Owner's Manual
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.
- Slow down 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.

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.

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:
- 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.
- Slow down 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.

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.
SAFETY RULES

Safe Operation Practices for Ride-On Mowers

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

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

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

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

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

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

WARNING
Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.
CONGRATULATIONS on your purchase of a new tractor. It has been designed, engineered and manufactured to give you the best possible dependability and performance. Should you experience any problem you cannot easily remedy, please contact your nearest authorized service center/department. We have competent, well-trained technicians and the proper tools to service or repair this 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 “Customer Responsibilities” and “Storage” sections of this owner’s manual.

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

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

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UNASSEMBLED PARTS

Steering Wheel

- Steering Wheel
- Steering Wheel Insert
- Steering Extension Shaft
- Steering Boot
- (1) Large Flat Washer
- (1) Bolt 1/4-28 x 1-1/4
- (1) Locknut 1/4-28
- (1) Locknut 1/2-20
- (1) Lock 1/2
- (1) Oil Drain Tube
- (2) Keys
- Slope Sheet

Seat

- (1) Washer 17/32 x 1-3/16 x 12 Gauge
- (1) Lock Washer 1/2
- (1) Bolt

Key
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
(2) 7/16" wrenches
Pliers
Tire pressure gauge
Utility knife

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

TO REMOVE TRACTOR FROM CARTON
UNPACK CARTON
• Remove all accessible loose parts and parts cartons from carton.
• Cut, from top to bottom, along lines on all four corners of carton, and lay panels flat.
• Check for any additional loose parts or cartons and remove.

BEFORE REMOVING TRACTOR FROM SKID
ATTACH STEERING WHEEL (See Fig. 1)
ASSEMBLE EXTENSION SHAFT AND BOOT
• Slide extension shaft onto lower steering shaft. Align mounting holes in extension and lower shafts and install 1/4 hex bolt and locknut. Tighten securely.

IMPORTANT: TIGHTEN BOLT AND NUT SECURELY TO 10-12 FT. LBS TORQUE.
• Place tabs of steering boot over tab slots in dash and push down to secure.

INSTALL STEERING WHEEL
• Position front wheels of the tractor so they are pointing straight forward.
• Remove steering wheel adapter from steering wheel and slide adapter onto steering shaft extension.
• Position steering wheel so cross bars are horizontal (left to right) and slide inside boot and onto adapter.
• Assemble large flat washer, 1/2 hex nut and tighten securely.
• Snap steering wheel insert into center of steering wheel.
• Remove protective materials from tractor hood and grill.

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

CHECK BATTERY (See Fig. 2)
• Lift seat pan to raised position.
• If this battery is put into service after month and year indicated on label (label located between terminals) charge battery for minimum of one hour at 6-10 amps. (See “BATTERY” in CUSTOMER RESPONSIBILITIES section of this manual for charging instructions).
INSTALL SEAT (See Fig. 3)
Adjust seat before tightening adjustment bolt.
- Remove adjustment bolt, lock washer 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 bolt, lockwasher 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 bolt securely.

TO ROLL TRACTOR OFF SKID (See Operation section, page 10, for location and function of controls)
- Press lift lever plunger and raise attachment lift lever to its highest position.
- Release parking brake by depressing clutch/brake pedal.
- Place freewheel control in freewheeling position to disengage transmission (See “TO TRANSPORT” in the Operation section of this manual).
- Roll tractor forward off skid.
- Remove banding holding deflector shield up against tractor.

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

WARNING: Before starting, read, understand and follow all instructions in the Operation section of this manual. Be sure tractor is in a well-ventilated area. Be sure the area in front of tractor is clear of other people and objects.
- Be sure all the above assembly steps have been completed.
- Check engine oil level and fill fuel tank with gasoline.
- Place freewheel control in “transmission engaged” position.
- Sit on seat in operating position, depress clutch/brake pedal and set the parking brake.
- Place motion control lever in neutral (N) position.
- Press lift lever plunger and raise attachment lift lever to its highest position.
- Start the engine. After engine has started, move throttle control to idle position.
- Release parking brake.
- Slowly move the motion control lever forward and slowly drive tractor off skid.
- Apply brake to stop tractor, set parking brake and place motion control lever in neutral position.
- Turn ignition key to “OFF” position.

Continue with the instructions that follow.

NOTE: You may now roll or drive your tractor off the skid. Follow the appropriate instruction below to remove the tractor from the skid.
CHECK TIRE PRESSURE
The tires on your tractor were overinflated at the factory for shipping purposes. Correct tire pressure is important for best cutting performance.
• Reduce tire pressure to PSI shown in “PRODUCT SPECIFICATIONS” section of this manual.

CHECK DECK LEVELNESS
For best cutting results, mower housing should be properly leveled. See “TO LEVEL MOWER HOUSING” in the Service and Adjustments section of this manual.

CHECK FOR PROPER POSITION OF ALL BELTS
See the figures that are shown for replacing motion and mower blade drive belts in the Service and Adjustments section of this manual. Verify that the belts are routed correctly.

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

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

PLEASE REVIEW THE FOLLOWING CHECKLIST:
3 All assembly instructions have been completed.
3 No remaining loose parts in carton.
3 Battery is properly prepared and charged. (Minimum 1 hour at 6 amps).
3 Seat is adjusted comfortably and tightened securely.
3 All tires are properly inflated. (For shipping purposes, the tires were overinflated at the factory).
3 Be sure mower deck is properly leveled side-to-side/front-to-rear for best cutting results. (Tires must be properly inflated for leveling).
3 Check mower and drive belts. Be sure they are routed properly around pulleys and inside all belt keepers.
3 Check wiring. See that all connections are still secure and wires are properly clamped.
3 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:
3 Engine oil is at proper level.
3 Fuel tank is filled with fresh, clean, regular unleaded gasoline.
3 Become familiar with all controls - their location and function. Operate them before you start the engine.
3 Be sure brake system is in safe operating condition.
3 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.

- **Battery**
- **CAUTION OR WARNING**
- **Reverse**
- **Forward**
- **Fast**
- **Slow**
- **Engine on**
- **Engine off**
- **Oil pressure**
- **Lights on**
- **Over Temp light**
- **Fuel**
- **Choke**
- **Mower height**
- **Parking brake locked**
- **Unlocked**
- **Mower lift**
- **Attachment clutch engaged**
- **Reverse**
- **Neutral**
- **High**
- **Low**
- **Parking brake**
- **Ignition**
- **Attachment clutch disengaged**
- **Keep area clear**
- **Slope hazards**
- **Danger, keep hands and feet away**
- **Free wheel** (Automatic Models only)
KNOW YOUR TRACTOR

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

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

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

ATTACHMENT CLUTCH LEVER: Used to engage the mower blades, or other attachments mounted to your tractor.
LIGHT SWITCH POSITION: Turns the headlights on and off.
THROTTLE/CHOKE CONTROL: Used for starting and controlling engine speed.
CLUTCH/BRAKE PEDAL: Used for declutching and braking the tractor and starting the engine.
PARKING BRAKE: Locks clutch/brake pedal into the brake position.

FREEWHEEL CONTROL: Disengages transmission for pushing or slowly towing the tractor with the engine off.
MOTION CONTROL LEVER: Selects the speed and direction of tractor.
ATTACHMENT LIFT LEVER: Used to raise and lower the mower deck or other attachments mounted to your tractor.
LIFT LEVER PLUNGER: Used to release attachment lift lever when changing its position.
IGNITION SWITCH: Used for starting and stopping the engine.
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. 5)
Your tractor is equipped with an operator presence sensing switch. When engine is running, any attempt by the operator to leave the seat without first setting the parking brake will shut off the engine.

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

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. 5)
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 MOVE FORWARD AND BACKWARD (See Fig. 5)
The direction and speed of movement is controlled by the motion control lever.

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

TO ADJUST MOWER CUTTING HEIGHT (See Fig. 5)
The position of the attachment lift lever determines the cutting height.

- Grasp lift lever.
- Press plunger with thumb and move lever to desired position.

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.

STOPPING (See Fig. 5)

MOWER BLADES -
- To stop mower blades, move attachment clutch lever to “DISENGAGED” position.

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

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

ENGINE -
- Move throttle control to slow position.

NOTE: Failure to move throttle control to slow position and allowing engine to idle before stopping may cause engine to “backfire”.
- Turn ignition key to “OFF” position and remove key. Always remove key when leaving tractor to prevent unauthorized use.
- Never use choke to stop engine.

FIG. 5

ATTACHMENT CLUTCH LEVER "ENGAGED" POSITION
IGNITION KEY
"DISENGAGED" POSITION
PARKING BRAKE "ENGAGED" POSITION
PARKING BRAKE "DISENGAGED" POSITION
THROTTLE/CHOKE CONTROL
CLUTCH/BRAKE PEDAL "DRIVE" POSITION
"BRAKE" POSITION
MOTION CONTROL LEVER

11
OPERATION

TO ADJUST GAUGE WHEELS (See Fig. 6)

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

TO OPERATE ON HILLS

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

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

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

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

TO TRANSPORT (See Figs. 4 and 8)

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

- Raise attachment lift to highest position with attachment lift control.
- Pull freewheel control out and down into the slot and release so it is held in the disengaged position.
- Do not push or tow tractor at more than two (2) MPH.
- To reengage transmission, reverse above procedure.

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

TO OPERATE MOWER (See Fig. 7)

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

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

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

TO ADJUST MOWER CUTTING HEIGHT

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

TOWING CARTS AND OTHER ATTACHMENTS

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

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.
- Remove oil fill cap/dipstick and wipe clean, reinsert the dipstick and screw cap tight, wait for a few seconds, remove and read oil level. If necessary, add oil until “FULL” mark on dipstick is reached. Do not overfill.
- For cold weather operation you should change oil for easier starting (See “OIL VISCOSITY CHART” in the Customer Responsibilities section of this manual).
- To change engine oil, see the Customer Responsibilities section in this manual.

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. 4)
When starting the engine for the first time or if the engine has run out of fuel, it will take extra cranking time to move fuel from the tank to the engine.
- Be sure freewheel control is in the transmission engaged position.
- Sit on seat in operating position, depress clutch/brake pedal and set parking brake.
- Place motion control lever in neutral (N) position.
- Move attachment clutch to “DISENGAGED” position.
- Move throttle control to choke position.

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, move throttle control to fast position, wait a few minutes and try again. If engine still does not start, move the throttle control back to the choke position and retry.

WARM WEATHER STARTING (50° F and above)
- When engine starts, move the throttle control to the fast position.
- 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, allow engine to run with the throttle control in the choke position until the engine runs roughly, then move throttle control to fast position. This may require an engine warm-up period from several seconds to several minutes, depending on the temperature.

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

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

PURGE TRANSMISSION

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

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

IMPORTANT: SHOULD YOUR TRANSMISSION REQUIRE REMOVAL FOR SERVICE OR REPLACEMENT, IT SHOULD BE PURGED AFTER REINSTALLATION BEFORE OPERATING THE TRACTOR.
- Place tractor safely on level surface with engine off and parking brake set.
- Disengage transmission by placing freewheel control in freewheeling position (See “TO TRANSPORT” in this section of manual).
MOWING TIPS

- Tire chains cannot be used when the mower housing is attached to tractor.
- Mower should be properly leveled for best mowing performance. See “TO LEVEL MOWER HOUSING” in the Service and Adjustments section of this manual.
- The left hand side of mower should be used for trimming.
- Drive so that clippings are discharged onto the area that has been cut. Have the cut area to the right of the machine. This will result in a more even distribution of clippings and more uniform cutting.
- When mowing large areas, start by turning to the right so that clippings will discharge away from shrubs, fences, driveways, etc. After one or two rounds, mow in the opposite direction making left hand turns until finished (See Fig. 9).
- 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.
CUSTOMER RESPONSIBILITIES

<table>
<thead>
<tr>
<th>MAINTENANCE SCHEDULE</th>
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<th>EVERY 25 HOURS</th>
<th>EVERY 50 HOURS</th>
<th>EVERY 100 HOURS</th>
<th>BEFORE STORAGE</th>
<th>SERVICE DATES</th>
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</table>

1 - Change more often when operating under a heavy load or in high ambient temperatures.
2 - Service more often when operating in dirty or dusty conditions.
3 - 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.

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

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

BEFORE EACH USE

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

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 attachment clutch control is in the disengaged position.
- When the engine is running, any attempt by the operator to leave the seat without first setting the parking brake should shut off the engine.
- When the engine is running and the attachment clutch is engaged, any attempt by the operator to leave the seat should shut off the engine.
- The attachment clutch should never operate unless the operator is in the seat.

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

BLADE REMOVAL (See Fig. 10)
- 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 GRADE 8 HEAT TREATED.

FIG. 10

TO SHARPEN BLADE (See Fig. 11)

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. 11

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.
CUSTOMER RESPONSIBILITIES

TO CLEAN BATTERY AND TERMINALS
Corrosion and dirt on the battery and terminals can cause the battery to “leak” power.
- Disconnect BLACK battery cable first then RED battery cable and remove battery from tractor.
- Rinse the battery with plain water and dry.
- Clean terminals and battery cable ends with wire brush until bright.
- Coat terminals with grease or petroleum jelly.
- Reinstall battery (See “REPLACING BATTERY” in the SERVICE AND ADJUSTMENTS section of this manual).

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

TRANSAXLE COOLING
The transmission fan and cooling fins should be kept clean to assure proper cooling.
Do not attempt to clean fan or transmission while engine is running or while the transmission is hot. To prevent possible damage to seals, do not use high pressure water or steam to clean transaxle.
- Inspect cooling fan to be sure fan blades are intact and clean.
- Inspect cooling fins for dirt, grass clippings and other materials. To prevent damage to seals, do not use compressed air or high pressure sprayer to clean cooling fins.

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

ENGINE

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

<table>
<thead>
<tr>
<th>SAE VISCOSITY GRADES</th>
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<tr>
<td>F -20 30 60 80 100</td>
</tr>
<tr>
<td>C -30 -20 -10 0 10 20 30 40</td>
</tr>
<tr>
<td>TEMPERATURE RANGE ANTICIPATED BEFORE NEXT OIL CHANGE</td>
</tr>
</tbody>
</table>

![FIG. 12 CLEAN AIR SCREEN](image)

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.

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

Change the oil after every 25 hours of operation or at least once a year if the tractor is not used for 25 hours in one year.
Check the crankcase oil level before starting the engine and after each eight (8) hours of operation. Tighten oil fill cap/dipstick securely each time you check the oil level.

TO CHANGE ENGINE OIL (See Figs. 12 and 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 OIL DRAIN VALVE](image)

- 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. Be sure dipstick cap is tightened securely for accurate reading. Keep oil at “FULL” line on dipstick.
CUSTOMER RESPONSIBILITIES

ENGINE COOLING FINS (See Fig. 14)
Remove any dust, dirt or oil from engine cooling fins to prevent engine damage from overheating.
- Remove screws from blower housing and lift housing and dipstick tube assembly off engine.
- Cover oil fill opening to prevent entry of dirt.
- Use compressed air or stiff bristle brush to thoroughly clean engine cooling fins.
- To reassemble, reverse above procedure.

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

AIR FILTER (See Fig. 15)
Your engine will not run properly using a dirty air filter. Clean the foam pre-cleaner after every 25 hours of operation or every season. Service paper cartridge every 100 hours of operation or every season, whichever occurs first.
Service air cleaner more often under dusty conditions.
- Remove knob(s) and cover.
TO SERVICE PRE-CLEANER
- Slide foam pre-cleaner off cartridge.
- Wash it in liquid detergent and water.
- Squeeze it dry in a clean cloth.
- Saturate it in engine oil. Wrap it in clean, absorbent cloth and squeeze to remove excess oil.
- If very dirty or damaged, replace pre-cleaner.
- Reinstall pre-cleaner over cartridge.
- Reinstall cover and secure with knob(s).
TO SERVICE CARTRIDGE
- Remove cartridge nut.
- Carefully remove cartridge to prevent debris from entering carburetor. Clean base carefully to prevent debris from entering carburetor.
- Clean cartridge by tapping gently on flat surface. If very dirty or damaged, replace cartridge.
- Reinstall cartridge, nut, precleaner, cover and secure with knob(s).
IMPORTANT: PETROLEUM SOLVENTS, SUCH AS KEROSENE, ARE NOT TO BE USED TO CLEAN THE CARTRIDGE. THEY MAY CAUSE DETERIORATION OF THE CARTRIDGE. DO NOT OIL CARTRIDGE. DO NOT USE PRESSURIZED AIR TO CLEAN OR DRY CARTRIDGE.

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. 16)
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.

CLEANING
- Clean engine, battery, seat, finish, etc. of all foreign matter.
- Keep finished surfaces and wheels free of all gasoline, oil, etc.
- Protect painted surfaces with automotive type wax.
We do not recommend using a garden hose to clean your tractor unless the electrical system, muffler, air filter and carburetor are covered to keep water out. Water in engine can result in a shortened engine life.
SERVICE AND ADJUSTMENTS

WARNING: TO AVOID SERIOUS INJURY, BEFORE PERFORMING ANY SERVICE OR ADJUSTMENTS:
- Depress clutch/brake pedal fully and set parking brake.
- Place motion control lever in neutral (N) position.
- Place attachment clutch in “DISENGAGED” position.
- Turn ignition key 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. 17)
Mower will be easier to remove from the right side of tractor.
- Place attachment clutch in “DISENGAGED” position.
- Move attachment lift lever forward to lower mower to its lowest position.
- Roll belt off engine pulley.
- Remove small retainer spring, and lift clutch spring off pulley bolt.
- Remove large retainer spring, slide collar off and push housing guide out of bracket.
- Disconnect anti-swaybar 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 AND HOOK THE CLUTCH SPRING INTO SQUARE HOLE IN FRAME.

TO INSTALL MOWER (See Fig. 17)
- 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.
- Push clutch cable housing guide into bracket, slide collar onto guide and secure with large retainer spring.
- Install belt onto engine pulley.

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.

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FIG. 17

SUSPENSION ARMS

RETAINER SPRINGS (BOTH SIDES)

SQUARE HOLE

ENGINE PULLEY

CLUTCH SPRING

SMALL RETAINER SPRING

ANTI-SWAY BAR

COLLAR

HOUSING GUIDE

LARGE RETAINER SPRING

BRACKET

DEFLECTOR SHIELD

REFERENCES
SERVICE AND ADJUSTMENTS

SIDE-TO-SIDE ADJUSTMENT (See Figs. 18 and 19)
- 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.

FRONT-TO-BACK ADJUSTMENT (See Figs. 20 and 21)
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.

TO REPLACE MOWER BLADE DRIVE BELT (See Fig. 22)
The mower blade drive belt may be replaced without tools. Park the tractor on level surface. Engage parking brake.

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

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

TO ADJUST BRAKE (See Fig. 23)
Your tractor is equipped with an adjustable brake system which is mounted on the side of the transaxle.

If tractor requires more than six (6) feet stopping distance at high speed in highest gear on a level dry concrete or paved surface, then brake must be adjusted.
SERVICE AND ADJUSTMENTS

- Depress clutch/brake pedal and engage parking brake.
- Measure distance between brake operating arm and nut “A” on brake rod.
- If distance is other than 1-9/16”, loosen jam nut and turn nut “A” until distance becomes 1-9/16”. Retighten jam nut against nut “A”.
- Road test tractor for proper stopping distance as stated above. Readjust if necessary. If stopping distance is still greater than six (6) feet in highest gear, further maintenance is necessary. Contact your nearest authorized service center/department.

WITH PARKING BRAKE

“ENGAGED”

JAM NUT

FIG. 23

TO REPLACE MOTION DRIVE BELT
(See Fig. 24)

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.
- Remove belt from stationary idler and clutching idler.
- Remove belt downward from around engine pulley.
- 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 around the top groove of engine pulley.
- Install belt through stationary idler and clutching idler.
- 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).

TRANSAXLE MOTION CONTROL LEVER NEUTRAL ADJUSTMENT (See Fig. 25)

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

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

After above adjustment is made, if the tractor still creeps forward or backward while motion control lever is in neutral position, follow these steps:
- Loosen the adjustment bolt.
- Move the motion control lever 1/4 to 1/2 inch in the direction it is trying to creep.
- Tighten adjustment bolt securely.
- Start engine and test.
- If tractor still creeps, repeat above steps until satisfied.

TRANSMISSION REMOVAL/REPLACEMENT

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

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. 26)
- 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.

TO START ENGINE WITH A WEAK BATTERY
(See Fig. 27)

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 CUSTOMER RESPONSIBILITIES section of this manual).
If “jumper cables” are used for emergency starting, follow this procedure:

IMPORTANT: YOUR TRACTOR IS EQUIPPED WITH A 12 VOLT 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 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.

REPLACING BATTERY (See Figs. 28 and 29)

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 seat pan to raised position.
- Disconnect BLACK battery cable first then RED battery cable and carefully remove battery from tractor.
- Install new battery with terminals in same position as old battery.
- First connect RED battery cable to positive (+) terminal with hex bolt and keps nut as shown. Tighten securely. Slide terminal cover over terminal.
- Connect BLACK grounding cable to negative (-) terminal with remaining hex bolt and keps nut. Tighten securely.

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.

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

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

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- Connect one end of the RED cable to the POSITIVE (+) terminal of each battery(A-B), taking care not to short against tractor chassis.

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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.

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

IMPORTANT: YOUR TRACTOR IS EQUIPPED WITH A 12 VOLT 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.
TO REMOVE HOOD AND GRILL ASSEMBLY (See Fig. 30)

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

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 ADJUST CARBURETOR

The carburetor has been preset at the factory and adjustment should not be necessary. However, minor adjustment may be required to compensate for differences in fuel, temperature, altitude or load. If the carburetor does need adjustment, see engine manual.

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

IMPORTANT: NEVER TAMPER WITH THE ENGINE GOVERNOR, WHICH IS FACTORY SET FOR PROPER ENGINE SPEED. OVERSPEEDING THE ENGINE ABOVE THE FACTORY HIGH SPEED SETTING CAN BE DANGEROUS. IF YOU THINK THE ENGINE-GOVERNED HIGH SPEED NEEDS ADJUSTING, CONTACT YOUR NEAREST AUTHORIZED SERVICE CENTER/DEPARTMENT, WHICH HAS PROPER EQUIPMENT AND EXPERIENCE TO MAKE ANY NECESSARY ADJUSTMENTS.
Immediately prepare your tractor for storage at the end of the season or if the tractor will not be used for 30 days or more.

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

**TRACTOR**

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

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

**BATTERY**

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

**ENGINE**

**FUEL SYSTEM**

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

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

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

**ENGINE OIL**

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

**CYLINDER(S)**

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

**OTHER**

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

**IMPORTANT:** NEVER COVER TRACTOR WHILE ENGINE AND EXHAUST AREAS ARE STILL WARM.
# TROUBLESHOOTING POINTS

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<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>CORRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will not start</td>
<td>1. Out of fuel.</td>
<td>1. Fill fuel tank.</td>
</tr>
<tr>
<td></td>
<td>2. Engine not “CHOKED” properly.</td>
<td>2. See “TO START ENGINE” in Operation section.</td>
</tr>
<tr>
<td></td>
<td>3. Engine flooded.</td>
<td>3. Wait several minutes before attempting to start.</td>
</tr>
<tr>
<td></td>
<td>4. Bad spark plug.</td>
<td>4. Replace spark plug.</td>
</tr>
<tr>
<td></td>
<td>5. Dirty air filter.</td>
<td>5. Clean/replace air filter.</td>
</tr>
<tr>
<td></td>
<td>7. Water in fuel.</td>
<td>7. Drain fuel tank and carburetor, refill tank with fresh gasoline and replace fuel filter.</td>
</tr>
<tr>
<td></td>
<td>8. Loose or damaged wiring.</td>
<td>8. Check all wiring.</td>
</tr>
<tr>
<td></td>
<td>10. Engine valves out of adjustment.</td>
<td>10. Contact an authorized service center/department.</td>
</tr>
<tr>
<td></td>
<td>2. Bad spark plug.</td>
<td>2. Replace spark plug.</td>
</tr>
<tr>
<td></td>
<td>3. Weak or dead battery.</td>
<td>3. Recharge or replace battery.</td>
</tr>
<tr>
<td></td>
<td>5. Stale or dirty fuel.</td>
<td>5. Drain fuel tank and refill with fresh gasoline.</td>
</tr>
<tr>
<td></td>
<td>6. Loose or damaged wiring.</td>
<td>6. Check all wiring.</td>
</tr>
<tr>
<td></td>
<td>7. Carburetor out of adjustment.</td>
<td>7. See “To Adjust Carburetor” in Service Adjustments section.</td>
</tr>
<tr>
<td></td>
<td>8. Engine valves out of adjustment.</td>
<td>8. Contact an authorized service center/department.</td>
</tr>
<tr>
<td>Engine will not turn over</td>
<td>1. Brake pedal not depressed.</td>
<td>1. Depress brake pedal.</td>
</tr>
<tr>
<td></td>
<td>2. Attachment clutch is engaged.</td>
<td>2. Disengage attachment clutch.</td>
</tr>
<tr>
<td></td>
<td>3. Weak or dead battery.</td>
<td>3. Recharge or replace battery.</td>
</tr>
<tr>
<td></td>
<td>5. Corroded battery terminals.</td>
<td>5. Clean battery terminals.</td>
</tr>
<tr>
<td></td>
<td>6. Loose or damaged wiring.</td>
<td>6. Check all wiring.</td>
</tr>
<tr>
<td></td>
<td>7. Faulty ignition switch.</td>
<td>7. Check/replace ignition switch.</td>
</tr>
<tr>
<td></td>
<td>8. Faulty solenoid or starter.</td>
<td>8. Check/replace solenoid or starter.</td>
</tr>
<tr>
<td>Engine clicks but will not start</td>
<td>1. Weak or dead battery.</td>
<td>1. Recharge or replace battery.</td>
</tr>
<tr>
<td></td>
<td>2. Corroded battery terminals.</td>
<td>2. Clean battery terminals.</td>
</tr>
<tr>
<td></td>
<td>3. Loose or damaged wiring.</td>
<td>3. Check all wiring.</td>
</tr>
<tr>
<td></td>
<td>4. Faulty solenoid or starter.</td>
<td>4. Check/replace solenoid or starter.</td>
</tr>
<tr>
<td></td>
<td>2. Throttle in “CHOKE” position.</td>
<td>2. Adjust throttle control.</td>
</tr>
<tr>
<td></td>
<td>3. Build-up of grass, leaves and trash under mower.</td>
<td>3. Clean underside of mower housing.</td>
</tr>
<tr>
<td></td>
<td>5. Low oil level/dirty oil.</td>
<td>5. Check oil level/change oil.</td>
</tr>
<tr>
<td></td>
<td>6. Faulty spark plug.</td>
<td>6. Clean and regap or change spark plug.</td>
</tr>
<tr>
<td></td>
<td>8. Stale or dirty fuel.</td>
<td>8. Drain fuel tank and refill with fresh gasoline.</td>
</tr>
<tr>
<td></td>
<td>10. Spark plug wire loose.</td>
<td>10. Connect and tighten spark plug wire.</td>
</tr>
<tr>
<td></td>
<td>13. Loose or damaged wiring.</td>
<td>13. Check all wiring.</td>
</tr>
<tr>
<td></td>
<td>15. Engine valves out of adjustment.</td>
<td>15. Contact an authorized service center/department.</td>
</tr>
<tr>
<td>Excessive vibration</td>
<td>1. Worn, bent or loose blade.</td>
<td>1. Replace blade. Tighten blade bolt.</td>
</tr>
<tr>
<td></td>
<td>2. Bent blade mandrel.</td>
<td>2. Replace blade mandrel.</td>
</tr>
<tr>
<td></td>
<td>3. Loose/damaged part(s).</td>
<td>3. Tighten loose part(s). Replace damaged parts.</td>
</tr>
<tr>
<td>PROBLEM</td>
<td>CAUSE</td>
<td>CORRECTION</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>Engine continues to run when operator leaves seat with attachment clutch engaged</td>
<td>1. Faulty operator-safety presence control system.</td>
<td>1. Check wiring, switches and connections. If not corrected, contact an authorized service center/department.</td>
</tr>
<tr>
<td>Poor cut - uneven</td>
<td>1. Worn, bent or loose blade. 2. Mower deck not level. 3. Buildup of grass, leaves, and trash under mower. 4. Bent blade mandrel. 5. Clogged mower deck vent holes from buildup of grass, leaves, and trash around mandrels.</td>
<td>1. Replace blade. Tighten blade bolt. 2. Level mower deck. 3. Clean underside of mower housing. 4. Replace blade mandrel. 5. Clean around mandrels to open vent holes.</td>
</tr>
<tr>
<td>Mower blades will not rotate</td>
<td>1. Obstruction in clutch mechanism. 2. Worn/damaged mower drive belt. 3. Frozen idler pulley. 4. Frozen blade mandrel.</td>
<td>1. Remove obstruction. 2. Replace mower drive belt. 3. Replace idler pulley. 4. Replace blade mandrel.</td>
</tr>
<tr>
<td>Headlight(s) not working (if so equipped)</td>
<td>1. Switch is “OFF”. 2. Bulb(s) or lamp(s) burned out. 3. Faulty light switch. 4. Loose or damaged wiring. 5. Blown fuse.</td>
<td>1. Turn switch “ON”. 2. Replace bulb(s) or lamp(s). 3. Check/replace light switch. 4. Check wiring and connections. 5. Replace fuse.</td>
</tr>
<tr>
<td>Battery will not charge</td>
<td>1. Bad battery cell(s). 2. Poor cable connections. 3. Faulty regulator (if so equipped). 4. Faulty alternator.</td>
<td>1. Replace battery. 2. Check/clean all connections. 3. Replace regulator. 4. Replace alternator.</td>
</tr>
<tr>
<td>Loss of drive</td>
<td>1. Freewheel control in “disengaged” position. 2. Motion drive belt worn, damaged, or broken. 3. Air trapped in transmission during shipment or servicing.</td>
<td>1. Place freewheel control in “engaged” position. 2. Replace motion drive belt. 3. Purge transmission.</td>
</tr>
<tr>
<td>Engine “backfires” when turning engine “OFF”</td>
<td>1. Engine throttle control not set at “SLOW” position for 30 seconds before stopping engine.</td>
<td>1. Move throttle control to “SLOW” position and allow to idle for 30 seconds before stopping engine.</td>
</tr>
</tbody>
</table>
YOUR TRACTOR IS EQUIPPED WITH A SPECIAL ALTERNATOR SYSTEM. THE LIGHTS ARE NOT CONNECTED TO THE BATTERY, BUT HAVE THEIR OWN ELECTRICAL SOURCE. BECAUSE OF THIS, THE BRIGHTNESS OF THE LIGHTS WILL CHANGE WITH ENGINE SPEED. AT IDLE THE LIGHTS WILL DIM. AS THE ENGINE IS SPEEDED UP, THE LIGHTS WILL BECOME THEIR BRIGHTEST.

WIRING INSULATED CLIPS

NOTE: IF WIRING INSULATED CLIPS WERE REMOVED FOR SERVICING OF UNIT, THEY SHOULD BE REPLACED TO PROPERLY SECURE YOUR WIRING.
REPAIR PARTS
TRACTOR - MODEL NO. LTH1542 (HAUB15H42A), PRODUCT NO. 954 17 00-86
ELECTRICAL

<table>
<thead>
<tr>
<th>KEY</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>532 16 34-65</td>
<td>Battery</td>
</tr>
<tr>
<td>2</td>
<td>874 76 04-12</td>
<td>Bolt Hex Hd 1/4-20unc X 3/4</td>
</tr>
<tr>
<td>8</td>
<td>532 17 66-89</td>
<td>Box Battery</td>
</tr>
<tr>
<td>16</td>
<td>532 17 61-38</td>
<td>Switch Interlock</td>
</tr>
<tr>
<td>21</td>
<td>532 17 56-85</td>
<td>Harness Asm Light W/4152j</td>
</tr>
<tr>
<td>22</td>
<td>532 00 41-52</td>
<td>Bulb Light #1156</td>
</tr>
<tr>
<td>24</td>
<td>532 12 47-80</td>
<td>Cable Battery 6 Ga 11&quot; red</td>
</tr>
<tr>
<td>25</td>
<td>532 14 61-47</td>
<td>Cable Battery 6 Ga 44&quot; red w/16 wire</td>
</tr>
<tr>
<td>26</td>
<td>532 17 51-58</td>
<td>Fuse</td>
</tr>
<tr>
<td>27</td>
<td>873 51 04-00</td>
<td>Nut Keps Hex 1/4-20 Unc</td>
</tr>
<tr>
<td>28</td>
<td>532 12 47-73</td>
<td>Cable Ground 6 Ga 12&quot; black</td>
</tr>
<tr>
<td>29</td>
<td>532 12 13-05</td>
<td>Switch Plunger</td>
</tr>
<tr>
<td>30</td>
<td>532 17 55-66</td>
<td>Switch Ign Delta</td>
</tr>
<tr>
<td>33</td>
<td>532 14 04-01</td>
<td>Key Ign Molded Generic</td>
</tr>
<tr>
<td>40</td>
<td>532 17 97-20</td>
<td>Harness Ign.</td>
</tr>
<tr>
<td>41</td>
<td>871 11 04-08</td>
<td>Bolt Blk Fin Hex 1/4 - 20 x 1/2</td>
</tr>
<tr>
<td>42</td>
<td>532 13 15-63</td>
<td>Cover Terminal Red</td>
</tr>
<tr>
<td>43</td>
<td>532 17 88-61</td>
<td>Solenoid</td>
</tr>
<tr>
<td>48</td>
<td>532 14 08-44</td>
<td>Adapter Ammeter Rectangular</td>
</tr>
<tr>
<td>52</td>
<td>532 14 19-40</td>
<td>Protection Wire Loop</td>
</tr>
<tr>
<td>90</td>
<td>532 18 04-49</td>
<td>Cover Terminal Battery</td>
</tr>
</tbody>
</table>

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

**TRACTOR - MODEL NO. LTH1542 (HAUB15H42A), PRODUCT NO. 954 17 00-86**

**CHASSIS AND ENCLOSURES**

<table>
<thead>
<tr>
<th>KEY NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>532 17 46-19</td>
<td>Chassis Stamping</td>
</tr>
<tr>
<td>2</td>
<td>532 17 65-54</td>
<td>Drawbar, 12 Ga.</td>
</tr>
<tr>
<td>3</td>
<td>817 06 06-12</td>
<td>Screw 3/8-16 x 3/4</td>
</tr>
<tr>
<td>5</td>
<td>532 15 52-72</td>
<td>Bumper Hood/Dash</td>
</tr>
<tr>
<td>9</td>
<td>532 17 18-53</td>
<td>Dash Slkscr</td>
</tr>
<tr>
<td>10</td>
<td>872 14 06-08</td>
<td>Bolt Carriage 3/8-16 x 1</td>
</tr>
<tr>
<td>11</td>
<td>532 17 49-96</td>
<td>Panel Dash Lh</td>
</tr>
<tr>
<td>12</td>
<td>532 14 56-60</td>
<td>Clip Tinnerman Grille P/L</td>
</tr>
<tr>
<td>13</td>
<td>532 18 17-19</td>
<td>Panel Dash Rh</td>
</tr>
<tr>
<td>14</td>
<td>817 49 06-08</td>
<td>Screw Thdrol 3/8-16 x 1/2</td>
</tr>
<tr>
<td>17</td>
<td>532 16 22-37</td>
<td>Hood LT/PL</td>
</tr>
<tr>
<td>24</td>
<td>874 78 06-16</td>
<td>Bolt Fin Hex 3/8-16unc x 1 Gr 5</td>
</tr>
<tr>
<td>25</td>
<td>819 13 13-12</td>
<td>Washer 13/32 X 13/16 X 12 Ga</td>
</tr>
<tr>
<td>26</td>
<td>873 80 06-00</td>
<td>Nut Lock Hex W/Ins 3/8-16 Unc</td>
</tr>
<tr>
<td>28</td>
<td>532 17 91-00</td>
<td>Grille/Lens Asm</td>
</tr>
<tr>
<td>29</td>
<td>532 16 81-54</td>
<td>Lens P/L</td>
</tr>
<tr>
<td>30</td>
<td>532 17 69-53</td>
<td>Fender Footrest LTST Pnt</td>
</tr>
<tr>
<td>31</td>
<td>532 13 66-19</td>
<td>Bracket Fender</td>
</tr>
<tr>
<td>33</td>
<td>532 18 10-57</td>
<td>Footrest Pnt Lh</td>
</tr>
<tr>
<td>34</td>
<td>532 18 10-58</td>
<td>Footrest Pnt Rh</td>
</tr>
<tr>
<td>35</td>
<td>872 11 06-06</td>
<td>Bolt Rdhd Sht Sqnk 3/8-16 x 3/4</td>
</tr>
<tr>
<td>37</td>
<td>817 49 05-08</td>
<td>Screw Thdrol 6/16-18 x 1/2 TYT</td>
</tr>
<tr>
<td>38</td>
<td>532 17 57-10</td>
<td>Bracket Asm Pivot Mower Rear</td>
</tr>
<tr>
<td>51</td>
<td>873 80 04-00</td>
<td>Nut Lock W/Insert 1/4-20unc</td>
</tr>
<tr>
<td>52</td>
<td>819 09 14-16</td>
<td>Washer 9/32 x 7/8 x 16 Ga.</td>
</tr>
<tr>
<td>53</td>
<td>532 14 46-97</td>
<td>Bracket Grille Lh</td>
</tr>
<tr>
<td>54</td>
<td>532 16 14-64</td>
<td>Screw Hex Wshd 8-18 x 7/8</td>
</tr>
<tr>
<td>55</td>
<td>532 14 46-96</td>
<td>Bracket Grille Rh</td>
</tr>
<tr>
<td>57</td>
<td>874 78 04-12</td>
<td>Bolt Hex 1/4-20 x 3/4</td>
</tr>
<tr>
<td>58</td>
<td>532 15 01-27</td>
<td>Air Duct Engine P/L</td>
</tr>
<tr>
<td>64</td>
<td>532 15 47-98</td>
<td>Dash Lower STLT</td>
</tr>
<tr>
<td>142</td>
<td>532 17 57-02</td>
<td>Plate Reinforcement STLT</td>
</tr>
<tr>
<td>145</td>
<td>532 15 65-24</td>
<td>Rod Pivot Chassis/Hood</td>
</tr>
<tr>
<td>161</td>
<td>532 16 46-55</td>
<td>Bumper Extrusion</td>
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<td>532 00 54-79</td>
<td>Plug Button</td>
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**NOTE:** All component dimensions given in U.S. inches 1 inch = 25.4 mm
# REPAIR PARTS

## TRACTOR - MODEL NO. LTH1542 (HAUB15H42A), PRODUCT NO. 954 17 00-86

### DRIVE

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<tr>
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<tbody>
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<td>532 12 01-83</td>
<td>Bearing, Nylon</td>
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<td>Screw Hex Wsh Hi-Lo 1/4-1/2 Unc</td>
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### NOTE: All component dimensions give in U.S. inches. 1 inch = 25.4 mm.
# REPAIR PARTS

TRACTOR - MODEL NO. LTH1542 (HAUB15H42A), PRODUCT NO. 954 17 00-86

STEERING ASSEMBLY

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<td>Spindle Asm RH</td>
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<td>Bearing Race Thrust Harden</td>
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<td>6</td>
<td>5321217-48</td>
<td>Washer 25/32 X 1-5/8 X 16 Ga</td>
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<td>8192720-16</td>
<td>Washer 27/32 X 1-1/4 X 16 Ga</td>
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<td>Ring Klip #5304-75</td>
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<td>Clip Steering</td>
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**NOTE:** All component dimensions given in U.S. inches. 1 inch = 25.4 mm.
REPAIR PARTS
TRACTOR - MODEL NO. LTH1542 (HAUB15H42A), PRODUCT NO. 954 17 00-86
SEAT ASSEMBLY

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

**TRACTOR - MODEL NO. LTH1542 (HAUB15H42A), PRODUCT NO. 954 17 00-86**

## DECALS

<table>
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<td>Decal Read Owners Manual</td>
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<td>532 10 62-02</td>
<td>Reflector Tail Light Red/Amber</td>
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<td>532 17 77-43</td>
<td>Decal Hood RH</td>
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<td>532 15 06-16</td>
<td>Decal Grille</td>
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<td>Decal Engine</td>
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<td>Decal Deck B 42</td>
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<td>Decal Saddle Brake Parking</td>
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## WHEELS & TIRES

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<td>Stem Valve</td>
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<td>532 10 62-22</td>
<td>Tire F Ts 15 X 6 0 - 6 Service</td>
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<td>Rim Asm 6&quot;front Silver Service</td>
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<td>532 12 49-57</td>
<td>Fitting Grease (Front Wheel Only)</td>
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<td>Bearing Flange (Front Wheel Only)</td>
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<td>532 13 83-37</td>
<td>Rim Asm 8&quot;rear Silver Service</td>
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<td>532 10 62-68</td>
<td>Tire R Ts 18x9 5-8 C Service</td>
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<td>Tube Rear (Service Item Only)</td>
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<td>Cap Axle Blk 1 50 X 1 00</td>
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<td>532 14 43-34</td>
<td>Sealant, Tire (10 oz. Tube)</td>
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NOTE: All component dimensions given in U.S. inches

1 inch = 25.4 mm
OPTIONAL EQUIPMENT

Spark Arrester
# REPAIR PARTS

**TRACTOR - MODEL NO. LTH1542 (HAUB15H42A), PRODUCT NO. 954 17 00-86**

## ENGINE

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<td>532 16 52-91</td>
<td>Gasket Eng</td>
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<td>532 14 84-56</td>
<td>Tube Drain Oil Easy</td>
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<td>811 05 06-00</td>
<td>Washer Lock Ext Tooth 3/8</td>
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<td>532 16 98-37</td>
<td>Shield Brn/Dbr Guard</td>
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<td>Kit Spark Arrester (Flat Scrn)</td>
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<td>Cap Asm Fuel W/sym Vented</td>
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<td>Clamp Hose Black</td>
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<td>Screw Hexwsh Thdr 3/8-16 x 3/4</td>
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<td>819 09 14-16</td>
<td>Washer 9/32 x 7/8 x 16 Ga</td>
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<td>810 04 05-00</td>
<td>Washer Lock Hvy Hlcl Spr. 5/16</td>
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<td>Screw 3/8-16 x 1-1/4</td>
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**NOTE:** All component dimensions given in U.S. inches  
1 inch = 25.4 mm
# REPAIR PARTS

**TRACTOR - MODEL NO. LTH1542 (HAUB15H42A), PRODUCT NO. 954 17 00-86**

## MOWER DECK

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<td>532 13 39-43</td>
<td>Washer Hardened</td>
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<td>872 14 05-06</td>
<td>532 15 50-46</td>
<td>Arm Idler 42&quot; mower LT/YT</td>
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<td>532 10 06-17</td>
<td>532 12 20-52</td>
<td>Spacer Retainer Mower</td>
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<td>532 17 34-42</td>
<td>Guard TUV Idler</td>
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<td>532 12 46-70</td>
<td>532 10 69-32</td>
<td>Knob Rd 3/8-16 Plstc Thds Blk</td>
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<td>532 14 49-59</td>
<td>V-Belt Mower 42&quot;</td>
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<td>532 18 13-92</td>
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<td>872 11 05-05</td>
<td>Bolt Carriage 5/16-Unc x 5/8</td>
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<td>532 12 48-42</td>
<td>Bolt Shoulder</td>
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<td>532 12 13-91</td>
<td>873 93 06-00</td>
<td>Nut Centerlock 3/8-16 UNC</td>
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<td>532 13 14-91</td>
<td>819 12 14-14</td>
<td>Washer 3/8 x 7/8 x 14 Ga.</td>
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<td>532 16 58-90</td>
<td>Arm Spring Brake Mower</td>
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<td>532 15 71-09</td>
<td>Bracket Arm Idler 42&quot;</td>
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<td>532 17 34-41</td>
<td>Keeper Belt 42&quot; Clutch</td>
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<td>532 17 34-37</td>
<td>Pulley Idler Flat</td>
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<td>Spring Extension</td>
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<td>532 16 90-22</td>
<td>Spring Return Idler</td>
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<td>532 16 58-98</td>
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<td>Bracket Clutch Cable</td>
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<td>532 16 96-74</td>
<td>Washer Flat 3/8&quot; Type B</td>
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<td>532 16 96-75</td>
<td>Spring Retainer</td>
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<td>532 16 96-71</td>
<td>Spring Retention Lvr Cltch Cab</td>
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<td>532 16 96-72</td>
<td>Spacer Clutch Cable</td>
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<td>532 16 96-69</td>
<td>Rod Clutch Cable 3/8&quot;</td>
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<td>532 13 17-90</td>
<td>817 72 04-08</td>
<td>Screw Hex Thd Cut 1/4-20 x 1/2</td>
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<td>872 14 06-14</td>
<td>Bolt Rdhd Sqn 3/8-16 Unc x 1-3/4</td>
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<td>532 13 07-94</td>
<td>532 13 07-94</td>
<td>Mandrel Assembly(Includes Housing, Shaft and Shaft Hardware Only- Pulley not included)</td>
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<tr>
<td>532 17 66-34</td>
<td>532 17 66-34</td>
<td>Replacement Mower, Complete</td>
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**NOTE:** All component dimensions given in U.S. inches
1 inch = 25.4 mm
## REPAIR PARTS

TRACTOR - MODEL NO. LTH1542 (HAUB15H42A), PRODUCT NO. 954 17 00-86

MOWER LIFT

<table>
<thead>
<tr>
<th>NO.</th>
<th>NO.</th>
<th>DESCRIPTION</th>
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<tr>
<td>1</td>
<td>532 15 94-60</td>
<td>Wire Asm Inner W/plunger LT</td>
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<td>2</td>
<td>532 15 94-71</td>
<td>Shaft Asm Lift</td>
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<td>3</td>
<td>532 10 57-67</td>
<td>Pin Groove</td>
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<td>4</td>
<td>812 00 00-02</td>
<td>E Ring #5133-62</td>
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<td>5</td>
<td>819 21 16-21</td>
<td>Washer PLTD 21/32 X 1 X 21ga</td>
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<td>6</td>
<td>532 12 01-83</td>
<td>Bearing Nylon Blk 629 Id</td>
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<td>7</td>
<td>532 10 94-13</td>
<td>Grip Handle Bicycle</td>
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<td>532 12 45-26</td>
<td>Button Plunger Black</td>
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<td>11</td>
<td>532 13 98-65</td>
<td>Link Lift LH</td>
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<td>12</td>
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<td>Link Lift RH</td>
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<td>532 17 32-88</td>
<td>Link Front</td>
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<td>873 35 08-00</td>
<td>Nut Jam Hex 1/2-13 Unc</td>
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<td>532 17 56-89</td>
<td>Trunnion</td>
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<td>Nut Lock W/Wsh 1/2-13 Unc</td>
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<td>532 13 98-68</td>
<td>Arm Suspension Rear</td>
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<td>20</td>
<td>532 16 35-52</td>
<td>Spring, Retainer</td>
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<td>31</td>
<td>532 16 98-65</td>
<td>Bearing Pvt. Lift</td>
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<tr>
<td>32</td>
<td>873 54 06-00</td>
<td>Nut Crownlock 3/8-24</td>
</tr>
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</table>

**NOTE:** All component dimensions given in U.S. inches
1 inch = 25.4 mm
WARNING: To avoid serious injury, operate your tractor up and down the face of slopes, never across the face. Do not mow slopes greater than 15 degrees. Make turns gradually to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.

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.
WARRANTY STATEMENT

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 non-commercial, non-professional, non-institutional or non-income producing use. All trimmers, brushcutters, clearing saws, hovering trimmers, stick edgers, backpack blowers, hand held blowers, hedge trimmers, power-assist collection systems used for commercial, institutional, professional or income producing purposes or use.

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 blowers, model series 580 & 600 walk-behind mowers and commercial turf equipment or any Husqvarna product used for commercial, institutional, professional, or income producing purposes or use except as otherwise provided herein.

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.

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