

# **YTH1542XP**

**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.
- Data indicates that operators, age 60 years and above, are involved in a large percentage of riding mower-related injuries. These operators should evaluate their ability to operate the riding mower safely enough to protect themselves and others from serious injury.
- Keep machine free of grass, leaves or other debris buildup which can touch hot exhaust / engine parts and burn. Do not allow the mower deck to plow leaves or other debris which can cause build-up to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.

#### **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 buildup. 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.

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



- Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
- Never carry passengers or children even with the blades off.
- Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
- Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
- Keep children out of the mowing area and under the watchful care of another responsible adult.
- Be alert and turn machine off if children enter the area.
- Before and when backing, look behind and down for small children.
- Mow up and down slopes (15° Max), not across.
- Remove obstacles such as rocks, tree limbs, etc.
- Watch for holes, ruts, or bumps. Uneven terrain could overturn the machine. Tall grass can hide obstacles.
- Use slow speed. Choose a low gear so that you will not have to stop or shift while on the slope.
- Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.
- If machine stops while going uphill, disengage blades, shift into reverse and back down slowly.
- Do not turn on slopes unless necessary, and then, turn slowly and gradually downhill, if possible.



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



CAUTION: In order to prevent accidental starting when setting up, transporting, adjusting or making repairs, always disconnect spark plug wire and place wire where it cannot contact spark plug.



CAUTION: Do not coast down a hill in neutral, you may lose control of the tractor.



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

### WARNING

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

WARNING

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

### PRODUCT SPECIFICATIONS

GASOLINE CAPACITY AND TYPE:	3.5 GALLONS UNLEADED REGULAR		
OIL TYPE (API-SF-SJ):	SAE 30 (above 32°F) SAE 5W-30 (below 32°F)		
OIL CAPACITY:	W/FILTER: 3.8 PINTS W/OFILTER: 3.2 PINTS		
SPARK PLUG: (GAP: .030")	CHAMPION RCJ8Y		
GROUND SPEED (MPH):	Forward: 0-5.5 Reverse 0-2.4		
TIRE PRESSURE:	FRONT: 14 PSI REAR: 10 PSI		
CHARGING SYSTEM:	16 AMPS @ 3600 RPM		
BATTERY:	AMP/HR: 35 MIN. CCA: 280 CASE SIZE: U1R		
BLADE BOLT TORQUE:	27–35 FT. LBS.		

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

Should you experience any problem you cannot easily remedy, please contact your nearest 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".

#### **CUSTOMER RESPONSIBILITIES**

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

**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.

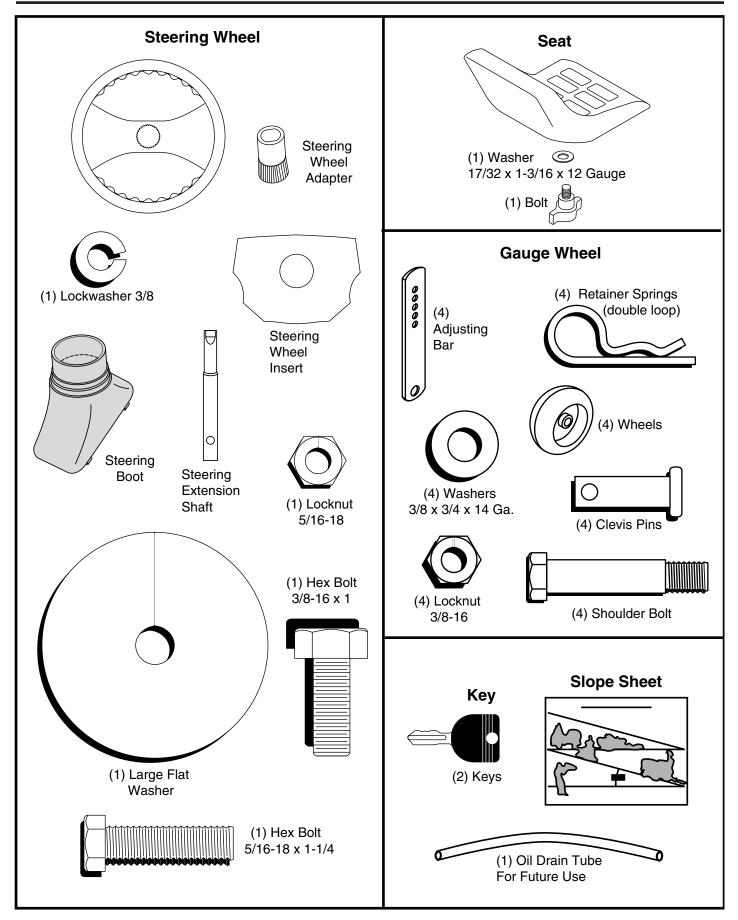
In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands.

# **TABLE OF CONTENTS**

SAFETY RULES	2-3
PRODUCT SPECIFICATIONS	
CUSTOMER RESPONSIBILITIES	4, 15-18
ASSEMBLY	
OPERATION	
MAINTENANCE SCHEDULE	15

SERVICE AND ADJUSTMENTS	
STORAGE	
TROUBLESHOOTING	
<b>REPAIR PARTS - TRACTOR</b>	
WARRANTY	

# **UNASSEMBLED PARTS**



# ASSEMBLY

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

### TOOLS REQUIRED FOR ASSEMBLY

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

(2) 1/2" wrenches

(1) 9/16" wrenches Tire pressure gauge

Pliers

Utility knife

When right or 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.
- Cut, from top to bottom, along lines on all four corners of carton, and lay panels flat.
- Check for any additional loose parts or cartons and remove.

### **BEFORE REMOVING TRACTOR FROM** SKID

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

ASSEMBLE EXTENSION SHAFT AND BOOT

Slide extension shaft onto lower steering shaft. Align mounting holes in extension and lower shafts and install 5/16 hex bolt and locknut. Tighten securely.

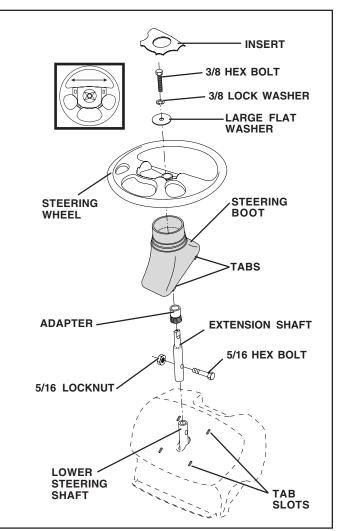
**IMPORTANT: TIGHTEN BOLT AND NUT SECURELY TO** 18-22 FT. LBS TORQUE.

Place tabs of steering boot over tab slots in dash and push down to secure.

#### INSTALL STEERING WHEEL

- Position front wheels of the tractor so they are pointing straight forward.
- Remove steering wheel adapter from steering wheel and slide adapter onto steering shaft extension.
- Position steering wheel so cross bars are horizontal (left to right) and slide inside boot and onto adapter.
- Assemble large flat washer, 3/8 lock washer, 3/8 hex bolt and tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective materials from tractor hood and grill. **IMPORTANT: CHECK FOR AND REMOVE ANY STAPLES**

IN SKID THAT MAY PUNCTURE TIRES WHERE TRACTOR IS TO ROLL OFF SKID.

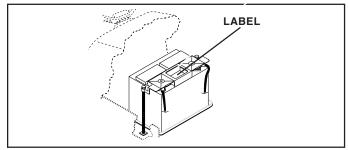




### HOW TO SET UP YOUR TRACTOR

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

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



# ASSEMBLY

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

Adjust seat before tightening adjustment knob.

- Remove adjustment knob and flat washer securing seat to cardboard packing and set aside for assembly of seat to tractor.
- Pivot seat upward and remove from the cardboard packing. Remove the cardboard packing and discard.
- Place seat on seat pan so head of shoulder bolt is positioned over large slotted hole in pan.
- Push down on seat to engage shoulder bolt in slot and pull seat towards rear of tractor.
- Pivot seat and pan forward and assemble adjustment knob and flat washer loosely. Do not tighten.
- 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.

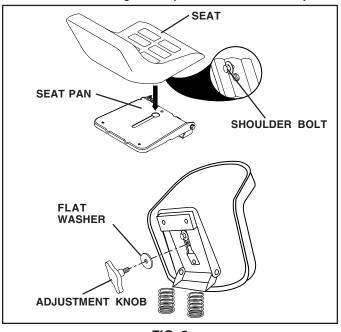


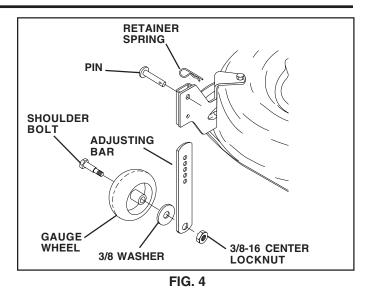
FIG. 3

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

# ASSEMBLE GAUGE WHEELS TO MOWER DECK (See Fig. 4)

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

- Slide gauge wheel bar down into bracket channel, Be sure that gauge wheel bar aligning holes are on top. Assemble gauge wheels as shown using shoulder bolts, 3/8 washers and 3/8-16 center locknuts and tighten securely.
- Adjust gauge wheels before operating mower. See "TO ADJUST GAUGE WHEELS" in the Operation section of this manual.



# TO ROLL TRACTOR OFF SKID (See Operation section, page 10, for location and function of controls)

- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in freewheeling position to disengage transmission (See "TOTRANSPORT" in the Operation section of this manual).
- Roll tractor forward off skid.
- Remove banding holding deflector shield up against tractor.

#### TO DRIVE TRACTOR OFF SKID (See Operation section, page 10, for location and function of controls)

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

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

Continue with the instructions that follow.

# ASSEMBLY

#### CHECK TIRE PRESSURE

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

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

#### CHECK DECK LEVELNESS

For best cutting results, mower housing should be properly leveled. See "TOLEVEL 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.

### ✓ CHECKLIST

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

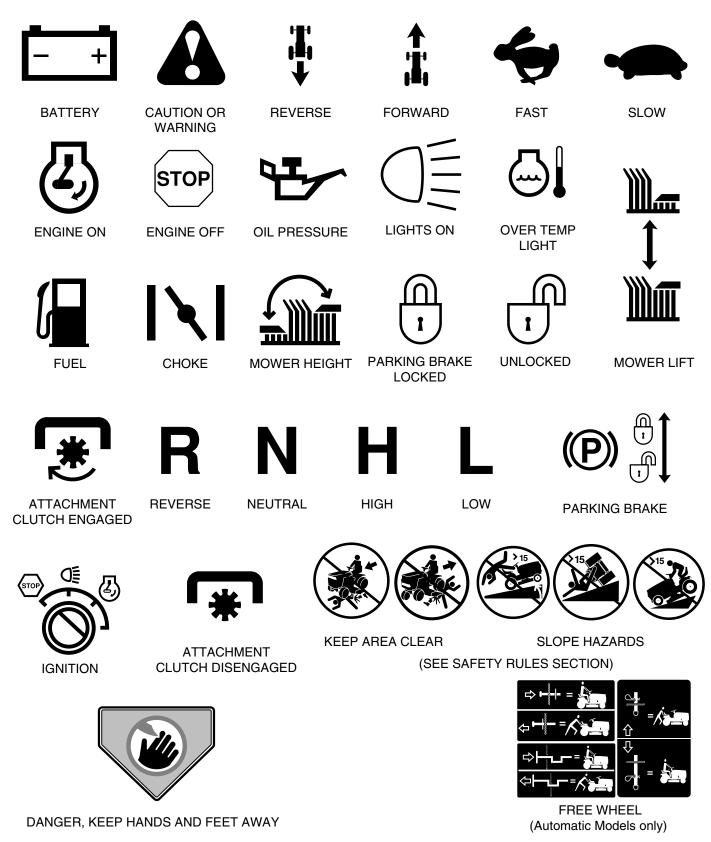
PLEASE REVIEW THE FOLLOWING CHECKLIST:

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

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

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

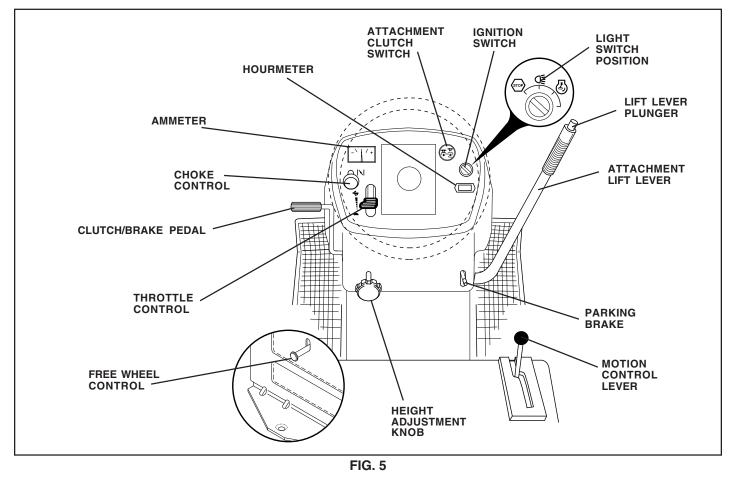
These symbols may appear on your tractor or in literature supplied with the product. Learn and understand their meaning.



### **KNOW YOUR TRACTOR**

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

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



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

**ATTACHMENT CLUTCH SWITCH**: Used to engage the mower blades, or other attachments mounted to your tractor. **AMMETER** - Indicates charging (+) or discharging (-) of battery.

LIGHT SWITCH: Turns the headlights on and off.

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.

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

HOURMETER - Indicates hours of operation.

**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.

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



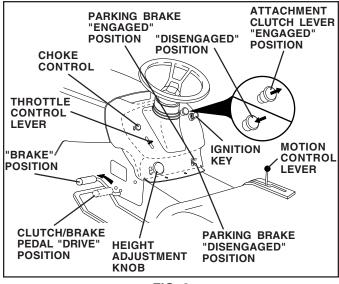
The operation of any tractor can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your tractor or performing any adjustments or repairs. We recommend a wide vision safety mask over spectacles or standard safety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

### HOW TO USE YOUR TRACTOR

#### TO SET PARKING BRAKE (See Fig. 6)

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.** 6

#### STOPPING (See Fig. 6)

#### MOWER BLADES -

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

GROUND DRIVE -

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

**IMPORTANT:** THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED. ENGINE -

• Move throttle control to slow position.

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

- Turn ignition key to "OFF" position and remove key. Always remove key when leaving tractor to prevent unauthorized use.
- Never use choke to stop engine.

**IMPORTANT:** LEAVING THE IGNITION SWITCH IN ANY POSITION OTHER THAN "OFF" WILL CAUSE THE BATTERY TO BE DISCHARGED, (DEAD).

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



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. 6)

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. 6)

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. 6)

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

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

# TO ADJUST MOWER CUTTING HEIGHT (See Fig. 6)

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

- Turn knob clockwise ( $\frown$ ) 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.

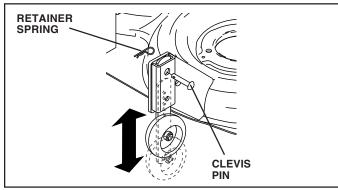
- The average lawn should be cut to approximately 2-1/2 inches during the cool season and to over 3 inches during hot months. For healthier and better looking lawns, mow often and after moderate growth.
- For best cutting performance, grass over 6 inches in height should be mowed twice. Make the first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

#### TO ADJUST GAUGE WHEELS (See Fig. 7)

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

**NOTE:**Adjust 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).
- Remove retainer spring and clevis pin which secure each gauge wheel bar.
- Lower gauge wheels to ground. Raise gauge wheels slightly to align holes in bracket and gauge wheel bar and insert clevis pin. Gauge wheels should be slightly off the ground.
- Replace retainer spring into clevis pin.
- Be sure all gauge wheels are in the same setting. **IMPORTANT:** BE SURE TO READJUST GAUGE WHEELS IF YOU CHANGE THE CUTTING HEIGHT OF THE MOWER DECK.

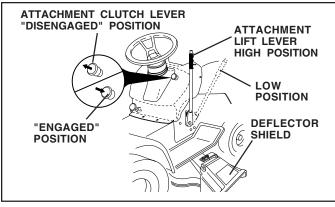




### TO OPERATE MOWER (See Fig. 8)

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

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





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

#### TO OPERATE ON HILLS



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

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

**IMPORTANT:** THE MOTION CONTROL LEVER DOES NOT RETURN TO NEUTRAL (N) POSITION WHEN THE CLUTCH/BRAKE PEDAL IS DEPRESSED.

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

#### TO TRANSPORT (See Figs. 5 and 9)

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 out and down into the slot and release so it is held in the disengaged position.
- 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.).

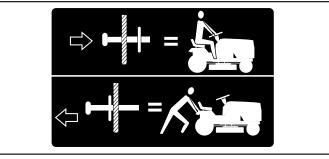


FIG. 9

#### TOWING CARTS AND OTHER ATTACHMENTS

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

### **BEFORE STARTING THE ENGINE**

#### CHECK ENGINE OIL LEVEL

- The engine in your tractor has been shipped, from the factory, already filled with summer weight oil.
- Check engine oil with tractor on level ground.
- Unthread and remove oil fill cap/dipstick; wipe oil off. Reinsert the dipstick into the tube and rest oil fill cap on the tube. Do not thread the cap onto the tube. Remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See "OIL VISCOSITY CHART" in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

#### ADD GASOLINE

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

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

**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.

#### TO START ENGINE (See Fig. 5)

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

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

• Pull choke control out for a cold engine start attempt. For a warm engine start attempt the choke control may not be needed.

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

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

#### WARM WEATHER STARTING (50° F and above)

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

#### COLD WEATHER STARTING (50° F and below)

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

#### AUTOMATIC TRANSMISSION WARM UP

- Before driving the unit in cold weather, the transmission should be warmed up as follows:
  - Be sure the tractor is on level ground.
  - Place the motion control lever in neutral. Release the parking brake and let the clutch/brake slowly return to operating position.
  - Allow one minute for transmission to warm up. This can be done during the engine warm up period.
- The attachments can be used during the engine warmup period after the transmission has been warmed up and may require the choke control be pulled out slightly.

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

#### PURGE TRANSMISSION



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**

- 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. 10).
- 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.

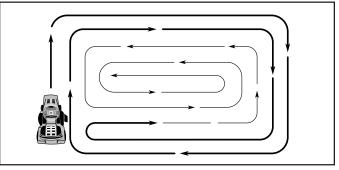


FIG. 10

AS	MAINTENANCE SCHEDUL L IN DATES YOU COMPLETE GULAR SERVICE	.E	SEFORE	EACHUS EVERY 8	HOURS	5 HOUR 5	SHOUF	AS HOUS	45 EASON EFORE	STOR!	<sup>GE</sup> IVICE	E DA	TES
	Check Brake Operation	~	<b>V</b>										
	Check Tire Pressure	V	V										
т	Check Operator Presence and Interlock Systems	~											
R	Check for Loose Fasteners	~				<b>V</b> 7		~					
A	Sharpen/Replace Mower Blades			<b>V</b> <sub>4</sub>									
C T	Lubrication Chart			V				V					
Ö	Check Battery Level			6									
R	Clean Battery and Terminals			V				~					
	Check Transaxle Cooling			<b>/</b>									
	Adjust Blade Belt(s) Tension					<b>V</b> 5							
	Adjust Motion Drive Belt(s) Tension					<b>1</b> 5							
	Check Engine Oil Level	~	<b>V</b>										
	Change Engine Oil			<b>1</b> ,2,3				~					
E	Clean Air Filter			<b>V</b> <sub>2</sub>									
N	Clean Air Screen			<b>V</b> 2									
G I N E	Inspect Muffler/Spark Arrester				~								
	Replace Oil Filter (If equipped)					<b>1</b> ,2							
	Clean Engine Cooling Fins					<b>V</b> 2							
	Replace Spark Plug					<b>/</b>	1						
	Replace Air Filter Paper Cartridge					<b>V</b> 2							
	Replace Fuel Filter	1					1						

1 - Change more often when operating under a heavy load or in high ambient temperatures. 5 - If equipped with adjustable systemed and a set of the s

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.

### **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**

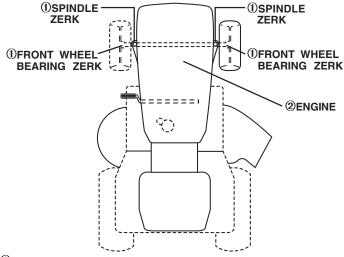
- Check engine oil level.
- Check brake operation.
- Check tire pressure.
- Check operator presence and interlock systems for proper operation.
- Check for loose fasteners.

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.

#### LUBRICATION CHART



①GENERAL PURPOSE GREASE ②REFER TO CUSTOMER RESPONSIBILITIES "ENGINE" SECTION

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

### TRACTOR

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

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

#### TIRES

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

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

#### **OPERATOR PRESENCE SYSTEM**

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

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

#### **BLADE CARE**

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

#### BLADE REMOVAL (See Fig. 11)

- 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.

**IMPORTANT:** TO ENSURE PROPER ASSEMBLY, CENTER HOLE IN BLADE MUST ALIGN WITH STAR ON MANDREL ASSEMBLY.

- Reassemble hex bolt, lock washer and flat washer in exact order as shown.
- Tighten bolt securely (27-35 Ft. Lbs. torque).

IMPORTANT: BLADE BOLT IS GRADE 8 HEAT TREATED.

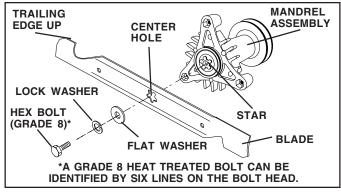


FIG. 11

#### TO SHARPEN BLADE (See Fig. 12)

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

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

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

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

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

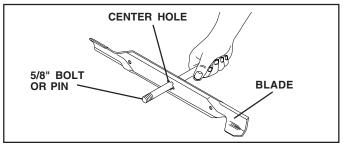


FIG. 12

#### BATTERY

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

- Keep battery and terminals clean.
- Keep battery bolts tight.
- Keep small vent holes open.
- Recharge at 6-10 amperes for 1 hour.

**NOTE:** The original equipment battery on your tractor is maintenance free. Do not attempt to open or remove caps or covers. Adding or checking level of electrolyte is not necessary.

#### TO CLEAN BATTERY AND TERMINALS

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

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

#### **V-BELTS**

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

#### TRANSAXLE COOLING

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

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

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

#### TRANSAXLE PUMP FLUID

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

### ENGINE

#### LUBRICATION

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

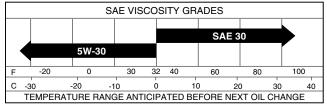


FIG. 13

**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 every 50 hours of operation or at least once a year if the tractor is not used for 50 hours in one year. Check the crankcase oil level before starting the engine and after each eight (8) hours of operation. Tighten oil fill cap/ dipstick securely each time you check the oil level.

#### TO CHANGE ENGINE OIL (See Figs. 13 & 14)

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

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

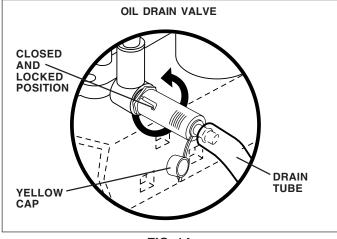


FIG. 14

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

#### **CLEAN AIR SCREEN**

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.

#### **AIR FILTER**

Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 50 hours of operation or every season, whichever occurs first.

See engine manual.

#### MUFFLER

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

#### SPARK PLUGS

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

#### **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.

#### See engine manual.

#### IN-LINE FUEL FILTER (See Fig. 15)

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

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

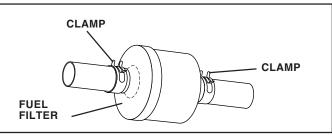


FIG. 15

#### CLEANING

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

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



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

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

### TRACTOR

#### TO REMOVE MOWER (See Fig. 16)

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 deck is to be mounted on the tractor, remove the front links.

#### TO INSTALL MOWER (See Fig. 16)

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

#### TO LEVEL MOWER HOUSING

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

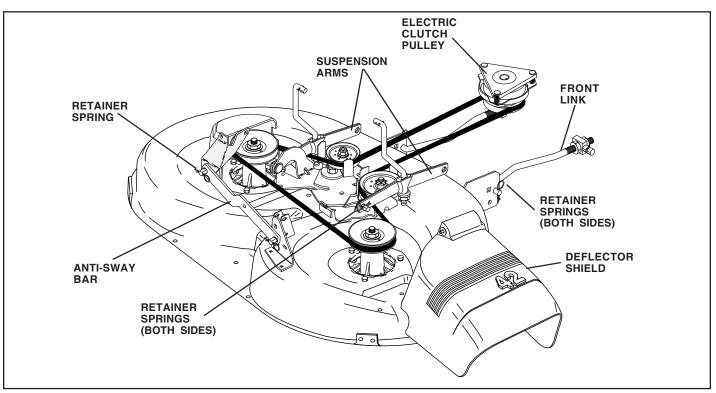


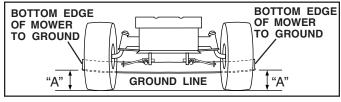
FIG. 16

#### SIDE-TO-SIDE ADJUSTMENT (See Figs. 17 and 18)

- 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**: Three full turns of adjustment nut will change mower height about 1/8".

Recheck measurements after adjusting.



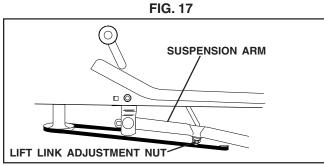


FIG. 18

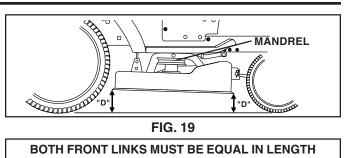
FRONT-TO-BACK ADJUSTMENT (See Figs. 19 and 20)

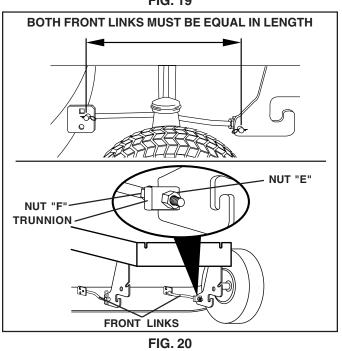
**IMPORTANT:** DECK MUST BE LEVEL SIDE-TO-SIDE. IF THE FOLLOWING FRONT-TO-BACK ADJUSTMENT IS NECESSARY, BE SURE TO ADJUST BOTH FRONT LINKS EQUALLY SO MOWER WILL STAY LEVEL SIDE-TO-SIDE.

To obtain the best cutting results, the mower housing should be adjusted so that the front is approximately 1/8" to 1/2" 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.
- 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 1/8" to 1/2" 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 1/8" to 1/2" lower at front than rear, tighten nut "F" against trunnion on both front links.
- Recheck side-to-side adjustment.





# TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 21)

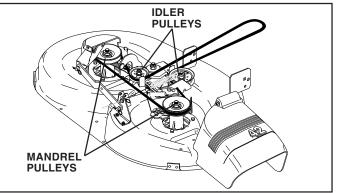
The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake.

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.

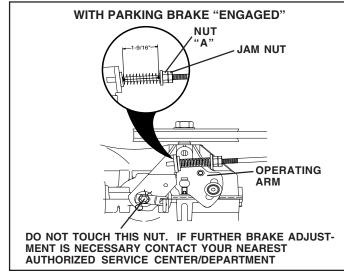


### TO ADJUST BRAKE (See Fig. 22)

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

If tractor requires more than six (6) feet stopping distance at high speed in highest gear on a level dry concrete or paved surface, 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 1-9/16", loosen jam nut and turn nut "A" until distance becomes 1-9/16". Retighten jam nut against nut "A".
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest authorized service center/department.





# TO REPLACE MOTION DRIVE BELT (See Fig. 23)

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 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.

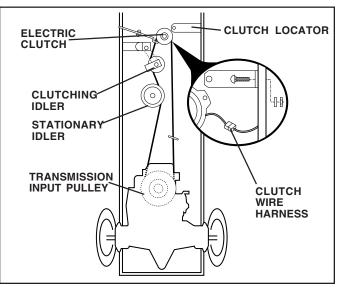


FIG. 23

#### TRANSMISSION REMOVAL/REPLACEMENT

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

#### TRANSAXLE MOTION CONTROL LEVER NEUTRAL ADJUSTMENT(See Fig. 24)

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

- Loosen adjustment bolt in front of the right rear wheel, and lightly tighten.
- Start engine and move motion control lever until tractor does not move forward or backward.
- Hold motion control lever in that position and turn engine off.
- While holding motion control lever in place, loosen the adjustment bolt.
- Move motion control lever to the neutral (N) (lock gate) position.
- Tighten adjustment bolt securely.

**NOTE:** If additional clearance is needed to get to adjustment bolt, move mower deck height to the lowest position.

After above adjustment is made, if the tractor still creeps forward or backward while motion control lever is in neutral position, follow these steps:

- Loosen the adjustment bolt.
- Move the motion control lever 1/4 to 1/2 inch in the direction it is trying to creep.
- Tighten adjustment bolt securely.
- Start engine and test.
- If tractor still creeps, repeat above steps until satisfied.

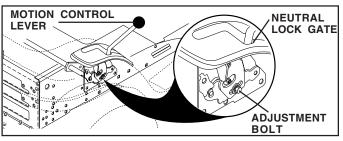


FIG. 24

### 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/department.

# TO REMOVE WHEEL FOR REPAIRS (See Fig. 25)

- Block up axle securely.
- Remove axle 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 axle cover.

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

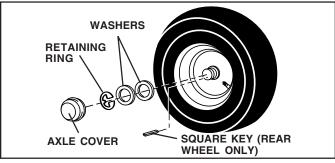


FIG. 25

# TO START ENGINE WITH A WEAK BATTERY (See Fig. 26)



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. (See "BATTERY" in the Customer Responsibilities section of this manual).

If "jumper cables" are used for emergency starting, follow this procedure:

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

TO ATTACH JUMPER CABLES -

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

TO REMOVE CABLES, REVERSE ORDER -

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

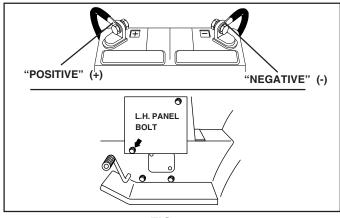


FIG. 26

#### **REPLACING BATTERY (See Fig. 27)**



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

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

- Lift hood to raised position.
- Remove terminal guard.
- Disconnect BLACK battery cable then RED battery cable and carefully remove battery from tractor.
- Install new battery with terminals in same position as old battery.
- Reinstall terminal guard.
- First connect RED battery cable to positive (+) battery terminal with hex bolt and keps nut as shown. Tighten securely.

- Connect BLACK grounding cable to negative (-) battery • terminal with remaining hex bolt and keps nut. Tighten securely
- Close terminal access doors.
- Close hood.

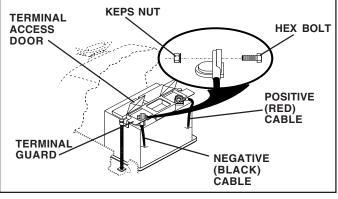


FIG. 27

#### TO REPLACE HEADLIGHT BULB

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

#### INTERLOCKS AND RELAYS

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

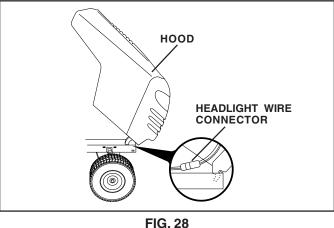
Check wiring. See electrical wiring diagram in the Repair Parts section.

#### TO REPLACE FUSE

Replace with 20 amp automotive-type plug-in fuse. The fuse holder is located behind the dash.

#### TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 28)

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



#### ENGINE

#### TO ADJUST THROTTLE CONTROL CABLE

The throttle control has been preset at the factory and adjustment should not be necessary. If adjustment is necessary, see engine manual.

#### TO ADJUST CARBURETOR

The carburetor has been preset 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, see engine manual.

# 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.
- If battery is removed from tractor for storage, do not store battery directly on concrete or damp surfaces.

### ENGINE

#### FUEL SYSTEM

**IMPORTANT**: IT IS IMPORTANT TO PREVENT GUM DEPOSITS FROM FORMING IN ESSENTIAL FUEL SYSTEM PARTS SUCH AS CARBURETOR, FUEL FILTER, FUEL HOSE, OR TANK DURING STORAGE. ALSO, EXPERIENCE INDICATES THAT ALCOHOL BLENDED FUELS (CALLED GASOHOL OR USING ETHANOL OR METHANOL) CAN ATTRACT MOISTURE WHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

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

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

#### **ENGINE OIL**

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

#### CYLINDER(S)

- 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.

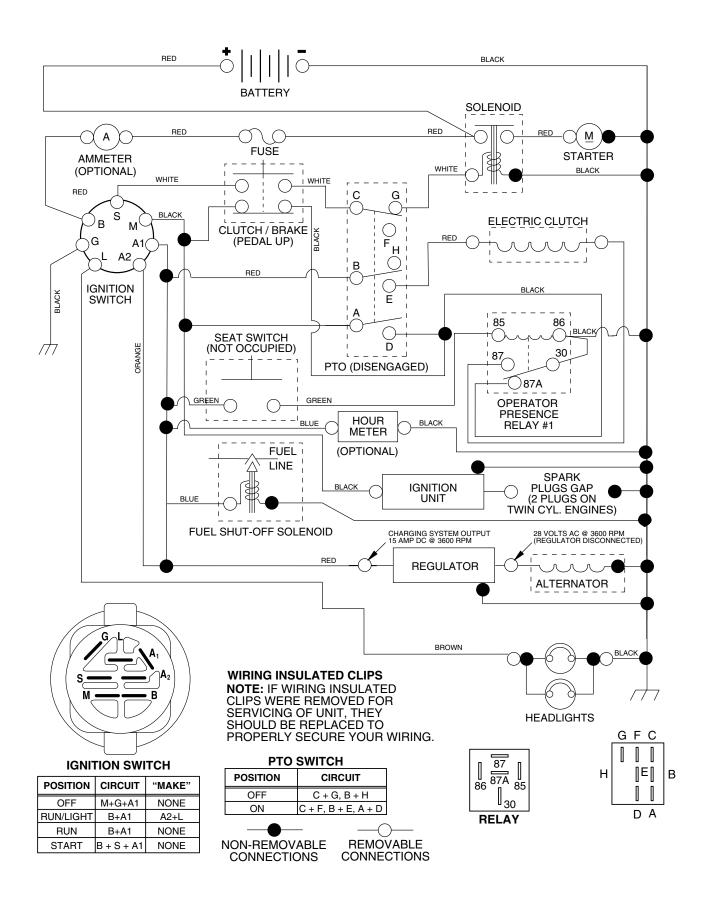
# **TROUBLESHOOTING POINTS**

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>See "To Adjust Carburetor" in Service Adjustments section.</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>See "To Adjust Carburetor" in Service Adjustments section.</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 start1.Weak or dead battery. 2.2.Corroded battery terminals. 3.3.Loose or damaged wiring. 4.4.Faulty solenoid or starter.		<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       1. Cutting too much grass/too fast.         2. Throttle in "CHOKE" position.         3. Build-up of grass, leaves and trash under mower.         4. Dirty air filter.         5. Low oil level/dirty oil.         6. Faulty spark plug.         7. Dirty fuel filter.         8. Stale or dirty fuel.         9. Water in fuel.         10. Spark plug wire loose.         11. Dirty engine air screen/fins.         12. Dirty/clogged muffler.         13. Loose or damaged wiring.         14. Carburetor out of adjustment.         15. Engine valves out of adjustment.		<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/replace muffler.</li> <li>Check all wiring.</li> <li>See "To Adjust Carburetor" in Service Adjustments section.</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>

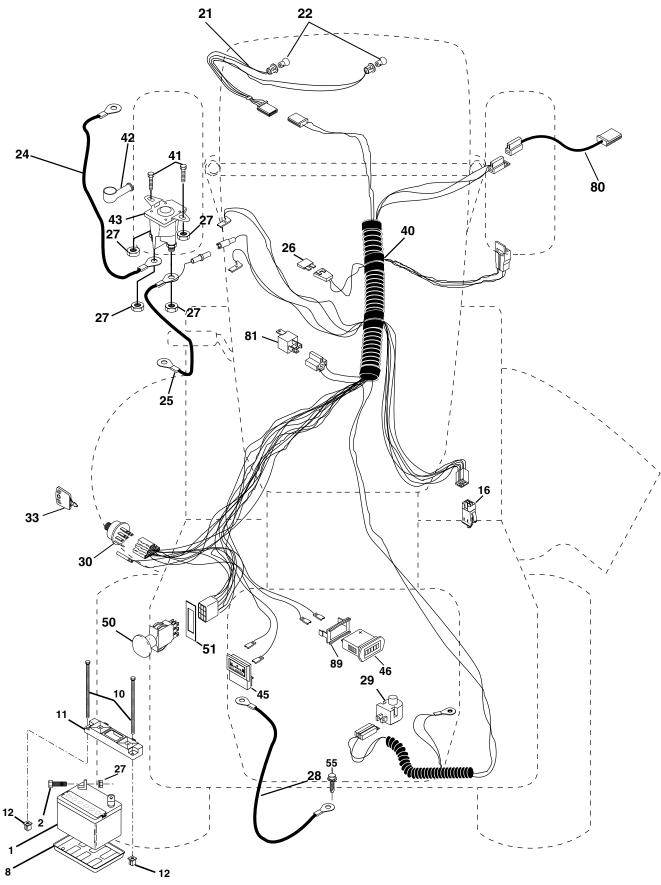
# **TROUBLESHOOTING POINTS**

PROBLEM	CAUSE	CORRECTION
Engine continues to run when operator leaves seat with attachment clutch engaged       1. Faulty operator-safety presence control system.		<ol> <li>Check wiring, switches and connections. If not corrected, contact an authorized service center/ department.</li> </ol>
Poor cut - uneven	<ol> <li>Worn, bent or loose blade.</li> <li>Mower deck not level.</li> <li>Buildup of grass, leaves, and trash under mower.</li> <li>Bent blade mandrel.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Replace blade. Tighten blade bolt.</li> <li>Level mower deck.</li> <li>Clean underside of mower housing.</li> <li>Replace blade mandrel.</li> <li>Clean around mandrels to open vent holes.</li> </ol>
Mower blades will not rotate	<ol> <li>Obstruction in clutch mechanism.</li> <li>Worn/damaged mower drive belt.</li> <li>Frozen idler pulley.</li> <li>Frozen blade mandrel.</li> </ol>	<ol> <li>Remove obstruction.</li> <li>Replace mower drive belt.</li> <li>Replace idler pulley.</li> <li>Replace blade mandrel.</li> </ol>
Poor grass discharge	<ol> <li>Engine speed too slow.</li> <li>Travel speed too fast.</li> <li>Wet grass.</li> <li>Mower deck not level.</li> <li>Low/uneven tire air pressure.</li> <li>Worn, bent or loose blade.</li> <li>Buildup of grass, leaves and trash under mower.</li> <li>Mower drive belt worn.</li> <li>Blades improperly installed.</li> <li>Improper blades used.</li> <li>Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</li> </ol>	<ol> <li>Place throttle control in "FAST" position.</li> <li>Shift to slower speed.</li> <li>Allow grass to dry before mowing.</li> <li>Level mower deck.</li> <li>Check tires for proper air pressure.</li> <li>Replace/sharpen blade. Tighten blade bolt.</li> <li>Clean underside of mower housing.</li> <li>Replace mower drive belt.</li> <li>Reinstall blades sharp edge down.</li> <li>Replace with blades listed in this manual.</li> <li>Clean around mandrels to open vent holes.</li> </ol>
Headlight(s) not working (if so equipped)1. Switch is "OFF". 2. Bulb(s) or lamp(s) burned out. 3. Faulty light switch. 4. Loose or damaged wiring. 5. Blown fuse.		<ol> <li>Turn switch "ON".</li> <li>Replace bulb(s) or lamp(s).</li> <li>Check/replace light switch.</li> <li>Check wiring and connections.</li> <li>Replace fuse.</li> </ol>
Battery will not charge1. Bad battery cell(s).2. Poor cable connections.3. Faulty regulator (if so equipped).4. Faulty alternator.		<ol> <li>Replace battery.</li> <li>Check/clean all connections.</li> <li>Replace regulator.</li> <li>Replace alternator.</li> </ol>
<ol> <li>Loss of drive</li> <li>Freewheel control in "disengaged" position.</li> <li>Motion drive belt worn, damaged, or broken.</li> <li>Air trapped in transmission during shipment or servicing.</li> </ol>		<ol> <li>Place freewheel control in "engaged" position.</li> <li>Replace motion drive belt.</li> <li>Purge transmission.</li> </ol>
Engine "backfires" when turning engine "OFF"       1. Engine throttle control not set at "SLOW" position for 30 seconds before stopping engine.		<ol> <li>Move throttle control to "SLOW" position and allow to idle for 30 seconds before stopping engine.</li> </ol>

# TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 SCHEMATIC



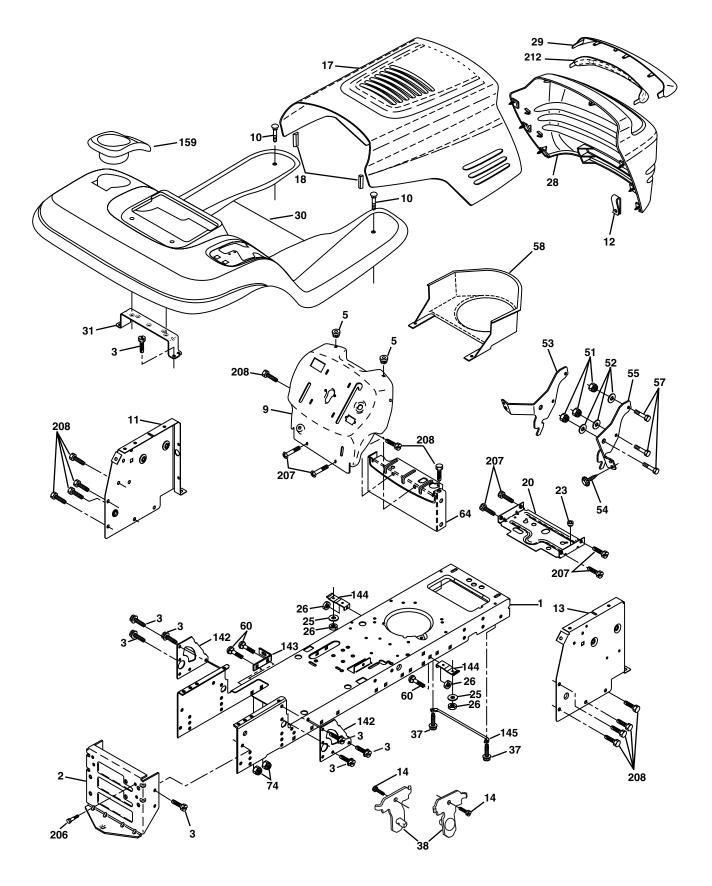
TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 ELECTRICAL



TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 ELECTRICAL

KEY NO.	Part No.	DESCRIPTION
1 2 8 10 11 22 4 26 27 28 29 33 40 41 42 45 60 51 55 80 89 89	5321449-27 8747604-12 5321248-86 5321452-11 5321501-09 5321457-69 5321536-64 5321661-81 5320041-52 5321461-48 5321247-80 5321751-58 8735104-00 5321751-58 8735104-00 5321454-91 5321607-84 5321755-66 5321404-01 5321784-41 8711104-08 5321315-63 5321788-61 5321228-22 5321696-35 5321746-51 5321404-05 8174905-08 5321466-85 5321097-48 5321696-39	Bolt Hex Hd 1/4-20unc X 3/4 Tray Battery Bolt Brt Frt 1/4-20 x 75 Ainc Holddown Battery Front Mount Nut Push Nylon 1/4" Battery Frt Switch Interlock Push-In Harness Asm Light W/4152j Bulb Light #1156 Cable Battery 6 Ga 22" red w/16 wire Cable Battery 6 Ga 21" red Fuse Nut Keps Hex 1/4-20 Unc Cable Ground 6 Ga 21" black Switch Plunger Nc Gray Switch Ign Key Ign Molded Generic Harness Ign. Bolt Blk Fin Hex 1/4 - 20 x 1/2 Cover Terminal Red Solenoid Ammeter Rectangular 15 Amp Meter Hour Switch PTO Ring Retainer TTO Screw Thdrol 5/16-18 x 1-1/2 Tyt Harness Clutch Evx Relay Asm. Bracket Snap-In Hourmeter
NOTE	All compone 1 inch = 25.4	ent dimensions given in U.S. inches. 4 mm.

TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 CHASSIS AND ENCLOSURES

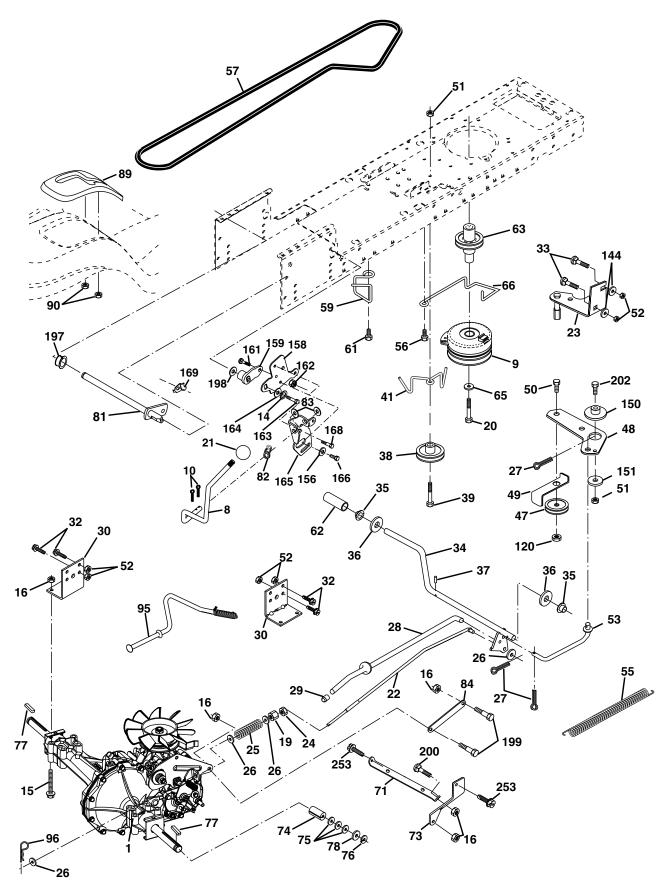


TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 CHASSIS AND ENCLOSURES

Key No.	PART NO.	DESCRIPTION
1 2 3 5 9 10 11 2 13 14 17 18 20 3 25 26 28 29 30 13 73 28 15 25 35 45 55 75 80 64 74 14 31 14 15 90 20 72 20 12 2	532 17 46-19 532 17 65-54 817 06 06-12 532 15 52-72 532 17 16-82 872 14 06-08 532 15 59-27 532 14 56-60 532 17 21-06 817 49 06-08 532 16 22-37 532 12 69-38 532 15 64-37 532 12 40-28 819 13 13-12 873 80 06-00 532 17 04-75 532 17 66-45 532 18 10-01 532 13 99-76 817 49 05-08 532 17 57-10 873 80 04-00 819 09 14-16 532 14 46-97 532 16 14-64 532 14 46-97 532 16 14-64 532 17 49-30 872 14 06-06 532 17 57-02 532 15 49-66 532 17 55-82 532 15 65-24 532 15 65-24 532 15 65-28 817 67 05-08 817 67 06-08 532 15 62-29 All compone	Bracket Asm Pivot Mower Rear Nut Lock w/Insert 1/4-20 Washer 9/32 x 7/8 x 16 Ga. Bracket Grille Lh Screw Hex Wshd 8-18 x 7/8 Bracket Grille Rh Bolt Fin Hex 1/4-20 Unc x 3/4 Duct Air Bolt RDHD SQNK 3/8-16 x 3/4 Dash Lower Stlt Nut Crownlock 3/8-16 Plate Reinforcement Stlt Bracket Swaybar Chassis Bracket Ft Rest Rod Pivot Chassis Hood Cupholder YTGT Grey Bolt Shoulder 5/16-18 TT Screw Thdrol 5/16-18 x 1/2 TYTT

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

TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 DRIVE

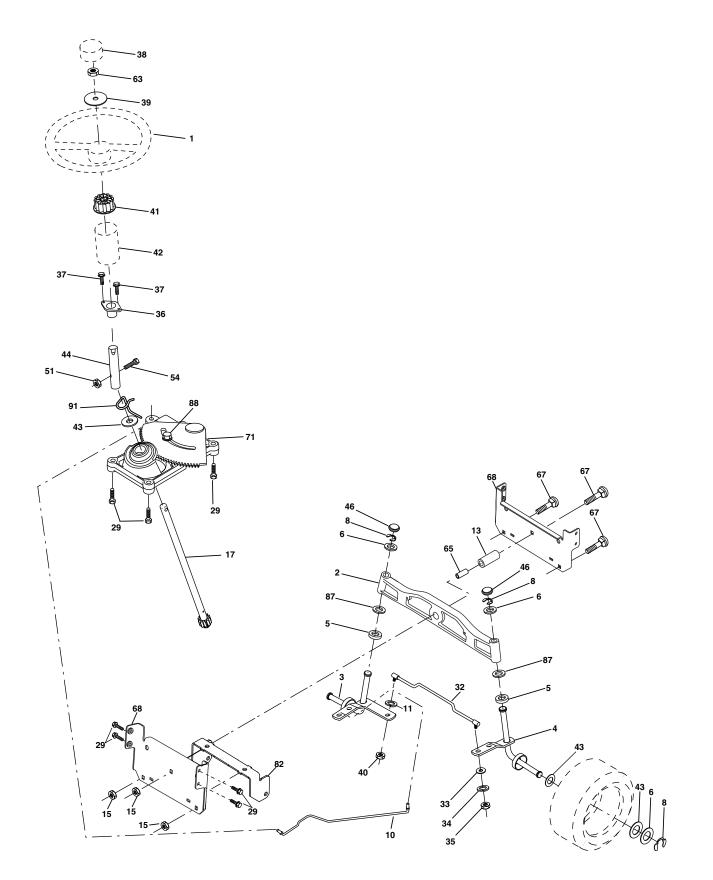


# TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 DRIVE

Key No.	PART NO.	DESCRIPTION	Key No.	PA NC
1		Transaxle, Hydro 314-0510 (Order Parts From Transaxle Manufacturer)	62 63 65	532 532 810
8	5321658-66	Rod Shift Fender Adjust STLT	66	532
9	532 16 08-89		71	532
10	8760204-16	Pin Cotter 1/8 x 1 CAD	73	532
14	8100404-00	Washer Lock Hvy Helical	74	532
15	8744905-44	Bolt Hex 5/16-18 Unc Flghd	75	532
16	8738005-00	Nut Lock Hex W/Ins. 5/16-18 Unc P	76	812
19	8738006-00	Nut Lock Hex W/Ins 3/8-16 Unc	77	532
20	532 15 02-80	Bolt, Hex	78	532
21	5321408-45	Knob Deluxe 1/2-13 UNC BLK/BLK	81	532
22	5321694-98	Rod, Brake Hydro	82	532
23	5321712-58	Bracket Asm Anti-Rot EVX	83	819
24	8733506-00	Nut Hex Jam 3/8-16 UNC	84	532
25	5321068-88	Spring, Brake Rod	89	532
26 27	8191313-16 8760204-12	Washer Pin Cotter 1/8 x 3/4 CAD.	90 95	532 532
28	532 17 57-65	Rod, Parking Brake	95 96	532
29	532 07 16-73	Cap,Parking Brake	120	873
30	532 16 95-92	Bracket, Transaxle	144	819
32	8747605-12	Bolt Hex Hd 5/16-18 Unc x 3/4	150	532
33	8721405-06	Bolt Carriage 5/16-18unc x 3/4	151	819
34	532 17 55-78	Shaft, Foot Pedal	156	532
35	5321201-83	Bearing, Nylon	158	532
36	8192116-16	Washer	159	532
37	532 12 49-63	Pin, Roll	161	872
38	5321791-14	Pulley, Composite, Flat	162	873
39	8747606-48	Bolt, Fin, Hex 3/8-16 x 3	163	874
41	532 17 55-56	Keeper, Belt Idler	164	819
47	532 12 77-83	Pulley, Idler, V-Groove Plastic	165	532
48	532 15 44-07	Bellcrank Clutch Grnd Drv STL	166	532
49	5321232-05	Retainer, Belt Style Spring	168	532
50	8747606-24	Bolt Hex Hd 3/8-16 Unc x 1-1/2	169	532
51	8736806-00	Nut Nut Crown Look 5/10, 10	197	532
52	8736805-00	Nut Crown Lock 5/16-18	198	532
53 55	532 10 57-10 532 10 57-09	Link, Clutch	199 200	532 872
56	817 06 06-20	Spring, Return, Clutch Screw 3/8-16 x 1-1/4	200	872
50 57	5321402-94	V-Belt, Ground Drive	202 253	817
59	532 16 96-91	Keeper, Center Span		
61	817 12 06-14		NOTE	
5.	0.7 1200 11			1

KEY	PART	
NO.	NO.	DESCRIPTION
62 63 65 66 71 73 74 75 76 77 78 82 88 89 95 9120 144 155 158 9120 144 155 166 168 197 198 9202 23 <b>NOTE</b>		Cover, Pedal Pulley, Egine Washer Lock Hvy HLCL Spr 7/16 Keeper Belt Engine Strap Torque Lh Hydro Spacer, Axle Washer 25/32 x 1-1/4 x 16 Ga. E-Ring Key, Square Washer 25/32 x 1-5/8 x 16 Ga Shaft Asm Cross Tapered Spring Torsion T/A Washer 17/32 x 3/4 x 16 Ga. Link Transaxle Console, Shift Nut Self Thd 1/4 Control Asm. Bypass Hydro Retainer Spring 1" Zinc/Cad Nut Lock Flg 3/8-16 Washer 11/32 x 5/8 x 16 Ga. Spacer Retainer Washer 13/32 x 2 x 10 Ga. Washer 13/32 x 2 x 10 Ga. Washer 13/32 x 2 x 10 Ga. Washer Srrted 5/16ID x 1.125 Bracket Shift Mount Hub Tapered Flange Shift Lt Bolt Rdhd Sqnk 1/4-20 unc x 1 Gr 5 Washer 5/8 x .281 x 10 Ga Bracket Pivot Lever Screw 5/16-18 x 5/8 Bolt Shoulder 5/16-18 x .561 Plate Fastening STLT/CRD Nyliner Snap 5/8" ID Washer Nyl 7/8 ID x .105 Hyd Bolt Shoulder 5/16-18 Unc x 1 Bolt Screw 3/8-16 x .75
	1  inch = 25.4	4 [1][1]

TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 STEERING ASSEMBLY

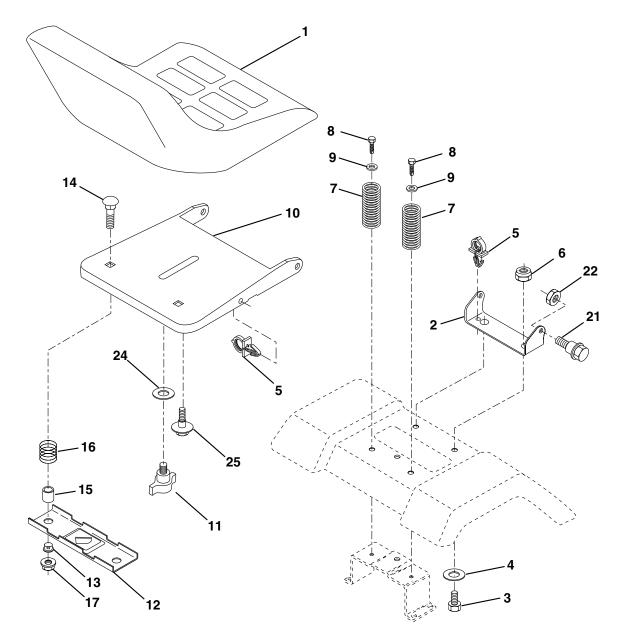


TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 STEERING ASSEMBLY

KEY NO.	Part No.	DESCRIPTION
1 2 3 4 5 6 8 10 11 13 15 17 29 22 33 4 5 6 8 7 8 9 40 41 42 43 44 65 67 87 89 40 41 42 43 44 65 67 87 88 7 89 40 41 56 80 78 80 80 78 80 80 78 80 70 78 80 78 80 78 80 78 80 78 80 78 80 78 80 78 80 78 80 78 80 78 80 70 78 80 77 80 80 78 80 78 80 70 80 70 80 70 80 74 80 70 80 77 80 78 80 70 80 80 70 80 80 80 70 80 80 80 80 80 80 80 80 80 80 80 80 80	NO. 532 16 66-27 532 17 23-93 532 16 98-40 532 16 98-39 532 12 49-31 532 12 17-48 812 00 00-29 532 17 51-21 810 04 06-00 532 13 65-18 532 14 52-12 532 17 78-76 817 06 06-12 532 17 78-76 817 06 06-12 532 17 78-76 817 06 06-12 532 17 78-76 819 04 05-00 873 54 05-00 532 15 50-99 532 15 29-27 532 16 66-26 819 13 24-11 532 15 99-45 532 16 96-34 532 12 12-32 873 80 05-00 874 78 05-20 874 78 06-16 532 16 98-37 532 16 98-35 532 17 39-66 532 17 39-66 532 17 51-18	Wheel Steering Axle Cast Lt Machined Spindle Asm LH Spindle Asm RH Bearing Race Thrust Harden Washer 25/32 X 1-5/8 X 16 Ga Ring Klip #t5304-75 Link Drag Washer Lock Hvy HIcl Spr 3/8 Spacer Brg Axle Front Nut Hex Flange Lock Shaft Asm Strg Screw 3/8-16x3/4 Rod Tie Washer 11/32 x 3/4 x 16 Ga. Washer Lock Hvy Helical 5/16 Nut Crown Lock 5/16-24Unf Bushing Strg Screw Insert Cap Strg Wh Washer 13/32 x 1-1/20 x 11 Ga Lock nut Adaptor Wheel Strg Boot Steering Shaft Washer 25/32 X 1 1/4 X 16 Ga Extension Steering Shaft LR/LT Cap Spindle Fr Top Blk Nut Lock Hex w/Ins 5/16-18 Bolt Fin Hex 3/8-16unc x 1 Gr. 5 Spacer Brace Axle Bolt Rdhd Sq 3/8-16 x 2-1/4 Axle, Brace Steering Asm Bracket Susp Chassis Front Washer Flat .781 x 1-1/2 x .14
88 91	532 17 55-53	Bolt Shoulder 7/16-20 Clip Steering

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

TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 SEAT ASSEMBLY



KEY	PART	
NO.	NO.	DESCRIPTION

- 1 5321408-40 Seat
- 532 14 05-51 Bracket Pivot Seat 8 720 2
- 3 871 11 06-16 Bolt Fin Hex 3/8-16 x 1
- 4 5 6 7 8191316-10 Washer Flat 13/32 x 1.0 x 10 Ga.
- 5321450-06 Clip Push-In
- 873 80 06-00 Nut Hex w/Ins. 3/8-16 Unc
- 532 12 41-81 Spring Seat Cprsn 2 250 Blk Zi 817 00 06-16 Screw 3/8-16 x 1
- 8
- 9 8191316-14 Washer 13/32 x 1.0 x 14 Ga.
- 10 5321748-94 Pan Seat
- 5321663-69 Knob Seat Adj Wingnut 11
- 5321212-46 Bracket Mounting Switch 12

KEY	PART
NO.	NO.

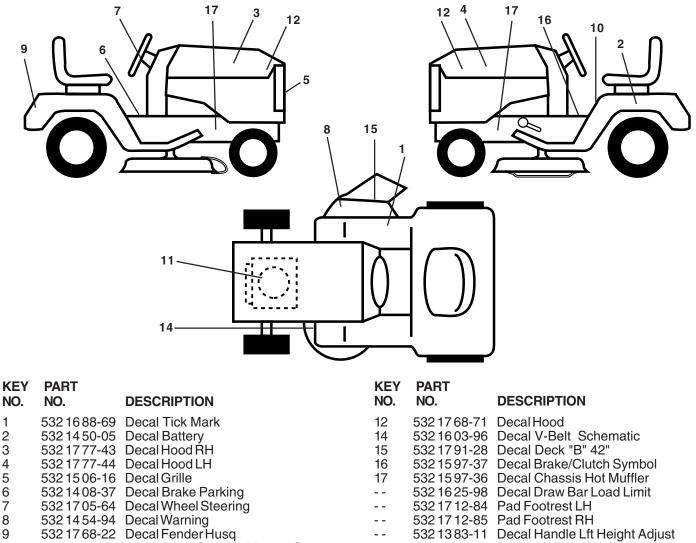
13

14

#### DESCRIPTION

- 532 12 12-48 Bushing Snap Blk Nyl 50 Id
- 872 05 04-12 Bolt Rdhd Sqnk 1/4-20x1-1/2
- 532 12 12-49 Spacer Split 28 x .88 Zinc 532 12 37-40 Spring Cprsn Plate 15
- 16
- 532 12 39-76 Nut Lock 1/4 Lge Flg Gr 5 Zinc 17
- 532 17 18-52 Bolt Shoulder 5/16-18 Unc 21
- 22 8738005-00 Nut Hex Lock W/Ins 5/16-18
- 24 8191719-12 Washer 17/32 X 1 -3/16 X 12 Ga.
- 25 5321270-18 Bolt Shoulder 5/16-18 X 62
- NOTE: All component dimensions given in U.S. inches. 1 inch = 25.4 mm

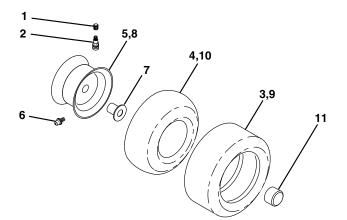
TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 DECALS



- 10 532 14 54-98 Decal Read Owner's Manual Syms
- 11 532 18 09-97 Decal Engine

12	5321768-71	Decal Hood
14	5321603-96	Decal V-Belt Schematic
15	5321791-28	Decal Deck "B" 42"
16	5321597-37	Decal Brake/Clutch Symbol
17	5321597-36	Decal Chassis Hot Muffler
	532 16 25-98	Decal Draw Bar Load Limit
	5321712-84	Pad Footrest LH
	532 17 12-85	Pad Footrest RH
	5321383-11	Decal Handle Lft Height Adjust
	5321692-10	Decal By Pass Lt Hydro
	532 18 08-26	Manual Ówner's (English)

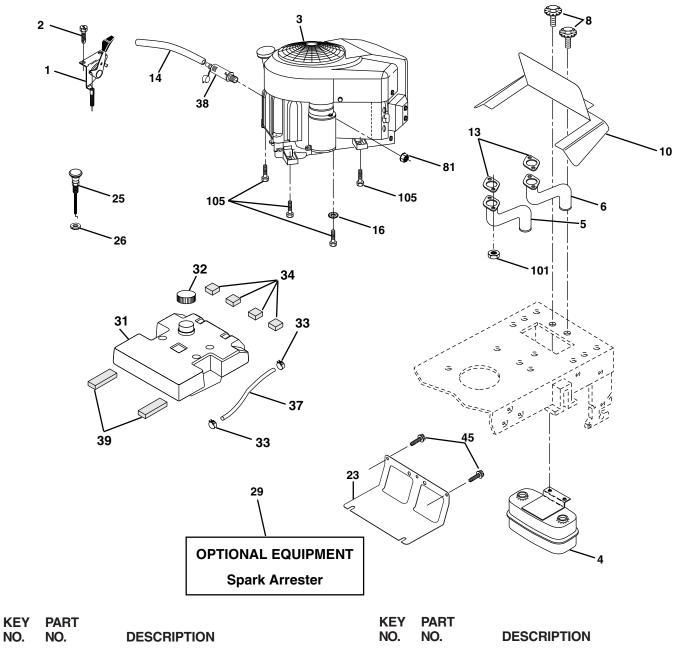
#### WHEELS & TIRES



KEY NO.	Part No.	DESCRIPTION
1 2 3 4 5 6 7 8 9 10 11	$\begin{array}{c} 5320651\text{-}39\\ 5321062\text{-}22\\ 5320599\text{-}04\\ 5321383\text{-}36\\ 5321249\text{-}57\\ 5321249\text{-}59\\ 5321383\text{-}37\\ 5321220\text{-}82\\ 5321220\text{-}82\\ 5321249\text{-}26\\ 5321750\text{-}39\\ \end{array}$	Cap Valve Tire Stem Valve Tire F Ts 15 X 6 0 - 6 Service Tube Front (Service Item Only) Rim Asm 6"front Silver Service Fitting Grease (Front Wheel Only) Bearing Flange (Front Wheel Only) Rim Asm 8"rear Silver Service Tire R Ts 20x10-8 C Service Tube Rear (Service Item Only) Cap Axle Blk 1 50 X 1 00 Sealant, Tire (10 oz. Tube)

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

TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 ENGINE

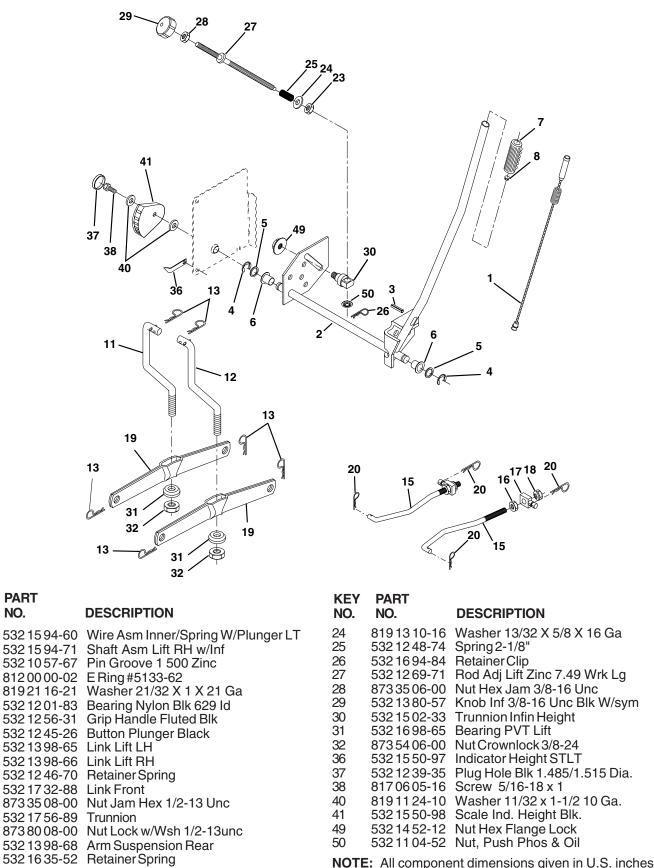


1 2 3		Control Throt Flg Screw Hex Thd Cut 1/4-20x5/8 T Engine KAWA FH451V (Order Parts from Engine Manufacturer)
4	532 14 97-23	Muffler Asm Twin Lo-Tone
5		Exhaust Tube Lh
6	5321760-68	Exhaust Tube Rh
8	532 17 18-77	Bolt 5/16-18unc x 3/4 W/Sems
10	5321466-29	Shield Browning
13	5321780-84	Gasket Muffler
14	5321484-56	Tube Drain Oil Easy
16		Washer Lock Ext Tooth 3/8
23	5321698-37	Shield Browning
25		Choke Control

NO.

KEY NO.	PART NO.	DESCRIPTION	
26		Nut, Keps 3/8-24 Unf	
29	5321371-80	Kit Spark Arrestor (Flat Scrn)	
31	5321571-03		
32	5321405-27	Cap Asm Fuel Top N/Lany Vented	
33	5321234-87	Clamp Hose Blk	
34	5321060-82		
37	5321421-58	Line Fuel	
38		Plug Drain Oil (Order from Engine	
		Manufacturer)	
39	5321092-27	Pad, Idler	
45	8170006-12	Screw Hexwsh Thdr 3/8-16 x 3/4	
81	5321633-05	Nut Flange M-8-1.25	
105	8171206-16	Screw 3/8-16 x 1	
<b>NOTE:</b> All component dimensions given in U.S. inches 1 inch = 25.4 mm			

TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 **MOWER LIFT** 



5321108-07 Nut Special

KEY

NO.

3

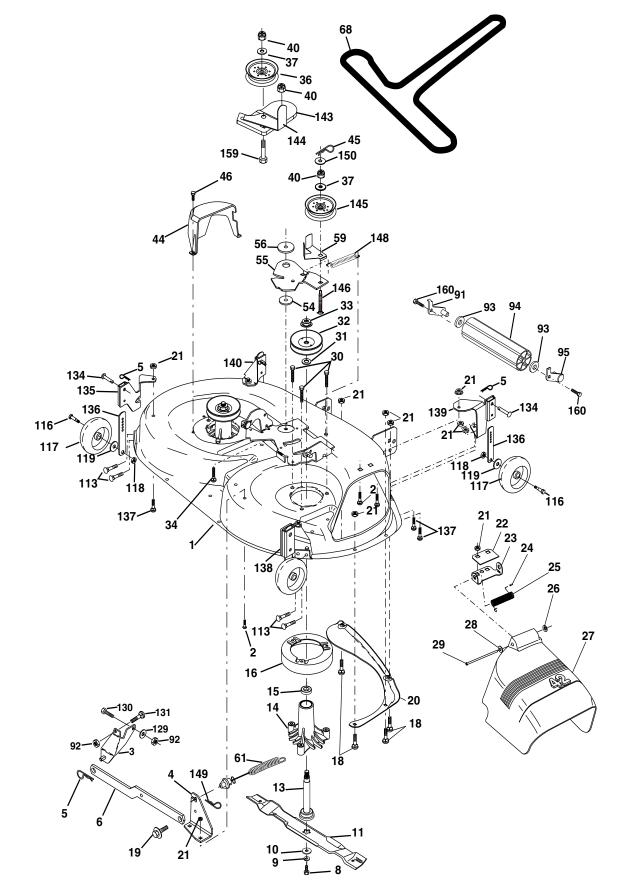
6 7

PART

NO.

1 inch = 25.4 mm

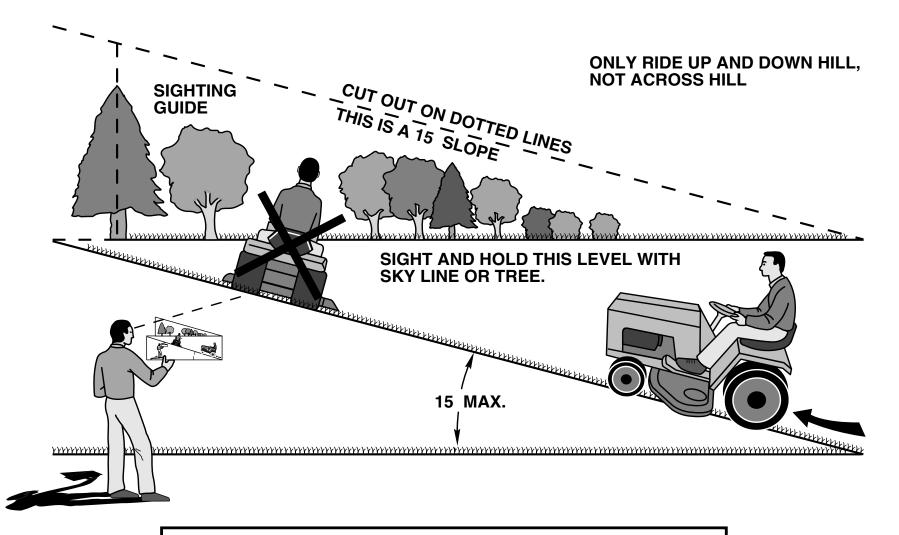
TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 MOWER DECK



### TRACTOR - MODEL NO. YTH1542XP (HAU15H42A), PRODUCT NO. 954 17 00-56 **MOWER DECK**

KEY NO.	Part No.	DESCRIPTION	KEY NO.	Part No.	DESCRIPTION
1	5321658-94	Mower Deck Assembly, 42"	56	5321220-52	Spacer, Retainer
2	8721405-06	Bolt	59	532 17 34-42	Guard, TUV Idler
3	5321380-17	Bracket Assembly, Sway Bar, Front	61	532 17 48-82	Spring Ext Elect Clutch 42" Dck
4		Bracket Sway Bar 38/42" Deck	68	532 17 48-83	
5		Retainer Spring	91		Bracket Asm Noseroller Lh
6		Arm, Suspension, Rear	92		Nut Lock Hex w/Ins. 3/8-16 Unc
8		Bolt, Hex 3/8-24 x 1.25 Gr. 8	93		Washer 17/32 x 7/8 x 16 Ga.
9		Washer, Lock	94		Roller Nose 38"-50"
10		Washer, Hardened	95		Bracket Asm Noseroller Rh
11		Blade Mower 42" High Perf.	113		Screw Tapping 5/16-18 Unc X 3/4
13		Shaft Assembly, Mandrel, Vented	116		Bolt, Shoulder
14		Housing, Mandrel, Vented	117		Wheel, Gauge
15		Bearing, Ball, Mandrel	118		Nut, Centerlock 3/8-16
16	5321744-93		119		Washer 3/8 x 7/8 x 14 Gauge
18		Bolt, Carriage 5/16-18 x 5/8	129		Washer 13/32 x 13/16 x Ga.
19		Bolt, Shoulder	130 131		Bolt Fin Hex 3/8-16unc x 1 Gr.5 Bolt Rdhd Sgnk 3/8-16unc x 1
20 21		Baffle, Vortex Nut Crownlock 5/16-18 UNC	134		Pin Head Rivet
22		Stiffener Bracket	135		Bracket Asm Whi GA R LH
23		Bracket, Deflector	136		Bar Adjusting GA WHL
24	532 10 53-04		137		Bolt Carr 5/16-18 x 5/8
25		Spring, Torsion, Deflector	138		Bracket Asm WhI GA R RH
26	5321104-52		139		Bracket Asm WhI GA F RH
27		Shield, Deflector	140		Bracket Asm WhI GA F LH
28		Washer 11/32 x 5/8 x 16 Ga.	143		Bracket Arm Idler 42"
29	532 13 14-91		144		Keeper Belt 42" Clutch Cable
30		Screw Thdrol Roll Hex	145		Pulley Idler Flat
31		Washer, Spacer	146	532 17 19-77	Bolt Ćarriage Idler
32		Pulley, Mandrel	148		Spring Return Idler
33		Nut, Toplock, Flanged	149	5321658-98	Retainer Spring Yellow Zinc
34	8721106-14		150	8190912-16	Washer 9/32 x 3/4 x 16 Ga.
36	532 17 34-38	Pulley, Idler, Flat	159	8721406-14	Bolt Rdhd Sqn 3/8-16 UNC x 1- 3/4
37	8191313-16	Washer 13/32 x 13/16 x 16 Gauge	160		Screw 3/8-16 x .75
40		Nut Crownlock 3/8-16 UNC		532 13 07-94	Mandrel Assembly (Includes
44		Guard, Mandrel, L.H.			Housing, Shaft and Shaft Hardware
45	532 12 47-88				Only - Pulley Not Included)
46		Screw, Thd. Roll 1/4-20 x 5/8		532 17 60-50	Replacement Mower, Complete
54 55	532 13 39-43 532 17 69-32	Washer, Hardened Arm, Idler	NOTE	E: All compone 1 inch = 25.4	ent dimensions given in U.S. inche 4 mm

### 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.

# **Husqvarna**

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

Husqvarna Forest & Garden Company ("Husqvarna") warrants Husqvarna product to the original purchaser to be free from defects in material and workmanship from the date of purchase for the "Warranty Period" of the product as set forth below:

Lifetime Warranty: All tiller tines, trimmer shafts, ignition coils and modules on hand held product.

**2-Year Warranty:** Riding lawn mowers, yard and garden tractors, walk behind mowers, tillers, chain saws, trimmers, brushcutters, clearing saws, snow blowers, handheld blowers, backpack blowers, hedge trimmers, and electrical products for noncommercial, nonprofessional, non-institutional or non-income producing use, except as herein stated. Emission control system components necessary to comply with CARB-95 and EPA regulations, except for those components which are part of engine systems manufactured by third party engine manufacturers for which the purchaser has received a separate warranty with product information supplied at time of purchase.

**1-Year Warranty:** Power cutters, stump grinder, hydraulic pole pruners and hydraulic pole saws for non-commercial, non-professional, non-institutional or non-income producing use. All trimmers, brushcutters, clearing saws, hovering trimmers, stick edgers, backpack blowers, hand held blowers, hedge trimmers and model series 580 & 600 walk-behind mowers used for commercial, institution-al, professional or income producing purposes or use.

**90-Day Warranty:** Chain saws, power cutters, stump grinders, trimmers, brushcutters, clearing saws, hovering trimmers, stick edgers, hedge trimmers, backpack blowers, hand held blowers, hydraulic pole saws, hydraulic pole pruners, snow throwers or any Husqvarna product used for rental purposes or use except as otherwise provided herein.

**30 Day Warranty:** Husqvarna bow guide bars, replacement parts including bar and chains, product accessories, tools, display features and safety apparel.

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

Husqvarna will repair or replace defective components without charge for parts or labor if a component fails because of a defect in material or workmanship during the warranty period.

#### SECTION 3: ITEMS NOT COVERED BY THIS WARRANTY

The following items are not covered by this warranty:

(1) Normal customer maintenance items which become worn through normal regular use, including, but not limited to, belts, blades, blade adapters, bulbs, filters, guide bars, lubricants, rewind springs, saw chain, spark plugs, starter ropes and tines;

(2) Natural discoloration of material due to ultraviolet light;

(3) Engine and drive systems not manufactured by Husqvarna; these items are covered by the respective manufacturer's warranty as provided in writing with the product information supplied at the time of purchase; all claims must be sent to the appropriate manufacturer;

(4) Lawn and garden attachments are covered by a third party that gives a warranty, all claims for warranty should be sent to the manufacturer; and

(5) Emission Control System components necessary to comply with CARB-95 and EPA regulations which are manufactured by third party engine manufacturer.

(6) Batteries have a one-year prorated limited warranty with 100% replacement during the first 6 months.

#### 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 or use 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 change the intended use of the product or affects the product's performance, operation, safety, or durability, or causes the product to fail to comply with any applicable laws; or:

(4) 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 PURCHASER. HUSQVARNA SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSE-QUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THESE PROD-UCTS EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THESE PRODUCTS IS LIMIT-ED IN DURATION TO THE WARRANTY PERIOD AS DEFINED IN THE LIMITED WARRANTY STATE-MENT.

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 product 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 confirm the warranty and to facilitate post-sale service. Proof of purchase must be presented to the authorized Husqvarna dealer in order to obtain warranty service. This proof 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 to an authorized Husqvarna dealer in a timely manner, no later than thirty (30) days from date of the operational problem or failure. The product must be delivered at the owner's expense. Pick-up and delivery charges are not covered by this warranty. An authorized Husqvarna dealer can be normally located through the "Yellow Pages" of the local telephone directory or by calling 1-800-HUSKY62 for a dealer in your area.

#### HUSQVARNA 7349 STATESVILLE ROAD CHARLOTTE, NC 28269-3702

531 83 81-23 11/99