

GTH200



### SAFETY RULES Safe Operation Practices for Ride-On Mowers



**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.

#### I. 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.

#### **II. SLOPE OPERATION**

Slopes are a major factor related to loss-of-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.

#### III. 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.

#### **IV. 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.



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



CAUTION: Always disconnect spark plug wire and place wire where it cannot contact spark plug in order to prevent accidental starting when setting up, transporting, adjusting or making repairs. **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 authorized service center/department. We have competent, well-trained technicians and the proper tools to service or repair this unit.

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

MODEL NUMBER	GTH200
SERIAL NUMBER	
DATEOFPUR	CHASE
	ND SERIAL NUMBERS WILL BE FOUND UNDER THE SEAT.

YOU SHOULD RECORD BOTH SERIAL NUMBER AND DATE OF PURCHASE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.

#### **CUSTOMER RESPONSIBILITIES**

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

## PRODUCT SPECIFICATIONS

HORSEPOWER:	20.0
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR
OIL TYPE (API-SG):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)
OIL CAPACITY:	W/ FILTER: 4.0 PINTS W/O FILTER: 3.5 PINTS
SPARK PLUG: (GAP: .025")	CHAMPION RV17YC
VALVE CLEARANCE:	INTAKE: .003" – .006" EXHAUST: .016" – .019"
GROUND SPEED (MPH):	FORWARD: 0 – 5.6 REVERSE: 0 – 2.5
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	15 AMPS @ 3600 RPM
BLADE BOLT TORQUE:	30–35 FT. LBS.

**WARNING:** This unit 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.

A spark arrester for the muffler is available through your nearest authorized service center/department (See RE-PAIR PARTS section of this manual).

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.

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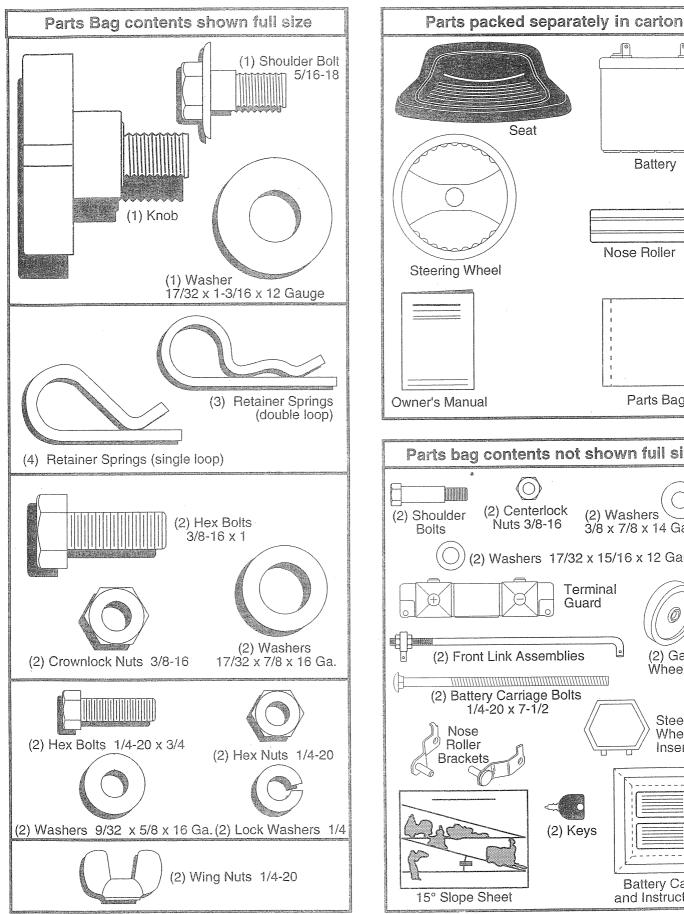
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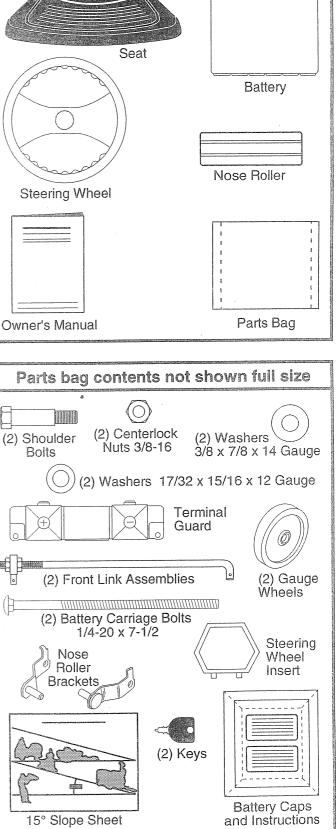
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PL

our 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.

## OOLS REQUIRED FOR ASSEMBLY

socket wrench set will make assembly easier. Standard rrench sizes are listed.

- 2) 7/16" wrenches
  - enches (1) Tire pressure gauge
- 1) 9/16" wrench (1) Utility knife
- 1) 1/2" wrench (1) 3/4" socket w/drive ratchet

When right or left hand is mentioned in this manual, it neans when you are in the operating position (seated ehind the steering wheel).

## **O REMOVE TRACTOR FROM CARTON**

#### INPACK CARTON

- Remove all accessible loose parts and parts cartons from carton (See page 5).
- Cut, from top to bottom, along lines on all four corners of carton, and lay panels flat.
- Remove mower and packing materials.
- Check for any additional loose parts or cartons and remove.

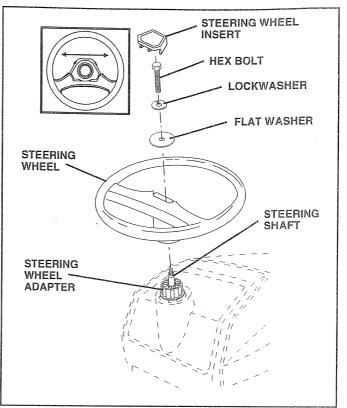
### **SEFORE ROLLING TRACTOR OFF SKID**

#### TTACH STEERING WHEEL (See Fig. 1)

- Remove hex bolt, lock washer and large flat washer from steering shaft.
- Position front wheels of the tractor so they are pointing straight forward.
- 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.
- Snap steering wheel insert into center of steering wheel.
- Remove protective plastic from tractor hood and grill.
- IPORTANT: CHECK FOR AND REMOVE ANY STAPLES I SKID THAT MAY PUNCTURE TIRES WHERE TRACTOR TO ROLL OFF SKID.

#### O ROLL TRACTOR OFF SKID (See Fig. 7)

- 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 Operation section of this manual).
- Roll tractor backwards off skid.





## HOW TO SET UP YOUR TRACTOR

#### PREPARE BATTERY (See Fig. 2)

CAUTION: Wear eye and face shield.

Wash hands or clothing immediately if accidentally in contact with battery acid.



Read the instructions included with the battery vent caps. Always wear gloves, clothing and goggles to protect your hands, skin and eyes.

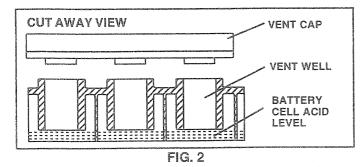
Your tractor has a battery charging system which is sufficient for normal use. However, periodic charging of the battery with an automotive charger will extend its life.

- See instructions packed with vent caps in parts bag.
- Fill battery with acid. Fill each cell until it reaches the bottom of the vent wells. Do not overfill.
- Allow battery to stand and settle for at least thirty minutes. After standing, check the battery cell acid level. If below the vent wells, add more acid until the correct level is reached.

While battery is standing (after adding acid) and later, while battery is being charged, continue with assembly of tractor.

**IMPORTANT:** TO MAXIMIZE THE LIFE OF YOUR BATTERY, IT IS NECESSARY THAT THE BATTERY BE CHARGED BEFORE USE. FAILURE TO CHARGE BATTERY CAN RESULT IN A SHORTENED BATTERY LIFE.

- Charge battery at a rate of 6 amperes for 1 hour. Use a 12 volt battery charger. Observe all safety precautions required for battery charging.
- Check the acid level after the battery is charged. If the acid has fallen below the correct level, add distilled or iron free water.
- Install the vent caps to cover the vent wells. Wash the top of the battery with water to remove any acid, then wipe dry.
- Check battery case for leakage to make sure that no damage has occurred in handling.
- Dispose of excess battery acid. Neutralize acid for disposal by adding it to two gallons of water in a five gallon plastic container. Stir with a wooden or plastic paddle while adding baking soda until the addition of more soda causes no more foaming.
- Follow instructions on how to install battery.



### INSTALL SEAT (See Fig. 3)

Adjust seat before tightening adjustment knob.

- Remove cardboard packing on seat pan.
- Place seat on seat pan and assemble shoulder bolt.
- Assemble adjustment knob and flat washer loosely. Do not tighten.
- Tighten shoulder bolt securely.
- Lower seat into operating position and sit on seat.
- Slide seat until a comfortable position is reached which allows you to press clutch/brake pedal all the way down.
- Get off seat without moving its adjusted position.
- Raise seat and tighten adjustment knob securely.

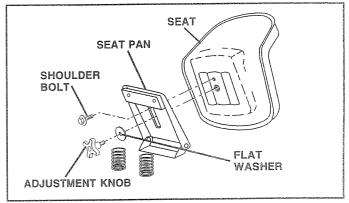
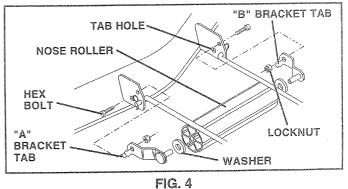


FIG. 3

#### TO ATTACH NOSE ROLLER (See Fig. 4)

- Position brackets, washers and nose roller between deck mounting brackets as shown. Be sure to position brackets on correct side, as shown.
- Install hex bolts and locknuts as shown. Tighten hardware securely.

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



#### 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" on page 3 of this manual.

#### CHECK BRAKE SYSTEM

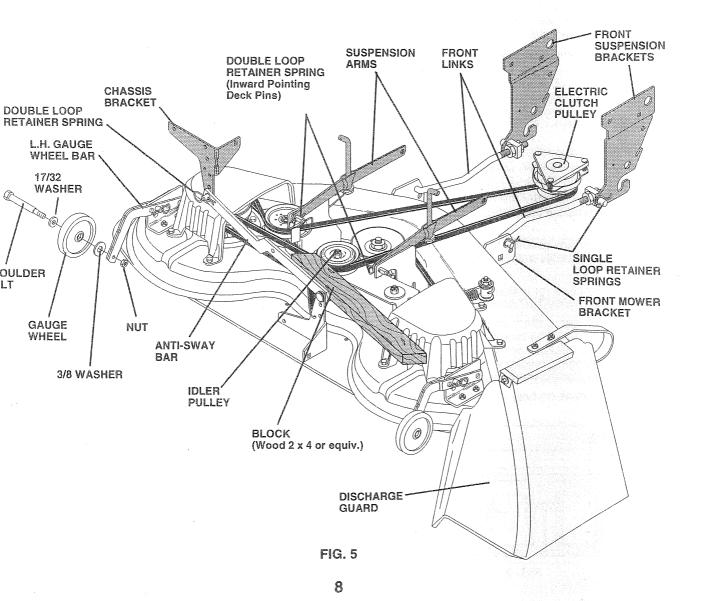
After you learn how to operate your tractor, check to see that the brake is properly adjusted. See "TO ADJUST BRAKE" in the Service and Adjustments section of this manual.

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#### STALL MOWER AND DRIVE BELT ee Figs. 5 and 8)

- sure tractor is on level surface. Engage parking brake.
- Cut and remove tie down securing anti-sway bar. Swing anti-sway bar to left side of mower deck.
- Relieve idler tension from belt. Push idler forward and place a block (standard wood 2 x 4 or equivalent) behind idler pulley.
- Slide mower under tractor with discharge guard to right side of tractor.
- Swing L.H. gauge wheel bar forward by removing rear retainer spring and pin.
- Install one front link in top hole of the L.H. front mower bracket and L.H. front suspension bracket. Retain with two single loop retainer springs as shown.
- Slide right side of mower deck forward, toward R.H. front tire.
- **PORTANT:** CHECK BELT FOR PROPER ROUTING IN L MOWER PULLEY GROOVES. INSTALL BELT INTO ECTRIC CLUTCH PULLEY GROOVE.
- Install second front link in the top hole of the R.H. front mower bracket and R.H. front suspension bracket. Retain with two single loop retainer springs as shown.

- Carefully remove block from behind idler pulley.
- Turn height adjustment knob counterclockwise until it stops.
- Lower mower linkage with attachment lift lever.
- Place the suspension arms on inward pointing deck pins. If necessary, rock and raise front of mower to align deck pins with the holes in suspension arms. Retain with double loop retainer springs.
- Connect anti-sway bar to chassis bracket under left footrest and retain with double loop retainer spring.
- Turn height adjustment knob clockwise to remove slack from mower suspension.
- Raise deck to highest position.
- Swing L.H. gauge wheel bar back towards rear of mower and secure with pin and retainer spring removed earlier.
- Assemble gauge wheels as shown using long shoulder bolts, 17/32 washers, 3/8 washers and nuts. Tighten securely.
- Adjust gauge wheels before operating mower as shown in the Operation section of this manual.



### CHECK DECK LEVELNESS

For best cutting results, mower housing 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.

INSTALL BATTERY (See Figs. 6 and 7)



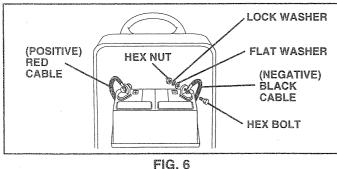
CAUTION: Do not short battery terminals. Before installing battery, remove metal bracelets, wristwatch bands, rings, etc.

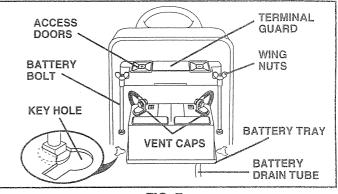
Positive terminal must be connected first to prevent sparking from accidental grounding.

- Lift hood to raised position.
- Be sure battery drain tube has not come loose and is securely attached to drain in battery tray.
- Lower battery into battery tray with terminals to rear of tractor.
- First connect RED battery cable to positive (+) battery terminal with hex bolt, flat washer, lock washer and hex nut as shown. Tighten securely.
- Connect BLACK grounding cable to negative (-) battery terminal with remaining hex bolt, flat washer, lock washer and hex nut. Tighten securely.
- Slide the two battery bolts through the terminal guard and start the wing nuts onto the threads.
- Position terminal guard over the battery as shown, lower bolts into key holes and slide square shafts of bolts into slots of key holes.
- Tighten wing nuts by hand making sure battery bolts remain in slots of the key holes in the battery support.
- Be sure terminal access doors are closed.

Use terminal access doors for:

- Inspection for secure connections (to tighten hardware).
- Inspection for corrosion.
- Testing battery.
- Jumping (if required).
- Periodic charging.







## / 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:

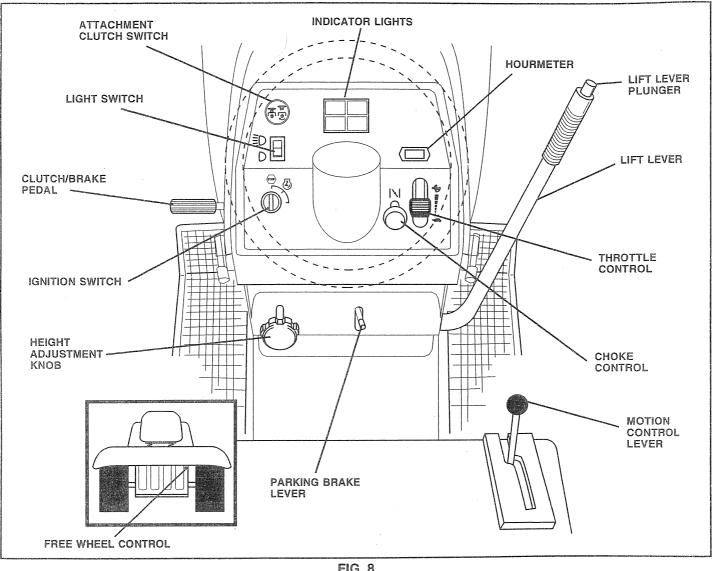
- ✓ All assembly instructions have been completed.
- ✓ No remaining loose parts in carton.
- Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
- ✓ Seat is adjusted comfortably and tightened securely.
- ✓ All tires are properly inflated. (For shipping purposes, the tires were overinflated 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.
- 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 Operation section of this manual).

### **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 location of various controls and adjustments. Save this manual for future reference.



**FIG. 8** 

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

ATTACHMENT CLUTCH SWITCH - Used to engage mower blades or other attachments mounted to your tractor.

LIFTLEVER - Used to raise and lower mower deck or other attachments mounted to your tractor.

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

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

MOTION CONTROL - Selects the speed and direction of tractor.

CHOKE CONTROL - Used when starting a cold engine. LIGHT SWITCH - Turns the headlights on and off.

THROTTLE CONTROL - Used to control engine speed. FREEWHEEL CONTROL - Disengages transmission for pushing or slowly towing the tractor with the engine off.

**IGNITION SWITCH** - Used to start and stop the engine.

HOURMETER - Indicates hours of operation.

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

HEIGHT ADJUSTMENT KNOB - Used to adjust the mower height.

INDICATOR LIGHTS - Indicates low fuel level, attachment engagement, low battery voltage, and low oil pressure.



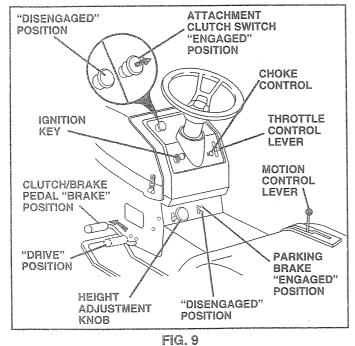
The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask for over the spectacles or standard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

## HOW TO USE YOUR TRACTOR

### TO SET PARKING BRAKE (See Fig. 9)

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.

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



#### STOPPING (See Fig. 9)

#### MOWER BLADES -

Move attachment clutch switch to "DISENGAGED" position.

#### 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. **NOTE:** Under certain conditions when unit 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.



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

### TO USE CHOKE CONTROL (See Fig. 9)

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 USE THROTTLE CONTROL (See Fig. 9)

Always operate engine at full throttle.

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

## TO MOVE FORWARD AND BACKWARD (See Fig. 9)

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

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

## TO ADJUST MOWER CUTTING HEIGHT (See Fig. 9)

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 approximately 1-1/4" to 4-1/4". 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.

• Never use choke to stop engine.

### TO ADJUST GAUGE WHEELS (See Fig. 10)

- Adjust mower to desired cutting height.
- Lower mower with lift control. Remove rear retainer spring and clevis pin which secure each gauge wheel.
- Lower gauge wheels to ground. Raise gauge wheels slightly to align holes in bracket and gauge wheel bar and insert clevis pins. Gauge wheels should be slightly off the ground.
- Replace retainer springs into clevis pins.

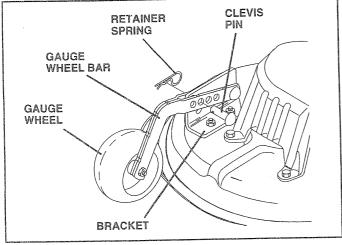


FIG. 10

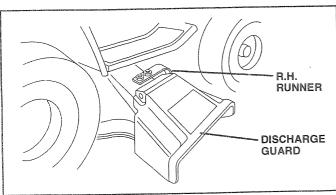
### TO OPERATE MOWER (See Figs. 8 and 9)

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.

- Select desired height of cut.
- Lower mower with attachment lift control.
- Start mower blades by engaging attachment clutch control.
- TO STOP MOWER BLADES disengage attachment clutch control.



CAUTION: Do not operate the mower without either the entire grass catcher, on mowers so equipped, or the discharge guard in place.



### **TO OPERATE ON HILLS**



CAUTION: 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 neutral (N) position.

**IMPORTANT:** 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 motion control lever to slowest setting.
- Make all turns slowly.

### TO TRANSPORT (See Figs. 8 and 12)

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.
- 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.).

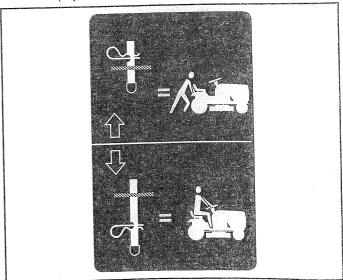




FIG. 12

### BEFORE STARTING THE ENGINE CHECK ENGINE OIL LEVEL (See Fig. 13)

- 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.
- Remove oil fill cap/dipstick and wipe clean, reinsert the dipstick and push it all the way down into the tube, wait for a few seconds, 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 Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

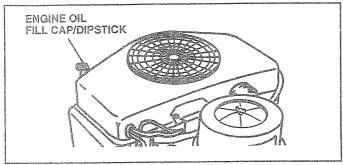


FIG. 13

#### ADD GASOLINE

 Fill fuel tank. Use fresh, clean, regular unleaded gasoline. (Use of leaded gasoline will increase carbon and lead oxide deposits and reduce valve life).

**IMPORTANT:** WHEN OPERATING IN TEMPERATURES BELOW 32°F(0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP INSURE GOOD COLD WEATHER STARTING.

**WARNING**: 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.



CAUTION: 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.

#### **INDICATOR LIGHTS**

Located on the dash of your tractor, these lights alert you to necessary steps required to start your tractor or, while tractor is running, alerts you to a serious problem which requires immediate attention.



Indicates low level of gasoline in fuel tank. Fill tank with clean, fresh gasoline.



- Indicates you must disengage attachment clutch control to start tractor.
- BATTERY DISCHARGING

CHECK

OIL

crease throttle speed and/or check battery and wiring (See the Customer Responsibilities and Troubleshooting sections in this manual).

Indicates a drop in battery voltage. In-

 Indicates low oil pressure in your engine. Light should come on when engine is not running and key switch is in "ON" position. This is a test to be sure light is working and a reminder to always check oil level before starting engine.

**IMPORTANT:** IF CHECK OIL LIGHT COMES ON WHILE THE ENGINE IS RUNNING, SHUT OFF ENGINE IMMEDIATELY AND CHECK FOR CAUSE OR SERIOUS ENGINE DAMAGE WILL OCCUR.

### TO START ENGINE (See Fig. 9)

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

- Depress clutch/brake pedal and set parking brake.
- Place motion control lever in neutral (N) position.
- Move attachment clutch to "DISENGAGED" position.
- Pull choke control out to choke ([\]) position for cold engine start. For warm engine start do not use choke control.
- Move throttle control to midway between fast (4) and slow (4) positions.
- 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 engine does not start after several attempts, move throttle control to fast (
   position, wait a few minutes and try again.
- When engine starts, slowly push choke control in.
- Move throttle control to fast ( ) position.
- Allow engine to warm up for a few minutes before engaging drive or attachments.

**IMPORTANT:** COLD STARTING FOR HYDRO (BELOW 40°F) - AFTER STARTING ENGINE AND BEFORE DRIVING, LET TRANSMISSION WARM UP FOR ONE (1) MINUTE BY PLACING MOTION CONTROL LEVER IN NEUTRAL (N) POSITION AND RELEASING CLUTCH/ BRAKE PEDAL.

**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.

#### **URGE TRANSMISSION**



CAUTION: Never engage or disengage freewheel lever while the engine is running.

o ensure proper operation and performance, it is recomnended that the transmission be purged before operating actor for the first time. This procedure will remove any apped air inside the transmission which may have develped during shipping of your tractor.

**IPORTANT:** SHOULD YOUR TRANSMISSION REQUIRE EMOVAL FOR SERVICE OR REPLACEMENT, IT HOULD BE PURGED AFTER REINSTALLATION EFORE 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.

**OTE:** During this procedure there will be no movement of rive wheels. The air is being removed from hydraulic drive ystem.

- Move motion control lever to neutral (N) position. Shutoff 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.
- 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.
- Use the runner on the right hand side of mower as a guide. The blade cuts approximately an inch outside the runner (See Fig. 11).
- 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 (See Fig. 14).
- 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.

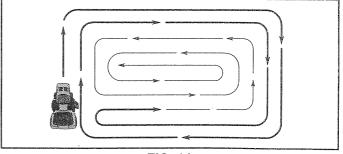


FIG. 14

FIL AS	AINTENANCE SCHEDULE L IN DATES YOU COMPLETE GULAR SERVICE	and the second se	EFORE	RST2	NERY BY	HOURS	SHOURS VERY 50	HOUR HOUR	S HOUR JO HOUR VERY SE	ASON FORE	SER	GE- VICE	E DAT	TES.
	Check Brake Operation	6		1 stal										
	Check Tire Pressure	ber		M										<u></u>
	Check for Loose Fasteners	M							<b>V</b>					
R	Sharpen/Replace Mower Blades				4									
AC	Lubrication Chart				M				S/P					
Ť	Check Battery Level/Recharge				1 miles									
0	Clean Battery and Terminals				M				V					ļ
R	Check Transaxle Cooling				V									
	Adjust Blade Belt(s) Tension						5					ļ		
	Adjust Motion Drive Belt(s) Tension		· -				5			6				L
	Check Engine Oil Level	V		1										
	Change Engine Oil		V	1	V1,2,3				M					
Ш	Clean Air Filter				<b>1</b> 2									
N	Clean Air Screen				<b>1</b> 2									
G	Inspect Muffler/Spark Arrester					<b>M</b>								
	Replace Oil Filter (If equipped)						1,2							
N	Clean Engine Cooling Fins						2							
E	Replace Spark Plug						1 Mar	C.						
	Replace Air Filter Paper Cartridge						1 2							
	Replace Fuel Filter							8						

1 - Change more often when operating under a heavy load or in high ambient temperatures.

2 - Service more often when operating in dirty or dusty conditions.

### **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**

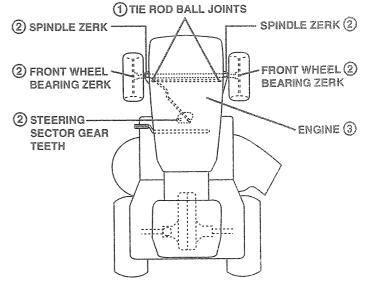
- Check engine oil level.
- Check brake operation.
- Check tire pressure.
- Check for loose fasteners.

**IMPORTANT:** DO NOT OIL OR GREASE THE PIVOT POINTS WHICH HAVE SPECIAL NYLON BEARINGS. VISCOUS LUBRI-CANTS 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, POW-DERED GRAPHITE TYPE LUBRICANT SPARINGLY. 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.

#### LUBRICATION CHART



(1) SPRAY SILICONE LUBRICANT (MOVE BOOTS TO LUBRICATE)

(2) GENERAL PURPOSE GREASE

(3) REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION

## 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 "PROD-UCT SPECIFICATIONS" on page 3 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.

### **BLADE CARE**

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

### **BLADE REMOVAL (See Fig. 15)**

- Raise mower to highest position to allow access to blades.
- Remove hex bolt, lock washer and flat washer securing blade.
- Install new or resharpened blade with trailing edge up towards deck as shown.
- Reassemble hex bolt, lock washer and flat washer in exact order as shown.
- Tighten bolt securely (30-35 Ft. Lbs. torque).

IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

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

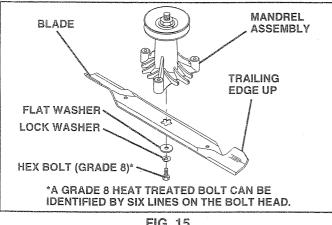


FIG. 15

### TO SHARPEN BLADE (See Fig. 16)

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).
- 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.

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

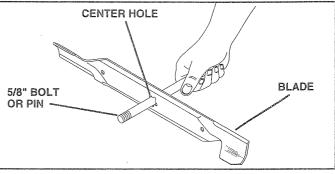
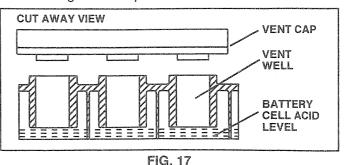


FIG. 16

### **BATTERY** (See Fig. 17)

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.

- Acid solution level in each battery cell should be even with bottoms of vent wells. Add only distilled or iron free water if necessary. Do not overfill.
- ۲ Keep battery and terminals clean.
- ۲ Keep battery bolts tight.
- -Keep vent caps tight and small vent holes in caps open.
- Recharge at 6 amperes for 1 hour.



#### TO CLEAN BATTERY AND TERMINALS

Corrosion and dirt on the battery and terminals can cause the battery to "leak" power.

- Remove terminal guard.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Wash battery with solution of four tablespoons of baking soda to one gallon of water. Be careful not to get the soda solution into the cells.
- 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 "INSTALL BATTERY" in the Assembly section of this manual).

#### TRANSAXLE COOLING

The fan and cooling fins of transmission 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, no 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.

#### **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.

### ENGINE

#### LUBRICATION

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

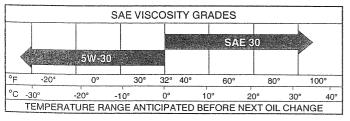


FIG. 18

**NOTE:** Although multi-viscosity oils (5W30, 10W30, etc.) improves starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°C. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after the first two hours of operation and every 50 hours thereafter 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 continuous use.

TO CHANGE ENGINE OIL (See Figs. 18 and 19)

Determine temperature range expected before oil change. All oil must meet API service classification SG.

- 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 drain plug.
- After oil has drained completely, replace oil drain plug and tighten securely.
- Refill engine with oil through oil fill dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" on page 3 of this manual.
- Use gauge on oil fill cap/dipstick for checking level. Be sure dipstick is in all the way for accurate reading. Keep oil at "FULL" line on dipstick.

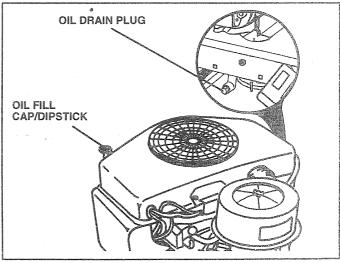


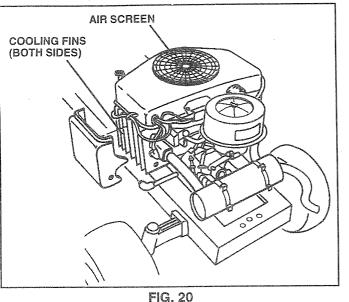
FIG. 19

### CLEAN AIR SCREEN (See Fig. 20)

Air screen must be kept free of dirt and chaff to prevent engine damage from overheating. Clean with a wire brush or compressed air to remove dirt and stubborn dried gum fibers.

### ENGINE COOLING FINS (See Fig. 20)

Remove any dust, dirt or oil from engine cooling fins to prevent engine damage from overheating. Engine blower nousing must be removed. Remove side panels and hood (See "TO REMOVE HOOD AND GRILL ASSEMBLY" in the Service and Adjustments section of this manual).



## AIR FILTER (See Fig. 21)

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.

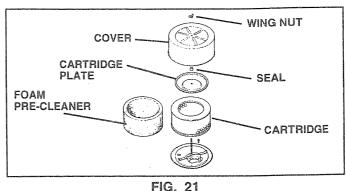
- Remove wing nut and cover.
- Remove seal and cartridge plate.

TO SERVICE PRE-CLEANER

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

#### TO SERVICE CARTRIDGE

- Gently tap the flat side of the paper cartridge to dislodge dirt. Do not wash the paper cartridge or use pressurized air, as this will damage the cartridge. Replace a dirty, bent, or damaged cartridge.
- Reinstall the pre-cleaner (cleaned and oiled) over the paper cartridge.
- Reassemble air cleaner, cartridge plate, and seal.
- Install the air cleaner cover and wing nut. Tighten wing nut 1/2 turn to 1 full turn after nut contacts cover. Do not overtighten.



#### 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.

#### 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" on page 3 of this manual.

### IN-LINE FUEL FILTER (See Fig. 22)

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

- 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.
- Immediately wipe up any spilled gasoline.

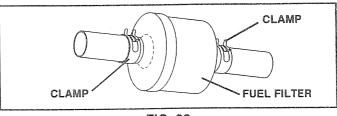


FIG. 22

#### 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.

#### CAUTION: BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

- Depress clutch/brake pedal fully and set parking brake.
  - Place motion control lever in neutral (N) position.
  - Place attachment clutch in "DISENGAGED" position.
  - Turn ignition key "OFF" and remove key.
- Make sure the blades and all moving parts have completely stopped.
  - Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

## TRACTOR

#### TO REMOVE MOWER (See Fig. 23)

- Place attachment clutch in "DISENGAGED" position.
- Turn height adjustment knob to lowest setting.
- Lower mower to its lowest position.
- Remove retainer spring holding anti-swaybar to chassis bracket and disengage anti-swaybar from bracket.
- Remove retainer springs from suspension arms at deck and disengage arms from deck.
- Raise attachment lift to its highest position.
- Remove two retainer springs from each front link and remove links.
- Slide mower forward and remove belt from electric clutch pulley.
- Slide mower out from under right side of tractor.

**IMPORTANT: IF AN ATTACHMENT OTHER THAN THE** MOWER DECK IS TO BE MOUNTED ON THE TRACTOR, REMOVE THE FRONT LINKS.

#### TO INSTALL MOWER

Follow procedure described in "INSTALL MOWER AND

### **TO LEVEL MOWER HOUSING**

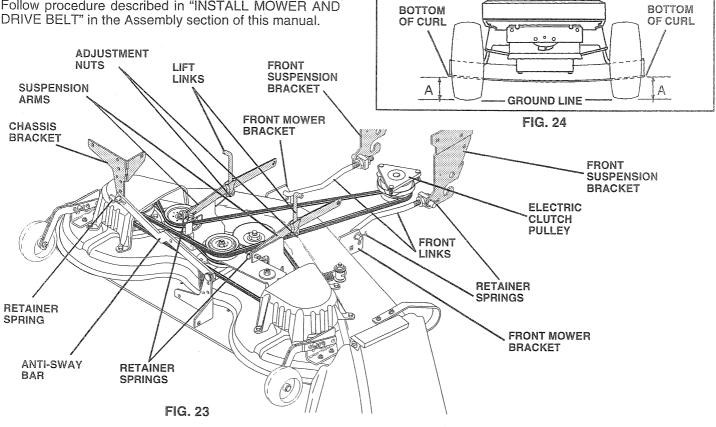
Adjust the mower while tractor is parked on level ground or driveway. Make sure tires are properly inflated (See "PRODUCT SPECIFICATIONS" on page 3 of this manual). If tires are over or underinflated, you will not properly adjust vour mower.

SIDE-TO-SIDE ADJUSTMENT (See Figs. 23 and 24)

- Raise mower to its highest position.
- Measure height from bottom of deck curl 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 half turn of adjustment nut will change mower height about 3/16".

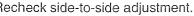
Recheck measurements after adjusting.

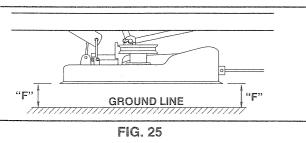


#### NT-TO-BACK ADJUSTMENT (See Figs. 25 and 26) -

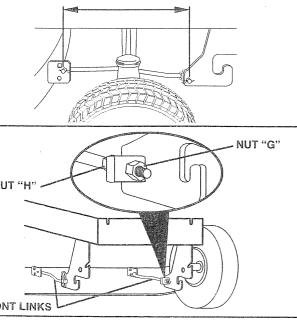
**DRTANT:** DECK MUST BE LEVEL SIDE-TO-SIDE. IF FOLLOWING FRONT-TO-BACK ADJUSTMENT IS ESSARY, BE SURE TO ADJUST BOTH FRONT LINKS ALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

- btain the best cutting results, the mower housing Id be adjusted so the front is approximately 1/8" to 1/2" r than the rear when the mower is in its highest ion.
- k adjustment on right side of tractor. Measure dis-"F" directly in front of and behind the mandrel at m edge of mower housing as shown.
- Before making any necessary adjustments, check that other that other that other that other that other that other the there are equal in length.
- <sup>i</sup> links are not equal in length, adjust one link to same ength as other link.
- o lower front of mower housing, loosen nut "G" on both ront links an equal number of turns.
- Vhen distance "F" is 1/8" to 1/2" lower at front than ear, tighten nut "H" against trunnion on both front links. o raise front of mower housing, loosen nut "H" from runnion on both front links. Tighten nut "G" on both ront links an equal number of turns.
- Vhen distance "F" is 1/8" to 1/2" lower at front than ear, tighten nut "H" against trunnion on both front nks.
- E: Each full turn of nut "G" will change dim. "F" by poximately 3/8".









### TO REPLACE MOWER DRIVE BELT

MOWER DRIVE BELT REMOVAL (See Fig. 27) -

- Park tractor on a level surface. Engage parking brake.
- Remove four screws from L.H. mandrel cover and remove cover.
- Roll belt over the top of L.H. mandrel pulley.
- Remove belt from electric clutch pulley.
- Remove belt from idler pulleys.
- Remove any dirt or grass clippings which may have accumulated around mandrels and entire upper deck surface.
- Check primary idler arm and two idlers to see that they rotate freely.
- Be sure spring is securely hooked to primary idler arm and bolt in mower housing.

MOWER DRIVE BELT INSTALLATION (See Fig. 27) -

- Install belt in both idlers. Make sure belt is in both belt keepers at the idlers as shown.
- Install new belt onto electric clutch pulley.
- Roll belt into upper groove of L.H. mandrel pulley.
- Carefully check belt routing making sure belt is in the grooves correctly and inside belt keepers.
- Reassemble L.H. mandrel cover.

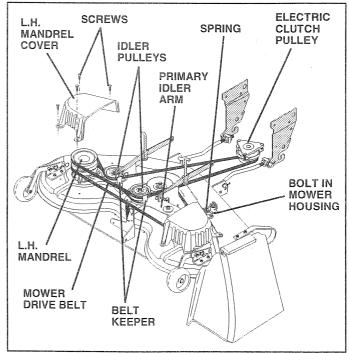
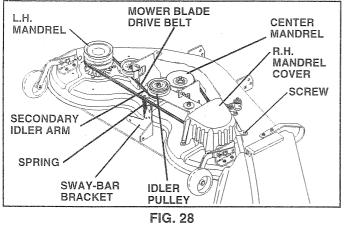


FIG. 27

## TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 28)

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).
- Remove four screws from R.H. mandrel cover and remove cover. Unhook spring from bolt on mower housing.
- Carefully roll belt off R.H. mandrel pulley.
- Remove belt from center mandrel pulley, idler pulley, and L.H. mandrel pulley.
- Remove any dirt or grass which may have accumulated around mandrels and entire upper deck surface.
- Check secondary idler arm and idler to see that they rotate freely.
- Be sure spring is hooked in secondary idler arm and sway-bar bracket.
- Install new belt in lower groove of L.H. mandrel pulley, idler pulley, and center mandrel pulley as shown.
- Roll belt over R.H. mandrel pulley. Make sure belt is in all grooves properly.
- Reconnect spring to bolt in mower housing and reinstall R.H. mandrel cover.
- Reinstall mower to tractor (See "INSTALL MOWER AND DRIVE BELT" in the Assembly section of this manual).
- Reassemble mower drive belt (See "TO REPLACE MOWER DRIVE BELT" in this section of this manual).

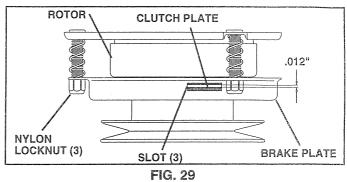


## TO ADJUST ATTACHMENT CLUTCH (See Fig. 29)

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 authorized service center/department.

- 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 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 (See Fig. 30)

Your tractor is equipped with an adjustable brake system which is mounted on the side of the transaxle.

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, then brake must be adjusted.

- 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".
- 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 authorized service center/department.

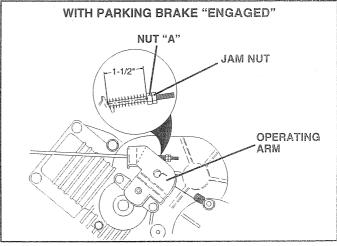


FIG. 30

## O REPLACE MOTION DRIVE BELT See Fig. 31)

ark the tractor on level surface. Engage parking brake. or ease of service there is a belt installation guide decal on ottom of left footrest.

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

#### BELT REMOVAL -

- Engage parking brake (creates slack in belt).
- Remove belt from clutching and fan idler pulleys.
- Remove belt from transaxle pulley.
- Remove belt from engine pulley and front V-idler pulley.
- Pull belt out of all belt keepers and remove from tractor.
- ELT 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.
  - 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.
  - Reinstall mower.

**IPORTANT:** CHECK BRAKE ADJUSTMENT.

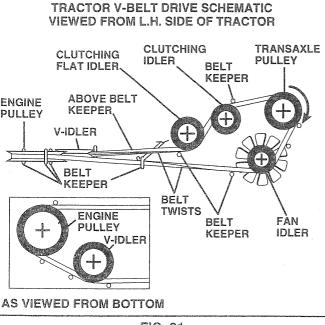


FIG. 31

### TO ADJUST MOTION CONTROL LEVER (See Fig. 32)

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.
- Place motion control lever in neutral (N) position.
- While holding locknut, loosen jam nut
- Tighten locknut 1/4 turn.
- 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.

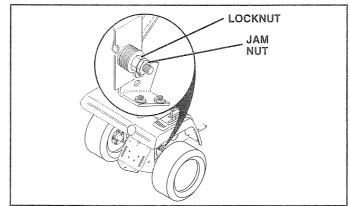


FIG. 32

#### TRANSMISSION REMOVEAL/REPLACEMENT

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

#### 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 (See Fig. 33) -

- 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 (See Figs. 33 and 34) -

- Loosen jam nuts at adjustment sleeves on tie rod.
- Adjust tie rod until dimension "A" is 1/8" to 1/4" less than dimension "B".
- 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 your nearest authorized service center/department.

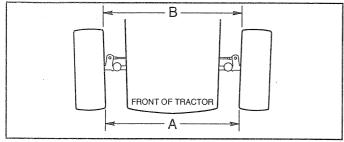


FIG. 33

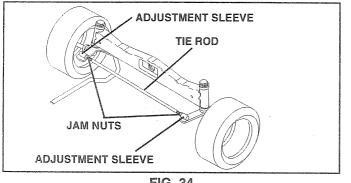


FIG. 34

### TO REMOVE WHEEL FOR REPAIRS

FRONT WHEEL (See Fig. 35) -

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

REAR WHEEL -

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

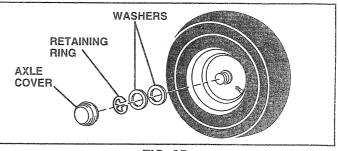
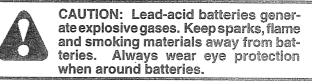


FIG. 35

## TO START ENGINE WITH A WEAK BATTERY (See Fig. 36)



If your battery is too weak to start the engine, it should be recharged. If "jumper cables" are used for emergency starting, follow this procedure:

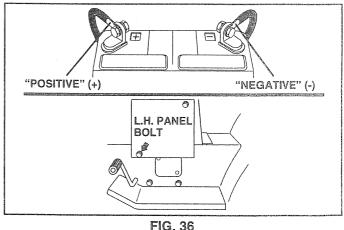
**IMPORTANT**: YOUR TRACTOR IS EQUIPPED WITH A 12 VOLT NEGATIVE GROUNDED SYSTEM. THE OTHER VEHICLE MUST ALSO BE A 12 VOLT NEGATIVE GROUNDED SYSTEM. DO NOT USE YOUR TRACTOR BATTERY TO START OTHER VEHICLES.

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 NEGA-TIVE (-) 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.
- RED cable last from both batteries.



#### TO REPLACE HEADLIGHT BULB

- 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 of this manual.

#### TO REPLACE FUSE

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

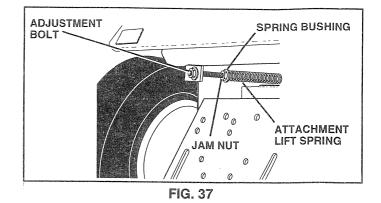
## TO ADJUST ATTACHMENT LIFT SPRING (See Fig. 37)

- 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 (See Fig. 38)

- Lift hood. Disconnect headlight wire connection.
- Remove wing nuts on inside of side panels.
- Pivot hood and side panel forward and lift off tractor.
- To replace, reverse above procedure.



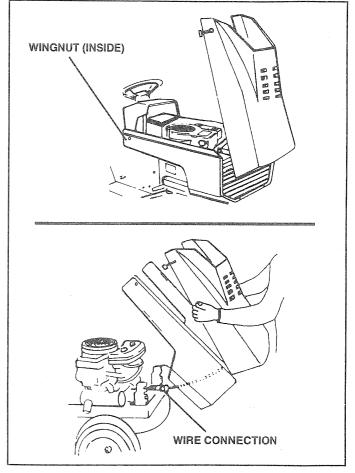


FIG. 38

### ENGINE

## TO ADJUST THROTTLE CONTROL CABLE (See Figs. 39 and 40)

The throttle control has been preset at the factory and adjustment should not be necessary. Check adjustment as described below before loosening cable. If adjustment is necessary, proceed as follows:

- With engine not running, move throttle control lever to fast (4) position.
- Check that speed control lever is against stop screw. If it is not, loosen casing clamp screw and pull throttle cable until lever is against screw. Tighten clamp screw securely.

### TO ADJUST CARBURETOR (See Fig. 41)

The carburetor has been present at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, proceed as follows:

In general, turning the adjusting needles **in** (clockwise) decreases the supply of fuel to the engine giving a leaner fuel/air mixture. Turning the adjusting needles **out** (counterclockwise) increases the supply of fuel to the engine giving a richer fuel/air mixture.

**IMPORTANT:** DAMAGE TO THE NEEDLES AND THE SEATS IN CARBURETOR MAY RESULT IF SCREW IS TURNED IN TOO TIGHT.

PRELIMINARY SETTING -

- Be sure you have a clean air filter, and the throttle control cable is adjusted properly (see above).
- With engine off turn idle fuel adjusting needle in (clockwise) closing it finger tight and then turn out (counterclockwise) 1-1/4 turns.
- Turn main fuel adjusting needle in (clockwise) closing finger tight and then turn out (counterclockwise) 1 turn.

FINAL SETTING -

- Start engine and allow to warm for five minutes. Make final adjustments with engine running and shift/motion control lever in neutral (N) position.
- With throttle control lever in fast ( ) position, turn main fuel adjusting needle in (clockwise) until engine begins to die then turn out (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- Idle speed setting With throttle control lever in slow (m) position, engine should idle at 1400 RPM. If engine idles too slow or fast, turn idle speed adjusting screw in or out until correct idle is attained.
- Idle fuel needle setting With throttle control lever in slow (m) position, turn idle fuel adjusting needle in (clockwise) until engine begins to die and then turn out (counterclockwise) until engine runs rough. Turn needle to a point midway between those two positions.
- Recheck idle speed. Readjust if necessary.

ACCELERATION TEST -

Move throttle control lever from slow (() to fast () position. If engine hesitates or dies, turn idle mixture screw **out** (counterclockwise) 1/8 turn. Repeat test and continue to adjust, if necessary, until engine accelerates smoothly.

High speed stop is factory adjusted. Do not adjust-damage may result.

**IMPORTANT:** NEVER TAMPER WITH THE ENGINE 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.

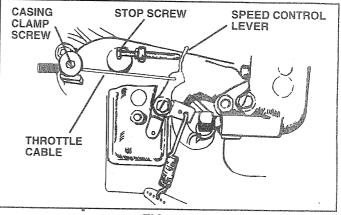


FIG. 39

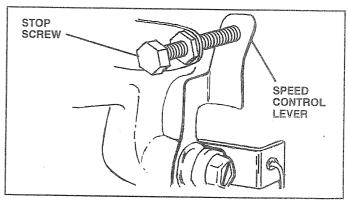
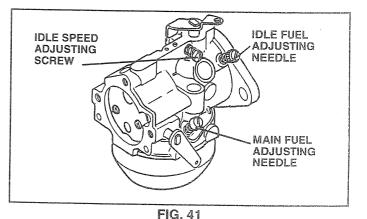


FIG. 40



## 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.



CAUTION: 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.

- Clean entire tractor (See "CLEANING" in the Customer Responsibilities section of this manual).
- Inspect and replace belts, if necessary (See belt replacement instructions in the Service and Adjustments section of this manual).
- Lubricate as shown in the Customer Responsibilities 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.
- 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 Customer Responsibilities section of this manual).
- After cleaning, leave cables disconnected and place cables where they cannot come in contact with battery terminals.
- Be sure battery drain tube is securely attached.
- If battery is removed from tractor for storage, do not store battery directly on concrete or damp surfaces.

### ENGINE

#### FUEL SYSTEM

**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 (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.

- Drain the fuel tank.
- 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 Customer Responsibilities section of this manual).

#### CYLINDERS

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

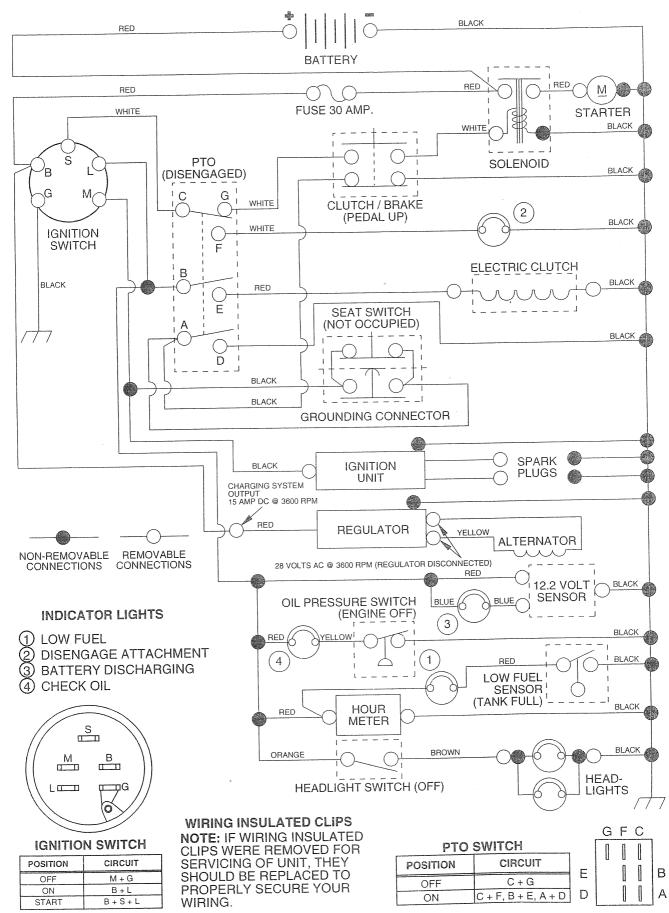
# **TROUBLESHOOTING POINTS**

PROBLEM	CAUSE	CORRECTION				
Will not start	<ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded.</li> <li>Bad spark plug.</li> <li>Dirty air filter.</li> <li>Dirty fuel filter.</li> <li>Dirty fuel filter.</li> <li>Water in fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Fill fuel tank.</li> <li>See "TO START ENGINE" in Operation section.</li> <li>Wait several minutes before attempting to start.</li> <li>Replace spark plug.</li> <li>Clean/replace air filter.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>				
Hard to start	<ol> <li>Dirty air filter.</li> <li>Bad spark plug.</li> <li>Weak or dead battery.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Clean/replace air filter.</li> <li>Replace spark plug.</li> <li>Recharge or replace battery.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>				
Engine will not turn over	<ol> <li>Clutch/brake pedal not depressed.</li> <li>Attachment clutch is engaged.</li> <li>Weak or dead battery.</li> <li>Blown fuse.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty ignition switch.</li> <li>Faulty solenoid or starter.</li> <li>Faulty operator presence switch(es).</li> </ol>	<ol> <li>Depress clutch/brake pedal.</li> <li>Disengage attachment clutch.</li> <li>Recharge or replace battery.</li> <li>Replace fuse.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace ignition switch.</li> <li>Check/replace solenoid or starter.</li> <li>Contact an authorized service center/department.</li> </ol>				
Engine clicks but will not start	<ol> <li>Weak or dead battery.</li> <li>Corroded battery terminals.</li> <li>Loose or damaged wiring.</li> <li>Faulty solenoid or starter.</li> </ol>	<ol> <li>Recharge or replace battery.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace solenoid or starter.</li> </ol>				
oss of power.	<ol> <li>Cutting too much grass/too fast.</li> <li>Throttle in "CHOKE" position.</li> <li>Build-up of grass, leaves and trash under mower.</li> <li>Dirty air filter.</li> <li>Low oil level/dirty oil.</li> <li>Faulty spark plug.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Water in fuel.</li> </ol>	<ol> <li>Set in "Higher Cut" position/reduce speed.</li> <li>Adjust throttle control.</li> <li>Clean underside of mower housing.</li> <li>Clean/replace air filter.</li> <li>Check oil level/change oil.</li> <li>Clean and regap or change spark plug.</li> <li>Replace fuel filter.</li> <li>Drain fuel tank and refill with fresh gasoline.</li> <li>Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> </ol>				
	<ol> <li>Spark plug wire loose.</li> <li>Dirty engine air screen/fins.</li> <li>Dirty/clogged muffler.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Gasoline and replace fuel filter.</li> <li>Connect and tighten spark plug wire.</li> <li>Clean engine air screen/fins.</li> <li>Clean/replace muffler.</li> <li>Check all wiring.</li> <li>Contact an authorized service center/department.</li> <li>Contact an authorized service center/department.</li> </ol>				
xcessive vibration	<ol> <li>Worn, bent or loose blade.</li> <li>Bent blade mandrel.</li> <li>Loose/damaged part(s).</li> </ol>	<ol> <li>Replace blade. Tighten blade bolt.</li> <li>Replace blade mandrel.</li> <li>Tighten loose part(s). Replace damaged parts.</li> </ol>				

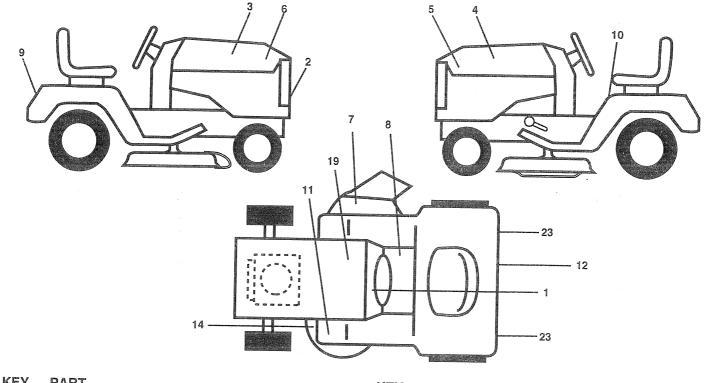
# TROUBLESHOOTING POINTS

PROBLEM	CAUSE	CORRECTION
Engine continues to run when operator leaves seat with attachment clutch engaged	1. Faulty operator-safety presence control system.	<ol> <li>Check wiring, switches and connections. If not corrected, contact an authorized service center/ department.</li> </ol>
Poor cut - uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Mower deck not level.</li> <li>Buildup of grass, leaves, and trash under mower.</li> <li>Bent blade mandrel.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Replace blade. Tighten blade bolt.</li> <li>Level mower deck.</li> <li>Clean underside of mower housing.</li> <li>Replace blade mandrel.</li> <li>Clean around mandrels to open vent holes.</li> </ol>
Mower blades will not rotate	<ol> <li>Obstruction in clutch mechanism.</li> <li>Worn/damaged mower drive belt.</li> <li>Frozen idler pulley.</li> <li>Frozen blade mandrel.</li> </ol>	<ol> <li>Remove obstruction.</li> <li>Replace mower drive belt.</li> <li>Replace idler pulley.</li> <li>Replace blade mandrel.</li> </ol>
Poor grass discharge	<ol> <li>Engine speed too slow.</li> <li>Travel speed too fast.</li> <li>Wet grass.</li> <li>Mower deck not level.</li> <li>Low/uneven tire air pressure.</li> <li>Worn, bent or loose blade.</li> <li>Buildup of grass, leaves and trash under mower.</li> <li>Mower drive belt worn.</li> <li>Blades improperly installed.</li> <li>Improper blades used.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Place throttle control in "FAST" position.</li> <li>Shift to slower speed.</li> <li>Allow grass to dry before mowing.</li> <li>Level mower deck.</li> <li>Check tires for proper air pressure.</li> <li>Replace/sharpen blade. Tighten blade bolt.</li> <li>Clean underside of mower housing.</li> <li>Replace mower drive belt.</li> <li>Reinstall blades sharp edge down.</li> <li>Replace with blades listed in this manual.</li> <li>Clean around mandrels to open vent holes.</li> </ol>
Headlight(s) not working (if so equipped)	<ol> <li>Switch is "OFF".</li> <li>Bulb(s) burned out.</li> <li>Faulty light switch.</li> <li>Loose or damaged wiring.</li> <li>Blown fuse.</li> </ol>	<ol> <li>Turn switch "ON".</li> <li>Replace bulb(s).</li> <li>Check/replace light switch.</li> <li>Check wiring and connections.</li> <li>Replace fuse.</li> </ol>
Battery will not charge	<ol> <li>Bad battery cell(s).</li> <li>Poor cable connections.</li> <li>Faulty regulator (if so equipped).</li> <li>Faulty alternator.</li> </ol>	<ol> <li>Replace battery.</li> <li>Check/clean all connections.</li> <li>Replace regulator.</li> <li>Replace alternator.</li> </ol>
Loss of drive	<ol> <li>Freewheel control in "disengaged" position.</li> <li>Motion drive belt worn, damaged, or broken.</li> <li>Air trapped in transmission during shipment or servicing.</li> </ol>	<ol> <li>Place freewheel control in "engaged" position.</li> <li>Replace motion drive belt.</li> <li>Purge transmission.</li> </ol>
Engine "backfires" when turning engine "OFF"	<ol> <li>Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.</li> </ol>	<ol> <li>Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.</li> </ol>

20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 SCHEMATIC



20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 DECALS



KEY

NO.

PART

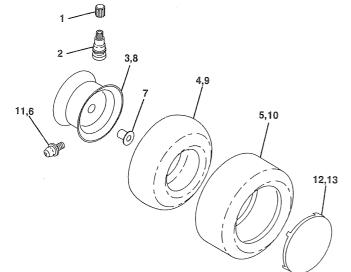
NO.

KEY NO.	NO.	DESCRIPTION
1 2 3 4 5 6 7 8 9 10 11 12	532138956 532125989 532140728 532140729 532140869 532140868 532137259 532140837 532131582 532133795 532101892 532142342	Decal, Operating Instruction Decal, Grille Husqvarna "H" Logo Decal, Hood, RH Decal, Hood, LH Decal, Inst Hood LH GTH200 Hydro Decal, Inst Hood RH GTH200 Hydro Decal, Warning Multi-Language Decal, Brake Parking Saddle Decal, Fender Decal, Caution Decal, Clutch/Brake Decal, D-Bar Ctrl. Mvt Hyd YT/GT

#### DESCRIPTION

14 19	532139346	Decal, V-Belt Schematic
	532121549	Decal, Battery
23	532106202	Reflector, Taillight
	532138311	Decal, Handle Lft Height Adjust (Lift Handle)
	532141349	Manual, Owner's (English)
	532141350	Manual, Owner's (French)
Acce	essories not inc	luded with tractor:
	SH10	Sleeve Hitch
	TA128	Tire Chains
	TS20	8HP Tiller
	TA321	#55 Wheel Weights
** **	TR72	48" Dozer Blade
	TR30	10" Plow

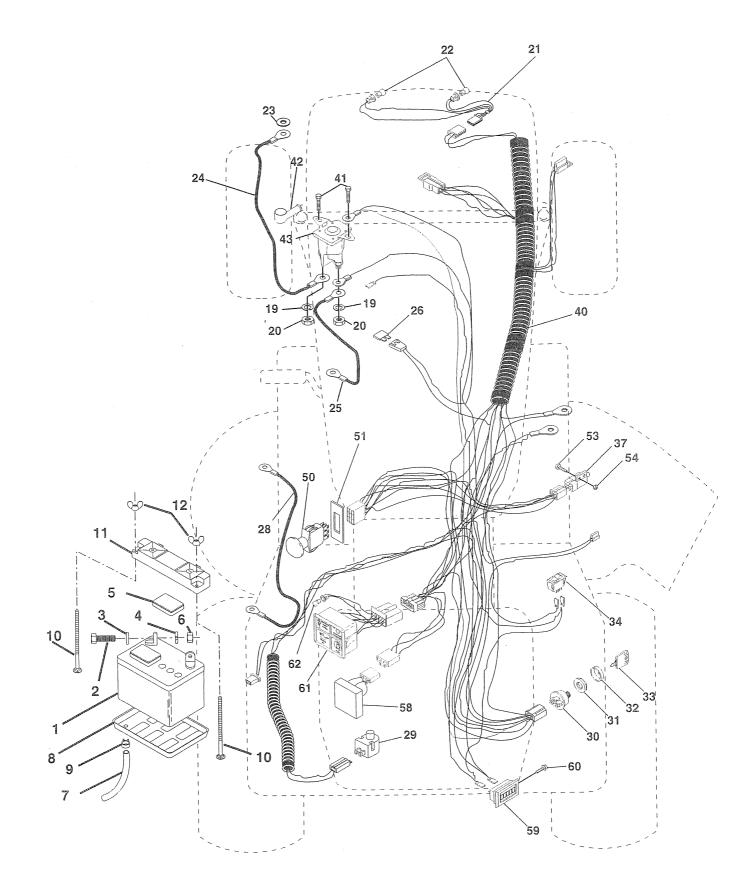
### WHEELS & TIRES



KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 9 10 11 12	532059192 532065139 532141624 532008134 532106230 532000278 532124959 532141625 532007154 532105588 532124860 532124578	Cap, Valve, Tire Stem, Valve Rim Assembly, Front Tube, Front (Service Item Only) Tire, Front Fitting, Grease Bearing, Flange (Front Wheel Only) Rim Assembly, Rear Tube, Rear (Service Item Only) Tire, Rear Fitting, Grease Cover Wheel 8" White
13	532124579	Cover, Wheel 12" White

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

20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 ELECTRICAL



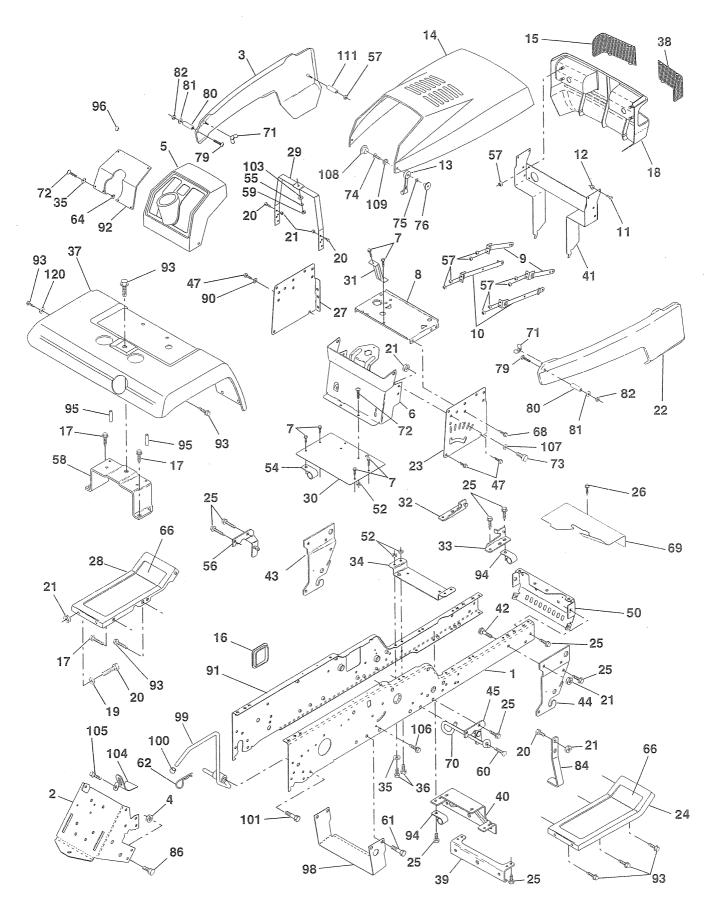
32

20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 ELECTRICAL

KE` NO		DESCRIPTION
$\begin{array}{c}1&2&3&4&5&6&7&8&9\\ &&&&&&&&&&&\\&&&&&&&&&&&\\&&&&&&&&&&$	873350400 532127441 532004152 811150400 532124780 532124770 532108824 532124773 532121305 532140399 532140400 532141226 532140400 532141226 532140401 532110712 532109553 532140400 817720408 532131563 532138406 532140404 532131563 532138406 532140404 532140405 871031008 873951000 532127385 532110940 817011008	Battery Bolt Hex Head 1/4-20 x 3/4 Washer, Lock 1/4 Washer, Jock 1/4 Washer 9/32 x 5/8 x 16 Ga Caps, Battery Nut Fin Hex 1/4-20 Tube Plastic Tray, Battery Clamp, Hose Bolt, Carriage 1/4-20 x 7-1/2 Guard Terminal Nut, Wing 1/4-20 Washer, Lock 1/4 Nut, Jam Hex 1/4-20 Harness Socket Light Bulb Light Washer, Lock Int. Tooth 1/4 Cable, Starter Cable, Battery Fuse Cable, Ground Switch, Plunger Switch, Ign Nut, Ignition Switch Cover Switch Key Key Switch, Light Intlk Switch Harness Ign. Screw 1/4-20 x 1/2 Cover, Terminal Red Solenoid Switch, PTO Ring Retainer PTO Screw Hex Washer Hd #10-32 x 1 Nut Keps #10-32 Sensor Lo-Volt Meter Hour Screw #10-24 x 1/2 Light Pkg Asm Bulb, Light Pkg.

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

20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 CHASSIS AND ENCLOSURES

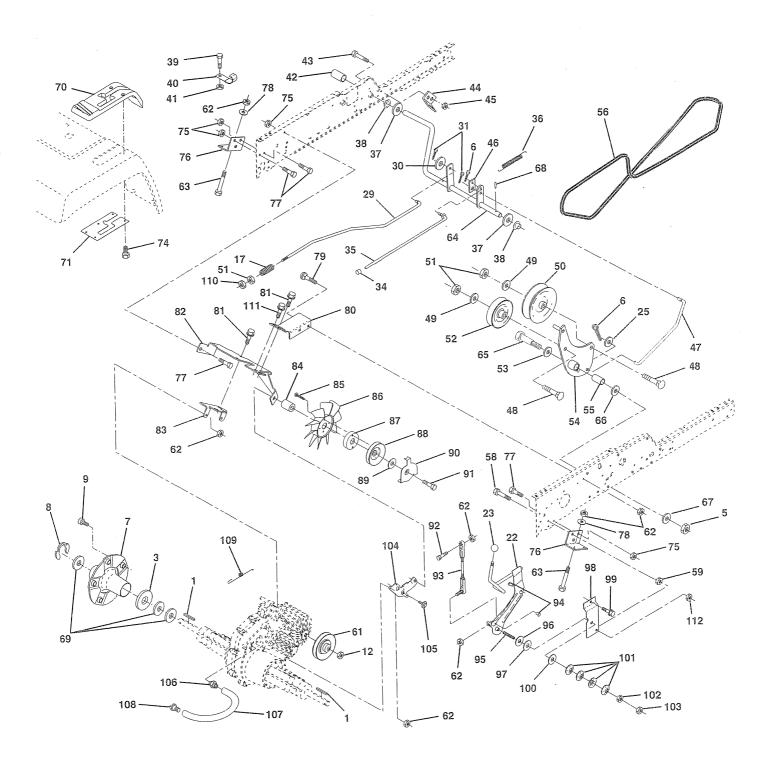


20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 CHASSIS AND ENCLOSURES

KEY NO.	' PART NO.	DESCRIPTION	Key No.	PART NO.	DESCRIPTION
NO. 1 2 3 4 5 6 7 8 9 10 11 11 11 11 11 11 11 11 11 11 11 11	NO. 532140505 532140506 532143364 873800700 532140452 532140638 817720408 532140229 532104618 532106784 532106784 532109808 532125007 532124251 532124251 532127320 819131312 874760616 873800600 532143365 532124914 817490612 874760616 873800600 532143365 532124914 817490612 817490512 532124914 817490512 532124899 532124899 532124130	Rail, Frame RH Drawbar, Gt Panel Asm., Side LH Nut, Lock Hex 7/16 Unc Dash, Plastic Black Dash Asm., Lower Screw, Thd Cut 1/4-20 x 1/2 Support, Battery Strap, Asm. Hinge Front Strap, Asm. Hinge Rear Bolt Shoulder 1/4-20 Nut Crownlock 1/4-20 Latch, Chute Blk Hood Asm., Pnt Lens, Headlight RH Cover, Access Screw, Thdrol 3/8-16 x 3/4 Grille Washer 13/32 x 13/16 x 12 Ga. Bolt, Fin Hex 3/8-16 x 1 Nut, Lock Hex W/Wsh 3/8-16 Unc Panel Asm., Side RH Panel, Dash Side RH Footrest, RH Screw, Thdrol 3/8-16 x 3/4 Screw, Thdrol 5/16-18 x 3/4 Panel, Dash Side LH Footrest, LH Bracket, Support Dash	<b>NO.</b> 54 55 56 57 58 59 60 61 62 64 66 89 701 723 74 57 69 81 82 84 80 91	NO. 532126470 819091216 532138461 873510400 532137113 873220400 873220400 817490620 817490612 532124788 873510500 532108256 817490508 532140022 532137159 532123198 874180512 874780616 874191008 810071000 532125004 874981020 532007206 819070818 873731000 532138952 874760716 811050600 532140594	Clip, Insulated Washer 9/32 x 3/4 x 16 Ga. Bracket Asm., Susp Chassis Lh Nut Keps Hex 1/4-20 Bracket Asm., Fender Nut Fin Hex 1/4-20 Nut, Fin Hex 1/4-20 Screw Thdrol 3/8-16 x 1-1/4 Screw Thdrol 3/8-16 x 3/4 Retainer Spring Nut 5/16-18 Pad, Footrest Screw, Thdrol 5/16-18 x 1/2 Shield, Heat Guide, Belt Mid Span Nut, Plastic Locking Wing 1/4-20 Screw, Mach Trhd 5/16-18 x 3/4 Bolt, Fin Hex 3/8-16 x 1 Gr. 5 Screw, Machine #10-24 Washer, Lock #10 Nut, Weld #10-24 Screw, Machine #10-24 x 1/4 Spacer, Split Washer 7/32 x 1/2 x 18 Ga. Nut #10-24 Stop, Over Center Mower Bolt, Fin Hex 7/16-14 Unc x 1 Washer, Lock External Tooth 3/8 Rail, Frame Lh
28 29 30	532124899 532124130 532140493	Footrest, LH	90 91	811050600	Washer, Lock External Tooth 3/8
31 32 33 34	532137556 532141315 532141314 532136963	Brace, Support Steering Bracket Asm., Frame Pivot Lh Bracket Asm., Frame Pivot Rh Bracket, Engine Support Rear	93 94 95	817490608 532100207 532105531 532125085	Screw, Thdrol 3/8-16 x 1/2 Clip, Fuel Line Push Nut, Nylon Plug, Hole
37 38	819111116 874780512 532141449 532124250 532136961	Washer 11/32 x 11/16 x 16 Ga. Bolt, Fin Hex 5/16-18 x 3/4 Fender, Pnt. Lens Headlight LH Bracket, Axle Front	98 99 100 101	532140503 532140871 532124236 817490628 810040400	Bracket Chassis Skid Rod Asm. Bypass Cap Brake Parking Red Screw Thdrol. 3/8-16 x 1-3/4 Washer, Lock 1/4
40 41 42 43 44	532136962 532140625 872140608 532136939 532136940	Bracket, Support Axle/Engine Support Asm. Grille Bolt, Carriage 3/8-16 x 1 Bracket, Spnsn Front Lh Bracket, Spnsn Front Rh	104 105 106 107 108	532142273 817490508 817580520 874780616 532110356	Bracket Lock Bypass Screw Thdrol. 5/16-18 x 1/2 Screw Thdrol. 5/16-18 x 1.25 Washer 13/32 x 1 x 14 Ga. Cap, Snap Black
	532138460 817490608 532136575 873800500	Bracket Asm., Susp Chassis Rh Screw Thdrol 3/8-16 x 1/2 Bracket, Chassis Front Locknut, Hex W/Ins 5/16-18 Unc	111	532110357 532001260	Cap, Washer Snap Spacer nent dimensions given in U.S. inches

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

20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 GROUND DRIVE

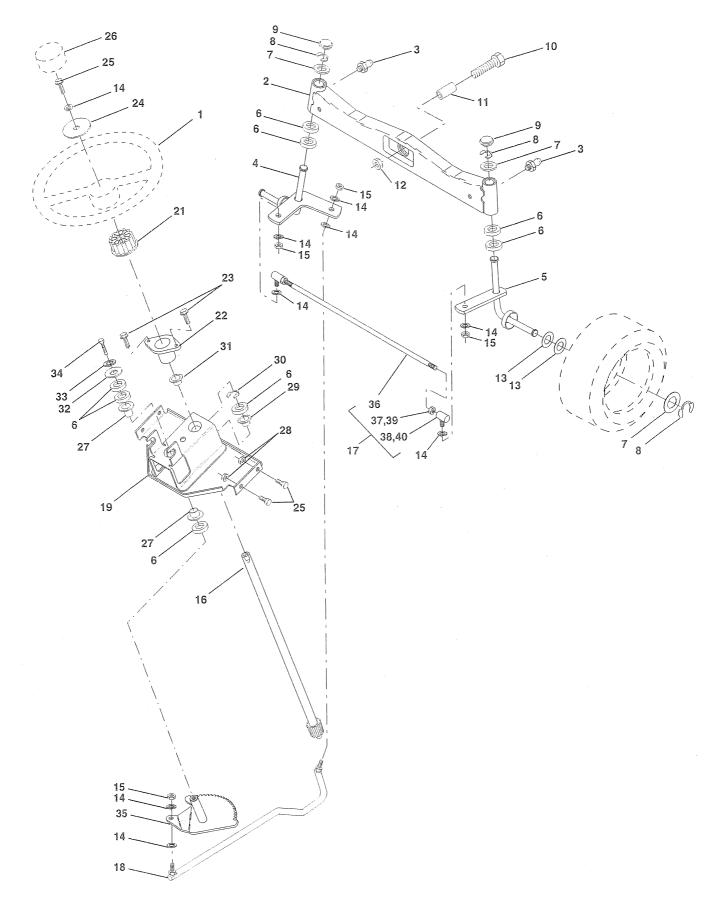


## 20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 **GROUND DRIVE**

KEY NO.	PART NO.	DESCRIPTION
86         87         88         90         91         92         93         94         95         97         98         97         98         9100         101         102         103         104         105         107         108         109         110         12	532005142 819332616 532139989 532140927 532142432 873800700 532140481 874760716 819111212 872110505 532140484 817490612 532140482 532140490 817541020 532140492 817541020 532140492 817541020 532140492 817490644 874760520 532140489 817490644 874760520 532133835 823200528 532140409 532140480 532126874 532126874 532126874 532126881 532126881 532059285 873560500 532140480 817580408 532142576 532142577 532142578 532140929 87350600 532140343	Pin Roll Washer Console Hydro Fender Plate Console Shift Screw, Hex Wsh Hi-Lo 1/4-1/2 Nut Lock Hex 7/16 Bracket Transaxle Bolt Fin Hex 7/16-14 x 1 Washer 11/32 x 3/4 x 12 Ga. Bolt Carriage 5/16-18 x 5/8 Bracket Torque RH Screw Thdrol 3/8-16 x 3/4 Bracket Mount Torque/Fan Strap Torque Mid Spacer Screw #10-24 x 1-1/4 Fan 7" Hydro Adapter Fan Pulley Idler Washer 13/32 x 13/16 x 12 Ga. Keeper Belt Screw Thdrol 3/8-16 x 2-3/4 Bolt Fin Hex 5/16-18 x 1.75 Link Shift Asm Fastner Christmas Tree Screw Set 5/16-18 x 1.75 Washer Nickel Plated Bearing Trust Bracket Shift Screw Thdrol 3/8-16 x 1-1/2 Washer Compression Washer Bellville Nut Hex Jam 5/16-18 Bracket Idler Screw Tap 1/4-20 x 1/2 Fitting Vent Hose Vent Hose Cap Vent Spring Return Brake Nut, Hex Jam 3/8-16 Screw, Hinge Nut, Crownlock 7/16-14 Transaxle Hydro

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

20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 STEERING ASSEMBLY

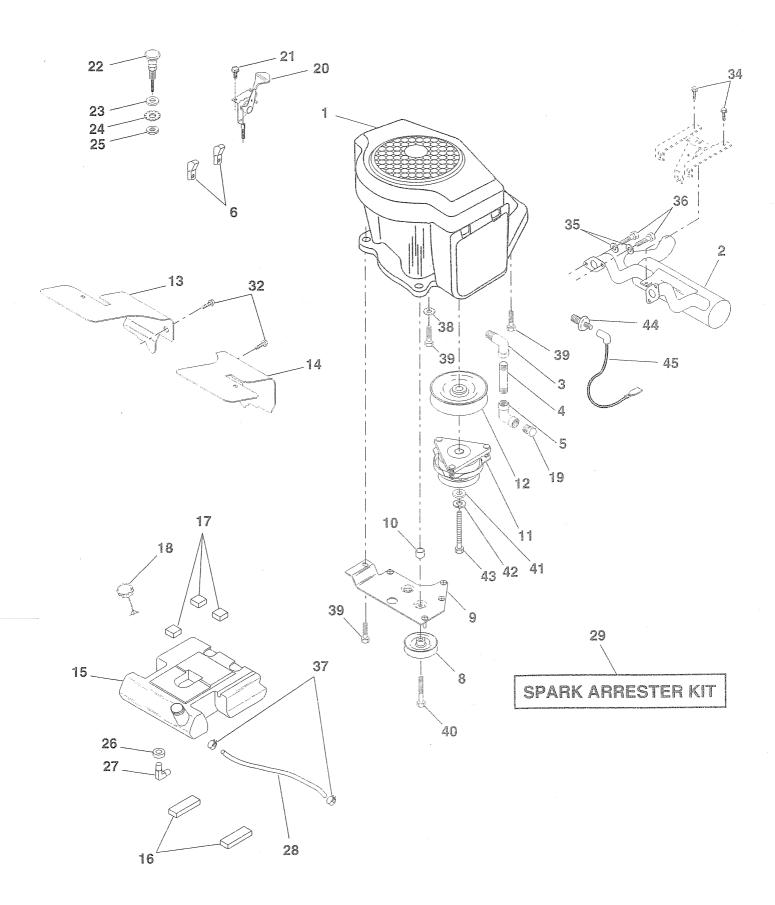


20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 STEERING ASSEMBLY

EY PART D. NO.	DESCRIPTION
5 532136959 532124956 532124956 532121748 812000029 532121232 874781044 532136518 873901000 532121749 810040600 873610600 532104591 532137155 532137155 532137155 532138053 532100711 532124720 817431008	Wheel, Steering Axle Asm., Front Fitting, Grease Spindle Asm, LH Spindle Asm., RH Bearing, Race Thrust Harden Washer 25/32 x 1-5/8 x 16 Ga. Ring, Klip #T5304-75 Cap, Spindle Bolt, Fin Hex 5/8-11 x 2-3/4 Spacer, Brg. Axle Front Nut, Lock Flange 5/8-11 Unc Washer 25/32 x 1-1/4 x 16 Ga. Washer, Lock Hvy Hlcl Spr 3/8 Nut, Fin Hex 3/8-24 Unf Shaft Asm., Steering Rod Asm., Tie Ball J Ball Vgt (Inc. Key No. 36-40) Draglink, Ball Joint Solid Vgt Support Asm., Steering Vgt Adapter, Wheel Steering Bushing, Strg. Blk Screw, Slftp #10-16 x 1/2 Ty-b Washer 13/32 x 2-3/8 x 8 Ga. Bolt, Fin Hex 3/8-16 x 1 Gr. 5 Cap , Wheel Steering Bearing, Col. Strg. Nut, Lock Hex W/Wsh 3/8-16 Unc Bearing, Flange Ring, Klip Truarc #5304-75 Bushing, Nyliner Snap Washer 11/32 x 1 x 10 Ga. Washer, Lock Hvy Hlcl Spr 5/16 Bolt, Hex Hd 5/16-18 x 3/4 Gear, Sector Steering Tie Rod Jam Nut RH Thread Joint Asm. Ball RH Thread Joint Asm. Ball LH Thread

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

20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 ENGINE



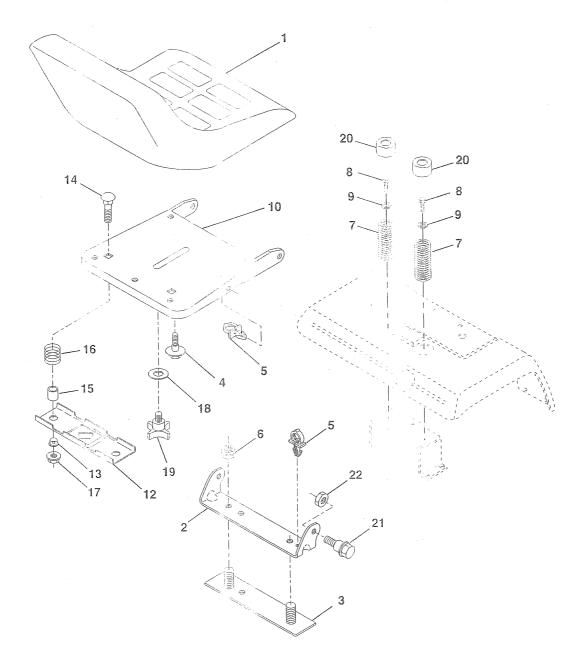
20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 ENGINE

KE NC		DESCRIPTION
1 2		Engine Kohler, Model No. MV20S Muffler Asm Kohler VGT
2 34568901123456789 01123456789 012234567892456789333333333333333333333333333333333333	813240300 813280328 813200300 532138129 532121361 532138559	Muffler Asm Kohler VGT (Inc. Key No. 34) Elbow Street 3/8 NPT Nipple Pipe 3/8NPT X 3 - 1/2 Elbow STD 90 Degree 3/8 - 18 NPT Clamp Tube Double Engine Pulley V-Idler Stop Keeper Asm VGT Bushing Clutch Electric Pulley Engine VGT Elect Clutch Baffle Air LH Koh VGT Tank Fuel W/Sym Vented Pad Spacer Pad Spacer Cap Asm Fuel W/Sym Vented Plug Oil Drain (Order From Engine Manufacturer) Control Throttle Screw Hex Thd Cut 1/4 - 20 X 5/8 Control Choke Washer 13/32 X 13/16 x 16 Ga Washer Ext Tooth 3/8 Nut Fin Hex 3/8 - 24 UNF. Bushing Stem Tank Fuel Fuel Line Spark Arrester Kit Screw Thdrol 5/16 - 18 X 1/2 Screw Thd Cut 1.4 - 20 x 1/2 Washer Lock 5/16 Screw Hex 5/16 - 16 UNC X 3/4 Clamp Hose Lockwasher Ext Tooth 3/8
40 41 42 43 44 45	817490652 532126197 810040700 871170768 532142320 532142321	Screw Thdrol 3/8 - 16 X 1 - 1/2 TT Screw Thdrol 3/8 - 16 X 3 - 1/4 Washer 1-1/2 OD X 15/32 ID X .250 Washer Lock 7/16 Bolt Hex 7/16-20 X 4-1/4 Ga 5 Switch Oil Sentry Kohler Wire Lead Sentry Kohler

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

11-11

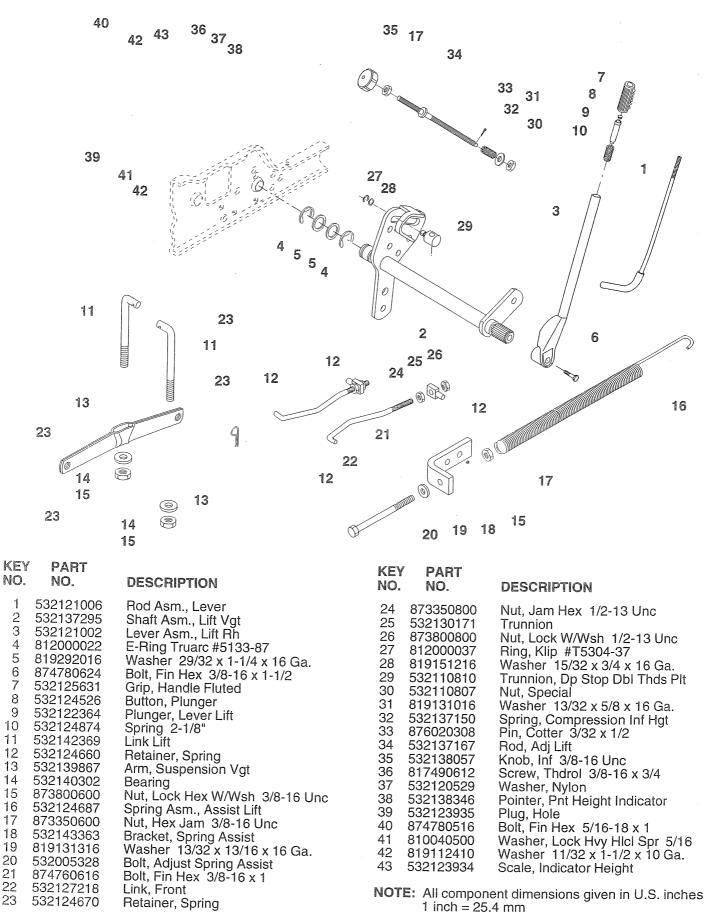
20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 SEAT ASSEMBLY



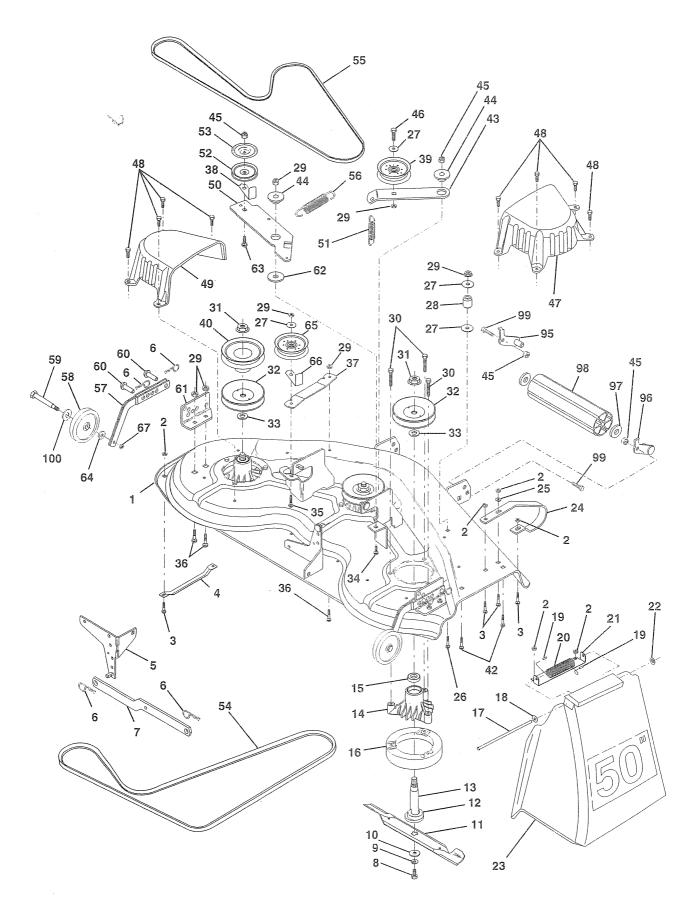
KEY NO.	NO.	DESCRIPTION	KEY NO.	NO.	DESCRIPTION
1234567890	532141525 532140551 532140675 532127018 532140407 873800600 532124181 817490508 819131614 522140552	Seat Bracket, Pivot Seat Strap, Fender Bolt, Shoulder 5/16-18 X .62 Clip, Push In Loicknut 3/8-16 Unc Spring, Seat Cprsn Screw, Thdrol 5/16-18 X 1/2 Washer 13/32 X 1 X 14 Ga.	14 15 16 17 18 20 21 22	872050411 532121249 532123740 532123976 819171912 532120068 532124238 532139888 873680500	Bolt, Carriage 1/4-20 X 1-3/8 Spacer, Split Spring, Cprsn Nut, Lock 1/4 Lge Flg Gr. 5 Washer 17/32 X 1-3/16 X 12 Ga. Knob, Seat 1/2-13 Unc Cap, Spring Seat Bolt, Shoulder 5/16-18 Unc Nut, Crownlock 5/16-18 Unc
10 12 13	532140552 532121246 532121248	Pan, Seat Bracket, Mounting Switch Bushing, Snap	NOT	TE: All compor 1 inch = 25	nent dimensions given in U.S. inches 5.4 mm

1.7 200 3.7

20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 LIFT ASSEMBLY



20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 MOWER DECK



20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-

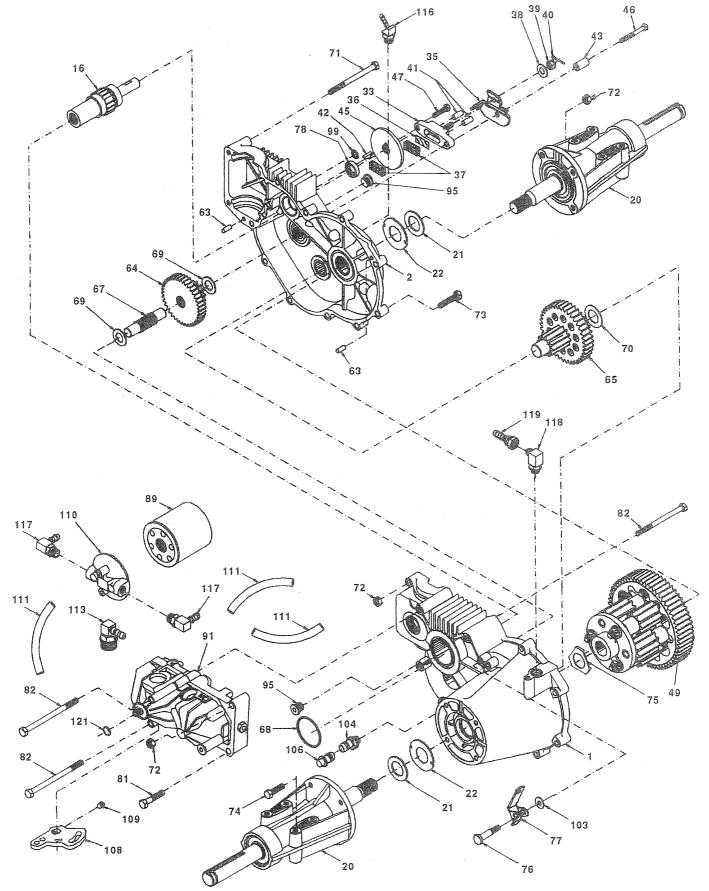
82

#### **MOWER DECK**

5 at 200 to at

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	/ PART NO.	DESCRIPTION
$\begin{array}{c} 2 & 3 \\ 3 & 4 \\ 5 & 6 \\ 7 & 8 \\ 9 \\ 101123 \\ 1123 \\ 11113 \\ 111$	532136457 873800500 872110506 532125074 532138457 532138457 532130832 532850857 310030600 532140296 532137380 532137553 532137553 532137553 532137152 532137553 532137553 532137607 32110452 32110452 32110452 32110452 32110509 32136320 19111216 72110614 19131316 32132823 73800600 32138776 32137267 32137266 32137726 32137266 3213776 32137266 3213776 3213726 3213776 3213726 3213776 3776 3776 3776 3776 3776 3776 3776		42 43 44 45 46 47 48 49 51 52 53 55 56 57 89 61 62 63 66 66 66 66 67 72 68 55 55 55 56 7 89 60 162 63 66 66 66 77 26 58 55 55 55 55 55 55 56 57 89 60 162 57 56 57 57 57 59 60 162 57 57 57 57 57 57 57 57 57 57 57 57 57	872140506 532136460 532122052 873680600 874760628 532137200 532137729 532136574 532137272 532139245 532139245 532139245 532139573 532138255 532138687 532136577 532105455 532124842 532139031 532136573 53213943 872110612 819121414 532102403 532139622 873930600 874760616 532132274 819171416 532132274 819171416 532132264 819171512 532143651	Bolt, Carriage 5/16-18 Unc x 3/4 Arm, Idler Secondary Spacer, Retainer Nut, Crownlock 3/8-16 Unc Bolt, Fin Hex 3/8-16 Unc x 1-3/4 Cover, Mandrel RH Screw, Thd Roll 1/4-20 x 5/8 Cover, Mandrel LH Arm, Idler Primary Spring, Secondary Pulley, Idler V Groove Shield, Idler V-Belt, Mower Primary V-Belt, Mower Secondary Spring, Primary Bar Asm., Wheel Gauge Wheel, Gauge Bolt, Shoulder Pin, Clevis Bracket, Wheel Gauge Washer Hardened Bolt Carriage 3/8-16 x 1-1/2 Washer 3/8 x 7/8 x 14 Ga. Pulley Idler Flat Mower Keeper, Belt Idler 50" Vent Nut, Center Lock 3/8-16 Bolt, Fin Hex 3/8-16 x 1 Bracket, Asm. Noseroller RH Bracket, Asm. Noseroller RH Bracket, Asm. Noseroller RH Bracket, Asm. Noseroller LH Washer 17/32 x 15/16 x 12 Ga. Mandrel Asm (Includes Key Nos. 8- 10, 12-15, 31 and 33) Mower Asm Service (Std. Deck - Order separately all Nose Roller and all Gauge Wheel components)

20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 TRANSAXLE HYDRO GEAR MODEL NUMBER 214-3010

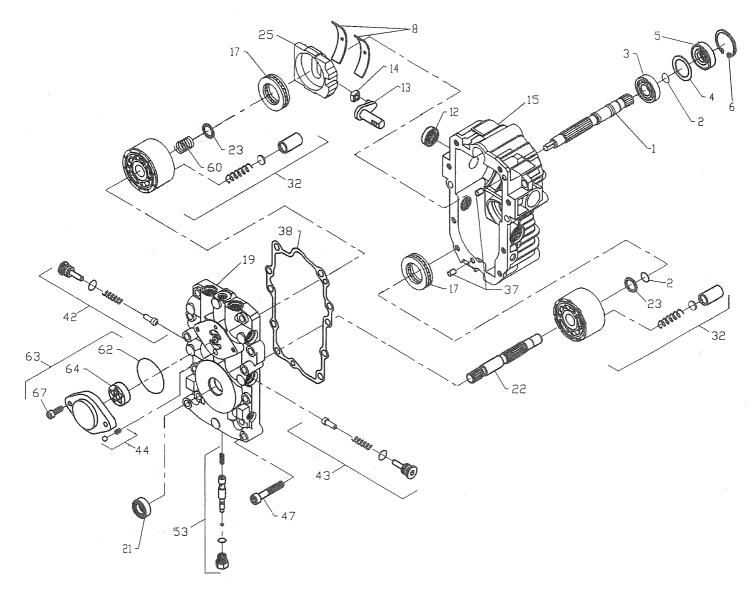


# 20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82

## TRANSAXLE HYDRO GEAR MODEL NUMBER 214-3010

ITEM NO.	AYP PART NO.	DESCRIPTION
$\begin{array}{c}1\\2\\1\\2\\2\\3\\3\\5\\6\\7\\8\\9\\0\\1\\0\\1\\0\\1\\0\\1\\0\\1\\0\\1\\0\\1\\0\\1\\0\\1\\0$	532142874 532142875 532142876 532142877 532142879 532142879 532142880 532142880 532142882 532142883 532142884 532142885 532142887 532142887 532142890 532142890 532142891 532142892 532142893 532142893 532142896 532142897 532142896 532142897 532142897 532142890 532142900 532142900 532142900 532142900 532142900 532142900 532142900 532142900 532142900 532142900 532142900 532142900 532142900 532142900 532142900 532142901 532142900 532142901 532142903 532142903 532142905 532142900 532142903 532142903 532142904 532142905 532142905 532142907 532142907 532142907 532142907 532142910 532142910 532142910 532142910 532142911 532142913 532142913 532142910 532142910 532142910 532142910 532142910 532142910 532142910 532142910 532142910 532142910 532142910 532142910 532142912 532142912 532142913 532142913 532142914 532142912 532142920 532142920	Assembly, Lh Housing Assembly, Rh Housing Brake Shaft Assembly Axle Mounting Horn Ass'y Washer, 1.0x1.63x.08 Washer, 1.0x2.06x.09 Brake Yoke Assembly Brake Arm Puck Plate Brake Puck Washer, 7/80dx7/16x.060 Castle Nut, 5/16-24 Cotter Pin Brake Actuating Pin Hi Pro Key Spacer Brake Disc Bolt, 1/4-20 X 1-1/2 Bolt, 1/4-20 X 1 Differential Assembly Dowel Pin 14t-38t Reduction Gear Final Drive Pinion Ass'y Jack Shaft O Ring Washer, 5/8 X 1-5/32 Washer, 7/8 X 1-1/2 Bolt, Hex 5/16-18 X 3.5 Hex Lock Nut, 5/16-18 X 1 Washer, Differential Bolt, Hex 5/16-18 X 1-1/2 Hex Cap Screw, 5/16-18 X 1 Washer, Differential Shoulder Bolt Freewheel Actuating Arm Oil Seal, .625 X 1.0 X .25 Bolt, Hex 5/16-18 X 1-3/4 Bolt, 5/16-18 X 4-1/2 Spin On Filter Bdu-10l-118 Straight Thread Plug Washer, 11/32 X 9/16 Washer Cap-Vent Assembly Fitting-O Ring Assembly Control Arm Set Screw Filter Head Hose, 5/16 Sae Fitting 90° 7/8 Sae Fitting 90° 9/16 Sae Fitting 90° Sae #6 Flare Male Fitting
119 121	532142927 532142928	90° Sae #6 Flare Female Fitting Wire Retaining Ring

20 HP 50" TRACTOR - MODEL NO. GTH200 (HN20H50A), PRODUCT NO. 954 00 06-82 TRANSAXLE PUMP- - MODEL NUMBER BDU-10L-118



#### KEY PART NO. NO.

#### DESCRIPTION

1 2	144569 122716X	Shaft, Pump Ring, Retaining
3	122745X	Bearing, Ball
4 5	122715X	Spacer
5	122700X	Seal, Lip
6	122699X	Ring, Retaining
8	122767X	Bearing, Cradle
	122717X	Seal, Lip
	122748X	Arm, Trunnion
14	122749X	Guide, Slot
15	144571	Housing Kit, Transmission
	122770X	Bearing, Thrust, Ball
19	144572	Center Section Kit
21	122722X	Seal, Lip
	144573	Shaft, Motor
23	144574	Washer, Block Thrust

# KEY PART<br/>NO.25127148X3214457737122786X38122718X

42 43

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- -

#### DESCRIPTION

127148X 144577 122786X 122718X 144578 144578 144579 122752X 127153X 144580 144581 144582 144583 144584	Swashplate, Variable Block Assembly Pin, Stainless, Headless Gasket, Center Section Check Valve Kit Charge Relief Kit Screw, Socket Head, Cap Bypass Valve Kit Block Spring O-Ring Charge Pump Kit Gerotor Assembly Screw, Socket Head, Cap
144576	Pump Assembly, Complete

		Effective May 1, 1992
	FOREST	EOREST&GARDEN FOREST&GARDEN
	SECTION 1: LIMITED WARRANTY	0 H EWEN
	Husqvarna Forest & Garden Company ("Husqvarna") warrants Husqvarna product to the original purchaser to be free from defective material and workmanship from the date of purchase for the "Warranty Period" here stated dependent upon the type of product use. Warranty period is as follows for products listed: <b>5 Year Warranty:</b> Plastic walk behind mower decks for noncommercial, noninstitutional or nonincome producing use.	<ol> <li>Failure to operate or maintain the unit in accordance with the Owner's/Operator's manual or instruction sheet furnished by Husqvarna.</li> <li>Alterations or modifications that affect the unit's performance, operation, safety, durability, change its intended use, or cause failure of compliance with current regulatory standards or applicable federal, state or local laws.</li> </ol>
	2 Year Warranty: Riding lawn mowers, yard and garden tractors, walk behind mowers, tillers and attachments for noncommercial, noninstitutional or nonincome producing use. Ignition coils or modules on the chain saws, clearing saws and trimmers.	(4) Use of parts or accessories which are not recommended by Husqvarna Forest & Garden Company. (5) Additional damage to parts or components due to continued use occurring after any of the above.
	<ol> <li>Year Warranty: Chain saws, clearing saws, trimmers, blowers and batteries for noncommercial, noninstitutional or nonincome producing use.</li> <li>90 Day Warranty: <u>Any</u> Husqvarna product used for rental, commercial, professional, or income producing use.</li> </ol>	REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. HUSOVARNA SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THESE PRODUCTS EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. ANY IMPLIED WARRANTY OF MERCHANITABL
51	<ol> <li>30 Day Warranty: Husqvarna professional bow bars.</li> <li>30 Day Replacement Part Warranty: Unless otherwise stated, replacement parts are warranted for 30 days from date of purchase.</li> </ol>	THE WARRANTY PERIOD AS DEFINED IN THE UNITED WARRANTY STATEMENT IN UNATION TO RESERVES THE RIGHT TO CHANGE OR IMPROVE THE DESIGN OF THE PRODUCT WITHOUT NOTICE. AND DOES NOT ASSUME OBLIGATION TO UPDATE PREVIOUSLY MANUFACTURED PRODUCTS. Some states do not allow the exclusion of incidental or consequential demonstory consistence.
	SECTION 2: HUSQVARNA'S OBLIGATIONS UNDER THE WARRANTY	implied warranty lasts, so the above limitations or exploring an entrages, in miniatoris on now long an specific legal rights, and you may also have other rights which vary from state to state. SECTION 5: CUSTOMER RESPONSIBILITIES
	Husqvarna will remedy defects in material and workmanship during the warranty period by repairing or replacing, at Husqvarna's option, the defective component without charge for parts or labor. SECTION 3: ITEMS NOT COVERED BY THIS WARRANTY	re-ere
	<ul> <li>The following items are not covered by this warranty:</li> <li>(1) Normal customer maintenance items (i.e., belts, blades, blade adapters, bulbs, filters, guide bars, lubricants, rewind springs, saw chain, spark plugs, starter ropes and tines).</li> <li>(2) Normal wear, normal adjustment, standard hardware or items worn through regular use.</li> <li>(3) Natural discoloration of material due to untravious ticht.</li> </ul>	SECTION 6: PROCEDURE TO OBTAIN WARRANTY CONSIDERATION It is the Owner's and Dealer's responsibility to make certain that the Warranty Registration Card is properly filled out and mailed to Husqvarma Forest & Garden Company. This card should be mailed within ten (10) days from the date of purchase in order to validate the warranty and to provide post-sale service.
	The replacement or maintenance of worn items. Briggs & Stratton, Kawasaki and Kohler engines, including starters, generators accessories. These items are covered by the engine manufacturer's warranty product information supplied at the time of purchase. All claims for specified at generators, alternators and accessories should be sent to the appropriate mar Mair-Fab, Foote, and Tecumseh-Peerless drive systems. These items are cove manufacturer's warranty as stated with the product information supplied at the claims for Specified drive systems should be sent to the appropriate mar	Proof of purchase must be presented to the authorized Husqvarna dealer in order to obtain warranty service. This receipt must include date purchased, model number, serial number, and complete name and address of the selling dealer. To obtain the benefit of this warranty, the product believed to be defective must be delivered in a timely manner, within thirty (30) days from date of operational problem or failure, and during the warranty period, to any authorized Husqvarna dealer. The product must be delivered to the dealer, at the owner's expense. An authorized Husqvarna dealer can be normally located through the "Yellow Pages" of the local telephone directory.
	SECTION 4: EXCEPTIONS AND LIMITATIONS This warranty shall be inapplicable to defects resulting from the following: (1) Accident, abuse, misuse, negligence and neglect, including stale fuel, dirt abrasives, moisture, rust, corrosion, or any adverse reaction due to incorrect storage habits.	HUSQVARNA FOREST & GARDEN CO. 9006-J PERIMETER WOODS DRIVE CHARLOTTE, NORTH CAROLINA 28216 530-0683-91-2-04/21/92



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