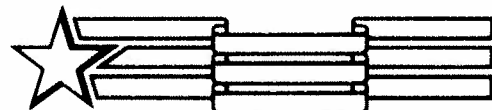




Ingersoll

HYDRAULIC ROTARY MOWER
HRM48H
Operator's Manual 8-56490



QUALITY IN THE AMERICAN TRADITION

Ingersoll Equipment Co., Inc.

Winneconne, Wisconsin 54986-9576

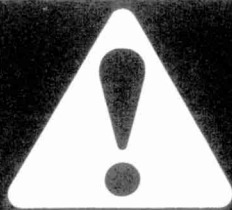


This Safety Alert Symbol Indicates Important Safety Messages In This Manual When You See This Symbol Carefully Read The Message That Follows and Be Alert To The Possibility Of Personal Injury Or Death

IF THIS MACHINE IS USED BY AN EMPLOYEE OR IS LOANED OR RENTED, MAKE ABSOLUTELY CERTAIN THAT THE OPERATOR(S), PRIOR TO OPERATING:

- 1. IS INSTRUCTED IN SAFE AND PROPER USE.**
- 2. REVIEWS AND UNDERSTANDS THE MANUAL(S) PERTAINING TO THE MACHINE.**

751253



WARNING

BEFORE STARTING ENGINE

**STUDY OPERATOR'S MANUAL SAFETY MESSAGES
READ ALL SAFETY SIGNS ON MACHINE
CLEAR THE AREA OF OTHER PERSONS**

**LEARN & PRACTICE SAFE USE OF
CONTROLS BEFORE OPERATING**

IT IS YOUR RESPONSIBILITY TO UNDERSTAND AND FOLLOW MANUFACTURER'S INSTRUCTIONS ON MACHINE OPERATION, SERVICE, AND TO OBSERVE PERTINENT LAWS AND REGULATIONS. OPERATOR AND SERVICE MANUALS MAY BE OBTAINED FROM YOUR EQUIPMENT DEALER.

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SAFETY MESSAGES



The safety messages contained in this manual are to be used together with the safety messages appearing in the tractor operators manual. Be sure to review both carefully before operating the tractor mower combination.



DANGER: Spinning blade. Keep clear. Contact can injure.



WARNING: Flying debris. Keep people and pets away from operating mower. Debris from mower can cause injury.



CAUTION: Keep away from mower when adjusting cutting height.



CAUTION: Be sure hydraulic PTO is off before starting tractor engine. Keep away from mower when engaging PTO. Blade contact can injure.



Regard your rotary mower as a piece of power equipment and be sure this manual is read and understood by all who operate it.



Maintain your tractor and rotary mower in top operating condition.



CAUTION: Clear the lawn or area to be mowed of sticks, stones or any hard objects which could come in contact with the blades and be hurled out the discharge opening.



CAUTION: Do not permit children or pets in the area while mowing and never direct the mower discharge at buildings, people, pets, windows or cars.



CAUTION: Fill gas tank out of doors and avoid spilling gasoline. Do not fill tank with gasoline while smoking or while engine is running.



CAUTION: Never allow children or young teenagers to operate the tractor and rotary mower.



WARNING: Be sure that the hydraulic PTO is off, the engine is shut off, the key removed and the blades have stopped spinning before attempting to clean a plugged discharge chute.



CAUTION: Unbalanced blades are a hazard and will cause premature wear and failure of bearings and spindle. If the blades cannot be balanced by resharpening, replace them with new ones.



CAUTION: Never get on or off the tractor while the mower is running.



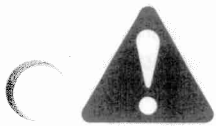
CAUTION: Stop engine, disengage hydraulic PTO, set parking brake and remove key when tractor is unattended.



CAUTION: Do not allow anyone other than the operator to ride on the tractor.



CAUTION: Stop and inspect the mower for damage immediately after striking a foreign object and repair damage before restarting and operating the machine.



CAUTION: Sharp mower blades. Wear gloves or wrap the mower blade with a rag when handling blades. Improper handling can cause cuts to the skin.



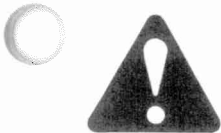
CAUTION: Disengage hydraulic PTO, stop engine and remove key and spark plug wire(s) before making adjustments.



WARNING: Rotating Machine Parts. Stay clear, keep shields installed to help protect from clothing entanglement and injury.



CAUTION: Disengage hydraulic PTO when someone approaches or whenever the mower is being transported.



WARNING: Keep feet and hands away from discharge opening and make no repairs unless both the tractor engine and hydraulic PTO are shut off and the key is removed from the tractor.



CAUTION: Be sure you know how to stop the tractor and mower at a moments notice.



WARNING: Improper operation of your tractor on hillsides and slopes can be dangerous. Avoid improper operation! Read and follow the instructions given in the section titled "Hillside Operation" in this manual before operating your tractor.



CAUTION: Give complete and undivided attention to the job at hand.



CAUTION: Put the Hydraulic PTO in neutral and shut off the engine and wait for all motion to stop before approaching the mower for any reason.

IMPORTANT: Always install new decals whenever the old decals are destroyed, lost, painted over or illegible. When individual parts are replaced that have decals attached, be sure to install a new decal with the new part. Replacement decals are available from your Dealer.

HILLSIDE (SLOPE) OPERATION



WARNING: Improper operation of your tractor on hillsides and slopes can be dangerous. Avoid improper operation! Read and follow the instructions given in the section titled "Hillside Operation" in this manual before operating your tractor.

Avoid operating tractor on hillsides and slopes. To minimize the possibility of accidents while operating on hills and/or rough terrain, obey a combination of rules, practices and good common sense.

These include:

1. Reading, understanding, and obeying all written safety messages appearing on decals on the machine and in operator's manuals.
2. Learning from your operator's manual and carefully from EXPERIENCE how to operate your tractor correctly. Know your tractor's limitations.
3. Knowing the terrain on which you are operating your tractor. There are terrain conditions on which your tractor cannot be operated!
4. Learning to expect changes in operating conditions. Adding or removing attachments or weight to your tractor will make your tractor perform differently. Rain, snow, loose gravel, wet grass, etc., change the tractive conditions of the terrain requiring changes in your operating technique or not to operate on that terrain.

The following paragraphs will cover these practices one at a time. Read and study them. The examples provided are not all inclusive but will give you a firm understanding of the requirements for avoiding accidents while operating your tractor.

Ingersoll Lawn and Garden Tractors are designed and built to comply with the Voluntary Standard ANSI (American National Standards Institute).

THE OPERATOR IS THE SOLE JUDGE AS TO THE DEGREE OF SLOPE ON WHICH THIS TRACTOR CAN BE SAFELY OPERATED. IF IN DOUBT THAT THIS TRACTOR CAN BE SAFELY OPERATED ON A PARTICULAR SLOPE, DO NOT OPERATE ON THAT SLOPE! COMMON SENSE MUST PREVAIL.

Read, Understand, Obey:

Safety messages are found on the tractor and in the operator's manuals. These must be understood by the tractor operator to be of value. Be sure that these messages are studied before starting and/or operating the tractor by an operator not familiar with this particular tractor.

Learn to Operate:

Learn your tractor's controls from decals on the tractor and from instructions in the operator's manual. Practice how to properly manipulate these controls. Practice must be done in a flat area, clear of obstacles and bystanders. Learn your tractor's operating characteristics and limitations. These include:

- a. amount of engine power available
- b. engine governor response
- c. tractive ability
- d. steering characteristics
- e. braking characteristics
- f. movement of travel lever
- g. forward and reverse ground speeds
- h. speed of attachment lift
- i. and others

Attempting any operation which approaches or exceeds the tractor's limitation is risking an accident.

Know the Terrain:

Know the terrain on which you are working. Find hidden obstacles by walking through and inspecting the area prior to operating your tractor on it. Mark obstacles, such as, rocks, ruts or holes with a 6 ft. long pole and red flag and stay well clear of these obstacles when operating.

Operate your tractor at a ground speed slow enough to insure complete control at all times.

Place the transmission in low gear and regulate the throttle control lever slowly and smoothly to maintain this safe speed. Do not stop on a hill or slope to change gears.

Always drive in a forward direction when proceeding downhill. Never drive up a hill. If necessary, back up a hill to the desired position. Always back up loading ramps and tilt bed trailers. If necessary to turn while on a hill, always turn downward.

Your judgement, based on operating experience is the final word in deciding if you should negotiate any given hill or slope. If you are in doubt about safety, **STAY OFF THE SLOPE.**

Under no circumstances should an inexperienced operator attempt to use your tractor on slopes or hill-sides.

You may encounter some terrain on which your tractor cannot be operated even if a different piece of equipment has operated there in the past.

Learn to Compensate for Changes in Operating Conditions:

Adding or removing attachments or ballast (such as wheel weights or fluid) change the weight and weight distribution of your tractor and, therefore, changes your tractor's operating characteristics.

Be alert to these changes. Practice operating the tractor after each change has been made.

Adding an attachment (weight) to the rear of the tractor reduces the weight on the front axle. Adding an attachment (weight) to the front of the tractor reduces weight on the rear of the tractor. You must add counterweight to the front if a rear mounted attachment is installed. You must add counterweight to the rear if a front mounted attachment is installed.

Tractive conditions will vary with weather and terrain and equipment.

Areas wet with dew or rain will be more slippery than when dry. Areas covered with loose gravel are more slippery than firm dry ground. Greater stopping distances are required in these slippery areas.

Spinning rear wheels tend to move the tractor sideways. The addition of tire chains will provide more traction to the rear wheels in the forward-reverse direction but less stability in the sideways direction. Chains will cause more abrupt starting and stopping.

The final word in safe tractor operation rests on your judgement.

If in doubt of your safety, **STAY OFF THE SLOPE.**

INTRODUCTION

This operator's manual is for the Model HRM48H Hydraulic Rotary Mower, (48" wide hitch mounted). This operator's manual includes:

- a. Safety Rules
- b. Installation Procedure
- c. Operating Procedure
- d. Adjustments
- e. Maintenance

Read this manual before operating your rotary mower.

See your authorized dealer for parts or repairs.

The words "Right, Left, Front and Rear" as used in this manual indicate directions when you are in the operator's seat in the normal operating position.

NOTE: Ingersoll Equipment Co., Inc. reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.

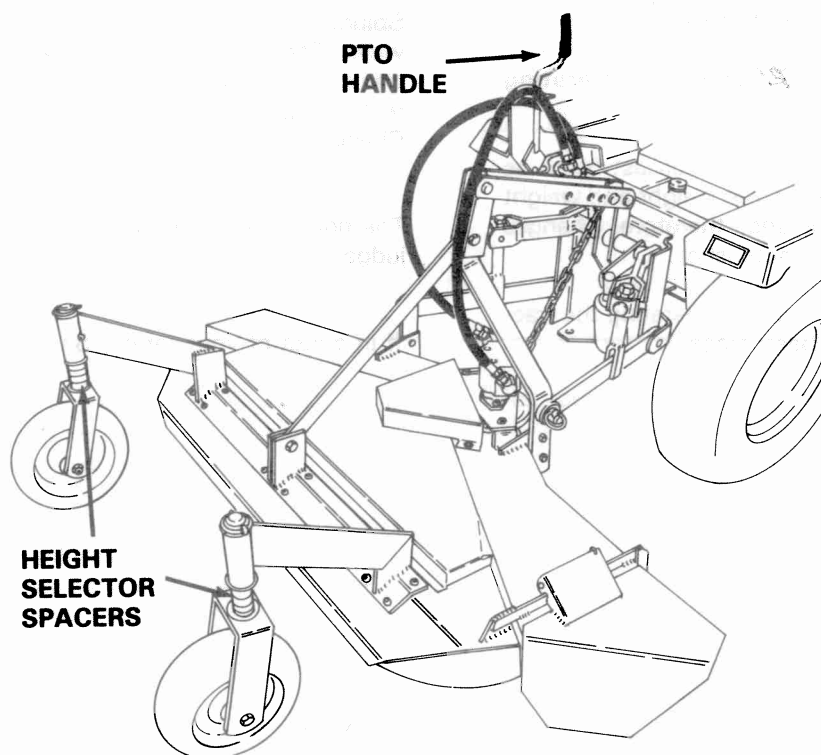


FIGURE 1

ATTACHMENT APPLICATION

| MODEL | SIZE | TRACTOR MODEL |
|--------|---------------|---|
| HRM48H | 48" (1220 mm) | 226,446,448,646,648, 3016,3018,4016,4018, 4020,6018 |

NOTE: Requires Hydraulic PTO Attachment, 3 point hitch and front end weight kit.

OPERATING CONTROLS

HYDRAULIC PTO HANDLE



CAUTION: Be sure hydraulic PTO is off before starting tractor engine. Keep away from mower when engaging PTO. Blade contact can injure.

The rotary mower is started and stopped with the hydraulic PTO handle. Move the hydraulic PTO handle forward to start the mower. Move the hydraulic PTO handle rearward to the center position to stop the mower. See your PTO operators manual for this control.

IMPORTANT: The mower motor can not operate and excessive pressure will occur if the hydraulic PTO lever is pushed fully rearward to reverse direction or if the hoses are incorrectly installed.

NOTE: A lockout is provided to prevent the PTO handle from being pushed into the "reverse" position.

HEIGHT SELECTOR SPACERS

The cutting height is controlled by the height selector spacers.



CAUTION: Keep away from mower when adjusting cutting height.

HYDRAULIC ATTACHMENT LIFT LEVER

The mower is raised and lowered with the attachment lift lever.



CAUTION: Disengage hydraulic PTO when someone approaches or whenever the mower is being transported.

When mowing, put the attachment lift lever in the "LOWER" position until the 3-point hitch cylinder is fully retracted.

See your tractor operator's manual for correct use of your tractor controls.

OPERATION

1. See the "ADJUSTMENTS" and "MAINTENANCE" sections of this manual before operating your rotary mower.

2. See your tractor operator's manual for correct use of your tractor controls.

3. Learn to operate the tractor and rotary mower in an area clear of persons and obstructions.



CAUTION: Never allow children or young teenagers to operate the tractor and rotary mower.

4. Check the work area for obstructions. Remove the small obstructions. Mark the large obstructions so you can see them. Do not hit the large obstructions.



CAUTION: Clear the lawn or area to be mowed of sticks, stones or any hard objects which could come in contact with the blades and be hurled out the discharge opening.



CAUTION: Stop and inspect the mower for damage immediately after striking a foreign object and repair damage before restarting and operating the machine.

5. Use the highest cutting position whenever possible and especially in rough or uneven terrain. Using the highest cutting position will reduce the possibility of the blades contacting the ground and minimize the chance for premature wear or damage.

IMPORTANT: Engage the hydraulic PTO lever the first time with the engine at low idle. This procedure will minimize the chance of damage to the hydraulic system if the hoses are connected backwards.

**VERY
IMPORTANT:**

Always check the Hydraulic PTO Lever before attempting to START the ENGINE. The Hydraulic PTO is not equipped with a neutral start switch. The mower can rotate (if no load) or the engine will not start (if loaded) if you attempt to start the engine with the hydraulic PTO engaged.



CAUTION: Be sure hydraulic PTO is off before starting tractor engine. Keep away from mower when engaging PTO. Blade contact can injure.

6. To start the mower:

- Position the mower over an area of thin grass or a previously cut area.
- Set the tractor throttle between 1/3 and 1/2 open.
- Pull the hydraulic PTO handle forward slowly.
- Increase the engine speed to full throttle.



DANGER: Spinning blade. Keep clear. Contact can injure.

7. To stop the mower:

- Reduce the tractor throttle setting, but not low enough to cause the engine to stall.
- Push the hydraulic PTO handle rearward to the "center" position. Do not push the handle past the "center" position.

IMPORTANT: The mower motor can not operate and excessive pressure will occur if the hydraulic PTO lever is pushed fully rearward for reverse direction or if the hoses are incorrectly installed.



CAUTION: Be sure you know how to stop the tractor and mower at a moments notice.

- 8. Mow with the tractor's two speed transaxle in low range and engine speed at full throttle for best results. This is required to maintain correct blade speed and to produce a clean cut. Regulate tractor ground speed as required to produce a clean cut and as limited by engine power.**

IMPORTANT: Do not overload (lug) the engine. The engine can overheat and will be damaged if operated with an overload.

- 9. Under some conditions, grass that is pushed down by the tractor tires may not be cut at the same height as the rest of the grass. Reducing ground speed, while maintaining engine speed, and cutting at lower cutting heights, if the terrain permits, will provide the best possible cut.**

- 10. Extremely tall grass should be cut twice.**

Set the mower at the highest position for the first pass.

If mower becomes overloaded, slow down, stop, or backup slightly to permit mower to clear itself of excessive material.



CAUTION: Put the Hydraulic PTO in neutral and shut off the engine and wait for all motion to stop before approaching the mower for any reason.

For the second pass, set the mower to the desired height and mow at right angles to the first pass.

- 11. Study the area to be mowed. Consider the shape of the field, the terrain, hilly areas, etc.**

Usually the field should be "opened" by mowing two or three passes around. Then the field should be divided into "lands" for most efficient cutting and clean cut corners.



WARNING: Improper operation of your tractor on hill-sides and slopes can be dangerous. Avoid improper operation! Read and follow the instructions given in the section titled "Hillside Operation" in this manual before operating your tractor.

MOWING CONDITIONS

Mowing conditions can be different. You must use the correct operating methods according to the following chart:

CONDITION

METHOD

- | | |
|----------------------------------|--|
| 1. Short or thin grass. | 1. a. adjust cutting height to the desired level. b. move the throttle lever to a position between 3/4 and full throttle. c. adjust ground speed as needed. |
| 2. Long or thick grass. | 2. a. raise cutting height to the highest position. b. increase engine speed to the "FULL THROTTLE" position. c. reduce ground speed. d. cut long or thick grass twice. e. operate with the chute facing the cut area. |
| 3. Wet grass. | 3. a. do not cut wet grass. |
| 4. Rough terrain. | 4. a. raise cutting height to the highest position. b. reduce ground speed. |
| 5. Cutting near objects. | 5. a. use the left side of the rotary mower. The cut material will be moved away from the object. |
| 6. When grass will not be swept. | 6. a. operate with chute facing the cut area. |
| 7. When grass will be swept. | 7. a. operate with chute facing the uncut area. b. the grass will be in one strip and can be removed with a sweeper. |
| 8. Wind. | 8. turn the tractor so the wind will move grass away from you. |

TROUBLESHOOTING CHART

MOWER NOT CUTTING EVEN OR LEAVING A STRIP OF GRASS

POSSIBLE CAUSE

CORRECTION

- | | |
|--|--|
| 1. Grass too long. | 1. Cut twice. First at highest position then at needed height. |
| 2. Conditions too wet for mowing. | 2. Allow grass to dry before mowing. |
| 3. Travel speed too fast. | 3. Decrease travel speed. |
| 4. Engine speed too slow. | 4. Adjust engine speed to 3600 RPM. |
| 5. Grass pressed down by tractor tires. | 5. Reduce ground speed but maintain engine speed. |
| 6. Obstruction in bottom of mower deck. | 6. Clean under deck. |
| 7. Blades not sharp. | 7. Cutting edge must be sharp. |
| 8. Drive or deck belt slippage. | 8. Check belt. Adjust tension or replace. |
| 9. Hydraulic PTO relief valve bypassing. | 9. Pressure test and adjust (if necessary) the hydraulic PTO relief valve. |

TOO MUCH POWER CONSUMPTION AND CUTS BADLY

- | | |
|--|--|
| 1. Blades not sharp. | 1. Sharpen blades. |
| 2. Blade not straight. | 2. Replace blade. |
| 3. Blades installed upside down or wrong blades installed. | 3. Install correctly. Blades rotate clockwise as viewed from the top down. Cutting edge must lead. |
| 4. Mower not level front to rear. | 4. Blade must be level to 1/8" (13 mm) low in front. |

EXCESSIVE NOISE OR VIBRATION

- | | |
|-------------------------|---|
| 1. Blades not balanced. | 1. Balance blades. |
| 2. Loose blade. | 2. Check blade retainers. |
| 3. Worn bearing. | 3. Stop and inspect blade spindle and bearings. |

CENTER BLADE ONLY CUTTING

- | | |
|---|--|
| 1. Deck belt broken or idler spring disconnected. | 1. Replace belt or spring as required. |
|---|--|

ADJUSTMENTS

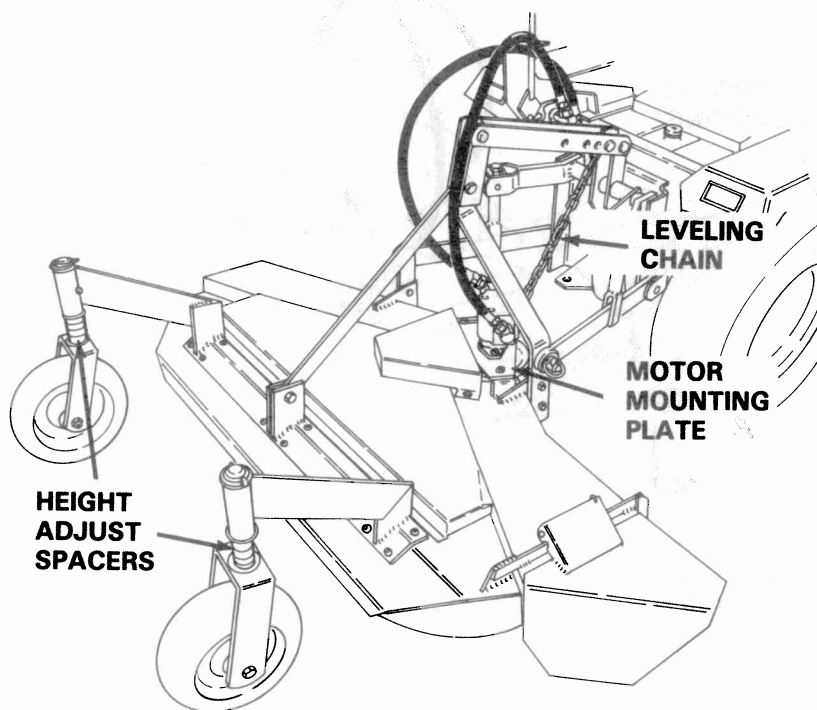


FIGURE 2

CUTTING HEIGHT AND FRONT TO REAR LEVEL

The cutting height can be adjusted from approximately 2" to 4-1/2" by inserting spacers under the rear caster spindles.



CAUTION: Keep away from mower when adjusting cutting height.

1. Raise the mower with the 3-point hitch to permit the casters to be removed.
2. Install blocking under the mower and lower the mower onto the blocking.
3. Remove the caster spindle, relocate spacers to obtain the desired cutting height, and reinstall the spindle.
4. Raise the mower with the 3-point hitch, remove the blocking, and unhook the leveling chain.

IMPORTANT: The front to rear blade level must be adjusted each time cutting height is changed.

5. Carefully lower the mower until the blades are level to 1/8" low in front.
6. Bring the leveling chain up between the two flat bars and align the nearest link and hole. Secure with clevis pin.

DRIVE BELT

1. Loosen the three nuts that secure the motor mounting plate to the deck.
2. Push the motor forward until the belt is tight.
3. Tighten three nuts on the motor mounting plate.

MAINTENANCE

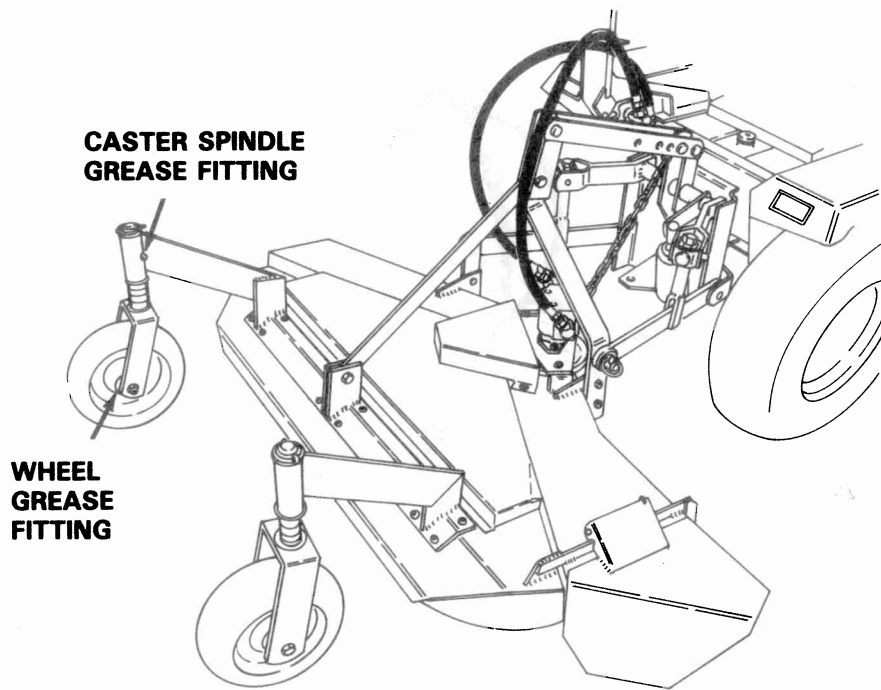


FIGURE 3

DAILY

1. Grease wheels
2. Check belt adjustment
3. Check for and remove debris wrapped around spindles
4. Check blades for sharpness
5. Check blade retainer bolts for tightness

CLEANING UNDER THE LAWN MOWER

Large amounts of grass in the mower deck will:

1. cause more than normal horsepower consumption
2. cause an obstruction
3. cause a bad cutting job
4. cause corrosion
5. damage bearings or seals



WARNING: Keep feet and hands away from discharge opening and make no repairs unless both the tractor engine and hydraulic PTO are shut off and the key is removed from the tractor.

Stop the engine. Wait for all motion to stop. Use caution when you check the lawn mower deck. Periodically check and clean the deck. Remove the grass wound between the blades and spindle housings.

REAR WHEELS

Apply grease to the lubrication fittings on the wheels and caster spindles daily. Frequent greasing will force abrasives from the wheel bearing assuring normal wear life.



DANGER: Spinning Blade. Keep clear. Contact can injure.



CAUTION: Disengage hydraulic PTO, stop engine and remove key and spark plug wire(s) before making adjustments.

BLADE BOLTS

Before you operate the lawn mower for the first time, check the bolts holding the blades. The bolts must be tight. After the first eight hours of operation, check the bolts again. Each time the blades are removed, install new lock washers under the bolt heads. Tighten the bolts and check again after 8 hours of operation.

BENT BLADES

Check for a bent blade before you install the lawn mower on the tractor. Check the blades for damage after you hit foreign material.

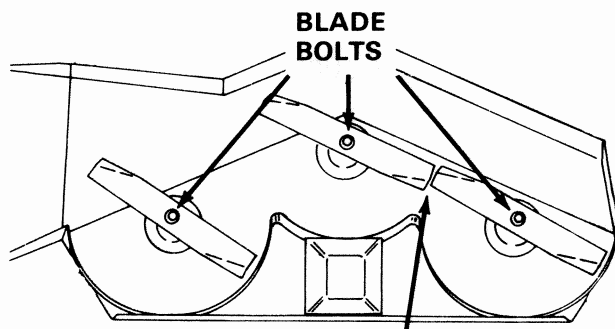
The ends of the blades must be aligned horizontally. A 1/8" (3 mm) difference is acceptable.

Align two blades as shown in Figure 4. Check all six ends in a similar way. Replace all bent blades.

Bent blades will leave strips of grass not cut.



CAUTION: Sharp mower blades. Wear gloves or wrap the mower blade with a rag when handling blades. Improper handling can cause cuts to the skin.



TIPS MUST BE WITHIN
1/8" (3 mm) OF THE
SAME HORIZONTAL LINE

FIGURE 4

SHARP BLADES

Stop the engine. Wait for all motion to stop. Be careful while you check the lawn mower blades. After each job check for damage or blade wear.

A blade that is worn can give a rough cut and brown areas of grass can result.

See Figure 5 for the correct angle of the cutting edge. The cutting edge must be at least 3-1/2" (90 mm) long.

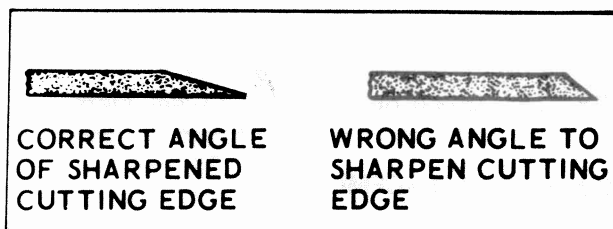


FIGURE 5

After grinding a blade, check for balance. Use a balance tool as shown. A balanced blade will stay in a horizontal position.

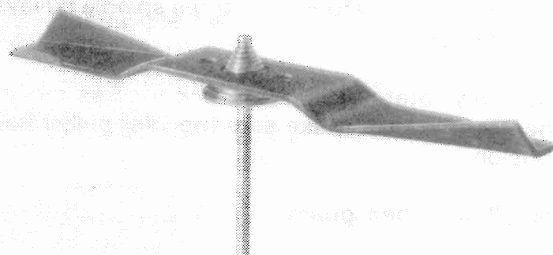


FIGURE 6



CAUTION: Sharp mower blades. Wear gloves or wrap the mower blade with a rag when handling blades. Improper handling can cause cuts to the skin.



CAUTION: Unbalanced blades are a hazard and will cause premature wear and failure of bearings and spindles. If the blades cannot be balanced by resharpening, replace them with new ones.

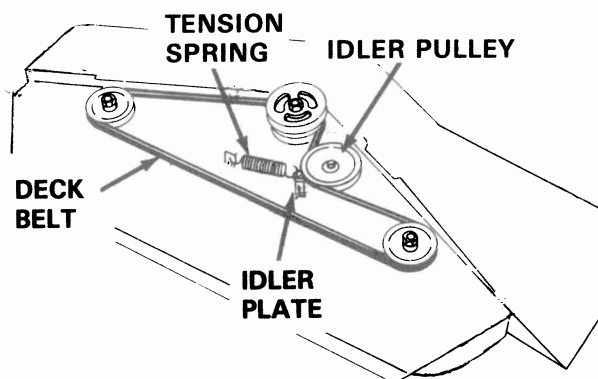


FIGURE 7 Belt Guard Removed for a Clear View

DECK BELT REPLACEMENT

1. Remove the drive belt according to the "Drive Belt Replacement" section of this manual.
2. Remove the deck belt guard.
3. Release the idler pulley tension. Put a 1/2" drive socket wrench into the hole in the idler plate. Rotate the wrench to loosen the belt.
4. Remove the old belt.
5. Put the new belt around the three spindle pulleys and idler pulley.
6. Manually rotate the belt. Check for free movement of the belt. Make sure the idler pulley has tension.
7. Install deck belt guard.
8. Replace the drive belt according to the "Drive Belt Replacement" section of this manual.

DRIVE BELT REPLACEMENT

1. Remove the drive belt guard.
2. Loosen the three bolts that hold the hydraulic motor mounting plate.
3. Move the motor to relieve the tension on the belt and remove the belt.
4. Install the new belt and move the motor forward to tension the belt. Tighten the bolts.
5. Install the drive belt guard.

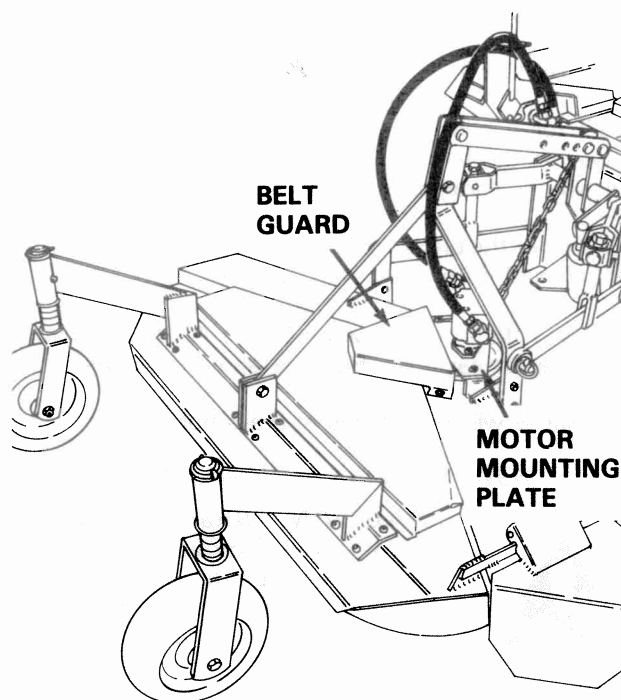
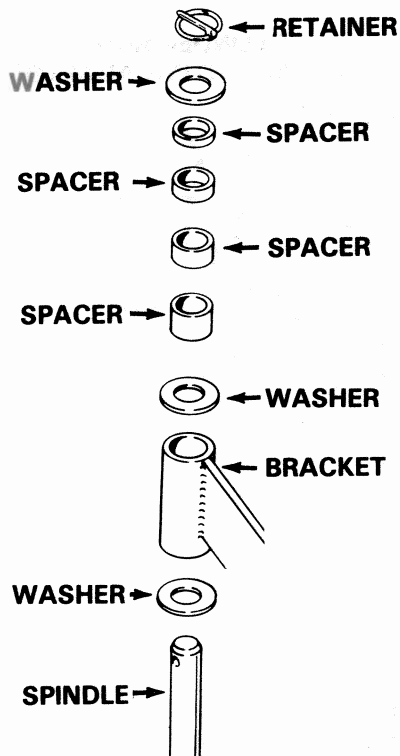


FIGURE 8

ASSEMBLY



**SPINDLE SPACER
STACK UP**

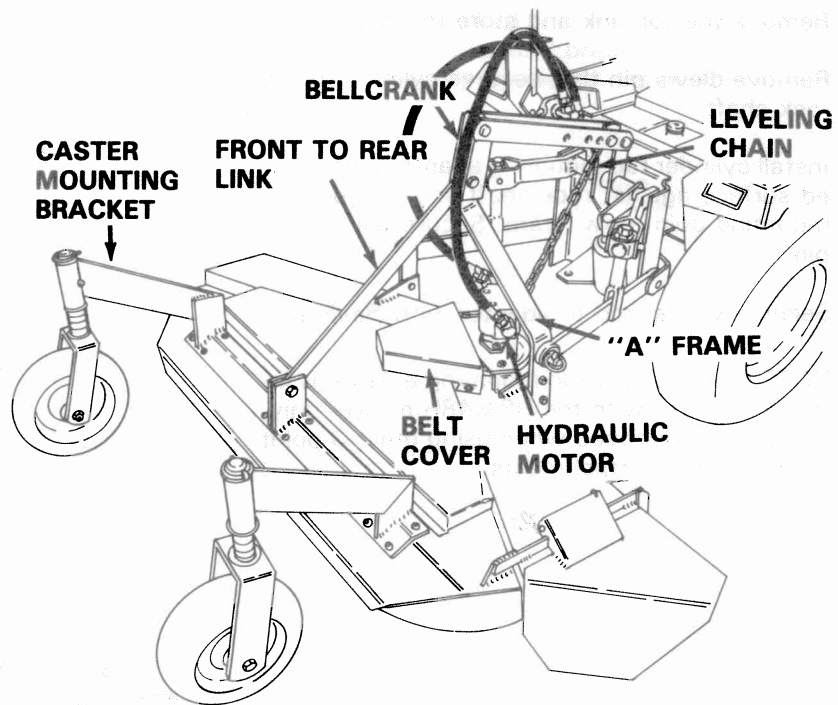


FIGURE 9

1. Remove components from the box.
2. Install the bracket for rear casters to the rear of the mower deck.
3. Install the rear casters, washers, spacers.

NOTE: The mower is adjustable from approximately 2" to 4-1/2" cutting height. Four spacers are provided for each spindle. They are 1/4", 1/2", 3/4, and 1" thick.

For minimum cutting height (approximately 2") install one large flat washer over the spindle, insert the spindle and install all the spacers and remaining flat washers on top. Secure with the click pin retainer.

To increase cutting height, install the desired number of spacers to the spindle before inserting it.

4. Install the "A" frame to the mounting tabs at the front of the mower deck.
5. Install the bellcrank to the top of the "A" frame with the stop down and facing forward. The single link from the "A" frame to the rear caster bracket should be installed at this time.
6. Install the leveling chain to the chain anchor point at the left front corner of the deck. Secure with bolt and washer.

7. Install the belt and hydraulic motor. Push the motor to tension the belt and tighten the motor mounting bolts.
8. Install the belt cover.
9. Install the discharge chute.

Position the chute on the deck. Align the chute and spring as shown. Be sure the spring hook engages the chute. Insert the rod thru the chute, spring and chute retaining brackets. Fasten with push nuts.

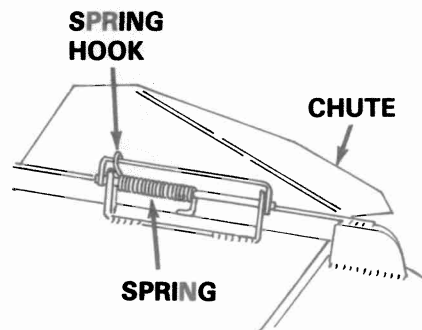


FIGURE 10 Discharge Chute

THREE-POINT HITCH PREPARATION

1. Remove the top link and store for future use.
2. Remove clevis pin that secures cylinder rod to rock shaft.
3. Install cylinder rod mounting adaptor with curved surface against rock shaft and cylinder rod mounting point downward. Secure with clevis pin.
4. Secure cylinder rod to adaptor with clevis pin.

NOTE: The cylinder rod mounting adaptor is intended for use with the HRM48H mower only, it should be removed when using other 3-point hitch mounted attachments.

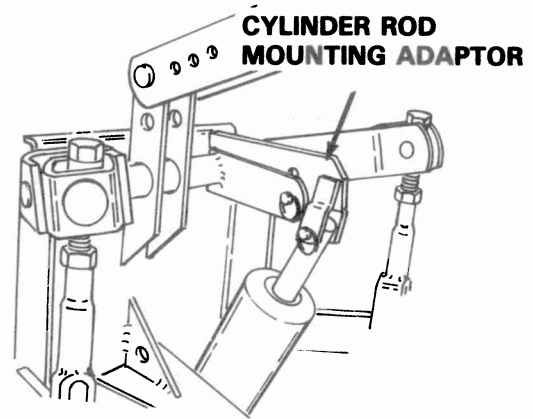


FIGURE 11

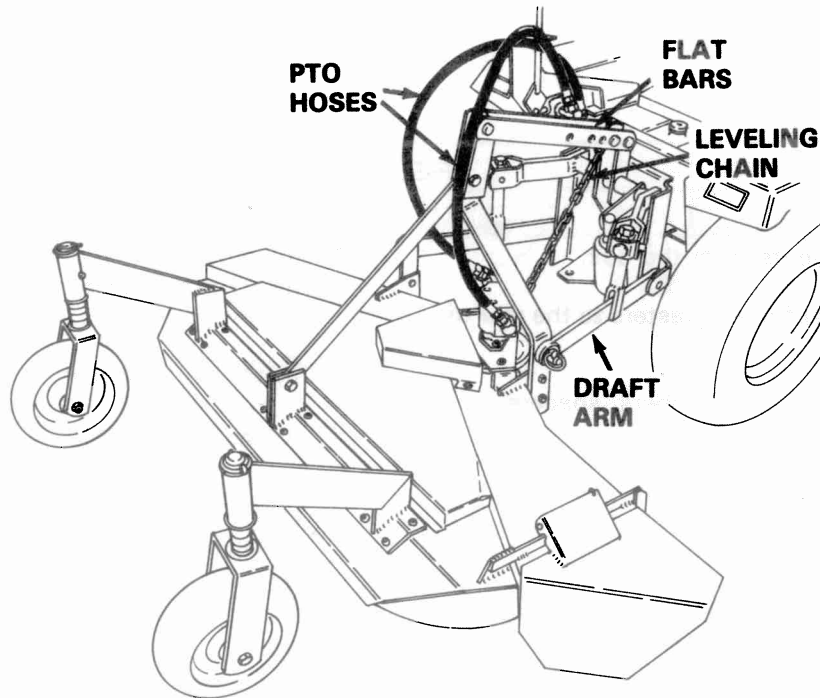


FIGURE 12

INSTALLATION

1. Connect the 3-point hitch draft arms to the mounting pins on the mower.
2. Install the two flat bars, with the small holes forward, between the bell crank of the mower and the top link mounting holes of the 3-point hitch.
3. Raise the front of the deck until the blades are level to 1/8" low in front.
4. Bring the leveling chain up between the two flat bars and align the nearest link and hole. Secure with clevis pin.
5. Install the PTO hoses. One hose goes from the upper work port of the PTO valve to the right hand (rear) port on the hydraulic motor.

The other hose goes from the lower work port of the PTO valve to the left hand (front) port on the hydraulic motor.

For 6000 Series Loaders, install one hose between the right hand port on the PTO Valve and the right hand port on the motor. Install the second hose between the left hand port on the PTO Valve and the left hand port on the motor.

IMPORTANT: Before operating the mower for the first time, see the Operation section in this manual.

IMPORTANT: When operating the tractor without the mower installed loop one hose between the PTO valve work ports and the other hose between the hydraulic motor ports. See the Hyd. PTO Operator's Manual.

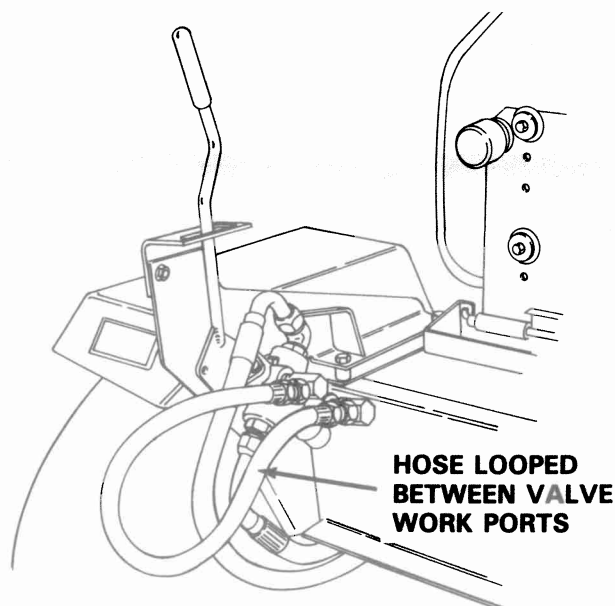


FIGURE 13

LOCKOUT BRACKET

The PTO handle lockout bracket is required for correct PTO handle operation. Install this bracket as shown.

NOTE: Lockout bracket shown as used on HP30, HP40, M17 and N17 PTO. For other styles see your PTO operators manual. Your PTO must not be permitted to operate in reverse position.

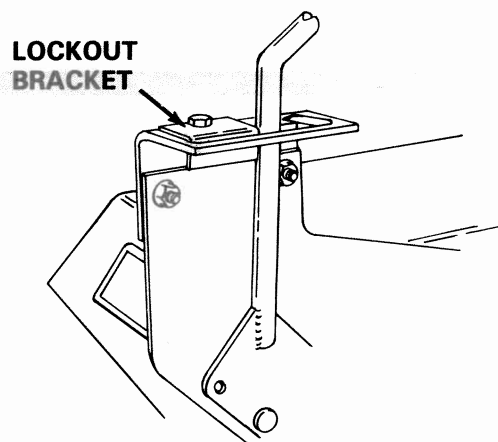


FIGURE 14

NOTE: Lockout bracket as used on 6000 series tractors.

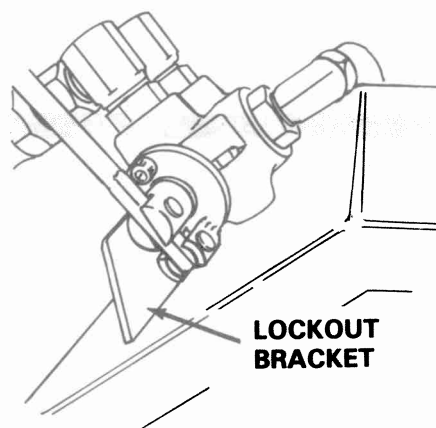


FIGURE 15

