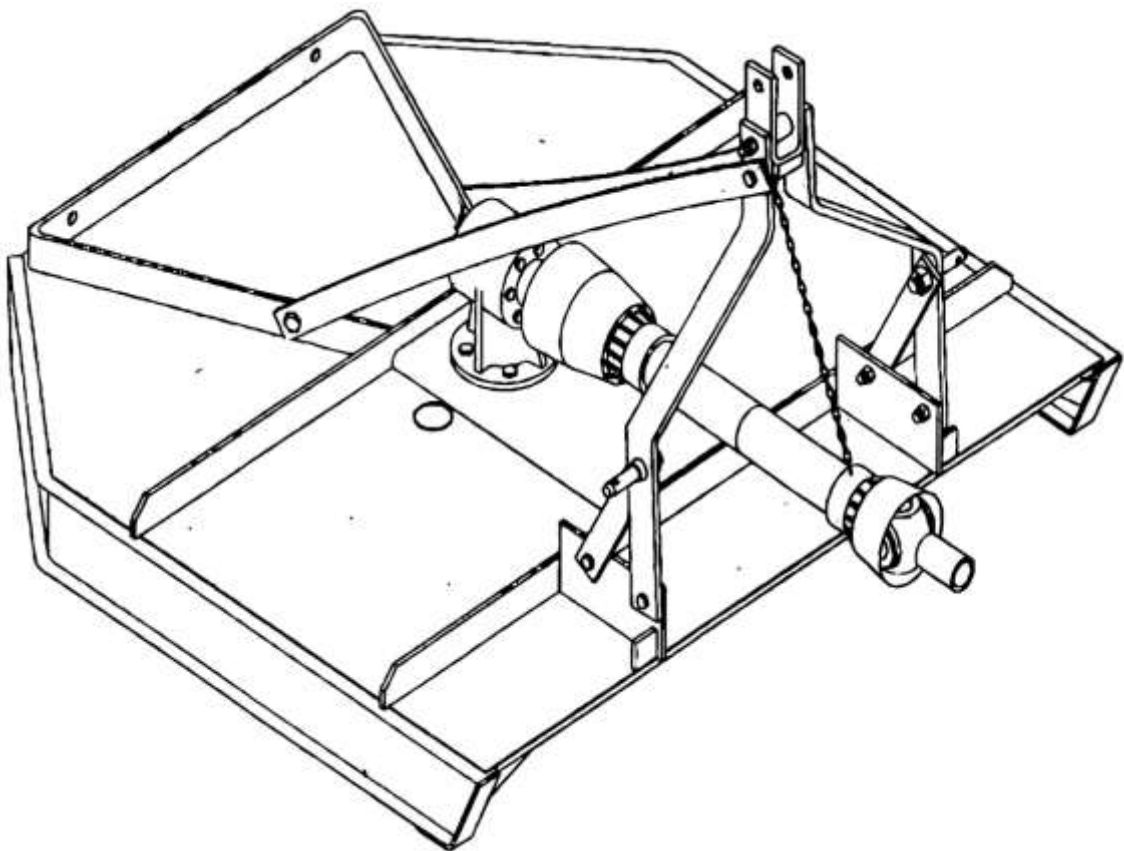


# SLASHER

## OPERATION INSTRUCTIONS & PARTS CATALOG



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

- **Read and understand the information contained in this manual.**
- **Operate, lubricate, assemble and maintain the equipment in accordance with all instructions and safety procedures in this manual.**
- **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.**
- **The warnings,cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur.**
- **It must be understood by the operator that common sense and caution are factors which cannot be built into this product,but must bu supplied by the operator.**

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## **SAFETY INFORMATION**

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!  
YOUR SAFETY IS INVOLVED**

### **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 practices.

**EQUIPMENT SAFETY GUIDELINES**

- Safety of the operator and by standards is one of the main concerns in designing and developing a mower. 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 is missing. Location of such safety signs is 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 of 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. If the elderly are assisting with farm work, their physical limitations need to be recognized and accommodated.
- 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 mower manuals. Pay close attention to the safety signs affixed to the tractor and the rotary mower.



## STARTING AND STOPPING SAFETY (Continued)

- Drive Rotary Cutting Mower diagonally over sharp dips and avoid sharp drops to prevent tractor and Rotary Cutting Mower from “hanging up”. Always cut downward on slopes, never cut across the face. Always check tractor manual for proper use on slopes. Practice will improve your skills in maneuvering on terrain.
- A minimum 20% of the tractor and equipment weight must be on tractor front wheels. Without this weight, the 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 the 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!**

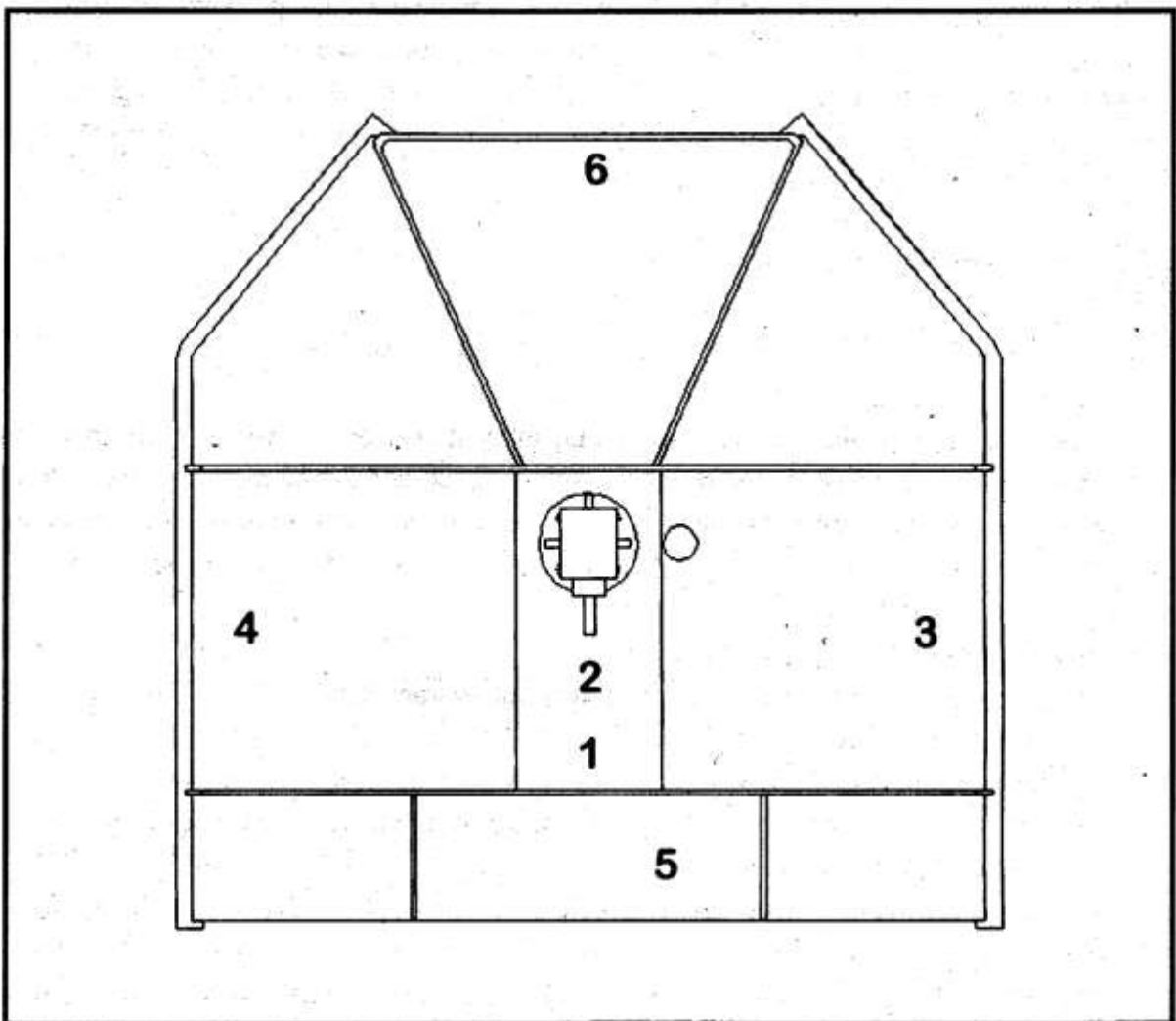


## TRANSPORT SAFETY

- Always observe state and local laws governing highway safety and the travel of farm machinery on public roads.
- The use of flashing amber lights is acceptable in most locations. However, some locations prohibit their use. Local laws should be checked for all lighting and marking requirements.
- When driving the tractor and equipment on roads or highways use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem. Do not exceed 20 mph. Reduce speed on Finish 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 circumstances, including narrow bridges, intersections, etc. Watch for traffic when crossing or operating in close proximity to roadways.
- Turn curves and go up and down hills only at a low speed at a gradual steering angle. Make certain that a least 20% of the tractor’s weight is on the front wheels to maintain safe control. Slow down on Finish and/or uneven surfaces. Always check tractor manual for proper use on slopes.
- Use extreme care and maintain minimum ground speed when operating close to ditches and/or fences. Be careful when turning sharp corners.
- Never allow riders on either tractor or mower.

**SAFETY SIGN LOCATIONS**

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



**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.

# **WARNING**

## **To prevent serious injury or death:**

*Si no lee ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad*

- Read and understand Operator' s Manual before using. Review annually.
- Do not permit riders on the tractor or mower ,including children.
- Do not allow children to operate mower.
- Operate only with guards installed and in good working condition.
- Keep away from moving parts.
- Operate only with tractor equipped with ROPS and seatbelts.
- Before mowing, clear debris from mowing area.
- DO not operate in the raised position.
- Stop engine, lower mower, set brake and wait for all moving parts to stop before dismounting.
- Support mower securely before working beneath unit.
- Transport with clean reflectors, SMV and working lights as required by federal, state, and local laws.
- Keep yourself, others, and clothing away from the rotating POT.
- Keep other away from area to be mowed to avoid injury from flying objects.
- Do not stand between tractor and mower.
- Be careful on uneven terrain. Decrease speed when turning.
- Do not exceed a safe transport speed.

1

**SHIPPED WITHOUT OIL IN GEAR BOX  
AND WITHOUT GREASE IN GREASE FITTINGS.**

**" CONSULT OWNERS MANUAL FOR  
LUBRICATING AND OPERATING INSTRUCTIONS. "**

2

7



**! DANGER**



**ROTATING BLADES-KEEP AWAY**

To prevent serious injury or death when the engine is running and the blades are rotating:

- Never allow riders, especially children, on tractor or mower.
- Do not operate with bystanders in mowing area.
- Do not operate with deflector/guards removed.
- Do not place hands or feet under deck.
- Do not stand on or near implement at any time.
- Do not stand between tractor and implements.
- Operate only with tractor equipped ROPS and seatbelts.

3

**! DANGER**



**THROWN OBJECT HAZARD**

To prevent serious injury or death:

- Do not operate unless all guards are installed and in good condition.
- Stop blade rotation if bystanders come within several hundred feet.

4

**! DANGER**



**ROTATING DRIVELINE HAZARD  
KEEP AWAY**

To prevent serious injury or death from rotating driveline:

- Keep all guards in place when operating.
- Operate only at 540 RPM
- Keep hands, feet, clothing and hair away from moving parts.
- Do not operate without driveline securely attached at both ends.
- Do not operate without driveline shields that turn freely on driveline.

5

**! WARNING**



**TO PREVENT SERIOUS INJURY OR DEATH**

- Keep hands and body out of hitch area when attaching mower to tractor.
- Keep body clear of crush point between tractor and mower.

6

## **ASSEMBLY INSTRUCTIONS**

### **STEP 1**

With the mower in crate, lay flat on a level surface, remove the top and side bars of the crate, leaving the mower resting on the bottom of the crate.

### **STEP 2**

Remove the wired on PTO shaft, lift pins, and spacers. Loosen and remove the (4) bolts on the lift arm brackets, that secure the lift arm support straps, lift arms, and lift arm braces from the shipping positions and set aside. (See Figure B)

### **STEP 3**

Install the right lift arm and lift arm support strap using (2) two short bolts and (1) one lift pin. (See Figure C) Note: The lift arm support strap has one hole punched larger than the other. The larger hole is to be used to fasten with the lift pin. The lift arm & support straps should be fastened to the outside of the lift arm bracket.

### **STEP 4**

Loosen and remove the (2) nuts and washers leaving the bolts in place. (See Figure D)

### **STEP 5**

Install both the right and left side lift arm braces by sliding them over the (2) two bolts that were loosened in step 4. Start the nuts on the bolts, but at this time DO NOT TIGHTEN THEM. Allow the lift arm braces to rotate forward and rest against the installed lift arm. (See Figure E)

### **STEP 6**

Install the long top mounting bolt by inserting it through the hole in the left side lift arm brace, the lower of the (2) two holes in the left side lift arm, the spacer, the lower of the (2) two holes in the top of the right side lift arm (which should not be attached to the lift arm bracket at this time), and finally through the right side lift arm brace. Install a washer and start the nut on the bolt, but do not tighten it at this time. (See Figure F, G & H) Note: You may have to move the assembly around to start the nut & washer. If unable to get the nut and washer started a "C" clamp may be necessary to compress the assembly to be able to start the nut & washer. Install the swivel (U-Shaped piece) put mounting bolt through upper hole in left lift arm, the spacer & swivel, (making sure the 1" block on swivel is toward the front and rests against front side of the bottom spacer), then through top hole of right lift arm, install a washer and start the nut on the bolt, but do not tighten it at this time.

**STEP 7**

Using the right side lift arm as a lever, pull to the outside of the lift arm bracket and inset bolt through lift arm and lift arm bracket. **(See Figure I)** Install washer and nut. Place the lift pin in the larger of the (2) holes on the lift arm brace and loosely attach the lift arm. Finally insert bolt, nut and washer to lower section of lift arm support strap to lift arm bracket. **(See Figure J)**

**STEP 8**

Tighten all nuts and bolts.

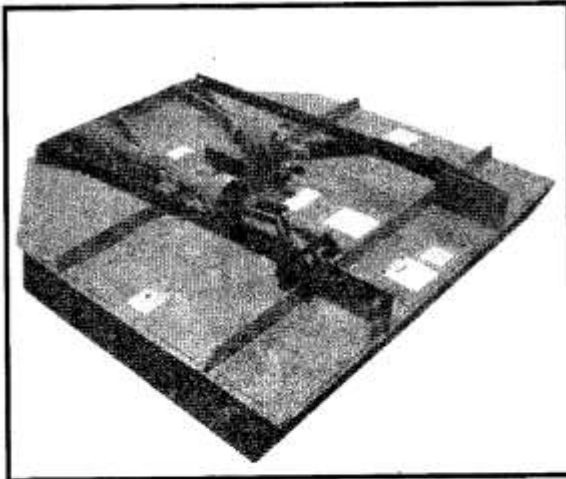


Figure A

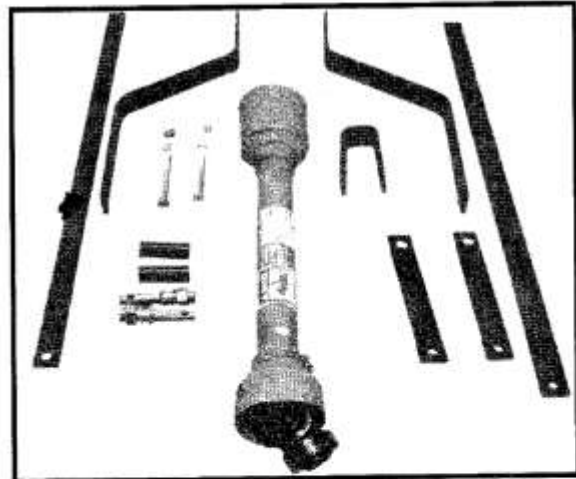


Figure B

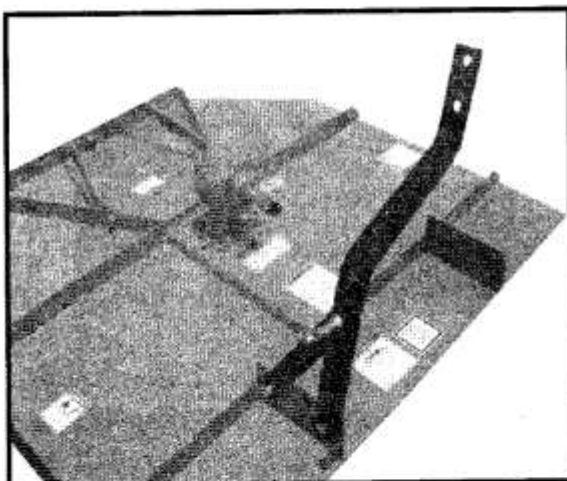


Figure C

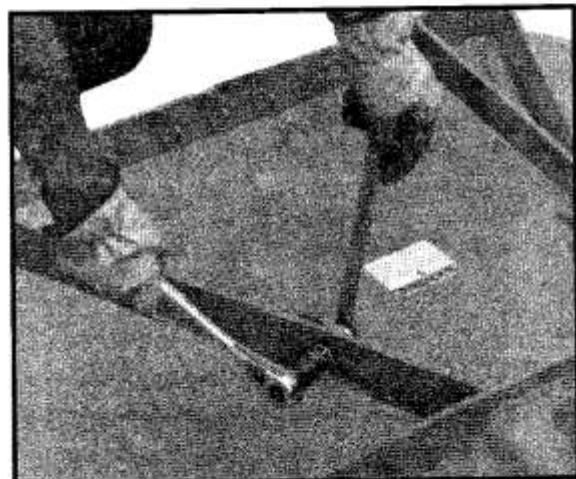


Figure D

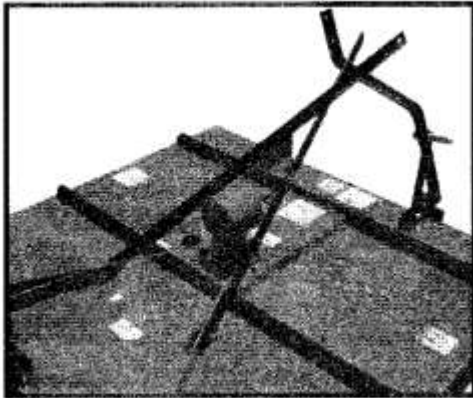


Figure E

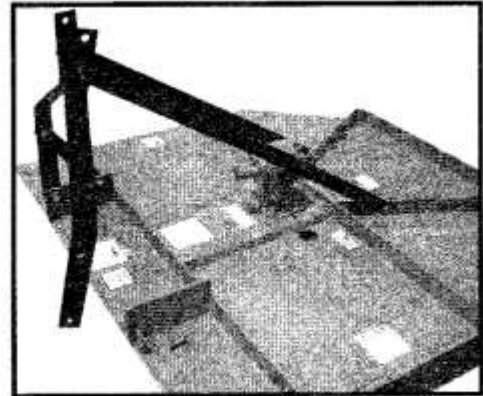


Figure F

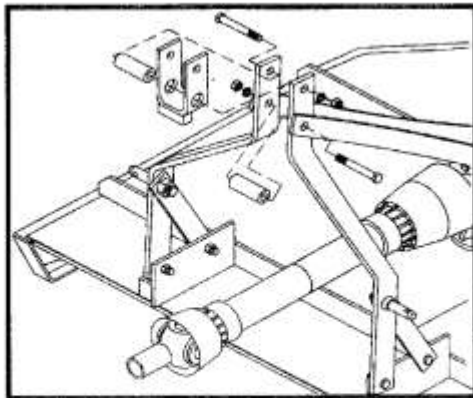


Figure G

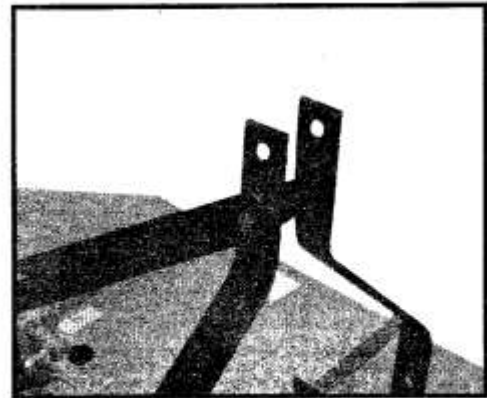


Figure H

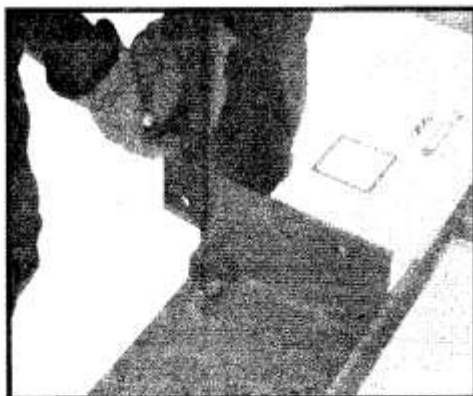


Figure I

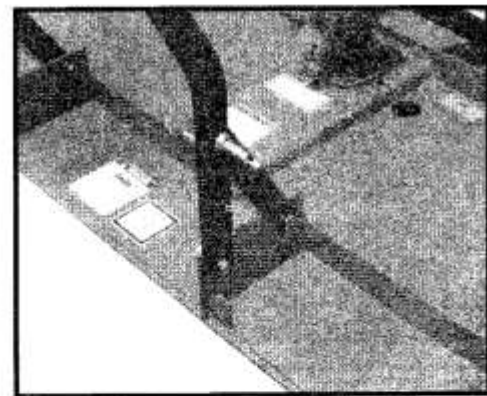


Figure J

## **OPERATING INSTRUCTIONS**

This mower was designed to CUT PASTURE GRASS AND ROUGH AREAS UP TO 1" IN DIAMETER.. Use of your rotary mower to cut any material larger than 1" in diameter may damage the mower and void your warranty.

## **PRE-OPERATIONAL ADJUSTMENTS**

Set tractor's lift control stop at a position that will prevent the PTO shaft from coming in contact with the front edge of the mower when it is at full lift. Consult your tractor manual for instructions.

## **CUTTING HEIGHT ADJUSTMENT**

To prevent mower blades from striking the ground or hidden objects, your mower should be set to the highest position that will give the desired cutting height. By setting your mower up this way you reduce blade wear and stress to the mower. Mowing at regular intervals will yield far better results than periodic mowings (i.e. less windrowing).



**Note:** For best results in heavier cutting conditions adjust the deck so the rear of the mower is approximately 2" higher than the front. This method requires less horsepower and ground speeds of approximately 3-5mph. If finer shredding results are desired, adjust the deck to level or slightly lower in the rear. This method will keep foliage under the deck longer resulting in finer pieces. The down side of this method is if it takes a lot more horsepower and very slow ground speed. This method is not recommended unless a **PTO speed of 540 RPM** can be maintained.

### **ROTARY MOWER OPERATION**

#### **STEP 1**

Before each use perform the maintenance described in maintenance section. (Page 22)

#### **STEP 2**

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

#### **STEP 3**

With tractor running, lower rotary mower into working position.

#### **STEP 4**

With the tractor at idle RPM, engage PTO and slowly advance throttle to 540 PTO RPM. NOTE: Rotary mower designed to run at **540 PTO RPM** only.

#### **STEP 5**

Select a low gear for the tractor and begin to mow. Tractor ground speed is to be controlled by gear selection only and not engine speed. Tractor ground speed should allow rotary mower to maintain 540 PTO RPM and thus maximum blade tip speed.

**NOTE:** Do not allow the tractor engine or rotary mower to bog down or stall. This causes undue wear and tear on the mower and tractor. If this continues to happen reduce ground speed and raise cutting height of rotary mower until the **540 PTO RPM** is able to be maintained.



Never attempt to clean out a plugged discharge chute until the tractor has been shut down and the mower blades have completely stopped.

#### **STEP 6**

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

**BEFORE PUTTING ROTARY MOWER INTO SERVICE**

**(IMPORTANT-INSTRUCTIONS PRIOR TO START UP)  
SHIPPED WITHOUT OIL IN GEAR BOX AND WITHOUT GREASE IN  
GREASE FITTINGS. UNIT MUST BE SERVICED BEFORE USING.**

- Fill Gearbox using Multi-Purpose Gear Oil (I.E. S.A.E.80w/90 or S.A. E.85w/140 Multi-purpose gear oil.)
- For all Grease Fittings use TYPE/grade II tube grease.

**STEP 1** Place rotary mower so that the deck is secure and level.

**STEP 2** Remove 1/2" Pipe Plug (Located at top of gearbox) and 1/8" Pipe Plug (located at lower 1/3 of gearbox).

**STEP 3** Fill gearbox using multi-purpose gear oil through top 1/2" fill hole until gear oil is level with lower 1/8" hole.

**STEP 4** Replace both the 1/2" pipe plug (located at top of gear box) and 1/8" pipe plug (located at lower 1/3 of gear box) and clean away any excess oil.

**STEP 5** Grease (with a grade II type tube grease)

The following zerks:

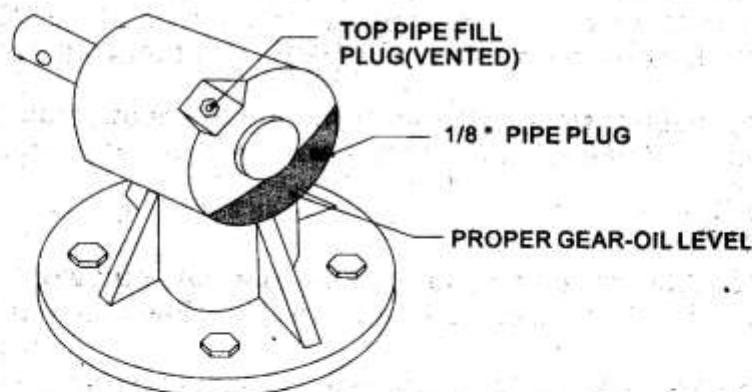
\*Tail wheel wheel fork (See Figure M-1, page 23).

\*Tail wheel fork (See Figure M-1, page 23).

\*Both U-Joints on the PTO shaft (See Figure M-2, page 23).

**STEP 6** Inspect all guards to insure they are in good working order. If not replace before using.

**STEP 7** Check all bolts and nuts to insure they are tight and secure.



**CAUTION:**

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



## **ATTACHING TO TRACTOR**



### **WARNING**



Never stand between tractor and rotary mower 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.

#### **STEP 3**

Raise and lower rotary mower in order to locate the shortest distance between equipment gearbox input shaft and tractor PTO output shaft. With the rotary mower in the shortest distance position shut down the tractor and **SECURELY BLOCK ROTARY MOWER 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.

#### **STEP 6**

Raise rotary mower and remove blocking. Raise and lower rotary mower in order to locate the longest distance between equipment input shaft and the tractor PTO output shaft. With the rotary mower in the longest distance position, shut down the tractor and **SECURELY BLOCK THE ROTARY MOWER 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.

#### **STEP 8**

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

### **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.

## **MAINTENANCE INSTRUCTIONS**

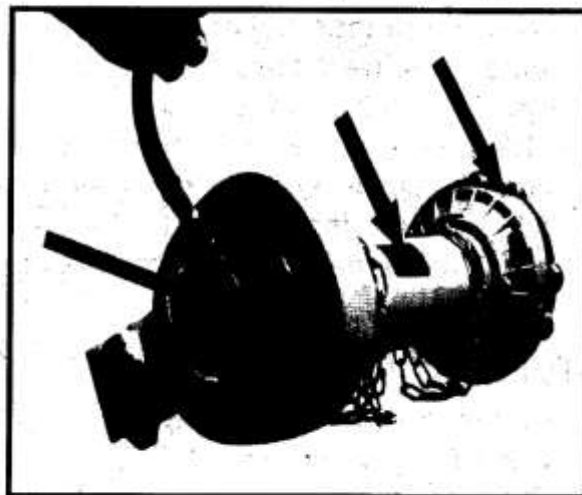
1).Periodically check and maintain proper gear oil level.

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

2).Before each use check to make sure all safety features are installed and working properly.

3).Keep blades sharp and balanced at all times. When replacing blades, replace all blades and blade bolts at the same time.

4).Periodically check all nuts and bolts to insure they are tight and secure.



**Figure M-2**  
**(U-Joints)**

**MAINTENANCE SAFETY**

- 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 tractor 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 mower blades. They should be balanced, 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 a 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 mower.
- 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 a first aid kit should be kept readily accessible while performing maintenance on this equipment.

**STORAGE SAFETY**

- Following operation, or when unhooking the mower, 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.

## TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
<b>Leaves a streak of uncut or partially cut grass.</b>	1. Mower not level side to side.	Level 3 pt. Hitch linkage on tractor.
	2. Blades dull or bent.	Sharpen or replace blades.
	3. Carrier RPM too low.	Use correct PTO speed.
	4. Field conditions are so wet that the tractor tire is pushing grass into mud.	Too wet to mow. Stop operation and wait until it is drier.
	5. Ground speed too fast.	Reduce ground speed by shifting to a lower gear.
	6. Blades lock back.	Free blades.
	7. Blades riding up due to blade bolt wear or loose bolts.	Replace blade bolts.
	8. Grass is down from previous weather conditions,	Mow in only one direction.
	9. Possible build up of material under mower.	Clean mower.
	10. Weed and grass stems are pushed down by tractor tires and do not rebound up so they can be cut (this can happen when weed/grass is high)	Mow again in opposite direction. MOW back and forth with enough overlap to mow tire track of previous cut again.  Offset mower to left 4-6" by adjusting stabilizer bars. Then mow in counter clockwise direction (rotation direction of blades will help cut stems pushed forward).
<b>Grass cut lower in center of swath than at edge.</b>	Height of mower lower at rear or front.	Adjust mower height and attitude so that mower rear and front are within 1/2 " of same height. See instructions.
<b>Material discharges from mower unevenly; bunches of material along swath.</b>	1. Material too high and too much material.	Reduce ground speed but maintain 540 rpm at tractor PTO, or make two passes over material. Raise mower for the first pass and lower to desired height for the second and cut a 90° to first pass. Raise rear to mower high enough to permit material to discharge, but not so high that conditions listed above occur.

## TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
<b>Material discharges from mower unevenly; bunches of material along swath. (Continued)</b>	2. Grass wet.	Allow grass to dry before mowing. Slow ground speed of tractor but keep engine running at full PTO rpm. Cutting lower will help.
	3. Rear of cutter too low, trapping material under mower.	Adjust mower height and attitude. (See instructions.)
<b>Gearbox overheating.</b>	1. Low on lubricant.	Fill to proper level.
	2. Improper type lubricant.	Replace with proper lubricant.
	3. Excessive trash build-up around gearbox.	Remove trash.
<b>Blade is scalping ground.</b>	1. Mower too low.	Raise mower
	2. Field is ridged.	Cut field at a different angle.
	3. Field is too wet.	Stop and wait until it is drier.
<b>Mower will not cut. (Shear bolt drive only)</b>	Shear bolt sheared.	Install new shear bolt.
<b>Mower will not cut all the time. (Slip clutch drive only)</b>	Slip clutch slipping.	Adjust slip clutch according to instructions.
<b>Mower moves from side to side when cutting.</b>	Loose tractor sway chains or bars, or sway blocks improperly installed.	Adjust sway chains, bars, or sway blocks.
<b>PTO contacts cutter front frame when raised.</b>	Raising mower too high or incorrect adjustment of tractor top link.	Adjust top link or tractor lift stops. (See attachment instructions.)
<b>Blade bolts come loose</b>	1. Bolts not tightened.	Tighten bolts to 350 ft./lb.
	2. Bolt hole elongated or oversized.	Replace blade carrier.
	3. Blade bolt threads are worn or damaged.	Replace blade bolt, lockwasher, and nut.



## TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
<b>Blade wears too fast.</b>	1. Cutting in sandy conditions.	Increase cutting height.
	2. Cutting in rocky conditions.	Increase cutting height.
	3. Blades hitting ground.	Increase cutting height.
<b>Mower seems to require excessive power.</b>	1. Advancing into grass or brush too rapidly.	Reduce forward travel speed.
	2. Hitting ground.	Raise mower
	3. Worn or dull blades.	Sharpen or replace blades.
	4. Tractor not large enough.	Use larger horsepower tractor.
<b>Excessive vibration.</b>	1. Check gearbox bolts.	Tighten if loose.
	2. Check for loose nuts on bladeholder and blades.	Tighten if loose.
	3. Check for bent output shaft. If shaft is bent, oil will normally leak from bottom seal.	Replace shaft if bent.
	4. Check to see if blades are free-swinging.	Free blades so they swing.
	5. Check for even wear on each blade tip. Were both blades changed at the same time?	Weigh blades. Weight should be within 1 oz. Always replace both blades
	6. Blade broken.	Replace blades, in sets.
	7. Blade beam bent.	Replace blade beam.
	8. New blade or bolts matched with worn blade or bolts.	Replace blades or bolts in sets.
	9. Drivelines not phased correctly. Implement and tractor yokes must be in line.	Replace driveline.
	10. Wire or rope wrapped around blade beam.	Remove wire or rope.
	11. Blades worn and are out of balance.	Replace blades, in sets.

## TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
<b>Gearbox noisy</b>	1. Rough gears.	Run in or change gears.
	2. Worn bearings.	Replace bearing.
	3. Low oil in gearbox	Check level and add oil.
<b>Gearbox leaking.</b>	1. Damaged oil seal.	Replace seal.
	2. Bent shaft.	Replace oil seal and shaft.
	3. Shaft rough in oil seal area.	Replace or repair shaft.
	4. Oil seal installed wrong.	Replace seal.
	5. Oil seal not sealing in the housing.	Replace seal or use a sealant on outside diameter of seal.
	6. Oil level too high.	Drain oil to proper level.
	7. Hole in gearbox.	Replace gearbox.
	8. Gasket damaged.	Replace gasket.
	9. Bolts loose.	Tighten bolts.
<b>Front hitch "A" frame bending sideways.</b>	1. Operator turning sharply hitting objects with tailwheel frame or mower deck.	Drive carefully and plan turns to avoid hitting buildings, posts, trees, etc.
	2. Tailwheel not castering properly.	Check tailwheel yoke(see above under tire wear).
	3. Mower is being operated to low and mower deck is contacting ground during turns.	A. Raise mower(especially on rough ground). B. Set stop on hitch controls lever so hitch lift arms do not drop mower on ground.
	4. Tractor 3 pt. Hitch is leaking down and mower deck is contacting ground.	A. Repair tractor hitch hydraulic system. B. Use limit chains to keep lift arms from going lower than set limit.