

# **YTH180**

**Owner's Manual** 



#### **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. We have competent, well-trained technicians and the proper tools to service or repair this tractor.

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

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#### **CUSTOMER RESPONSIBILITIES**

· Read and observe the safety rules.

FOR FUTURE REFERENCE.

- Follow a regular schedule in maintaining, caring for and using your tractor.
- Follow the instructions under "Customer Responsibilities" and "Storage" sections of this manual.

#### PRODUCT SPECIFICATIONS

HORSEPOWER:	18.0
GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR
OIL TYPE (API-SF/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: .013"016"
GROUND SPEED (MPH):	FORWARD: 5.4 REVERSE: 2.2
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI
CHARGING SYSTEM:	15 AMPS @3600 RPM
BLADE BOLT TORQUE:	30-35 FT. LBS.

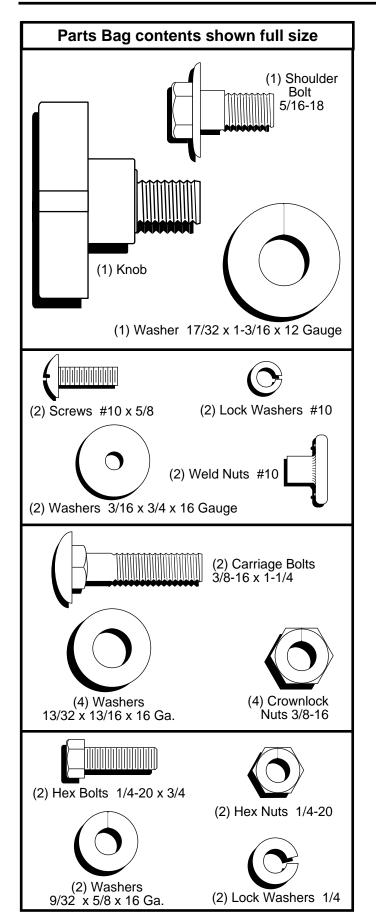
**WARNING:** This tractor is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark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

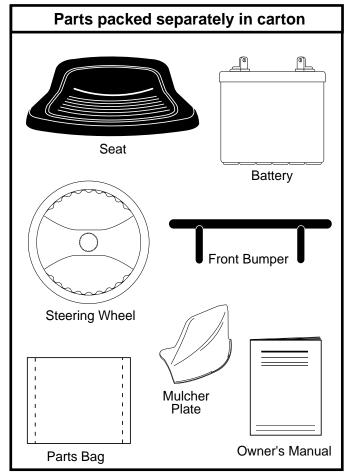
A spark arrester for the muffler is available through your nearest authorized service center/department (See RE-PAIR PARTS section of this manual).

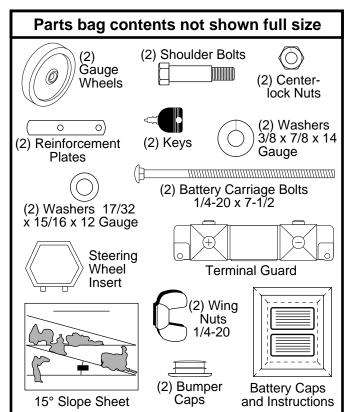
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## **CONTENTS OF HARDWARE PACK**







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

#### TOOLS REQUIRED FOR ASSEMBLY

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

(1) 3/4" socket w/drive ratchet

(2) 7/16" wrenches Phillips Screwdriver

(1) 1/2" wrench Utility knife

(1) 9/16" wrench Tire pressure gauge

When right and left hand is mentioned in this manual, it means when you are in the operating position (seated behind the steering wheel).

## TO REMOVE TRACTOR FROM CARTON UNPACK CARTON

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

## BEFORE ROLLING TRACTOR OFF SKID ATTACH STEERING WHEEL (See Fig. 1)

- Remove locknut 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 adapter.
- Secure steering wheel to steering shaft with locknut 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.

**IMPORTANT:** CHECK FOR AND REMOVE ANY STAPLES IN SKID THAT MAY PUNCTURE TIRES WHERE TRACTOR IS TO ROLL OFF SKID.

#### TO ROLL TRACTOR OFF SKID (See Fig. 9)

- Raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in freewheel position to disengage transmission (See "TO TRANSPORT" in Operation section of this manual).
- Roll tractor backwards off skid.
- Remove banding holding discharge guard up against tractor.

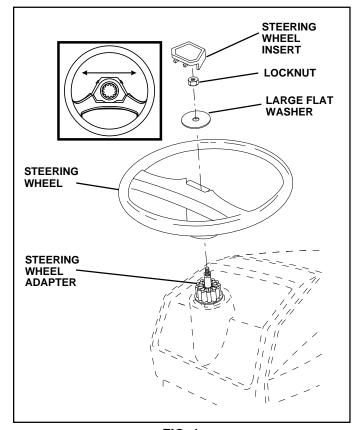


FIG. 1

#### **HOW TO SET UP YOUR TRACTOR**

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

A

CAUTION: Wear eye and face shield. Wash hands or clothing immediately if accidentally in contact with battery acid.

Do not smoke. Fumes from charged battery acid are explosive.

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 level of acid. 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 2 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.

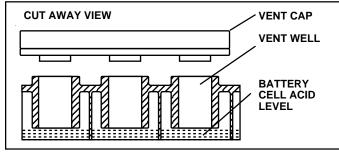


FIG. 2

#### **INSTALL SEAT (See Fig. 3)**

Adjust seat before tightening adjustment knob.

- Remove cardboard packing on seat pan.
- Place seat on 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.

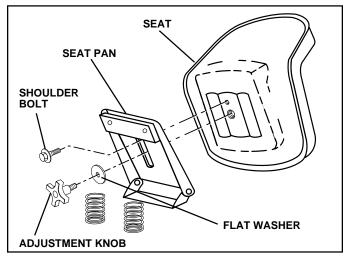


FIG. 3

#### **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 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 and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly.

#### **CHECK BRAKE SYSTEM**

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

#### **INSTALL BATTERY (See Figs. 4 & 5)**



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.

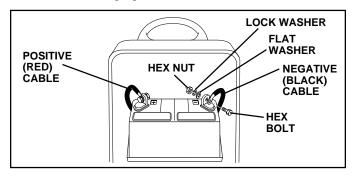


FIG. 4

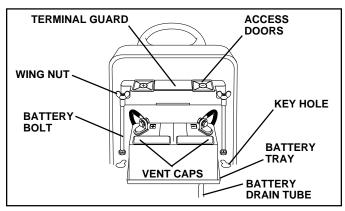


FIG. 5

#### TO ATTACH FRONT BUMPER (See Fig. 6)

**NOTE:** For ease of assembly, you may wish to obtain the assistance of another person for mounting bumper to tractor.

- Press or tap the end caps into ends of bumper tube.
- Slide reinforcement plates inside flattened ends of bumper and align holes in plates with slots in bumper as shown.
- With plate and bumper holes aligned, set bumper on ground in front of tractor and align the end holes in bumper with the rear holes in tractor chassis. On both sides of chassis loosely install carriage bolt, washer and locknut. Do not tighten.
- Pivot bumper upwards to align holes with forward chassis holes and install carriage bolt, washer and locknut to both sides of chassis.
- Tighten all four (4) locknuts securely.

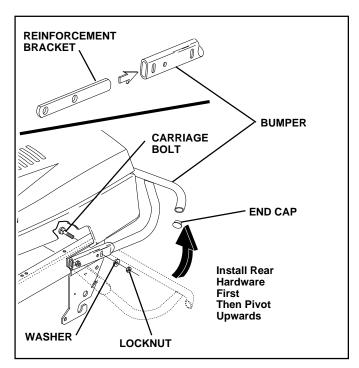


FIG. 6

#### ASSEMBLE GAUGE WHEELS TO MOWER DECK (See Fig. 7)

Assemble gauge wheels with tractor on a flat level surface.

- Adjust mower to desired cutting height (See "TO AD-JUST MOWER CUTTING HEIGHT" in the Operation section of this manual).
- With mower in desired height of cut position, gauge wheels should be assembled so they are slightly off the ground. Install gauge wheel in appropriate hole with shoulder bolt, 17/32 washer, 3/8 washer, and 3/8-16 locknut and tighten securely.
- Repeat for opposite side installing gauge wheel in same adjustment hole.

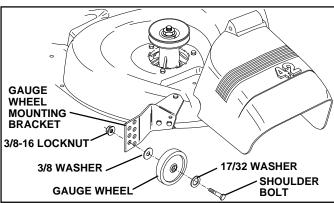


FIG. 7

#### **INSTALL MULCHER PLATE** (See Figs. 8A & 8B)

Install two latch hooks to mulcher plate using screw, washer, lock washer, and weld nut as shown.

**NOTE:** Pre-assemble weld nut to latch hook by inserting weld nut from the top with hook pointing down.

- Tighten hardware securely.
- Raise and hold deflector shield in upright position.
- Place front of mulcher plate over front of mower deck opening and slide into place, as shown.
- Hook front latch into hole on front of mower deck.
- Hook rear latch into hole on back of mower deck.



CAUTION: Do not remove discharge guard from mower. Raise and hold guard when attaching mulcher plate and allow it to rest on plate while in operation.

#### TO CONVERT TO BAGGING OR DISCHARGING

Simply remove mulcher plate and store in a safe place. Your mower is now ready for discharging or installation of optional grass catcher accessory.

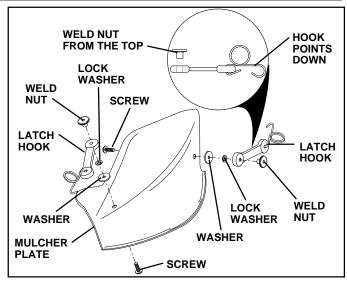


FIG. 8A

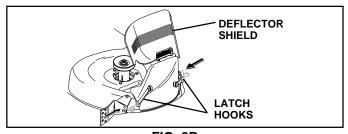


FIG. 8B

#### √ 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

- 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 locations of various controls and adjustments. Save this manual for future reference.

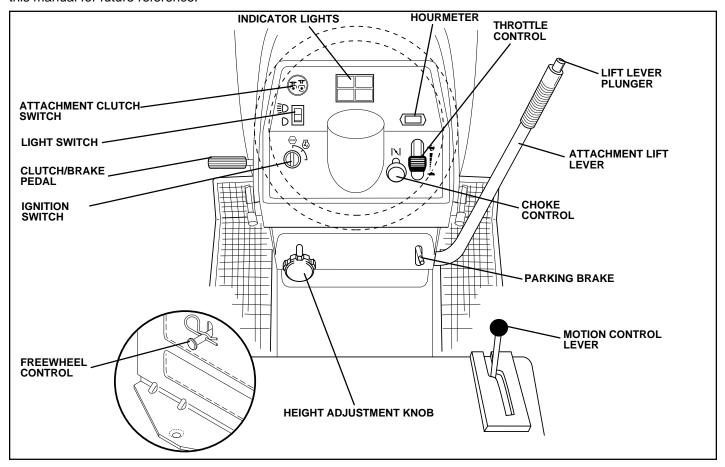


FIG. 9

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

**ATTACHMENT CLUTCH SWITCH**: Used to engage the mower blades, or other attachments mounted to your tractor.

**THROTTLE CONTROL** - Used to control engine speed.

**CHOKE CONTROL** - Used when starting a cold engine.

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

**PARKING BRAKE**: Locks clutch/brake pedal into the brake position.

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

**MOTION CONTROL LEVER:** Selects the speed and direction of tractor.

**ATTACHMENT LIFT LEVER**: Used to raise and lower the mower deck or other attachments mounted to your tractor.

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

**IGNITION SWITCH**: Used for starting and stopping the engine.

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

**HOURMETER** - Indicates hours of operation.

**LIGHT SWITCH**: Turns the headlights on and off.

**FREEWHEEL CONTROL:** Disengages transmission for pushing or slowly towing the tractor with the engine off.



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

#### HOW TO USE YOUR TRACTOR TO SET PARKING BRAKE (See Fig. 10)

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.

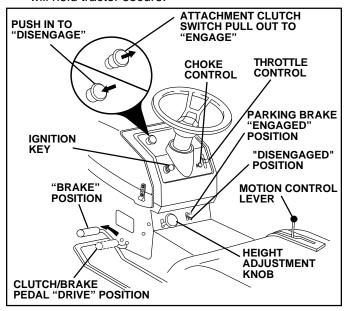


FIG. 10

#### STOPPING (See Fig. 10)

**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.
- Never use choke to stop engine.

**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 THROTTLE CONTROL (See Fig. 10)

Always operate engine at full throttle.

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

#### TO USE CHOKE CONTROL (See Fig. 10)

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

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

## TO MOVE FORWARD AND BACKWARD (See Fig. 10)

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

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

## TO ADJUST MOWER CUTTING HEIGHT (See Fig. 10)

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

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

#### TO OPERATE MOWER (See Fig. 11)

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 mower 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.

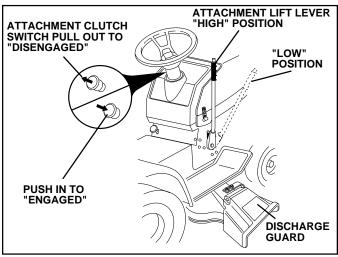


FIG. 11

#### 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. 9 & 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.
- Pull freewheel control knob out and hold in position by inserting retainer spring into forward hole of control rod.
- 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.).

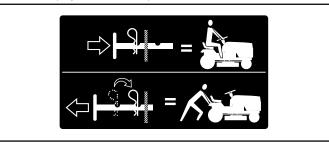


FIG. 12

#### 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.

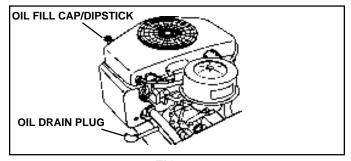


FIG. 13

#### **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.



Indicates a drop in battery voltage. Increase throttle speed and/or check battery and wiring (See the Customer Responsibilities and Troubleshooting sections in this manual).



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. 10)

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 (|\(\circ\)|) position for cold engine start. For warm engine start do not use choke control.
- Move throttle control to midway between fast (4) and slow (1) 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 (4) position, wait a few minutes and try again.

- When engine starts, slowly push choke control in.
- Move throttle control to fast (4) 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.

#### PURGE TRANSMISSION



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

To ensure proper operation and performance, it is recommended that the transmission be purged before operating tractor for the first time. This procedure will remove any trapped air inside the transmission which may have developed during shipping of your tractor.

IMPORTANT: SHOULD YOUR TRANSMISSION REQUIRE REMOVAL FOR SERVICE OR REPLACEMENT, IT SHOULD BE PURGED AFTER REINSTALLATION BEFORE OPERATING THE TRACTOR.

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

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

- Move motion control lever to neutral (N) position. 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.
- 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 machine. 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.

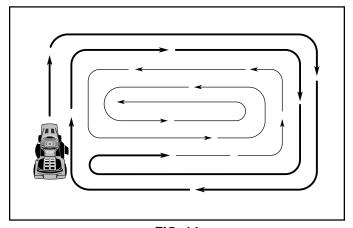


FIG. 14

#### **MULCHING MOWING TIPS**

**IMPORTANT:** FOR BEST PERFORMANCE, KEEP MOWER HOUSING FREE OF BUILT-UP GRASS AND TRASH. CLEAN AFTER EACH USE.

- The special mulching blade will recut the grass clippings many times and reduce them in size so that as they fall onto the lawn they will disperse into the grass and not be noticed. Also, the mulched grass will biodegrade quickly to provide nutrients for the lawn. Always mulch with your highest engine (blade) speed as this will provide the best recutting action of the blades.
- Avoid cutting your lawn when it is wet. Wet grass tends to form clumps and interferes with the mulching action.
   The best time to mow your lawn is the early afternoon.
   At this time the grass has dried and the newly cut area will not be exposed to the direct sun.
- For best results, adjust the mower cutting height so that the mower cuts off only the top one-third of the grass blades (See Fig. 15). For extremely heavy mulching, reduce your width of cut on each pass and mow slowly.

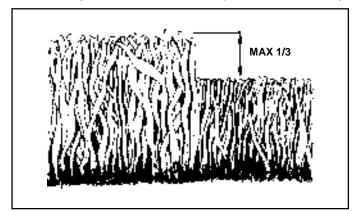


FIG. 15

- Certain types of grass and grass conditions may require that an area be mulched a second time to completely hide the clippings. When doing a second cut, mow across or perpendicular to the first cut path.
- Change your cutting pattern from week to week. Mow north to south one week then change to east to west the next week. This will help prevent matting and graining of the lawn.

FIL AS	AINTENANCE SCHEDULE L IN DATES YOU COMPLETE GULAR SERVICE		JEFORE	EACH!	SE HOURS	HOURS VERY ?	S HOUR'S	SHOUP OHOUP VERY	OD HOUP OD HOUP EVERY BY	S ASON FORE	SER'	3E VICE	: DA	ΓES
	Check Brake Operation	/		<b>/</b>										
	Check Tire Pressure	/		<b>/</b>										
Ţ	Check for Loose Fasteners	/					<b>1</b> 7		<b>/</b>					
R A	Sharpen/Replace Mower Blades				<b>✓</b> 4									
Iĉ.	Lubrication Chart				<b>/</b>				<b>/</b>					
ΙŤ	Check Battery Level/Recharge				6									
0	Clean Battery and Terminals				<b>/</b>				<b>/</b>					
R	Check Transaxle Cooling				<b>/</b>									
	Adjust Blade Belt(s) Tension						<b>1</b> 5							
	Adjust Motion Drive Belt(s) Tension						<b>1</b> 5							
	Check Engine Oil Level			<b>/</b>										
	Change Engine Oil		1		1,2,3				<b>/</b>					
lΕ	Clean Air Filter				<b>√</b> 2									
N	Clean Air Screen				<b>√</b> 2									
G	Inspect Muffler/Spark Arrester					1								
L	Replace Oil Filter (If equipped)						1,2							
N E	Clean Engine Cooling Fins						<b>✓</b> 2							
-	Replace Spark Plug						<b>/</b>	/						
	Replace Air Filter Paper Cartridge						<b>✓</b> 2							
	Replace Fuel Filter							<b>/</b>						

- $\ensuremath{\mathsf{1}}$  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.
- 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.
- 6 Not required if equipped with maintenance-free battery.
- 7 Tighten front axle pivot bolt to 35 ft.-lbs. maximum.Do not overtighten.

#### **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.

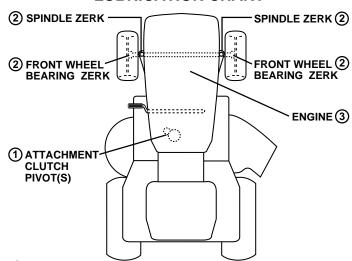
All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

 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.

#### LUBRICATION CHART



- (1) SAE 30 OR 10W30 MOTOR OIL
- (2) GENERAL PURPOSE GREASE
- (3) REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION

IMPORTANT: DO NOT OIL OR GREASE THE PIVOT POINTS WHICH HAVE SPECIAL NYLON BEARINGS. VISCOUS LUBRICANTS WILL ATTRACT DUST AND DIRT THAT WILL SHORTEN THE LIFE OF THE SELF-LUBRICATING BEARINGS. IF YOU FEEL THEY MUST BE LUBRICATED, USE ONLY A DRY, POWDERED GRAPHITE TYPE LUBRICANT SPARINGLY.

#### TRACTOR

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

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

#### **TIRES**

- Maintain proper air pressure in all tires (See "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. 16)

- 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.

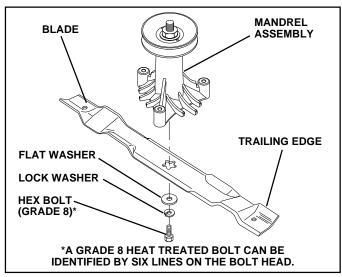


FIG. 16

#### TO SHARPEN BLADE (See Fig. 17)

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.

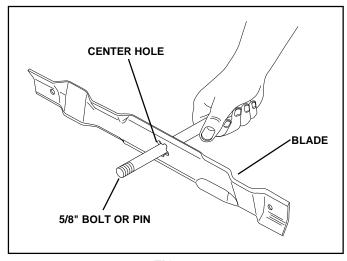


FIG. 17

#### **BATTERY (See Fig. 18)**

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 it's 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.
- Keep battery and terminals clean.
- · 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).

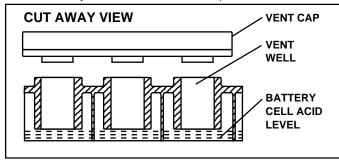


FIG. 18

#### V-BELTS

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

#### 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.

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

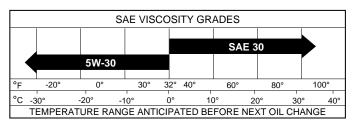
#### TRANSAXLE PUMP FLUID

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

#### **ENGINE**

#### LUBRICATION

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



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

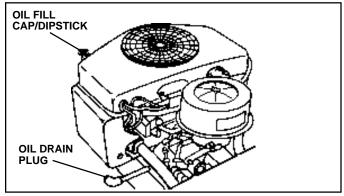
Change the oil after the first two hours of operation and every 50 hours thereafter or at least once a year if the tractor is not used for 50 hours in one year.

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

#### TO CHANGE ENGINE OIL (See Fig. 19)

Determine temperature range expected before oil change. All oil must meet API service classification SF or 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 housing must be removed. Remove side panels and hood (See "TO REMOVE HOOD AND GRILL ASSEMBLY" in the Service and Adjustments section of this manual).

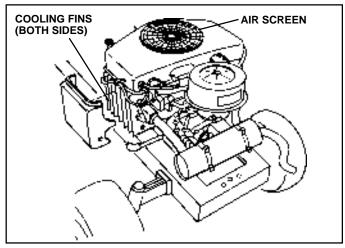


FIG. 20

#### 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.

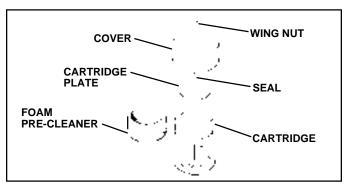


FIG. 21

#### **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 comes 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.
- Be sure there are no fuel line leaks and clamps are properly positioned.
- Immediately wipe up any spilled gasoline.

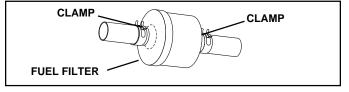


FIG. 22

#### **CLEANING**

IMPORTANT: FOR BEST PERFORMANCE, KEEP MOWER HOUSING FREE OF BUILD-UP, GRASS AND TRASH. CLEAN UNDERSIDE OF MOWER HOUSING AFTER EACH USE.

- 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.

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

Mower will be easier to remove from the right side of tractor.

- Place attachment clutch switch in "DISENGAGED" position.
- Move attachment lift lever forward to lower mower to its lowest position.
- Roll belt off electric clutch pulley.
- Disconnect anti-sway bar from chassis bracket by removing retainer spring.
- Disconnect suspension arms from rear deck brackets by removing retainer springs.
- Disconnect front links from deck by removing retainer springs.
- Raise lift lever to raise suspension arms. Slide mower out from under tractor.

**IMPORTANT**: IF AN ATTACHMENT OTHER THAN THE MOWER IS TO BE MOUNTED TO THE TRACTOR, THE R.H. AND L.H. SUSPENSION ARMS MUST BE REMOVED FROM TRACTOR.

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

- Raise attachment lift lever to its highest position.
- Slide mower under tractor with discharge guard to right side of tractor.
- Lower lift lever to its lowest position.
- Install mower in reverse order of removal instructions.

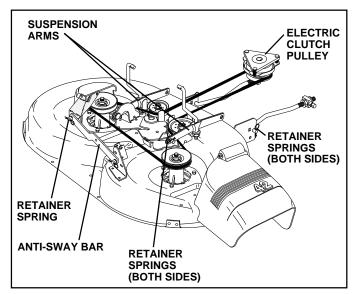


FIG. 23

#### 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 your mower.

SIDE-TO-SIDE ADJUSTMENT (See Figs. 24 and 25)

- Raise mower to its highest position.
- At the midpoint of both sides of mower, measure height from bottom edge of mower to ground. Distance "A" on both sides of mower should be the same or within 1/4" of each other.
- If adjustment is necessary, make adjustment on one side of mower only.
- To raise one side of mower, tighten lift link adjustment nut on that side.
- To lower one side of mower, loosen lift link adjustment nut on that side.

NOTE: Each full turn of adjustment nut will change mower height about 1/8".

Recheck measurements after adjusting.

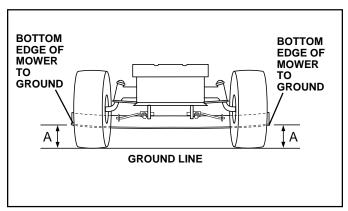


FIG. 24

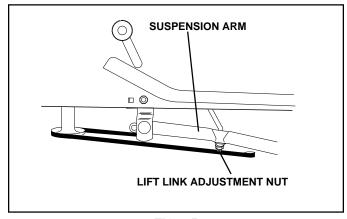


FIG. 25

FRONT-TO-BACK ADJUSTMENT (See Figs. 26 and 27) IMPORTANT: DECK MUST BE LEVEL SIDE-TO-SIDE. IF THE FOLLOWING FRONT-TO-BACK ADJUSTMENT IS NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/4" to 3/4" lower than the rear when the mower is in its highest position.

Check adjustment on right side of tractor. Measure distance "D" directly in front and behind the mandrel at bottom edge of mower housing as shown.

- Before making any necessary adjustments, check that both front links are equal in length. Both links should be approximately 10-3/8".
- If links are not equal in length, adjust one link to same length as other link.
- To lower front of mower loosen nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nuts "F" against trunnion on both front links.
- To raise front of mower, loosen nut "F" from trunnion on both front links. Tighten nut "E" on both front links an equal number of turns.
- When distance "D" is 1/4" to 3/4" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.

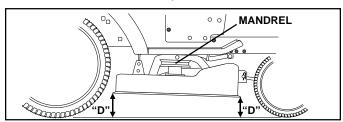
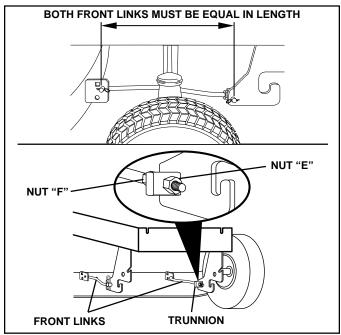


FIG. 26



20 FIG. 27

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

The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake.

#### **BELT REMOVAL -**

- Remove mower from tractor (See "TO REMOVE MOWER" in this section of this manual).
- Work belt off both mandrel pulleys and idler pulleys.
- Pull belt away from mower.

#### **BELT INSTALLATION -**

- Install new belt in reverse order of removal.
- Make sure belt is in all pulley grooves and inside all belt guides.
- Install mower in reverse order of removal instructions.

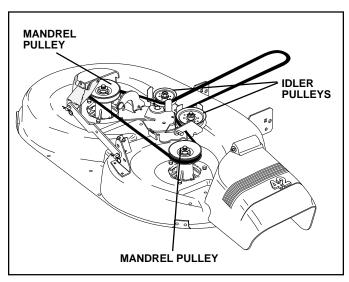


FIG. 28

## 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 an authorized service technician.

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

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

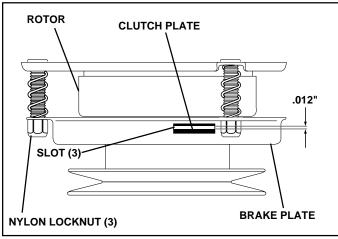


FIG. 29

#### TO ADJUST BRAKE (See Fig. 30)

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

If tractor requires more than six (6) feet stopping distance at high speed in highest gear, 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 1-3/4", loosen jam nut and turn nut "A" until distance becomes 1-3/4". 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.

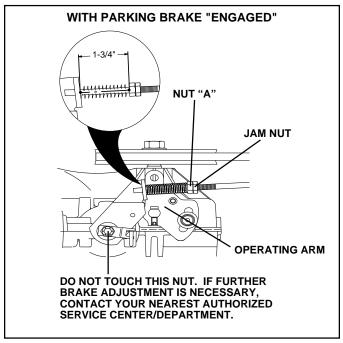


FIG. 30

## TO REPLACE MOTION DRIVE BELT (See Fig. 31)

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

- Remove mower (See "TO REMOVE MOWER" in this section of this manual.)
- Disconnect clutch wire harness.
- Remove clutch locator.
- Remove upper belt keeper.
- Remove belt from stationary idler and clutching idler.
- Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over cooling fan blades.
- Pull belt toward front of tractor and remove downwards from around electric clutch.
- Install new belt by reversing above procedure.

**IMPORTANT:** MAKE SURE UPPER BELT KEEPER IS POSITIONED PROPERLY BETWEEN LOCATOR TABS AND ELECTRIC CLUTCH WIRE CONNECTION IS SECURE.

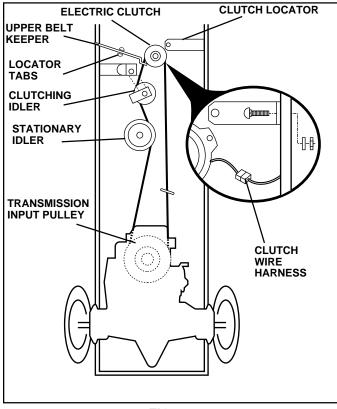


FIG. 31

## 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 transmission.

- Park tractor on level surface. Stop tractor by turning ignition key to "OFF" position, and engage parking brake.
- Adjust motion control lever by tightening adjustment locknut one half (1/2) turn.

**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 to 1/2 turn.

Road test tractor after adjustment and repeat procedure if necessary.

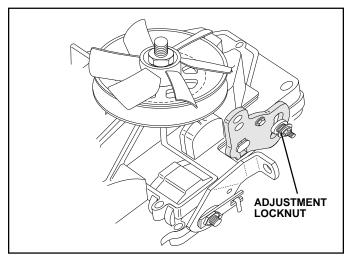


FIG. 32

#### TRANSMISSION REMOVAL/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/CAMBER

The front wheel toe-in and camber are not adjustable on your tractor. If damage has occurred to affect the front wheel toe-in or camber, contact your nearest authorized service center.

## TO REMOVE WHEEL FOR REPAIRS (See Fig. 33)

- Block up axle securely.
- Remove wheel cover, retaining ring and washers to allow wheel removal (rear wheel contains a square key - Do not lose).
- Repair tire and reassemble.
- On rear wheels only: align grooves in rear wheel hub and axle. Insert square key.
- Replace washers and snap retaining ring securely in axle groove.
- Replace wheel cover.

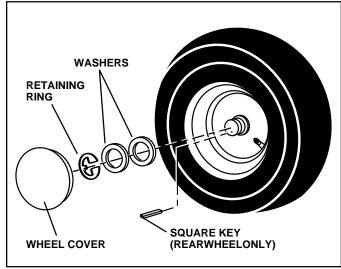


FIG. 33

## TO START ENGINE WITH A WEAK BATTERY (See Fig. 34)



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

If your battery is too weak to start the engine, it should be recharged. 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 a 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.

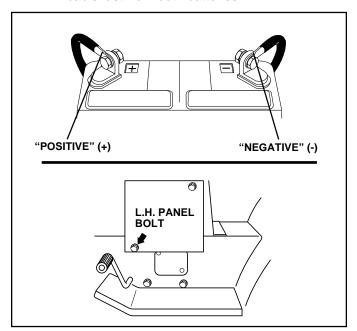


FIG. 34

#### TO REPLACE FUSE

Replace with 30 amp automotive-type plug-in fuse. The fuse holder is located in the engine compartment, directly in front of the dash.

#### TO REPLACE HEADLIGHT BULB

- · Raise hood.
- Pull bulb holder out of the hole in the backside of the arill.
- 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 the electrical wiring diagram in the Repair Parts section of this manual.

## TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 35)

- Lift hood. Disconnect headlight wiring connection.
- Remove wingnut at rear of each side panel.
- Remove retainer springs from hood pivot brackets.
- Pivot hood and side panel forward and lift off tractor.
- To replace, reverse above procedure.

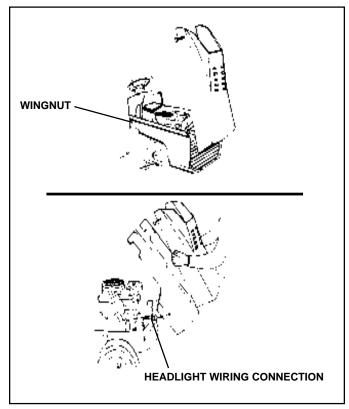


FIG. 35

#### **ENGINE**

## TO ADJUST THROTTLE CONTROL CABLE (See Figs. 36 & 37)

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. 38)

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
   (
   ) 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 ( ) 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.

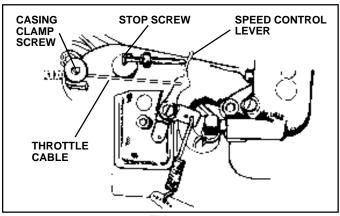


FIG. 36

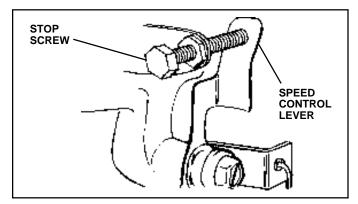


FIG. 37

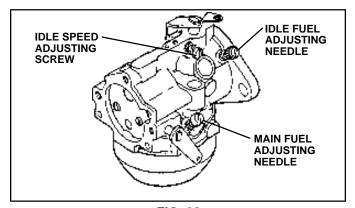


FIG. 38

### **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 SYSTEMPARTS 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**

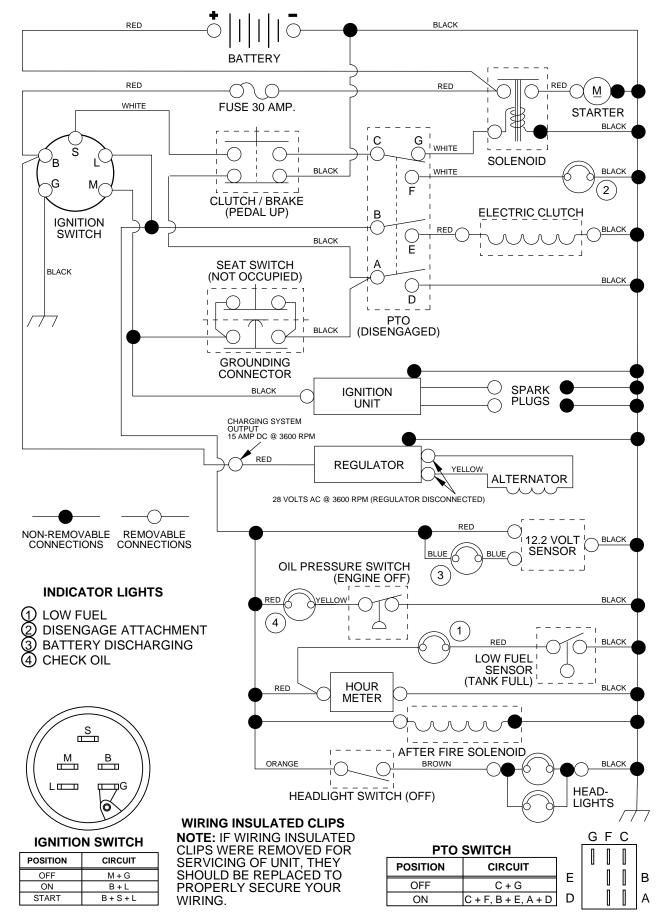
PROBLEM	CAUSE	CORRECTION
Will not start	<ol> <li>Out of fuel.</li> <li>Engine not "CHOKED" properly.</li> <li>Engine flooded.</li> <li>Bad spark plug.</li> <li>Dirty air filter.</li> <li>Dirty fuel filter.</li> <li>Water in fuel.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</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>
Loss 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> <li>Spark plug wire loose.</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>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> <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>
Excessive 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	Faulty operator-safety presence control system.	Check wiring, switches and connections. If not corrected, contact an authorized service center/department.			
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	Freewheel control in "disengaged" position.     Motion drive belt worn, damaged, or broken.     Air trapped in transmission during shipment or servicing.	<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"	Engine throttle control not set at "SLOW"     position for 30 seconds before stopping engine.	Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.			

#### 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

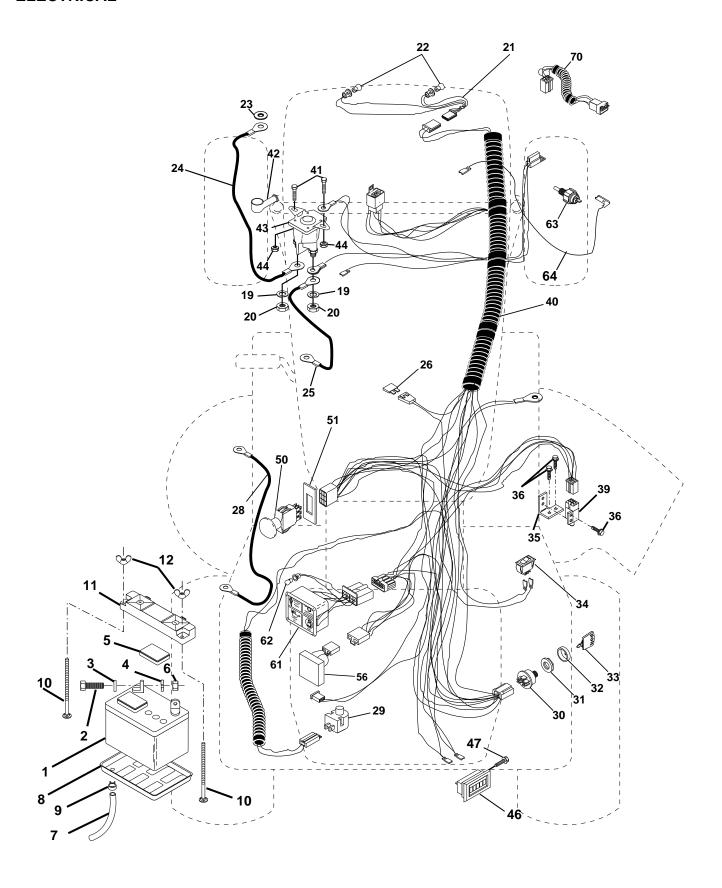
#### **SCHEMATIC**



**REPAIR PARTS** 

## 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

#### **ELECTRICAL**



## 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

#### **ELECTRICAL**

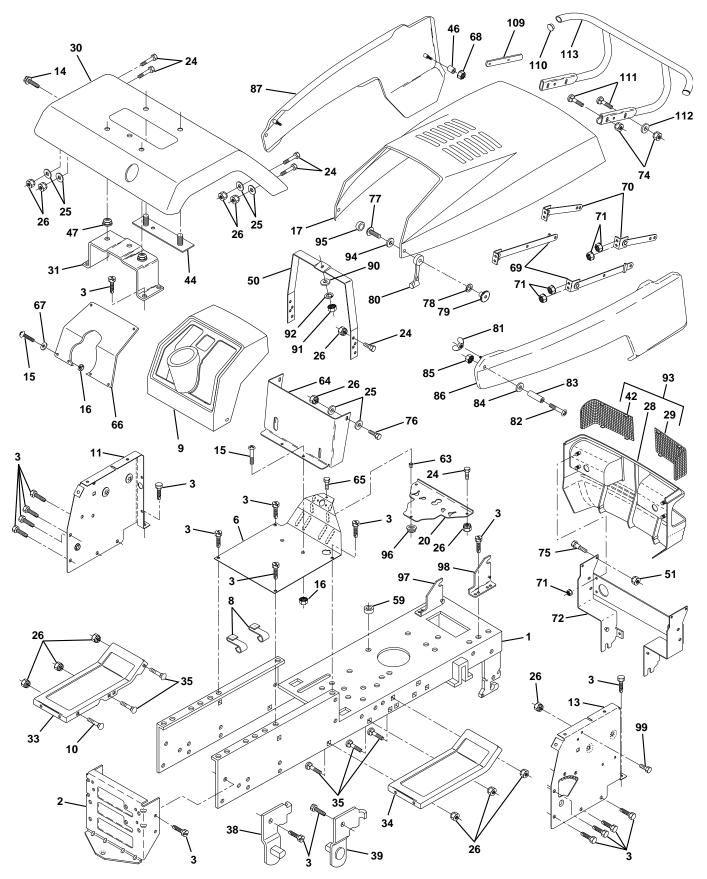
KEY PART NO. NO.	DESCRIPTION
1 532121537 2 874760412 3 819091016 4 810040400 5 532121264 6 873220400 7 532007697 8 532124886 9 532109596 10 872240460 11 532102476 12 532123198 19 810090400 20 873350400 21 532136850 22 532004152 23 811150400 24 532124780 25 532124770 26 532108824 28 532124773 29 532124773 29 532121305 30 532140401 34 532110712 35 53218236 36 817021008 39 532108236 36 817021008 39 532141571 41 871110408 42 532131563 43 532140400 44 873640400 46 532110940 47 817011008 50 532140404 51 532140400 51 532140400 51 532140400 53 532140400 53 532140400 53 532140400 53 532140400 53 532140400 53 532140400 53 532140400 53 532140400 53 532140400 53 532140400	Battery Bolt, Hex Head 1/4-20 x 3/4 Washer 9/32 x 5/8 x 16 Gauge Washer, Lock 1/4 Caps, Battery Nut, Hex 1/4-20 Tube, Tray, Battery 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, Hex, Jam 1/4-20 Harness, Socket, Light (Includes Key #11) Bulb, Light Washer, Lock, Internal Tooth 1/4 Cable, Starter, 6 Ga 11" Red Cable, Battery Fuse Cable, Battery Switch, Ignition Nut, Ignition Nut, Ignition Cover, Switch, Ignition Key, Molded Switch, Light Bracket Switch Interlock Screw, Hex Tap #10-24 UNC Switch, Interlock (4 Terminal) Harness, Ignition Bolt, Hex 1/4-20 x 1/2 Grade 5 Cover, Terminal Solenoid Nut, Hex, Keps 1/4-20 Meter, Hour Screw #10-24 x 1/2 Switch, P.T.O. Ring, Retainer, Pto Sensor, Low Voltage Package, Light Bulb, Light Package Switch, Oil Sensor Wire, Lead, Sentry, Kohler Harness, Engine

**NOTE:** All component dimensions given in U.S. inches.

1 inch = 25.4 mm

### 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

#### **CHASSIS AND ENCLOSURES**



## 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

#### **CHASSIS AND ENCLOSURES**

	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
1	532140341	Chassis	69	532106784	Strap Assembly, Hinge, Rear
2	532140356	Drawbar	70	532104618	Strap Assembly, Hinge, Front
3	817490612	Screw, Thd., Roll. 3/8-16 x 3/4	71	873640400	Nut, Keps Blk Hex 1/4-20 UNC
6	532127543	Saddle	72	532124574	Support Assembly, Grille
8	532126471	Clip, Insulator	74	873680600	Nut, Crownlock 3/8-16 UNC
9 10	532140452 872140608	Dashboard	75	532123481	Bolt, Shoulder 1/4-20 UNC
11	532136967	Bolt, Carriage 3/8-16 UNC x 1 Dash Panel, LH	76 77	874780620	Bolt, Fin Hex 3/8-16 UNC x 1-1/4
13	532136970	Dash Panel, RH	11	874191008	Screw, Machine, Cross Pan Head #10-24 x 1/2
14	817490608	Screw, Thd., Roll. 3/8-16 x 1/2	78	810071000	Washer, Lock #10
15	874180512	Screw, Machine 5/16-18 UNC x 3/4	79	532125004	Nut. Weld
16	873510500	Nut, Hex, Keps 5/16-18 UNC	80	532109808	Latch, Chute
17	532125454	Hood	81	532123198	Wing Nut, Plastic 1/4-20
20	532140181	Plate, Battery Support	82	874981020	Screw, Machine, Cross Pan Head
24	874780616	Bolt, Fin Hex 3/8-16 x 1 Gr. 5			#10-24 x 1-1/4
25	819131312	Washer 13/32 x 13/16 x 12 Gauge	83	532007206	Spacer, Split #10 x 3/4
26 28	873800600 532127325	Nut, Lock, Hex W/Ins 3/8-16 UNC Grille	84	819070818	Washer 7/32 x 1/2 x 18 Gauge
20 29	532124251	Lens, Headlight, RH, Smoked	85	873731000	Nut, Hex, Keps #10-24 UNC
30	532141449	Fender	86 87	532143365 532143364	Side Panel, RH Side Panel, LH
31	532137113	Bracket Fender	90	819091216	Washer 9/32 x 3/4 x 16 Gauge
33	532124899	Footrest, LH	91	873220400	Nut, Hex, Fin. 1/4-20 UNC
34	532124914	Footrest, RH	92	810040400	Washer, Lock, Hvy Hlcl 1/4
35	872110606	Bolt, Carriage 3/8-16 x 3/4	93	532127320	Grill Assembly
38	532139886	Pivot Bracket Assembly, Rear, LH	94	532110357	Washer, Cap
39	532139887	Pivot Bracket Assembly, Rear, RH	95	532110356	Cap, Black
42	532124250	Lens, Headlight, LH, Smoked	96	873800500	Nut, Lock, Hex w/lns. 5/16-18
44 46	532140675 532127316	Strap, Fender	97	532110853	Pivot Bracket Assembly, LH
46 47	532105531	Retainer Nut, Push, Nylon	98 99	532110852	Pivot Bracket Assembly, RH
50	532124130	Support, Dash		874760616 532141461	Bolt, Hex, Fin. 3/8-16 x 1 Bracket, Ext. Bumper
51	873800400	Nut, Lock W/Ins. 1/4-20 UNC		532143679	Plug, Plastic
59	532110436	Bushing, Snap Split		872140610	Bolt, Carriage 3/8-16 x 1-1/4
63	532121236	Spacer, Split		819131316	Washer 13/32 x 13/16 x 16 Ga.
64	532104805	Dash, Lower		532141460	Bumper Assembly
65	874760532	Bolt, Hex, Fin. 5/16-18 UNC x 2		532121794	Cover Access
66	532141626	Plate, Dash		532125085	Plug, Button
67	819111116	Washer 11/32 x 11/16 x 16 Gauge			
68	873510400	Nut, Hex, Keps 1/4-20 UNC	NOT		ent dimensions given in U.S. inches
				1 inch = 25.	.4 mm

### 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

#### **DRIVE** -18 -50 - 88

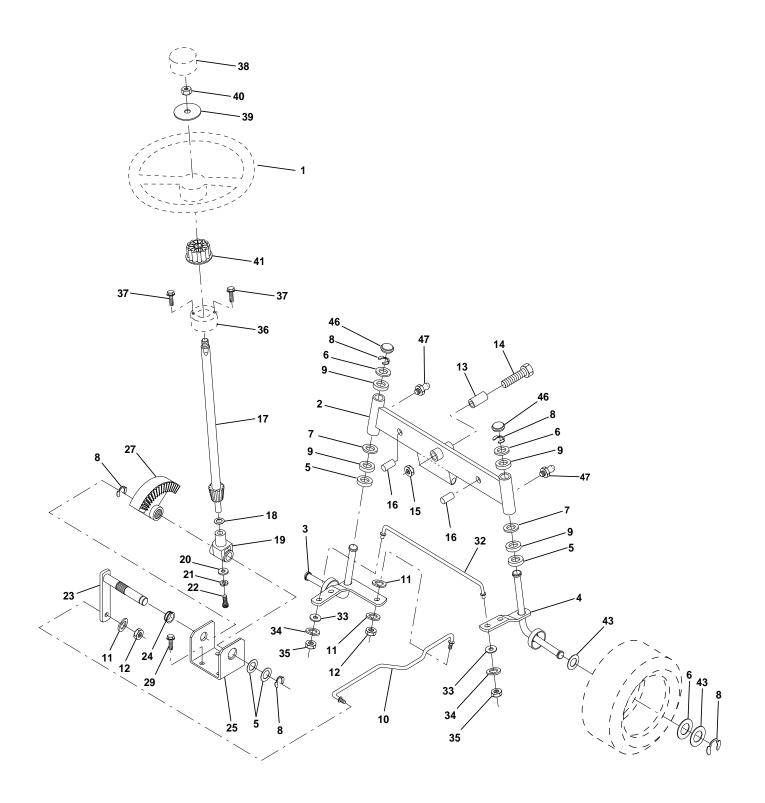
## 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

#### **DRIVE**

KEY NO.	PART NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1	532144436	Transaxle Assembly	55 532105709	Spring, Return, Clutch
2	532142431	Spring, Return, Brake	57 532140294	
3	532143995	Pulley, Transaxle	58 532140470	
8	532141002	Rod Shift Fender YT	59 532140312	Keeper, Center Span
9	532137140	Clutch, Electric	60 532121218	
10	876020416	Pin Cotter 1/8 x 1 CAD	61 817490612	
15	874780544	Bolt Fin Hex 5/16-18 Unc	62 532123533	Cover, Pedal
16	873800500	Nut Lock Hex W/Ins. 5/16-18 Unc P	63 532140189	
17	532126197	Washer 1-1/2 OD x 15/32 ID x .250	65 810040700	
18	874780616	Bolt Fin Hex 3/8-16 Unc x 1 Gr. 5	67 874760616	
19	873800600	Nut Lock Hex W/Wsh 3/8-16 Unc	68 532105730	Keeper Belt Engine
20	871170768	Bolt, Hex	69 532142432	
21	532140845	Knob, Duckhead 1/2-13	71 532140158	
22	532140217	Rod, Brake Hydro	73 532140157	
23	532137141	Bracket, Asm Mtg Clutch	74 532121199	
24	873350600	Nut	75 532121749	
25	532106888	Spring, Brake Rod	76 812000001	E-Ring
26	819131316	Washer	77 532123583	
27	876020412	Pin Cotter 1/8 x 3/4 CAD.	78 532121748	
28	532133261	Rod, Parking Brake	81 532140154	
29	532071673	Cap, Parking Brake	82 532123782	
30	532130807	Bracket, Transaxle	83 819171216	
31	532127275	Keeper Belt Lh	84 532140548	
32	874760512	Bolt Hex Hd 5/16-18 Unc x 3/4	86 532071208	
33	872140506	Bolt Carriage 5/16-18	87 819212016	
34	532122424	Shaft, Foot Pedal	88 812000008	
35	532120183	Bearing, Nylon	89 532139989	
36	819211616	Washer	91 874780536	
37 38	532124963 532123674	Pin, Roll	92 874780524 93 532142564	
39	874760644	Pulley, Idler, Flat Bolt	94 532140462	
40	532124965	Spacer, Split	95 532144643	
41	532124905	Keeper, Belt Retainer	96 532124788	
42	819131312	Washer 13/32 x 13/16 x 12 Gauge	97 532140469	Keeper Belt Rh Hydro 0750. 18/20"
43	819111012	Washer 11/32 x 5/8 x 12 Ga.	98 873510600	
44	532105706	Bearing, Nylon	100 819111216	
45	532110812	Washer, Hardened	102 532141322	
46	812000039	Ring, Klip	103 532050831	Nut Nylon Insert 1/2-20 Unf.
47	532127783	Pulley, Idler, V-Groove	104 532140156	
48	532123789	Bellcrank Assembly	105 871070516	
49	532123205	Retainer, Belt	106 874780520	Bolt Fin Hex 5/16-18 Unc x 1-1/4
50	874760624	Bolt		
51	873680600	Nut		
52	873680500	Nut, Crownlock 5/16-18	NOTE: All comp	ponent dimensions give in U.S. inches.
53	532105710	Link, Clutch	1 inch =	25.4 mm.

**REPAIR PARTS** 

## 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A) STEERING ASSEMBLY



### 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

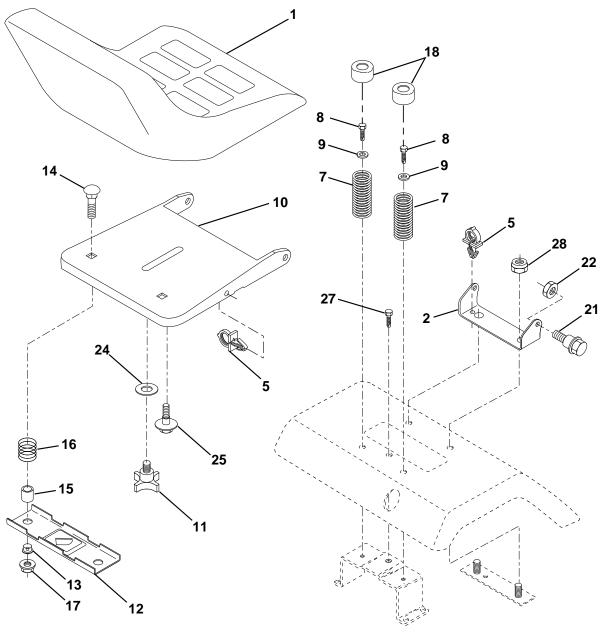
#### **STEERING ASSEMBLY**

	PART NO.	DESCRIPTION
1 2	532124415 532142033	Wheel Steering Auto Grey Axle Asm Fr LT W/gzks 38/42
3	532135227	Spindle Asm LH
4 5	532135228 532124931	Spindle Asm RH
6	532121748	Bearing Race Thrust Harden Washer 25/32 X 1-5/8 X 16 Ga
7	819272016	Washer 27/32 X 1-1/4 X 16 Ga
8 9	812000029 532124937	Ring Klip #t5304-75 Bearing Col Strg Blk
10	532130468	Link Drag Sol Ball Jt 20 064
11	810040600	Washer Lock Hvy Hlcl Spr 3/8
12 13	873610600 532110438	Nut Fin Hex 3/8-24 Unf Spacer Bearing Axle Front
14	874011056	Bolt Hex 5/8-11 Unc X 3-1/2
15	873901000	Nut Lock Flange 5/8-11 Unc
16 17	532132624 532128762	Pin Axle 5/8 X 1 55/1 54 Lg Shaft Asm Strg 20 31 x 3/4 YP YT
18	532057079	Washer Thrust 515x 750x 033
19	532124035	Support Shaft
20 21	532126684 810040400	Washer Shim 1/4 X 5/8 X 062 Washer Lock Hvy Helical 1/4
22	871070410	Screw Hex Socket 1/4-20 X 5/8
23		Shaft Asm Pittman
24 25	532109816 532124036	Nyliner Snap In Bracket Steering
27	532136874	Gear Sector
29	817490612	Screw Thdrol 3/8-16x3/4 Ty-tt
32 33	532130467 819111216	Rod Tie Wire Form 19 75 Élec Washer 11/32 x 3/4 x 16 Ga.
34	810040500	Washer, Lock Hvy Hlcl Spr 5/16
35	873810500	Locknut 5/16-24 Unf
36 37	532124720 817431008	Bushing Strg Blk 742/747 Id Screw Slftp #10-16 X 1/2 Ty-b
38	532124416	Insert Cap Strg Wh Aut Hus Gry
39 40	532100712 873940800	Washer 53 X 2 25 X 160 Zinc Nut Hex Jam Toplock 1/2-20 Unf
41	532100711	Adapter Wheel Strg 758/ 753id
43	532121749	Washer 25/32 X 1 1/4 X 16 Ga
46 47	532121232 532124836	Cap Spindle Fr Top Blk Fitting Grease
"	332 12-1000	ig Orodoo

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

## 118 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

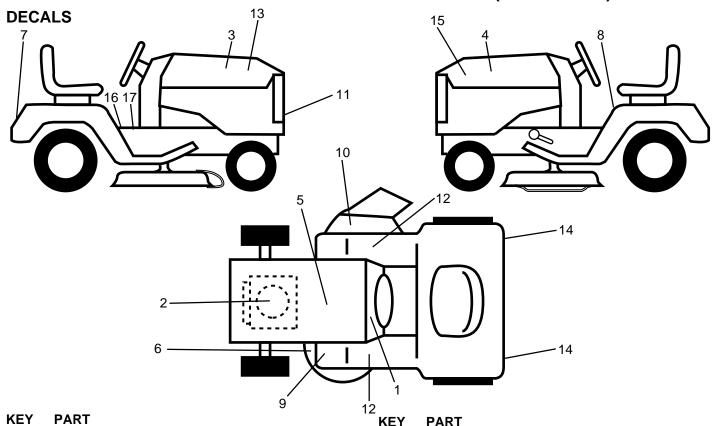
#### **SEAT ASSEMBLY**



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	532124186	Seat V-550 Gry/blk Std	16	532123740	Spring Cprsn 1 310 Blk Pnt
2	532140551	Bracket Pivot Śeat	17	532123976	Nut Lock 1/4 Lge Flg Gr 5 Zinc
5	532145006	Clip, Push-In	18	532124238	Cap Spring Seat
7	532124181	Spring Seat Cprsn 2 250 Blk Zi	21	532139888	Bolt Shoulder 5/16-18 Unc Blkz
8	817490508	Screw Hwsh Thdrol 5/16-18 x 1/2	22	873680500	Nut Crown Lock 5/16-18
9	819131614	Washer 13/32 X 1 X 14 Ga	24	819171912	Washer 17/32 X 1-3/16 X 12 Ga
10	532140552	Pan Seat	25	532127018	Bolt Shoulder 5/16-18 X 62
11	532120068	Knob Seat 1/2-13unc Blk	27	817490608	Screw Thdrol 3/8-36 x 1/2
12	532121246	Bracket Mounting Switch	28	873680600	Nut, Crownlock 3/8-16 UNC
13	532121248	Bushing Snap Blk Nyl 50 ld			
14	872050411	Bolt Rdhd Sht Nk 1/4-20x1-3/8			
15	532121249	Spacer Split 28x 88 Yel Zinc	NOT	E: All compor	ent dimensions given in U.S. inche

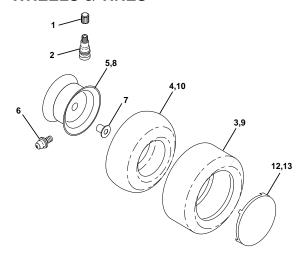
1 inch = 25.4 mm

#### 118 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)



KEY	PARI	
NO.	NO.	DESCRIPTION
1	532138956	Decal Instruction Dash Eng/fr
2	532132507	Decal HP Engine
3	532140855	Decal Hood KH Husq YT180 Insert
4	532140854	Decal Hood LH Husq YT180 Insert
5	532121549	Decal Caution Battery Fr/ger
6	532136832	Decal V-Belt Sch
7	532131582	Decal Fender Husqvarna
8	532133795	Decal Caution Fender Eng/fr
9	532101892	Decal Clutch/brake Eng/fr
10	532137259	Decal Warning MULTI-LANGUAGE
11	532125989	Decal Grille Husqvarna
12	532108256	Pad, Footrest Rbr. Sq. Generic
13	532140728	Decal Hood RH Husqvarna

#### **WHEELS & TIRES**



NO.	NO.	DESCRIPTION
14 15 16 17 	532106202 532140729 532142337 532140837 532138311 532142341 532145464 532145465	Reflector Tail Light Red/amber Decal Hood RH Husqvarna Decal Sdl Cold Start Hyd E/F Decal Brake Parking Saddle Decal Lift Handle(Lift Handle) Decal Drawbar Cntrl Mvt Hyd LT Manual Owners, English Manual Owners, French

Available accessories not included with tractor:

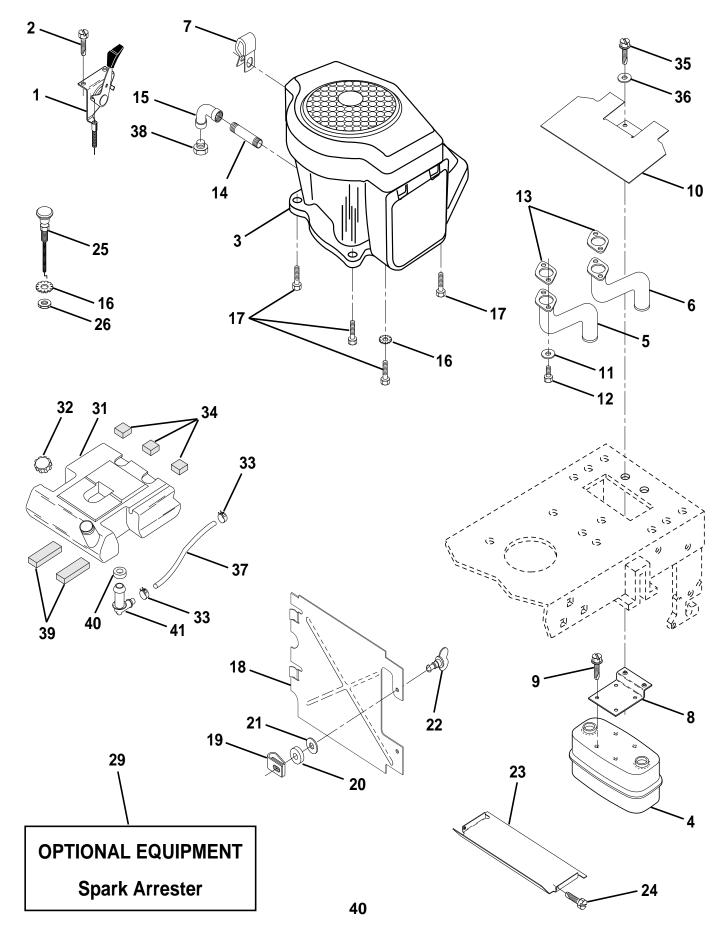
42" Snow blade
42" Snow blade
33 lb. Weights (pairs)
40" Snow Thrower
42" Bagger
Tire Chains
42" Mulcher Kit LBD48 LC05 LSB42 C42 LC06 MK420

KEY NO.	PART NO.	DESCRIPTION
1	532059192	Cap Valve Tire
2	532065139	Stem Valve
3	532106222	Tire F Ts 15 X 60 - 6 Service
4	532059904	Tube Front (Service Item Only)
5	532141446	Rim Asm 6" front White Service
6	532124957	Fitting Grease (Front Wheel Only)
7	532124959	Bearing Flange (Front Wheel Only)
8	532141447	Rim Asm 8" rear White Service
9	532122082	Tire R Ts 20 X 10 - 8 Service
10	532124926	Tube Rear (Service Item Only)
12	532124577	Cover Wheel 6" white
13	532124578	Cover Wheel 8" white

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

#### 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

#### **ENGINE**



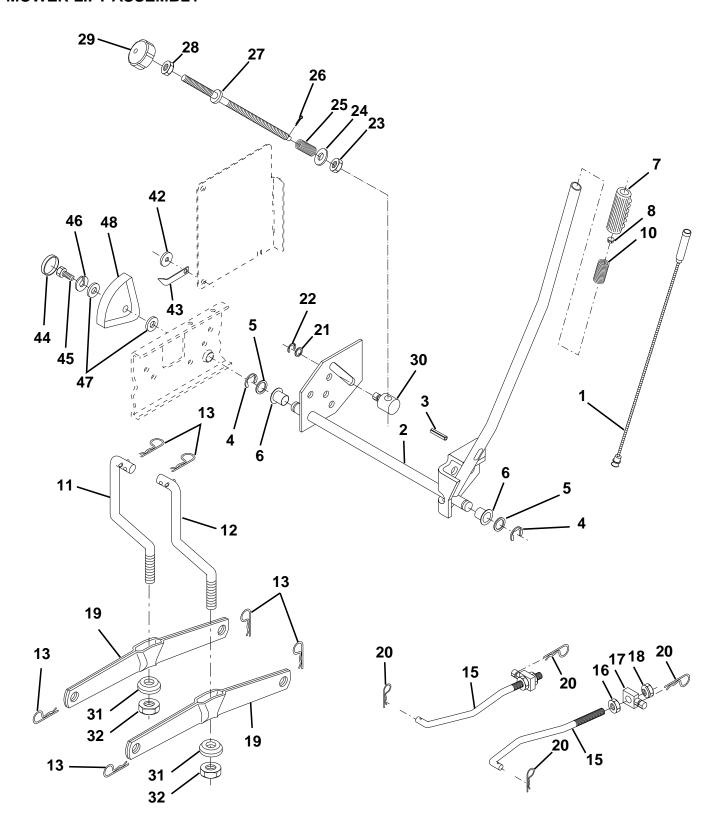
### 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

#### **ENGINE**

KEY PART NO. NO.	DESCRIPTION
1 532137214 2 817720410 3	Screw Hex Thd Cut 1/4-20x5/8 T Engine Kohler, Model No. PS58559 Muffler VGT YT Dual Inlet Tube Manifold LH Tube Manifold RH Clip, Fuel Line Bracket Muffler Mounting Screw Hex Wsh Thd Cut 1/4-20 Shield Heat LT Washer Lock Hvy Spr 5/16-18 Screw Hex Skt 5/16-18 unc x 3/4 Muffler Gasket (Order from Engine Manufacturer) Nipple Pipe 3/8 Npt X 4-1/2" Elbow Std 90 Degree 3/8-18 Npt Washer Lock Ext Tooth 3/8 Screw Thdrol 3/8-16 x 1-1/2 Shield Heat Mech Receptacle 1/4 Turn Retainer 1/4 Turn Bushing, Snap, Split Blk Stud 1/4 Turn Shield Heat Browning LT/YT Screw Tap Hex #10-24unc X 1/2 Choke Control Nut, Fin Hex 3/8-24 Unf Kit Spark Arrestor (Flat Scrn) Tank Fuel 3 50 Rear Cap Asm Fuel Clamp Hose Blk Pad, Spacer Screw Thdrol 5/16-18 x 3/4 Washer 13/32 x 1-1/4 x 12 Ga. Line Fuel 54" Plug Oil Drain (Order From Engine
39 53210922 40 532124952 41 53213927	2 Bushing

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

## 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A) MOWER LIFT ASSEMBLY

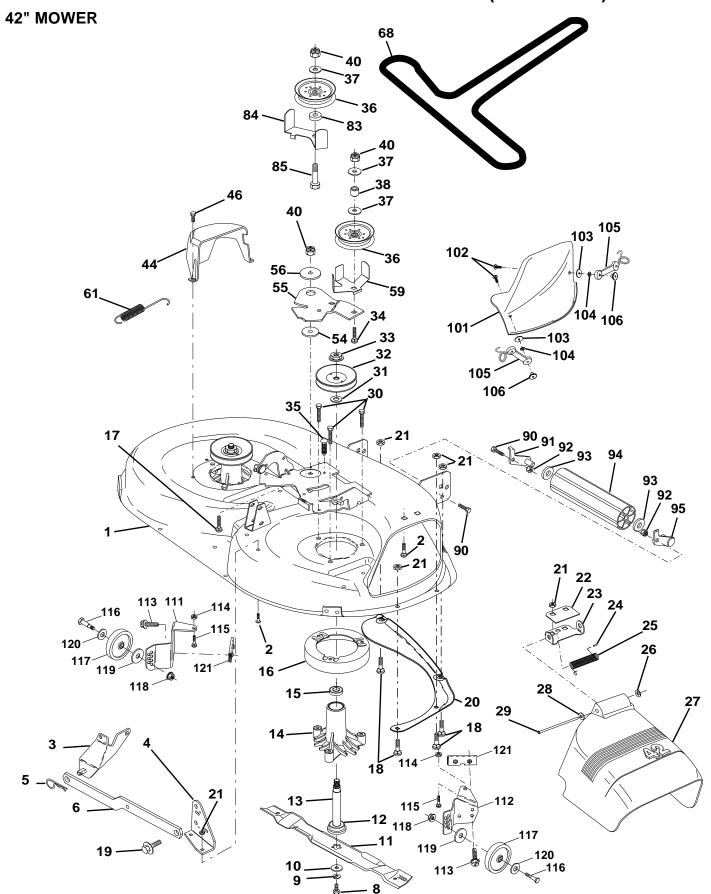


## 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A) MOWER LIFT ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 7 8 11 12 13 15 6 17 18 19 22 12 23 24 25 26 27 28 29 31 32 5 36 37 38 40 41	532130171 873800800 532139868 532124660 819151216 812000037 532110807 819131016 532124874 876020308 532110729 873350600 532138057 532110810 532140302 873810600 532120529 532138346 532123935	Wire Asm Inner W/plunger 20 56 Shaft Asm Lift RH w/Inf Pin Groove 1 500 Zinc E Ring #5133-62 Washer 21/32 X 1 x 21 Ga Bearing Nylon Blk 629 Id Grip Handle Fluted Blk Button Plunger Black Spring Cprsn 3 750 Oiled Link Lift LH Link Lift RH Retainer Spring Link Front Nut Jam Hex 1/2-13 Unc Trunnion Blk Zinc Nut Lock W/wsh 1/2-13unc Arm Suspension Rear Retainer Spring Washer 15/32 X 3/4 X 16 Ga Ring Klip #t5304-37 Nut Special Washer 13/32 X 5/8 X 16 Ga Spring 2-1/8" Pin Cotter 3/32 X 1/2 Rod Adj Lift Zinc 9 00 Wrk Lg Nut Hex Jam 3/8-16 Unc Knob Inf 3/8-16 Unc Blk W/sym Trunnion Dp Stop Dbl Thds PLT Bearing Pvt Lift Spherical Nut Lock 3/8-24 w/Nylon Insert Washer Nylon .44 x .75 x .032 Pointer Height Indicator Plug Hole Blk 1.485/1.515 Screw Thdrol 5/16-18 x 3/4 Washer 11/32 x 1-1/2 x 10 Ga. Scale Ind. Height Blk

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

18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

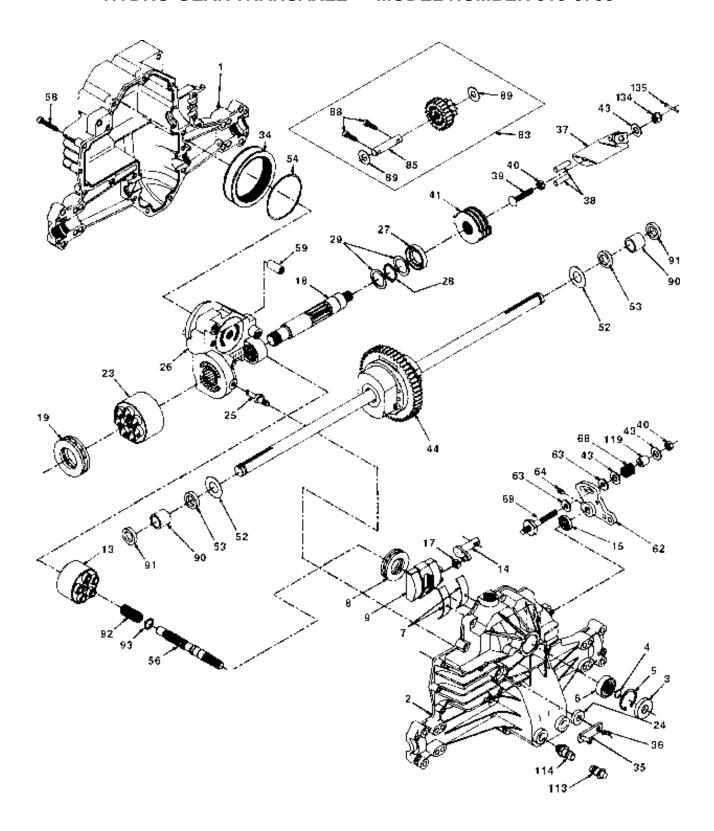


### 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A)

#### 42" MOWER

KEY NO.	PART NO.	DESCRIPTION		PART NO.	DESCRIPTION
1	532144393	Deck Asm MWR 42"weldment	55	532140084	Arm Idler 42"mower LT/YT
2	872140506	Bolt Rdhd Sqnk 5/16-18unc X3/4	56	532122052	Spacer Retainer Pm Mower
3	532138017	Bracket Asm Fr Sway Bar 38/42	59	532141043	Guard, Belt
4	532138440	Bracket Asm Deck 42"sway Bar	61	532131950	Spring Ext. Elect
5	532124670	Retainer Spring	68	532144200	V-Belt Mower 42" 92 40
6 7	532130832 873800500	Arm Suspension Rear Locknut-hex W/ins 5/16-18unc P	83 84	532120958 532144394	Washer Sintered Keeper Belt Idler Fixed
8	532850857	Bolt 3/8-24x1 25 Gr8 Patched	85	872140620	Bolt Carriage 3/8-16 x 2-1/2 Gr. 5
9	810030600	Washer Lock Hvy 3/8 Unplated	00	072140020	Boil Garriage 3/0 10 x 2 1/2 01: 3
10	532140296	Washer Hard Blade Mower Vented	90	874760616	Bolt Fin Hex 3/8-16UNC X 1
11	532134149	Blade Mower Mulching 42"	91	532132274	Bracket Asm Noseroller LH
12	532129895	Bearing Ball #6204 (Mandrel)	92	873800600	Nut Lock 3/8-16 UNC
13	532137645	Shaft Asm W/lower Bearing		819171416	Washer 17/32 X 7/8 X 16 Ga
14	532128774	Housing Mandrel Vented(machd)	94	532132264	Roller Nose 38 & 42
15	532110485	Bearing Ball Mandrel	95	532132273	Bracket Asm Noseroller RH
16	532140329	Stripper Mower Vented	101		Cover Mulching 42" Blk
17 18	872110610 872140505	Bolt Rdhd Sqnk 3/8-16 X 1-1/4 Bolt Carr 5/16-18 X 5/8		871161010 810071000	Screw
19	532132827	Bolt Shoulder		819061216	Washer Lock #10 Washer #10
20	532136888	Baffle Vortex 42		532130758	Latch Asm Bagger
21	873680500	Nut Crownlock 5/16-18 UNC		532125004	Nut Weld .327/.304 #10-24
22	532134753	Stiffener Bracket 42"deck		532140353	Bracket Wheel Gauge Lh 42" Deck
23	532131267	Bracket Deflector Mower 42"		532132262	Bracket Gauge Wheel Rh 42" Deck
24	532105304	Cap Sleeve 80x 112 Blk Mower	113	817490512	Screw Thdrol 5/16 - 18 x 3/4
25	532123713	Spring Torsion Deflector 2 52		873510500	Nut Keps 5/16 - 18 UNC
26	532110452	Nut Push Phos & Oil		872110504	Bolt Carriage 5/16 - UNC x 1/2
27	532130968	Shield Deflector Mower 42" Blk		532137644	Bolt Shld "A" 2.41 "B" 1.66
28 29	819111016	Washer 11/32 X 5/8 X 16 Ga		532105455	Wheel Gauge blk. 4.93
30	532131491 532138776	Rod Hinge 42"6 75 Wlg Screw Thdrol Hex Hd Zinc Mwr.		873930600 819121414	Nut Centerlock 3/8 - 16 UNC Washer 3/8 x 7/8 x 14 Ga.
31	532129963	Washer Spacer Mower Vented		819171512	Washer 17/32 x 15/16 x 12 Ga.
32	532129861	Pulley Mandrel 42"		532143723	Bracket
33	532137266	Nut 9/16top Lock Flng Cntr		532145452	Deck Serv 42" Elec Vent (Standard
34	872110622	Bolt Rdhd 3/8-16uncx2-3/4 Gr5		002	Deck - Order separately nose roller,
35	532133835	Fastner Christmas Tree			gauge wheel and mulcher plate
36	532131494	Pulley Idler Flat 3 060			components Key Nos. 90-95, 101-
37	819131316	Washer 13/32 X 13/16 X 16 Ga			106 and 111-121).
38	532132823	Spacer, Spring, Stop, Idler		532130794	Mandrel Assembly (Includes Key
40	873680600	Nut Crownlock 3/8-16 Unc			Numbers 8-10, 12-15, 31 and 33)
44 46	532140088	Guard Mandrel LH Black	NOT	E: All company	ent dimensions given in U.S. inches
46 54	532137729 532133943	Screw Thdrol 1/4-20x5/8 Washer Hardened	NOI	1 inch = 25.	
54	552155945	vvasilei i laittellett		1 111011 – 23.	7 111111

# 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A) HYDRO-GEAR TRANSAXLE - - MODEL NUMBER 310-0750



**KEY PART** 

# 18 HP 42" TRACTOR - MODEL NO. YTH180 (954001172A) HYDRO-GEAR TRANSAXLE - - MODEL NUMBER 310-0750

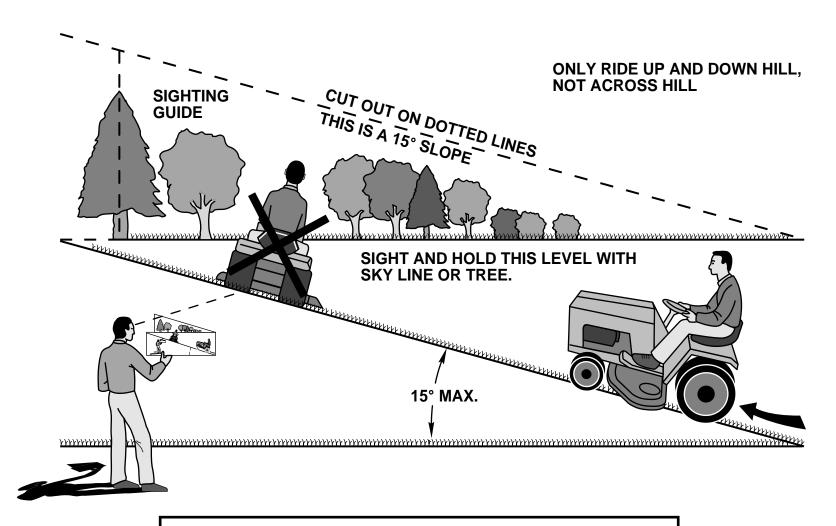
**KEY PART** 

NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	532142930	Housing, Lower	43	532142884	Washer 7/16 x 7/8 x .060
2	532142931	Assembly, Upper Housing	44	532142959	Differential Assembly
3	532142932	Seal, Lip	52	532142960	Washer 3/4 x 1.5 x .03
4	532142928	Ring, Wire Retaining	53	532142961	Seal .75 x 1.25 x .250
5	532142933	Ring, Retaining	54	532142962	O-Ring .103 x 2.987 ID
6	532142934	Bearing, Shaft Ball	56	532142963	Shaft, Input
7	532142935	Bearing, Cradle	58		Bolt 1/4-20 x 1.38
8	532142936	Bearing, Thrust 30 x 52 x 13	59	532142965	Pin .5 OD x .43 ID x .750
9	532142937	Swashplate, Variable	62		Arm, Control
	532142938	Block, Cylinder Assembly	63		Puck, Dampener
	532142939	Arm, Trunnion	64		Set Screw
	532142940	Seal, Lip	65	532142968	Bolt #8-32 x .875
	532142941	Guide, Slot	68	532142969	Spring
18	532142942	Shaft, Motor	69		Socket Set Screw
	532142943	Bearing, Thrust 42 x 68 x 16	83		Jack Shaft Assembly
	532142944	Block, Cylinder Assembly	85		Jack Shaft
	532142945	Seal, Lip 10 x 25 x 7	88		Capscrew
	532142946	Actuator, Bypass	89		Washer
	532142947	Center Section Assembly Kit	90		Sleeve Bearing
	532142948	Seal, Lip 26 x 42 x 8	91		Seal, Wiper
	532142949	Ring, Retaining	92		Spring, Block
	532142950	Washer 26 x 35 x 1	93		Washer, Block Thrust
34	532142951	Oil Filter Element	95		Strap, Locking
	532142952	Arm, Bypass		532142917	Cap, Vent Assembly
	532142953	Ring, Retaining		532142918	Fitting, O-Ring Assembly
37	532142954	Arm, Actuating		532142980	Spacer
	532142955	Pin, Actuating	121	532142981	Jam Nut 5/16-24
	532142956	Bolt 5/16-24 x 1-3/4			
-	532142957	Locknut, Hex 5/16-24 UNJC	NOT		ent dimensions given in U.S. inches
41	532142958	Brake Rotor/Stator Kit		1 inch = $25$ .	4 mm

## **SERVICE NOTES**

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#### SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION





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



#### **SECTION 1: LIMITED WARRANTY**

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:

- **5 Year Warranty:** Plastic walk behind mower decks for noncommercial, noninstitutional or nonincome producing use.
- **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.
- 1 Year Warranty: Chain saws, clearing saws, trimmers, blowers and batteries for noncommercial, noninstitutional or nonincome producing use.
- 90 Day Warranty: Any Husqvarna product used for rental, commercial, professional, or income producing use
- 30 Day Warranty: Husqvarna professional bow bars.
- **30 Day Replacement Part Warranty:** Unless otherwise stated, replacement parts are warranted for 30 days from date of purchase.

#### SECTION 2: HUSQVARNA'S OBLIGATIONS UNDER THE WARRANTY

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

The following items are not covered by this warranty:

- 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).
- (2) Normal wear, normal adjustment, standard hardware or items worn through regular use.
- (3) Natural discoloration of material due to ultraviolet light.
- (4) The replacement or maintenance of worn items.
- (5) Briggs & Stratton, Kawasaki and Kohler engines, including starters, generators, alternators and accessories. These items are covered by the engine manufacturer's warranty as stated with the product information supplied at the time of purchase. All claims for specified engines, starters, generators, alternators and accessories should be sent to the appropriate manufacturer.
- (6) Agri-Fab, Foote, and Tecumseh-Peerless drive systems. These items are covered by the drive system manufacturer's warranty as stated with the product information supplied at the time of purchase. All claims for specified drive systems should be sent to the appropriate manufacturer.

#### **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.

- (2) Failure to operate or maintain the unit in accordance with the Owner's/Operator's manual or instruction sheet furnished by Husqvarna.
- (3) 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.
- (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.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. HUSQVARNA 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 MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THESE PRODUCTS IS LIMITED IN DURATION TO THE WARRANTY PERIOD AS DEFINED IN THE LIMITED WARRANTY STATEMENT. HUSQVARNA 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 damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### **SECTION 5: CUSTOMER RESPONSIBILITIES**

The customer must exhibit reasonable care, maintenance, operation, storage and general upkeep as written in the maintenance section of the Owner's/Operator's manual. Should an operational problem or failure occur the product should not be used, but delivered as is to an authorized Husqvarna dealer for evaluation. Proof of purchase, as explained in section 6, rests solely with the customer.

#### 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 Husqvarna 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.

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.

#### HUSQVARNA FOREST & GARDEN CO. 9006-J PERIMETER WOODS DRIVE CHARLOTTE, NORTH CAROLINA 28216

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