STEP 3

Figure 1-B 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. (Figure 2)

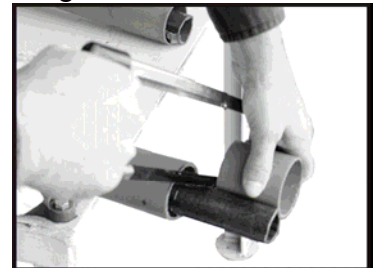
Figure 1-A



Figure 1-B



Figure 2



# OPERATING INSTRUCTIONS

## STEP 1

Before each use, perform the maintenance described in maintenance section.

## STEP 2

Read, understand, and follow the information on safety training, preparation, starting and stopping safety, operational safety, transport safety warning sections of this manual.

## STEP 3

With the rotary tiller positioned on level ground, adjust the tractor lift arms so that when lifted, the rotor arm remains parallel to the ground.

## STEP 4

With the rotary tiller attached to the tractor, raise and support the tiller with suitable blocks. Adjust the skids, located on the sides of the tiller. The adjustment bolts for both right and left sides should be positioned in the same adjustment hole. This allows the tiller to till the same depth on each side. Adjust the back plate, with regulating chain, until the desired mulching effect is found.

**Note:** Never attempt to adjust the rotary tiller while the tractor is running.

## STEP 5

Raise the tiller and remove the blocks. Lower the tiller to the ground.

## STEP 6

With the tractor at idle RPM and the tiller lifted off of the ground, engage PTO and slowly advance throttle to 540 PTO RPM.

NOTE: rotary tiller is designed to run at 540 PTO RPM only.

## STEP 7

Select a low gear for the tractor and begin to move forward. Tractor ground speed is to be controlled by gear selection only and not engine speed. As the tractor moves forward, slowly lower the tiller down. Allow the tiller tines to gradually engage the ground.

**NOTE:** Do not allow the tractor engine or rotary tiller to bog down or stall. This causes undue wear and tear on the tiller and tractor. If this continues to happen reduce ground speed and raise tilling depth of rotary tiller. Never attempt to remove objects from the rotor bar until the tractor has been shut down and the tiller tines have completely stopped.



**WARNING:** Never travel at a fast ground speed while sitting on the tiller, this could damage it. Never attempt to turn the tractor or travel in reverse with the PTO engaged and the tiller in the ground. Always raise the tiller out of the ground when backing up or attempting to turn. Failure to do so may cause damage to the tiller.

## STEP 8

After each use clean all debris from the tiller tines. Replace any missing or illegible safety decals. Inspect for any damaged or worn parts and replace before next use. Store rotary tiller in a dry environment.

## MAINTENANCE

- Periodically check and maintain proper gear oil level.
- Every 8 hours, (1) grease out-board hub, (2) PTO shaft universal joints, (3) PTO shaft safety shield and (4) PTO telescoping surface.

**NOTE:** Use only a grade Type II tube grease.

**NOTE:** Do not grease the slip clutch assembly.

- Before each use check to make sure all safety shields are installed and working properly.
- Check tiller tines for cracks and breaks before every use.
- Periodically check all nuts and bolts to insure they are tight and secure.
- Periodically loosen torque spring bolts and allow slip clutch to slip for approximately two (2) revolutions.
- Loosen the bolts until the springs lose contact with the flange choke. This ensures that the slip clutch is not in a "locked" position.
- Make sure that the clutch slips.
- To retighten the slip clutch, tighten the torque spring bolts until the nut makes contact with the flange yoke and further tighten one and a half turns (1-1/2). This is a good starting point; further adjustments may need to be made based on soil conditions.

**NOTE:** Do not over or under tighten slip clutch assembly or damage may occur.

- Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
- Follow good shop practices.
- Keep service area clean and dry. Be sure electrical outlets and tools are properly grounded
- Use adequate light for the job at hand.
- Make sure there is plenty ventilation. Never operate the engine of the towing vehicle in a closed building. The exhaust fumes may cause asphyxiation.
- Before working on this machine, disengage the PTO, shut off the engine, set the brakes, and remove the ignition keys.
- Be certain all-moving parts on attachments have come to a complete stop before attempting to perform maintenance.
- Never work under equipment unless it is blocked securely.
- Always use personal protection devices such as eye, hand and hearing protectors, when performing any service or maintenance.
- Frequently check tiller tines. They should be sharp, free of nicks and cracks and securely fastened.

- Periodically tighten all bolts, nuts, and screws and check that all cotter pins are properly installed to ensure unit is in safe condition.
- When completing maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.
- After servicing, be sure all tools, parts and service equipment are removed from tiller.
- Do not allow debris, grease or oil to build up on any deck or platform.
- Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications.
- The manufacturer will not be responsible for injuries or damages caused by use of unapproved parts and/or accessories.
- A fire extinguisher and the first aid kit should be kept readily accessible while performing maintenance on this equipment.

## **STORAGE SAFETY**

Following operation, or when unhooking the tiller, stop the tractor, set the brakes, disengage the PTO, shut off the engine and remove the ignition keys.

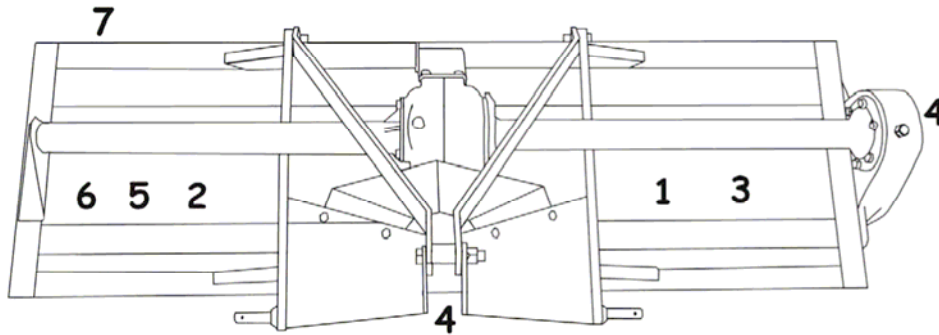
- Store the unit in an area away from human activity.
- Do not park equipment where it can be exposed to direct contact to livestock for long periods of time. Damage and livestock injury could result.
- Make sure all parked machines are on a hard, level surface and engage all safety devices.

# SAFETY DECAL LOCATIONS

The types of safety decals and locations on the equipment are shown in the illustration below. Good safety requires that you familiarize yourself with the various decals, the type of warning and the area, or particular function related to that area, that requires your SAFETY AWARENESS.

**NOTE:** The numbers represent the safety decals.

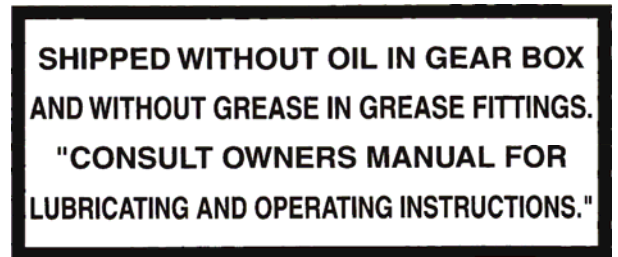
**REMEMBER:** If safety signs have been damaged, removed, become illegible or parts have been replaced without signs, new safety signs must be applied. New safety signs are available from your authorized dealer, distributor or factory.



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3

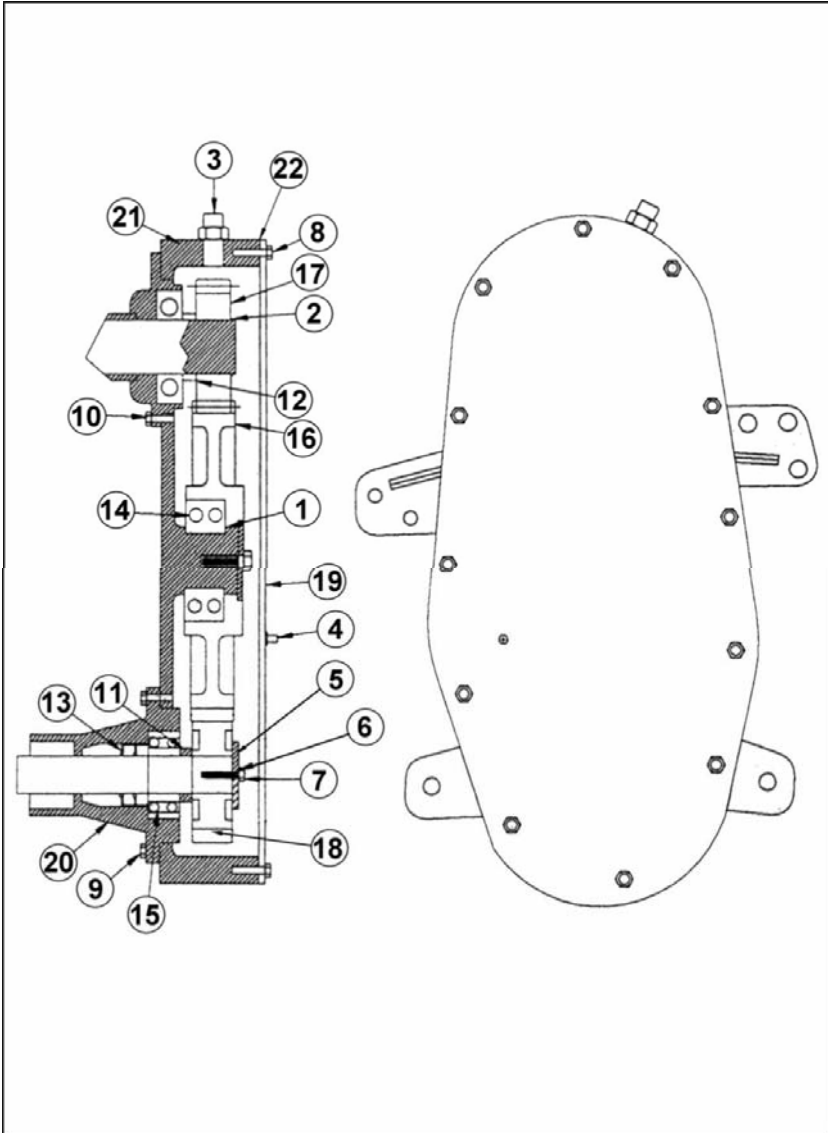


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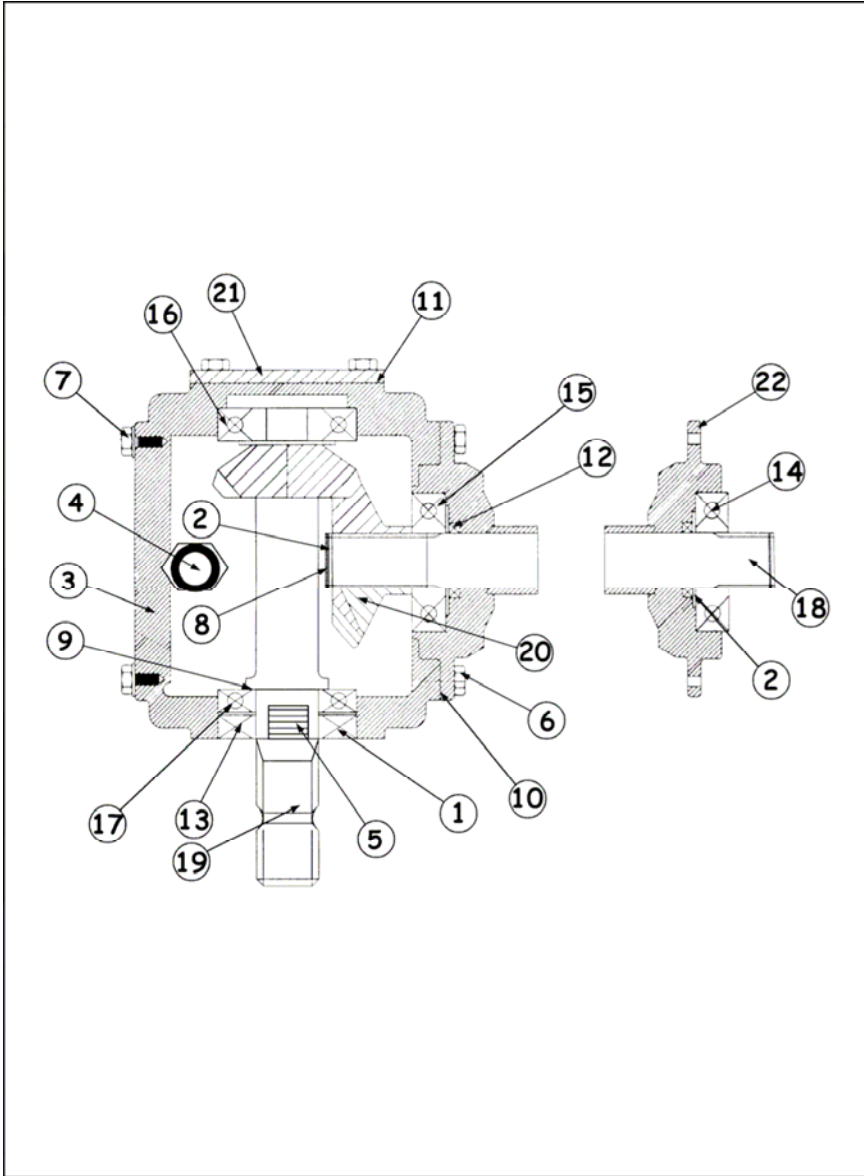
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# SIDE GEARBOX DIAGRAM



Ref. No.	Part Name
1	Retaining Ring 90mm
2	Retaining Ring 40mm
3	Pressure Plate Plug 1/2"-14 NPT
4	Sq. Hd. Plug 1/4"-18 NPT
5	Flat Washer (main)
6	Lockwasher M-12
7	Bolt M-12-25
8	Bolt M-8-1 6 (pck. of 12)
9	Bolt M-1 0-25 (pck. of 6)
10	Bolt M-1 0-20(pck. of 6)
11	Spacer (output)
12	Spacer (input)
13	Seal Double Lip(Pkg-2)
14	3210C Dbl. Bearing (Ball)
15	1310 Self Aligning Bearing (Ball)
16	Gear - 34 Teeth
17	Gear - 16 Teeth
18	Gear - 28 Teeth
19	Cover
20	Side Box Outboard Hub Housing
21	Housing

# TOP GEARBOX ASSEMBLY



Ref. No.	Part Name
1	Retaining Ring 72mm
2	Retaining Ring 40mm
3	Housing RTA-50
4	Pressure Relief Plug 1/2"-14 NPT
5	Sq. Hd. Plug 1/4"-18 NPT
6	Bolt M-1 0-25 (pck. of 6 )
7	Bolt M-1 0-30 (pck. of 4)
8	Spacer
9	Shim Pack (pck. of 8)
10	Output Gasket 0.8 mm
10	Output Gasket 0.5 mm
11	Input Gasket 0.4 mm
11	Input Gasket 0.2 mm
12	Output Seal (Double Lip)
13	Input Seal (Double Lip)
14	Sealed Ball Bearing (6308)
15	Ball Bearing (6308)
16	Ball Bearing (6307)
17	Ball Bearing (6207)
18	Output Shaft TG-48 500 mm
18	Output Shaft TG-60 700 mm
18	Output Shaft TG-72 900 mm
19	Pinion Shaft 13 Teeth
20	Output Gear 19 Teeth
21	Cap Blank
22	Cap Hub TG-48 500 mm
22	Cap Hub TG-60 700 mm
22	Cap Hub TG-72 900 mm

# WARRANTY

Cammond Industries warrants its new equipment to be free of defects in material and workmanship at the time of delivery to the first retail purchaser. All equipment is warranted for six (6) months from the date of purchase by the first retail customer. Cammond will repair or replace, at its option, without charge for parts and labor, any defective part of the equipment during the six (6) months. All warranty work will be done by an authorized dealer or at the factory. Any work performed by the dealer must be authorized by the factory and charges will be determined based on the factory-approved rate. This warranty does not include transportation of equipment to the dealer or the factory, or the removal or replacement of any products attached to Cammond equipment. It is the responsibility of the owner, at the owner's expense, to transport the equipment to the service shop or an authorized dealer or alternatively to reimburse the dealer for any travel or transportation expense involved in fulfilling this warranty.

EXCEPTIONS TO THIS WARRANTY: This warranty will not apply in the following cases:

1. Warranty registration card is not completed and returned to Cammond Industries, 902 Arlington Center, PMB 225, Ada, OK. 74820
2. Normal wear of components and structure.
3. Damage caused by accident, fire, flood, abuse, negligence, alterations, lack of performance or lack of required maintenance.
4. Replacement of maintenance items such as hoses, hydraulic cylinders, etc. is not covered
5. Any unauthorized alteration of equipment or use of unauthorized parts.
6. Use of equipment in rental fleets.

This warranty is in lieu of all warranties of merchant ability, fitness for a purpose or other representations, warranties on conditions, expressed or implied. The remedies of the owner set forth herein are exclusive. Cammond Industries neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale of covered equipment. Correction of defects in the manner and for the applicable period of time provided above will constitute fulfillment of all responsibilities of Cammond Industries to the owner and Cammond will not be liable for negligence, under contract or in any other manner with respect to such equipment. **IN NO EVENT WILL THE OWNER BE ENTITLED TO RECOVER FOR INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES SUCH AS LOSS OF CROPS, PROFITS, REVENUE OR RENTAL COST.**

If you have any warranty claim contact your dealer within 30 days of the occurrence. Your dealer will contact Cammond Industries and together they will determine the manner that it will be handled. DO NOT HAVE UNAUTHORIZED REPAIRS COMPLETED AND THEN CLAIM A WARRANTY REIMBURSEMENT.

*If equipment has been altered in anyway from original design, Cammond does not accept any liability for warranty.*