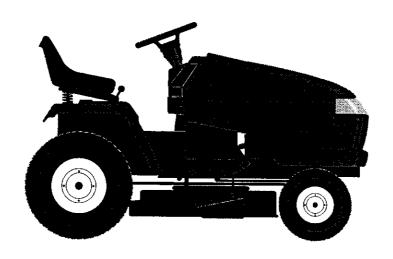
Owner's Manual

CRAFTZMAN®

23.0 HP ELECTRIC START 48" MOWER AUTOMATIC GARDEN TRACTOR

Model No. **917.275240**

- Safety
- Assembly
- Operation
- Maintenance
- Repair Parts





This product has a low emission engine which operates differently from previously built engines. Before you start the engine, read and understand this Owner's Manual.

CAUTION:

Read and follow all Safety Rules and Instructions before operating this equipment. For answers to your questions about this product, Call:

1-800-659-5917

Sears Craftsman Help Line 5 am - 5 pm, Mon - Sat

Sears, Roebuck and Co., Hoffman Estates, II 60179 Visit our Craftsman website:www.sears.com/craftsman

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WARRANTY

LIMITED TWO YEAR WARRANTY ON CRAFTSMAN RIDING EQUIPMENT PARTS For two (2) years from the date of purchase, if this Craftsman Riding Equipment is maintained, lubricated and tuned up according to the instructions in the owner's manual, Sears will repair or replace, free of charge, any parts found to be defective in material or workmanship. Warranty service is available free of charge by returning your Craftsman riding equipment to your nearest Sears Service Center. In-home warranty service is available but a trip charge will apply. This warranty applies only while this product is in the United States.

This Warranty does not cover:

- Expendable items which become worn during normal use, such as blades, spark plugs, air cleaners, belts and oil filters.
- Tire replacement or repair caused by punctures from outside objects, such as nails, thorns, stumps, or glass.
- Repairs necessary because of operator abuse, including but not limited to, damage caused by towing objects beyond the capability of the riding equipment, impacting objects that bend the frame or crankshaft, or over speeding the engine.
- Repairs necessary because of operator negligence, including but not limited to, electrical and mechanical damage caused by improper storage, failure to use the proper grade and amount of engine oil, failure to keep the deck clear of flammable debris, or the failure to maintain the equipment according to the instructions contained in the owner's manual.
- Engine (fuel system) cleaning or repairs caused by fuel determined to be contaminated or oxidized (stale). In general, fuel should be used within thirty (30) days of its purchase date.
- Riding equipment used for commercial or rental purposes. A product is "used for commercial purpose" if is used for any purpose other than single family household dwellings or in usage where profit is made.

LIMITED 90 DAY WARRANTY ON BATTERY

For ninety (90) days from date of purchase, if any battery included with this riding equipment proves defective in material or workmanship and our testing determines the battery will not hold a charge, Sears will replace the battery at no charge. Warranty service is available free of charge by returning your Craftsman riding equipment to your nearest Sears Service Center. In-home warranty service is available but a trip charge will apply. This warranty applies only while this product is in the United States.

TO LOCATE THE NEAREST SEARS SERVICE CENTER OR TO SCHEDULE IN-HOME WARRANTY SERVICE, SIMPLY CONTACT SEARS AT 1-800-4-MY-HOME

This Warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Sears, Roebuck and Co., D/817 WA, Hoffman Estates, IL 60179

SAFETY RULES

IMPORTANT: This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

GENERAL OPERATION

- Read, understand, and follow all instructions in the manual and on the machine before starting.
- Only allow responsible adults, who are familiar with the instructions, to operate the machine.
- Clear the area of objects such as rocks, toys, wire, etc., which could be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- · Never carry passengers.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Be aware of the mower discharge direction and do not point it at anyone.
 Do not operate the mower without either the entire grass catcher or the guard in place.
- Slow down before turning.
- Never leave a running machine unattended. Always turn off blades, set parking brake, stop engine, and remove keys before dismounting.
- Turn off blades when not mowing.
- Stop engine before removing grass catcher or unclogging chute.
- Mow only in daylight or good artificial light.
- Do not operate the machine while under the influence of alcohol or drugs.
- Watch for traffic when operating near or crossing roadways.
- Use extra care when loading or unloading the machine into a trailer or truck.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Keep machine free of grass, leaves or other debris build-up which can touch hot exhaust / engine parts and burn.
 Do not allow the mower deck to plow leaves or other debris which can cause

build-up to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.

SLOPE OPERATION

Slopes are a major factor related to lossof-control and tipover accidents, which can result in severe injury or death. All slopes require extra caution. If you cannot back up the slope or if you feel uneasy on it, do not mow it.

DO:

- Mow up and down slopes, not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps.
 Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.
- Use extra care with grass catchers or other attachments. These can change the stability of the machine.
- Keep all movement on the slopes slow and gradual. Do not make sudden changes in speed or direction.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.

DO NOT:

- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.
- Do not mow near drop-offs, ditches, or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.
- Do not mow on wet grass. Reduced traction could cause sliding.
- Do not try to stabilize the machine by putting your foot on the ground.
- Do not use grass catcher on steep slopes.

SAFETY RULES

CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. *Never* assume that children will remain where you last saw them.

- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Never allow children to operate the machine.
- Use extra care when approaching blind corners, shrubs, trees, or other objects that may obscure vision.

SERVICE

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
 - -Use only an approved container.
 - Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
 - -Never refuel the machine indoors.
 - Never store the machine or fuel container inside where there is an open flame, such as a water heater.

- Never run a machine inside a closed area.
- Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
- Never tamper with safety devices.
 Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage. Allow machine to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running.
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp and can cut.
 Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently.
 Adjust and service as required.











- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers or children even with the blades off.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Keep children out of the mowing area and under the watchful care of another responsible adult.

- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Mow up and down slopes (15° Max), not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps.
 Uneven terrain could overturn the machine. Tall grass can hide obstacles.

SAFETY RULES

- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.
- If machine stops while going uphill, disengage blades, shift into reverse and back down slowly.
- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.

▲Look for this symbol to point out important safety precautions. It means CAUTION!!! BECOMEAWARE!!! YOUR SAFETY IS INVOLVED.

ACAUTION: In order to prevent accidental starting when setting up, transporting, adjusting or making repairs always disconnect spark plug wire and place wire where it cannot contact spark plug. **ACAUTION:** Do not coast down a hill in neutral, you may lose control of the tractor.

ACAUTION: Tow only the attachments that are recommended by and comply with specifications of the manufacturer of your tractor. Use common sense when towing. Operate only at the lowest possible speed when on a slope. Too heavy of a load, while on a slope, is dangerous. Tires can lose traction with the ground and cause you to lose control of your tractor.

AWARNING: Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

AWARNING: Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

PRODUCT SPECIFICATIONS

GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR
OILTYPE	SAE 10W30
(API-SF-SJ):	(ABOVE 32°F) SAE 5W-30 (BELOW 32°F)
OIL CAPACITY:	W/FILTER: 4.0PINTS W/O FILTER: 3.5PINTS
COOLANT TYPE:	ETHYLENE GLYCOL ANTIFREEZE
COOLANT	
CAPACITY:	1.47 QUARTS
SPARK PLUG:	CHAMPION
(GAP: .030")	RC14YC
GROUND	FORWARD: 5.8
SPEED(MPH):	REVERSE: 2.1
TIRE	FRONT: 14 PSI
PRESSURE:	REAR: 10 PSI
CHARGING SYSTEM:	15AMPS @ 3600RPM
BATTERY:	AMP/HR: 35
	MIN. CCA: 280
	CASE SIZE:U1R
BLADE BOLT TORQUE:	45-55 FT. LBS

congratulations on your purchase of a new tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance.

Should you experience any problem you cannot easily remedy, please contact your nearest Sears Authorized Service Center. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

Please read and retain this manual. The instructions will enable you to assemble and maintain your tractor properly. Always observe the "SAFETY RULES". REPAIR AGREEMENT

A Sears Repair Agreement is available on this product. Contact your nearest Sears store for details.

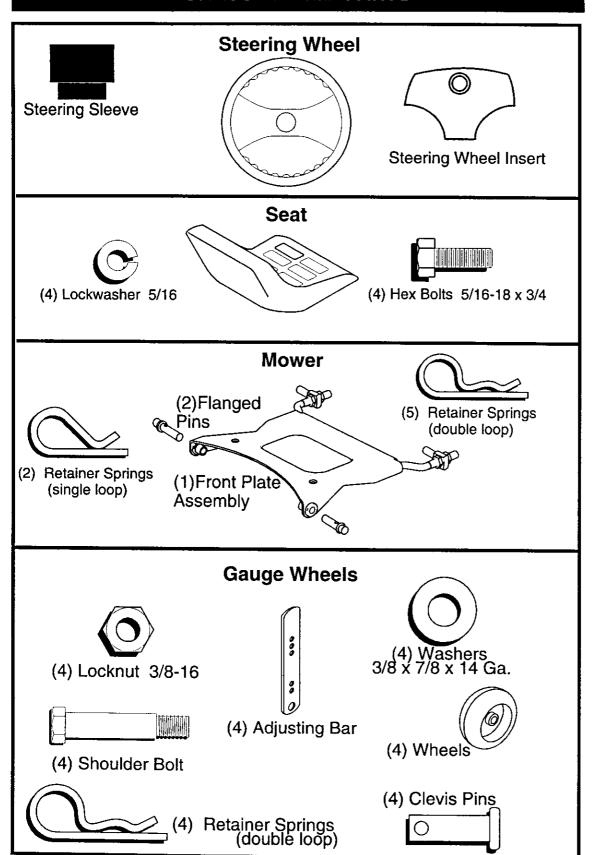
CUSTOMER RESPONSIBILITIES

- · Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your tractor.
- Follow the instructions under "Maintenance" and "Storage" sections of this owner's manual.

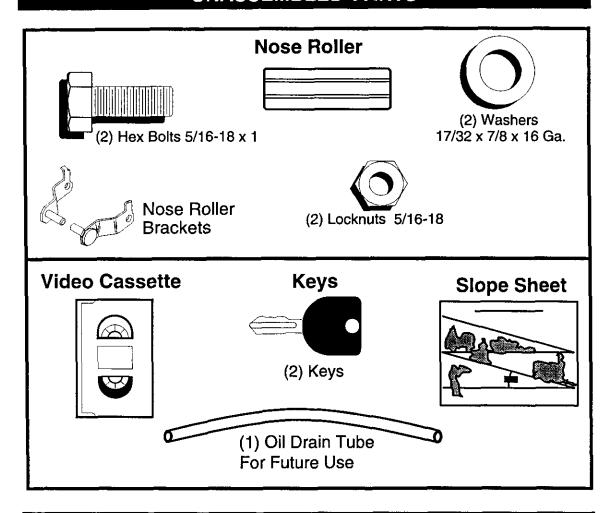
AWARNING: This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest Sears Authorized Service Center (See REPAIR PARTS section of this manual).

UNASSEMBLED PARTS



UNASSEMBLED PARTS



ASSEMBLY

Your new tractor has been assembled at the factory with exception of those parts left unassembled for shipping purposes. To ensure safe and proper operation of your tractor all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to insure proper tightness. Review the video cassette before you begin.

TOOLS REQUIRED FOR ASSEMBLY

A socket wrench set will make assembly easier. Standard wrench sizes you need are listed below.

- (1) 9/16" wrench
- (1) Pliers
- (1) 1/2" wrench
- (1) Utility knife
- (1) 3/4" socket with drive ratchet
- (1) Tire pressure gauge

When right or left hand is mentioned in this manual, it means, from your point of view, when you are in the operating position (seated behind the steering wheel).

TO REMOVE TRACTOR FROM CARTON

UNPACK CARTON

- 1. Remove all accessible loose parts and parts boxes from shipping carton.
- 2. Cut, from top to bottom, along lines on all four corners of shipping carton, and lay panels flat.
- 3. Remove mower and packing materials.
- 4. Check for any additional loose parts or boxes and remove.

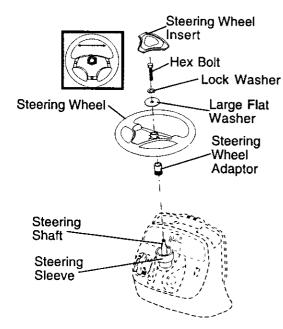
ASSEMBLY

BEFORE REMOVING TRACTOR FROM SKID

ATTACH STEERING WHEEL

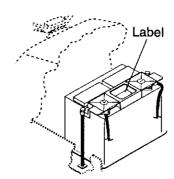
- Remove hex bolt, lock washer and large flat washer from steering shaft.
- 2. Position front wheels of the tractor so they are pointing straight forward.
- 3. Slide the steering sleeve over the steering shaft.
- Position steering wheel so cross bars are horizontal (left to right) and slide onto steering wheel adapter.
- Secure steering wheel to steering shaft with hex bolt, lock washer and large flat washer previously removed. Tighten securely.
- 6. Snap steering wheel insert into center of steering wheel.
- 7. Remove protective materials from tractor hood and grill.

IMPORTANT: Check for and remove any staples in skid that may puncture tires where tractor is to roll off skid.



HOW TO SET UP YOUR TRACTOR CHECK BATTERY

- Lift hood to raised position.
- If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps. (See "BATTERY" in Maintenance section of this manual for charging instructions).

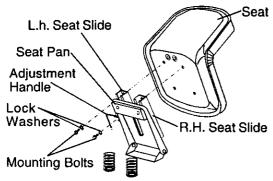


INSTALL SEAT

Seat position should be adjusted forward or backward so that the operator can comfortably reach clutch/brake pedal and safely operate the tractor.

- Release L.H. seat slide on seat pan by pulling out on adjustment handle and sliding it to the rear position exposing seat mounting holes from bottom. Slide R.H. slide to same rear position.
- Mount rear of seat on slides using mounting bolts and lock washers as shown.
- Pull out on adjustment handle and slide seat all the way forward. Install front mounting bolts and lock washers. Tighten all mounting bolts securely.
- Lower seat into operating position and sit on seat. Press clutch/brake pedal all the way down. If operating position is not comfortable, adjust seat.

To adjust seat: Grasp adjustment handle and pull out, slide seat to desired position and release adjustment handle.



NOTE: You may now roll or drive your tractor off the skid. Follow the appropriate instruction below to remove the tractor from the skid.

TO ROLL TRACTOR OFF SKID (See Operation section for location and function of controls)

- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in freewheeling position to disengage transmission (See "TO TRANSPORT" in the Operation section of this manual).
- 4. Roll tractor forward off skid.

TO DRIVE TRACTOR OFF SKID (See Operation section for location and function of controls)

AWARNING: Before starting, read, understand and follow all instructions in the Operation section of this manual. Be sure tractor is in a well-ventilated area. Be sure the area in front of tractor is clear of other people and objects.

- 1. Be sure all the above assembly steps have been completed.
- Check engine oil level and fill fuel tank with gasoline.
- 3. Place freewheel control in "transmission engaged" position.
- 4. Sit on seat in operating position, depress clutch/brake pedal and set the parking brake.
- Place motion control lever in neutral (N) position.
- Press lift lever plunger and raise attachment lift lever to its highest position.
- 7. Start the engine. After engine has started, move throttle control to idle position.
- 8. Release parking brake.
- Slowly move the motion control lever forward and slowly drive tractor off skid.

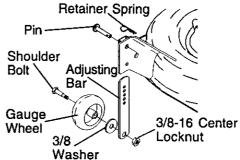
- 10. Apply brake to stop tractor, set parking brake and place gearshift lever in neutral position.
- 11. Turn ignition key to "OFF" position. Continue with the instructions that follow.

ASSEMBLE GAUGE WHEELS TO MOWER DECK

The gauge wheels are designed to keep the mower deck in proper position when operating mower. Be sure they are properly adjusted to ensure optimum mower performance.

- Slide gauge wheel bar down into bracket channel, Be sure that gauge wheel bar aligning holes are on top. Assemble gauge wheels as shown using shoulder bolts, 3/8 washers and 3/8-16 center locknuts and tighten securely.
- For ease of mower to tractor assembly, raise gauge wheels to highest position and retain with clevis pins and spring retainers.

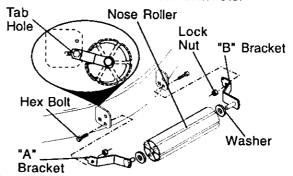
NOTE: Adjust gauge wheels before operating mower. See "TO ADJUST GAUGE WHEELS" in the Operation section of this manual.



TO ATTACH NOSE ROLLER

- Position brackets, 17/32 x 7/8 x 16 gauge washers, and nose roller between deck mounting brackets as shown. Be sure to position brackets on correct side, as shown.
- 2. Install hex bolts and lock nuts as shown. Tighten hardware securely.

NOTE: Be sure bracket tabs are positioned in tab holes in deck brackets.



INSTALL MOWER AND DRIVE BELT

Be sure tractor is on level surface and mower suspension arms are raised with attachment lift control. Engage parking brake.

- Cut and remove ties securing antisway bar and belts. Swing anti-sway bar to left side of mower deck.
- 2. Slide mower under tractor with deflector shield to right side of tractor.

IMPORTANT: Check belt for proper routing in all mower pulley grooves.

- 3. If equipped, turn height adjustment knob counterclockwise until it stops.
- 4. Lower mower linkage with attachment lift control.
- Be sure belt tension rod is in disengaged position.
- 6. Install belt into electric clutch pulley groove.
- Place the suspension arms on outward pointing deck pins. Retain with double loop retainer spring with loops up as shown.
- Install front plate assembly to tractor suspension brackets and retain with single loop retainer springs as shown.

 Position front plate assembly between front mower brackets. Raise deck and plate assembly to align holes and insert flanged pins. Secure pins with double loop retainer springs between the plate assembly and mower brackets.

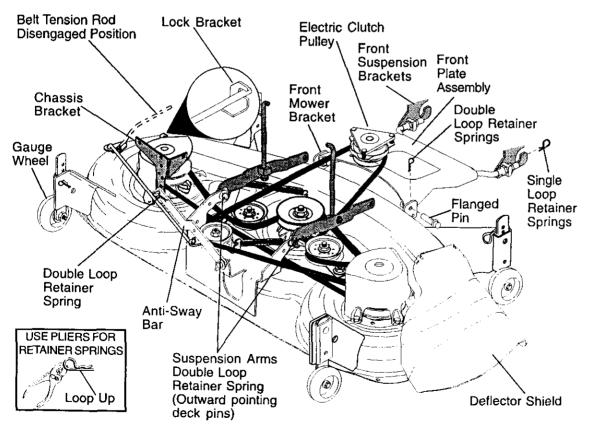
NOTE: To assist in locating hole in flanged pin, the hole in pin is inline with notch on head of pin. If necessary, move mower side-to-side to give space between plate and mower brackets.

IMPORTANT: Check belt for proper routing in all mower pulley grooves.

10. Engage belt tension rod by pushing rod into locking bracket.

▲ CAUTION: Belt tension rod is spring loaded. Have a tight grip on rod and engage slowly.

- 11.Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- If equipped, turn height adjustment knob clockwise to remove slack from mower suspension.
- 13. Raise deck to highest position.
- 14. Adjust gauge wheels before operating mower as shown in the Operation section of this manual.



CHECK TIRE PRESSURE

The tires on your tractor were overinflated at the factory for shipping purposes. Correct tire pressure is important for best cutting performance.

 Reduce tire pressure to PSI shown in "PRODUCT SPECIFICATIONS" section of this manual.

CHECK MOWER LEVELNESS

For best cutting results, mower should be properly leveled. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual. CHECK FOR PROPER POSITION OF ALL BELTS

See the figures that are shown for replacing motion, mower drive, and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly. CHECK BRAKE SYSTEM

After you learn how to operate your tractor, check to see that the brake is properly adjusted. See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual.

✓ CHECKLIST

BEFORE YOU OPERATE AND ENJOY YOUR NEW TRACTOR, WE WISH TO ASSURE THAT YOU RECEIVE THE BEST PERFORMANCE AND SATISFACTION FROM THIS QUALITY PRODUCT.

PLEASE REVIEW THE FOLLOWING CHECKLIST:

- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- ✓ Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated at the factory).
- ✓ Be sure mower deck is properly leveled side-to-side/front-to-rear for best cutting results. (Tires must be properly inflated for leveling).
- Check mower and drive belts. Be sure they are routed properly around pulleys and inside all belt keepers.
- Check wiring. See that all connections are still secure and wires are properly clamped.
- ✓ Before driving tractor, be sure freewheel control is in drive position.

WHILE LEARNING HOW TO USE YOUR TRACTOR, PAY EXTRA ATTENTION TO THE FOLLOWING IMPORTANT ITEMS:

- ✓ Engine oil is at proper level.
- Engine coolant is at proper level.
- ✓ Fuel tank is filled with fresh, clean, regular unleaded gasoline.
- ✓ Become familiar with all controls their location and function. Operate them before you start the engine.
- ✓ Be sure brake system is in safe operating condition.
- ✓ It is important to purge the transmission before operating your tractor for the first time. Follow proper starting and transmission purging instructions (See "TO START ENGINE" and "PURGE TRANSMISSION" in the Operation section of this manual).

OPERATION

These symbols may appear on your tractor or in literature supplied with the product. Learn and understand their meaning.

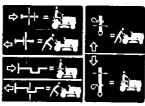








DANGER, KEEP HANDS AND FEET AWAY

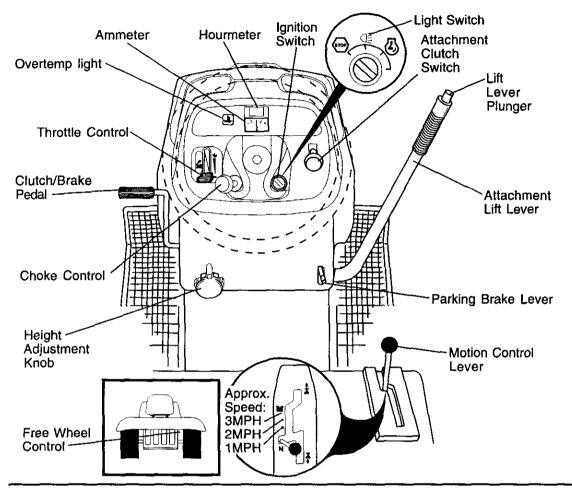


FREE WHEEL (Automatic Models only)

KNOW YOUR TRACTOR

READ THIS OWNER'S MANUAL AND SAFETY RULES BEFORE OPERATING YOUR TRACTOR

Compare the illustrations with your tractor to familiarize yourself with the locations of various controls and adjustments. Save this manual for future reference.



Our tractors conform to the safety standards of the American National Standards Institute.

ATTACHMENT CLUTCH SWITCH -

Used to engage the mower blades, or other attachments mounted to your tractor.

THROTTLE CONTROL - Used to control engine speed.

CLUTCH/BRAKE PEDAL - Used for declutching and braking the tractor and starting the engine.

CHOKE CONTROL - Used when starting a cold engine.

HEIGHT ADJUSTMENT KNOB - Used to adjust the mower cutting height.

IGNITION SWITCH - Used for starting and stopping the engine.

ATTACHMENT LIFT LEVER - Used to raise, lower, and adjust the mower deck or other attachments mounted to your tractor.

LIFT LEVER PLUNGER - Used to release attachment lift lever when changing its position.

AMMETER - Indicates charging (+) or discharging (-) of battery.

PARKING BRAKE LEVER - Locks clutch/brake pedal into the brake position.

MOTION CONTROL LEVER - Selects the speed and direction of tractor.

FREEWHEEL CONTROL - Disengages transmission for pushing or slowly towing the tractor with the engine off. HOURMETER- Indicates hours of operation.

OVERTEMP LIGHT: Indicates overheated coolant during engine operation. LIGHT SWITCH - Turns the headlights on and off.

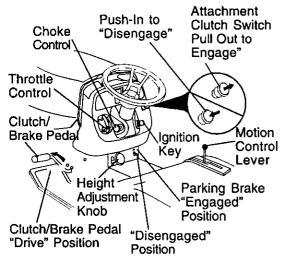


The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask over spectacles or standard safety glasses.

HOW TO USE YOUR TRACTOR TO SET PARKING BRAKE

Your tractor is equipped with an operator presence sensing switch. When engine is running, any attempt by the operator to leave the seat without first setting the parking brake will shut off the engine.

- 1. Depress clutch/brake pedal into full "BRAKE" position and hold.
- Place parking brake lever in "EN-GAGED" position and release pressure from clutch/brake pedal. Pedal should remain in "BRAKE" position. Make sure parking brake will hold tractor secure.



STOPPING

MOWER BLADES -

 To stop mower blades, move attachment clutch switch to "DISENGAGED" position.

GROUND DRIVE -

- To stop ground drive, depress clutch/ brake pedal into full "BRAKE" position.
- Move motion control lever to neutral (N) position.

IMPORTANT: The motion control lever does not return to neutral (N) position when the clutch/brake pedal is depressed.

ENGINE-

Move throttle control to slow position.
 NOTE: Failure to move throttle control to slow position and allowing engine to idle before stopping may cause engine to "backfire".

- Turn ignition key to "OFF" position and remove key. Always remove key when leaving tractor to prevent unauthorized use.
- Never use choke to stop engine.
 IMPORTANT: Leaving the ignition switch in any position other than "OFF" will cause the battery to be discharged, (dead).

NOTE: Under certain conditions when tractor is standing idle with the engine running, hot engine exhaust gases may cause "browning" of grass. To eliminate this possibility, always stop engine when stopping tractor on grass areas.

ACAUTION: Always stop tractor completely, as described above, before leaving the operator's position; to empty grass catcher, etc.

TO USE THROTTLE CONTROL

Always operate engine at full throttle.

- Operating engine at less than full throttle reduces the battery charging rate.
- Full throttle offers the best bagging and mower performance.

TO USE CHOKE CONTROL

Use choke control whenever you are starting a cold engine. Do not use to start a warm engine.

 To engage choke control, pull knob out. Slowly push knob in to disengage.

TO MOVE FORWARD AND BACK-WARD

The direction and speed of movement is controlled by the motion control lever.

- 1. Start tractor with motion control lever in neutral (N) position.
- 2. Release parking brake and clutch/ brake pedal.
- 3. Slowly move motion control lever to desired position.

TO ADJUST MOWER CUTTING HEIGHT

The cutting height is controlled by turning the height adjustment knob in desired direction.

- Turn knob clockwise () to raise cutting height.
- Turn knob counterclockwise () to lower cutting height.

. The cutting height range is approxi-

mately 1-1/2" to 4". The heights are measured from the ground to the blade tip with the engine not running. These heights are approximate and may vary depending upon soil conditions, height of grass and types of grass being mowed.

- The average lawn should be cut to approximately 2-1/2 inches during the cool season and to over 3 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.
- For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first cut relatively high; the second to desired height.

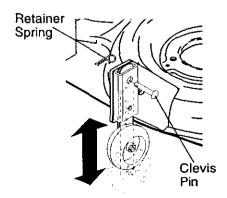
TO ADJUST GAUGE WHEELS

Gauge wheels are properly adjusted when they are slightly off the ground when mower is at the desired cutting height in operating position. Gauge wheels then keep the deck in proper position to help prevent scalping in most terrain conditions.

NOTE: Be sure tractor is on a flat level surface.

- Lower mower and adjust mower to desired cutting height.
- Remove retainer spring and clevis pin which secure each gauge wheel bar,
- Lower gauge wheels to ground.
 Raise gauge wheels slightly to align holes in bracket and gauge wheel bar and insert clevis pin. Gauge wheels should be slightly off the ground.
- 4. Replace retainer spring into clevis pin.
- 5. Be sure all gauge wheels are in the same setting.

IMPORTANT: Be sure to readjust gauge wheels if you change the cutting height of the mower deck.



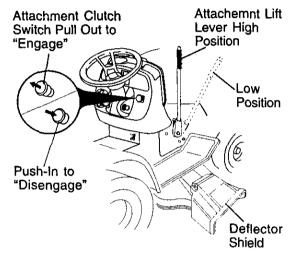
TO OPERATE MOWER

Your tractor is equipped with an operator presence sensing switch. Any attempt by the operator to leave the seat with the engine running and the attachment clutch engaged will shut off the engine.

- 1. Select desired height of cut.
- Lower mower with attachment lift control.
- 3. Start mower blades by engaging attachment clutch control.

TO STOP MOWER BLADES - disengage attachment clutch control.

ACAUTION: Do not operate the mower without either the entire grass catcher, on mowers so equipped, or the deflector shield in place.



TO OPERATE ON HILLS

ACAUTION: Do not drive up or down hills with slopes greater than 15° and do not drive across any slope.

- Choose the slowest speed before starting up or down hills.
- Avoid stopping or changing speed on hills.
- If slowing is necessary, move throttle control lever to slower position.
- If stopping is absolutely necessary, push clutch/brake pedal quickly to brake position and engage parking brake.
- Move motion control lever to slowest setting.

IMPORTRANT: The motion control lever does not return to neutral (N) position when the clutch/brake pedal is depressed.

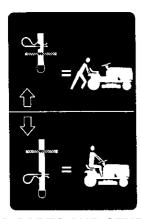
- To restart movement, slowly release parking brake and clutch/brake pedal.
- Slowly move motin control lever to slowest setting.
- Make all turns slowly.

TO TRANSPORT

When pushing or towing your tractor, be sure to disengage transmission by placing freewheel control in freewheeling position. Free wheel control is located at the rear drawbar of tractor.

- Raise attachment lift to highest position with attachment lift control.
- 2. Remove retainer spring from freewheel control rod.
- Push control rod in to disengage transmission and reinsert retainer spring into control rod hole now on back side of the bracket.
- Do not push or tow tractor at more than two (2) MPH.
- To reengage transmission, reverse above procedure.

NOTE: To protect hood from damage when transporting your tractor on a truck or a trailer, be sure hood is closed and secured to tractor. Use an appropriate means of tying hood to tractor (rope, cord, etc.).



TOWING CARTS AND OTHER AT-TACHMENTS

Tow only the attachments that are recommended by and comply with specifications of the manufacturer of your tractor. Use common sense when towing. Too heavy of a load, while on a slope, is dangerous. Tires can lose traction with the ground and cause you to lose control of your tractor.

BEFORE STARTING THE ENGINE CHECK ENGINE OIL LEVEL

The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.

 Check engine oil with tractor on level ground.

- Unthread and remove oil fill cap/ dipstick; wipe oil off. Reinsert the dipstick into the tube and rest oil fill cap on the tube. Do not thread the cap onto the tube. Remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Maintenance section of this manual).
- To change engine oil, see the Maintenance section in this manual.

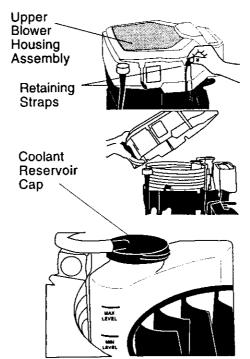
CHECK COOLANT LEVEL

ACAUTION: Check coolant level at reservoir only. Do not open radiator cap.

- Check coolant with tractor on level surface.
- Unhook the four retaining straps and remove the upper blower housing and screen assembly.
- Observe coolant reservoir. Coolant should be between the "MAX" and "MIN" level marks.

ACAUTION: Do not poor coolant into a hot engine or you may damage the cylinder head or block. Do not operate the engine without coolant.

- If necessary, add coolant by removing reservoir cap. Use only ethylene glycol antifreeze and soft water in the mixture ratio specified on the antifreeze container.
- 4. Replace reservoir cap.
- 5. Reinstall the upper blower housing and screen assembly.



ADD GASOLINE

 Fill fuel tank. Use fresh, clean, regular unleaded gasoline with a minimum of 87 octane. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life). Do not mix oil with gasoline. Purchase fuel in quantities that can be used within 30 days to assure fuel freshness.

IMPORTANT: When operating in temperatures below 32°F(0°C), use fresh, clean winter grade gasoline to help insure good cold weather starting.

AWARNING: Experience indicates that alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

ACAUTION: Fill to bottom of gas tank filler neck. Do not overfill. Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

OVERTEMPLIGHT

Located on the dash of your tractor, this light alerts you to the engine being overheated which requires immediate attention.

- Light should come on when engine is not running and the key switch is in "ON" position, this is a test to be sure the light is working.
- If light comes on while operating the engine, stop the engine. Find and correct the problem. See "Engine Overheats" in the Trouble Shooting section of this manual.

TO START ENGINE

When starting the engine for the first time or if the engine has run out of fuel, it will take extra cranking time to move fuel from the tank to the engine.

- Be sure freewheel control is in the transmission engaged position.
- Sit on seat in operating position, depress clutch/brake pedal and set parking brake.
- 3. Place motion control lever in neutral (N) position.

- Move attachment clutch to "DISEN-GAGED" position.
- 5. Move throttle control to fast position
- Pull choke control out for a cold engine start attempt. For a warm engine start attempt the choke control may not be needed.

NOTE: Before starting, read the warm and cold starting procedures below.

7. Insert key into ignition and turn key clockwise to "START" position and release key as soon as engine starts. Do not run starter continuously for more than fifteen seconds per minute. If the engine does not start after several attempts, push choke control in, wait a few minutes and try again. If engine still does not start, pull the choke control out and retry.

WARM WEATHER STARTING (50° F and above)

- When engine starts, slowly push choke control in until the engine begins to run smoothly. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly.
- The attachments and ground drive can now be used. If the engine does not accept the load, restart the engine and allow it to warm up for one minute using the choke as described above.

COLD WEATHER STARTING (50° F and below)

8. When engine starts, slowly push choke control in until the engine begins to run smoothly. Continue to push the choke control in small steps allowing the engine to accept small changes in speed and load, until the choke control is fully in. If the engine starts to run roughly, pull the choke control out slightly for a few seconds and then continue to push the control in slowly. This may require an engine warm-up period from several seconds to several minutes, depending on the temperature.

AUTOMATIC TRANSMISSION WARM UP Before driving the unit in cold weather, the transission should be warmed up as

- Be sure the tractor is on level ground.
- Place the motion control lever in neutral. Release the parking brake and let the clutch/brake slowly return to operating position.
- Allow one minute for transmission to warm up. This can be done during the engine warm up period.

 The attachments can be used during the engine warm-up period after the transmission has been warmed up and may require the choke control be pulled out slightly.

NOTE: If at a high altitude (above 3000 feet) or in cold temperatures (below 32 F) the carburetor fuel mixture may need to be adjusted for best engine performance. See "TO ADJUST CARBURETOR" in the Service and Adjustments section of this manual.

PURGE TRANSMISSION

ACAUTION: Never engage or disengage freewheel lever while the engine is running. To ensure proper operation and performance, it is recommended that the transmission be purged before operating tractor for the first time. This procedure will remove any trapped air inside the transmission which may have developed during shipping of your tractor.

IMPORTANT: Should your transmission require removal for service or replacement, it should be purged after reinstallation before operating the tractor.

- Place tractor safely on level surface with engine off and parking brake set.
- Disengage transmission by placing freewheel control in freewheeling position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine.
 After the engine is running, move
 throttle control to slow position. With
 motion control lever in neutral (N)
 position, slowly disengage clutch/
 brake pedal.
- Move motion control lever to full forward position and hold for five (5) seconds. Move lever to full reverse position and hold for five (5) seconds. Repeat this procedure three (3) times.

NOTE: During this procedure there will be no movement of drive wheels. The air is being removed from hydraulic drive system.

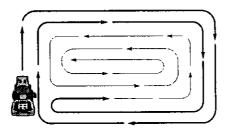
- Move motion control lever to neutral (N) position. Shut- off engine and set parking brake.
- Engage transmission by placing freewheel control in driving position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. With motion control lever in neutral (N) position, slowly disengage clutch/brake pedal.

8. Slowly move motion control lever forward, after the tractor moves approximately five (5) feet, slowly move motion control lever to reverse position. After the tractor moves approximately five (5) feet return the motion control lever to the neutral (N) position. Repeat this procedure with the motion control lever three (3) times.

Your tractor is now purged and now ready for normal operation.

MOWING TIPS

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the tractor. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished.



- If grass is extremely tall, it should be mowed twice to reduce load and possible fire hazard from dried clippings. Make first cut relatively high; the second to the desired height.
- Do not mow grass when it is wet. Wet grass will plug mower and leave undesirable clumps. Allow grass to dry before mowing.
- Always operate engine at full throttle when mowing to assure better mowing performance and proper discharge of material. Regulate ground speed by selecting a low enough gear to give the mower cutting performance as well as the quality of cut desired.
- When operating attachments, select a ground speed that will suit the terrain and give best performance of the attachment being used.

19

MAINTENANCE

AS	MAINTENANCE SCHEDULL IN DATES YOU COMPLETE GULAR SERVICE	JLE	EFORE	ENCHUE ENCHUE	HOURS VERY 2	HOURS VERY SO	HOUR LERY V	BYO'	RS HOU WERY ST	AS ON AS ON FORES	CRAC	ICE	DAT	ES
	Check Brake Operation	/	1											
1	Check Tire Pressure	/	V						<u> </u>					
Т	Check Operator Presence and Interlock Systems	~												
R	Check for Loose Fasteners	1				7			V					
ΙÀ	Sharpen/Replace Mower Blades			V										
I۲	Lubrication Chart			/					1					
lo	Check Battery Level			1/6										
Ř	Clean Battery and Terminals		<u> </u>	1					1					
ļ	Check Transaxle Cooling			1					İ					
	Adjust Blade Belt(s) Tension					✓ 5								
	Adjust Motion Drive Belt(s) Tension					✓ 5								
Г	Check Engine Oil Level	1	1											
	Change Engine Oil			1,2,3					1					
ĺE	Clean Air Filter			√ 2										
N	Clean Air Screen			1/2										
G	Inspect Muffler/Spark Arrester				~				1					
N	Replace Oil Filter (If equipped)					1.2	<u> </u>							
ΙË	Clean Engine Cooling Fins					1/2								
[-	Replace Spark Plug					V		~						
1	Replace Air Filter Paper Cartridge	1	T			1/2							*	
	Replace Fuel Filter			1		1		1	1					
	Change Coolant						/ 8							

- 1 Change more often when operating under a heavy load or in high ambient temperatures. 6 Not required if equipped with maintenance-tree battery.
- 2 Service more often when operating in dirty or dusty conditions.
- 3 if equipped with oil filter, change oil every 50 hours.4 Replace blades more often when mowing in sandy soil.
- 5 If equipped with adjustable system.

GENERAL RECOMMENDATIONS

The warranty on this tractor does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty. operator must maintain tractor as instructed in this manual.

Some adjustments will need to be made periodically to properly maintain your tractor.

All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

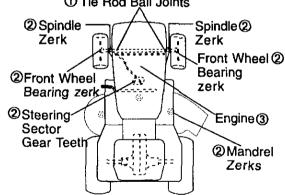
 Once a year you should replace the spark plug, clean or replace air filter, and check blades and belts for wear. A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.

BEFORE EACH USE

- 1. Check engine oil level.
- 2. Check coolant level.
- 3. Check brake operation.
- 4. Check tire pressure.
- 5. Check operator presence and interlock systems for proper operation.
- Check for loose fasteners.

- 7 Tighten front axle pivot bolt to 35 ft.-lbs. maximum
- 8 Have your nearest authorized service center/department





- ①Spray Silicone Lubriant (Move Boots to Lubricate)
- @General Purpose Grease
- ③Refer to Maintenance "ENGINE" Section

IMPORTANT: Do not oil or grease the pivot points which have special nylon bearings. Viscous lubricants will attract dust and dirt that will shorten the life of the self-lubricating bearings. If you feel they must be lubricated, use only a dry, powdered graphite type lubricant sparingly.

TRACTOR

Always observe safety rules when performing any maintenance.

BRAKE OPERATION

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted. (See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual).

TIRES

- Maintain proper air pressure in all tires (See "PRODUCT SPECIFICATIONS" section of this manual).
- Keep tires free of gasoline, oil, or insect control chemicals which can harm rubber.
- Avoid stumps, stones, deep ruts, sharp objects and other hazards that may cause tire damage.

NOTE: To seal tire punctures and prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.

OPERATOR PRESENCE SYSTEM

Be sure operator presence and interlock systems are working properly. If your tractor does not function as described, repair the problem immediately.

- The engine should not start unless the clutch/brake pedal is fully depressed and attachement clutch control is in the disengaged position.
- When the engine is running, any attempt by the operator to leave the seat without first setting the parking brake should shut off the engine.
- When the engine is running and the attachment clutch is engaged, any attempt by the operator to leave the seat should shut off the engine.
- The attachment clutch should never operate unless the operator is in the seat.

BLADE CARE

For best results mower blades must be kept sharp. Replace bent or damaged blades.

BLADE REMOVAL

1. Raise mower to highest position to allow access to blades.

NOTE: Protect your hands with gloves and/or wrap blade with heavy cloth.

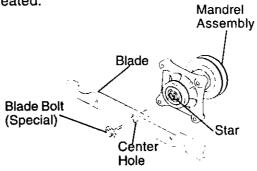
2. Remove blade bolt by turning counterclockwise.

3. Install new or resharpened blade with stamped "THIS SIDE UP" facing deck and mandrel assembly.

IMPORTANT: To ensure proper assembly, center hole in blade must align with star on mandrel assembly.

4. Install and tighten blade bolt securely (45-55 Ft. Lbs. torque).

IMPORTANT: Special blade bolt is heat treated.



TO SHARPEN BLADE

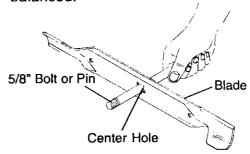
NOTE: We do not recommend sharpening blade - but if you do, be sure the blade is balanced.

Care should be taken to keep the blade balanced. An unbalanced blade will cause excessive vibration and eventual damage to mower and engine.

- The blade can be sharpened with a file or on a grinding wheel. Do not attempt to sharpen while on the mower.
- To check blade balance, you will need a 5/8" diameter steel bolt, pin, or a cone balancer. (When using a cone balancer, follow the instructions supplied with balancer.)

NOTE: Do not use a nail for balancing blade. The lobes of the center hole may appear to be centered, but are not.

 Slide blade on to an unthreaded portion of the steel bolt or pin and hold the bolt or pin parallel with the ground. If blade is balanced, it should remain in a horizontal position. If either end of the blade moves downward, sharpen the heavy end until the blade is balanced.



BATTERY

Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- · Keep battery and terminals clean.
- · Keep battery bolts tight.
- · Keep small vent holes open.
- Recharge at 6-10 amperes for 1 hour.
 NOTE: The original equipment battery on your tractor is maintenance free. Do not attempt to open or remove caps or covers. Adding or checking level of electrolyte is not necessary.

TO CLEAN BATTERY AND TERMINALS Corrosion and dirt on the battery and terminals can cause the battery to "leak" power.

- 1. Remove terminal guard.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Rinse the battery with plain water and dry.
- Clean terminals and battery cable ends with wire brush until bright.
- Coat terminals with grease or petroleum jelly.
- Reinstall battery (See "REPLACING BATTERY" in the SERVICE AND ADJUSTMENTS section of this manual).

V-BELTS

Check V-belts for deterioration and wear after 100 hours of operation and replace if necessary. The belts are not adjustable. Replace belts if they begin to slip from wear.

TRANSAXLE COOLING

The transmission fan and cooling fins should be kept clean to assure proper cooling.

Do not attempt to clean fan or transmission while engine is running or while the transmission is hot. To prevent possible damage to seals, do not use high pressure water or steam to clean transaxle.

- Inspect cooling fan to be sure fan blades are intact and clean.
- Inspect cooling fins for dirt, grass clippings and other materials. To prevent damage to seals, do not use compressed air or high pressure sprayer to clean cooling fins.

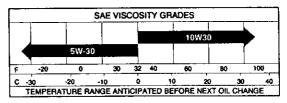
TRANSAXLE PUMP FLUID

The transaxle was sealed at the factory and fluid maintenance is not required for the life of the transaxle. Should the transaxle ever leak or require servicing, contact your nearest authorized service center/department.

ENGINE

LUBRICATION

Only use high quality detergent oil rated with API service classification SF-SJ. Select the oil's SAE viscosity grade according to your expected operating temperature.



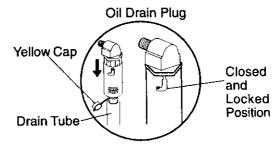
Change the oil after every 50 hours of operation or at least once a year if the tractor is not used for 50 hours in one year.

Check the crankcase oil level before starting the engine and after each eight (8) hours of operation. Tighten oil fill cap/dipstick securely each time you check the oil level.

TO CHANGE ENGINE OIL

Determine temperature range expected before oil change. All oil must meet API service classification SF-SJ.

- · Be sure tractor is on level surface.
- Oil will drain more freely when warm.
- · Catch oil in a suitable container.
- Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine when changing oil.
- Remove yellow cap from bottom fitting of drain plug and install the drain tube onto the fitting.



- Unlock drain plug by pushing upward and turning counterclockwise.
- To open, pull down on the drain plug.

- After oil has drained completely, close and lock the drain plug by pushing upward and turning clockwise until the pin is in the locked position as shown.
- 6. Remove the drain tube and replace the cap onto to the bottom fitting of the drain plug.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" section of this manual.
- 8. Use gauge on oil fill cap/dipstick for checking level. Insert dipstick into the tube and rest the oil fill cap on the tube. Do not thread the cap onto the tube when taking reading. Keep oil at "FULL" line on dipstick. Tighten cap onto the tube securely when finished.

ENGINE OIL FILTER

Replace the engine oil filter every season or every other oil change if the tractor is used more than 100 hours in one year.

AIR FILTER

Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first. Service air cleaner more often under dusty conditions.

 Unhook the four retaining straps and remove the upper blower housing and screen assembly.

TO SERVICE PRE-CLEANER

- 2. Slide foam pre-cleaner off cartridge.
- 3. Wash it in liquid detergent and water.
- 4. Squeeze it dry in a clean cloth. Allow it to dry.
- 5 Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.

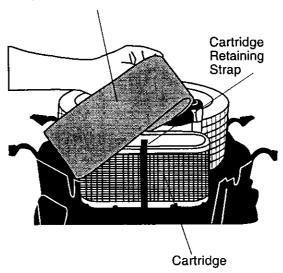
TO SERVICE CARTRIDGE

Replace a dirty, bent, or damaged cartridge.

NOTE: Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge.

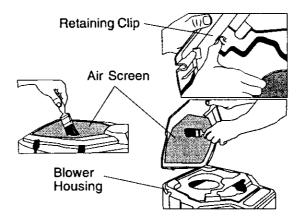
- 6. Unhook the cartridge retaining strap and remove the cartridge.
- 7. Install new cartridge and secure with retaining strap.
- 8. Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Reinstall the upper blower housing and screen assembly. Secure with the four retaining straps.

Foam Pre-cleaner



CLEAN AIR SCREEN

Air screen must be kept free of dirt and chaff to prevent engine damage from overheating. Clean with a brush or compressed air to remove dirt and stubborn dried gum fibers. If required, the screen assembly may be separated from the blower housing by unsnapping it from the underside.



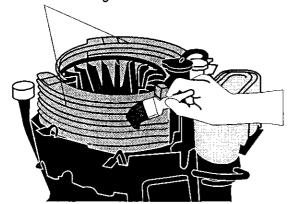
CLEAN AIR INTAKE/COOLING AREAS

To ensure proper air circulation, make sure the air intake screen, radiator, cooling fins, and other external surfaces of the engine are kept clean at all times. Every 100 hours of operation (more often under extremely dusty, dirty conditions), remove the upper blower housing assembly. Clean the cooling fins of the radiator, external surfaces, and the air intake screen and blower housing assembly as necessary. The screen assembly may be separated from the upper blower housing to permit more thorough cleaning if required (See "CLEAN AIR SCREEN"). Make sure all parts are reinstalled before starting the engine. If the screen assembly was separated from the blower housing, push the upper retaining clips into the locked position.

Clean the cooling fins of the radiator with a soft brush or blow out using clean, compressed air. Do not use a high pressure washer to clean, to avoid damaging the cooling fins.

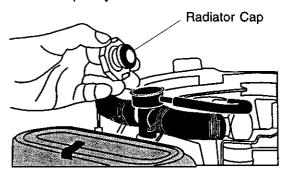
NOTE: Operating the engine with a blocked air intake screen, dirty or plugged radiator cooling fins, and/or cooling shrouds removed, will cause engine damage due to overheating.

Radiator Cooling Fins

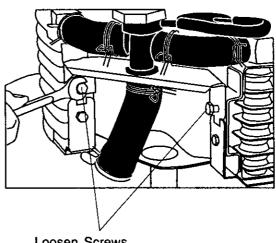


TO CHANGE RADIATOR COOLANT

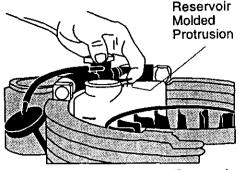
- 1. Stop engine and allow it to cool sufficiently.
- 2. Unhook the four retaining straps and remove the upper blower housing and screen assembly.
- 3. Check if the radiator is cool to the touch. Slowly loosen the radiator cap to the first stop and allow any pressure to bleed off. Then loosen the cap fully and remove.

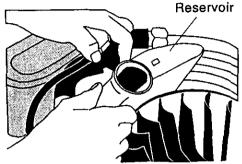


- 4. Locate and remove the coolant drain plug on the lower side of both cylinder heads. Drain the coolant into a suitable container.
- 5. After the coolant has drained, apply pipe sealant with Teflon (not Teflon tape) to the threads and reinstall the plugs. Tighten the plugs to 120 in. lbs. Torque.
- 6. The coolant reservoir has three (3) molded protrusions (1 upper and 2 lower) that fit into corresponding holes in the support brackets. Loosen the screws that secure the upper bracket to the radiator enough to allow the reservoir to be removed.
- 7. Remove the reservoir cap. Carefully tip the bracket away from the reservoir and lift the reservoir out.



Loosen Screws





- 8. Pour out the contents of the reservoir and wash out or clean as required.
- Dispose of all the old coolant properly, according to local regulations.
- 10. Reinstall the reservoir, engaging the molded protrusions in the mounting holes of the support brackets. Hold in this position and tighten the upper bracket screws securely.
- 11. Check the condition of cooling system hoses, clamps and associated components. Replace as required.
- 12. Mix equal parts of ethylene glycol anti-freeze and distilled water. For approximate engine coolant capacity, see "PRODUCT SPECIFICATIONS" in the front of this manual.
- 13. Fill the cooling system through the neck for radiator cap with the coolant mixture. Allow coolant to drain into the lower areas of engine. Fill the overflow reservoir to a level between the "MAX" and "MIN" level marks. Reinstall the radiator and reservoir caps.
- 14. Reinstall the upper blower housing and screen assembly.
- 15. Start and run the engine for five minutes. Stop the engine and allow it to cool.
- 16. Remove the upper blower housing and recheck the coolant level. Add coolant to reservoir only if necessary.
- 17. Reinstall the upper blower housing and screen assembly. Secure with the retaining straps.

MUFFLER

Inspect and replace corroded muffler and spark arrester (if equipped) as it could create a fire hazard and/or damage.

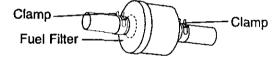
SPARK PLUGS

Replace spark plugs at the beginning of each mowing season or after every 100 hours of operation, whichever occurs first. Spark plug type and gap setting are shown in "PRODUCT SPECIFICATIONS" section of this manual.

IN-LINE FUEL FILTER

The fuel filter should be replaced once each season. If fuel filter becomes clogged, obstructing fuel flow to carburetor, replacement is required.

- 1. With engine cool, remove filter and plug fuel line sections.
- Place new fuel filter in position in fuel line with arrow pointing towards carburetor.
- Be sure there are no fuel line leaks and clamps are properly positioned.
- 4. Immediately wipe up any spilled gasoline.



CLEANING

- Clean engine, battery, seat, finish, etc. of all foreign matter.
- Keep finished surfaces and wheels free of all gasoline, oil, etc.
- Protect painted surfaces with automotive type wax.

We do not recommend using a garden hose to clean your tractor unless the electrical system, muffler, air filter and carburetor are covered to keep water out. Water in engine can result in a shortened engine life.

SERVICE AND ADJUSTMENTS

ACAUTION: Before performing any service or adjustments: 1. Depress clutch/brake pedal fully and set parking brake.

- 2. Place motion control lever in neutral (N) position.
- 3. Place attachment clutch in "DISENGAGED" position.
- 4. Turn ignition key "OFF" and remove key.
- 5. Make sure the blades and all moving parts have completely stopped.
- 6. Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

TRACTOR

TO REMOVE MOWER

- Place attachment clutch in "DISEN-GAGED" position.
- 2. If equipped, turn height adjustment knob to lowest setting.
- 3. Lower mower to its lowest position.
- 4. Disengage belt tension rod from lock bracket.

A CAUTION: Rod is spring loaded. Have a tight grip on rod and release slowly.

- 5. Remove retainer spring holding antiswaybar to chassis bracket and disengage anti-swaybar from bracket.
- 6. Remove four retainer springs from front plate assembly and remove plate.
- 7. Remove retainer springs from suspension arms at deck and disengage arms from deck.
- 8. Raise attachment lift to its highest position.
- 9. Slide mower forward and remove belt from electric clutch pulley.
- 10. Slide mower out from under right side of tractor.

TO INSTALL MOWER

Follow procedure described in "INSTALL MOWER AND DRIVE BELT" in the Assembly section of this manual.

TO LEVEL MOWER HOUSING

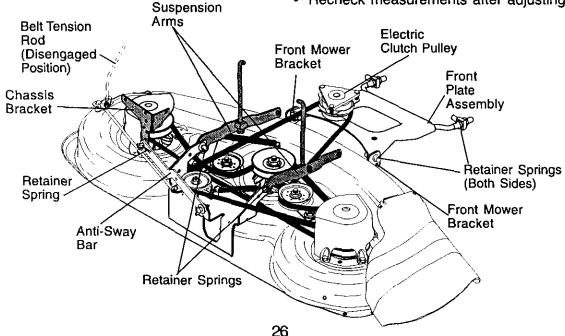
Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PROD-UCT SPECIFICATIONS" section of this manual). If tires are over or underinflated, you will not properly adjust your mower.

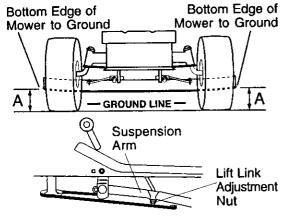
SIDE-TO-SIDE ADJUSTMENT

- Raise mower to its highest position.
- Measure height from bottom edge of mower to ground level at front corners of mower. Distance "A" on both sides of mower should be the same.
- If adjustment is necessary, make adjustment on one side of mower only.
- To raise one side of mower, tighten lift link adjustment nut on that side.
- To lower one side of mower, loosen lift link adjustment nut on that side.

NOTE: Each full turn of adjustment nut will change mower height about 3/16".

Recheck measurements after adjusting.





FRONT-TO-BACK ADJUSTMENT

IMPORTANT: Deck must be level sideto-side. If the following front-to-back adjustment is necessary, be sure to adjust both front links equally so mower will stay level side-to-side.

To obtain the best cutting results, the mower blades should be adjusted so the front tip is approximately 1/8" to 1/2" lower than the rear tip when the mower is in its highest position.

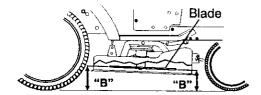
A CAUTION: Blades are sharp. Protect your hands with gloves and/or wrap blade with heavy cloth.

Check adjustment on right side of tractor. Position any blade so the tip is pointing straight forward. Measure distance "B" at front and rear tip of blade

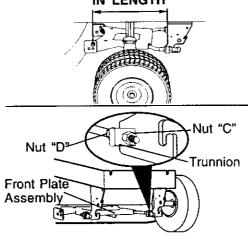
- Before making any necessary adjustments, check that both front links are equal in length.
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of blade, loosen nut "C" on both front links an equal number of turns.

NOTE: Each full turn of nut "C" will change dim. "B" by approximately 3/16".

- When distance "B" is 1/8" to 1/2" lower at front than rear, tighten nut "D" against trunnion on both front links.
- To raise front of blade, loosen nut "D" from trunnion on both front links.
 Tighten nut "C" on both front links an equal number of turns.
- When distance "B" is 1/8" to 1/2" lower at front than rear, tighten nut "D" against trunnion on both front links.
- · Recheck side-to-side adjustment.



BOTH FRONT LINKS MUST BE EQUAL IN LENGTH



TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL

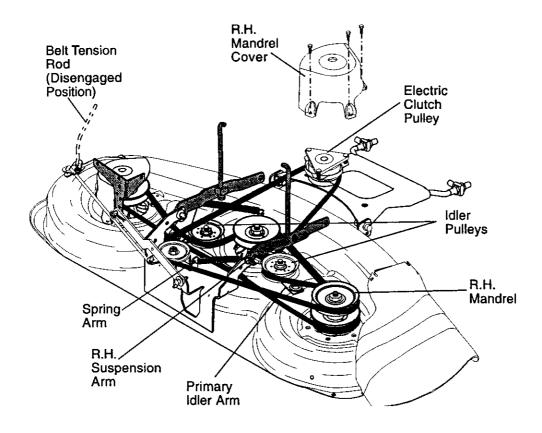
- 1. Park tractor on a level surface. Engage parking brake.
- 2. Lower mower to its lowest position.
- 3. Disengage belt tension rod from lock bracket.

CAUTION: Rod is spring loaded. Have a firm grip on rod an release slowly.

- Remove screws from R.H. mandrel cover and remove cover.
- Remove any dirt or grass clippings which may have accumulated around mandrels and entire upper deck surface.
- Disconnect R.H. suspension arm from rear deck bracket by removing retainer spring.
- Carefully roll belt over the top of R.H. mandrel pulley.
- 8. Remove belt from electric clutch pulley.
- Remove belt from idler pulleys.
- Check primary idler arm and two idlers to see that they rotate freely.
- 11.Be sure spring is securely hooked to primary idler arm and spring arm.

MOWER DRIVE BELT INSTALLATION

- 12. Install belt in both idlers.
- 13. Install new belt onto electric clutch pulley.
- 14. Carefully roll belt into upper groove of R.H. mandrel pulley.
- 15. Carefully check belt routing making sure belt is in the grooves correctly.
- Reconnect R.H. suspension arm to rear deck bracket with retainer spring.
- 17. Reassemble R.H. mandrel cover.
- 18. Engage belt tension rod by pushing rod into locking bracket.

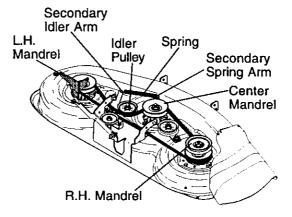


TO REPLACE MOWER BLADE DRIVE BELT

Park the tractor on level surface. Engage parking brake.

- Remove mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).
- Remove mower (See "TO REMOVE MOWER" in this section of this manual).
- 3. Remové screws from L.H. mandrel cover and remove cover.
- 4. Carefully roll belt off L.H. mandrel pulley.
- Remove belt from center mandrel pulley, idler pulley, and R.H. mandrel pulley.
- Remove any dirt or grass which may have accumulated around mandrels and entire upper deck surface.
- 7. Check secondary idler arm and idler pulley to see that they rotate freely.
- 8. Be sure spring is hooked in secondary idler arm and secondary spring arm.
- Install new belt in lower groove of R.H. mandrel pulley, idler pulley, and center mandrel pulley as shown.

- Carefully roll belt over L.H. mandrel pulley. Make sure belt is in all grooves properly.
- 11. Reinstall L.H. mandrel cover.
- 12. Reinstall mower to tractor (See "INSTALL MOWER AND DRIVE BELT" in the Assembly section of this manual).
- 13. Reassemble mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).

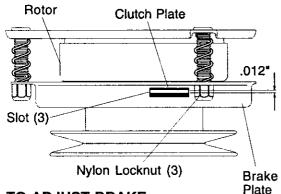


TO ADJUST ATTACHMENT CLUTCH

The electric clutch should provide years of service. The clutch has a built-in brake that stops the pulley within 5 seconds. Eventually, the internal brake will wear which may cause the mower blades to not engage, or, to not stop as required. Adjustments should be made by your nearest Sears or other qualified service center.

- 1. Make sure attachment clutch and ignition switches are in "OFF" position.
- Adjust the three nylon locknuts until space between clutch plate and rotor measures .012" at all three slot locations cut in the side of brake plate.

NOTE: After installing a new electric clutch, run tractor at full throttle and engage and disengage electric clutch 10 cycles to wear in clutch plate.

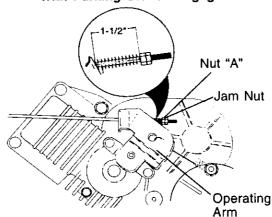


TO ADJUST BRAKE

Your tractor is equipped with an adjustable brake system which is mounted on the right side of the transaxle. If tractor requires more than six (6) feet stopping distance at high speed in highest gear on a level dry concrete or paved surface, then brake must be adjusted

- 1. Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-1/2", loosen jam nut and turn nut "A" until distance becomes 1-1/2". Retighten jam nut against nut "A".
- 4. Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest Sears or other qualified service center.

With Parking Brake "Engaged"



TO REPLACE MOTION DRIVE BELT

Park the tractor on level surface. Engage parking brake. For ease of service there is a belt installation guide decal on bottom of left footrest.

 Remove mower (See "TO REMOVE MOWER" in this section of this manual.)

BELT REMOVAL -

- Engage parking brake (creates slack in belt).
- 3. Remove belt from clutching and fan idler pulleys.
- 4. Loosen belt keeper above transaxle pulley.
- 5. Remove belt from transaxle pulley.
- 6. Remove belt from engine pulley and front V-idler pulley.
- 7. Pull belt out of all belt keepers and remove from tractor.

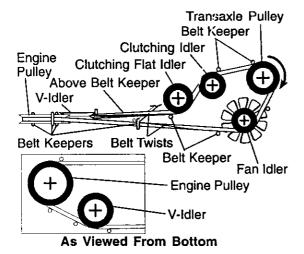
BELT INSTALLATION -

- Place V part of belt into grooves on engine pulley and front V-idler, making sure to route belt inside of all belt keepers.
- Route belt on right side, coming from V-idler, towards back of tractor, above midspan belt keeper and to top of transaxle pulley.
- Route belt on left side, coming from engine pulley, towards back of tractor and through loop in midspan belt keeper.
- Place V part of belt into grooves on transaxle and fan idler pulleys, making sure to route belt inside of all belt keepers.
- 5. Retighten belt keeper above transaxle pulley.
- Place belt around clutching idlers as shown, making sure to route belt inside of all belt keepers.

- Check to be sure belt is positioned correctly and is on proper side of all belt keepers.
- 8. Reinstall mower.

IMPORTANT: Check brake adjustment.

Tractor V-Belt Drive Schematic Viewed From L.H. Side of Tractor



TRANSMISSION REMOVAL/REPLACE-MENT

Should your transmission require removal for service or replacement, it should be purged after reinstallation and before operating the tractor. See "PURGE TRANSMISSION" in the Operation section of this manual.

TO ADJUST MOTION CONTROL LEVER

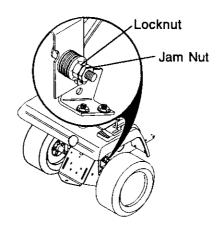
The motion control lever has been preset at the factory and adjustment should not be necessary.

If for any reason the motion control lever will not hold its position while at a selected speed, it may be adjusted at the friction pack located on the right side of chassis.

- Park tractor on level surface. Stop tractor by turning ignition key to "OFF" position and engage parking brake.
- 2. Place motion control lever in neutral (N) position.
- While holding locknut, loosen jam nut
- Tighten locknut 1/4 turn.
- 5. While holding locknut, tighten jam nut securely.

NOTE: If for any reason the effort to move the motion control lever becomes too excessive, reverse the above adjustment procedure by loosening locknut 1/4 turn.

Road test tractor after adjustment and repeat procedure if necessary.



TO ADJUST STEERING WHEEL ALIGNMENT

If steering wheel crossbars are not horizontal (left to right) when wheels are positioned straight forward, remove steering wheel and reassemble per instructions in the Assembly section of this manual.

FRONT WHEEL TOE-IN ADJUSTMENT

Front wheel toe-in is required for proper steering operation. Toe-in was set at the factory and adjustment should not be necessary. If parts in the front axle or steering mechanism have been replaced or damaged, check toe-in and adjust if necessary.

TO CHECK TOE-IN

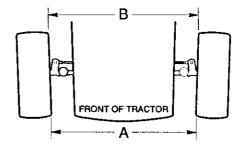
- 1. Position front wheels straight ahead.
- Measure distance between wheels at front and rear of tires (dimensions "A" and "B").
- Front dimension "A" should be 1/8" to 1/4" less than rear dimension "B".

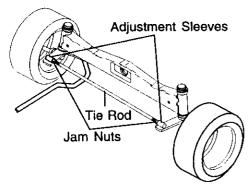
TO ADJUST TOE-IN

- Loosen jam nuts at adjustment sleeves on tie rod.
- 2. Adjust tie rod until dimension "A" is 1/8" to 1/4" less than dimension "B".
- 3. Tighten jam nuts securely.

FRONT WHEEL CAMBER

The front wheel camber is not adjustable on your tractor. If damage has occurred to affect the front wheel camber, contact a Sears or other qualified service center.





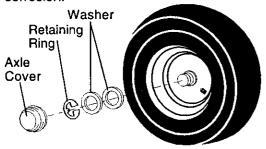
TO REMOVE WHEEL FOR REPAIRS FRONT WHEEL

- 1. Block up axle securely.
- 2. Remove axle cover, retaining ring and washers to allow wheel removal.
- 3. Repair tire and reassemble.
- Replace washers and snap retaining ring securely in axle groove.
- 5. Replace axle cover.

REAR WHEEL

- 1. Block rear axle securely.
- 2. Remove five (5) hub bolts to allow wheel removal.
- 3. Repair tire and reassemble. Replace and tighten hub bolts securely.

NOTE: To seal tire punctures and prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.



TO START ENGINE WITH A WEAK BATTERY

ACAUTION: Lead-acid batteries generate explosive gases. Keep sparks, flame and smoking materials away from batteries. Always wear eye protection when around batteries.

If your battery is too weak to start the engine, it should be recharged. (See "BATTERY" in the MAINTENANCE section of this manual). If "jumper cables" are used for emergency starting, follow this procedure:

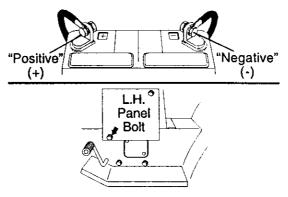
IMPORTANT: Your tractor is equipped with a 12 volt negative grounded system. The other vehicle must also be a 12 volt negative grounded system. Do not use your tractor battery to start other vehicles.

TO ATTACH JUMPER CABLES -

- Connect each end of the RED cable to the POSITIVE (+) terminal of each battery, taking care not to short against chassis.
- Connect one end of the BLACK cable to the NEGATIVE (-) terminal of fully charged battery.
- Connect the other end of the BLACK cable to good CHASSIS GROUND, away from fuel tank and battery.

TO REMOVE CABLES, REVERSE ORDER -

- BLACK cable first from chassis and then from the fully charged battery.
- 2. RED cable last from both batteries.

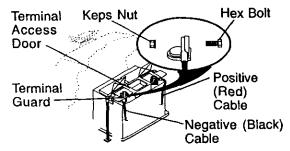


REPLACING BATTERY

ACAUTION: Do not short battery terminals by allowing a wrench or any other object to contact both terminals at the same time. Before connecting battery, remove metal bracelets, wristwatch bands,rings,etc.

Positive terminal must be connected first to prevent sparking from accidental grounding.

- 1. Lift hood to raised position.
- 2. Remove terminal guard.
- Disconnect BLACK battery cable then RED battery cable and carefully remove battery from tractor.
- 4. Install new battery with terminals in same position as old battery.
- 5. Reinstall terminal guard.
- First connect RED battery cable to positive (+) battery terminal with hex bolt and keps nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt and keps nut. Tighten securely
- 8. Close terminal access doors.
- 9. Close hood.



TO REPLACE HEADLIGHT BULB

- 1. Raise hood.
- Pull bulb holder out of the hole in the backside of the grill.
- Replace bulb in holder and push bulb holder securely back into the hole in the backside of the grill.
- Close hood.

INTERLOCKS AND RELAYS

Loose or damaged wiring may cause your tractor to run poorly, stop running, or prevent it from starting.

 Check wiring. See electrical wiring diagram in the Repair Parts section.

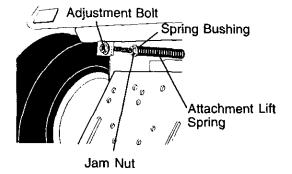
TO REPLACE FUSE

Replace with 30 amp automotive-type plug-in fuse. The fuse holder is located behind the dash.

TO ADJUST ATTACHMENT LIFT SPRING

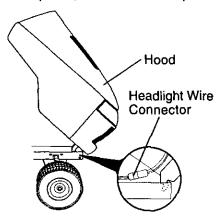
- 1. While holding spring bushing with wrench, loosen jam nut.
- Turn adjustment bolt clockwise to extend spring and reduce lift effort for heavier attachments.
- Turn adjustment bolt counterclockwise for lighter attachments.
- Retighten jam nut against spring bushing.

IMPORTANT: Do not adjust for maximum spring tension when using light attachments such as a mower. Adjust lift lever spring to aid in lifting attachment. Do not overpower spring. When removing attachment, always adjust spring tension to its lowest position.



TO REMOVE HOOD AND GRILL ASSEMBLY

- 1. Raise hood.
- 2. Unsnap headlight wire connector.
- Stand in front of tractor. Grasp hood at sides, tilt toward engine and lift off of tractor.
- 4. To replace, reverse above procedure.



ENGINE

CARBURETOR TROUBLESHOOTING AND ADJUSTMENTS

In compliance with government emission standards, the carburetor is calibrated to deliver the correct fuel-to-air mixture to the engine under all operating conditions. The carburetor cannot be adjusted, except for low idle speed. Carburetor servicing should be performed by an authorized service center only.

TROUBLESHOOTING

If engine troubles are experienced that appear to be fuel system related, check the following areas before adjusting the carburetor.

- 1. Make sure the fuel tank is filled with clean, fresh gasoline.
- Make sure the fuel tank cap vent is not blocked and that it is operating properly.
- Make sure the in-line fuel filter is clean. Replace the filter if it is dirty or restricted.
- Make sure fuel is reaching the carburetor. This includes checking the fuel lines and fuel pump for restrictions or faulty components.
- 5. Make sure the air cleaner cartridge and precleaner are clean and

properly installed.

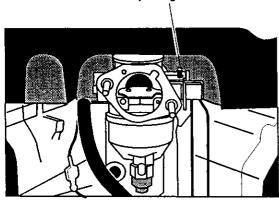
- Make sure the air intake screen, blower housing and cooling surfaces of radiator are clean and free of dirt and debris.
- 7. Make sure cooling system is filled to the proper level.

If, after checking the items listed above, the engine is hard to start, runs roughly, or stalls at low idle speed, it may be necessary to adjust or service the carburetor.

TO ADJUST LOW IDLE SPEED

- Place the throttle control into the "slow" position. Using a tachometer set the low idle speed to 1200 RPM by turning the low idle speed adjusting screw in or out.
- 2. If proper operation is not restored after adjusting the low idle speed, carbure-

Idle Speed Adjusting Screw



IMPORTANT: Never tamper with the eninge governor, which is factory set for proper engine speed. Overspeeding the engine above the factory high speed setting can be dangerous. If you think the engine-governed high speed needs adjusting, contact your nearest authorized service center/department, which has proper equipment and experience to make any necessary adjustments.

STORAGE

Immediately prepare your tractor for storage at the end of the season or if the tractor will not be used for 30 days or more.

ACAUTION: Never store the tractor with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.

TRACTOR

Remove mower from tractor for winter storage. When mower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Store in a clean, dry area.

- 1. Clean entire tractor (See "CLEANING" in the Maintenance section of this manual).
- Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
- 3. Lubricate as shown in the Maintenance section of this manual.
- Be sure that all nuts, bolts and screws are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- 5. Touch up all rusted or chipped paint surfaces; sand lightly before painting.

BATTERY

- Fully charge the battery for storage.
- After a period of time in storage, battery may require recharging.
- To help prevent corrosion and power leakage during long periods of storage, battery cables should be disconnected and battery cleaned thoroughly (see "TO CLEAN BATTERY AND TERMINALS" in the Maintenance section of this manual).
- After cleaning, leave cables disconnected and place cables where they cannot come in contact with battery terminals.
- If battery is removed from tractor for storage, do not store battery directly on concrete or damp surfaces.

ENGINE

FUELSYSTEM

IMPORTANT: It is important to prevent gum deposits from forming in essential fuel system parts such as carburetor, fuel filter, fuel hose, or tank during storage. Also, experience indicates that alcohol blended fuels 9called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

Drain the fuel tank.

- 2. Start the engine and let it run until the fuel lines and carburetor are empty.
- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- Use fresh fuel next season.

NOTE: Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor. Do not drain the gas tank and carburetor if using fuel stabilizer.

ENGINE OIL

Drain oil (with engine warm) and replace with clean engine oil. (See "ENGINE" in the Maintenance section of this manual).

COOLANT SYSTEM

The coolant (anti-freeze) mixture should be in good condition and tested to guard against freezing in cold temperatures. The recommended equal parts mixture will normally provide protection down to temperatures of -34° F (-37° C). If storage temperatures will fall below this, the cooling system should be drained. A note should then be attached to the equipment and/or engine as a reminder to refill the cooling system before starting.

CYLINDER(S)

- Remove spark plug(s).
- 2. Pour one ounce of oil through spark plug hole(s) into cylinder(s).
- 3. Turn ignition key to "START" position for a few seconds to distribute oil.
- 4. Replace with new spark plug(s).

OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your tractor indoors and cover it to give protection from dust and dirt.
- Cover your tractor with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe which allows condensation to form and will cause your tractor to rust.

IMPORTANT: Never cover tractor while engine and exhaust areas are still warm.

TROUBLESHOOTING CHART

PROBLEM	CAUSE	CORRECTION					
Will not start	 Out of fuel. Engine not "CHOKED" properly. Engine flooded. 	 Fill fuel tank. See "TO START ENGINE" in Operation section. Wait several minutes before 					
	 Bad spark plug. Dirty air filter. Dirty fuel filter. 	attempting to start. 4. Replace spark plug. 5. Clean/replace air filter. 6. Replace fuel filter.					
	7. Water in fuel.8. Loose or damaged wiring.	 7. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. 8. Check all wiring. 					
	 Carburetor out of adjustment. 10.Engine valves out of 	See "To Adjust Carburetor" in Service Adjustments section. 10.Contact a Sears or other					
	adjustment.	qualified service center.					
Hard to start	 Dirty air filter. Bad spark plug. Weak or dead battery. Dirty fuel filter. Stale or dirty fuel. 	 Clean/replace air filter. Replace spark plug. Recharge or replace battery. Replace fuel filter. Drain fuel tank and refill with fresh gasoline. 					
	6. Loose or damaged wiring.7. Carburetor out of adjustment.	 Check all wiring. See "To Adjust Carburetor" ir Service Adjustments section. 					
	Engine valves out of adjustment.	Contact a Sears or other qualified service center.					
Engine will not turn over	Brake pedal not depressed	Depress brake pedal.					
	Attachment clutch is engaged. Weak or dead battery.	 Disengage attachment clutch. Recharge or replace battery. 					
	4. Blown fuse.	4. Replace fuse.					
	5. Corroded battery terminals.6. Loose or damaged wiring.	 Clean battery terminals. Check all wiring. 					
	7. Faulty ignition switch.	7. Check/replace ignition switch.					
	Faulty solenoid or starter. Faulty operator presence	8. Check/replace solenoid or starter.9. Contact a Sears or other					
	switch(es).	qualified service center.					
Engine clicks but will not start	Weak or dead battery.	Recharge or replace battery.					
Will Hot start	 Corroded battery terminals. Loose or damaged wiring. 	 Clean battery terminals. Check all wiring. 					
	4. Faulty solenoid or starter.	 Check/replace solenoid or starter. 					
Loss of power	 Cutting too much grass/too fast. 	 Set in "Higher Cut" position/ reduce speed. 					
	Throttle in "CHOKE" position.	2. Adjust throttle control.					

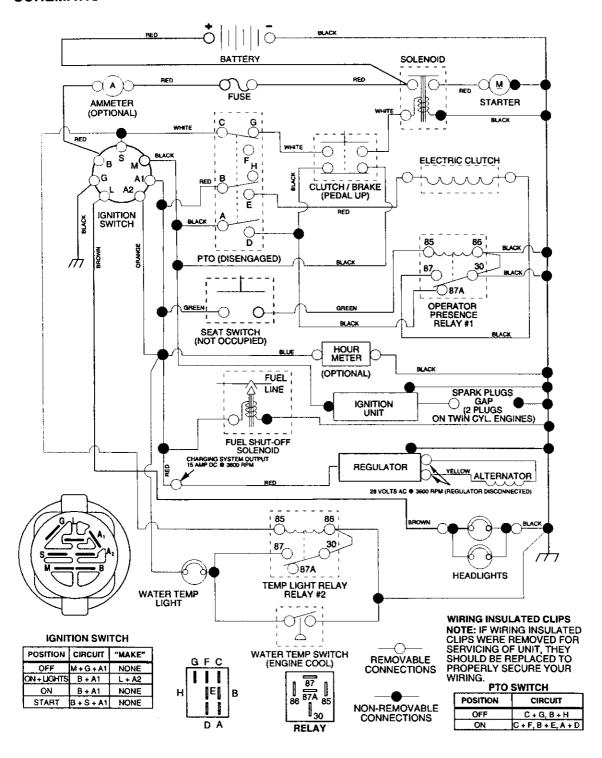
TROUBLESHOOTING CHART

PROBLEM	CAUSE	CORRECTION
Loss of power (continued)	 Build-up of grass, leaves and trash under mower. Dirty air filter. Low oil level/dirty oil. Faulty spark plug. Dirty fuel filter. Stale or dirty fuel. Water in fuel. Dirty engine air screen/fins. Dirty/clogged muffler. Loose or damaged wiring. Carburetor out of adjustment. Engine valves out of adjustment. 	 Clean underside of mower housing. Clean/replace air filter. Check oil level/change oil. Clean and regap or change spark plug. Replace fuel filter. Drain fuel tank and refill with fresh gasoline. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter. Connect and tighten spark plug wire. Clean engine air screen/fins. Clean/replace muffler. Check all wiring. See "To Adjust Carburetor" in Service Adjustments section. Contact a Sears or other qualified service center.
Excessive vibration	 Worn, bent or loose blade. Bent blade mandrel. Loose/damaged part(s). 	 Replace blade. Tighten blade bolt. Replace blade mandrel. Tighten loose part(s). Replace damaged parts.
Engine continues to run when operator leaves seat with attachment clutch engaged	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact a Sears or other qualified service center.
Poor cut - uneven	 Worn, bent or loose blade. Mower deck not level. Buildup of grass, leaves, and trash under mower. Bent blade mandrel. Clogged mower deck vent from build-up of grass, leaves, and trash around mandrels. 	 Replace blade. Tighten blade bolt. Level mower deck. Clean underside of mower housing. Replace blade mandrel. Clean around mandrels to open vent holes.
Mower blades will not rotate	 Obstruction in clutch mechanism. Worn/damaged mower drive belt. Frozen idler pulley. Frozen blade mandrel. 	 Remove obstruction. Replace mower drive belt. Replace idler pulley. Replace blade mandrel.

TROUBLESHOOTING CHART

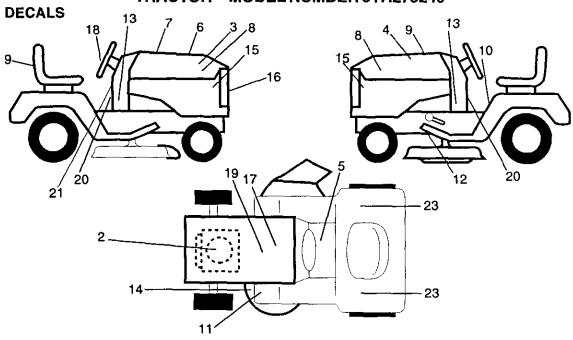
PROBLEM	CAUSE	CORRECTION
Poor grass discharge	 Engine speed too slow. Travel speed too fast. Wet grass. Mower deck not level. Low/uneven tire air pressure. Worn, bent or loose blade. Buildup of grass, leaves and trash under mower. Mower drive belt worn. Blades improperly installed. Improper blades used. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels. 	 Place throttle control in "FAST" position. Shift to slower speed. Allow grass to dry before mowing. Level mower deck. Check tires for proper air pressure. Replace/sharpen blade. Tighten blade bolt. Clean underside of mower housing. Replace mower drive belt. Reinstall blades sharp edge down. Replace with blades listed in this manual. Clean around mandrels to open vent holes.
Headlight(s) not working (if so equipped)	 Switch is "OFF". Bulb(s) or lamp(s) burned out. Faulty light switch. Loose or damaged wiring. Blown fuse. 	 Turn switch "ON". Replace bulb(s) or lamp(s). Check/replace light switch. Check wiring and connections. Replace fuse.
Battery will not charge	 Bad battery cell(s). Poor cable connections. Faulty regulator (if so equipped). Faulty alternator. 	 Replace battery. Check/clean all connections. Replace regulator. Replace alternator.
Loss of drive	 Freewheel control in "disengaged" position. Motion drive belt worn, damaged, or broken. Air trapped in transmission during shipment or servicing. 	 Place freewheel control in "engaged" position. Replace motion drive belt. Purge transmission.
Engine "backfires" when turning engine "OFF"	Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.	Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.

SCHEMATIC



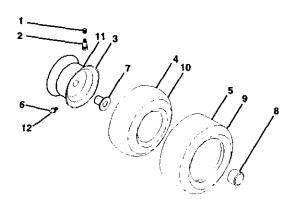
REPAIR PARTS

TRACTOR - MODEL NUMBER 917.275240



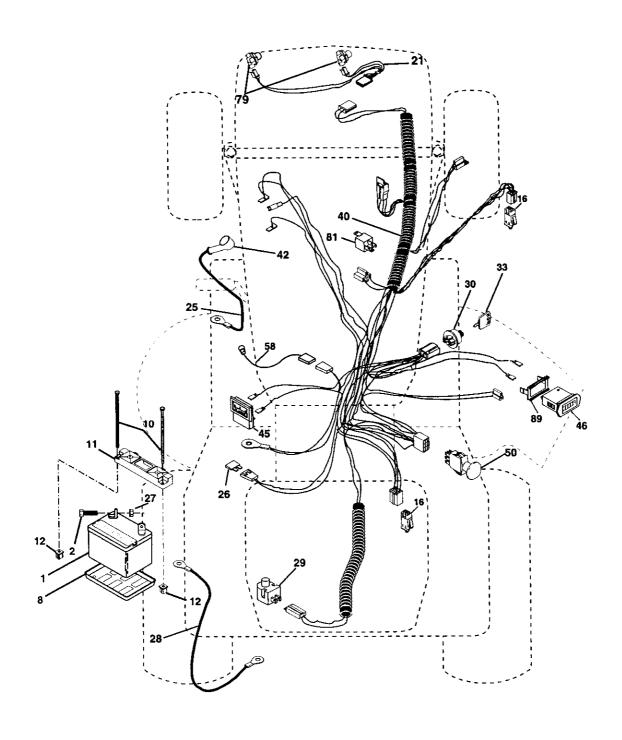
KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
2	174904	Decal, Hp Engine	16	177400	Decal Grille
3	177907	Decal, Hood RH	17	149516	Decal, Btry Dngr/Psn Eng.
4	177908	Decal, Hood LH			Acme
5	140837	Decal, Brake Parking Saddle	18	177890	Decal, Insert Strg
6	133644	Decal, Maintenance	19	138047	Decal, Battery
7	177544	Decal, Replacement	20	177375	Decal, Lower Dash
8	177887	Decal, Hood Nameplate Lig/Cool	21	177704	Decal, Dash Liq Cool
9	177888	Decal, Hood/Seat	23	106202X	Reflector, Taillight
10	156439	Decal, Fender Danger		138311	Decal, Handle LFT Height
11	4900J	Decal, Clutch/Brake			Adjust (Lift Handle)
12	146790	Decal, V-Belt Dr Sch		142342	Decal, Bypass Control (Drawbar)
13	174862	Decal, Dash		157199X428	Pad, Footrest
14	175291	Decal, Deck Schematic		177812	Owner's Manual, English
15	177376	Decal, Side Panel		177813	Owner's Manual, Spanish

WHEELS AND TIRES



KEY	PART	
NO.	NO.	DESCRIPTION
1	59192	Cap Valve Tire
2	65139	Stem Valve
3	148736X417	Rim Asm Front
4	8134H	Tube, Front (Service Item Only)
5	148741	Tire, Front
6	278H	Fitting Grease (Front Wheel
		Only)
7	9040H	Bearing Flange (Front Wheel
		Only)
8	104757X428	Cap Axle (Front Wheel Only)
9	151607	Tire Rear
10	7154J	Tube Rear (Service Item Only)
11	148738X417	Rim Asm Rear
12	6856M	Fitting Grease
	144334	Sealant, Tire (10 oz. Tube)
	<u> </u>	

NOTE: All component dimensions given in U. S. inches 1 inch = 25.4 mm

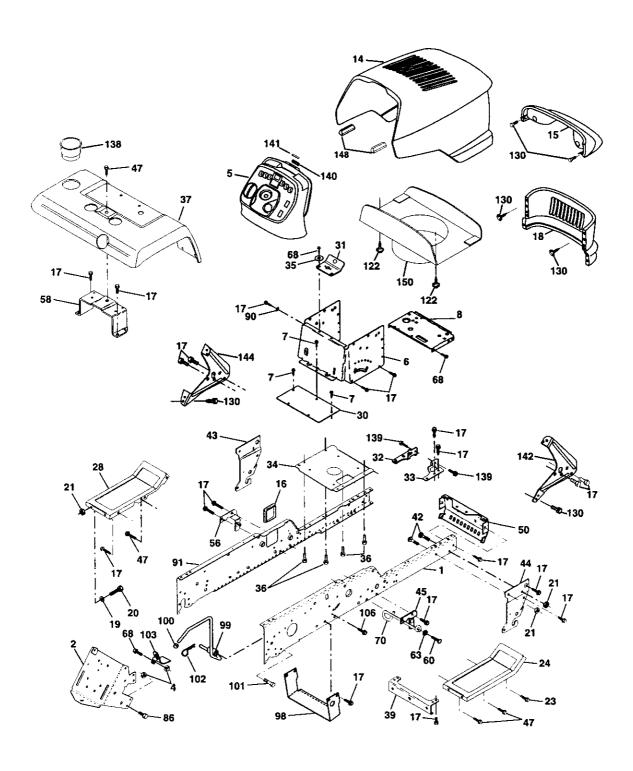


ELECTRICAL

KEY	PART	
NO.	NO.	DESCRIPTION
1	144927	Battery
2	74760412	Bolt Hex Head 1/4-20 x 3/4
8	7603J	Tray, Battery
10	145211	Bolt 1/4-20 x 7.5 Zinc
11	150109	Hold down Battery Dash Mount
12	145769	Nut Push Nylon 1/4"
16	153664	Switch Interlock Push-In
21	166184	Harness Socket Light w/4152J
25	150755	Cable 4 Ga. 31" Red CV25 w/16.W.
26	108824X	Fuse
27	73510400	Nut, Keps Hex 1/4-20 UNC
28	170697	Cable, Ground
29	160784	Switch, Plunger
30	175442	Switch, Ign
33	175447	Key, Ignition
40	174909	Harness Ign.
42	154336	CoverTerminal
45	122822X	Ammeter
46	169635	Meter, Hour
50	174652	Switch, PTO
58	175024	Harness LPKG Stealth Water Temp
79	163997	Bulbholder
81	109748X	Relay Asm.
89	169639	Bracket Snap-In

NOTE: All component dimensions given in U. S. inches 1 inch = 25.4 mm

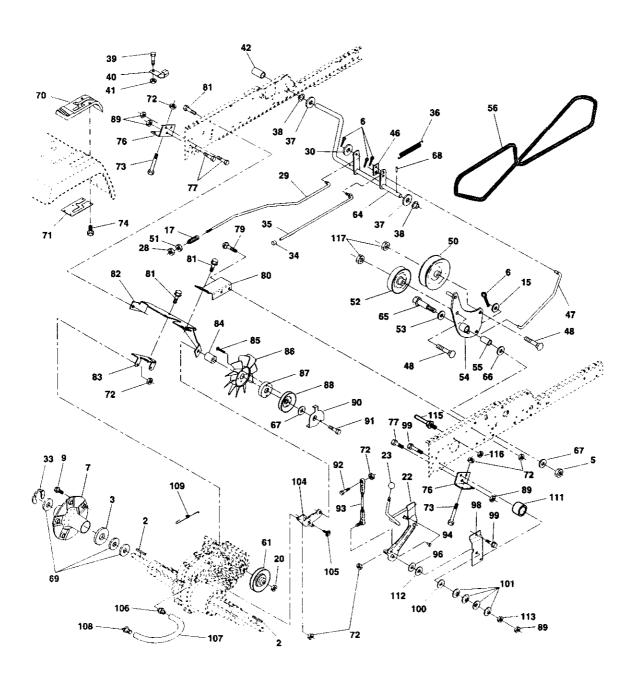
TRACTOR -- MODEL NUMBER 917.275240 CHASSIS AND ENCLOSURES



TRACTOR -- MODEL NUMBER 917.275240 CHASSIS AND ENCLOSURES

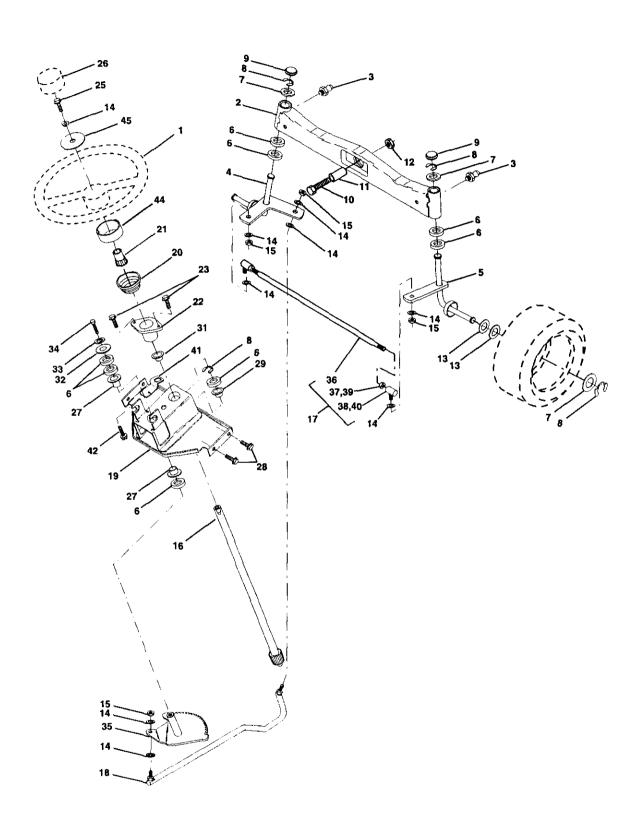
KEY	PART		KEY	PART	
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	175465	Rail, Frame RH VGT	47	17670608	Screw 3/8-16 x 1/2
2	175282	Drawbar, Gt	50	175476	Bracket, Chassis Front
4	73800700	Nut, Lock Hex 7/16 Unc	56	176016	Bracket Asm., Susp Chassis Lh
5	163976X418		58	175315	Bracket Fender
6	157882	Dash Asm., Lower VGT	60	17060620	Screw 3/8-16 x 1-1/4
7	17720408	Screw, Thd Cut 1/4-20 x 1/2	63	19131614	Washer 13/32 x 1 x 14 Ga.
8	145166	Support, Dash 1-Pc. Battery	68	17490508	Screw, Thd 5/16-18 x 1/2
14	175260X615	Hood Asm Pnt	70	177679	Belt Keeper VGT Ground Drive
15	177612	Lens, Asm Headlight	86	74760716	Bolt, Fin Hex 7/16-14 Unc x 1
16	121794X	Cover, Access	90	STD551237	Washer, Lock Ext.l Tooth 3/8
17	17060612	Screw 3/8-16 x .75	91	175464	Rail, Frame Lh VGT
18	174515X615		98	140503	Bracket Skid Chassis
19	19131312	Washer 13/32 x 13/16 x 12 Ga.	99	140871	Rod By Pass
20	STD523710	Bolt, Fin Hex 3/8-16 x 1	100	71673	Cap By Pass Rod
21	STD541437	Nut, Crownlock 3/8-16 Unc	101	17490628	Screw Thdrol 3/8-16 x 1-3/4
23	17060616	Screw 3/8-16 x 1.0	102	STD624003	Retainer, Spring
24	145243X615	Footrest, RH	103	142273	Lock, By Pass
28	145244X615	Footrest, LH	106	138776	Bolt 5/16-18 Type TT
30	145052	Saddle, Hydro 1995	122	161464	Screw Hex Wshd 8-18 x 7/8
31	161419	Bracket Support 1-pc VGT	130	164863	Screw Hwhd Hi-Lo #13-16
		Steering	138	163975X418	Cupholder
32	161327	Bracket Pivot Chassis Lh	139	171873	Bolt Shoulder 5/16-18 TT
33	161326	Bracket Pivot Chassis Rh	140	163806	Magnet YT/GT
34	177018	Plate Asm. Engine Chassis	141	163805	Striker Plate YT/GT
35	19111116	Washer 11/32 x 11/16 x 16 Ga.	142	161897	Bracket Dash Rh
36	17060512	Screw 5/16-18 x 3/4	144	161900	Bracket Dash Lh
37	167287X615	Fender Pnt	148	164655	Extrusion Bumper
39	175278	Bracket, Axle Front	150	176885	Duct Heat Hood
42	STD533710	Bolt, Carriage 3/8-16 x 1	152	177956	Shield Browning
43	136939	Bracket, Spnsn Front Lh			
44	136940	Bracket, Spnsn Front Rh			ent dimensions given in U.S.
45	176018	Bracket Asm., Susp Chassis Rh	inche	es 1 inch = 25.4	4 mm

GROUND DRIVE



GROUND DRIVE

	PART			PART	DECORPTION
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
2	7070E	Key 1/4 x 2.5	72	STD541431	Nut, Crownlock 5/16-18
3	7563R	Washer, Thrust, Axle	73	74490548	Bolt Hex Flghd 5/16-18 x 3 Gr5
5	STD541437	Nut, Crownlock 3/8-16	74	142432	Screw Hex Wsh. Hi-Lo 1/4-1/2
6	STD561210	Pin, Cotter	76	140481	Bracket Transaxle
7	140507	Wheel, Hub Assembly	77	74760716	Bolt Fin Hex 7/16-14 x 1
9	140080	Bolt, Hub	79	72110505	Bolt Carriage 5/16-18 x 5/8
15	STD551037	Washer	80	140484	Bracket Torque RH
17	140921	Spring	81	17060612	Screw 3/8-16 x 3/4
20	73940800	Nut Hex Jam Toplock 1/2-20	82	150586	Bracket Mount Torrque/Fan
22	156103	Arm Asm Shift	83	140479	Strap Torque Mid
23	130564	Knob	84	140490	Spacer
28	STD541237	Nut	85	17541020	Screw #10-24 x 1-1/4
29	140494	Brake, Rod	86	140462	Fan 7" Hydro
30	19131616	Washer 13/32 x 1 x 16 Ga.	87	140491	Adapter Fan
33	12000053	Ring E	88	161592	Pulley Idler
34	71673	Cap, Plunger	89	73680700	Nut Crownlock 7/16-14 Unc
35	137648	Rod, Parking Brake	90	140489	Keeper Belt
36	149412	Spring, Drive Ground	91	17490644	Screw Thdrol 3/8-16 x 2-3/4
37	121749X	Washer 25/32 x 1-1/4 x 16 Ga.	92	74760520	Bolt Fin Hex 5/16-18 x 1.25
38	150035	Nyliner	93	140502	Link Shift Asm
39	74321016	Screw, Fin. #10-24 x 1	94	133835	Fastener Christmas Tree
40	5304J	Actuator, Interlock Switch	96	141103	Washer Nickel Plated
41	73931000	Nut Centerlock 10-24 Unc	98	141004	Bracket Shift
42	8883R	Cover, Pedal	99	17060624	Screw 3/8-16 x 1-1/2
46	145170	Retainer, Spring	100	126881X	Washer Compression
47	138228	Clutch Rod	101	156106	Washer Beliville
48	72110612	Bolt, Carr. 3/8-16 x 1-1/2 Gr. 5	104	140480	Bracket Idler
50	131494	Pulley, Idler, Flat	105	17580408	Screw Tap 1/4-20 x 1/2
51	STD541437	Nut, Crownlock 3/8-16 UNC	106	142918	O-Ring Asm Hydro Gear 70110
52	139123	Pulley, Idler, Grooved	107	154739	Line Fuel Hydro 15" VGT
53	207J	Washer, Hardened	108	142917	Cap Asm Vent Hydro Gear 70109
54	161590	Clutch, Arm Assembly	109	140929	Spring Return Brake
55	105706X	Bearing, Idler	111	156240	Spacer Shift Lever VGTH
56	140218	V-Belt	112	156104	Washer Nylon High Temp
61	140488	Pulley, Transaxle	113	73220700	Nut-Hex ASF 7/16-14 UNC
64	154752	Shaft, Clutch/Brake Pedal	115	123405X	Keeper Belt T/A Gnd Dr
65	67609	Bolt, Shoulder	116	73900500	Nut Lock Hex Flange 5/16-18
66	140296	Washer, Hardened	117	73900600	Nut, Lock Flg. 3/8-16
67	19131312	Washer, Flat		163198	Transaxle (See Breakdown)
68	5142H	Pin, Roll			Hydro Gear 222-3010
69	123800X	Washer Canada Huda Fauda			
70 71		Console Hydro Fender	NOT	E: All compor	nent dimensions given in U.S.
7.1	151179	Plate Console Shift	inch	es 1 inch = 25	.4 mm

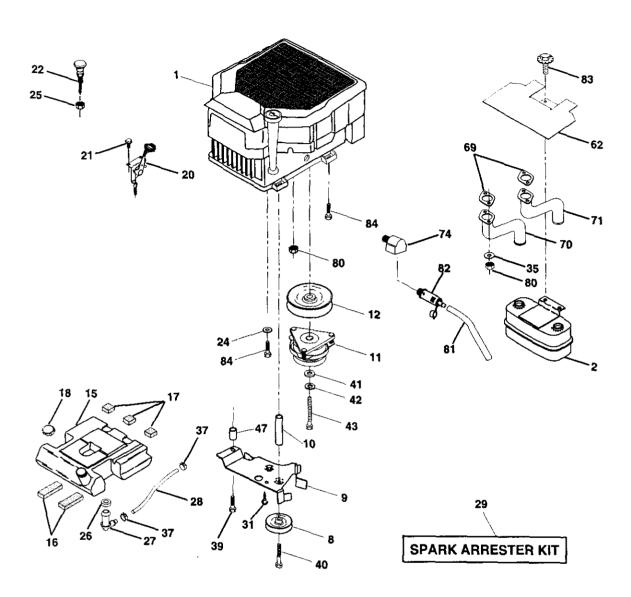


STEERING

KEY NO.	PART NO.	DESCRIPTION
1	175139X418	Wheel, Steering
2	137094	Axle Asm., Front
3	6855M	Fitting, Grease
4	161849	Spindle Asm, LH
5	161848	Spindle Asm., RH
6	6266H	Bearing, Race Thrust Harden
7	121748X	Washer 25/32 x 1-5/8 x 16 Ga.
8	12000029	Ring, Klip #T5304-75
9	121232X	Cap, Spindle
10	74781044	Bolt, Fin Hex 5/8-11 x 2-3/4
11	136518	Spacer Bearing Axle Front
12	73901000	Nut, Lock Flange 5/8-11 Unc
13	121749X	Washer 25/32 x 1-1/4 x 16 Ga.
14	STD551137	Washer, Lock Hvy Hicl Spr 3/8
15	STD541537	Nut, Lock Center 3/8-24 UNF
16 17	145103	Shaft Asm., Steering
18	137347	Rod Tie Service
19	175572 156011	Draglink
20	177646X418	Support Asm., Steering Vgt
21	159945	Boot, Steering
22	155105	Adapter, Wheel Steering Bushing, Strg. Blk
23	152927	Screw
25	STD523710	Bolt, Fin Hex 3/8-16 x 1 Gr. 5
26	175140X418	Cap, Wheel Steering
27	3366R	Bearing, Col. Strg.
28	17000612	Screw 3/8-16 x 3/4
29	104239X	Bearing, Flange
31	138136	Bushing, Nyliner Snap
32	19111610	Washer 11/32 x 1 x 10 Ga.
33	STD551131	Washer, Lock Hvy Hlcl Spr 5/16
34	STD523107	Bolt, Hex Hd 5/16-18 x 3/4
35	138059	Gear, Sector Steering
36	137156	Tie Rod
37	73360600	Jam Nut RH Thread
38	109850X	Joint Asm. Ball RH Thread
39	73700600	Nut Hex Jam 3/8-24 Unf LH
40	109851X	Joint Asm Ball LH
41	155246	Bracket Switch Interlock VGT 97
42	17490508	Screw Thdrol 5/16-18 x 1/2 Tyt
44	160135X614	Extension, Steering
45	19132411	Washer 13/32 x 1-1/20 x 11 Ga.

NOTE: All component dimensions given in U. S. inches 1 inch = 25.4 mm

ENGINE

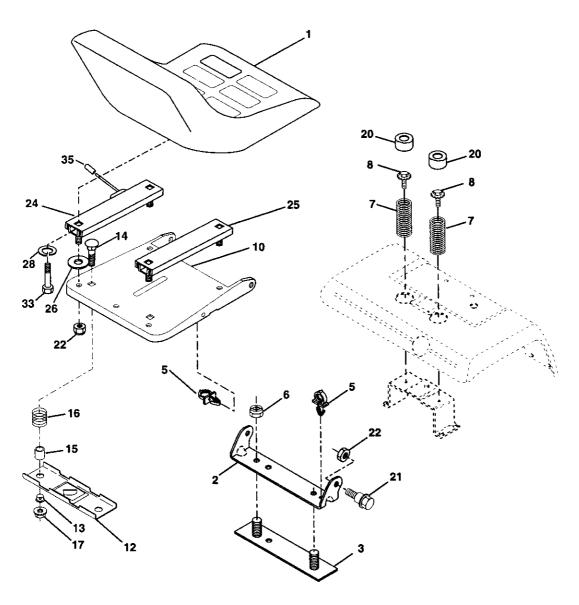


ENGINE

	PART	
NO.	NO.	DESCRIPTION
1		Engine (See Breakdown) Kohler LV 675-851509
2	149723	Muffler
7	151396	Muffler Asm Guard
8	121361X	Pulley V-Idler
9	177748	Belt Engine Keeper Asm
10	175287	Bushing
11	174605	Clutch Electric
12	143996	Pulley Engine VGT Elect Clutch
15	151346	Tank Fuel Rear 3.50 YT/GT 96
16	109227X	Pad Spacer
17	106082X	Pad Spacer
18	161493	Cap Fuel 5-1/2" Vented Cov.
20	177328X505	Control Throttle
21	164863	Screw HWHD Hi-Lo #13-16 x 3/4
22	175441X505	Control Choke
24	STD551237	Lockwasher Ext Tooth 3/8
25	73920600	Nut Keps 3/8 - 24 UNF
26	3645J	Bushing
27	139277	Stem Tank Fuel
28	7834R	Fuel Line
29	137180	Spark Arrester Kit
35	10010500	Washer Split
37	123487X	Clamp Hose
39	17490636	Screw TT 3/8-16 x 2-1/4 Unc
40	17490664	Screw TT 3/8-16 x 4
41	126197X	Washer 1-1/2 OD X 15/32 ID X .250
42	STD551143	Washer Lock 7/16
43	173937	Bolt Hex 7/16 - 20 X 4 Gr. 5 - 1.5 Thr.
47	175288	Bushing
62	146629	Shield Heat Muffler
69	24-041-02	Gasket Kohler CV18-CV26
70	175545	Tube Exhaust LH
71	175546	Tube Exhaust RH
74	162295	Elbow Street Brass
80	M73030800	
81	148456	Drain Tube
82	148315	Drain Plug
83	171877	Bolt 5/16-18 Unc x 3/4 w/Sems
84	17060624	Screw 3/8-16 x 1/2

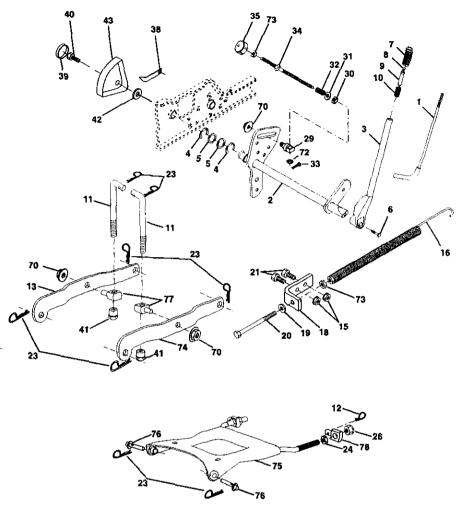
NOTE: All component dimensions given in U. S. inches 1 inch = 25.4 mm

SEAT ASSEMBLY

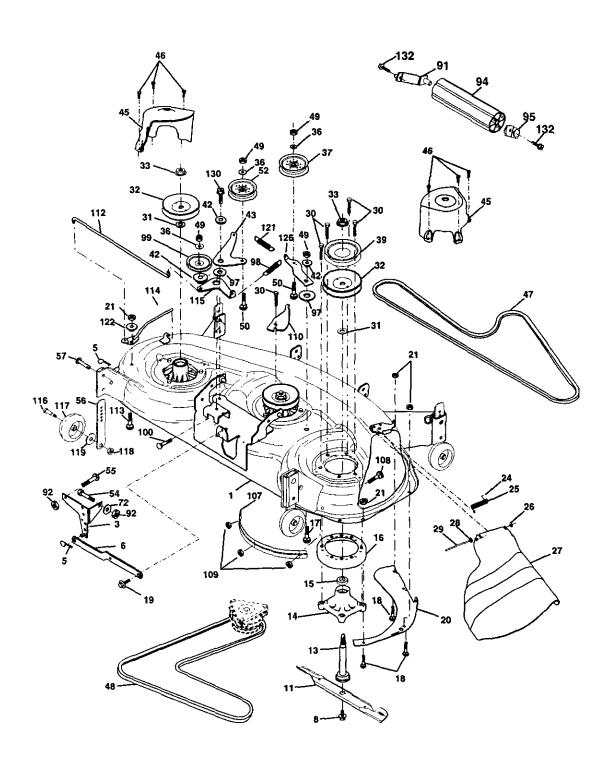


KEY NO.	PART NO.	DESCRIPTION	KEY NO.		DESCRIPTION
1	177978	Seat	17	123976X	Nut, Lock 1/4 Lge Flg Gr. 5
2	140551	Bracket, Pivot Seat	20	124238X	Cap, Spring Seat
3	140675	Strap, Fender	21	171852	Bolt, Shoulder 5/16-18
5	145006	Clip, Push In, Hinged	22	STD541431	Nut, Crownlock 5/16-18 Unc
6	STD541437	Nut, Crownlock 3/8-16 Unc	24	177946	Track Slide Seat LH Locking
7	124181X	Spring, Seat Cprsn	25	177947	Track Slide Seat RH Free
8	171877	Bolt 5/16-18 Unc x 3/4 w	26	19111012	Washer 11/32 x 5/8 x 12 Ga.
		Sems	28	10010500	Washer Split
10	174894	Pan, Seat	33	74780512	Bolt Fin Hex 5/16-18 Unc x 3/4
12	121246X	Bracket, Mounting Switch	35	178426	Cap Plunger Red
13	121248X	Bushing, Snap	33	170420	Capitaligerried
14	72050412	Bolt, Carriage 1/4-20 X 1-1/2			
15	121249X	Spacer, Split	NOT	F. All compor	ent dimensions given in U.S.
16	123740X	Spring, Cprsn		s 1 inch = 25.	

LIFT ASSEMBLY



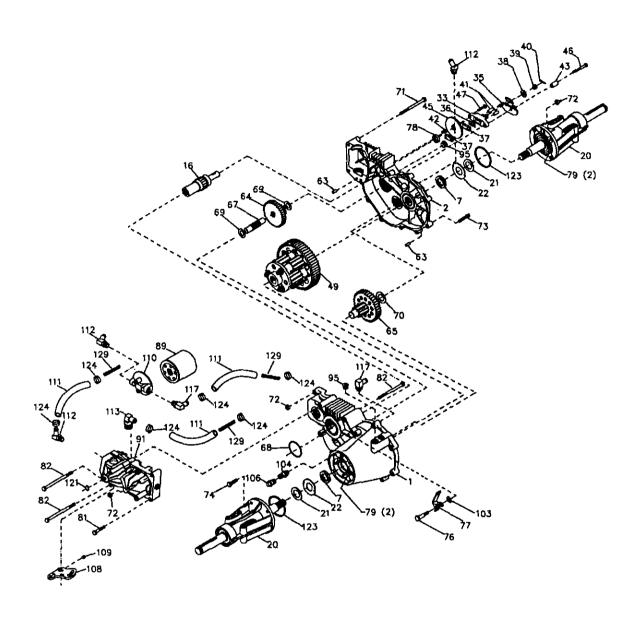
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 9 10 11 12 13 15 16 18 19 20 21 23	121006X 177535 159189 12000022 19292016 71110624 175830 175831 122364X 2876H 175375 163552 175378 STD541437 674A247 143363 STD551037 5328J STD523710 STD624008	Rod Asm., Lever Shaft Asm., Lift Vgt Lever Asm., Lift Rh E-Ring Truarc #5133-87 Washer 29/32 x 1-1/4 x 16 Ga. Bolt, Fin Hex 3/8-16 x 1-1/2 Grip, Handle Fluted Button, Plunger Plunger, Button Spring 2-1/8" Link Lift Retainer, Spring Arm, Suspension Rear LH Nut, Crownlock 3/8-16 Unc Spring Asm., Assist Lift Bracket, Spring Assist Washer 13/32 x 13/16 x 16 Ga. Bolt, Adjust Spring Assist Bolt, Fin Hex 3/8-16 x 1 Retainer, Spring	31 32 33 34 35 38 39 40 41 42 43 70 72 73 74 75 76 77 78	19131016 137150 STD560907 137167 138057 155097 123935X 17060516 175994 19112410 123934X 145212 110452X 73350600 175802 175805 175560 176205 175689	Washer 13/32 x 5/8 x 16 Ga. Spring, Compression Inf Hgt Pin, Cotter 3/32 x 1/2 Rod, Adj Lift Knob, Inf 3/8-16 Unc Pointer, Height Indicator Plug, Hole Screw 5/16-18 x 1 SMGML Tap/R Nut Lift Link 7/16-20 Washer 11/32 x 1-1/2 x 10 Ga. Scale, Indicator Height Nut Hex Flange Lock Nut Push Phos & Oil Nut Hex Jam 3/8-16 Unc Arm Suspension Rear Rh Plate Asm Susp. Front VGT Pin Flange Trunnion Susp. Arm Trunnion Front Susp.
24 26 29 30	73350800 73680800 150233 110807X	Nut, Jam Hex 1/2-13 Unc Nut, Crownlock 1/2-13 Unc Trunnion, Infin Height Nut, Special		E: All compo es 1 inch = 25	nent dimensions given in U.S. .4 mm



MOWER DECK

KEY	PART		KEY	PART	
NO.		DESCRIPTION	NO.	NO.	DESCRIPTION
1	174348	Deck Weldment Mower 48	50	72110612	Bolt, Carr. 3/8-16 x 1-1/2 Gr. 5
3	178915	Bracket Asm, Sway Bar	52	175820	Pulley idler Flat
5	4939M	Retainer Spring	56	155986X505	Bar Pnt Adj.
6	130832	Arm, Suspension, Rear (Sway	57	156941	Pin Head Rivet
		Bar)	91	175996	Bracket Asm. Noseroller LH
8	174365	Bolt 7/16 Asm. Blade	94	176066	Noseroller
11	173920	Blade	95	175384	Bracket Asm Noseroller RH
13	137553	Shaft Asm. w/Lower Bearing	97	133943	Washer Hardened
14	174356	Mandrel Asm.	98	174370	Spring Primary Drive
15	110485X	Bearing, Ball, Mandrel	99	175080	Pulley Idier"V"
16	174493	Stripper Mandrel Deck	100	72110616	Bolt RDHD Sqnk 3/8-16 UNC x 2
17	72110610	Bolt RDHD Sq Neck 3/8-16x1.25	107	175294	Baffle Vac Edge Mower
18	72140505	Bolt, Carriage 5/16-18 x 5/8	108	72110404	Bolt Carr.
19	132827	Bolt, Hex Hd, Shoulder 5/16-18	109	73680400	Nut Crownlock 1/4-20
20	174378	Baffle, Vortex Mower	110	175016	Arm Spring Secondary
21	73680500	Nut, Crownlock 5/16-18 UNC	112	174387	Link Tension Relief Lever
24	105304X	Cap, Sleeve	113	72110508	Bolt Carr. 5/16-18 x 1
25	178102	Spring, Torsion	114	174384	Tension Asm. Relief Lever
26	110452X	Nut, Push	115	174609	Arm Spring Tension Relief
27		Deflector Shield	116	137644	Bolt, Shoulder
28	19111016	Washer 11/32 x 5/8 x 16 Ga.	117	174873	Gauge Wheel
29	131491	Rod, Hinge	118	73930600	Nut, Centerlock 3/8-16 UNC
30	157722	Screw, Thdroll Washer Head	119	19121414	Washer 3/8 x 7/8 x 14 Ga.
31	129963	Washer, Spacer Mower Vented	121	174371	Spring Secondary Drive
32	177865	Pulley, Mandrel	122	174606	Bushing Pivot Tension Relief
33	178342	Nut, Fig. Top Lock Cntr. 9/16	126	174372	Arm, Idler, Primary Deck
36	19131316	Washer 13/32 x 13/16 x 16 Ga.	130	17060616	Screw 3/8-16 x 1.0
37	173437	Pulley, Idler, Flat	131	19131316	Washer 13/32 x 13/16 x 16 Ga.
39	174375	Pulley, Idler, Driven	132	17490612	Screw Thdrol 3/8-16 x 3/4
42	165723	Spacer, Retainer		175312	Replacement Mower, Complete
43	174373	Arm, Idler Secondary		174356	Mandrel Asm. Service
45	174343	Cover, Mandrel Deck			(Includes Key Nos. 13-15 and
46	137729	Screw, Thdroll. 1/4-20 x 5/8			33)
47	174369	V-Belt, Mower, Secondary			
48	174368	V-Belt, Mower, Primary	NOT	E: All compon	ent dimensions given in U.S.
49	73680600	Nut, Crownlock 3/8-16 UNC	inche	s 1 inch = 25.	4 mm

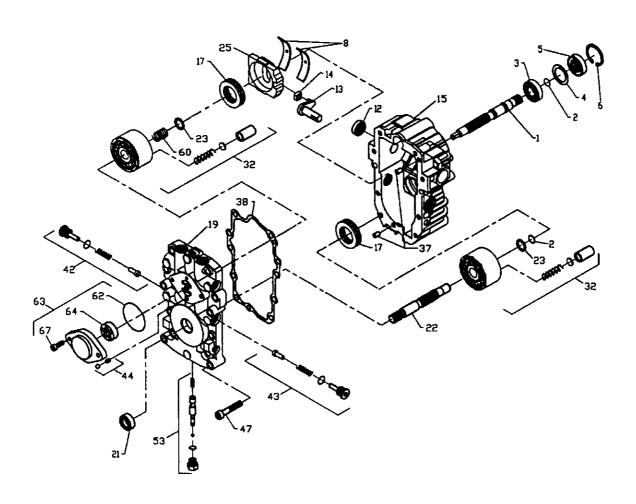
TRACTOR -- MODEL NUMBER 917.275240 TRANSAXLE--MODEL NUMBER 222-3010



TRANSAXLE-MODEL NUMBER 222-3010

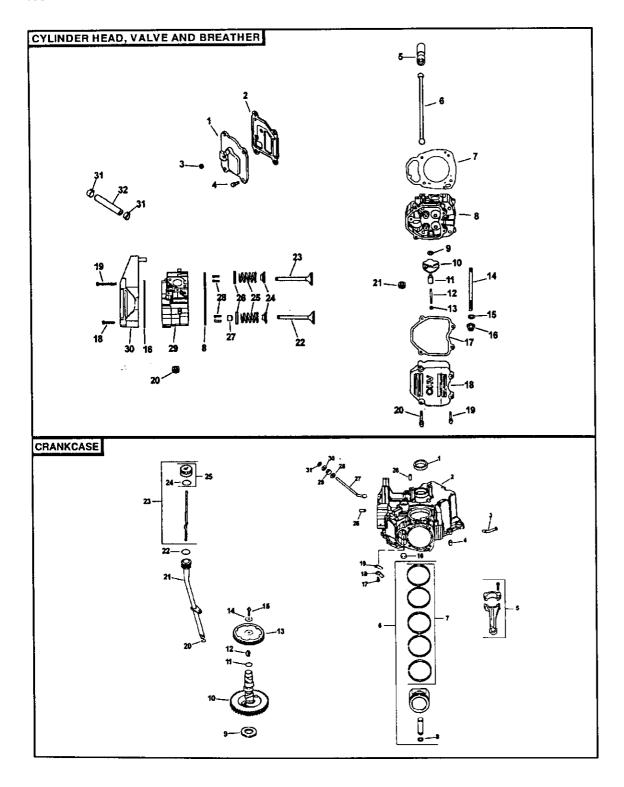
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	164591	Assembly, Housing, LH	72	153767	Locknut, Hex 5/16-18
2	164592	Assembly, Housing, RH	73	142904	Bolt, Hex 5/16-18 x 1-1/2
7	153765	Oil Seal .984 x 1.5 x .25	74	142905	Hex Cap Screw 5/16-18 x 1
16	142876	Brake Shaft Assembly	76	142907	Shoulder Bolt
20	142877	Axle Mounting Horn Assembly	77	142908	Freewheel Actuating Arm
21	142878	Washer 1.0 x 1.63 x .08	78	142909	Oil Seal .625 x 1.0 x .25
22	142879	Washer 1.0 x 2.06 x .09	79	153768	Grease (10 oz. Tube)
33	142929	Brake Yoke Assembly	81	142910	Bolt, Hex 5/16-18 x 1-3/4
35	142880	Brake Arm	82	142911	Bolt 5/16-18 x 4-1/2
36	142882	Puck Plate	89	142912	Filter, Spin On
37	142883	Brake Puck	91	153769	Pump,BDU-10L-122
38	142884	Washer 7/8 O.D. x 7/16 x .060	95	142914	Plug, Straight Thread
39	142885	Nut, Castle 5/16-24	96	153770	60° 7/18 SAE x 5/16 Fitting
40	142886	Cotter Pin	103	142916	Washer
41	142887	Brake Actuating Pin	104	142917	Vent Cap Assembly
42	142888	Hi Pro Key	106	142918	Fitting O-Ring Assembly
43	142889	Spacer	108	142919	Control Arm
45	142890	Brake Disc	109	142920	Set Screw
46	142891	Bolt 1/4-20 x 1-1/2	110	142921	Filter Head
47	142892	Bolt 1/4-20 x 1	111	150820	Hose 1/2*
49	153766	Differential Assembly	112	150823	Fitting, 1/2" Beaded 90° 7/8 SAE
63	142894	Dowel Pin	113	150821	Fitting, 1/2" Beaded 60° 9/16
64	150818	Reduction Gear, 14 Teeth to 38	117	150822	Fitting, 1/2" Beaded 90° 9/16
		Teeth	123	150824	O Ring
65	142897	Final Drive Pinion Assembly	124	150825	Pinch Clamp
67	142898	Jackshaft	129	153771	Spring, Long
68	142899	O-Ring			
69	142900	Washer 5/8 X 1-5/32			
70	142901	Washer 7/8 X 1-1/2			ent dimensions given in U.S.
71	142902	Bolt, Hex 5/16-18 x 3.5	inche	s 1 inch = 25.	4 mm

PUMP--BDU-10L-122



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
					2200
1	144569	Shaft, Pump	25	127148X	Swashplate, Variable
2	122716X	Ring, Retaining	32	142938	Block Assembly
3	122745X	Bearing, Ball	37	122786X	Pin, Stainless, Headless
4	122715X	Spacer	38	122718X	Gasket, Center Section
5	122700X	Seal, Lip	42	144578	Check Valve Kit
6	122699X	Ring, Retaining	43	144578	Check Valve Kit
8	122767X	Bearing, Cradle	44	144579	Charge Relief Kit
12	122717X	Seal, Lip	47	122752X	Screw, Socket Head, Cap
13	122748X	Arm, Trunnion	53	127153X	Bypass Valve Kit
14	122749X	Guide, Slot	60	142977	Block Spring
15	144571	Housing Kit, Transmission	62	144581	O-Ring
17	122770X	Bearing, Thrust, Ball	63	144582	Charge Pump Kit
19	153801	Center Section Kit	64	144583	Gerotor Assembly
21	122722X	Seal, Lip	67	144584	Screw, Socket Head, Cap
22	144573	Shaft, Motor		153769	Pump Assembly, Complete
23	142978	Washer, Block Thrust			

TRACTOR -- MODEL NUMBER 917.275240 KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509



TRACTOR -- MODEL NUMBER 917.275240 KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

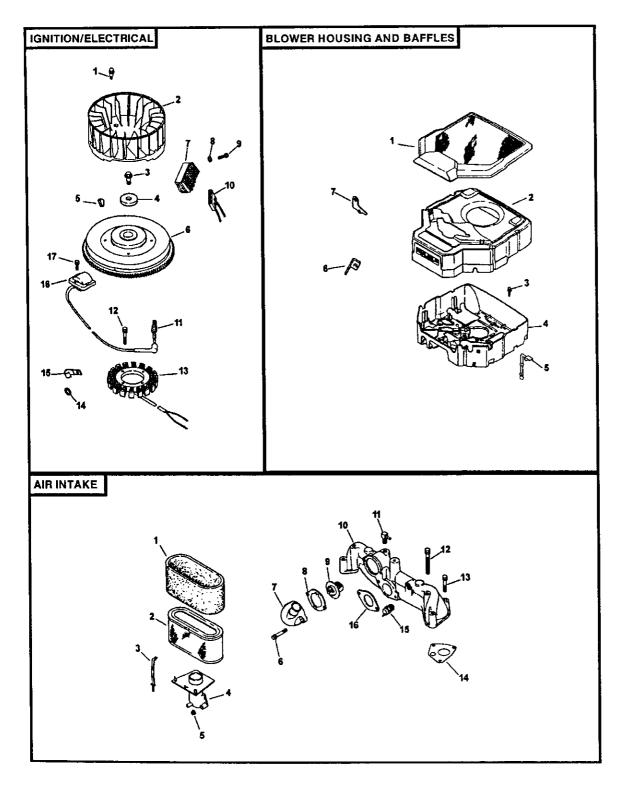
HEAD/VALVE/BREATHER

CRANKCASE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2 3	24 041 23-S	Cover, breather Gasket, breather Plug, pipe 1/8"	1 2		Seal, oil front Crankcase (Use Miniblock 66 782 01)
4	M-645020-S	Screw, hex. flange M6x1.0x20 (4)	3	24 294 13-S 24 380 13-S	Fitting Pin. dowel locating (2)
5 6	25 351 01-S 24 411 05-S	Lifter, valve (4) Rod, push (4)	5	24 067 13-S 24 067 14-S	Connecting Rod (Std.) (2) Connecting Rod (.25) (2)
7 8	66 041 02-S 66 318 02-S	Plug, pipe 1/8" Screw, hex. flange M6x1.0x20 (4) Lifter, valve (4) Rod, push (4) Gasket, cylinder head (2) Head assembly, #2 cylinder Shim (4) (A.R.)	6	24 874 09-S	Piston w/Ring Set (Std.) (2) (Includes 7,8)
9	66 422 02-S 66 422 01-S	Head assembly, #2 cylinder Shim (4) (A.R.) Shim (4) (A.R.) Shim (4) (A.R.) Arm, rocker (4) Pivot, rocker arm (4) Stud, (4) Nut, lock (4) Stud, cylinder head (8) Washer, 5/16" (8) Nut, hex. flange M8x1.25 (8) Gasket, valve cover (2)		24 874 10-S 24 874 11-S	Piston w/Ring Set (.25) (2) Piston w/Ring Set (.50) (2)
10	25 186 01-5	Arm rocker (4)	7	24 8/4 15-5	Piston W/Hing Set (.08) (2)
11	66 599 13-S	Pivot, rocker arm (4)	1	24 100 00-3	Ring Set (310.) (2)
12	66 072 04-S	Stud. (4)		24 108 09-S	Ring Set (.23) (2)
13	66 100 02-S	Nut, lock (4)	8	24 018 01-S	Retainer, piston pin (4)
14	66 072 01-S	Stud, cylinder head (8)	9	12 422 09-S	Shim, camshaft (A.R.) red
15 16	220534-S 24 100 10-S	Washer, 5/16" (8) Nut, hex. flange M8x1.25		12 422 13-S	Shim, camshaft (A.R.) black
17	66 041 04 6	(8) Gasket value sever (2)		12 422 07-S	Shim, camshaft (A.R.)
18	66 096 02-5	Cover valve - plain		10 400 00 0	White
19	M-651025-S	Screw. hex. flance		12 422 00-3	Shim, camshaft - vellow
20	M-651050-S	(8) Gasket, valve cover (2) Cover, valve - plain Screw, hex. flange M6x1.0x25 (4) Screw, hex. flange M6x1.0x50 (4)		12 422 11-S	Shim, camshaft (A.R.)
20	W-031030-0	M6x1.0x50 (4) Plug, pipe 3/8" (2) Valve, exhaust (Std.) (2) Valve, exhaust (.25) (2) Valve, intake (Std.) (2) Valve, intake (.25) (2) Cap, valve spring (4) Spring, valve (4)		12 422 12.5	Shim, camshaft (A.R.) gray
21	66 139 01-S	Plug, pipe 3/8" (2)	10	66 012 04-S	
22	24 016 01-S	Valve, exhaust (Std.) (2)	11	66 032 03-S	Seal, camshaft
00	24 016 02-S	Valve, exhaust (.25) (2)	12	X-42-2-S	Key, woodruff
23	24 017 01-5	Valve, intake (Std.) (2)	13	66 093 01-S	Sprocket, camshaft
24	12 173 01-5	Can valve spring (4)	14	X-25-52-S	Washer, plain 3/4"
25	24 089 02-S	Spring, valve (4)	15	MI-05 1020-5	Screw, hex. flange M6x1.0x20
26 27	66 032 05-5	Retainer, spring (4) Seal, valve stem (2)	16	52 139 09-S	Plug, cup
28					Screw, hex. flange M5x0.8x10 (2)
29	66 318 01-S	Head assembly, #1 cylinder	18	66 018 01-S	Retainer, reed (2)
30	66 096 03-S	Head assembly, #1 cylinder Cover, breather valve Clamp, hose (2) Hose, breather	19	66 402 01-S	Reed, breather (2)
31	X-426-3-S	Clamp, hose (2)	20	12 153 01-S	O-Ring, lower oil fill tube
32	66 326 10-S	Hose, breather	21	66 123 02-S	Tube, oil fill
			22 23	12 153 02-5	O-Ring, upper oil fill tube Dipstick assembly (Includes
			24	25 755 13-S	24,25) Kit, oil fill cap (Includes 22)
			25		O-Ring, dipstick
			26	X-599-4-S	Pin, drive-loc (6)
			27 28	24 144 33-3	Shaft, governor cross Washer, flat 1/4"
			29	28 032 09-S	Seal, oil governor shaft
			30	M-931010-S	Washer, plain 9 mm
			31		Ring, retainer

NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm

TRACTOR - MODEL NUMBER 917.275240 KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509



TRACTOR -- MODEL NUMBER 917.275240 KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

IGNITION/CHARGING

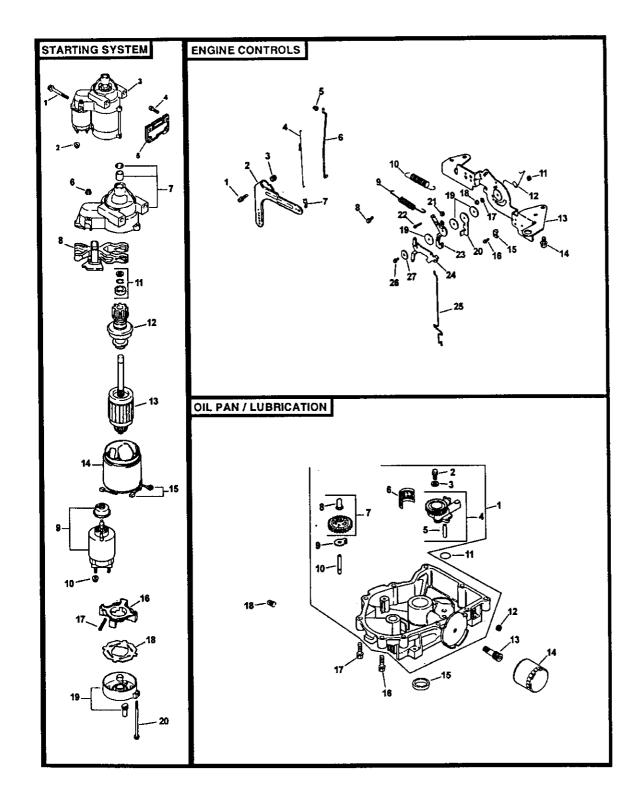
AIR INTAKE/FILTRATION

KEY NO.	PART NO.	DESCRIPTION	KEY		DECORIDATION
1	66 086 02-S	Screw, shoulder (4)	NO.	NO.	DESCRIPTION
ż	66 157 01-S		1	66 083 03-5	Element, precleaner
2		Screw, hex. flange		66 083 01-S	Element, air cleaner
		M10x1.5x46	2	66 445 02 - S	Strap, filter element
4	12 468 03-S	Washer, plain 3/8*	•	00 110 02 0	retainer
4 5 6 7 8 9	X-42-15-S	Key	4	66 054 01-S	Elbow, air intake
6	66 025 01-S		6	M-651025-S	
7		Rectifier-regulator 15 amp			M6x1.0x25 (2)
8	X-25-92-S	Washer, plain 3/16"	7	66 081 01-S	Housing, thermostat
9	66 086 04-S		8	66 041 01-S	
10	nocenn e	K90x2.69x25			housing
10	236602-S 66 132 01-S		9	66 453 01-S	
11 12	M-548025-S		10		Manifold, intake
12	141-040020-0	(2)	11		Connector, hose
13	66 085 01-S	Stator	12	M-651090-S	Screw, hex. flange
14	X-25-63-S		13	M CETOED C	M6x1.0x90 (2)
15	235173-S	Clip, cable	13	M-651050-S	Screw, hex. flange M6x1.0x50 (4)
16	66 584 04-S		14	66 041 05-5	Gasket, intake manifold
		(2)	15	66 099 02-5	Switch, temperature
17	M-545020-S	Screw, thread forming	16		Gasket, air cleaner base
		M5x0.8x20 (4)		27 071 17 0	Guonot, all blockfor buob
			NOT	ILLUSTRATED	•
NOT	ILLUSTRATED				Decal, cover on
	X-22-11-S	Washer, plain 1/4" (3) (to			
	CC 17C 00 C	ground rectifier-regulator)			ent dimensions given in U.S.
	00 1/0 08-5	Harness, wiring (6-pin)	inche	s 1 inch = 25.4	1 mm
	25 454 03-8	Tie, cable (2)			

BLOWER HOUSING & BAFFLES

KEY NO.	PART NO.	DESCRIPTION
1 2 3	M-645020-S	Housing assembly, upper Screw, hex. flange M6x1.0x20 (8)
5 4 6 7	66 081 02-S	Retaining Strap Housing assembly, lower Strap, hanging

TRACTOR -- MODEL NUMBER 917.275240 KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509



TRACTOR - MODEL NUMBER 917.275240 KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

STARTING SYSTEM

KEY NO.	PART NO.	DESCRIPTION	KEY NO. 20	PAI NO 24
1	M-839080-S	Screw, hex. flange M8x1.25x80 (2)	21 22	M-4 M-4
2	M-841080-S 12 098 03-S	Nut, hex. flange M8x1.25 Starter, solenoid shift	23 24	24 24
4	M-851030-S	(Includes 6-20) Screw, hex. flange	25 26	24 M-
5	66 146 10-S 52 100 10-S	M8x1.25x30 (2) Plate, starter Nut, starter (2)	27	41
5 6 7 8 9	12 081 02-S 12 090 10-S	Drive, end cap		
9 10	52 435 02-S 52 100 09-S	Solenoid Nut, starter	OILP	AN/I
11 12 13	24 755 84-S 12 239 01-S 12 170 03-S	Kit, starter repair Drive, pinion	KEY NO.	PA NO
14 15	12 471 01-S 52 221 01-S		1	24
16 17	52 323 03-S 52 089 09-S	Holder, brush	2	М-
18 19	52 168 01-S		3 4	M- 24
20	52 211 05-S		_	

ENGINE CONTROLS

KEY NO.	PART NO.	DESCRIPTION
1	24 211 03-S	Bolt, rd. hd. sq. neck M6x1.0x16
2	24 090 33-S	Lever, governor
3	M-641060-S	Nut, hex. flange M6x1.0
4	24 089 01-S	Spring, linkage
5	25 158 08-S	
6	25 158 11-S	Linkage, throttle
7	25 158 11-S	Bushing, throttle linkage
8	M-545016-S	
9	24 089 51-S	Spring, throttle limiter
10	24 089 47-S	
11	24 089 03-S	Nut, hex. M5x0.8
12	24 089 03-S	
13	24 126 56-S	
14	M-645016-S	
		M6x1.0x16 (4)
15	12 237 01-S	
16	24 086 43-S	
17	X-20-1-S	Washer, lock
18	M-545010-S	
19	24 468 01-S	

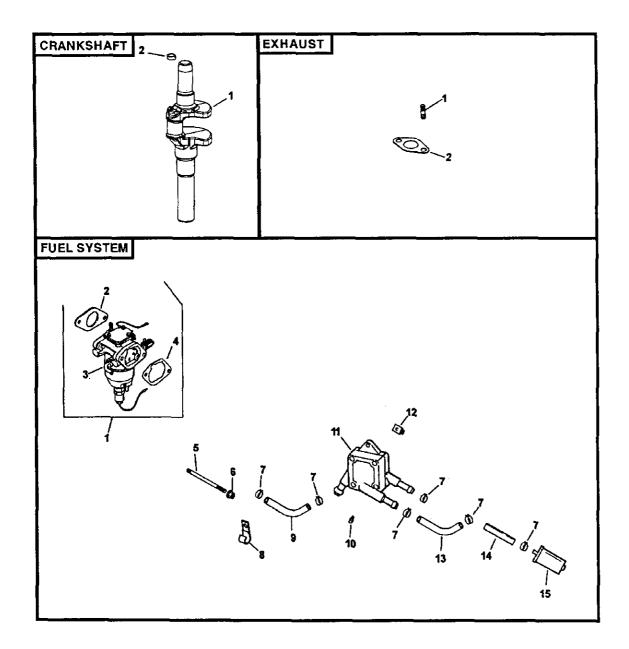
KEY	PART	
NO.	NO.	DESCRIPTION
20	24 090 07-S	Lever, throttle actuator
21	M-446030-S	Nut, hex.
22	M-403025-S	
23	24 090 13-S	Lever, throttle control
24	24 090 05-S	Lever, choke
25	24 079 05-S	Linkage, choke
26	M-545020-S	Screw, hex. flange
		M5x0.8x20
27	41 468 03-S	Washer, wave

OIL PAN/LUBRICATION

KEY NO.		DESCRIPTION
1	24 199 07-S	Oil pan assembly (Includes 2-10)
2	M-645025-S	
3	M-631005-S	
4	24 393 08-S	
		(Includes 5)
5	24 123 05-S	Tube, oil pickup
6	24 162 26-S	Screen, oil
7	24 043 12-S	Kit, governor gear
		(Includes 8)
8	12 380 01-S	
9	52 448 02-S	
10	12 144 02-S	
11	24 153 08-S	
12	X-75-32-S	Plug, hex. ctsk. 3/8"
13		
14	52 050 02-S	
15	52 032 08·S	
16	24 086 16-S	Screw, hex. flange M8x1.25x45 (9)
17	24 086 17-S	
• •	2. 220 17 0	M8x1.25x45
18	X-75-10-S	Plug, pipe 3/8"

NOTE: All component dimensions given in U.S. inches 1 inch = 25.4 mm

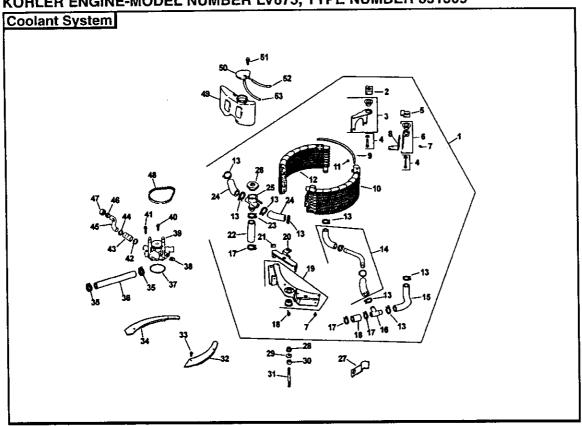
TRACTOR -- MODEL NUMBER 917.275240 KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509



TRACTOR - MODEL NUMBER 917.275240 KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509

CRANKSHAFT		EXHAUST			
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1 2	66 014 42-S 52 139 09-S	Crankshaft (Includes 2) Plug, cup	1 2	25 072 08-S 24 041 02-S	Stud, M6x16x33 (4) Gasket, exhaust (2)
FUEI	_ SYSTEM		NOT! inche	E: All compones 1 inch = 25.	ent dimensions given in U.S. 4 mm
KEY NO.	PART NO.	DESCRIPTION			
1	66 853 02-S	Kit, carburetor w/gaskets (Includes 2-4)			
2	24 041 15-S 66 053 02	Gasket, carburetor Carburetor assembly (For information only not available separately) (Includes 24 757 20-S, 24 757 07-S, 24 757 18-S)			
4 5 6 7 8 9 10	M-629116-S M-641060-S X-426-9-S 47 154 01-S 24 353 03-S	Gasket, air cleaner base Stud M6x1.0x116 (2) Nut, hex. flange M6x1.0 (2) Clamp, hose (6)			
11 12 13 14 15 NOT	24 100 01-S 28 353 01-S	Pump, fuel - pulse Nut, plastic (2) Line, fuel 13" Line, fuel 11-1/2" Filter, fuel			
	28 757 07-S 24 757 19-S 24 757 18-S	Kit, solenoid repair w/ gaskets Kit, choke repair w/gaskets Kit, overhauł w/gaskets Kit, gasket			

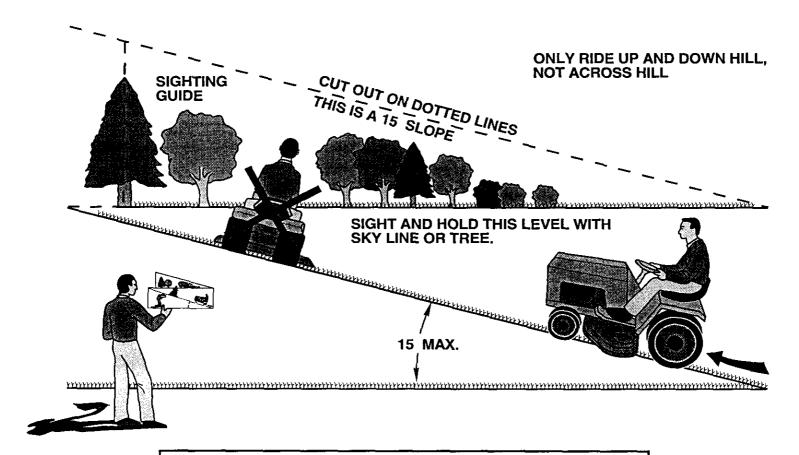
TRACTOR -- MODEL NUMBER 917.275240 KOHLER ENGINE-MODEL NUMBER LV675, TYPE NUMBER 851509



NO. NO. DESCRIPTION NO. 1 66 398 01-S Radiator assembly (Includes 2-26) 31		Sleeve, intake manifold
(Includes 2-26) 31	AA 11/2 11/25	
		Stud, radiator support Plate, right core block-off
2 66 126 24-S Bracket, right kidney 32 3 66 126 01-S Bracket, solenoid 33	66 086 05-S	
4 M-639010-S Screw, hex. hd. M6x1.0x10		(4)
(2)		Plate, left core block-off
5 66 126 23-S Bracket, left kidney 35	25 237 11-S	Clamp, hose (2)
6 66 126 08-S Bracket, "Z" 36		Hose, by-pass
7 66 086 09-S Screw, (3) 37	66 153 01-S	
8 66 126 02-S Bracket, "Z" 38 9 66 442 01-S Bracket, tie 39	45 155 01-5	Connector, hose Pump assembly, water
9 66 442 01-S Bracket, tie 39 10 66 397 02-S Cooler assembly, right 40	M-651020-S	Screw, hex. flange
10 66 397 02-S Cooler assembly, right 40 11 M-647060-S Nut, hex. lock M6x1.0 (4)	141-031020-0	M6x1.0x20 (5)
12 66 397 01-S Cooler assembly, left 41	M-639040-S	
13 66 237 09-S Clamp, spring (8)	• • • • • • •	M6x1.0x40
14 66 326 03-S Hose assembly, 19 mm 42		Clamp, water pump outlet
15 66 326 04-S Hose, cooler 19 mm 43		Hose, crossover
16 66 451 01-S Connector, T-Barb 44		Clamp, water jacket
17 66 237 19-S Clamp, hose 1" 45		Tube, crossover
18 M-639016-S Screw, hex. hd. M6x1.0x16 46		Belt, water pump
47	24 086 42-S	Bottle, overflow Screw, hex. flange
19 66 126 08-S Bracket, bottom 48	24 000 42-3	M6x1.0x16 (2)
21 66 154 02-S U-Clip (4) 22 66 326 01-S Hose, inlet 23 mm		1410.41.0.410 (2)
23 66 237 17-S Hose, wire clamp NOT I	ILLUSTRATED	1
24 66 326 02-S Hose, inlet 19 mm	25 454 03-S	
25 66 440 01-S Neck, filler	66 454 01-S	Tie, wire - lower radiator
26 66 173 01-S Cap, pressure		hose
27 66 154 04-S Clip, lower radiator hose	66 782 01	Miniblock
28 M-647060-S Nut, hex. lock M6x1.0	66 755 01-S	Gasket Set
29 X-25-52-S Washer, plain 1/4"	E. All compon	ont dimensions given in LLS
inche:	es 1 inch = 25.	ent dimensions given in U.S. 4 mm

SERVICE NOTES

SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION





Operate your Tractor up and down the face of slopes (not greater than 15), never across the face. Make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.

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