

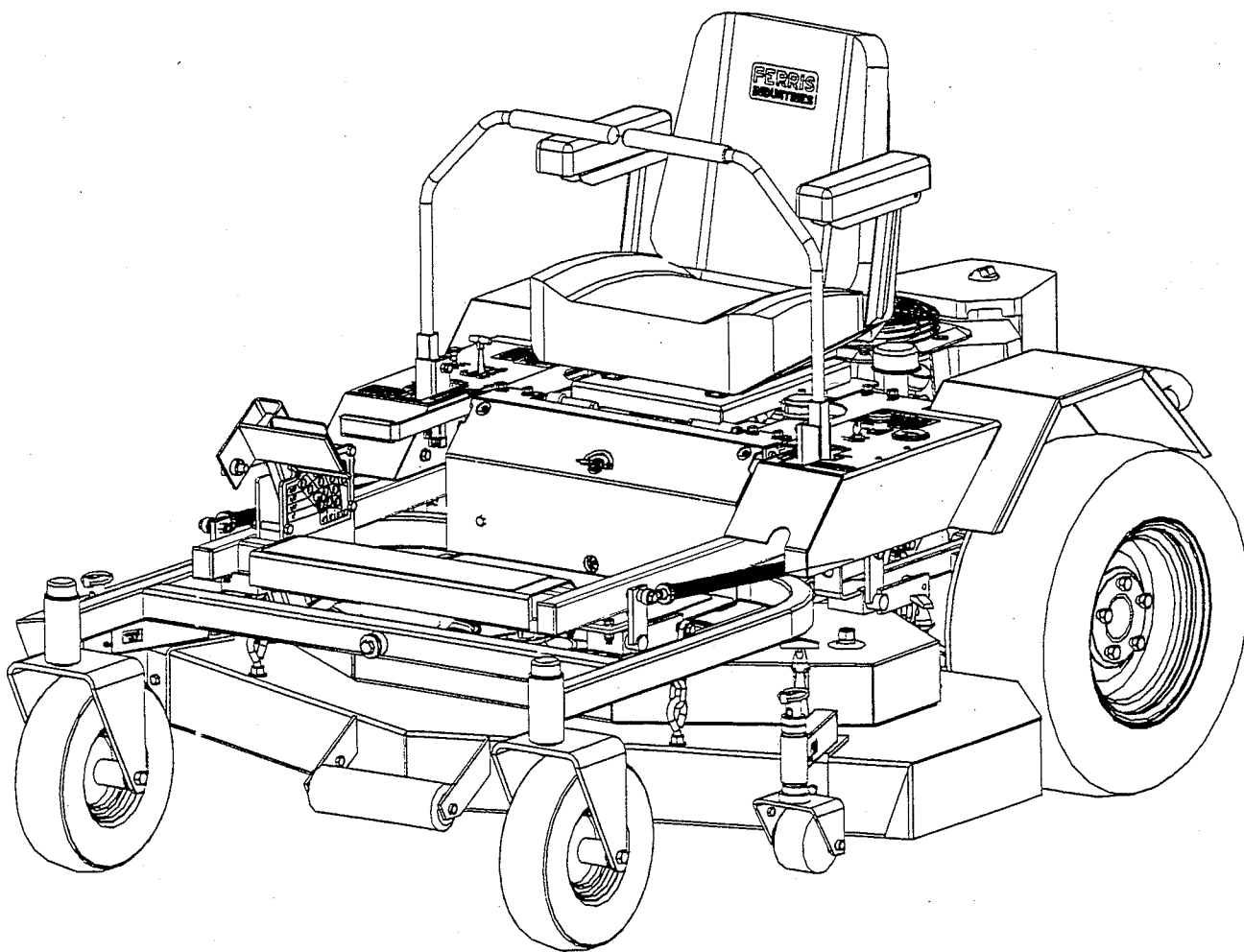
PRICE \$3.00



OWNER/OPERATOR MANUAL

I.S. Z Commercial Mowers

Featuring



MODELS:

ISZ22K

ISZ25K

ISZKAV23

CUTTER DECKS:

ISZ61

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5375 N. Main Street
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Munnsville, NY 13409*

Manual No. ~~1522220~~
Printed in USA
January 1999
Revision II

TABLE OF CONTENTS

| | PAGE |
|---|-------------|
| TO THE OWNER/OPERATOR..... | 1 |
| GENERAL INFORMATION..... | 2 |
| Using this Manual..... | 2 |
| Warranty Registration..... | 2 |
| Model and Serial Number..... | 2 |
| Parts and Service..... | 2 |
| SAFETY PRECAUTIONS..... | 3-4 |
| Training..... | 3 |
| Preparation..... | 3 |
| Operation..... | 4 |
| CONTROLS AND OPERATIONS..... | 5-9 |
| Pre-Start..... | 5 |
| Starting the Engine..... | 5 |
| Transmission By-pass..... | 5 |
| Operating Controls..... | 6-7 |
| Maximum Safe Operating Angle..... | 6 |
| Trial Run..... | 8 |
| Cutting with the Machine..... | 8 |
| Cutting Speed..... | 8 |
| Grass Discharge..... | 8 |
| ADJUSTMENT AND SERVICING..... | 9-16 |
| Cutting Height..... | 9 |
| Parking Brake..... | 9 |
| Deck Lift Spring..... | 9 |
| Clutch..... | 9 |
| Hydro Control..... | 10 |
| Hydro Control-Fine..... | 10 |
| Cutter Blades..... | 11 |
| Belt Tensions and Adjustments..... | 12 |
| Belt Removal and Replacement..... | 13 |
| Maintenance and Lubrication..... | 14 |
| Break-In Maintenance..... | 14 |
| Daily Maintenance..... | 14 |
| Every 25 Operating Hours..... | 15 |
| Every 100 Operating Hours..... | 15 |
| Every 500 Operating Hours..... | 15 |
| Changing the Hydraulic Oil Filter..... | 15 |
| Grease Fitting Locations & Lubrication..... | 16 |
| General Maintenance & Storage..... | 16 |

To the Owner/Operator:

Congratulations on the purchase of your new I.S. Independent Suspension Commercial Mower.

This product has been carefully designed and manufactured to give you years of trouble-free use and reliability.

Like all mechanical products, the useful life and service you obtain from your machine depends, to a large extent, on the way it is maintained and operated. Outlined in this instruction manual you will find safety and service guidelines to keep your mower operating like new for years to come.

We recommend that you read this instruction manual and the enclosed engine manual before operating this unit. Keep this manual handy for all operators and service technicians.

Throughout this manual, the terms **DANGER**, **WARNING** and **CAUTION** are used in conjunction with the Safety Alert Symbol (a triangle with an exclamation point) to indicate a personal safety hazard. The term **IMPORTANT** is used to indicate that failure to observe the instruction can cause damage to the equipment.



The Safety Alert Symbol means ATTENTION! BECOME ALERT!
YOUR SAFETY IS INVOLVED!

DANGER:

Denotes an extreme intrinsic hazard exists, which would result in high probability of death or irreparable injury if proper precautions are not taken.

WARNING:

Denotes a hazard exists which can result in injury or death if proper precautions are not taken.

CAUTION:

Denotes a reminder of safety practices or directs attention to unsafe practices, which could result in personal injury if proper precautions are not taken.

IMPORTANT:

Indicates that failure to observe can cause damage to equipment.



CAUTION: If any safety or control decals are missing, non-legible, or damaged, replace them as soon as possible. Refer to the Illustrated Parts List for decal part numbers.


GENERAL INFORMATION


USING THIS MANUAL

Illustrations used in this manual were current at the time of printing, but subsequent production changes may cause your machine to vary slightly in detail. **Ferris Industries, Inc.** reserves the right to redesign and change the machine as deemed necessary, without notification. Throughout this manual, references are made to right and left directions. These are determined from the operator's position, facing the direction of forward travel. Blade rotation is "clockwise" as viewed from the top of the cutter deck.

WARRANTY REGISTRATION

Please complete and sign the warranty registration card. It is necessary to validate your warranty protection. As the new equipment owner, you are expected to see that the card is completed and forwarded to **Ferris Industries, Inc.** at the time of delivery.

 **WARNING:** Any unauthorized modification, alteration, or use of non-approved attachments may present safety hazards that are not presented in this manual. If any such modifications, alterations or attachments are used, it voids all warranties and releases **Ferris Industries, Inc.** from any liability from injury and/or damage arising from subsequent use of this equipment.

 **WARNING:** Some illustrations in this manual show the mower with safety shields removed to provide a better view. The machine should NEVER be operated with any safety shields removed.

MODEL AND SERIAL NUMBER

Model and serial numbers are found on the serial identification plate, located on the main frame, behind the deck lift foot mechanism. These numbers are required on the Warranty Registration card. They will also ensure you of the correct service parts if replacement becomes necessary.

PARTS AND SERVICE

Use original **I.S.** equipment replacement parts only. These parts are available through your local **I.S.** equipment dealer. Use of substitute parts could affect the performance and safety of your **I.S.** mower. To obtain prompt, efficient service, provide the following information when ordering parts:

- Correct part description and number, as given in the illustrated list supplied within your owner's packet.
- Correct model number.
- Correct serial number.

ALL WARRANTY REPAIR AND SERVICE MUST BE HANDLED THROUGH AN AUTHORIZED I.S. DEALER.

SAFETY PRECAUTIONS

⚠ CAUTION: This product is equipped with an internal combustion type engine. Do not use on or near any unimproved forest-covered or brush-covered land unless the exhaust system is equipped with a spark arrester meeting any applicable local, state, or federal laws. A spark arrester, if it is used, must be maintained in effective working order by the operator. See your authorized service center or engine manufacturer's service center.

⚠ WARNING: The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Safety is a primary concern in the design and manufacture of **I.S.** products and your **I.S.** commercial mower has been built to the highest standards in the industry. However, a mower is only as safe as the operator. As with any type of power equipment, carelessness or error on the part of the operator can result in injury. Please read and follow these instructions on safe operation and be certain anyone operating this lawn mower is familiar with these simple rules.

TRAINING

- Read this operator's manual and the engine operating instructions carefully. Be thoroughly familiar with the controls and proper use of the equipment.
- Never allow children to operate this machine.
- Operators must be instructed in and be capable of safe operation of the equipment and all controls. Do not allow anyone to operate this equipment without proper instruction.
- Understand the controls. Learn how to stop the engine, motion controls and blades in an emergency.
- No one should operate this unit while intoxicated or taking medication that impairs the senses or reactions.
- Keep area of operation clear of all persons, especially small children and pets.
- This machine is not intended for highway use.

PREPARATION

⚠ WARNING: Always disconnect the spark plug wires and place wires where they cannot contact the spark plugs to prevent accidental starting when setting up, adjusting or servicing.

- Thoroughly inspect the area where the equipment is to be used. Remove all stones, sticks and other foreign objects.
- Do not operate the equipment when barefoot, wearing open-toed sandals or shorts. Always wear hard-toed or safety footwear, eye protection, hearing protection, long sleeve shirts and pants.
- Check the fuel level before starting. Do not fill the fuel tanks indoors, when the engine is running, or while the engine is still hot. Wipe off any spilled gasoline before starting the engine.
- Mow only in daylight or in good artificial light.
- Never permit any person other than the operator to ride or board the machine at any time.
- Before starting the machine, with the key removed from the ignition switch, visually inspect to see the cutter blades, blade bolts and spindle assembly are not worn or damaged. (Replace in sets to preserve balance.)
- Before starting the engine, be sure all guards are in place.

OPERATION

- Do not change the engine governor settings or over-rev the engine.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Stop the blades when crossing gravel drives, walks or roads.
- After striking a foreign object, stop the engine and remove the spark plug wires to prevent accidental starting. Thoroughly inspect the mower for any damage and repair before restarting and operating the machine.
- If the equipment should start to vibrate abnormally, immediately stop the engine and check for the cause. Vibration is generally a warning of trouble.
- Stop the engine whenever you leave the mower, before cleaning the cutter deck, when making any repairs or inspections.
- When cleaning, repairing or inspecting, make sure the blades and all moving parts have stopped. Disconnect the spark plug wires and place them where they cannot contact the spark plugs to prevent accidental starting.
- Do not run the engine indoors. Internal combustion engines produce deadly carbon monoxide gas.
- Shut the engine off and wait until the blades have come to a complete stop before unclogging the chute.
- Mow up & down the face of slopes, never across. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes. (See illustration on pg. 6)
- Never operate the mower without the proper guards, plates, or other safety protection devices in place.
- Do not use any attachments unless they are approved by *I.S.*
- Make sure blade switch is "OFF", parking brake is "ON", control handles are locked in "NEUTRAL" and operator is on the seat before attempting to start the engine.
- Keep operation clear of all persons and never direct discharge of material toward bystanders.
- Know how to stop the blades and engine quickly in case of an emergency.
- Never leave key in the ignition switch of unattended equipment.
- Avoid sudden starts and-stops. Decrease speed when turning, especially on slopes.

WHEN YOU SEE THIS SYMBOL



IT MEANS:

ATTENTION!

BECOME ALERT!

YOUR SAFETY IS INVOLVED!

CONTROLS AND OPERATIONS

PRE-START

- Make sure the fuel shut-off valve located on the brake panel is on either the LH tank or RH tank. (Handle is HORIZONTAL)
- Check oil level in engine.

⚠ WARNING: Gasoline is extremely flammable. Do not perform this operation indoors, while smoking or near open flame or spark.

- Fill fuel tanks outdoors with good, clean regular grade unleaded gasoline (87 octane). DO NOT USE HIGH TEST FUEL!
- Make sure the blade engagement switch is "OFF", the parking brake is "ON", and control handles are locked in "NEUTRAL".
- Adjust operator's seat to a comfortable position by using the adjustment lever on the right side of the seat.

IMPORTANT: Before using this machine for the first time, check engine oil level.

STARTING THE ENGINE (HOT OR COLD)

- Move throttle control to approximately 1/2 position.
- Fully pull out choke cable. (Note: A warm engine may require less choke than a cold engine.)
- Turn ignition key to "START" position until the engine starts and release.
- When the engine starts, push choke cable in approximately 1/2 way, and continue to push in choke cable until engine reaches normal operating speed. Failure to do so will flood the engine.

NOTE: The blade engagement switch must be "OFF", the parking brake must be "ON", the control handles must be locked in "NEUTRAL" and the operator must be on the seat in order to allow the engine to start.

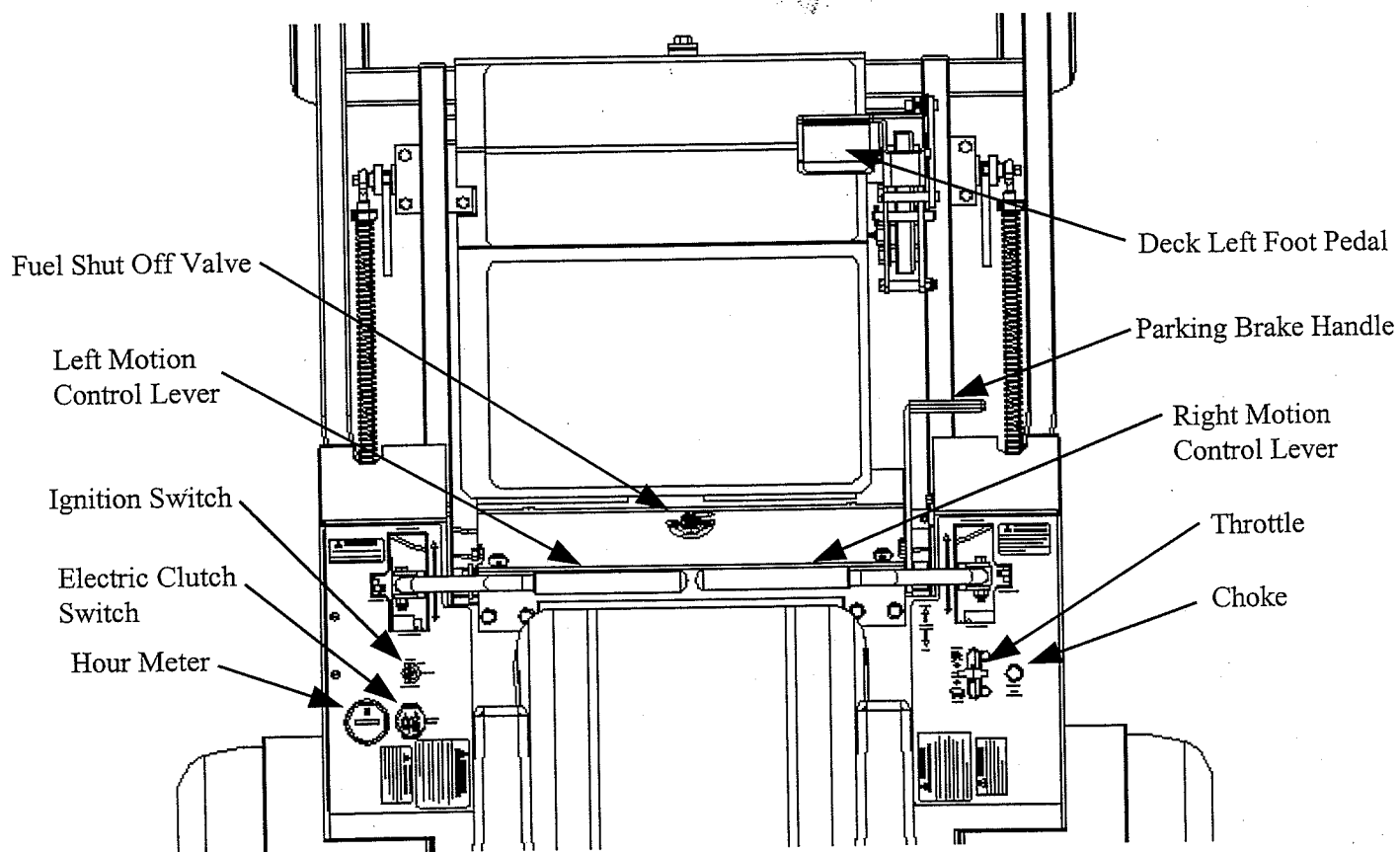
HYDRAULIC DRIVE BY-PASS (FREE WHEEL)

The Dump Valve Knobs, located on the bracket bolted to the hydraulic tanks actuate the hydraulic drive by-pass. Turning the Dump Valve Knobs to the left opens the hydraulic circuit, allowing the tires to "free wheel".

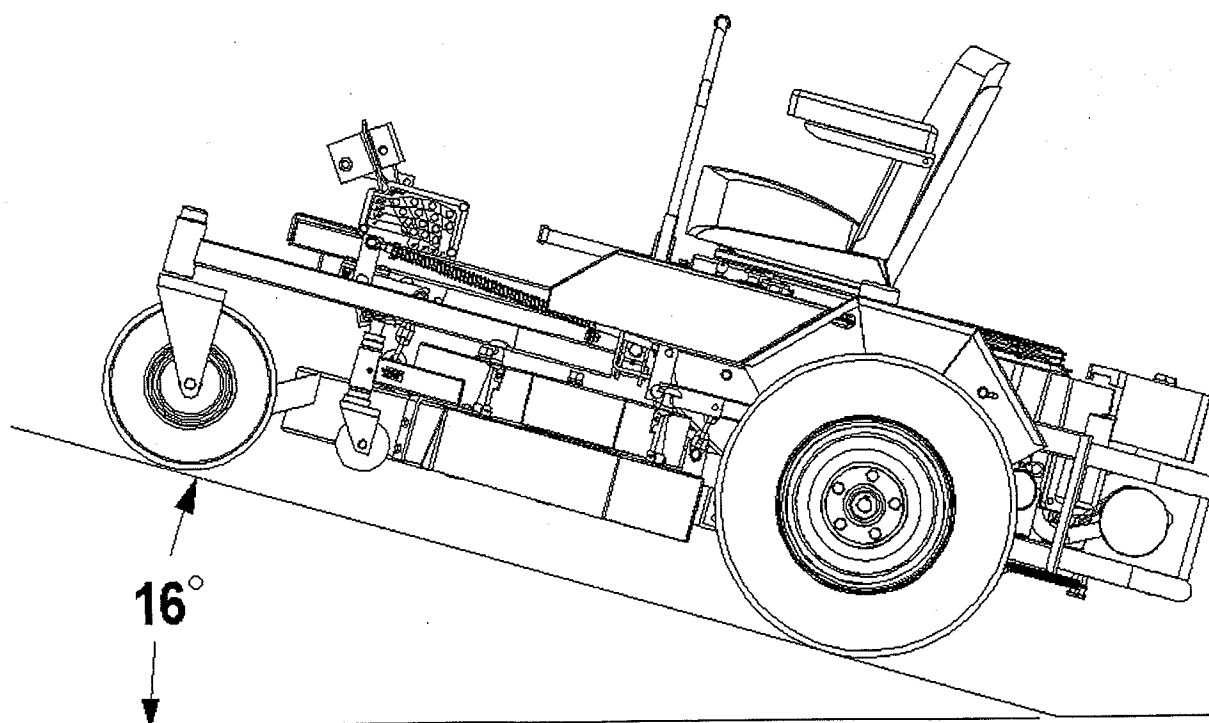
NOTE:

Make sure the Dump Valve Knobs are fully turned to the right before operating the machine. A partial hydraulic by-pass will cause damage to the pumps.

OPERATING CONTROLS



MAXIMUM SAFE OPERATING ANGLE



OPERATING CONTROLS

- The hydraulic pumps have an infinite number of speeds between full speed forward and reverse, with the faster speeds being achieved by moving the control levers farthest in the direction of travel. Reverse is limited to a ratio of 1/2 the speed of forward.
- TO MOVE:
 - A) Disengage the parking brake.
 - B) Move control handles inward. (towards each other)
 - C) Gently move both control levers EVENLY, either forward or backward, to travel in a straight line.
- TO SLOW OR STOP MACHINE:
 - A) Moving both control levers EVENLY to neutral will bring the machine to a stop on level ground.
- TO TURN:
 - A) To turn to the right while traveling forward, pull the right control lever back toward neutral.
 - B) To turn to the left while traveling forward, pull the left control lever back toward neutral.
 - C) To make a zero turn to the right, pull the right control lever back beyond the neutral position while holding the left control lever slightly ahead of the neutral position.
 - D) To make a zero turn to the left, pull the left control lever back beyond the neutral position while holding the right control lever slightly ahead of the neutral position.
 - E) To turn to the right while backing, move the right control lever forward toward neutral. To turn to the left while backing, move the left control lever forward toward neutral.

Use caution when making turns. Slow the machine before making sharp turns to prevent being thrown from the machine.


- For normal use, the throttle should be kept fully open and the ground speed of the machine determined by the control levers. When transporting the machine or when loading or unloading from a truck/trailer, partial throttle should be used to slow the reaction time of the controls and reduce noise. Practice maneuvering the machine using a slow engine speed on level ground with the blade engagement switch in the "OFF" position until you are familiar and comfortable with the controls.
- WORKING ON A SLOPE:

⚠ CAUTION: This machine will climb a slope greater than it is safe to be on. Always reduce speed when working on a slope.

- A) Climbing Hills: Since the hill climbing ability of the machine will probably far exceed any other machine you may have operated, caution should be observed as followed:
 - 1.) Never make an abrupt speed or direction change on a slope.
 - 2.) **NEVER** attempt to mow any grade when the grass is wet.
 - B) Going Down Hills: A very slow speed should always be used when traveling down hill. This can be accomplished by GENTLY moving the control levers in the reverse direction.
- Safety Interlock System: This mower is equipped with an electrical interlock system that will not allow the engine to start unless the blade engagement switch is "OFF", the parking brake is "ON", the control handles are locked in "NEUTRAL", and the operator is on the seat. In order to dismount the machine after the engine is running, the blade engagement switch must be "OFF", the parking brake must be "ON", and the control handles must be locked in "NEUTRAL". The safety interlock system has been designed to protect the operator. Any attempt to defeat the safety interlock system could result in serious personal injury and/or property damage and voids your warranty.

TRIAL RUN

Now that you have located the controls and understand their function and operation, it is time to test run your new mower. Do this with the cutter blades "OFF" until you feel comfortable with operating the machine.

 **WARNING:** Improper use of this machine can result in serious injury. Give complete and undivided attention to safe operation of the mower.

CUTTING WITH THE MACHINE

IMPORTANT: Do not disengage the parking brake until you are ready to move. Do not engage mower blades until you are ready to start mowing.


- To engage the cutter blades, pull up on the yellow handle of the Blade Engagement Switch.
- To disengage the mower blades, push down on the Blade Engagement Switch.

CUTTING SPEED

For best mowing results, it is important that the blades be run at maximum speed. Set the throttle control at the "FAST" position, which will provide the proper blade speed and maximum engine horsepower.

Choose a ground speed that will provide the desired finish cut, maximum operator comfort and will not overload the mower drive. A slower ground speed will provide a smoother operating machine and a more uniform cut.

GRASS DISCHARGE

 **DANGER:** To avoid personal injury, keep all shields and guards in place. Never operate machine without Grass Discharge Chute in place.

The Grass Discharge Chute has been designed to scatter clippings and prevent clogging in heavy cutting. When cutting lush, thick, tall or wet grass, reduce ground speed and/or reduce width of cut to prevent clumping and possible belt damage. For best cutting results, DO NOT mow wet grass. Wet grass will cause clogging and produce unsightly clumping on the lawn. In medium to heavy cuttings, plan your mowing to discharge clippings away from uncut grass.

If the mower becomes clogged, turn the blade engagement switch "OFF" and back unit out from uncut grass. Turn the engine off, remove ignition key and spark plug wire and clean underside of deck using a stick or scraper.

NOTE:

The underside of the cutter deck should be cleaned out (hosed off with water) after each use with the engine off and the blade engagement switch "OFF". This will aid in the performance of the mower on its next use.

ADJUSTMENTS AND SERVICING

CUTTING HEIGHT

The mower is equipped with a convenient Deck Lift Foot Pedal located on the right side of the floor pan. The deck lift plate has a series of holes divided by columns and rows, which will determine the cutting height.

To set the cutting height:

- Determine the height of cut and locate the appropriate hole for that height.
 Example: 3-1/2"
 Locate the column marked 3"
 Follow the column up until it intersects the row marked 1/2"
- Press the foot pedal forward until it locks in the "TRANSPORT" position. (Press on the top edge of the pedal.)
- Place the quick pin in the appropriate hole.
- Press on the bottom edge of the foot pedal to release it from its locked position and let it come to rest against the quick pin.

PARKING BRAKE

To adjust the parking brake:

- Park machine on a flat, level surface and apply the parking brake.
- At the brake caliper, loosen the jam nut on top of the linkage adjuster, which is connected to the caliper arm.
- Tighten the jam nut on the bottom of the linkage adjuster to increase the brake pressure.
 NOTE: It may be necessary to hold the end of the brake cable with pliers to prevent it from twisting.
- Adjust both sides to apply even brake pressure, sufficient enough to hold the machine on a 16° angle.
- Tighten the top jam nut against the linkage adjuster.
- Verify the calipers release the brake pressure from the disks with the handle in the "OFF" position.

DECK LIFT SPRING



WARNING: Extremely high spring pressures. Make no attempt to adjust the spring setting.

The deck lift assist spring is factory set for the correct pre-load. No adjustment is required.

CLUTCH ADJUSTMENT

The clutch is factory preset. No adjustment is required.

HYDRO CONTROL ADJUSTMENT

To adjust Hydro Controls:

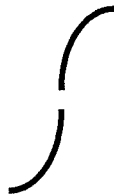
- Set the control handles straight up and down, with the handles in line with each other.
- Loosen the bolts that fasten the control panels, fenders and shocks to the frame.
- Slide the control panel and fender combination to line up the neutral lockout slot with each handle.
- Tighten all bolts except the two that fasten the shocks to the fenders.
- Jack the machine and place securely on jack stands with the drive tires off the ground.
- Loosen the jam nuts on the end of both the long, hex shaped control rods that run underneath the control panels and exit behind the seat.
- Start the machine and release the parking brake.
- Leaving the control handles locked in neutral, turn the hex shaped control rods until the tires stop turning.
- Shut off the machine.
- Push both handles to full forward to check their alignment. If they do not line up, loosen the bolts on the control panel and fender of the side that is further forward and slide it back until the handles are aligned.
- Retighten the bolts that were just loosened.
- Readjust neutral.
- Move the control handles until they are approximately 1/2 way back in the reverse slot of the control panel.
- Fully compress the shocks and tighten the bolts through the fenders and shocks.
- Verify the control handles will travel to the full forward position. If they do not, reverse is set too far back.

HYDRO CONTROL FINE ADJUSTMENT

(This should not be necessary if the lower, short hex control rods are not changed, or have been returned to the original center-to-center distance of 4-1/4")

With the control handles even, if the machine turns to one side while traveling forward, and the opposite sides in reverse, as shown below, perform the following procedure.

Do this only if the regular adjustments are not solving the problem.



- On the side that goes faster in the forward position, loosen the jam nut on the short hex control rod, located on the hydraulic pump control arm, and lengthen by 1/2 turn. (turn clockwise)
- Shorten the long hex control rod on the same side by 1 full turn. (turn counter-clockwise from rear of machine) This should compensate for the neutral adjustment.
- Repeat this adjustment as necessary.

CUTTER BLADES

⚠ DANGER: Before performing any maintenance on the machine, be sure ignition key is "OFF", the blade engagement switch is "OFF", and the spark plug wire is removed from the spark plug.

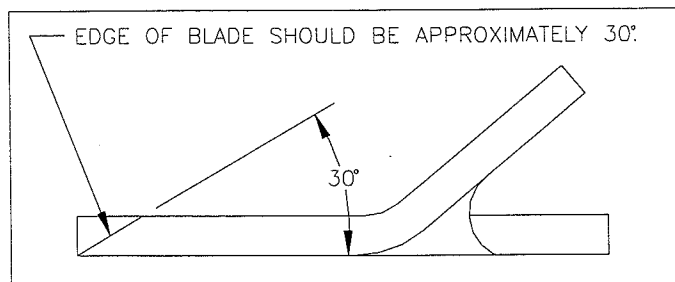
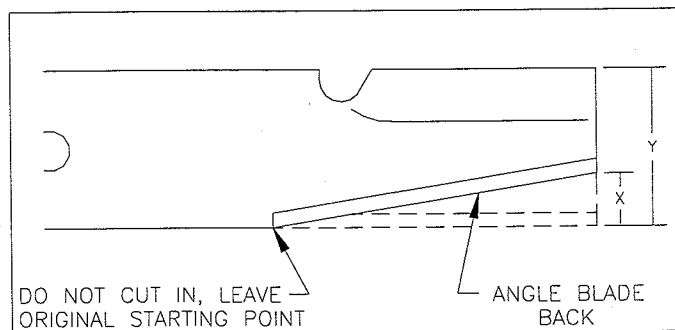
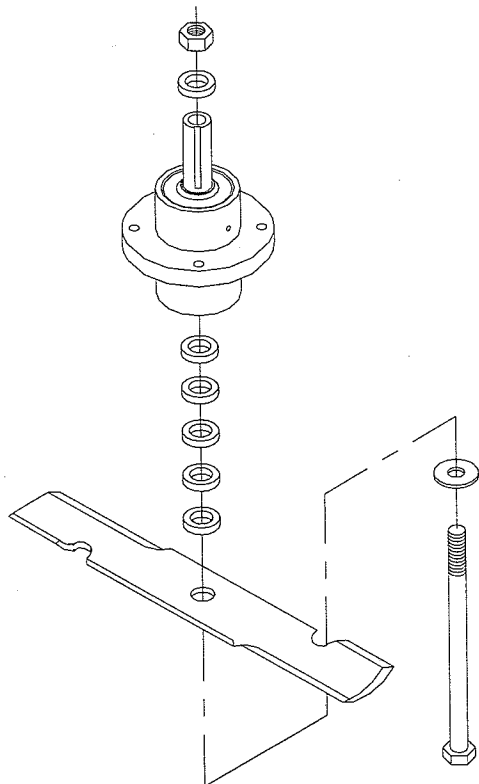
- Remove belt guards from cutter deck by pulling up and away the two rubber latches on each guard
- Use the deck lift foot pedal to raise the cutter deck and place the quick pin in the 4-3/4" setting.
- Remove hair pin, clevis pin and foot pedal. Flip up floor pan and rest against the frame.
- Using two 15/16" wrenches, remove the nut from the top of the blade bolt.
- Withdraw the blade bolt complete with washer, blade and blade spacers.
- Sharpen the blade following the original sharpening pattern and angle. Do not sharpen to a razor's edge. Leave approximately 1/32"-1/16" of an edge on the blade. The distance "X" should never exceed 1/3 the distance "Y". (See illustration below.)

IMPORTANT: Be sure to balance the blades after sharpening. Unbalanced blades will cause excessive vibration, which can damage the blade spindle bearings.

- Place five blade spacers below the cutter deck on the blade bolt. Five on the top of the blade is the factory pre-set. (See illustration below.)

NOTE: DO NOT deviate from this setting. The cutting height will no longer follow the lift plate height adjustments.

- Replace bolt, washer, blade (with wings up) and blade spacers.
- Place remaining spacer above spindle pulley. Replace nut and tighten to 70 FT/LBS.

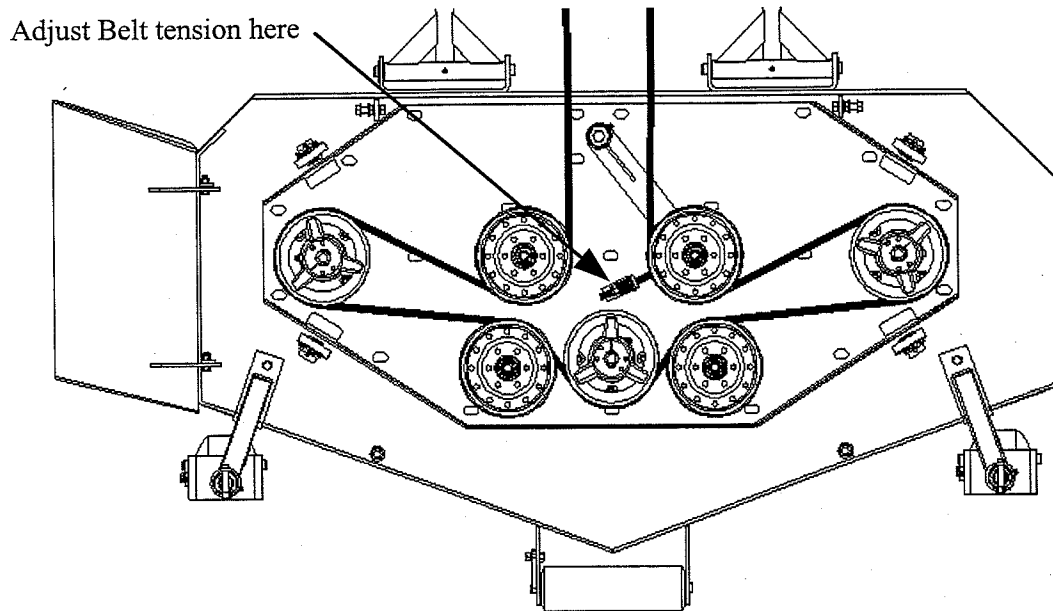


BELT TENSIONS AND ADJUSTMENTS

⚠ DANGER: Before performing any maintenance on the machine, be sure ignition key is "OFF", the blade engagement switch is "OFF", and the spark plug wires are removed from the spark plug.

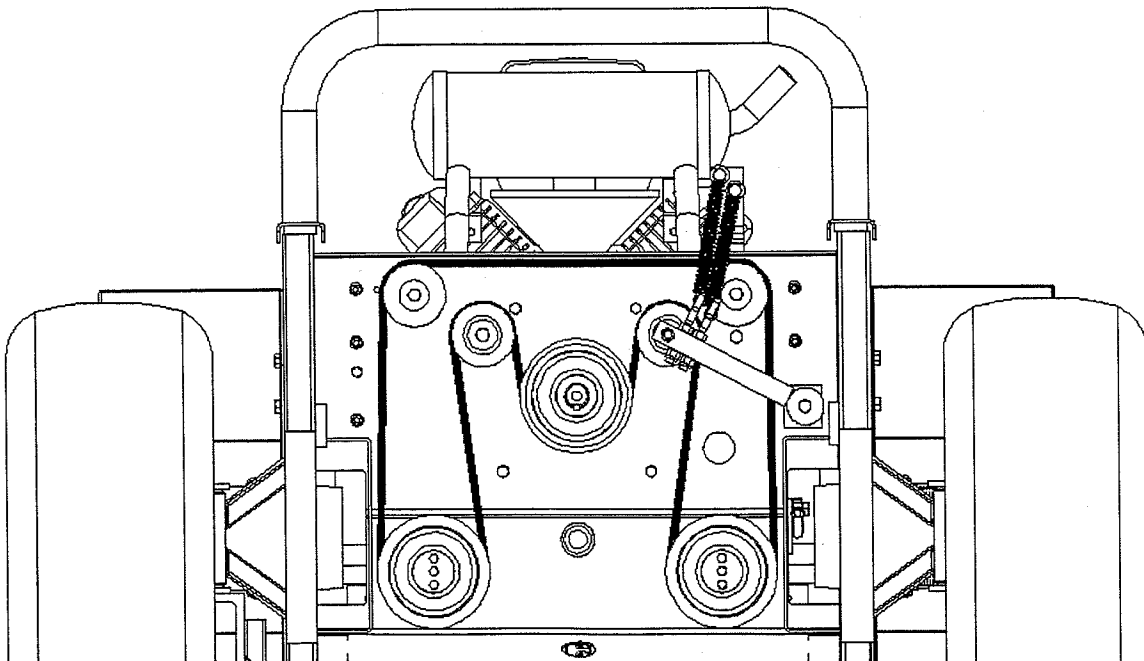
Cutter Deck Drive Belt

The cutter deck idler arm has a spring-loaded manual adjustment. With the machine off, the spring overall length should be 5/8". Tighten or loosen the eyebolt nut accordingly. (See illustration below.)




Engine to Hydraulic Pump Belt

This belt is spring tensioned and requires no adjustment. (See illustration below.)



BELT REMOVAL AND REPLACEMENT

 **DANGER:** Before performing any maintenance on the machine, be sure ignition key is “OFF”, the blade engagement switch is “OFF”, and the spark plug wires are removed from the spark plugs.

NOTE: We strongly recommend using only *I.S.* replacement belts. Other belts may be slightly longer or shorter. This could cause interference, damage and/or improper tensioning of belts.

Cutter Deck Drive Belt

- Remove both cutter deck guards.
- From either side of the cutter deck, roll the belt over and off of the outside spindle pulley.
- Replace in reverse order. See “BELT TENSIONS AND ADJUSTMENTS” for proper belt routing.


Hydraulic Pump Drive Belt

The Cutter Deck Drive Belt must be removed before this belt can be serviced. See instructions above.

- Remove the 5/16” bolt and nylon lock nut that fastens the rubber anchor to the clutch anchor.
- Remove the 3/8” bolts that anchor the springs to release the spring tension. Use caution when performing this operation.
- Unplug the electric clutch and rotate 180° to make clearance for the belt.
- Roll belt off one of the pump drive pulleys and follow with the remaining pulleys.
- Replace in reverse order. See “BELT TENSIONS AND ADJUSTMENTS” for proper belt routing.

IMPORTANT: When reinstalling the belt, be sure to reinstall the clutch anchor securely or damage to the clutch will occur.

MAINTENANCE AND LUBRICATION

 **DANGER:** To avoid personal injury, turn engine OFF and wait for all movement to stop. Remove key from the ignition and remove the spark plug wires from the spark plugs before performing any service or maintenance work.

BREAK-IN MAINTENANCE AND LUBRICATION

- The engine oil, filter and air cleaner should be changed according to the manufacturer's recommendations. See the engine owner's manual for proper instruction. The best time to change the engine oil is just after the engine has been run.
- Check and perform all operations outlined in the "DAILY MAINTENANCE" section of the manual.
- Check belt tensions after the first 5 hours of operation. See the "BELT TENSIONS AND ADJUSTMENTS" section of this manual.

DAILY MAINTENANCE

- GENERAL: Make a general visual inspection of the mower for loose or damaged parts. Periodically check nuts and bolts (i.e. lug nuts) for looseness caused by vibration or rough handling. Damaged parts should be replaced before operating the mower again.
- BELTS: Check the condition and tension of all belts. Replace any badly worn or damaged belt BEFORE it fails and possibly causes component damage. See the "ADJUSTMENT AND SERVICING" section of this manual for belt adjustment or replacement.
- ENGINE OIL LEVEL: Refer to the engine owner's manual. Check oil level with the mower on level ground and the engine OFF. Before removing the oil fill cap, clean any dirt or debris near the oil fill area.
- HYDAULIC OIL LEVEL: Check oil level with the mower on level ground and the engine OFF. Oil level should be 3" from the bottom of the tank. Before removing the breather cap, clean any dirt or debris near the oil fill area.
- AIR INTAKE SCREEN: Check the air intake screens on the engine for debris build up.
- AIR CLEANER: Visually inspect if operating under dusty conditions. Refer to the engine owner's manual for cleaning instructions.
- TIRE PRESSURE: Check the tire pressure in both the drive tires and caster tires. Be sure the drive tires are inflated to 15 PSI and the caster tires are inflated to 25 PSI.
- BATTERY: Terminals should be tight and free of corrosion.
- Grease all points specified in the "GREASE FITTING LOCATION & LUBRICATION" section.

EVERY 25 OPERATION HOURS

- Perform the “DAILY MAINTENANCE” schedule.
- ENGINE OIL: Refer to the engine owner’s manual for proper time frame for changing the oil.
- AIR CLEANER: Clean or replace the air cleaner cartridge every 25 operating hours. (Clean or replace more often if operating under dusty conditions.) Refer to engine owner’s manual for cleaning instructions.

EVERY 100 OPERATING HOURS

- Perform the “EVERY 25 OPERATING HOURS” schedule.
- ENGINE COOLING SYSTEM: Remove the engine blower/flywheel shroud and clean any dirt or debris build up on the engine to prevent overheating and engine damage. Refer to the engine owner’s manual for cleaning instructions.

EVERY 250 OPERATING HOURS

- Under severe conditions of dust, dirt or moisture, change the hydraulic oil filters. See “CHANGING THE HYDRAULIC OIL FILTER” for instructions.

EVERY 500 OPERATING HOURS (or once per year)

- Change the hydraulic oil filters. See “CHANGING THE HYDRAULIC OIL FILTER” for instructions.

CHANGING THE HYDRAULIC OIL FILTER

NOTE:

To minimize the amount of air infiltration into the hydraulic system, fill the new filter with oil before removing the old filter.

***Use only 5W-50 synthetic motor oil.**

- Break the filter loose from the filter head, but do not unscrew and let oil out.
- Remove the bolts that fasten the filter head to the mount.
- Turn the filter head so the filter is pointing downward.
- Remove the old filter and replace with the new filter, already filled with oil.
- Bolt filter head to the mount.

IMPORTANT: NEVER use a filter other than one supplied by *I.S.* Automotive type filters will allow dirt particles large enough to cause hydraulic pump damage to pass through. This will greatly reduce the life expectancy of the hydraulic pumps and void the warranty.

GREASE FITTING LOCATIONS & LUBRICATION

| Lubrication Point | Quantity | 1-Pump Grease Interval |
|-----------------------------|----------|------------------------|
| Front Caster Tires | 2 | Daily |
| Front Frame Pivot | 2 | Weekly |
| Deck Lift Pivot | 4 | Weekly |
| Hydro Control Pivot-Front | 2 | Monthly |
| Hydro Control Pivot-Rear | 2 | Weekly |
| Brake Shaft Pivot | 2 | Monthly |
| Brake Pivot | 2 | Monthly |
| Blade Spindle | 3 | Weekly |
| Cutter Deck Caster | 2 | Monthly |
| Idler Arm | 1 | Monthly |
| Deck Pusher Bar | 2 | Monthly |
| Front Frame Caster Bearings | 4 | Re-pack Yearly |
| Deck Lift Pivot Bolt | 1 | Monthly |

NOTE: Grease interval specifications are based on an 8 hour work day.

NOTE:

When greasing the blade spindle bearings for the first time, grease until it starts to extrude through the relief hole. From then on, grease as specified above.

IMPORTANT: Wipe off grease fittings before attaching grease gun. Wipe off all excess grease, as it will only attract dirt, which could cause bearing damage or failure. Apply grease carefully only where required. Grease on drive belts or pulleys will cause slippage and loss of drive. Wipe up all spills of excess grease completely. Lubricate the blade spindle bearings with a "high speed, no melt" grease. Use of conventional grease may greatly decrease the life expectancy of the bearings.

GENERAL MAINTENANCE & STORAGE

- Periodically check blade and engine mounting bolts for proper tightness.
- Keep all nuts and bolts tight to ensure the equipment is in safe working order.
- To reduce fire hazard, keep engine and the immediate surrounding area free from grass clippings, leaves and excessive grease.
- If parts are worn, use only **I.S.** replacement parts.
- When working underneath lifted parts or machines, make sure adequate support is given. (i.e. jack stands)
- Use caution when rotating one blade as it will rotate the other blades.
- Do not dismantle the machine without releasing or restraining forces, which can cause parts to move suddenly.
- Lubricate all points specified above to prevent moisture damage.
- Never store the equipment with gasoline in the tanks indoors where fumes may reach an open flame or spark.
- Allow the engine to cool before storing in any enclosed area.
- For winter storage, drain the fuel tanks then run the engine to remove all of the fuel from the carburetor float bowl or use a high quality gasoline stabilizer to prevent gumming and varnishing in the carburetor float bowl.

