# **Husqvarna**Olivertaria



# **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 build-up which can touch hot exhaust / engine parts and burn. Do not allow the mower deck to plow leaves or other debris which can cause build-up to occur. Clean any oil or fuel spillage before operating or storing the machine. Allow machine to cool before storage.

#### II. SLOPE OPERATION

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

#### DO:

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

Avoid starting or stopping on a slope. If tires lose traction, disengage the blades and proceed slowly straight down the slope.

#### DO NOT:

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

#### III. CHILDREN

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

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

#### IV. SERVICE

- Use extra care in handling gasoline and other fuels. They are flammable and vapors are explosive.
  - Use only an approved container.
  - Never remove gas cap or add fuel with the engine running. Allow engine to cool before refueling. Do not smoke.
  - Never refuel the machine indoors.
  - Never store the machine or fuel container inside where there is an open flame, such as a water heater.
- Never run a machine inside a closed area.
- Keep nuts and bolts, especially blade attachment bolts, tight and keep equipment in good condition.
- Never tamper with safety devices. Check their proper operation regularly.
- Keep machine free of grass, leaves, or other debris build-up. Clean oil or fuel spillage. Allow machine to cool before storing.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running
- Grass catcher components are subject to wear, damage, and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
- Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves, and use extra caution when servicing them.
- Check brake operation frequently. Adjust and service as required.

## A

### **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.



WARNING: 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.



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



WARNING: 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.

#### PRODUCT SPECIFICATIONS

Gasoline Capacity and Type:	4.0 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/O Filter: 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 servicecenter/department. 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 "Maintenance" 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.

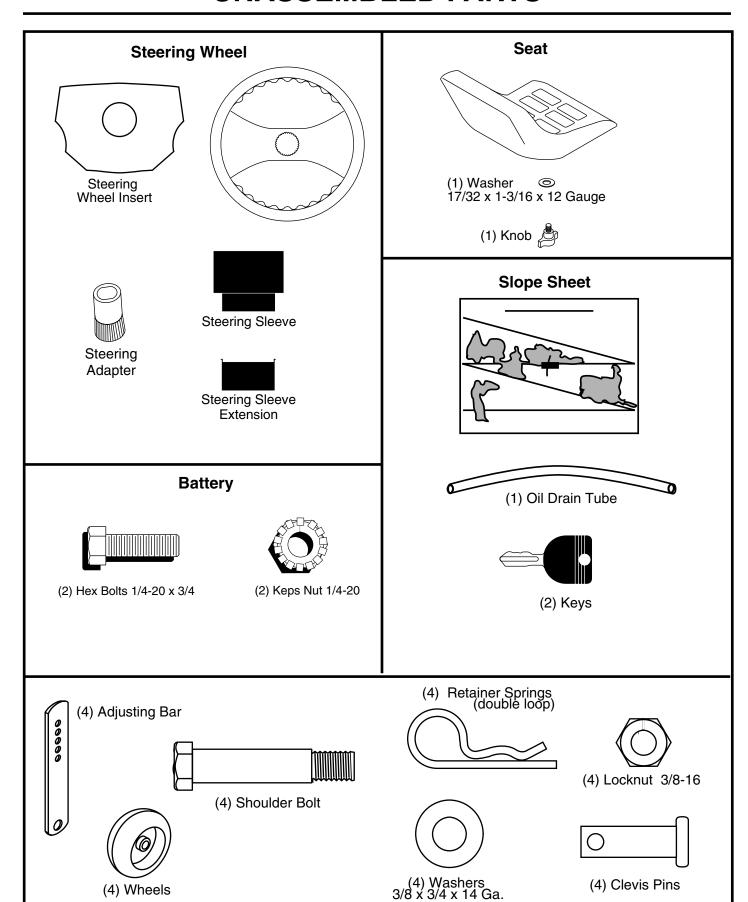
In the state of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands.

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

## **TABLE OF CONTENTS**

SAFETY RULES2-3	MAINTENANCE15-18
PRODUCT SPECIFICATIONS4	
CUSTOMER RESPONSIBILITIES4	STORAGE24
ASSEMBLY6-8	TROUBLESHOOTING25-20
OPERATION9-14	REPAIR PARTS - TRACTOR28-4
MAINTENANCE SCHEDULE15	WARRANTY4

## **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.

(1) 3/4" wrench (1) Tire pressure gauge

(1) 1/2" wrench (1) Utility knife

(2) 7/16" wrenches (1) 3/4" socket w/drive ratchet

(1) Pliers

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.
- Cutalong dotted lines on all four panels of carton. Remove end panels and lay side panels flat.
- Check for any additional loose parts or cartons and remove.

## BEFORE REMOVING TRACTOR FROM SKID

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

- Remove locknut and large flat washer from steering shaft.
- Position front wheels of the tractor so they are pointing straight forward.
- Slide the steering sleeve over the steering shaft.
- Align tabs and press steering sleeve extension into bottom of steering wheel.
- Position steering wheel so cross bars are horizontal (left to right) and slide onto steering wheel adapter.
- Secure steering wheel to steering shaft with locknut and large flat washer previously removed. Tighten securely.
- Snap steering wheel insert into center of steering wheel.
- Remove protective 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.

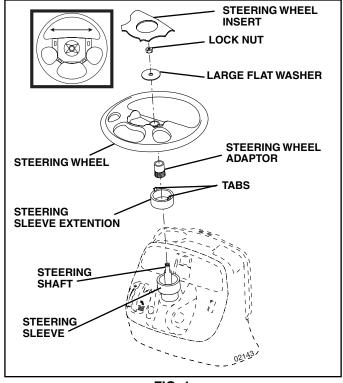


FIG. 1

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

#### **CONNECT BATTERY (SEE Fig. 2)**



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.
- Open terminal access doors, remove terminal protective caps and discard.
- 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.
- 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.

Use terminal access doors for:

Inspection for secure connections (to tighten har dware).

### **ASSEMBLY**

- Inspection for corrosion.
- · Testing battery.
- Jumping (if required).
- · Periodic charging.

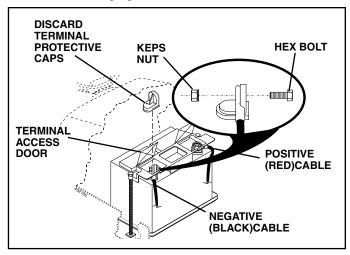


FIG. 2



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.

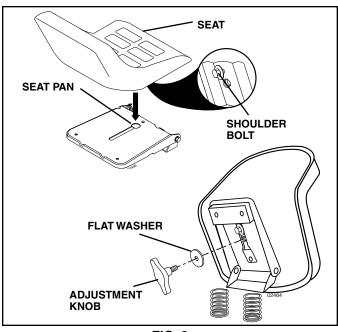


FIG. 3

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

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

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

### **ASSEMBLY**

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

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

- 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 (see "TO TRANSPORT" in Operation section of this manual).
- Sit on seat in operating position, depress 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 "STOP" position.

Continue with the instructions that follow.

## 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.

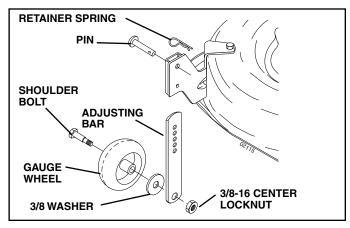


FIG. 4

#### CHECK TIRE PRESSURE

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

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

#### **CHECK MOWER LEVELNESS**

For best cutting results, mower should be properly leveled. See "TO LEVEL MOWER HOUSING" in the Service and Adjustments section of this manual.

## CHECK FOR PROPER POSITION OF ALL BELTS

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

#### CHECK BRAKE SYSTEM

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

#### ✓ CHECKLIST

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

PLEASE REVIEW THE FOLLOWING CHECKLIST:

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

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

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





LOW











**ENGINE OFF** 

**LIGHTS ON** 

**ENGINE ON** 

**ENGINE START** 

**PARKING BRAKE** 

LOCKED

PARKING BRAKE PARKING BRAKE **UNLOCKED** 















**OVER TEMP** LIGHT



**FUEL** 

**OIL PRESSURE** 

**BATTERY** 

**REVERSE** 

**FORWARD** 

MOWER HEIGHT

**MOWER LIFT** 



**ATTACHMENT** 



**ATTACHMENT** 



DANGER, KEEP HANDS











CLUTCH ENGAGED CLUTCH DISENGAGED

**AND FEET AWAY** 

**KEEP AREA CLEAR** 

**SLOPE HAZARDS** (SEE SAFETY RULES SECTION)





**FREE WHEEL** (Automatic Models only)



Failure to follow instructions could result in serious injury or death. The safety alert symbol is used to identify safety information about hazards which can result in death, serious injury and/or property damage.



**DANGER** indicates a hazard which, if not avoided, will result in death or serious injury.



**WARNING** indicates a hazard which, if not avoided, could result in death or serious injury.



**CAUTION** indicates a hazard which, if not avoided, might result in minor or moderate injury.

**CAUTION** when used without the alert symbol, indicates a situation that **could result in damage** to the tractor and/or engine.



**HOT SURFACES** indicates a hazard which. if not avoided, could result in death, serious injury and/or property damage.



FIRE indicates a hazard which, if not avoided, could result in death, serious injury and/or property damage.

#### **KNOW YOUR TRACTOR**

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

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

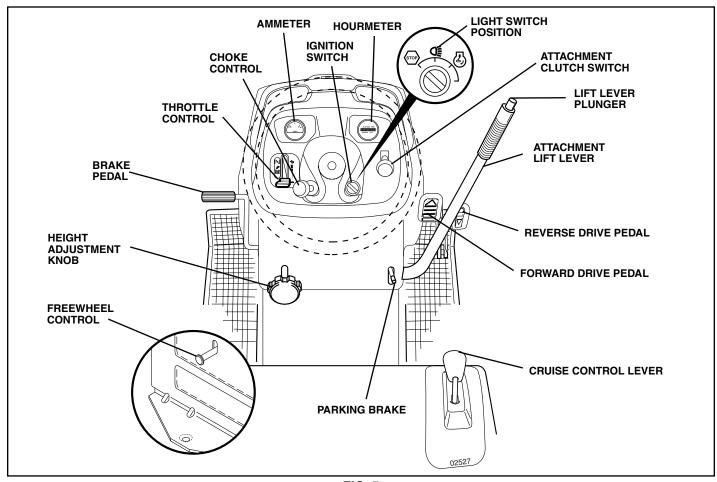


FIG. 5

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.

**LIGHT SWITCH POSITION** - Turns the headlights on.

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

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

**FREE WHEEL CONTROL** - Disengages transmission for pushing or slowly towing the tractor with the engine off.

**BRAKE PEDAL** - Used for braking the tractor and starting the engine.

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

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

**HOURMETER** - Indicates hours of operation.

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

**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.

**FORWARD DRIVE PEDAL** - Used for forward movement of tractor.

**REVERSE DRIVE PEDAL** - Used for reverse movement of tractor.

**CRUISE CONTROL LEVER** - Used to set forward movement of tractor at desired speed without holding the forward drive pedal.



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

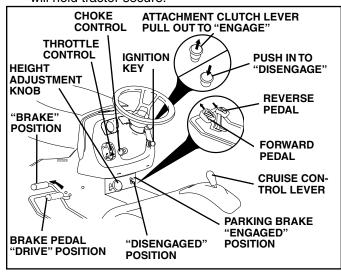


FIG. 6

#### STOPPING (See Fig. 6)

MOWER BLADES -

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

**GROUND DRIVE -**

 To stop ground drive, depress brake pedal into full "BRAKE" position.

**IMPORTANT**: FORWARD AND REVERSE DRIVE PEDALS RETURN TO NEUTRAL POSITION WHEN NOT 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 forward and reverse drive pedals.

- Start tractor and release parking brake.
- Slowly depress forward or reverse drive pedal to begin movement. Ground speed increases the further down the pedal is depressed.

#### TO USE CRUISE CONTROL

The cruise control feature can be used for forward travel only.

#### SYSTEM CHARACTERISTICS

The cruise control should only be used while mowing or transporting on relatively smooth, straight surfaces. Other conditions such as trimming at slow speeds may cause the cruise control to disengage. Do not use the cruise control on slopes, rough terrain or while trimming or turning.

- With forward drive pedal depressed to desired speed, move cruise control lever forward to "SET" position and hold while lifting your foot off the pedal, then release the cruise control lever.
- To disengage the cruise control, pull the lever backward to "OFF" position, or fully depress the brake pedal.

## 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 ( ) 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 SURETO READJUST GAUGE WHEELS IF YOU CHANGE THE CUTTING HEIGHT OF THE MOWER DECK.

  The same setting.

  IMPORTANT: BE SURETO READJUST GAUGE WHEELS IF YOU CHANGE THE CUTTING HEIGHT OF THE MOWER DECK.

  THE SAME SETTING HEIGHT OF THE MOWER DECK.

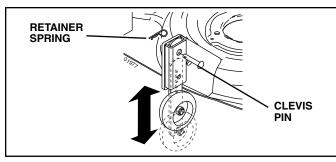


FIG. 7

#### 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. You must remain fully and centrally positioned in the seat to prevent the engine from hesitating or cutting off when operating your equipment on rough, rolling terrain or hills.

- 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.

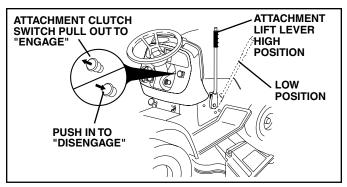


FIG. 8

#### TO OPERATE ON HILLS



WARNING: 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 stopping is absolutely necessary, push brake pedal quickly to brake position and engage parking brake.
- To restart movement, slowly release parking brake and brake pedal.
- Slowly depress appropriate drive pedal 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 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.).

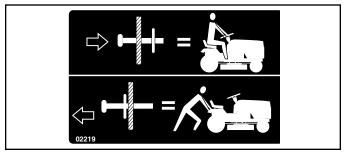


FIG. 9

#### TOWING CARTS AND OTHER ATTACH-MENTS

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

#### BEFORE STARTING THE ENGINE

#### CHECK ENGINE OIL LEVEL

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

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

#### ADD GASOLINE

Fill fuel tank to bottom of filler neck. Do not overfill.
 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.



CAUTION: Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

IMPORTANT: WHEN OPERATING IN TEMPERATURES BELOW32°F(0°C), USE FRESH, CLEAN WINTER GRADE GASOLINE TO HELP INSURE GOOD COLD WEATHER STARTING.

CAUTION: 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.

#### TO START ENGINE (See Fig. 6)

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 brake pedal and set parking brake.
- 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.
  - Release the parking brake and let the 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 "TOTRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to slow position.
   Disengage parking brake
- Depress forward drive pedal to full forward position, hold for five (5) seconds and release pedal. Depress reverse drive pedal to full reverse position, hold for five (5) seconds and release pedal. 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.

- Shut- off engine and set parking brake.
- Engage transmission by placing freewheel control in driving position (See "TO TRANSPORT" in this section of manual).
- Sitting in the tractor seat, start engine. After the engine is running, move throttle control to half (1/2) speed. Disengage parking brake.
- Drive tractor forward for approximately five feet then backwards for five feet. Repeat this driving procedure three times.

Your transmission 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).

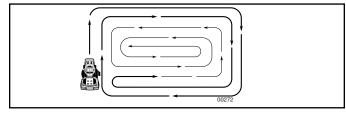


FIG. 10

- 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.

AS	MAINTENANCE SCHEDUL L IN DATES YOU COMPLETE GULAR SERVICE	E	SEFORE	EACH U	HOURS HOURS	5 HOUR'S	SHOUP OHOUP VERY	AS HOLI	RS ON SEASON SEFORES	SERVI	CE DAT	ES
	Check Brake Operation	<b>V</b>	1									
	Check Tire Pressure	<b>V</b>	1									
Т	Check Operator Presence and Interlock Systems	~										
R	Check for Loose Fasteners	V				<b>1</b> 5		1				
ΙÀ	Sharpen/Replace Mower Blades			<b>1</b> 3								
C	Lubrication Chart			/				1				
Ιċ	Check Battery Level			<b>1</b> 4								
Ř	Clean Battery and Terminals			1				1				
	Check Transaxle Cooling			/								
	Check V-Belts					<b>V</b>						
	Check Engine Oil Level	<b>V</b>	1									
	Change Engine Oil (with oil filter)				<b>1</b> ,2	2		1				
lε	Change Engine Oil (without oil filter)			<b>1</b> ,2	1			<b>/</b>				
N	Clean Air Filter			<b>✓</b> 2								ı
G	Clean Air Screen			<b>1</b> 2								
ľ	Inspect Muffler/Spark Arrester				1							
ΙË	Replace Oil Filter (If equipped)					1,2						
l <sup>-</sup>	Clean Engine Cooling Fins					<b>1</b> 2						
	Replace Spark Plug					1	1					
	Replace Air Filter Paper Cartridge					<b>1</b> /2						
	Replace Fuel Filter						/					

- Change more often when operating under a heavy load or in high ambient temperatures.
- 2 Service more often when operating in dirty or dusty conditions.
- 3 Replace blades more often when mowing in sandy soil.
- 4 Not required if equipped with maintenance-free battery.
- 5 Tighten front axle pivot bolt to 35 ft.-lbs. maximum. Do not overtighten.

#### GENERAL RECOMMENDATIONS

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

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

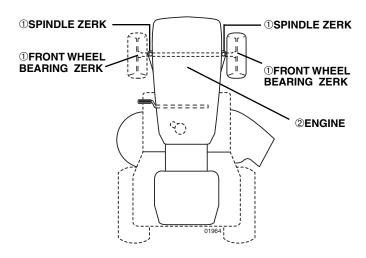
At least once a season, check to see if you should make any of the adjustments described in the Service and Adjustments section of this manual.

 Át least 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.

#### **LUBRICATION CHART**



- **① GENERAL PURPOSE GREASE**
- **② REFER TO MAINTENANCE "ENGINE" SECTION**

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

#### **TRACTOR**

Always observe safety rules when performing any maintenance.

#### **BRAKE OPERATION**

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

#### TIRES

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

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

#### **OPERATOR PRESENCE SYSTEM**

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

- The engine should not start unless the 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.

SIDE UP" facing deck and mandrel assembly.

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

- Raise mower to highest position to allow access to blades.
- Remove blade 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 blade bolt, lock washer and flat washer in exact order as shown.
- Tighten blade bolt securely (27-35 Ft. Lbs. torque).

**IMPORTANT:** BLADE BOLT IS HEATTREATED. IF BOLT NEEDS REPLACING, REPLACE ONLY WITH APPROVE BOLT SHOWN IN THE REPAIR PARTS.

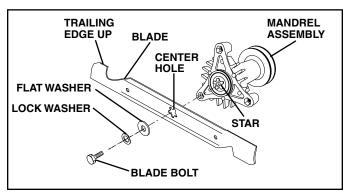


FIG. 11

#### 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.

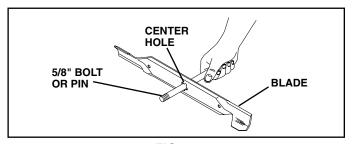


FIG. 12

#### **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 "CONNECT BATTERY" in the Assembly 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.

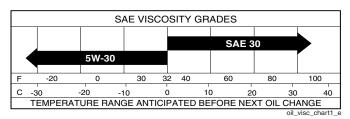
#### TRANSAXLE PUMP FLUID

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.



**NOTE:** Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, they 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 Fig. 13)

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 end of drain valve and install the drain tube onto the fitting.

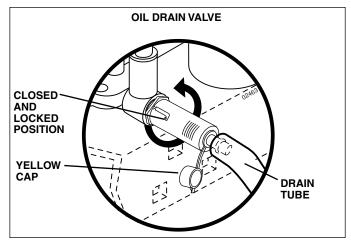


FIG. 13

- 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.

#### **CLEAN AIR INTAKE/COOLING AREAS**

To insure proper cooling, make sure the grass screen, cooling fins, and other external surfaces of the engine are kept clean at all times.

Every 100 hours of operation (more often under extremely dusty, dirty conditions), remove the blower housing and other cooling shrouds. Clean the cooling fins and external surfaces as necessary. Make sure the cooling shrouds are reinstalled.

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

#### **AIR FILTER**

Your engine will not run properly using a dirty air filter. Service air cleaner more often under dusty conditions. See Engine 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.

#### MUFFLER

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

#### SPARK PLUGS

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

#### IN-LINE FUEL FILTER (See Fig. 14)

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.

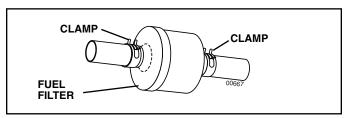


FIG. 14

#### **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 or pressure washer to clean your tractor unless the engine and transmission are covered to keep water out. Water in engine or transmission will shorten the useful life of your tractor. Use compressed air or a leaf blower to remove grass, leaves and trash from tractor and mower.



WARNING: TO AVOID SERIOUS INJURY, BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:

- Depress brake pedal fully and set parking brake.
- Place attachment clutch in "DISENGAGED" position.
- Turn ignition key to "STOP" 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. 15)

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. 15)

- 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.

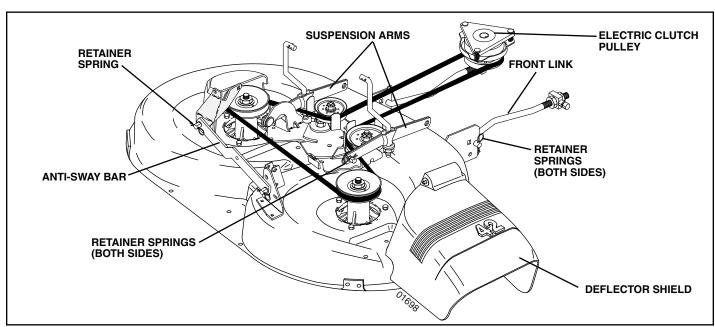
- Connect front links to mower deck and secure with retainer springs..
- Connect suspension arms to rear deck brackets and secure with retainer springs.
- Connect anti-swaybar to chassis bracket and secure with retainer spring.
- Install belt into electric clutch pulley groove.

#### TO LEVEL MOWER HOUSING

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

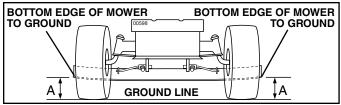
SIDE-TO-SIDE ADJUSTMENT (See Figs. 16 and 17)

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



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

Recheck measurements after adjusting.



**FIG. 16** 

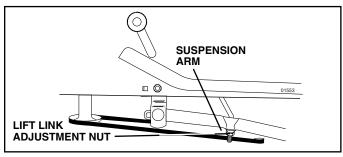


FIG. 17

FRONT-TO-BACK ADJUSTMENT (See Figs. 18 and 19)

**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. The two front links must remain equal in length.
- 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.

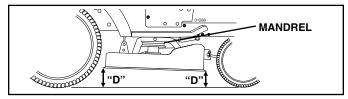


FIG. 18

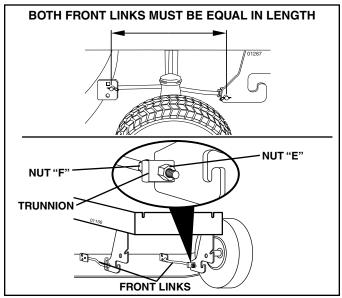


FIG. 19

## TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 20)

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 manual).
- Work belt off both mandrel pulleys and idler pulleys.
- Pull belt away from mower.

#### **BELT INSTALLATION -**

- Work belt around both mandrel pulleys and idler pulleys.
- Make sure belt is in all pulley grooves and inside all belt guides.
- Install mower (See "To Install Mower" in this section of manual).

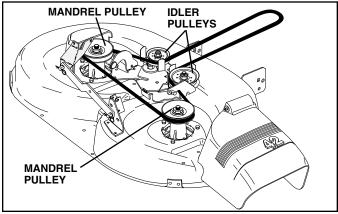


FIG. 20

## TO CHECK AND ADJUST BRAKE (See Fig. 21)

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

If tractor requires more than five (5) feet to stop at highest speed in highest gear on a level, dry concrete or paved surface, then brake must be checked and adjusted.

#### TO CHECK BRAKE

- Park tractor on a level, dry concrete or paved surface, depress brake pedal all the way down and engage parking brake.
- Disengage transmission by placing freewheel control in "transmission disengaged" position. Pull freewheel control out and into the slot and release so it is held in the disengaged position.

The rear wheels must lock and skid when you try to manually push the tractor forward. If the rear wheels rotate, the brake needs to be adjusted or the pads need to be replaced.

#### TO ADJUST BRAKE

- Depress brake pedal all the way down and engage parking brake.
- Measure distance between brake operating arm and nut "A" on brake rod.
- If distance is other than 1-3/4", loosen jam nut and turn nut "A" until distance becomes 1-3/4". Retighten jam nut against nut "A".
- Engage transmission by placing freewheel control in "transmission engaged" position.
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than five (5) feet in highest gear, further maintenance is necessary. Replace brake pads or contact a qualified service center.

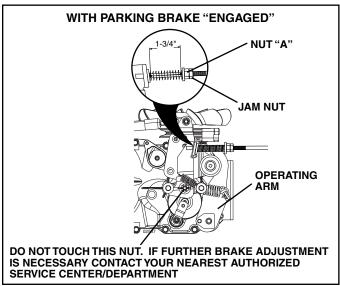


FIG. 21

## TO REPLACE MOTION DRIVE BELT (See Fig. 22)

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

#### **BELT REMOVAL -**

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

**NOTE:** Observe entire motion drive belt and position of all belt guides and keepers.

- Disconnect clutch wire harness.
- Remove clutch locator.

- Remove belt from stationary idler and clutching idler.
- Remove belt downward from engine pulley and around electric clutch.
- Pull belt slack toward rear of tractor. Carefully remove belt upwards from transmission input pulley and over cooling fan blades.
- Remove belt from center span keeper and pull belt away from tractor.

#### **BELT INSTALLATION -**

- Carefully work new belt down around transmission cooling fan and onto the input pulley.
- Slide belt into the center span keeper.
- Pull belt toward front of tractor and roll belt around electric clutch and onto engine pulley.
- Install belt through stationary idler and clutching idler.
- · Reinstall clutch locator and tighten nut securely.
- Reconnect clutch harness.
- Make sure belt is in all pulley grooves and inside all belt guides and keepers.
- Install mower (See "TO INSTALL MOWER" in this section of manual).

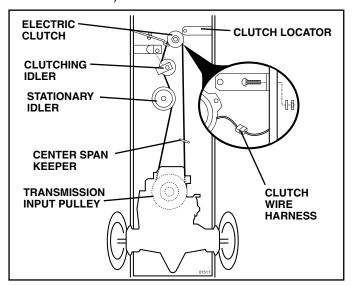


FIG. 22

#### TRANSMISSION REMOVAL/EPLACEMENT

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

#### TO ADJUST STEERING WHEEL ALIGNMENT

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

#### FRONT WHEEL TOE-IN/CAMBER

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

## TO REMOVE WHEEL FOR REPAIRS (See Fig. 23)

- 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.

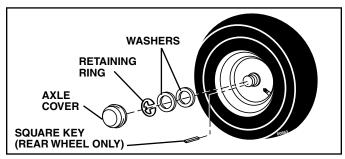


FIG. 23

## TO START ENGINE WITH A WEAK BATTERY (See Fig. 24)



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

If your battery is too weak to start the engine, it should be recharged. (See "BATTERY" in the Maintenance section of this manual).

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

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

#### TO ATTACH JUMPER CABLES -

- Connect one end of the RED cable to the POSITIVE (+) terminal of each battery(A-B), taking care not to short against tractor chassis.
- Connect one end of the BLACK cable to the NEGATIVE
   (-) terminal (C) of fully charged battery.
- Connect the other end of the BLACK cable (D) 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.

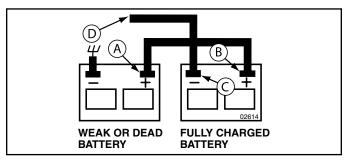


FIG. 24

#### 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. 25)

- 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 procedures.

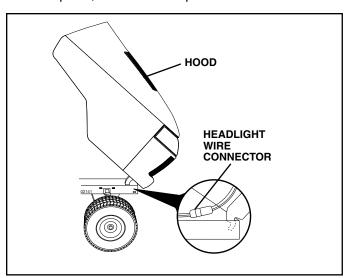


FIG. 25

#### **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 CHOKE CONTROL

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

#### TO ADJUST CARBURETOR

Your carburetor is not adjustable. If your engine does not operate properly due to suspected carburetor problems, take your tractor to an authorized service center for repair and/or adjustment.

### **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.



WARNING: 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 Maintenance 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 Maintenance section of this manual.
- Be sure that all nuts, bolts and screws are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
- Touch up all rusted or chipped paint surfaces; sand lightly before painting.

#### **BATTERY**

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

#### **ENGINE**

#### **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 MOISTUREWHICH LEADS TO SEPARATION AND FORMATION OF ACIDS DURING STORAGE. ACIDIC GAS CAN DAMAGE THE FUEL SYSTEM OF AN ENGINE WHILE IN STORAGE.

- Empty the fuel tank by starting 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 empty the gas tank and carburetor if using fuel stabilizer.

#### **ENGINE OIL**

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

#### 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 COVERTRACTOR WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.

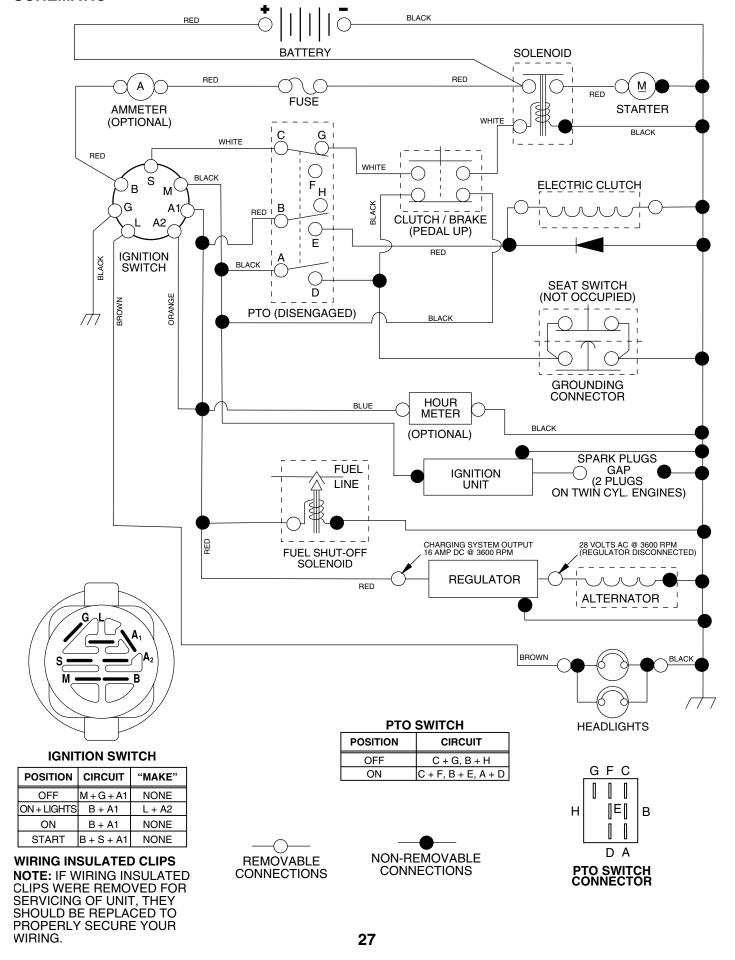
## **TROUBLESHOOTING POINTS**

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> </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>Empty 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> </ol> 8. Engine valves out of adjustment.	<ol> <li>Clean/replace air filter.</li> <li>Replace spark plug.</li> <li>Recharge or replace battery.</li> <li>Replace fuel filter.</li> <li>Empty fuel tank and refill tank with fresh, clean 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>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 brake pedal.</li> <li>Disengage attachment clutch.</li> <li>Recharge or replace battery.</li> <li>Replace fuse.</li> <li>Clean battery terminals.</li> <li>Check all wiring.</li> <li>Check/replace ignition switch.</li> <li>Check/replace solenoid or starter.</li> <li>Contact an authorized service center/department.</li> </ol>
Engine clicks but will not start	Weak or dead battery.     Corroded battery terminals.     Loose or damaged wiring.     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	<ol> <li>Cutting too much grass/too fast.</li> <li>Throttle in "CHOKE" position.</li> <li>Build-up of grass, leaves and trash under mower.</li> <li>Dirty air filter.</li> <li>Low oil level/dirty oil.</li> <li>Faulty spark plug.</li> <li>Dirty fuel filter.</li> <li>Stale or dirty fuel.</li> <li>Water in fuel.</li> <li>Spark plug wire loose.</li> <li>Dirty engine air screen/fins.</li> <li>Dirty/clogged muffler.</li> <li>Loose or damaged wiring.</li> <li>Carburetor out of adjustment.</li> <li>Engine valves out of adjustment.</li> </ol>	<ol> <li>Raise cutting height/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>Empty fuel tank and refill tank with fresh, clean gasoline.</li> <li>Empty fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</li> <li>Connect and tighten spark plug wire.</li> <li>Clean engine air screen/fins.</li> <li>Clean/replace muffler.</li> <li>Check all wiring.</li> <li>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>

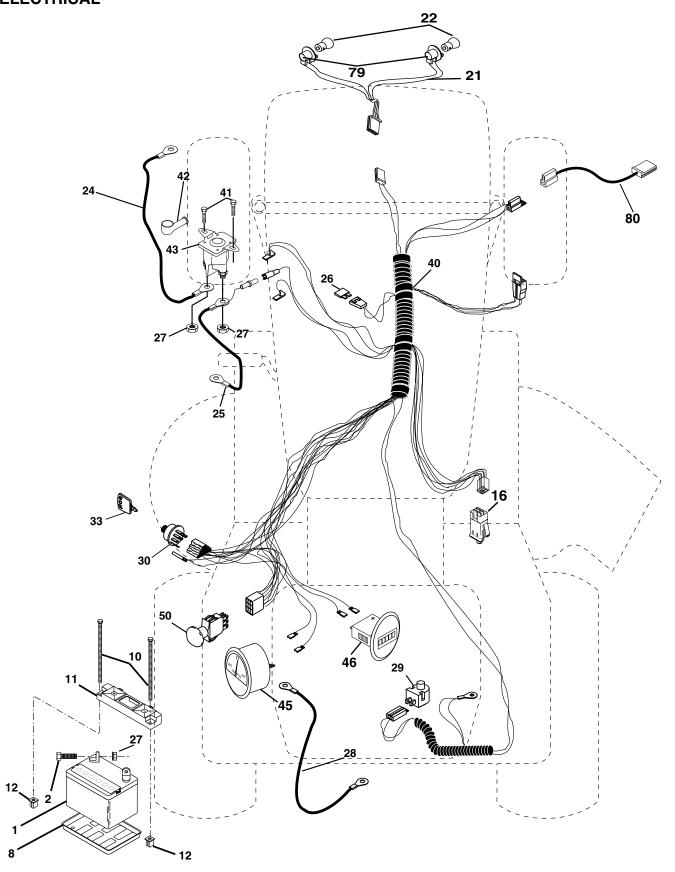
## **TROUBLESHOOTING POINTS**

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

## TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 SCHEMATIC



TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 ELECTRICAL

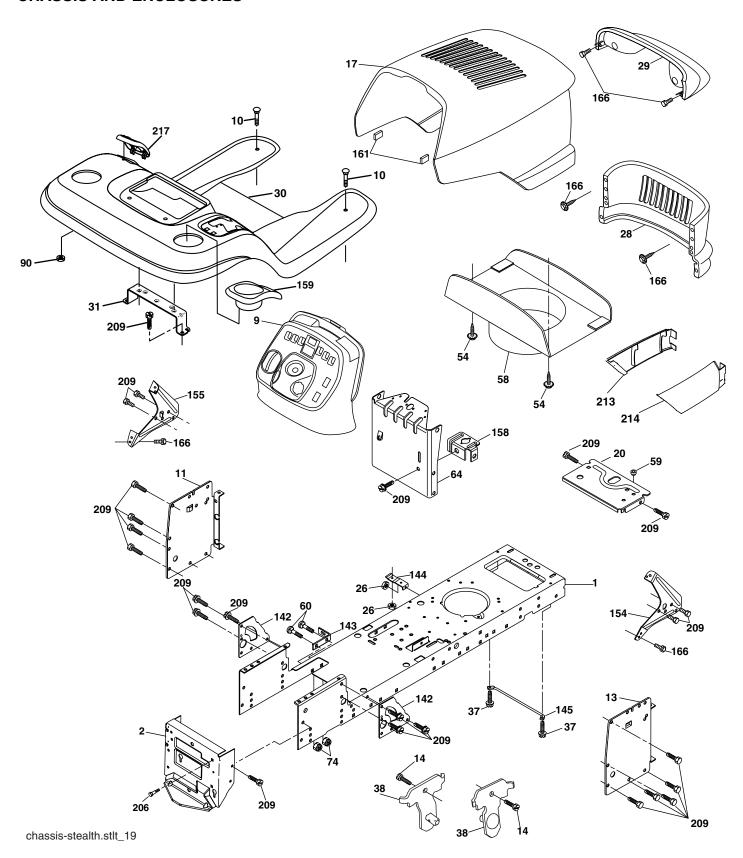


## TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 ELECTRICAL

KEY NO.	PART NO.	DESCRIPTION
1	532 14 49-27	
2		Bolt Hex Hd 1/4-20 unc x 3/4
8	532 12 48-86	
10		Bolt Brt Frt 1/4-20 x 75 A uuinc
11		Holddown Battery Front Mount
12		Nut Push Nylon 1/4" Battery Frt
16 21		Switch Interlock Push-In Harness Asm Light W/4152j
22		Bulb Light #1156
24		Cable Battery 6 Ga. 22" red w/16 wire
25		Cable Battery
26	532 17 51-58	
27	873 51 04-00	Nut Keps Hex 1/4-20 unc
28		Cable Ground 6 Ga 21" black
29		Switch Plunger Nc Gray
30	532 17 55-66	
33	532 14 04-01	Key Ign Molded Generic
40	532 18 80-30	
41		Screw 1/4-20 x 1/2
42		Cover Terminal Red
43 45	532 17 88-61 532 17 75-00	
46	532 17 75-00	
50	532 17 75-01	
79		Socket Asm. Bulb Twistlock
80		Harness Clutch EVX

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

## TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 CHASSIS AND ENCLOSURES



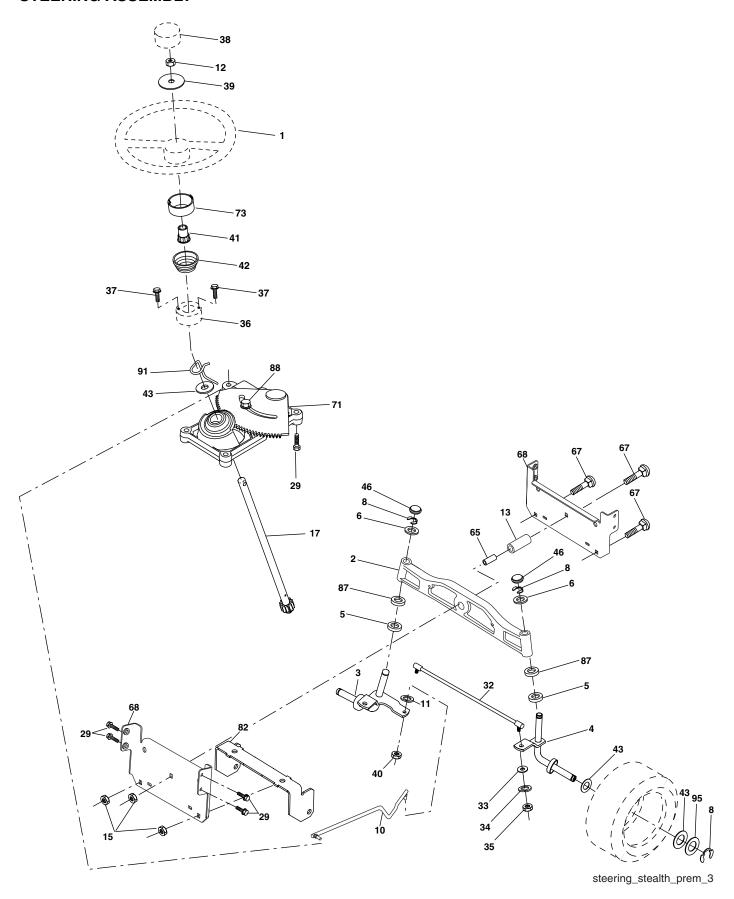
## TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 CHASSIS AND ENCLOSURES

KEY NO.	PART NO.	DESCRIPTION
1	532 17 46-19	Chassis Stamping
2	532 17 65-54	
9 10	<b>532 18 90-25</b>	Bolt Rdhd Sqnk 3/8-16 unc x 1
11		Panel Dash Lh
13		Panel Dash Rh
14		Screw Thdrol 3/8-16 x 1/2
17	532 19 00-55	
20	532 16 20-26	Plate Mtg Battery/Fuel Tank
26		Nut Lock w/Insert 3/8-16 unc
28	532 18 28-73	Grille
29 30	532 18 82-12 532 18 54-32	Light Box Asm (w/Lens)
31	532 16 54-32	
37		Screw Thdrol 5/16-18 x 1/2
38		Bracket Asm Pivot Mower Rear
54		Screw Hex Wshd 8-18 x 7/8
58	532 18 98-75	
59		Bushing Snap
60		Bolt RDHD SQNK 3/8-16 x 3/4
64		Dash Lower Stlt
74 90		Nut Crownlock 3/8-16 Nut Self-thd Wsh-Hd 1/4
142		Plate Reinforcement
143		Bracket Swaybar Chassis
144	532 17 55-82	Bracket Ft Rest
145		Rod Pivot Chassis Hood
154		Bracket Dash RH
155		Bracket Dash LH
158	532 16 20-37	Parking Brake Brkt
159	532 18 54-34	
161 166		Extrusion Bumper HWHDH:-Lo. #13-16 x 3/4
206		Bolt Shoulder 5/16-18
209		Screw Hexwsh Thdr 3/8-16 c-x 3/4
213	532 17 75-87	Skirt Grille LH
214		Skirt Grille RH
217	532 18 54-36	Console Fuel Window
NOTE		ent dimensions given in U.S. inches
	1 inch = $25$ .	4 mm

## TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1		Transaxle (Order parts from trans-	78	532 12 17-48	Washer 25/32 x 1-5/8 x 16 Ga.
		axle manufacturer)	89		Console, Shift
_		Hydro gear Model 336-0510	90		Nut Self-Thd Wsh-hd 1/4 Zinc
6		Screw 5/16-18	95	532 18 08-25	
9	532 16 08-89		96		Retainer Spring
15 16		Bolt Hex Flghd 5/16-18 Gr. 5	120		Nut Lock Flg 3/8-16 unc
16 19		Nut Lock Hex W/Ins. 5/16-18 unc Nut Lock Hex W/Wsh 3/8-16 unc	144 150		Washer 11/32 x 5/8 x 16 Ga. Spacer Retainer
20		Bolt Hex 7/16-20 x 4-1/4 Gr. 5	151		Washer 13/32 x 2 x 10 Ga.
21		Knob Custom Control Cruise	202		Bolt Carr Sh 3/8-16 x 1-3/4 Gr. 5
22	532 17 58-96		214		Link Transaxle
23		Bracket Anti-Rotation EVX	217		Pedal Reverse
24		Nut, Hex Jam 3/8-16 unc	218		Arm Control Pedal Reverse
25		Spring, Brake Rod	219		Bracket Frest Pdl Ctrl. Hyd
26	819 13 13-16		220		Bracket Mtg. Pedal Control
27	876 02 04-12	Pin Cotter 1/8 x 3/4 CAD.	221	872 14 06-06	Bolt Rdhd Sqnk 3/8-16 unc x 3/4
28		Rod, Parking Brake	222		Nut Crownlock 7/16-14 unc
29		Cap, Brake, Park	223		Washer Nylon 11/16 ID x .060
30		Bracket, Transaxle	224		Pedal Forward
32		Bolt Hex Hd 5/16-18 unc x 3/4	225		Arm Control Pedal Forward
33		Bolt Rdhd Sqnk 5/16-18 unc x 3/4	226		Bolt Pivot Spacer
34 35		Shaft, Foot Pedal	227 228		Cam Reverse Pedal LT
36	819 21 16-16	Bearing, Nylon Washor	220 229		Bolt Shoulder 5/16-18 Washer Serrated 5/16 x .75
37	532 12 49-63		231		3 Strap Torque
38		Pulley, Composite	232		Actuator Cruise Disengage
39		Bolt Rdhd 3/8-16 unc x 2-3/4 Gr. 5	233		Pawl Control Cruise
41		Keeper, Belt Idler Flat	234		Lever Control Cruise
47		Pulley, Idler, V-Groove	235		Sector Control Cruise
48		Bellcrank Clutch Grnd Drw Stl	236		Bolt Shoulder 3/8-16 unc 1/44
49		Retainer, Belt	237	532 17 01-65	Bolt Shoulder 5/16-18
50	872 11 06-12	Bolt Carr. SH 3/8-16 x 1-1/2 Gr. 5	238	532 17 58-07	Arm Mtg. Cruise Sector
51		Nut Crownlock 3/8-16 unc	239		Screw Thdrol 5/16 x 1/2
52		Nut, Crownlock 5/16-18 unc	240		Spring Return Cruise Control
53	532 10 57-10		241		Nut Centerlock 1/4-20 unc
55		Spring, Return, Clutch	242		Bolt Fin Hex 1/4-20 unc x .75
56		Screw 3/8-16 x 1-1/4	244		Screw 5/16-18 x 5/8
57 50		V-Belt, Ground Drive	251		Screw 5/16-18 x 1
59		Keeper, Center Span	253		Washer .312 x .615 x 16 Ga.
61 62		Screw 3/8-16 x .875 Cover, Pedal	254 263	917 00 02	Clip Retainer Screw 3/8-16 x 3/4
63		Pulley, Engine			Screw Thdrol 5/16-18 x 1/2
65	810 04 07-00		273		Pad Pedal Reverse
66		Keeper Belt Engine	274		Cover Pedal Forward
74		Spacer, Axle		302 17 00 40	or o
75		Washer 25/32 x 1-1/4 x 16 Ga.			
76	812 00 00-01		NOT:	<b>-</b> . A II	at disconnice a size to 11.0 to 1
77	532 12 35-83			<b>E:</b> All componei n = 25.4 mm.	nt dimensions give in U.S. inches.

TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 STEERING ASSEMBLY

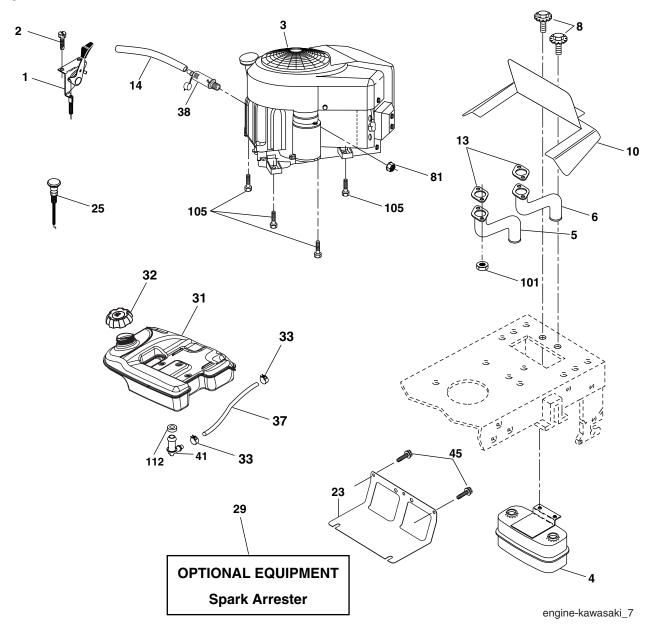


## TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 STEERING ASSEMBLY

KEY NO.	PART NO.	DESCRIPTION
1 2 3 4 5 6 8 10 11 2 3 3 3 4 5 6 8 10 11 2 3 3 3 4 5 6 6 7 8 10 11 2 3 3 3 4 5 6 6 7 8 2 7 8 8 1 9 5 10 10 10 10 10 10 10 10 10 10 10 10 10	532 18 47-06 532 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 06-00 873 94 08-00 532 13 65-18 532 14 52-12 532 17 78-83 817 00 06-12 532 17 78-83 819 11 12-16 810 04 05-00 873 54 05-00 532 15 51-05 532 15 29-27 532 16 66-26 819 18 24-11 873 54 06-00 532 15 99-45 532 19 01-12 532 12 17-49 532 12 12-32 532 16 03-67 872 11 06-18 532 17 75-93 532 17 75-93 532 17 51-18 532 17 55-53	Washer Lock Hvy Hlcl Spr 3/8 Nut Hex Jam Toplock 1/2-20 unf Spacer Brg Axle Front Nut Hex Flange Lock Shaft Asm Strg Screw 3/8-16 x 3/4 Rod Tie Washer 11/32 x 3/4 x 16 Ga. Washer Lock Hvy Helical 5/16 Nut Crown Lock 5/16-24 unf Bushing Strg Screw Insert Cap Strg Wh Washer 9/16 x 1-1/2 Lock nut Adaptor Wheel Strg Boot Steering Washer 25/32 x 1 1/4 x 16 Ga. Cap Spindle Fr Top Blk Spacer Brace Axle Bolt Rdhd Sq 3/8-16 x 2-1/4

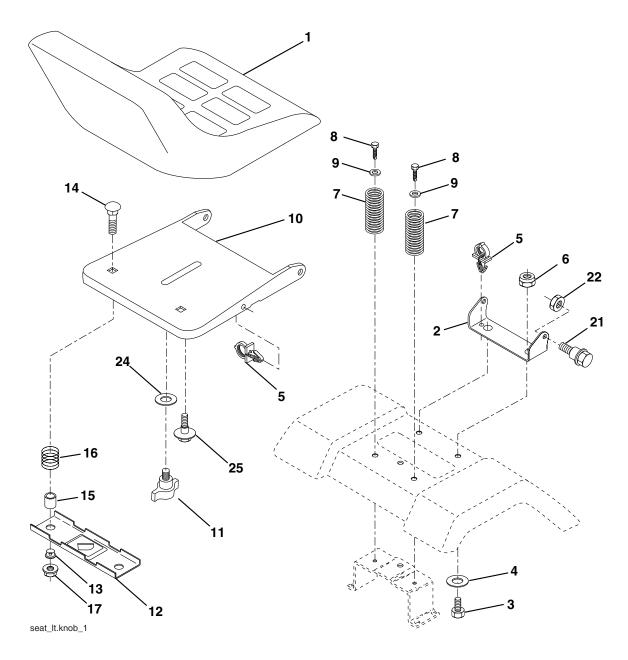
**NOTE:** All component dimensions given in U.S. inches. 1 inch = 25.4 mm.

## TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 ENGINE



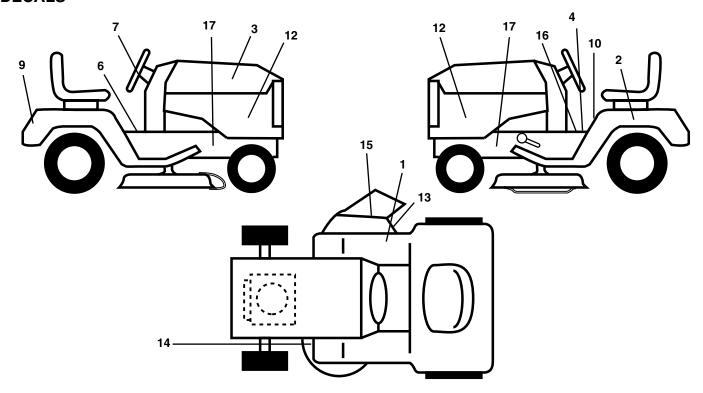
KEY NO.	PART NO.	DESCRIPTION		KEY NO.	PART NO.	DESCRIPTION
1	532 17 83-85	Control Throttle Flg		32	532 18 18-03	Cap Asm Fuel
2		Screw HWHD Hi-Low # 13-16 x 5/8		33		Clamp Hose Blk
3		Engine KAWA FH430V (Order		37	532 14 21-58	
		Parts from Engine Manufacturer)		38		Plug Drain Oil Easy (Order Parts
4	532 14 97-23	Muffler Asm Twin Lo-Tone				from Engine Manufacturer)
5	532 18 14-44	Exhaust Tube Lh		41	532 13 92-77	Stem Tank Fuel
6	532 18 14-42	Exhaust Tube Rh		45	817 00 06-12	Screw Hexwsh Thdr 3/8-16 x 3/4
8	532 17 18-77	Bolt 5/16-18 unc x 3/4 W/Sems		81	873 51 04-00	Nut Keps Hex 1/4-20
10	532 14 66-29	Shield Browning		101	532 18 43-62	Nut Flange M8-1.25
13		Gasket Muffler (Order from Engine		105	817 12 06-16	Screw 3/8-16 x 1
		Manufacturer)		112	532 12 49-52	Bushing
14	532 14 84-56	Tube Drain Oil Easy				· ·
23	532 16 98-37	Shield Browning				
25	532 19 15-96	Control Choke				
29	532 13 71-80	Kit Spark Arrestor (Flat Scrn)		NOTE	: All compone	ent dimensions given in U.S. inches
31	532 17 90-22	Tank Fuel	00		1 inch = 25.4	4 mm
			36			

## TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 SEAT ASSEMBLY



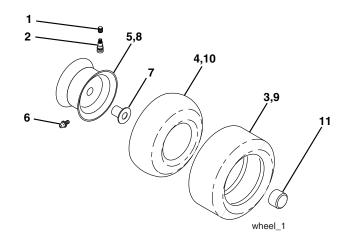
KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532 18 49-95	Seat	14	872 05 04-12	Bolt Rdhd Sqnk 1/4-20 x 1-1/2
2	532 14 05-51	Bracket Pivot Seat 8 720	15		Spacer Split 28 x .88 Zinc
3	871 11 06-16	Bolt Fin Hex 3/8-16 x 1	16		Spring Cprsn Plate
4	819 13 16-10	Washer Flat 13/32 x 1.0 x 10 Ga.	17	532 12 39-76	Nut Lock 1/4 Lge Flg Gr. 5 Zinc
5	532 14 50-06	Clip Push-In	21	532 17 18-52	Bolt Shoulder 5/16-18 unc
6	873 80 06-00	Nut Hex w/Ins. 3/8-16 unc	22	873 80 05-00	Nut Hex Lock W/Ins 5/16-18
7	532 12 41-81	Spring Seat Cprsn 2 250 Blk Zi	24	819 17 19-12	Washer 17/32 x 1 -3/16 x 12 Ga.
8	817 00 06-16	Screw 3/8-16 x 1	25	532 12 70-18	Bolt Shoulder 5/16-18 x 62
9	819 13 16-14	Washer 13/32 x 1.0 x 14 Ga.			
10	532 18 24-93	Pan Seat			
11	532 16 63-69	Knob Seat Adj Wingnut	NOTE	· All compone	ent dimensions given in U.S. inches.
12	532 12 12-46	Bracket Mounting Switch	14012	1 inch = 25.4	4 mm
13	532 12 12-48	Bushing Snap Blk Nyl 50 Id		1 111011 – 20.	1 111111

## TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 DECALS



KEY	PART	DECORIDEION	KEY	PART	DECODIDEION
NO.	NO.	DESCRIPTION	NO.	NO.	DESCRIPTION
1	532 16 88-69	Decal Tick Mark	15	532 17 91-28	Decal Deck "B" 42"
2	532 14 50-05	Decal Battery	16	532 15 97-37	Decal Brake/Clutch Symbol
3	532 18 89-21		17	532 15 97-36	Decal Chassis Hot Muffler
4	532 17 83-02	Decal Operator Cruise		532 16 25-98	Decal Draw Bar Load Limit
6	532 14 08-37	Decal Brake Parking		532 18 14-95	Pad Footrest LH
7	532 18 89-25	Decal Wheel Steering		532 18 14-96	Pad Footrest RH
9	532 18 99-14	Decal Fender Husq		532 16 69-60	Decal By Pass Hydro
10	532 14 54-98	Decal Read Owner's Manual Syms		532 19 15-52	Manual Owner's (English)
12	532 19 11-62				, -
13	532 18 21-66	Decal Cutfinger			
14	532 16 03-96	Decal V-Belt Schematic			

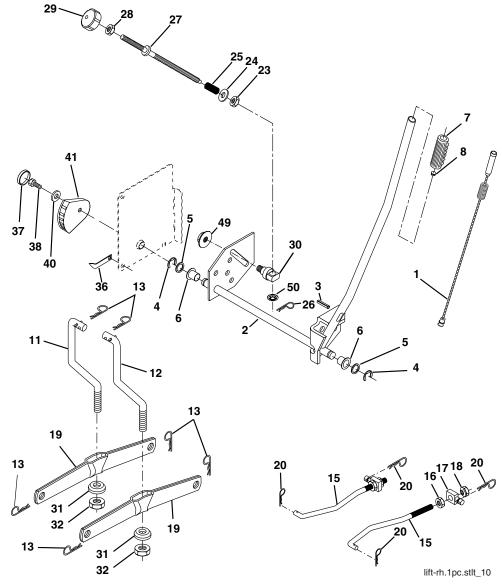
#### **WHEELS & TIRES**



NO.	NO.	DESCRIPTION
1 2 3 4 5 6 7	532 06 51-39 532 10 62-22 532 05 99-04 532 13 83-36 532 12 49-57 532 12 49-59	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)
8 9 10 11	532 12 20-82 532 12 49-26 532 17 50-39	Rim Asm 8" rear Silver Service Tire R Ts 20 x 10-8 C Service Tube Rear (Service Item Only) Cap Axle Blk 1 50 x 1 00 Sealant, Tire ( 10 oz. Tube)

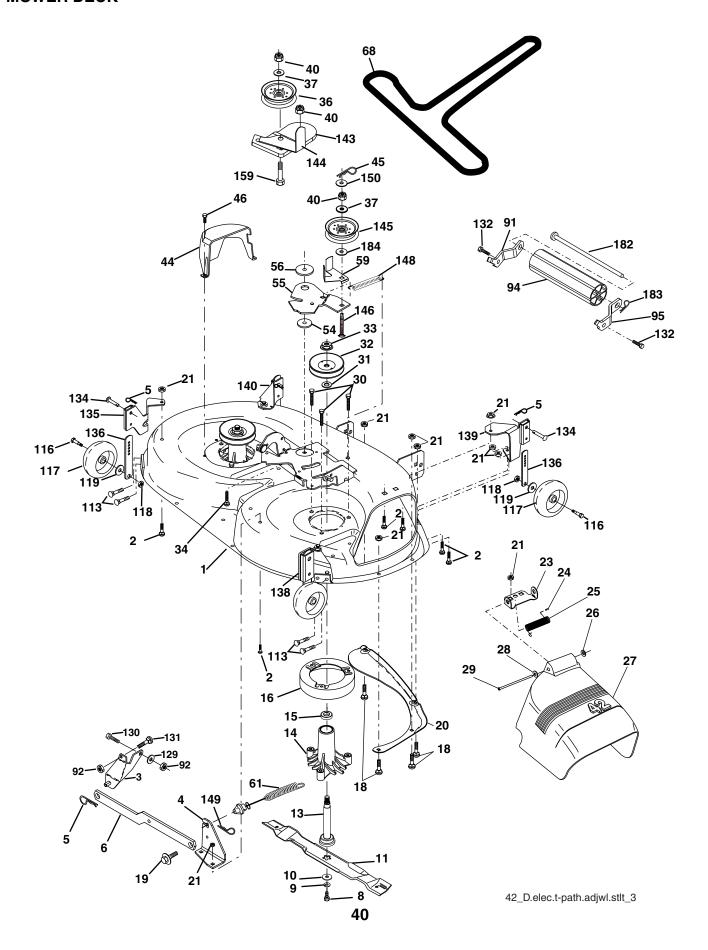
**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm

## TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 MOWER LIFT



KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532 15 94-61	Wire Asm Inner/Spring W/Plunger LT	25	532 16 40-24	Spring
2		S Shaft Asm Lift RH w/Inf	26		Retainer Clip
3	532 17 89-81	Pin Groove	27	532 16 45-43	Rod Adj Lift
4	812 00 00-02	2 E Ring # 5133-62	28		Nut Hex Jam 3/8-16 unc
5		Washer 21/32 x 1 x 21 Ga.	29		Knob Inf 3/8-16 unc Blk W/sym
6	532 12 01-83	Bearing Nylon Blk 629 ld	30		Trunnion Infin Height
7		Grip Handle Fluted Blk	31		Bearing PVT Lift
8		Button Plunger Black	32		Nut Crownlock 3/8-24
11	532 13 98-65		36		Indicator Height STLT
12	532 13 98-66	S Link Lift RH	37		Plug Hole Blk 1.485/1.515 Dia.
13	532 12 46-70	Retainer Spring	38	817 06 05-16	Screw 5/16-18 x 1
15	532 17 32-88		40	819 11 24-10	Washer 11/32 x 1-1/2 10 Ga.
16	873 35 08-00	Nut Jam Hex 1/2-13 unc	41	532 15 50-98	Scale Ind. Height Blk.
17	532 17 56-89		49		Nut Hex Flange Lock
18	873 80 08-00	Nut Lock w/Wsh 1/2-13 unc	50	532 11 04-52	Nut, Push Phos & Oil
19	532 13 98-68	3 Arm Suspension Rear			
20		Retainer Spring			
23	532 11 08-07		NOTE	: All compone	ent dimensions given in U.S. inches
24		6 Washer 13/32 x 5/8 x 16 Ga.		1 inch = 25.4	

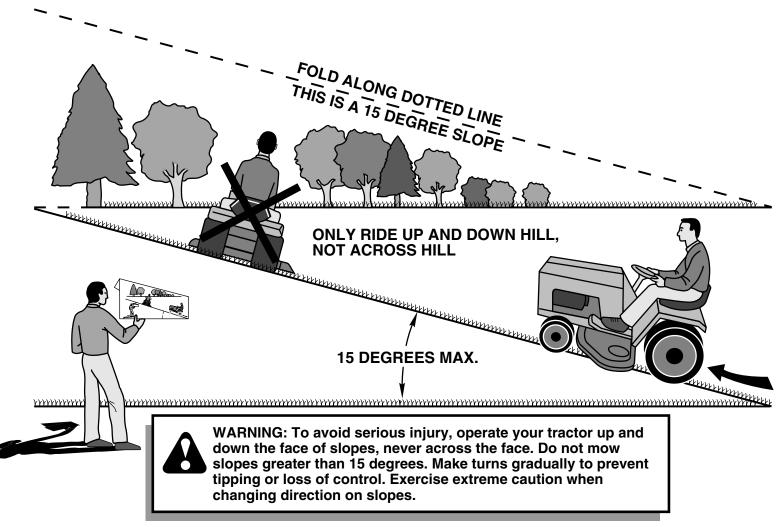
TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 MOWER DECK



## TRACTOR - MODEL NO. YTH1542XP (HAU15H42G), PRODUCT NO. 954 17 02-25 MOWER DECK

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532 18 54-38	Mower Deck Assembly, 42"	68	532 17 48-83	
2	872 14 05-06		91		Bracket Asm Noseroller Lh
3		Bracket Assembly, Sway Bar, Front	92		Nut Lock Hex 3/8-16
4		Bracket Sway Bar 42" Deck	94		Roller Nose 38"-50"
5		Retainer Spring	95		Bracket Asm Noseroller Rh
6		Bar Sway Deck	113		Screw 5/16-18 x 3/4 Tap R
8		Bolt, Hex 3/8-24 x 1.25 Gr. 8	116		Bolt, Shoulder
9		Washer, Llordonad	117 118		Wheel, Gauge
10		Washer, Hardened	119		Nut, Centerlock 3/8-16 Washer 3/8 x 7/8 x 14 Ga.
11 13		Blade Mower Shaft Assembly, Mandrel, Vented	129		Washer 13/32 x 13/16 x Ga.
14		Housing, Mandrel, Vented	130		Bolt Fin Hex 3/8-16 unc x 1 Gr.5
15		Bearing, Ball, Mandrel	131		Bolt Rdhd Sqnk 3/8-16 unc x 1
16	532 17 44-93		132		Screw 3/8-16 x .75
18		Bolt, Carriage 5/16-18 x 5/8	134		Pin Head Rivet
19	532 13 28-27	Bolt, Shoulder	135		Bracket Asm Whl GA R LH
20		Baffle, Vortex	136		Bar Adjusting GA WHL
21		Nut Crownlock 5/16-18 unc	138		Bracket Asm Whl GA R RH
23		Bracket, Deflector	139		Bracket Asm Whl GA F RH
24	532 10 53-04		140	532 17 80-76	Bracket Asm Whl GA F LH
25	532 12 37-13	Spring, Torsion, Deflector	143	532 15 71-09	Bracket Arm Idler 42"
26	532 11 04-52		144		Keeper Belt 42" Clutch Cable
27		Shield, Deflector	145		Pulley Idler Flat
28		Washer 11/32 x 5/8 x 16 Ga.	146		Bolt Carriage Idler
29	532 13 14-91		148		Spring Return Idler
30		Screw Thdrol Hex	149		Retainer Spring Yellow Zinc
31		Washer, Spacer	150		Washer 9/32 x 3/4 x 10 Ga.
32		Pulley, Mandrel	159		Bolt Rdhd Sqn 3/8-16 unc x 1- 3/4
33		Nut, Toplock, Flanged	182		Rod Roller Nose
34	872 11 06-12		183		Retainer Spring
36		Pulley, Idler, Flat	184		Washer 13/32 x 7/8 x 10 Ga.
40		Nut Lock Flg. 3/8-16 unc		532 13 07-94	Mandrel Assembly (Includes Hous-
44 45		Guard, Mandrel, L.H.			ing, Shaft and Shaft Hardware Only - Pulley Not Included)
45 46	532 12 47-88	Screw, Thd. Roll 1/4-20 x 5/8		522 17 60 FO	Replacement Mower, Complete
54		Washer, Hardened		332 17 00-30	(Std. Deck-Order separately nose
55	532 17 65-15				roller and guage wheel components
56		Spacer, Retainer			key nos. 91, 94, 95, 132, 182, 183
59	532 17 34-42	Guard, TUV Idler			and 5, 116-119)
61		Spring Ext Elect Clutch 42" Dck	NOTE	. All commercia	<i>'</i>
٥.	002 17 10 02	opining Ext Eloot Oldton 12 Bolt	NOTE		ent dimensions given in U.S. inche
				1 inch = 25.	+ 111111

### SUGGESTED GUIDE FOR SIGHTING SLOPES FOR SAFE OPERATION



- 1. Fold this page along dotted line indicated above.
- 2. Hold page before you so that its left edge is vertically parallel to a tree trunk or other upright structure.
- 3. Sight across the fold in the direction of hill slope you want to measure.
- 4. Compare the angle of the fold with the slope of the hill.

## **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 against breakage, trimmer shafts, ignition coils and modules on hand held product.

3 Year Warranty: Spindles (on Zero Turn Riders and Commercial Walk-Behinds)

2 Year COMMERCIAL-Warranty: Husqvarna Commercial Turf Equipment—zero turn riders, wide area walks, and ground engaging commercial equipment.

2 Year NON-COMMERCIAL Warranty: Automatic Mower, 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, electrical products and power-assist collection systems for noncommercial, nonprofessional, noninstitutional or nonincome producing use, except as herein stated.

Emission control system components necessary to comply with CARB-TIER-II 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, pole pruners and pole saws for <u>non-commercial</u>, <u>non-professional</u>, <u>non-institutional or non-income producing use</u>. All trimmers, brushcutters, clearing saws, hovering trimmers, stick edgers, backpack blowers, hand held blowers, hedge trimmers, power-assist collection systems used for <u>commercial</u>, <u>institutional</u>, <u>professional or income producing purposes or use</u>.

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

**90 Day Warranty:** Automatic Mower, Chain saws, power cutters, stump grinders, pole saws, pole pruners, snow throwers, model series 580 & 600 walk-behind mowers and commercial turf equipment or any Husqvarna product used for <u>commercial</u>, <u>institutional</u>, <u>professional</u>, <u>or income producing purposes or use except as otherwise provided herein</u>.

**Husqvarna Safety Apparel** carries a 90-day warranty from the date of the customer's original purchase for defects in material and workmanship. Normal wear, tear or abuse is not covered under warranty. Product must be returned to Charlotte with a warranty claim form. All care and maintenance instructions must be followed as stated by the manufacturer on the care label. The fit of the protective apparel/boot is not covered under warranty.

30 Day Warranty: Replacement parts, accessories including bars and chains, tools and display items.

#### 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 which gives a warranty, all claims for warranty should be sent to the manufacturer; and
- (5)Emission Control System components necessary to comply with CARB-TIER-II and EPA regulations which are manufactured by third party engine manufacturer.

## **WARRANTY STATEMENT**

#### **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 CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THESE PRODUCTS EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THESE PRODUCTS IS LIMITED IN DURATION TO THE WARRANTY PERIOD AS DEFINED IN THE LIMITED WARRANTY STATEMENT. HUSQVARNA RESERVES THE RIGHT TO CHANGE OR IMPROVE THE DESIGN OF THE PRODUCT WITHOUT NOTICE, AND DOES NOT ASSUME OBLIGATION TO UPDATE PREVIOUSLY MANUFACTURED PRODUCTS.

Some states do not allow the exclusion of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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

The 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

531 83 81-23 2002

